

**REPORT
OF THE
COMMITTEE ON POLICY MAKING
OF THE
ARKANSAS LEGISLATIVE COUNCIL**

November 15, 2019

Senator Linda Chesterfield, Co-Chair	Representative Ken Bragg, Co-Chair
Senator Scott Flippo, Vice Co-Chair	Representative, Dan M. Douglas, Vice Co-Chair
Senator Joyce Elliott	Representative Jon S. Eubanks
Senator Ronald Caldwell	Representative Chris Richey
Senator Eddie Cheatham	Representative Josh Miller
Senator Blake Johnson	Representative Dan Sullivan
Senator Will Bond	Representative Marcus E. Richmond
Senator Bob Ballinger	Representative David Fielding
Senator Cecile Bledsoe, ex officio	Representative Jeff Wardlaw, ex officio
Senator Terry Rice, ex officio	Representative Jim Dotson, ex officio

Dear Co-Chairs:

The Policy Making Subcommittee of the Arkansas Legislative Council met Wednesday, November 13, 2019, at 11:00 a.m. in Room 272 of the State Capitol Building, Little Rock, Arkansas. Co-Chair Linda Chesterfield called the meeting to order and saw a quorum of members present. The members present are listed on the sign-in sheet.

Co-Chair Chesterfield recognized Co-Chair Ken Bragg for remarks. Co-Chair Chesterfield recognized Representative Jim Dotson to present on behalf of Senator Jane English, the request to consider and review the contract between the Bureau of Legislative Research and APA Consulting for the provision of Education Adequacy Consulting Services for the benefit of the House and Senate Education Committees (Exhibit B). Representative Dotson stated that Mr. Justin Silverstein, of APA Consulting, was present for any questions and that Ms. Jillian Thayer, Legal Counsel, Bureau of Legislative Research, would provide an overview of the contract. Co-Chair Chesterfield recognized Jillian Thayer to present.

Representative Dotson stated that in closing, the proposal had a lot of debate in the Education Committees, and that Senator Cecile Bledsoe would present a motion to the Subcommittee. Co-Chair Chesterfield recognized Senator Bledsoe for a motion.

Senator Bledsoe made a motion to authorize the Bureau of Legislative Research to enter negotiations with Schuls & Associates for a Consulting Services Agreement incorporating the terms and conditions of RFP No. BLR-190003 and Schuls' proposal in response to the

RFP with the ALC-Executive Subcommittee having final approval of the contract. The approval of the Consultant Services Agreement with APA Consulting is contingent upon approval by the House and Senate Education Committees of use of both Shuls & Associates and APA Consulting to provide education adequacy consulting services to the committees under the RFP. The Bureau of Legislative Research shall not be authorized to enter either of these consultant services contracts unless approval of both contracts is agreed upon by the House and Senate Education Committees.

Co-Chair Chesterfield recognized Senator Bob Ballinger for discussion on the motion. Co-Chair Chesterfield then recognized Senator Joyce Elliott for a substitute motion.

Senator Elliott made a substitute motion to approve the contract with APA Consulting, as recommended by the Education Committees.

Following discussion by the Subcommittee members on the substitute motion, Co-Chair Chesterfield asked for a vote on the substitute motion by roll call. Representative Dotson requested a division of the vote by roll call. After seeing three (3) hands, Co-Chair Chesterfield instructed staff to call the roll by division, beginning with the Senate. The substitute motion failed, due to a failure to receive an affirmative vote of a majority of the Senators present.

Co-Chair Chesterfield restated the original motion made by Senator Bledsoe. After further discussion by Subcommittee members, Senator Ballinger asked if Senator Bledsoe and Representative Dotson would consider amending the motion to reflect sending the Shuls' contract to the full Legislative Council for approval rather than to the Executive Subcommittee.

After discussion and consideration of the request, Co-Chair Chesterfield asked members if all agreed that the amendment was a friendly amendment. After full agreement, Senator Bledsoe restated her motion, with the amendment, as follows:

Senator Bledsoe made an amended motion to authorize the Bureau of Legislative Research to enter negotiations with Schuls & Associates for a Consulting Services Agreement incorporating the terms and conditions of RFP No. BLR-190003 and Schuls' proposal in response to the RFP, with the full Legislative Council having final approval of the contract. The approval of the Consultant Services Agreement with APA Consulting is contingent upon approval by the House and Senate Education Committees of use of both Shul's & Associates and APA Consulting to provide education adequacy consulting services to the committees under the RFP. The Bureau of Legislative Research shall not be authorized to enter either of these consultant services contracts unless approval of both contracts is agreed upon by the House and Senate Education Committees.

Co-Chair Chesterfield requested a roll call by division on the amended motion, starting with the House members. The motion passed.

There being no further business to come before the subcommittee, the meeting adjourned.

Respectfully submitted,

Senator Linda Chesterfield, Co-Chair and Representative Ken Bragg, Co-Chair

LC:KB/sla

CONSULTANT SERVICES AGREEMENT

This Services Agreement (the “Agreement”) is between Augenblick, Palaich and Associates, Inc. (“APA”), located at 1547 Gaylord St., Denver, Colorado 80206, and the Bureau of Legislative Research (“BLR”), located in the State Capitol Building, Room 315, 500 Woodlane Street, Little Rock, Arkansas 72201. APA provides education adequacy consulting services. The BLR desires to hire APA to provide detailed and accurate information concerning the current efficacy of the biennial adequacy study and evaluation in the State of Arkansas, as well as recommendations regarding potential legislative reforms, as set forth in RFP No. BLR-190003 and APA’s response to the RFP (the “Services”), for the use and information of the House Committee on Education and the Senate Committee on Education (the “Committees”) and the members of the Arkansas General Assembly.

APA and the BLR hereby agree as follows:

1. **Services to be performed.** The BLR hereby retains APA to perform the Services as set forth in RFP No. BLR-190003 (the “RFP”) and APA’s Proposal in response to the RFP, as submitted on September 19, 2019, including APA’s Official Proposal Price Sheet, as supplemented via email on October 2, 2019 (the “Proposal”). Any and all assumptions stated by APA in the Proposal shall not be considered part of this Agreement. The RFP and the Proposal are attached hereto and incorporated into this agreement by reference as Attachment A.
2. **Data Required by APA.** In order to perform the Services, APA may require information that is held by various entities other than the BLR, including without limitation the Department of Education, local school districts, and various private entity stakeholders. The parties acknowledge that such data and information is in the possession of third parties; that APA must rely on these third parties to cooperate in providing this data and information; and that the data and information may be subject to laws restraining or preventing their release or dissemination. BLR authorizes APA to contact the various entities holding the information that APA requires in order to perform the Services under this Agreement. BLR Staff will be available to help to facilitate the contact with these entities upon request from APA. BLR acknowledges and agrees that while APA is relying on this data and information from such third parties in connection with its provision of the services under this Agreement, APA makes no representation with respect to and shall not be responsible for the accuracy or completeness of such data and information.
3. **Deliverables.** In connection with the services to be provided under the RFP, APA will prepare various documents, including without limitation reports and status updates to the Committees, completed research requests for the Committees, a final report of its work, assistance with recommendations and draft legislation of the Committees, and attendance at other legislative committee meetings, as authorized by the Committee chairs (the “Deliverables”) to be provided to the BLR for use by the Committees and the Arkansas General Assembly. BLR will own all Deliverables provided under this Agreement.

APA will maintain full ownership of: (a) working papers of APA; (b) pre-existing APA materials or studies used in the provision of the Services and the Deliverables; (c) APA know-how and processes used in the provision of the Services and Deliverables as well as any and all intellectual property owned by APA that may be employed in

providing the Services and Deliverables. APA is providing the Services and Deliverables for the use and benefit of the Committees and the Arkansas General Assembly. The Services and Deliverables are not for a third party's use, benefit or reliance, other than members of the General Assembly and as authorized by the Committee Chairs. Except as described in Section 10 of this Agreement, APA shall not discuss the Services or disclose the Deliverables until such time that the BLR provides APA notice that the BLR has disclosed the Services and Deliverables to third parties.

4. **Term and Termination.** The term of this Agreement will commence on November 15, 2019, and terminate on December 31, 2020, with an option to renew for an additional six (6) month period upon mutual agreement of the parties if the need of the Committees or the Arkansas General Assembly merits an extension.

Either party may terminate the Agreement by giving ten (10) days prior written notice.

5. **Fees and Expenses.** The Fees and Expenses related to this Agreement are outlined in the Official Proposal Price Sheet that is part of the Proposal and incorporated in this Agreement by reference. The maximum amount BLR will pay to APA for the provision of the Services is Six Hundred Fifty-Nine Thousand Five Hundred Eighty Dollars (\$659,580.00). On a monthly basis (*e.g.* December 15, 2019, January 15, 2020, February 15, 2020) APA shall submit itemized invoices to the BLR, per the requirements set forth in the RFP, based upon the per unit and per hour pricing set forth in the Proposal. The monthly invoices will include reimbursements for travel related to the field work being performed by APA and attendance at legislative committee meetings. All mileage amounts will be calculated per Mapquest and copies of the Mapquest routes will be provided to the BLR with the monthly invoices, as well as copies of receipts for reimbursement of actual travel expenses.
6. **Governing Law.** This Agreement shall be governed by the laws of the State of Arkansas, without regard to Arkansas's conflict of law principles. APA agrees that any claims against the BLR, whether arising in tort or in contract, shall be brought before the Arkansas Claims Commission, as provided by Arkansas law, and shall be governed accordingly. Nothing in this Agreement shall be construed as a waiver of sovereign immunity of the BLR, the Committees, the Legislative Council, or the Arkansas General Assembly.
7. **Assignment.** This Agreement may not be assigned without the prior written consent of both parties, which either party may withhold for any reason. This Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and permitted assigns.
8. **Subcontractors.** APA has listed several subcontractors in the Proposal. If at any point during the contract term APA finds it necessary to use an additional or different subcontractor, APA shall seek prior approval of the Committees before contracting any part of the work to be performed under this Agreement. The Committees shall have the right to require replacement of any subcontractor found to be unacceptable by the Committees.
9. **Amendment.** This Agreement may be amended upon agreement of both parties to the Agreement and the approval of the Committees and the Legislative Council. Any amendment to this Agreement must be in writing and signed by both parties.

10. **Confidentiality.** “Confidential Information” under this Agreement means non-public information that a party marks as “confidential” or “proprietary” or that otherwise should be understood by a reasonable person to be confidential in nature. Confidential information does not include any information which is (a) rightfully known to the recipient prior to its disclosure; (b) released to any other person or entity (including governmental agencies) without restriction; (c) independently developed by the recipient without use of or reliance on Confidential Information; or (d) or later becomes publicly available without violation of this Agreement or may be lawfully obtained by a party from a non-party.

Each party will protect the confidentiality of Confidential Information that it receives under the Agreement except as required by applicable law, rule, regulation, or professional standard, without the other party’s prior written consent. Due to the BLR being a public entity within the State of Arkansas, all terms of this Agreement, including but not limited to fee and expense structure, are subject to disclosure under the Freedom of Information Act of 1967, Ark. Code Ann. § 25-19-101, *et seq.*

If disclosure of APA’s Confidential Information is required by law, rule, regulation, or professional standard, (including any subpoena or other similar form of process), the BLR shall provide APA with prior prompt written notice thereof.

In consideration of APA’s and BLR’s agreement to provide one another with access to their respective Confidential Information, APA and BLR each agrees to maintain in confidence all Confidential Information of the other. Except as provided in this Agreement, neither APA nor BLR shall in any manner disclose any Confidential Information of the other to any person, entity, firm or company whatsoever, without the express written consent of the other. APA and BLR shall each take all steps necessary to ensure that their respective partners, subcontractors, affiliates, officers, employees, independent contractors, agents and other representatives (collectively “Representatives”) maintain the Confidential Information in confidence.

11. **Restriction of Boycott of Israel.** In accordance with Arkansas Code § 25-1-503, APA hereby certifies and agrees that it is not currently engaged in, and agrees for the duration of the Agreement not to engage in, a boycott of Israel.

[SIGNATURES APPEAR ON THE FOLLOWING PAGE]

DRAFT: November 7, 2019

IN WITNESS WHEREOF, APA and BLR have executed this Agreement this 15th day of November, 2019.

**AUGENBLICK, PALAICH AND
ASSOCIATES, INC.:**

Justin Silverstein, Co-CEO

Date

**BUREAU OF LEGISLATIVE
RESEARCH:**

Marty Garrity, Director

Date

DRAFT

ATTACHMENT A

RFP No. BLR-190003

and

APA's Proposal in Response,

including the Official Proposal Price Sheet and 10/02/2019 email

providing supplemental proposal information



State of Arkansas Bureau of Legislative Research

Marty Garrity, Director
 Kevin Anderson, Assistant Director
 for Fiscal Services
 Matthew Miller, Assistant Director
 for Legal Services
 Richard Wilson, Assistant Director
 for Research Services

REQUEST FOR PROPOSAL

RFP Number: BLR-190003	
Commodity: Education Adequacy Consulting Services	Proposal Opening Date: September 20, 2019
Date: August 23, 2019	Proposal Opening Time: 4:00 P.M. CDT

PROPOSALS SHALL BE SUBMITTED IN HARD COPY AND ELECTRONIC FORMAT AND WILL BE ACCEPTED UNTIL THE TIME AND DATE SPECIFIED ABOVE. THE PROPOSAL ENVELOPE MUST BE SEALED AND SHOULD BE PROPERLY MARKED WITH THE PROPOSAL NUMBER, DATE AND HOUR OF PROPOSAL OPENING, AND VENDOR'S RETURN ADDRESS. THE ELECTRONIC SUBMISSIONS SHOULD BE CLEARLY MARKED AS A PROPOSAL IN RESPONSE TO RFP NO. BLR-190003. IT IS NOT NECESSARY TO RETURN "NO BIDS" TO THE BUREAU OF LEGISLATIVE RESEARCH.

Vendors are responsible for delivery of their proposal documents to the Bureau of Legislative Research prior to the scheduled time for opening of the particular proposal. When appropriate, Vendors should consult with delivery providers to determine whether the proposal documents will be delivered to the Bureau of Legislative Research office street address prior to the scheduled time for proposal opening. Delivery providers, USPS, UPS, FedEx, and DHL, deliver mail to our street address, 500 Woodlane Street, State Capitol Building, Room 315, Little Rock, Arkansas 72201, on a schedule determined by each individual provider. These providers will deliver to our offices based solely on our street address.

MAILING ADDRESS: 500 Woodlane Street State Capitol Building, Room 315 Little Rock, Arkansas 72201 E-MAIL: thayerj@blr.arkansas.gov TELEPHONE: (501) 682-1937	PROPOSAL OPENING LOCATION: Bureau of Legislative Research Director's Office State Capitol Building, Room 315
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Company Name: _____

Name (type or print): _____

Title: _____

Address: _____

Telephone Number: _____

Fax Number: _____

E-Mail Address: _____

Identification:

Federal Employer ID Number

Social Security Number

**FAILURE TO PROVIDE TAXPAYER IDENTIFICATION NUMBER MAY
RESULT IN PROPOSAL REJECTION**

Business Designation (check one):	Individual []	Sole Proprietorship []	Public Service Corp []
	Partnership []	Corporation []	Government/ Nonprofit []

GENERAL DESCRIPTION:	Education Adequacy Consulting Services
TYPE OF CONTRACT:	Term

MINORITY BUSINESS POLICY

Participation by minority businesses is encouraged in procurements by state agencies, and although it is not required, the Bureau of Legislative Research ("BLR") supports that policy. "Minority" is defined at Arkansas Code Annotated § 15-4-303 as "a lawful permanent resident of this state who is: (A) African American; (B) Hispanic American; (C) American Indian; (D) Asian American; (E) Pacific Islander American; or (F) A service-disabled veteran as designated by the United States Department of Veteran Affairs". "Minority business enterprise" is defined at Arkansas Code Annotated § 15-4-303 as "a business that is at least fifty-one percent (51%) owned by one (1) or more minority persons". The Arkansas Economic Development Commission conducts a certification process for minority businesses. Vendors unable to include minority-owned businesses as subcontractors may explain the circumstances preventing minority inclusion.

EQUAL EMPLOYMENT OPPORTUNITY POLICY

The Vendor shall submit a copy of the Vendor's Equal Opportunity Policy. EO Policies shall be submitted in hard copy and electronic format to the Bureau of Legislative Research accompanying the solicitation response. The Bureau of Legislative Research will maintain a file of all Vendor EO policies submitted in response to this solicitation. The submission is a one-time requirement, but Vendors are responsible for providing updates or changes to their respective policies.

EMPLOYMENT OF ILLEGAL IMMIGRANTS

The Vendor shall certify prior to award of the contract that it does not employ or contract with any illegal immigrants in its contract with the Bureau of Legislative Research. Vendors shall certify on the Proposal Signature Page and online at <https://www.ark.org/dfa/immigrant/index.php/disclosure/submit/new> . Any subcontractors used by the Vendor at the time of the Vendor's certification shall also certify that they do not employ or contract with any illegal immigrant. Certification by the subcontractors shall be submitted within thirty (30) days after contract execution.

RESTRICTION OF BOYCOTT OF ISRAEL

Pursuant to Arkansas Code § 25-1-503, a public entity shall not enter into a contract with a company unless the contract includes a written certification that the person or company is not currently engaged in, and agrees for the duration of the contract not to engage in, a boycott of Israel. This prohibition does not apply to a company which offers to provide the goods or services for at least twenty percent (20%) less than the lowest certifying business.

By checking the designated box on the Proposal Signature Page, the Vendor agrees and certifies that they do not, and will not for the duration of the contract boycott Israel.

DISCLOSURE FORMS

Completion of the EO-98-04 Governor's Executive Order contract disclosure forms located at <http://www.dfa.arkansas.gov/offices/procurement/Documents/contgrantform.pdf> is required as a condition of obtaining a contract with the Bureau of Legislative Research and shall be submitted with the Vendor's response.

SECTION I. GENERAL INFORMATION

1.0 INTRODUCTION

The purpose of this Request For Proposal ("RFP") issued by the Bureau of Legislative Research ("BLR") is to invite responses ("Proposals") from Vendors desiring to provide education adequacy consulting services for the House Education Committee and the Senate Education Committee (the "Committees").

The Committees and the BLR intend to execute one (1) contract as a result of this procurement ("the Contract"), if any contract is issued at all, encompassing all of the products and services contemplated in this RFP, and Proposals shall be evaluated accordingly. All Vendors must fully acquaint themselves with the needs and requirements of the Committees and the BLR and obtain all necessary information to develop an appropriate solution and to submit responsive and effective Proposals.

1.1 ISSUING AGENCY

This RFP is issued by the BLR for the Committees. The BLR is the sole point of contact in the state for the selection process. Vendor questions regarding RFP-related matters should be made in writing (via e-mail) through the Director of the BLR's Legal Counsel, Jillian Thayer, thayerj@blr.arkansas.gov. Questions regarding technical information or clarification should be addressed in the same manner.

1.2 SCHEDULE OF EVENTS

- | | |
|---|--|
| • Release RFP | August 23, 2019 |
| • Deadline for submission of questions | September 13, 2019 |
| • Closing for receipt of proposals and opening of proposals | September 20, 2019 at 4:00 p.m. CDT |
| • Evaluation of proposals by BLR | September 20-26, 2019 |
| • Proposals released to Committees | September 27, 2019 |
| • Selection of Vendors to make Oral Presentations | To Be Announced by Committees |
| • Oral Presentations/Intent to Award | To Be Announced by Committees |
| • Approval of draft contract by the Policy-Making Subcommittee of the Legislative Council | October 16, 2019 |
| • Approval of final contract by the Legislative Council | October 18, 2019 |
| • Contract Execution and Start Date | Upon approval of the Legislative Council |

Proposals are due no later than the date and time listed on Page 1 of the RFP.

1.3 **CAUTION TO VENDORS**

- Vendors shall not contact members of the Committees or the BLR regarding this RFP or the Vendor Selection process from the time the RFP is posted until the Intent to Award is issued, other than through submission of questions in the manner provided for under Section 1.7 of this RFP. The BLR will initiate all other necessary contact with Vendors. ***Any violation of this requirement can be considered a basis for disqualification of the Vendor by the Committees.***

- **Vendors shall respond to each numbered paragraph of the RFP, including by written acknowledgment of the requirements and terms contained in paragraphs that require no other response.** (e.g. "Section 1.3. Vendor acknowledges and agrees with the requirements set forth in this section.") Failure to provide a response will be interpreted as an affirmative response or agreement to the conditions. Reference to handbooks or other technical materials as part of a response must not constitute the entire response, and Vendor must identify the specific page and paragraph being referenced.

- On or before the date and time specified on page one of this RFP, Vendors shall submit:
 - a. One (1) signed original hard copy of the original proposal and the Official Proposal Price Sheet ("OPPS");
 - b. Thirty-five (35) additional copies of the redacted proposal and the OPPS (If no redacted version is submitted, then 35 copies of the original proposal.); and
 - c. If the Vendor's proposal contains information that is proprietary and confidential, two (2) electronic versions of the proposal (one (1) redacted electronic version and one (1) unredacted electronic version) on CD, flash drive, or via e-mail. However, if there is no information to redact, one (1) electronic version of the proposal is sufficient.

- If emailing electronic versions, send to Jillian Thayer at thayerj@blr.arkansas.gov .

- **Pricing from the Official Proposal Price Sheet, attached as Attachment A, must be separately sealed and submitted from the proposal response and clearly marked as pricing information. The electronic version of the Official Proposal Price Sheet must also be sealed and submitted separately from the electronic version of the proposal and, if submitted via e-mail, the e-mail must clearly state that the attachment contains pricing information.** Failure to submit the required number of copies with the proposal may be cause for rejection.

- For a proposal to be considered, an official authorized to bind the Vendor to a resultant contract must have signed the proposal **and** the Official Proposal Price Sheet.

- All official documents shall be included as part of the resultant Contract.

- The Committees reserve the right to award a contract or reject a proposal for any or all line items of a proposal received as a result of this RFP, if it is in the best interest of the Committees to do so. Proposals will be rejected for one or more reasons not limited to the following:
 - a. Failure of the Vendor to submit his or her proposal(s) on or before the deadline established by the issuing office;
 - b. Failure of the Vendor to respond to a requirement for oral/written clarification, presentation, or demonstration;
 - c. Failure to supply Vendor references;
 - d. Failure to sign the original proposal **and** the Official Proposal Price Sheet;

- e. Failure to complete and sign the Official Proposal Price Sheet(s);
- f. Any wording by the Vendor in its response to this RFP, or in subsequent correspondence, that conflicts with or takes exception to a requirement in the RFP; or
- g. Failure of any proposed services to meet or exceed the specifications.

1.4 RFP FORMAT

Any statement in this document that contains the word “must” or “shall” means that compliance with the intent of the statement is mandatory, and failure by the Vendor to satisfy that intent will cause the proposal to be rejected.

1.5 ALTERATION OF ORIGINAL RFP DOCUMENTS

The original written or electronic language of the RFP shall not be changed or altered except by approved written addendum issued by the BLR. This does not eliminate a Vendor from taking exception(s) to these documents, but it does clarify that the Vendor cannot change the original document's written or electronic language. If the Vendor wishes to make exception(s) to any of the original language, it must be submitted by the Vendor in separate written or electronic language in a manner that clearly explains the exception(s). If Vendor's submittal is discovered to contain alterations/changes to the original written or electronic documents, the Vendor's response may be declared non-responsive, and the response shall not be considered.

1.6 REQUIREMENT OF AMENDMENT

THIS RFP MAY BE MODIFIED ONLY BY AMENDMENTS WRITTEN AND AUTHORIZED BY THE BUREAU OF LEGISLATIVE RESEARCH. Vendors are cautioned to ensure that they have received or obtained and responded to any and all amendments to the RFP prior to submission.

1.7 RFP QUESTIONS

Any questions regarding the contents and requirements of the RFP and the format of responses to the RFP shall be directed to Jillian Thayer *via email only* at thayerj@blr.arkansas.gov. Questions must be submitted by the deadline set forth in Section 1.2, Schedule of Events. Questions submitted by Vendors and answers to questions, as provided by the Bureau of Legislative Research, will be made public.

1.8 SEALED PRICES/COST

The Official Proposal Price Sheet submitted in response to this RFP must be submitted separately sealed from the proposal response or submitted in a separate e-mail. An official authorized to bind the Vendor to any resulting Contract must sign the Official Proposal Price Sheet.

Vendors must include all pricing information on the Official Proposal Price Sheet and any attachments thereto and must clearly mark said page(s) and e-mail as pricing information. The electronic version of the Official Proposal Price Sheet must also be sealed separately from the electronic version of the proposal and submitted on CD, flash drive, or in a separate e-mail. Official Proposal Price Sheets may be reproduced as needed. Vendors may expand items to identify all proposed services and costs. A separate listing, which must include pricing, may be submitted with summary pricing.

All charges included on the Official Proposal Price Sheet, must be valid for one hundred eighty (180) days following proposal opening, and shall be included in the cost evaluation. The pricing must include all associated costs for the service being bid.

The BLR will not be obligated to pay any costs not identified on the Official Proposal Price Sheet. Any cost not identified by the Vendor but subsequently incurred in order to achieve successful operation will be borne by the Vendor.

1.9 PROPRIETARY INFORMATION

Proposals and documents pertaining to the RFP become the property of the BLR, and after release to the Committees, shall be open to public inspection pursuant to the Freedom of Information Act of 1967,

Arkansas Code § 25-19-101, *et seq.* It is the responsibility of the Vendor to identify all proprietary information by providing a redacted copy of the proposal, as discussed below, and to seal such information in a separate envelope or e-mail marked as confidential and proprietary.

If the proposal contains information that the Vendor considers confidential and proprietary, the Vendor shall submit one (1) complete electronic copy of the proposal from which any proprietary information has been removed, *i.e.*, a redacted copy. The redacted copy should reflect the same pagination as the original, show the empty space from which information was redacted, and be submitted on a CD, a flash drive, or in a separate e-mail. Except for the redacted information, the electronic copy must be identical to the original hard copy. The Vendor is responsible for ensuring the redacted copy on CD, flash drive, or submitted via e-mail is protected against restoration of redacted data. ***Submission of a redacted copy is at the discretion of the Vendor, but if no information is redacted, the entire proposal will be considered available as public information once published to the Committee members.***

1.10 DELIVERY OF RESPONSE DOCUMENTS

It is the responsibility of Vendors to submit proposals at the place and on or before the date and time set in the RFP solicitation documents. Proposal documents received at the BLR office after the date and time designated for proposal opening are considered late proposals and shall not be considered. Proposal documents that are to be returned may be opened to verify which RFP the submission is for.

1.11 BID EVALUATION

The Committees will evaluate all proposals to ensure all requirements are met. The Contract will be awarded on the basis of the proposal that most thoroughly satisfies the relevant criteria as determined by the Committees.

1.12 ORAL AND/OR WRITTEN PRESENTATIONS/DEMONSTRATIONS

The Committees will select a small group of Vendors from among the proposals submitted to attend a meeting of the Committees to answer questions and to make oral and written presentations to the Committees. The date of this meeting will be announced by the Committees at least one (1) week prior. All presentations are subject to be recorded.

The Successful Vendor selected by the Committees shall also attend the October 16, 2019 meeting of the Policy Making Subcommittee of the Legislative Council and the October 18, 2019 meeting of the Legislative Council, in order to answer any questions that may arise regarding the Contract.

1.13 INTENT TO AWARD

After complete evaluation of the proposal, the intent to award will be announced at the meeting of the Committees at which select Vendors' oral presentations are given (See Section 1.12). The date of this meeting will be announced by the Committees at least one (1) week prior. The purpose of the announcement is to establish a specific time in which vendors and agencies are aware of the intent to award. The Committees reserve the right to waive this policy, the Intent to Award, when it is in the best interest of the state.

1.14 APPEALS

A Vendor who is aggrieved in connection with the award of a contract may protest to the Executive Subcommittee of the Legislative Council. The protest shall be submitted in writing within five (5) calendar days after the intent to award is announced. After reasonable notice to the protestor involved and reasonable opportunity for the protestor to respond to the protest issues cited by the Executive Subcommittee, the Arkansas Legislative Council, or the Joint Budget Committee if the Arkansas General Assembly is in session, shall promptly issue a decision in writing that states the reasons for the action taken. The Arkansas Legislative Council's or the Joint Budget Committee's decision is final and conclusive. In the event of a timely protest, the Bureau of Legislative Research shall not proceed further with the solicitation or with the award of the contract unless the co-chairs of the Arkansas Legislative Council or the Joint Budget Committee make a written determination that the award of the contract without delay is necessary to protect substantial interests of the state.

1.15 PAST PERFORMANCE

A Vendor's past performance may be used in the evaluation of any offer made in response to this solicitation. The past performance should not be greater than three (3) years old and must be supported by written documentation submitted to the Bureau of Legislative Research with the Vendor's RFP response. Documentation shall be in the form of a report, memo, file, or any other appropriate authenticated notation of performance to the vendor files.

1.16 TYPE OF CONTRACT

This will be a term contract commencing on the date of execution of the Contract, and terminating on December 31, 2020, with an option for one (1) renewal of up to six (6) months. The Committees and the BLR will have the option to renegotiate at the time of renewal.

1.17 PAYMENT AND INVOICE PROVISIONS

All invoices shall be delivered to the BLR and must show an itemized list of charges. The Invoice, Invoice Remit, and Summary must be delivered via email to Jillian Thayer, Legal Counsel to the Director, at thayerj@blr.arkansas.gov.

The BLR shall have no responsibility whatsoever for the payment of any federal, state, or local taxes that become payable by the Successful Vendor or its subcontractors, agents, officers, or employees. The Successful Vendor shall pay and discharge all such taxes when due.

Payment will be made in accordance with applicable State of Arkansas accounting procedures upon acceptance by the BLR. The BLR may not be invoiced in advance of delivery and acceptance of any services. Payment will be made only after the Successful Vendor has successfully satisfied the BLR as to the reliability and effectiveness of the services as a whole. Purchase Order Number and/or Contract Number should be referenced on each invoice.

The Successful Vendor shall be required to maintain all pertinent financial and accounting records and evidence pertaining to the Contract in accordance with generally accepted principles of accounting and other procedures specified by the BLR. Access will be granted to state or federal government entities or any of their duly authorized representatives upon request.

Financial and accounting records shall be made available, upon request, to the BLR's designee(s) at any time during the contract period and any extension thereof and for five (5) years from expiration date and final payment on the Contract or extension thereof.

1.18 PRIME CONTRACTOR RESPONSIBILITY

The Successful Vendor will be required to assume prime contractor responsibility for the Contract and will be the sole point of contact.

If any part of the work is to be subcontracted, the Vendor must disclose in its proposal the following information: a list of subcontractors, including firm name and address, contact person, complete description of work to be subcontracted, and descriptive information concerning subcontractor's business organization.

1.19 DELEGATION AND/OR ASSIGNMENT

The Vendor shall not assign the Contract in whole or in part or any payment arising therefrom without the prior written consent of the Committees. The Vendor shall not delegate any duties under the Contract to a subcontractor unless the Committees, have given written consent to the delegation.

1.20 CONDITIONS OF CONTRACT

The Successful Vendor shall at all times observe and comply with federal and state laws, local laws, ordinances, orders, and regulations existing at the time of or enacted subsequent to the execution of the Contract which in any manner affect the completion of the work. The Successful Vendor shall indemnify and save harmless the BLR, the Committees, the Arkansas Legislative Council, the Arkansas General Assembly, and the State of Arkansas and all of their officers, representatives, agents, and employees

against any claim or liability arising from or based upon the violation of any such law, ordinance, regulation, order, or decree by an employee, representative, or subcontractor of the Successful Vendor.

1.21 STATEMENT OF LIABILITY

The BLR and the Committees will demonstrate reasonable care but shall not be liable in the event of loss, destruction, or theft of contractor-owned technical literature to be delivered or to be used in the installation of deliverables. The Vendor is required to retain total liability for technical literature until the deliverables have been accepted by the authorized BLR official. At no time will the BLR or the Committees be responsible for or accept liability for any Vendor-owned items.

The Successful Vendor shall indemnify and hold harmless the Committees and their members, the Arkansas Legislative Council and its members, the BLR and its officers, directors, agents, retailers, and employees, and the State of Arkansas from and against any and all suits, damages, expenses, losses, liabilities, claims of any kind, costs or expenses of any nature or kind, including, with limitation, court costs, attorneys' fees, and other damages, arising out of, in connection with, or resulting from the development, possession, license, modification, disclosure, or use of any copyrighted or non-copyrighted materials, trademark, service mark, secure process, invention, process or idea (whether patented or not), trade secret, confidential information, article, or appliance furnished or used by a vendor in the performance of the Contract.

The resulting Contract shall be governed by the laws of the State of Arkansas, without regard for Arkansas' conflict of law principles. Any claims against the Bureau of Legislative Research, the Committees, the Arkansas Legislative Council, or the Arkansas General Assembly, whether arising in tort or in contract, shall be brought before the Arkansas State Claims Commission as provided by Arkansas law, and shall be governed accordingly. Nothing in this RFP or the resulting contract shall be construed as a waiver of sovereign immunity.

1.22 AWARD RESPONSIBILITY

The BLR and the Committees will be responsible for award and administration of any resulting contract(s).

1.23 INDEPENDENT PRICE DETERMINATION

By submission of this proposal, the Vendor certifies, and in the case of a joint proposal, each party thereto certifies as to its own organization, that in connection with this proposal:

- The prices in the proposal have been arrived at independently, without collusion, and that no prior information concerning these prices has been received from or given to a competitive company; and
- If there is sufficient evidence of collusion to warrant consideration of this proposal by the Office of the Attorney General, all Vendors shall understand that this paragraph may be used as a basis for litigation.

1.24 PUBLICITY

News release(s), media interviews, or other publicity by a Vendor pertaining to this RFP or any portion of the project shall not be made without prior written approval of the BLR, as authorized by the chairs of the Committees. Failure to comply with this requirement is deemed to be a valid reason for disqualification of the Vendor's proposal.

The Successful Vendor agrees not to use the BLR's, the Committees', the Arkansas Legislative Council's, or the Arkansas General Assembly's names, trademarks, service marks, logos, images, or any data arising or resulting from this RFP or the Contract as part of any commercial advertising or proposal without the express prior written consent of the BLR and the Committees in each instance.

1.25 CONFIDENTIALITY

The Successful Vendor shall be bound to confidentiality of any confidential information that its employees may become aware of during the course of performance of contracted services. Consistent and/or uncorrected breaches of confidentiality may constitute grounds for cancellation of the Contract.

The Successful Vendor shall represent and warrant that its performance under the Contract will not infringe any patent, copyright, trademark, service mark, or other intellectual property rights of any other person or

entity and that it will not constitute the unauthorized use or disclosure of any trade secret of any other person or entity.

1.26 PROPOSAL TENURE

All Proposals shall remain valid for one hundred eighty (180) calendar days from the Proposal due date referenced on Page 1 of the RFP.

1.27 WARRANTIES

- The Successful Vendor shall warrant that it currently is, and will at all times remain, lawfully organized and constituted under all federal, state, and local law, ordinances, and other authorities of its domicile and that it currently is, and will at all times remain, in full compliance with all legal requirements of its domicile and the State of Arkansas.
- The Successful Vendor shall warrant and agree that all services provided pursuant to this RFP and the Contract have been and shall be prepared or done in a workman-like manner consistent with the highest standards of the industry in which the services are normally performed. The Successful Vendor further represents and warrants that all computer programs implemented for performance under the Contract shall meet the performance standards required thereunder and shall correctly and accurately perform their intended functions.
- The Successful Vendor shall warrant that it is qualified to do business in the State of Arkansas and is in good standing under the laws of the State of Arkansas, and shall file appropriate tax returns as provided by the laws of this State.

1.28 CONTRACT TERMINATION

Subsequent to award and execution of the Contract, the Committees and the BLR may terminate the Contract at any time. In the event of termination, the Successful Vendor agrees to apply its best efforts to bring work in progress to an orderly conclusion, in a manner and form consistent with the Contract and satisfactory to the Committees.

1.29 VENDOR QUALIFICATIONS

The Successful Vendor must, upon request of the Committees, furnish satisfactory evidence of its ability to furnish products or services in accordance with the terms and conditions of this proposal. The Committees reserve the right to make the final determination as to the Vendor's ability to provide the services requested herein.

The Vendor must demonstrate that it possesses the capabilities and qualifications described in Sections 3 and 5, including without limitation the following:

- Be capable of providing the services required by the Committees;
- Provide documentation that it is authorized to do business in this State; and
- Complete the Official Proposal Price Sheet in Attachment A.

1.30 NEGOTIATIONS

As provided in this RFP, discussions may be conducted by the Committees and the BLR with a responsible Vendor who submits proposals determined to be reasonably susceptible of being selected for award for the purpose of obtaining clarification of proposal responses and negotiation for best and final offers.

1.31 LICENSES AND PERMITS

During the term of the Contract, the Vendor shall be responsible for obtaining, and maintaining in good standing, all licenses (including professional licenses, if any), permits, inspections, and related fees for each or any such licenses, permits, and/or inspections required by the state, county, city, or other government entity or unit to accomplish the work specified in this solicitation and the contract.

1.32 OWNERSHIP OF MATERIALS & COPYRIGHT

All data, material, and documentation prepared for the Committees pursuant to the Contract shall belong exclusively to the Committees for the use of the Committees and other committees of the General Assembly, as authorized by the chairs of the Committees.

SECTION 2. OVERVIEW

2.0 OBJECTIVES

It is the objective of the Committees, by entering into a Contract for education adequacy consulting services, to provide to the members of the Arkansas General Assembly detailed and accurate information concerning the current efficacy of the biennial adequacy study and evaluation undertaken by the Committees, and to provide the Committees with recommendations regarding reform or replacement of the current methods for determining educational adequacy in the State of Arkansas.

To fulfill this stated purpose, the Successful Vendor shall use the following definition of “educational adequacy” to serve as a basis for identifying resources required for adequacy:

- The standards included in the state’s curriculum frameworks, which define what all Arkansas students are to be taught, including specific grade-level curriculum and a mandatory thirty-eight (38) Carnegie units defined by the Arkansas Standards of Accreditation to be taught at the high school level, and opportunities for students to develop career-readiness skills;
- The standards included in the state’s testing system. The goal is to have all, or all but the most severely disabled, students perform at or above proficiency on these tests; and
- Sufficient funding to provide adequate resources as identified by the General Assembly.

This Request for Proposal is designed to obtain a Contract to provide education adequacy consulting services to the members of the House Education Committee and the Senate Education Committee. All responses to this RFP shall reflect the overall goals and objectives stated herein.

SECTION 3. EDUCATION ADEQUACY CONSULTING SERVICES

3.0 SCOPE OF WORK/SPECIFICATIONS

It will be the responsibility of the Vendor to provide the Committees, other legislative committees as authorized, and, ultimately, the members of the Arkansas General Assembly with education adequacy consulting services in order to assist the Committees with determining the need for reform or replacement of the current methods for studying and determining educational adequacy in the state, and in doing so, shall provide analysis and recommendations that include without limitation the following:

A. Adequacy Study:

1. Recommend methods for routinely (biennially) reviewing educational adequacy. The recommendations will provide the Committees a process to follow for determining adequacy, rather than a particular dollar amount;
2. Analysis of the effect of concentrations of poverty on the adequacy targets and whether additional adjustments are necessary to provide adequate funding for local education agencies with high concentrations of poverty;
3. Identification of gaps in growth and achievement among student groups disaggregated by race and income and make recommendations on specific programs to address the gaps in growth or achievement;
4. Analysis of correlation between deficits in student performance and deficits in funding;
5. Review of adequacy cost studies completed in other states and provide a report on best practices in those states;

6. Currently, the state's base-level per-student funding is determined based on a formula called the matrix, which specifies the resources (teachers, principals, central office staff, etc.) schools need and the cost of those resources. The Vendor should:
 - a. Identify any resources school districts need that are not currently provided for through the funding formula and the cost for each;
 - b. Identify the resources on which school districts are spending foundation funding that are not included in the state's funding formula; and
 - c. Assess the need for such spending and recommend solutions to any problems identified; and
 7. Recommend a definition of college-readiness and/or career-readiness, including criteria for determining when students have achieved college-readiness and/or career-readiness as well as standards for determining if school districts are preparing students for college-readiness and/or career-readiness, and address the reason for the continuing need for remediation at the college level. Vendor shall include identification of career and technical programs available to students, including a recommendation for funding methods and policies for ensuring students have equitable access to these programs.
- B. In determining the best method for providing educational adequacy to the public schools of the State of Arkansas, the Committees feel it is also imperative to include in any study by the Successful Vendor the following research analyses, including site visits to Arkansas schools, regarding the size of schools and school districts in the state:
1. Whether local school systems currently have policies regarding the size of schools, including high schools, middle schools, elementary schools, and alternative schools;
 2. Best practices in other states regarding school and school district size;
 3. Educational and extracurricular impacts of school and school district size, and the impact, if any, on the surrounding communities and neighborhoods;
 4. Recommendations for the ideal size for high schools, middle schools, elementary schools, and alternative schools;
 5. Processes that can assist in ensuring public input into the establishment of any school size standards or guidelines;
 6. Recommendations for addressing the needs of school districts whose small size or rural geographic location limits operational efficiency;
 7. Comparison of class size requirements and student/teacher ratios in other states. In completing the comparison, the Vendor shall:
 - a. Assess the variations in class sizes and instructional staffing levels in Arkansas schools and their impact on teacher salaries; and
 - b. Address why salary disparities exist; and
 8. Assess and recommend criteria to be used for identifying isolated schools or isolated school districts. Assess the cost implications of school isolation and recommend funding adjustments that adequately compensate districts for any additional costs.
- C. The Successful Vendor shall also include in its study and final report the following:
1. Evaluation of whether the number of students eligible for free and reduced price meal (FRPM) should continue to be used as a proxy for identifying economically disadvantaged students in several state education aid formulas, primarily National School Lunch (NSL) categorical funding;
 - a. In conducting this evaluation, the Successful Vendor shall consider the federal Community Eligibility Provision that allows high-poverty schools or local education agencies (at least forty percent (40%) of their students must be directly certified as FRPM-eligible) that meet other specified criteria to participate in the program, which provides all of the students in a school with free and reduced price meals without requiring all of the students to be certified as eligible to receive the free and reduced price meals.
 - b. The Successful Vendor shall evaluate the potential impact of this program on state aid formulas that use FRPM counts if more Arkansas schools participate in the program.
 - c. The Successful Vendor shall also examine alternative proxies for identifying economically disadvantaged students, including those used in other states, and provide a recommendation

- to the state as to whether FRPM eligibility or another factor should be used to represent economically disadvantaged students in stated education aid formulas;
2. Examination of the way varying levels of property tax assessment and revenue affect the equitability of education resources across the state;
 3. Evaluation of the impact of increasing and declining enrollments on local school systems, including transportation costs, particularly for local jurisdictions with large geographic areas but small populations, and provide recommendations that include the following:
 - a. Strategies for addressing any impacts; and
 - b. Changes in ADM-based funding sources (foundation funding, declining enrollment funding, and student growth) to ensure the funding is more responsive to the enrollment changes occurring in the current year. The changes should establish a threshold at which districts are held harmless for large enrollment increases during the school year;
 4. Examination of best practices in other states for attracting and retaining high quality educational and administrative staff for schools, including without limitation information regarding salaries and benefits and the funding mechanisms for those items;
 5. Examination of best practices regarding attracting, retaining, and compensating school nurses, including without limitation information regarding salaries and benefits and the funding mechanisms employed in other states for those items;
 6. Resources necessary and available for coping with student mental health issues, including best practices in other states;
 7. Study the critical capital needs of public schools in Arkansas in an effort to ensure equitable access to quality school buildings, equipment, and buses. Recommendations should ensure that state funding supports low wealth districts, districts with declining enrollments that nevertheless must replace existing buildings, and growing districts that require frequent new construction;
 8. Identifying best practices and research-based programs for the best use of poverty funds (NSL), as well as funding methodologies available and necessary for supporting students with additional needs including without limitation physical or mental disabilities, learning disabilities, behavioral issues, economic disadvantages, and English language barriers;
 9. Identification and examination of the practices of successful Arkansas schools, including those with large proportions of students with additional needs. The Vendor shall identify practices – financial, instructional, and otherwise – that result in the schools' high performance;
 10. Analysis of the impact of voucher programs and tax credits on funding for public education in the state and in other states;
 11. Assessment of the impact that waivers from state requirements (statute and rules) have on the quality and cost of education, including a recommendation of policy solutions to correct any problems that may be identified;
 12. Examination of the Uniform Rate of Tax funding method to include and examination of the following:
 - a. The extent to which the URT revenue generated by each school district meets the needs of schools and affects the educational equity among districts;
 - b. The impact of increasing URT beyond 25 mills;
 - c. The amount of revenue school districts receive from their debt service millage that exceeds the amount the districts spend on debt service payments; and
 - d. The growth in this excess debt service revenue and districts' use of that funding;
 13. Examination of funding levels to support districts or schools with high concentrations of poverty, and recommend a formula that provides increasing funding rates for districts and schools with higher proportions of economically disadvantaged students that attempts to avoid significant increases or decreases in funding for minor changes in concentrations of poverty;
 14. An examination of professional development and teachers' extra duty time
 15. Comparison of the recommendations previously provided to the Committees by Allan Odden and Lawrence Picus and the policy and funding decisions implemented by the Arkansas General Assembly; and
 16. The convening of panels of educators in the State of Arkansas, which shall occur in a variety of locations throughout the state and seek input on the needs of schools and potential solutions.

In addition to the considerations and recommendations listed in A through C, above, the Vendors may include in their proposal submitted in response to this RFP additional factors the Vendor feels should be included in the study. Inclusion of any additional factors recommended will be subject to the approval of the Committees.

D. The Successful Vendor will provide:

1. A final report of its activities, findings, and recommendations encompassing the requirements listed above;
2. Monthly status updates and reports to the Committees on the project, which will require monthly attendance at meetings of the Committees to answer questions regarding the status updates;
3. Answers to research requests or data inquiries by members of the Committees, as authorized by the chairs of the Committees; and
4. Assistance with draft legislation based on recommendations adopted by the Committees.

The Successful Vendor will also need to be available to attend other meetings of the Committees and other legislative committees, as requested and authorized by the chairs of the Committees.

In the event that services in addition to those described in this Section 3.0 Scope of Work/Specifications are required during the term of the Contract, the Committees shall vote to authorize the additional work, subject to the approval of the Co-chairs of the Legislative Council, who shall have the power to approve the additional services and an additional fee for those services in an amount not to exceed ten percent (10%) of the total contract amount.

3.1 EDUCATION ADEQUACY CONSULTING

The education adequacy consulting services provided by the Successful Vendor pursuant to this Request for Proposal must address the stated specifications and requirements. These services will be provided to the Committees and other legislative committees, as approved.

As requested, the Vendor must attend various meetings of the Committees and other legislative committees of the Arkansas General Assembly. Hourly compensation will be paid for meeting times. The Vendor shall explain any anticipated limitations in its ability to attend meetings of the Committees or other legislative committees or to provide any of the services described in this Section 3.

All projects shall be paid pursuant to the fee schedule. The Vendor shall submit itemized invoices to the BLR, which will pay the invoices on a monthly basis.

The BLR does not grant the Vendor the exclusive rights to all education adequacy consulting services contemplated under this RFP. In the event the Committees decide that acquisition of these services by another Vendor is in the Committees' best interests, the BLR reserves the right to contract and purchase education adequacy consulting services from a different source outside of the contract resulting from this RFP, and the Committees' action to procure services outside of the Contract does not infringe upon, nor terminate, the contract resulting from this Request for Proposal.

3.2 PROCUREMENT OF GOODS AND SERVICES

If the Vendor anticipates the need to procure additional goods or services in order to provide the education adequacy consulting services requested in this RFP, the Vendor must identify the goods and/or services that may be procured, the reason the procurement is necessary, the name of the vendor from whom the goods or services are to be procured, and the anticipated cost of the goods and/or services to be procured.

SECTION 4. COST PROPOSAL

4.0 COMPENSATION

Compensation for education adequacy consulting services shall be paid based upon the work performed as specified in this RFP. A Vendor seeking consideration shall submit a compensation proposal for education adequacy consulting services as provided throughout the RFP.

The fee schedule will cover the time spent in the completion of the requested task or project, as well as other administrative costs (including, but not limited to, secretarial, bookkeeping, budget preparation, monitoring and auditing services, travel expenses, etc.) The fee schedule will cover the time expended

inclusive of all overhead or any other costs associated with the particular individuals who may be performing the services.

4.1 PAYMENT SCHEDULE

The BLR shall pay the Vendor based on the hours expended for approved projects on a monthly basis or as otherwise may be agreed to in writing by the parties. The BLR may request and the Vendor shall provide timesheets or other documentation as may be directed by the BLR prior to the payment for any services rendered. Failure to provide appropriate and satisfactory documentation will be sufficient grounds to withhold payment for the disputed amount, but other nondisputed amounts must be paid in a timely manner.

4.2 TRAVEL, LODGING, AND MEALS

The Successful Vendor may submit invoices and receive reimbursement for actual travel expenses allowed by law related to attending meetings of the Committees and other legislative committees of the Arkansas General Assembly, or other travel related to work under the Contract as approved by the chairs of the Committees. Reimbursement of travel expenses will be included in the total maximum contract amount.

Estimates of expenses as allowed by law for travel related to field work required by the Contract and this RFP should be included by the Vendor in the fee schedule, as required by Section 4.0.

SECTION 5. ADDITIONAL VENDOR REQUIREMENTS

5.0 COMPREHENSIVE VENDOR INFORMATION

All proposals should be complete and carefully worded and should convey all of the information requested by the Committees and the BLR. If significant errors are found in the Vendor's proposal, or if the proposal fails to conform to the essential requirements of the RFP, the Committees will be the sole judge as to whether that variance is significant enough to reject the proposal. Proposals should be prepared simply and economically, providing a straightforward, concise description of the Vendor's capabilities to satisfy the requirements of the RFP. Emphasis should be on completeness and clarity of the content. Proposals that include either modifications to any of the contractual requirements of the RFP or a Vendor's standard terms and conditions may be deemed non-responsive and therefore not considered for award.

5.1 VENDOR PROFILE

In addition to information requested in other sections of the RFP, the Vendor shall submit the following:

- Business Name;
- Business Address;
- Alternate Business Address;
- Primary Contact Name, Title, Telephone, Fax, and E-mail Address;
- How many years this company has been in this type of business;
- Proof that the Vendor is qualified to do business in the State of Arkansas;
- A disclosure of the Vendor's name and address and, as applicable, the names and addresses of the following: If the Vendor is a corporation, the officers, directors, and each stockholder of more than a ten percent (10%) interest in the corporation. However, in the case of owners of equity securities of a publicly traded corporation, only the names and addresses of those known to the corporation to own beneficially five percent (5%) or more of the securities need be disclosed; if the Vendor is a trust, the trustee and all persons entitled to receive income or benefits from the trust; if the Vendor is an association, the members, officers, and directors; and if the Vendor is a partnership or joint venture, all of the general partners, limited partners, or joint venturers;

- A disclosure of all the states and jurisdictions in which the Vendor does business and the nature of the business for each state or jurisdiction;
- A disclosure of all the states and jurisdictions in which the Vendor has contracts to supply the type of services requested under this RFP and the nature of the goods or services involved for each state or jurisdiction;
- A disclosure of the details of any finding or plea, conviction, or adjudication of guilt in a state or federal court of the Vendor for any felony or any other criminal offense other than a traffic violation committed by the persons identified as management, supervisory, or key personnel;
- A disclosure of the details of any bankruptcy, insolvency, reorganization, or corporate or individual purchase or takeover of another corporation, including without limitation bonded indebtedness, and any pending litigation of the Vendor;
- A disclosure of any conflicts of interest on the part of the Vendor or its personnel that will be working on this project.
- Additional disclosures and information that the Committees may determine to be appropriate for the procurement involved.

5.2 GENERAL INFORMATION

Vendor shall submit any additional information for consideration such as specialized services, staffs available, or other pertinent information the Vendor may wish to include.

5.3 DISCLOSURE OF LITIGATION

A Vendor shall include in its Proposal a complete disclosure of any civil or criminal litigation or indictment involving such Vendor. A Vendor shall also disclose any civil or criminal litigation or indictment involving any of its joint ventures, strategic partners, prime contractor team members, and subcontractors. This disclosure requirement is a continuing obligation, and any litigation commenced after a Vendor has submitted a Proposal under this RFP must be disclosed to the BLR in writing within five (5) days after the litigation is commenced.

5.4 EXECUTIVE SUMMARY

A Vendor must provide a summary overview and an implementation plan for the entire project being proposed. The intent of this requirement is to provide the Committees with a concise but functional summary of the discussion of each phase of the Vendor's plan in the order of progression. While the Committees expect a Vendor to provide full details in each of the sections in other areas of the RFP relating to its plan, the Executive Summary will provide a "map" for the Committees to use while reviewing the Proposal.

Each area summarized must be listed in chronological order, beginning with the date of Contract execution, to provide a clear indication of the flow and duration of the project. A Vendor may use graphics, charts, pre-printed reports, or other enhancements as a part of this section to support the chronology or add to the presentation. Any such materials must be included in the original and each copy of the Proposal.

5.5 VENDOR'S QUALIFICATIONS

A Vendor shall provide resumes or short biographies and qualifications of all management, supervisory, and key personnel to be involved in performing the services contemplated under this RFP. The resumes shall present the personnel in sufficient detail to provide the Committees with evidence that the personnel involved can perform the work specified in the RFP. A Vendor shall provide a brief history of its company, to include the name and location of the company and any parent/subsidiary affiliation with other entities. If a Vendor is utilizing the services of a subcontractor(s) for any of the service components listed, the Vendor shall include in its proposal response a brief history of the subcontractor's company to include the information requested herein.

A Vendor shall provide:

- A brief professional history, including the number of years of experience in providing the services required under this RFP or related experience and any professional affiliations and trade affiliations.
- A listing of current accounts and the longevity of those accounts.
- An organizational chart highlighting the names/positions that will be involved in the contract, including the individual who will be primarily responsible for managing the account on a day-to-day basis.
- A detailed description of the plan for assisting the Committees in meeting their goals and objectives, including how the requirements will be met and what assurances of efficiency and success the proposed approach will provide.
- An indication of the timeframe the Vendor would require to assist the Committees in meeting their goals and objectives.
- A detailed, narrative statement listing the three (3) most recent, comparable contracts (including contact information) that the Vendor has performed and the general history and experience of its organization.
- At least three (3) references from entities that have recent (within the last three (3) years) contract experience with the Vendor and are able to attest to the Vendor's work experience and qualifications relevant to this RFP.
- A list of every business for which Vendor has performed, at any time during the past three (3) years, services substantially similar to those sought with this solicitation. Err on the side of inclusion; by submitting an offer, Vendor represents that the list is complete.
- List of failed projects, suspensions, debarments, and significant litigation.
- An outline or other information relating to why the Vendor's experience qualifies in meeting the specifications stated in Section 3 of this RFP.

A Vendor shall provide information on any conflict of interest with the objectives and goals of the Committees that could result from other projects in which the Vendor is involved. Failure to disclose any such conflict may be cause for Contract termination or disqualification of the response.

A Vendor or its subcontractor(s) must list all clients that were lost between May 2016 and the present and the reason for the loss. The Committees reserve the right to contact any accounts listed in this section. A Vendor must describe any contract disputes involving an amount of thirty-five thousand dollars (\$35,000) or more that the Vendor, or its subcontractor(s), has been involved in within the past two (2) years. Please indicate if the dispute(s) have been successfully resolved.

5.5.1 BACKGROUND INVESTIGATION

Vendors must allow the BLR to perform an investigation of the financial responsibility, security, and integrity of a Vendor submitting a bid, if required by the Committees.

SECTION 6. EVALUATION CRITERIA FOR SELECTION

6.0 GENERALLY

The Vendor should address each item listed in this RFP to be guaranteed a complete evaluation. After initial qualification of proposals, selection of the Successful Vendor will be determined in a meeting of the Committees by evaluation of several factors.

The Committees have developed evaluation criteria that will be used by the Committees and that is incorporated in Section 6.1 of this RFP. Other agents of the Committees may also examine documents.

Submission of a proposal implies Vendor acceptance of the evaluation technique and Vendor recognition that subjective judgments must be made by the Committees during the evaluation of the proposals.

The Committees reserve, and a Vendor by submitting a Proposal grants to the Committees, the right to obtain any information from any lawful source regarding the past business history, practices, and abilities of Vendor, its officers, directors, employees, owners, team members, partners, and/or subcontractors.

6.1 EVALUATION CRITERIA

The following evaluation criteria are listed according to their relative importance; however, the difference between the importance assigned to any one criterion and the criteria immediately preceding and following is small:

- Directly related experience;
- Pricing;
- Plan for providing services;
- Proposed schedule for providing services;
- Proposed personnel and the credentials of those assigned;
- Compliance with the requirements of the RFP; and
- Past performance.

PROPOSAL SIGNATURE PAGE

Type or Print the following information:

Prospective Contractor Contact Information

Contact Person: _____ Title: _____

Phone: _____ Alternate Phone: _____

Email: _____

Confirmation of Redacted Copy

- YES, a redacted copy of proposal documents is enclosed.
- NO, a redacted copy of submission documents is not enclosed. I understand a full copy of non-redacted submission documents will be released if requested.

Note: If a redacted copy of the proposal documents is not provided with the Vendor's proposal, and neither box is checked a copy of the unredacted documents will be released in response to any request made under the Arkansas Freedom of Information Act (FOIA).

Illegal Immigrant Confirmation

By signing and submitting a response to this RFP and by certifying online at <https://www.ark.org/dfa/immigrant/index.php/disclosure/submit/new> , the Vendor agrees and certifies that they do not employ or contract with illegal immigrants. If selected, the Vendor certifies that they will not employ or contract with illegal immigrants during the aggregate term of the contract.

Israel Boycott Restriction Confirmation

By checking the box below, the Vendor agrees and certifies that they do not boycott Israel, and if selected, will not boycott Israel during the aggregate term of the contract.

- Vendor does not and will not boycott Israel.

An official authorized to bind the Vendor to a resultant contract shall sign below.

The Signature below signifies agreement that any exception that conflicts with the requirements of this RFP will cause the Vendor's proposal to be disqualified.

Authorized Signature: _____ **Title:** _____

Printed/Typed Name: _____ **Date:** _____

ATTACHMENT A
OFFICIAL PROPOSAL PRICE SHEET

Note: The Official Proposal Price Sheet must be submitted in a separate envelope or e-mail. Any reference to pricing in the technical proposal shall be cause for disqualification from further considerations for award.

1. Bids should provide at least a 180-day acceptance period.
2. By submission of a proposal, the proposer certifies the following:
 - A. Prices in this proposal have been arrived at independently, without consultation, communication, or agreement for the purpose of restricting competition;
 - B. No attempt has been made nor will be by the proposer to induce any other person or firm to submit a proposal for the purpose of restricting competition;
 - C. The person signing this proposal is authorized to represent the company and is legally responsible for the decision as to the price and supporting documentation provided as a result of this RFP; and
 - D. Prices in this proposal have not been knowingly disclosed by the proposer and will not be prior to award to any other proposer.

The Official Price Proposal Sheet must be submitted in substantially the following form, allowing for the inclusion of specific information regarding positions, goods, services, etc., and signed by an official authorized to bind the Vendor to a resultant contract.

DESCRIPTION	PRICE PER HOUR	NUMBER OF POSITIONS
Supervisor		
Other Professional Staff (List by Position)		
Support Staff		
DESCRIPTION	PRICE PER UNIT (IF APPLICABLE)	TOTAL PRICE
Subcontractors (if any)		
Travel		
Any Additional Goods & Services (List Individually)		
TOTAL MAXIMUM AMOUNT OF BID:		

Signature, Title

Date

**ATTACHEMENT A
OFFICIAL PROPOSAL PRICE SHEET**

1. This bid is valid for 180 days.

2.A Prices in this proposal have been arrived at independently, without consultation, communication, or agreement for the purpose of restricting competition.

2.B No attempt has been made nor will be by APA to induce any other person or firm to submit a proposal for the purpose of restricting competition

2.C The person signing the proposal is authorized to represent the company and is legally responsible for the decision as to the price and supporting documentation provided as a result of this RFP.

2.D Prices in the proposal have not been knowingly disclosed by the proposer and will not be prior to award to any other proposer

DESCRIPTION	PRICE PER HOUR	NUMBER OF HOURS	NUMBER OF POSITIONS	TOTAL PRICE
APA STAFF				
Project Director	\$187.50	324	1	\$60,750.00
Senior Associate	\$150.00	1245	3	\$186,750.00
Associate	\$100.00	500	1	\$50,000.00
WestEd Staff				
Program Director	\$210.00	92	1	\$19,320
Senior Research Associate/ Policy Specialist	\$130.00	325	2	\$42,250
Research Associate	\$115.00	1250	3	\$143,750
Support Staff	\$98.00	120	3	\$11,760
SUBCONTRACTORS				
Michael Griffith				\$15,000
Education Finance Decisions (Bill Hartman, Robert Scoch)				\$45,000
Local University Partner				\$25,000
Travel				\$45,000
Other(including copying, supplies, overhead)				\$15,000
TOTAL MAXIMUM AMOUNT OF BID:				\$659,580

Justin Silvestro, COCEO
Signature, Title

9/19/19
Date



Response to RFP BLR-190003 for Education Adequacy Consulting Services

Prepared for the

Bureau of Legislative Research, State of Arkansas

By

Augenblick, Palaich and Associates, WestEd and Partners

Primary Contact:

Justin Silverstein, co-CEO
Augenblick, Palaich and Associates
1547 Gaylord St Denver, CO 80206
720-227-0075
jrs@apaconsulting.net

September 20, 2019



AUGENBLICK,
PALAICH AND
ASSOCIATES

September 18, 2019

Ms. Jillian Thayer
Director, BLR Legal Counsel
State Capitol Building, Room 315
Little Rock, AR 72201

Dear Ms. Thayer and Committees members,

Augenblick, Palaich and Associates, Inc. (APA) is pleased to respond to Arkansas' Education Adequacy Consulting Services RFP BLR-190003. This response builds on our submission related to the Committees' earlier RFP BLR-190001.

APA is a privately-owned, Denver-based consulting firm with 36 years of experience analyzing education systems and policies. Since its founding, much of the firm's work has been associated with conducting statewide education policy studies on a variety of topics of interest to state legislatures, boards of education, and departments of education. APA is a leading consultant on adequacy studies, having analyzed the resources needed to meet state standards in 23 states.

The study team includes WestEd as a partner, along with other nationally recognized school finance experts. With over 100 years of combined school finance research experience, the study team has the background to examine all the areas of Arkansas' school finance system mentioned in the RFP. The team has also worked with policymakers from across the country implementing finance and adequacy study results to better serve students, teachers, schools, and districts.

The current RFP is similar to the previous RFP and much of APA's response remains the same for those sections that did not change. The study team recognizes the shift in focus in Section 3.0.A from a classic adequacy study (using multiple approaches to identify an adequacy recommendation) to a focus on providing Arkansas with a systematic approach to updating its adequacy figures biennially. Though this shift has happened, a number of the elements often related to adequacy studies have been added to the RFP including the use of case studies and educator panels. The APA team is excited to implement these research approaches while recognizing the study is not intended to produce specific adequacy figures. The RFP also adds a number of other new requirements to the study. The study team will use fiscal and performance data analysis, case studies, literature reviews, stakeholder engagement, a district survey, and additional quantitative and qualitative data to address all sections of the RFP.

The APA team worked to address all feedback it received during its previous interview with the committee, including diversifying the project team, ensuring an understanding of the Lake View decision, and identifying a local partner to work with.

I will lead the study for APA. I have studied school finance across the country for over 20 years and led many statewide school finance studies. WestEd's work will be led by Jason Willis, a leading researcher in cost function analysis. We look forward to working with the Arkansas Legislature. If you have any further questions, please call me at 720-227-0075 or jrs@apaconsulting.net.

Sincerely,

A handwritten signature in blue ink that reads 'Justin Silverstein'.

Justin Silverstein
Co-CEO
Augenblick, Palaich and Associates

PROPOSAL SIGNATURE PAGE

Type or Print the following information:

Prospective Contractor Contact Information

Contact Person: Justin Silverstein Title: Co-CEO
Phone: 720-227-0075 Alternate Phone: 303-293-2175
Email: jrs@apaconsulting.net

Confirmation of Redacted Copy

YES, a redacted copy of proposal documents is enclosed.

NO, a redacted copy of submission documents is not enclosed. I understand a full copy of non-redacted submission documents will be released if requested.

Note: If a redacted copy of the proposal documents is not provided with the Vendor's proposal, and neither box is checked a copy of the unredacted documents will be released in response to any request made under the Arkansas Freedom of Information Act (FOIA).

Illegal Immigrant Confirmation

By signing and submitting a response to this RFP and by certifying online at <https://www.ark.org/dfa/immigrant/index.php/disclosure/submit/new>, the Vendor agrees and certifies that they do not employ or contract with illegal immigrants. If selected, the Vendor certifies that they will not employ or contract with illegal immigrants during the aggregate term of the contract.

Israel Boycott Restriction Confirmation

By checking the box below, the Vendor agrees and certifies that they do not boycott Israel, and if selected, will not boycott Israel during the aggregate term of the contract.

Vendor does not and will not boycott Israel.

An official authorized to bind the Vendor to a resultant contract shall sign below.

The Signature below signifies agreement that any exception that conflicts with the requirements of this RFP will cause the Vendor's proposal to be disqualified.

Authorized Signature:  Title: Co-CEO
Printed/Typed Name: Justin Silverstein Date: 9/18/19

Executive Summary

Vendor Qualifications

The study team assembled for this project brings decades of school finance experience, including two leading national school finance organizations, Augenblick, Palaich and Associates (APA) and WestEd, that have worked across the country helping policymakers improve school finance systems. The study team has unparalleled experience in applying nationally recognized adequacy approaches, a deep understanding of the complexities associated with school finance systems, the ability to create digestible and actionable findings for policymakers, and the ability to support the development and implementation of revised or new funding formulas.

The study team partners have conducted numerous school finance studies over the past three years in the following states:

- APA – Maryland (adequacy study, in support of the Kirwan Commission and a special education study with WestEd), Michigan, Nevada, Utah (with WestEd), and Wyoming
- WestEd – California, Kansas, Maryland (special education study with APA), North Carolina, and Utah (with APA)

Since 1983, APA has not only conducted adequacy studies in more than 20 states but has also designed school finance systems that were enacted in New Hampshire, Kentucky, Louisiana, Colorado, Mississippi, Ohio, Maryland, Kansas, New Jersey, and Pennsylvania. In several states, those systems are still operating today. In the current legislative and budget sessions, two additional states are considering revising their funding system’s based upon APA’s recommendations.

Of APA’s recent projects with states on school finance matters, two are particularly relevant: Maryland (2016) and Wyoming (2018). Both were large scale state finance studies that also involved multiple sub-studies and reports, including on matters such as concentrations of poverty, appropriate proxy measures for economically disadvantaged students, case studies of successful schools, and deep reviews of best practices from the literature and national policy scans. Each also involved multi-phase data collection efforts and the coordination of large teams of school finance experts, and the Wyoming study included statewide stakeholder engagement and comparing the recommendations of the state’s current resource allocation to both the prior recommended research and current legislation.

In addition to APA and WestEd, the study team includes other national school finance experts including Michael Griffith (independent consultant, formerly at the Education Commission of the States), Dr. William Hartman (Pennsylvania State University) and Robert Schoch (independent consultant).

Proposed Work Plan

The proposed work plan described in this RFP response is intended to “provide to the members of the Arkansas General Assembly detailed and accurate information concerning the current efficacy of the biennial adequacy study and evaluation undertaken by the Committees, and to provide the Committees

with recommendations regarding reform or replacement of the current methods for determining educational adequacy in the State of Arkansas” as required in the RFP.

The description of the proposed work plan is presented according to the sections in the RFP, including Sections 3.0.A, 3.0.B, 3.0.C. and 3.1. The first three sections include tables outlining the various study activities that will be used to answer the research questions, these activities include:

- Fiscal and performance data analysis
- Case studies
- Literature/document reviews
- Educator panels/stakeholder engagement
- District survey
- Additional qualitative and quantitative work

Each activity will be referred to in the appropriate RFP task section or subsection, but the study team offers the following general information about the literature reviews, stakeholder engagement and district survey which are applicable across RFP tasks:

Literature/ document reviews: Each literature review will examine the academic and policy research available on a given topic. In many cases, the study team will examine how states are addressing specific concerns. In each of these cases, all 50 states will be reviewed, with special attention will be paid to the Southern Regional Education Board (SREB) states and a set of leading national states. Each state level review will include an individual table for each highlighted group of states.

Educator panels/ stakeholder engagement: The study team proposes three avenues of engagement: 1) four in-person listening sessions with educators in four different locations in the state that will be open to all educators in the region; 2) up to 16 targeted educator panels- four in each region, one for teachers, one for school leaders, one for superintendents and one for CFOs/business managers- with up to 20 Arkansas educators per panel; and 3) an online survey that will be open to both educators and the public, including parents, students, business leaders and community members. This approach will allow the study team to gather feedback in areas such as the college/career readiness definition, attraction and retention of staff, and resources needs not currently met in the state’s current funding matrix.

District survey: When needed data are not already available, the study team will survey districts through a single district survey that will address information needs in multiple study areas including school/district size issues (existing policies, best practices, and impact), best uses of funding for economically disadvantaged students, and capital needs.

Narratives on how each specific study area will be addressed by RFP section are presented in the full “Proposed Work Plan” section of the study team’s RFP response. This Executive Summary provides summary tables of the tasks being used to address the required study components.

Section 3.0.A Adequacy Study

In response to Section 3.0.A, the study team will address a number of areas related to adequacy, including methods for routinely reviewing adequacy (Section 3.0.A.1), addressing concentrations of poverty, achievement gaps, and the correlation between performance and funding (Sections 3.0.A.2-4), reviewing adequacy studies nationally (Section 3.0.A.5), reviewing resources in the state’s current funding matrix (Section 3.0.A.6), and helping identify a college and career readiness definition (Section 3.0.A.7).

Section 3.0.A							
	Fiscal and Performance Data Analysis	Case Studies	Literature/ Document Review	Educator Panels/ Stakeholder Engagement	District Survey	Additional Quantitative Work	Additional Qualitative Work
1. Recommended Methods for Routinely Reviewing Adequacy			X				
2. Concentrations of Poverty	X		X		X		X
3. Identification of Gaps and Programs to Address	X	X				X	X
4. Correlation Between Performance and Funding	X	X					
5. Review of Adequacy Studies			X				
6. Review of Resources in Matrix	X	X		X	X	X	
7. College/Career Readiness			X	X			X

Section 3.0.B School and District Size

The work in section 3.0.B primarily focuses on issues related to class and school size (Sections 3.0.B.1-5), as well as isolation and remoteness (Sections 3.0.B.6 and 8). Section 3.0.B.7 examines the relationship of class size requirements, student teacher ratios, teacher salaries, and other factors.

Section 3.0.B							
	Fiscal and Performance Data Analysis	Case Studies	Literature/ Document Review	Educator Panels/ Stakeholder Engagement	District Survey	Additional Quantitative Work	Additional Qualitative Work
1. Current School Size Policies					X	X	
2. School Size Best Practices			X		X		X
3. Impacts of School/District Size			X		X	X	
4. Recommendations on Ideal Size of Schools			X				
5. Public Input on School Size Standards				X	X		X
6. Addressing Small District Size and Remoteness	X		X				
7. Class Size Requirements, Student/Teacher Ratios and Salary Variations	X		X				
8. Identification and Operation Criteria for Isolated Schools and/or Districts			X				

Section 3.0.C Additional Studies

The last section of the RFP identifies a number of additional studies areas to be addressed on a variety of topics. It also specifically requires the use of case studies (Section 3.0.C.9) and educator panels (3.0.C.16).

Section 3.0.C							
	Fiscal and Performance Data Analysis	Case Studies	Literature/ Document Review	Educator Panels/ Stakeholder Engagement	District Survey	Additional Quantitative Work	Additional Qualitative Work
1. Evaluation of Economically Disadvantaged Student Proxy							
1.a Community Eligibility Provision Evaluation			X			X	
1.b Impact on State Aid Formulas						X	
1.c Alternative Proxies			X			X	
2. Impacts on Equity						X	
3. Impacts of Enrollment Changes			X			X	
4. Attracting and Retaining Administrative and Educational Staff			X	X		X	
5. Attracting and Retaining Nurses			X	X		X	
6. Resources for Student Mental Health Issues			X	X			
7. Capital Needs			X		X	X	
8. Best use of Poverty Funds	X	X	X	X	X		
9. Case Studies of Successful Schools		X					
10. Impact of Vouchers	X		X			X	
11. Impact of Waivers			X			X	
12. Examination of Uniform Tax Rate			X			X	
13. Funding for Concentrations of Poverty	X		X				
14. Professional Development and Extra Duty Time		X	X		X		
15. Comparison of Prior Study Recommendations and Legislation			X				
16. Educator Panels				X			

Section 3.0.D Reporting and Support

The study team understands the requirements for reporting and support as described in the RFP. A final report detailing all activities will be completed in November 2020. The study team will work with the Committees and staff throughout the process to ensure that all required information is included in the report. A draft report will be submitted in September 2020, allowing for up to a month of review by the Committees and staff.

The study team will provide monthly updates to staff and be available at all Committees meetings as requested. Working with the committees and staff, study team members will be available for additional research and data inquiries. As the draft report is completed, study team members will begin work with Committees staff on creating draft legislation, if needed.

Section 3.1 Education Adequacy Consulting

APA and its partners agree to all stated specifications and requirements in the RFP and has outlined its proposed scope of work to address all requirements to provide the requested services to the Committees. As previously noted, the study team is committed to attending meetings of the Committees and other legislative committees of the Arkansas General Assembly. The study team does not anticipate any limitations in its ability to attend meetings or provide any of the services described in Section 3.0.D.

Timeline

The proposed timeline assumes a project start date of mid-October 2019 and a completion date of December 2020. The final report will be delivered by the November 2020, providing time for presentations and other work related to any drafted legislation. Other timeline highlights:

- **Section 3.0.A:** Literature reviews and collection of existing data (fiscal, staffing, student characteristics, performance) will begin immediately, with stakeholder engagement and analysis to occur in the spring of 2020. All work in this section will be completed by June 2020.
- **Section 3.0.B and 3.0.C:** The additional studies will run throughout the study timeframe with many of the literature reviews finished by January 2020.

The timeline, as outlined above and presented in greater detail on the following page, is preliminary and the study team will work with the Committees and staff to finalize the timeline to best meet Arkansas' needs.

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Appendix A: Contract and Grant Disclosure and Certification Form

Appendix B: Certificate of Good Standing

Appendix C: Resumes

Appendix D: References

Appendix E: Past Performance Work Samples

Vendor Profile

Business Name: Augenblick, Palaich and Associates, Inc. (primary vendor for study)

Business Address: 1547 Gaylord St. Denver, CO 80206

Alternate Business Address: N/A

Primary Contact Information:

Name	Justin Silverstein
Organization	Augenblick, Palaich and Associates
Title	CEO
Phone	303-725-6143
Fax	N/A
Email	jrs@apaconsulting.net

Years in Business: 36 years (since 1983)

Proof Vendor is qualified to do business in the State of Arkansas:

APA is qualified to do business in the State of Arkansas and is in good standing under the laws of the state; see Attachment B for related Certificate of Good Standing issued by the Arkansas Secretary of State. Further, APA shall file appropriate tax returns as provided by the laws of this State.

APA currently is, and will at all times remain, lawfully organized and constituted under all federal, state, and local law, ordinances, and other authorities of its domicile and that it currently is, and will at all times remain, in full compliance with all legal requirements of its domicile and the State of Arkansas.

Corporation Information:

Name	Percentage Ownership	Address
Company Officers		
Amanda Brown, Board President	14.0%	2340 Albion St, Denver, CO 80207
Robert Reichardt, Board Secretary	4.7%	6007 S. Lakeview St, Littleton, CO 80120
Additional Shareholders, Greater Than 10 % Ownership		
Dale DeCesare, CEO	23.3%	6210 S Logan St, Centennial, CO 80121
John Augenblick, Retired	11.6%	1106 Race St, Denver, CO 80206
Justin Silverstein, CEO	23.3%	3166 Elmira Ct, Denver, CO 80238
Robert Palaich, Past President	23.3%	5692 Pennsylvania Pl, Boulder, CO 80303

Subcontractors:

Name of Firm/Individual	Address	Description of Firm	Work Description
WestEd (Jason Willis, contact)	730 Harrison Street San Francisco, California 94107	WestEd is a Joint Powers Agency, authorized by a California Joint Powers Agreement and governed by public entities in Arizona, California, Nevada, and Utah, with Board members representing agencies from these states and nationally.	Complete the fiscal and performance data analysis in Sections 3.0.A.2-4, do additional quantitative analysis in Section 3.0.A.6, and support the development of the career/college definition (Section 3.0.A.7)
Michael Griffith	891 14th Street, Unit 3210 Denver, Colorado 80202	Individual Consultant	Assist APA in conducting literature reviews and policy scans (Sections 3.0A, 3.0.C)
William Hartman	534 W. Fairmont Ave State College, PA 16801	Individual Consultant	Lead study efforts related to school and district size (Section 3.0.B)
Robert Schoch	32 Sunset Circle Lititz, PA. 17543	Individual Consultant	Lead study efforts related to school and district size (Section 3.0.B)
Local University Partner	TBD	Local University Partner	Assist APA with stakeholder engagement

States and Jurisdictions where APA works:

APA began working with states to examine school finance issues 36 years ago. In its history, APA has worked in all fifty states. The firm is regularly asked to undertake large scale, multi-year examinations of state’s school funding systems, as well as to provide ongoing technical support to state staff and has often done multiple studies for individual states. APA also provides research and technical assistance to seven states through the U.S. Department of Education funded REL Central, the Regional Educational Laboratory for the Central States, through a subcontract with Marzano Research.

States and Jurisdictions where APA is currently providing similar services:

As noted in the upcoming Qualifications section, APA recently completed several large statewide studies providing similar services requested in the RFP. States and jurisdictions where APA is currently providing similar services include:

- Nevada – APA recently completed an adequacy and finance study for the state and continues to supply technical support to the state as it works to implement a new formula.
- Maryland – APA recently completed a finance study for the state and is currently working as a subcontractor to WestEd, providing support in its study of Maryland’s special education IEP system and state special education funding.

- Utah – Currently working as a subcontractor to WestEd to complete a state finance study, including reviewing components of the current system and making recommendations for possible changes.
- Hawaii – Currently undertaking a teacher compensation study, including reviewing best practices nationally, comparing Hawaii’s salary schedule to other similar districts, and engaging stakeholders through listening sessions throughout the state and an online survey.
- REL Central (federal regional education laboratory) – As a subcontractor to Marzano Research, APA provides research and technical assistance to the seven central states; including assisting a school district with a cost-benefit analysis and modeling a state’s teacher shortage areas.
- Austin ISD (Texas) – APA provides consulting services to Austin ISD, including updating a teacher compensation model and providing cost estimates of the district’s compensation program.
- Colorado School Finance Project – APA CEO Justin Silverstein serves as Senior Fellow to the Colorado School Finance Project, providing school finance and data analysis expertise to this non-profit whose mission is to compile, collect and distribute research-based, non-partisan information and data on topics related to school finance for state and local policy makers.

Equal Opportunity Policy:

Augenblick, Palaich & Associates, Inc. is an Equal Opportunity Employer that does not discriminate on the basis of actual or perceived race, creed, color, religion, alienage or national origin, ancestry, citizenship status, age, disability or handicap, sex, marital status, veteran status, sexual orientation, genetic information, arrest record, or any other characteristic protected by applicable federal, state or local laws. Our management team is dedicated to this policy with respect to recruitment, hiring, placement, promotion, transfer, training, compensation, benefits, employee activities and general treatment during employment.

APA will endeavor to make a reasonable accommodation to the known physical or mental limitations of qualified employees with disabilities unless the accommodation would impose an undue hardship on the operation of our business.

APA will endeavor to accommodate the sincere religious beliefs of its employees to the extent such accommodation does not pose an undue hardship on APA's operations.

Disclosures and additional warranties:

- APA and none of its key employees have any known felonies or other criminal offenses beyond traffic violations.
- APA has no bankruptcies, insolvencies, reorganizations, or takeovers.
- There are no known conflicts of interest for APA or any of its subcontractors.
- All services provided pursuant to this RFP and the Contract have been and shall be prepared or done in a workman-like manner consistent with the highest standards of the industry in which the services are normally performed. All computer programs implemented for

performance under the Contract shall meet the performance standards required thereunder and shall correctly and accurately perform their intended functions.

Contract Grant and Disclosure and Certification Form:

Included as Appendix A.

Acknowledgements of RFP Requirements

While not specifically addressed later in this proposal, APA acknowledges and agrees with the requirements and terms set forth in each of the following sections:

- 1.0 Introduction
- 1.1 Issuing Agency
- 1.2 Schedule of Events
- 1.3 Cautions to Vendors
- 1.4 RFP Format
- 1.5 Alteration of Original RFP Documents
- 1.6 Requirement of Amendment
- 1.7 RFP Questions
- 1.9 Proprietary Information
- 1.10 Delivery of Response Documents
- 1.11 Bid Evaluation
- 1.12 Oral and/or Written Presentations/Demonstrations
- 1.13 Intent to Award
- 1.14 Appeals
- 1.16 Type of Contract
- 1.17 Payment and Invoice Provisions
- 1.18 Prime Contractor Responsibility
- 1.19 Delegation and/or Assignment
- 1.20 Conditions of Contract
- 1.21 Statement of Liability
- 1.22 Award Responsibility
- 1.24 Publicity
- 1.25 Confidentiality
- 1.26 Proposal Tenure
- 1.28 Contract Termination
- 1.30 Negotiations
- 1.31 Licenses and Permits
- 1.32 Ownership of Materials & Copyright
- 3.2 Procurement of Goods and Services
- 4.0 Compensation
- 4.1 Payment Schedule
- 4.2 Travel, Lodging, And Meals
- 5.0 Comprehensive Vendor Information
- 5.2 General Information
- 5.3 Disclosure of Litigation
- 5.5.1 Background Investigation

6.0 Generally

6.1 Evaluation Criteria

Further, APA acknowledges and agrees with the requirements and terms set forth in each of the following sections, which are also specifically addressed in this RFP response and related materials:

- 1.8 Sealed Prices/Cost (See separate Official Proposal Price Sheet)
- 1.15 Past Performance (See “Vendor Qualifications” and Appendix E)
- 1.23 Independent Price Determination (See Separate Official Proposal Price Sheet)
- 1.27 Warranties (See “Vendor Profile”)
- 1.29 Vendor Qualifications (See “Vendor Qualifications”, Appendices and separate Official Proposal Price Sheet)
- 2.0 Objectives (See “Proposed Work Plan”)
- 3.0 Scope of Work/Specifications (See “Proposed Work Plan, Sections 3.0.A, 3.0.B, 3.0.C and 3.0.D”)
- 3.1 Education Adequacy Consulting (See “Proposed Work Plan, Section 3.1”)
- 5.1 Vendor Profile (See “Vendor Profile”)
- 5.4 Executive Summary (See “Executive Summary”)
- 5.5 Vendor’s Qualifications (See “Vendor Qualifications”)

Vendor Qualifications

Professional History

The study team assembled for this project brings together well over 100 combined years of school finance experience. It includes two leading national school finance organizations, Augenblick, Palaich and Associates (APA) and WestEd, along with consultants that have worked across the country helping policymakers improve school finance systems. The study team has unparalleled experience in applying nationally recognized adequacy approaches, a deep understanding of the complexities associated with school finance systems, the ability to create digestible and actionable findings for policymakers, and the ability to support the development and implementation of revised or new funding formulas.

The study team partners have conducted numerous school finance studies over the past three years in the following states:

- APA – Maryland (adequacy study, support of the Kirwan Commission and a special education study in partnership with WestEd), Michigan, Nevada, and Wyoming
- WestEd – California, Kansas, Maryland (special education study in partnership with APA), and North Carolina

Additionally, the collected group of subcontractors have partnered with APA and WestEd on these efforts or led their own studies on finance systems or specific funding elements.

The following sections will provide greater detail about how each organization and subcontractor is uniquely qualified to conduct the studies requested in BLR-190003 for the State of Arkansas.

Augenblick, Palaich and Associates

APA will be the primary vendor and lead organization for the proposed study. With over 35 years of experience conducting school finance studies, APA is a nationally recognized authority on school finance. In its history, APA has conducted studies for states and advocacy organizations in all fifty states. APA has a deep working knowledge of cost-based methodology and modeling, and regularly investigates regional cost differences, labor markets, and compensation systems, as well as funding issues associated with both rural and small schools/districts as important considerations when building a model or funding formula. With its extensive experience, APA understands how to both design a finance study so that the results are most useful in the policymaking arena and to work with policymakers to implement the results. All results presented by the study team will include the context needed for making implementation decisions in the future.

Since 1983, APA has not only conducted adequacy studies in more than 20 states but has also designed school finance systems that were enacted in New Hampshire, Kentucky, Louisiana, Colorado, Mississippi, Ohio, Maryland, Kansas, New Jersey, and Pennsylvania. In several states, those systems are still

operating today. In the current legislative and budget sessions, two additional states are considering revising their funding system's based upon APA's recommendations.

Of APA's recent projects with states on school finance matters, two are particularly relevant: Maryland (2016) and Wyoming (2018). Both were large scale adequacy studies that also involved multiple sub-studies and reports, including on matters such as concentrations of poverty, appropriate proxy measures for economically disadvantaged students, case studies of successful schools, and deep reviews of best practices from the literature and national policy scans. Each also involved multi-phase data collection efforts and the coordination of large teams of school finance experts, and the Wyoming study included statewide stakeholder engagement. and comparing the recommendations of the state's current resource allocation to both the prior recommended research and current legislation. These two projects are described in additional detail under "Recent Comparable Contracts with References" in the "Vendor Qualifications" section and work samples from each are in Appendix E.

Further, APA has the proven capacity to communicate and work effectively with all levels of local, state and national government agencies. APA has also analyzed, or is analyzing, the level of resources school districts need to fulfill state student performance expectations in 23 other states and the District of Columbia: Alabama, Colorado, Connecticut, Delaware, Illinois, Indiana, Kansas, Maryland, Michigan, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee, and Washington DC. The firm has analyzed the equity of school finance systems in most of the states listed above and others, including Kentucky, Louisiana, and Texas.

APA provides research and technical assistance to states and school districts as a subcontractor with the Regional Education Laboratory (REL) Central through the U.S. Department of Education's Institute of Education Sciences (IES). APA also has extensive experience in evaluating education programs and initiatives, conducting policy scans and reviews, estimating the costs of quality preschool programs, conducting return on investment analyses, and designing and costing educator compensation plans.

Key APA staff members include:

Justin Silverstein will be the overall project lead, primary liaison with BLR and the Committees, and will also lead coordination with WestEd. Silverstein is co-CEO of APA and leads its school finance and cost modeling work. He has led school finance studies for numerous states including Alabama, Colorado, New Jersey, Nevada, and Wyoming. Silverstein has helped create and refine two of the most popular adequacy study methodologies, the successful schools and professional judgment approaches. He prides himself on his ability to work with policymakers to create a transparent and understandable set of recommendations for a state. He believes that the key to project management is communication. This begins by ensuring that APA clearly understands the client's needs and expectations for the project, along with establishing a clear timeline. Throughout the project, frequent check-ins with the client ensure that any concerns that arise can be addressed and adjustments can be made to the scope of

work to best serve the client's needs. Silverstein holds a Bachelor's in Accounting from the University of Colorado, Boulder.

Dr. Mark Fermanich will oversee the equity and tax analyses of the project along with managing the work of project subcontractors. Mark's primary focus is on state and local education issues, including education finance, education reform, educator accountability and compensation, and the return on investment of educational resources. He has worked on school finance equity and adequacy studies in a number of states. Mark's recent projects with APA include state school finance analyses for the states of Nevada, Wyoming, Michigan, and Maryland. Mark served as the national technical assistance advisor for fiscal and programmatic sustainability and performance-based compensation design for the U.S. Department of Education's Teacher Incentive Fund grant program. He has published research articles in the *Journal of Education Finance*, *The Elementary School Journal*, *Peabody Journal of Education*, and other education policy journals.

Prior to joining APA in 2013, Fermanich worked in education policy research for the Center for Education Policy Analysis at the University of Colorado Denver and the Consortium for Policy Research in Education (CPRE) at the University of Wisconsin-Madison, served as a professor of education policy at Oregon State University in Corvallis, Oregon, and Sonoma State University in Rohnert Park, California, and as an education policy analyst for the Minnesota State Senate. He also served as an administrator working on policy and budget initiatives for the Minneapolis and St. Paul school districts. Fermanich received his Ph.D. in Educational Leadership and Policy Analysis from the University of Wisconsin-Madison. He holds a Master's in Public Policy and Administration from the La Follette School of Public Affairs at the University of Wisconsin-Madison and a Bachelor's in Political Science from the University of Wisconsin-Oshkosh.

Amanda Brown will lead stakeholder engagement, including educator panels, for the study. Amanda's primary focus areas are school finance and evaluation, both at the state and local level. Brown has worked at the state level on large-scale adequacy studies; completed evaluations of state funding mechanisms to improve allocation of resources; conducted studies to understand the resource implications of specific education reform legislation and implementation of instructional best practices; and examined the impact of local/state assessment efforts and the Common Core State Standards. She led APA's recent study of Wyoming's education finance system and has contributed to all of APA's state-level school finance studies since 2005. Further, she leads APA's implementation of the professional judgement approach that includes using educator panels to identify resources.

At the local level, Brown has assisted local school districts to develop school-based budgeting formulas; conducted salary competitiveness studies; addressed issues of declining enrollment; and determined the efficiency of facilities usage. Additionally, she has led and participated in program evaluations of early childhood education and literacy for a number of nonprofit organizations. She holds a master's degree in Public Administration from the University of Colorado, Denver.

Jennifer Piscatelli will lead the case studies of successful Arkansas schools. Piscatelli joined APA in 2012 and has over 20 years of education policy experience. Her school finance experience began in the late 1990s, as legislative staff to the New Hampshire State Senate Education Committee and the New Hampshire Adequate Education and Education Finance Commission, tasked with developing the state's new funding formula for K-12 education. As a member of APA's school finance team, she helps lead professional judgment panels and contributes to costing out studies. She has participated in APA school finance projects in Alabama, Alaska, Nevada, Michigan, Maryland and Wyoming.

Prior to joining APA, Jennifer spent over 8 years as a researcher and policy analyst at the Education Commission of the States, staffed New Hampshire Governor Jeanne Shaheen's Kids Cabinet, and served as a Legislative Aide to the New Hampshire State Senate. Jennifer holds a master's degree in Political Science with an emphasis in Public Policy from the University of Colorado, Denver, and bachelor's degrees in Political Science and Women's Studies from the University of New Hampshire.

WestEd

WestEd is a preeminent educational research, development, and service organization with over 700 employees and 14 offices nationwide. WestEd has been a leader in moving research into practice by conducting research and development (R&D) programs, projects, and evaluations; by providing training and technical assistance; and by working with policymakers and practitioners at state and local levels to carry out large-scale school improvement and innovative change efforts. The agency's mission is to promote excellence, achieve equity, and improve learning for children, youth, and adults. In developing and applying the best available resources toward these goals, WestEd has built solid working relationships with education and community organizations at all levels, playing key roles in facilitating the efforts of others and in initiating important new improvement ventures. In 2016, WestEd celebrated a half-century milestone, marking 50 years of improving learning and healthy development for children, youth, and adults from cradle to career.

WestEd offers a number of services to educational agencies across the country. The Performance and Accountability service line helps to build systematic coherence within educational organizations across the U.S. to ensure the opportunity for equitable outcomes for all students. The team specializes in matters of state and school district finance and resource allocation having worked with states such as California, Kansas, Florida, and North Carolina to review and identify appropriate levels of spending to achieve desired student outcomes. Further, the agency has worked with dozens of school districts, both urban and rural, to assess their resource allocation patterns as a means to maximize the effectiveness of those dollars to drive student outcomes.

Key WestEd staff members include:

Jason Willis is the Director of Strategy & Performance for the Comprehensive School Assistance Program (CSAP) at WestEd. Willis will lead WestEd's work on this project and be WestEd's main contact with APA.

In his role at WestEd, he oversees and guides the expansion of CSAP's existing performance and accountability services, which include support to California's state and local education agencies to implement policies and practices to support the Local Control Funding Formula (LCFF) and realization of genuine continuous improvement efforts in school systems. Performance and accountability services provides this support through capacity building, facilitation of professional learning networks, and analysis of financial data including the effective use of resources. He has also worked with weighted student funding systems and identified the weights for additional resources that are allocated to schools for English Learners. Willis also provides visionary and strategic leadership to expand CSAP's project portfolio by working in collaboration with CSAP's Management Team.

Prior to joining WestEd, Willis served as Assistant Superintendent, Engagement and Accountability, for the San Jose Unified School District. He also served as the Chief Financial Officer/Chief Business Official for the Stockton Unified School District and Budget Director and Program Manager for the Oakland Unified School District.

Raifu Durodoye Jr. is a Research Associate at WestEd and an experienced administrative practitioner and researcher. He provides technical assistance to school districts and state education agencies, and designs and conducts experimental and quasi-experimental evaluations of education programs. Dr. Durodoye Jr. supports work affiliated with the REL – Northeast & Islands, REL-Mid-Atlantic, and WestEd's Comprehensive School Assistance Program. His work is focused on the implementation and effectiveness of academic interventions, state education agency strategies to support low-performing schools, and the implications of school funding disparities for at-risk student populations. Previously Dr. Durodoye Jr. was the Title 1 – Part A program manager for the Delaware Department of Education. In that role, he worked to align planning and budgeting processes with school level needs assessment findings, institute internal financial controls, and provide data and policy supports to district administrators. Dr. Durodoye Jr. also served in the Delaware Department of Education as a data strategist with their Educator Support Division, and as a data fellow with the Strategic Data Project at the Center for Education Policy Research. Dr. Durodoye Jr. supported the agency in forming their long-range educator workforce goals under ESSA and generating and disseminating reporting to monitor educator equity gaps within districts and schools.

Lauren Outlaw is a Senior Policy Specialist and a member of the Learning Innovations and Comprehensive School Assistance Program teams at WestEd. Her work includes providing targeted technical assistance to help schools improve program quality, structures, resource allocation and efficiency. In this role, Ms. Outlaw also translates K-12 education laws and regulations into actionable resources for schools, districts, and regional systems, and engages a broad range of stakeholders on service assessment, process design, and leadership development.

Before joining WestEd, Outlaw successfully advocated for increased school-based mental health resources for public school students in the District of Columbia and structured and negotiated the 15-year charter school renewal agreement with the DC Public Charter School Board on behalf of KIPP DC. Her expertise is grounded in federal and local charter school and choice policies; legislative analysis and

legal compliance; business and process improvement strategies; and promoting school safety, positive school climates, and the effective use of restorative practices.

Darius Taylor is a Research Associate with the WestEd. Mr. Taylor historically has concentrated his academic and research experiences within the fields of behavioral health, chronic disease epidemiology and biostatistics. He brings to the JPRC team a sound quantitative background and passion for change within the fields of education, justice, health and social action. While at WestEd, Darius has supported multiple initiatives that have catered to marginalized populations, specifically adolescents and young adults who are low income, homeless, or have behavioral issues. The evaluations of Nebraska's Connected Youth Initiative and Massachusetts' Safe and Successful Youth Initiative are two such projects that support the aforementioned populations by providing various services to aid recovery and life achievement in respect to health and well-being. Mr. Taylor has supported the process and summative evaluation of these programs by providing quantitative (data analysis and reporting) and qualitative (site visits, interviews and observations) support.

He continues to expand the scope of his research and evaluation experience by focusing on the WestEd 2020 goals of serving 'The Whole Child', 'Underserved Populations, Diverse Learners', and developing 'Next-Generation Assessments'. His current scholastic efforts while enrolled in his fourth year as a doctoral student at UMass focus on the social consequences of current testing practices in America and the differential aspirations and achievements of marginalized groups (specifically low socio-economic status black and brown students).

Mari Shikuzawa is a Program Assistant at WestEd. Shikuzawa is responsible for database management and coordinating technology and communication efforts. She has extensive experience in data analysis and managing operational activities including program development and reporting. Shikuzawa previously supported programs for U.S. AID, Medtronic Philanthropy, and New Leaders.

Additional Subcontractors

Michael Griffith is an independent consultant. Griffith's policy expertise is in K-12 and postsecondary school finance. Prior to becoming an independent consultant, Mike worked for the Education Commission of the States, the consulting firm of Augenblick & Myers and the Michigan State Senate. Over the past 20 years, he has worked with policymakers in all fifty states to improve their school funding systems. Mike is an expert resource to national news media and has been quoted more than 200 times by such outlets as CNN, Education Week, The London Times, NBC Nightly News, National Public Radio, The New York Times, The News Hour with Jim Lehrer and USA Today.

Dr. William Hartman is President of Education Finance Decisions and Professor of Education, Emeritus, at Pennsylvania State University's College of Education. His areas of research include public school finance, financial management of schools, school district budgeting practices, and data analysis for student performance improvement and decision making. His recent research focuses on the fiscal impacts on school districts of the current economic crisis. Other areas of interest include school district budgeting models and forecasts, special education finance, charter school funding, resource allocation

at school and district levels, and decision-making models in educational finance. Dr. Hartman has served as a consultant or advisor to state school funding projects in Wyoming, California, Florida, Maryland, North Carolina, Ohio, Pennsylvania, Idaho and Vermont. He obtained a bachelor's degree in mechanical engineering at University of Florida, Master of Business Administration in management control and marketing at Harvard University, and a doctorate in educational finance and administration at Stanford University.

Robert Schoch is the founder and President of School Business Intelligence LLC, which provides school financial analysis and planning, performance measurement and management, and process management. Schoch has decades of experience working directly with school districts on school construction, finance, support service, and transportation issues. Over his career, he has been involved in planning, design, and construction of over \$500 million of school construction, frequently making decisions on school size and location. In recent years he has been a state and court appointed Turnaround Specialist in Pennsylvania developing and implementing turnaround plans for Pennsylvania's most challenging school districts. He has also been on a number of expert panels - most recently in a major study of school choice and its financial impact on school systems. He has performed a number of school district boundary studies using Geographic Information Systems and often uses mapping software to display financial, operational, and socioeconomic factors. He has received numerous state and national awards focused on innovative strategies of cost management.

If awarded the study, APA will also contract with a **local university partner** to provide support for stakeholder engagement. The study team has been in contact with a university which is willing to participate if APA is awarded the contract but did not feel it should be part of the direct proposal.

Full resumes for all key staff are including in Appendix C.

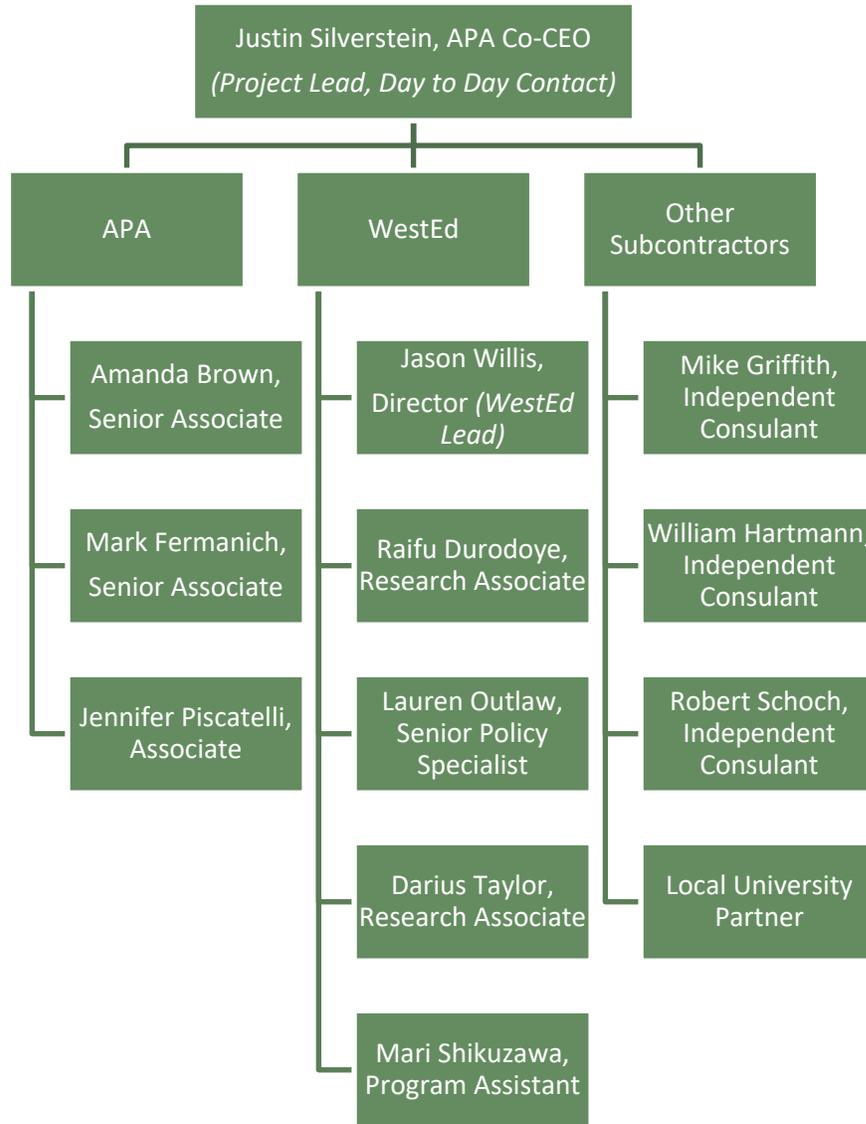
Current Accounts

The following table lists current APA accounts and the longevity of each.

Current Accounts and Longevity

Account/Client	Longevity
Austin Integrated School District Fiscal Analysis	7 years
Boulder County Head Start	3 years
Colorado School Executive Association, Legislative Fiscal Note Analysis	3 years
Colorado School Finance Project Consultation	20 years
Early Childhood Shared Services Evaluation	1 year
Early Intervention (Colorado) Evaluation	1 year
ELPASO Exito Evaluation	2 years
ELPASO Voz Evaluation	1 year
Gates Family Foundation	1 year
Hawaii Department of Education	1 year
Invest in Kids Evaluation	1 year
Jeffco Public Schools (CO) Fiscal Analysis	10 years
Jeffco Summer of Early Literacy Evaluation	4 years
Michigan School Finance Collaborative Finance Study	2 years
National Association of Music Merchants Evaluation	2 years
Nevada State Legislature/ Department of Education Finance Study	2 years
Oakland Health Pathways Cost Study	4 years
REL Central (regional education laboratory), US Department of Education	7 years
SW TURN Facilitation and Evaluation	8 years
Teach for America Evaluation	3 years
Westat Credit Enhancement for Charter School Facilities Program Monitoring	4 years
WestEd/Maryland Department of Education Special Education Study	1 year
WestEd/Utah Department of Education	1 year

Organizational Chart



Three Recent Comparable Contracts with References

APA and WestEd offered the following three recent comparable contracts with references in its response to the prior RFP. Shortened sample work products can be found in Appendix E, “Past Performance Work Samples.” A link to the final report of each study is also included. The study team did not include each lengthy full report document as an attachment in order to reduce paper consumption; however, these documents can be made available upon request.

Final Report of the Study of Adequacy of Funding for Education in Maryland

Dates: July 2014 - Present

Client: Maryland Department of Education

Contact: Donna Gunning | Email: donna.gunning@maryland.gov | Telephone: 410-767-0757

APA, working with Larry Picus and Michael Griffith, undertook an adequacy study update for the state beginning in 2014, running through 2016. The study encompassed examinations of all aspects of the state's funding system including:

- Examining the adequacy of the system using the evidence-based, professional judgement and successful schools/districts approaches to adequacy. The study team identified base cost figures and adjustments for special education, economically disadvantaged, and ELL students. The student adjustment work included examining the impacts of concentrations of poverty on the resource needs of schools. Analysis of the concentrations of poverty included examining the wrap-around services needed by highly impacted populations, such as social services, and understanding which services would be provided within the school funding system and which services are often provided outside that system.
- Examining the state's use of free and reduced-price meals (FRPM) as its proxy for economically disadvantaged funding and the impact the Community Eligibility Program (CEP) has on the ability to use this measure. Alternatives approaches to FRPM were researched and then modeled for the Maryland system.
- Examining school sizes in the state and the research on best practices for school size. The study team looked at the size and grade structures of the schools in the state and the national literature on school size to help understand the impact school size might have on student success.
- Examining the cost differences faced between school districts in the state to provide a similar education program. The study team conducted a literature review on the various cost of education approaches available to states and modeled the different approaches Maryland could use to differentiate funding due to differences in costs.
- Examining the equity of Maryland's school finance system. This included looking at the impact property and income wealth adjustments have on the distribution of funding in the state. In addition, the study team analyzed the impact of local matching requirements in the formula.

Throughout the process, the study team worked with an advisory group that provided feedback on the process and ensured the Maryland context was present in all work. The study team produced 15 reports during the multi-year study. The Executive Summary of the final report can be found in Appendix E, "Past Performance Work Samples." The full final report can be found at: <http://www.marylandpublicschools.org/Documents/adequacystudy/AdequacyStudyReportFinal112016.pdf>

Study of the Wyoming Educational Program and Recalibration and Reevaluation of the Wyoming Education Resource Block Grant Funding Model

Dates: July 2017 – January 2018

Client: Wyoming Legislature

Contact: Matt Willmarth | Email: matthew.willmarth@wyoleg.gov | Telephone: 307-777-7881

APA, along with Michael Griffith, undertook a recalibration study looking at possible updates to Wyoming’s school finance system and educational program as defined in the state’s constitution. To evaluate the state’s school finance system, APA and its partners:

- Conducted a national review of best practices in school finance.
- Examined the equity of Wyoming’s school finance system.
- Implemented two additional adequacy approaches, the successful schools and professional judgment approaches, to determine if the finance system, which is based upon a third approach – the evidence-based approach implemented by Picus Odden and Associates– was producing an adequate level of resources and if any modifications needed to be made.
- Closely examined funding issues related to the number of very small, remote, and sparsely populated districts to determine the adjustments necessary for these districts’ circumstances.
- Conducted targeted analyses of transportation, special education, and shared services.
- Reviewed the competitiveness of educator salaries and developed a Wyoming Comparable Wage Index (CWI) to address regional cost differences.
- Conducted case studies at successful schools in the state to understand the supports and services they provided students.
- Comparing resource recommendations from all approaches, including Picus Odden and Associates prior study, to current legislation.
- Made recommendations to improve the funding adequacy and equity of the system.

To evaluate the state’s required educational program, referred to as the Educational Basket of Goods and Services, the study team:

- Reviewed the education standards (English, math, and science) and graduation requirements in a set of comparison states.
- Reviewed the postsecondary admittance requirements for postsecondary institutions in each of the comparison states.
- Made recommendations for how the state’s Basket of Goods and Services could be updated to ensure that students were postsecondary and workforce ready.

For both components of the study, APA engaged stakeholders throughout the process through interviews, regional listening sessions, and statewide online surveys. This allowed educators, state-level representatives, parents, students, business leaders, and community members to have a voice and give feedback on the current educational program and finance system, as well as on the study’s recommendations. The study produced a series of reports over the course of a year, including a mid-

study report on the educational program, and eight supplemental reports on targeted funding model elements.

Final presentation materials for this study can be found in Appendix E, “Past Performance Work Samples.” The final report can also be found at <http://wyoleg.gov/InterimCommittee/2017/SSR-2018012904-01.pdf>

Name: State of Kansas Cost Adequacy Study

Dates: December 2017 – March 2018

Client: Legislative Coordinating Council of the Kansas State Legislature | Contact: Thomas Day | Email: tom.day@las.kas.gov | Telephone: 785.296.2391

The Kansas State Legislature contracted with WestEd to conduct an adequacy cost study. This study provided evidence of overall funding amounts and allocation of resources that would “produce an education system reasonably calculated to achieving those *Rose* standards” upon which the Kansas’s public K-12 educational state standards are based. To conduct this study, the team prepared and analyzed statewide Kansas data files at the student-level, teacher-level, school-level, and district-level, including expenditures (i.e., operating costs), inputs (e.g., teacher compensation), a wide variety of environmental factors (e.g., district size, percent of ELL students, percent of Special Education students), controls for inefficiency, and outputs (i.e., student academic performance measures and graduation rates).

Presentation materials for the final study are available at: https://kasb.org/wp-content/uploads/2018/03/Kansas_Adequacy-Study_Cost-Function_20180315FINAL_02.pdf

Additional References

As APA and WestEd provided the prior three references to the Committees during a prior bid, the study team also offers the following three additional project examples and references.

Nevada School Finance Study and Technical Assistance

Dates: January 2018 - Present

Client: Nevada Department of Education (NDE)

Reference Contact: Megan Peterson, Management Analyst I, (775) 687-9236

In 2018, APA conducted studying the Nevada school funding system. The study included:

- a full examination of the state’s funding formula structure;
- implementing the professional judgement approach to identify the resources needed to support at-risk, ELL, and special education students;
- conducting case studies of successful schools;
- a large statewide stakeholder engagement process, which included public meetings across the state, along with targeted focus groups and online surveys;

- incorporating the results of APA's prior 2006 and 2015 adequacy work in Nevada to address base funding and additional adjustments for school and district characteristics to develop a new funding formula; and
- fiscal modeling.

Following the final report, NDE further contracted with APA to provide technical assistance, fiscal modeling and other support during the legislative session. This included meetings with Department staff and district administrators to understand how APA's findings could be incorporated successfully into a new funding model for the state. The legislature passed a bill to update the state's funding formula using recommendations from APA's study and created a Commission to work to finalize the new funding formula. APA will continue to work with the state during the Commission's work.

Dates: September 2016 - Present

Client: General Assembly of Maryland, Department of Legislative Services

Contact: Rachel Hise | Email: rachel.hise@mlis.state.md.us | Telephone: 410-946-5510

Following APA's 2016 Maryland Adequacy study, APA has continued work with the state by providing support to the Department of Legislative Service and the state's Commission on Innovation and Excellence in Education (Kirwan Commission). This includes work includes:

- Working with Commission members and DLS staff to develop recommendations for adjustments for at-risk and EL students along with a concentration of poverty adjustment for schools. This work required a review of the current funding formula, adequacy study results, and best practices nationally.
- Working with Commission members and DLS staff to design an implementation process for universal preschool for four-year-olds and preschool for at-risk three-year-olds. This included estimating the cost of a quality program, estimating the available preschool slots in both public and private settings during phase-in and ramp up, and finalizing a 10-year phase in cost model.
- Working with Commission member, DLS staff, staff from the National Center on Education in the Economy staff built a complex educator compensation model. This model included a multi-year phase in of increased salaries and a career ladder for teachers and administrators.

APA staff continue to provide support to the Commission as it works to finalize its recommendations for the 2020 legislative session. This includes attending Commission meetings and supporting DLS staff with research, cost modeling, and presentations as needed.

State of North Carolina Leandro Plan

Dates: March 2018 – February 2019

Client: Everett Gaskins Hancock, LLP (on behalf of the Supreme Court of North Carolina and the plaintiffs of Leandro v. State)

Contact: Gerry Hancock | Email: gerry@eghlaw.com | Telephone: 919.755.0025

The North Carolina Supreme Court selected WestEd to develop a comprehensive plan, including a cost adequacy study, to ensure that its 1.5 million students attending over 2,500 schools in the state have access to a sound basic education. This plan will include actions and practices that must take place at the

state, district, and school level with regard to school finance, teacher quality, and leadership. The plan will provide the state with a roadmap to address a longstanding court case (*Leandro v. State*).

Clients for Similar Work Over the Past Three Years

The following section provides all additional clients of similar work over the past three years, including dates, client information and a brief narrative of each.

Hawaii Teacher Compensation Study

Dates: June 2019- Present

Client: Hawaii Department of Education

APA is currently working with the Department of Education in Hawaii to examine their teacher salaries and overall salary structure. This includes collecting and analyzing teacher data including salaries, experience and education to understand the flow of teachers through the workforce, reviewing national best practice, comparing Hawaii teacher salaries to similar districts, and engaging stakeholders through listening sessions throughout the state and an online survey. No reports have been produced yet.

Arkansas Teacher Supply and Demand Projections

Dates: January 2015 – August 2018

Client: South Central Comprehensive Center

APA worked with the South Central Comprehensive Center to support the Arkansas Department of Education, Division of Educator Effectiveness, to develop a teacher supply and demand model. APA's supported the development of a model that describes described current and future teacher shortages by region, grade level and subject area. This work included the development of enrollment projections, identification of subject areas and regions facing teacher shortages, and descriptions of the sources of new teacher hires.

Costing Out the Resources Needed to Meet Michigan's Standards and Requirements

Dates: July 2017 – January 2018

Client: Michigan School Finance Collaborative

APA, along with Larry Picus and Michael Griffith, undertook an adequacy study in Michigan beginning in 2017, running through 2018. The study looked at all aspects of the state's funding needs, including student and district characteristics. APA implemented both the PJ and EB approaches to adequacy in Michigan. The work was used to supplement the results of APA's 2016 SSD study conducted for the State of Michigan. Resources were examined for the base cost and special needs students. This included looking at the concentrations of poverty in schools, different levels of need for special education students, and varying WIDA levels for ELL students. In addition to the adequacy work, the study examined the differences in cost across the state to provide education and the costs of transportation for students. The study can be found at <https://www.fundmischools.org/wp-content/uploads/2018/01/School-Finance-Research-Collaborative-Report.pdf>

State of California Local Control Funding Formula Design and Implementation

Dates: July 2013 – November 2017

Client: California Governor's Office of Planning and Research

WestEd provided strategic support to the California State Board of Education to design and oversee the initial implementation of the Local Control Funding Formula, impacting 6.2 million students in over 1,000 school districts and 1,000 charter schools. Major areas of support included organizing, facilitating, and managing statewide stakeholder engagement to inform the design of spending regulations, Local Control and Accountability Template, and California Schools Dashboard; modeling implementation scenarios; and providing project management support to ensure legislative deadlines were met.

Name: Michigan Education Finance Study

Dates: January 2016- December 2016

Client: Michigan State Legislature

This study was completed on behalf of the state legislature to provide an understanding of the resources utilized by its successful school districts. The study expanded the scope of how the SSD approach can be implemented in its addition of comparing successful district spending to non-successful district spending, use of multiple successful district criteria, and its unique focus on school district efficiency. In addition to the SSD work, the study team examined the availability of capital funding in the state.

Failed Projects, Suspensions, Debarments, and Significant Litigation

APA does not have any failed projects, suspensions, debarments or other significant litigation.

Other Information

In addition to the most current studies described above, below is a list of other state level projects in which the key APA personnel have participated over the past ten years.

Alaska (2015): The “Review of Alaska’s School Funding Program” report was completed for the state legislature. It examined the structure of Alaska’s school funding system and made recommendations on how to change the system to better serve students, schools, and districts. The study included a review of Alaska’s current funding structure, a comparison of that structure to other states, stakeholder engagement across the state, and a final set of policy recommendations to adjust the formula to be more student centric and eliminate potential cliffs in the formula (areas where a small change in student demographics could lead to a large change in funding).

Alabama (2015): The “Equity and Adequacy in Alabama Schools and Districts” was a full-scale review of Alabama’s school finance system, including the implementation of the PJ and SSD approaches to adequacy. The work began with a review of the current system and stakeholder engagement to understand the pros and cons of the current system. The study team then undertook a detailed equity analysis to understand the impacts the current system had on the resources available to students and districts. Next, APA implemented both the PJ and SSD approaches to adequacy to understand the resources needed for student, teachers, schools, and districts to meet state standards. APA used the

results of the study to provide the state with recommendations on how to change its school finance system.

Washington, D.C. (2013): The “Cost of Student Achievement: Report of the D.C. Education Adequacy Study” report implemented both the PJ and SSD studies to examine the resources needed for students to meet standards. The study was unique due to D.C.’s large percentage of charter school students and overall unique governance structure. The study team provided a recommendation that allowed for an adequate and equitable education funding system for both the traditional and charter sectors.

New Jersey (2011): The “Analysis of New Jersey’s Census-Based Special Education Funding System” was a review of New Jersey’s special education funding system. The review was focused on understanding if the state’s census-based system provided an equitable funding system for all districts. The study team examined the percentage of students in various special education categories across all districts. It also looked at the differences between the various types of school districts in the state including elementary and high school districts.

North Carolina (2010): The “Recommendations to Strengthen North Carolina’s School Funding System” provided the state with a set of specific recommendations to improve its school funding system. Recommendations were based on an extensive review of the state’s current system, stakeholder feedback on the system, analysis of best practices in other states, and detailed quantitative analysis. The study team used the results of the research approaches to identify the recommendations for the legislature.

Proposed Work Plan

The proposed work plan described in this RFP response is intended to “provide to the members of the Arkansas General Assembly detailed and accurate information concerning the current efficacy of the biennial adequacy study and evaluation undertaken by the Committees, and to provide the Committees with recommendations regarding reform or replacement of the current methods for determining educational adequacy in the State of Arkansas” as required in the RFP.

The description of the proposed work plan is presented according to the sections in the RFP, including Sections 3.0.A, 3.0.B, 3.0.C. and 3.1. The first three sections include tables outlining the various study activities that will be used to answer the research questions, these activities include:

- Fiscal and performance data analysis
- Case studies
- Literature/document reviews
- Educator panels/stakeholder engagement
- District survey
- Additional qualitative and quantitative work

Each activity will be referred to in the appropriate RFP task section or subsection, but the study team offers the following general information about the literature reviews, stakeholder engagement and district survey which are applicable across RFP tasks.

Literature/ document reviews: Each literature review will examine the academic and policy research available on a given topic. In many cases, the study team will examine how states are addressing specific concerns. In each of these cases, all 50 states will be reviewed, with special attention will be paid to the Southern Regional Education Board (SREB) states and a set of leading national states. Each state level review will include an individual table for each highlighted group of states.

Educator panels/ stakeholder engagement: The study team proposes three avenues of engagement: 1) four in-person listening sessions with educators in four different locations in the state that will be open to all educators in the region; 2) up to 16 targeted educator panels- four in each region, one for teachers, one for school leaders, one for superintendents and one for CFOs/business managers- with up to 20 Arkansas educators per panel; and 3) an online survey that will be open to both educators and the public, including parents, students, business leaders and community members. This approach will allow the study team to gather feedback in areas such as the college/career readiness definition, attraction and retention of staff, and resources needs not currently met in the state’s current funding matrix.

District survey: When needed data are not already available, the study team will survey districts through a single district survey that will address information needs in multiple study areas

including school/district size issues (existing policies, best practices, and impact), best uses of funding for economically disadvantaged students, and capital needs.

Narratives on how each specific study area will be addressed by RFP section.

Section 3.0.A Adequacy Study

In Section 3.0.A the study team will address a number of areas related to adequacy, including methods for routinely reviewing adequacy (Section 3.0.A.1), addressing concentrations of poverty, achievement gaps, and the correlation between performance and funding (Sections 3.0.A.2-4), reviewing adequacy studies nationally (Section 3.0.A.5), reviewing resources in the state’s current funding matrix (Section 3.0.A.6), and helping identify a college and career readiness definition (Section 3.0.A.7).

Section 3.0.A							
	Fiscal and Performance Data Analysis	Case Studies	Literature/ Document Review	Educator Panels/ Stakeholder Engagement	District Survey	Additional Quantitative Work	Additional Qualitative Work
1. Recommended Methods for Routinely Reviewing Adequacy			X				
2. Concentrations of Poverty	X		X		X		X
3. Identification of Gaps and Programs to Address	X	X				X	X
4. Correlation Between Performance and Funding	X	X					
5. Review of Adequacy Studies			X				
6. Review of Resources in Matrix	X	X		X	X	X	
7. College and Career Readiness			X	X			X

Recommended Methods for Routinely Reviewing Adequacy (Section 3.0.A.1)

Objective: Recommend methods for routinely (biennially) reviewing education adequacy. The focus will be on a process to follow for determining adequacy rather than a particular dollar amount.

The RFP identifies a clear “education adequacy” standard for the study, as outlined in Section 2.0 and reiterated below:

- The standards included in the state’s curriculum frameworks, which define what all Arkansas students are to be taught, including specific grade-level curriculum and a mandatory thirty-eight (38) Carnegie units defined by the Arkansas Standards of Accreditation to be taught at the high school level, and opportunities for students to develop career-readiness skills;
- The standards included in the state’s testing system. The goal is to have all, or all but the most severely disabled, students perform at or above proficiency on these tests; and
- Sufficient funding to provide adequate resources as identified by the General Assembly.

The study team recommends that any adequacy review process should always start by determining if there are any changes related to the education adequacy standard described above that would have

resource implications for schools and districts, such as any changes to required curriculum, courses or assessments. Then, there are different approaches and processes the state could undertake to review adequacy biennially.

A number of states undertake periodic reviews of the adequacy levels of their funding systems. These include Wyoming and Maryland. The study team will review these states and review all other states to identify those that routinely review adequacy levels and identify each state's approach to undertaking this review. In addition, the study team will include reviewing literature on available approaches to determining adequacy (also required as part of Section 3.0.A.5). For identified options, the study team will provide pros and cons of each to help the state determine the process that will best fit its needs.

Concentrations of Poverty (Section 3.0.A.2)

Objective: Analysis of the effect of concentrations of poverty on the adequacy targets and whether additional adjustments are necessary to provide adequate funding for local education agencies with high concentrations of poverty.

To understand the effects concentrations of poverty on students in Arkansas, the study team proposes to conduct a series of multivariate regression analyses that assess the correlation between student outcomes and student characteristics that align to greater demonstrated needs based on research. These analyses will provide a basis for establishing the extent to which costs differ depending on the concentrations of poverty in schools. As an example, assume the analyses estimate that schools with larger populations of students in poverty require more per-pupil funding than schools with smaller populations to achieve the same outcomes (presumably because of the additional needs of this population of students). If this difference in relative funding is not sufficiently accounted for in the distribution of education dollars, an inequity is created whereby the school with more students in poverty is therefore unable to provide their students with equivalent opportunities simply because of the make-up of their student population.

Such analyses will also introduce instruments that would control for factors such as endogeneity. Examples would be students with low socio-economic status, students considered at-risk, and ELL student characteristics. These analyses would then examine the associated additional funding in the state's school funding formula, and the distribution of funding primarily using school-level data. This will require the provision of data on student demographics and outcomes, school characteristics, and financial information. The robustness of the analysis will ultimately depend on the data that the study team is able to access. Put simply, the more comprehensive the available data, the stronger the analysis will be.

Identification of Gaps and Programs to Address (Section 3.0.A.3)

Objective: Identification of gaps in growth and achievement among student groups disaggregated by race and income and make recommendations on specific programs to address the gaps in growth or achievement.

To do this, the study team will run a series multivariate regression analyses that examine the relationship between student characteristics, performance, and other school/district characteristics including funding levels. The analyses will identify specific demographic areas that show systemic achievement and growth gaps throughout the state, which could include at-risk students, EL students, or other student or district characteristics.

The study team will review the literature on achievement and growth gaps and the programs that are found to close these gaps at the beginning of the study. Utilizing the information gained through the fiscal and performance analysis, the study team will use the case studies (Sections 3.0.C.9) and educator panels (3.0.C.16) to understand the types of programs and interventions districts and schools in Arkansas currently use, or believe are necessary, to close these gaps. The case study selection will include identifying schools that are currently outperforming expectations with the student populations identified by the gap analysis.

Correlation Between Performance and Funding (Section 3.0.A.4)

Objective: Analyze the correlation between deficits in student performance and deficient in funding.

Cost and performance data will be used to estimate the relationship between expenditures and other dependent and independent variables, including school outcomes such as graduation rates and ELA/math assessment results, resource prices, student needs, district size, and other relevant characteristics of districts. This model will be able to analyze the correlation between deficits in student performance and deficits in funding. The resulting model will then able to show the significance of the relationships between these variables and allow the study team to comment on any correlations observed.

Review of Adequacy Studies (Section 3.0.A.5)

Objective: Review adequacy cost studies completed in other states and provide a report on best practices in those states.

Over the past 15 years, numerous school finance adequacy studies have been conducted for states. All four approaches for estimating adequacy – professional judgment panels, successful schools, education cost function, and evidence-based – have been used. Some states seek adequacy recommendations using all four methods, others select a specific method, while other specify at least two methods be used. APA will focus our review on adequacy studies conducted from 2003 through 2018, as these will provide a comprehensive picture of the current adequacy landscape and will reflect the refinements made in methodology over the past 15 years.

Our review will consist of five parts:

First, we will create a table summarizing adequacy study activity in all 50 states, including those states that have not conducted a study to date. The table will include all studies completed since 2003 and will include the methods and approaches used. The table will indicate the degree to which any specific

method, or combination of methods, has dominated state adequacy analyses during this time period. To the degree possible, the table also will indicate whether the studies were conducted for official state bodies – departments of education, legislative commissions, interim legislative committees, etc. – or conducted outside of official state sanction.

Second, we will create a set of adequacy summary tables that concentrate on the professional judgment and evidence-based methods which both provide detailed resource information (personnel, non-personnel costs, and configurations) and show the recommendations the different studies have made for each state by key programmatic elements. These elements will include the following:

- Core class size;
- Electives class size;
- Ratios of instructional coaches or facilitators to students;
- Funds for instructional materials, technology, formative/short cycle/benchmark assessments;
- Staff for interventions, such as tutoring for struggling students;
- Staff to support English Learners;
- Staff for special education services;
- Prototypical school sizes; and
- Other key factors identified by the Committees.

Where available, we will include recommendations for base cost levels from studies using the successful schools approach, and for base cost levels and funding adjustments for student and district characteristics from studies using the cost function method. However, the findings of cost function studies will have limited applicability to Arkansas because cost functions produce spending level amounts that are specific to each individual state.

Third, we will identify the typical recommendation for each element in the adequacy summary tables. This will provide the Committees with information on how other adequacy studies and other states have addressed some of the key factors involved in determining spending levels (class size, professional development, intervention staffing, etc.). It will also highlight the additional resource studies identified as important for providing adequate resources for economically disadvantaged, English Learners and special education students.

Fourth, to the degree possible, we will assess the key findings from case studies of successful schools completed in a number of adequacy studies across the United States. The goal of this work will be to determine the degree to which the key programmatic elements of states' and districts' overall school improvement strategies are reflected in the adequacy studies' recommendations.

Finally, we will provide an analysis of best practices in adequacy studies as they have evolved over the past 15 years. APA, as one of the principal architects of adequacy studies, is in a unique position to highlight how the methodologies have been refined and how more recent studies (e.g., Maryland, Michigan, Wyoming) have effectively integrated multiple approaches to provide a state-specific context

to the adequacy results. Also, where possible, the study team will indicate whether or not the adequacy study recommendations were adopted by the state.

Review of Resources in Matrix (Section 3.0.A.6)

Objective: Identify any resources that school districts need that are not currently provided through the funding formula and the cost for each; identify the resources that school districts are spending foundation funding on that are not including in the state’s funding formula; and assess the need for such spending and recommend solutions to any problems identified.

The study team’s approach to this RFP requirement will include: 1) gathering and analyzing current expenditure and staffing data, 2) engaging stakeholders to identify resource areas that are not currently addressed in the funding matrix; and 3) reviewing the best practices of successful schools in Arkansas.

The study team will examine current expenditure data for Arkansas districts to determine if there are certain areas (based upon function and program) that districts are currently spending dollars that are not included in the current funding matrix. Staffing data, based upon availability, will similarly be examined to see if there are any positions that are currently not funded through the matrix being employed in Arkansas schools. Educator panels and the online survey will ask educators to identify any gaps that they have experienced between the resources they believe are needed to serve students, and those that are funded through the matrix. The case studies will also allow the study team to identify if there are any particular staffing strategies, supports or interventions that successful Arkansas schools are currently employing to the benefit of students that they currently do not receive resources for through the funding matrix.

Appendix E, “Past Performance Work Samples,” includes a power point presentation from APA’s Wyoming study that similarly reviewed the state’s allocation resource model. Wyoming’s model is similar to the Arkansas funding matrix that specifies the resources (teachers, principals, central office staff, etc.) needed at schools and provides funding for these resources. It was also based upon an adequacy study and recommendations from Picus Odden and Associates. In Wyoming, APA compared the resource recommendations from different sources (staffing/expenditure review, case studies, and educator panels) to the state’s current model to highlight differences and gaps.

Once resource gaps are identified, the study team will use available information from the expenditure analysis and case study analysis to determine the costs associated with any resource gaps.

College/Career Readiness Definition (Section 3.0.A.7)

Objective: To recommend a definition of college-readiness and/or career-readiness, including criteria for determining when students have achieved college-readiness and/or career-readiness, as well as standards for determining if school districts are preparing students for college-readiness and/or career-readiness, and address the reason for the continuing need for remediation at the college level. This will also include identification of career and technical (CTE) programs available to students and make

recommendation for funding methods and policies for ensuring students have equitable access to these programs.

The study team's approach to addressing this RFP requirement will be two-pronged: the first will focus on determining a definition of college/career readiness and the second on surveying existing CTE program offerings in the state.

To develop a college/career readiness definition, the study team will first conduct a research literature and evidence scan that is inclusive of existing state practices and information from the literature. The results of this scan will inform the development of initial recommendations for a definition and frameworks for gathering additional qualitative information from stakeholders to inform the proposed definition of college and career readiness.

The study team will then conduct a series of educator listening sessions and panels across the state. This allows educators to give feedback on if the recommended college/career definition reflect the needs of Arkansas and to identify barriers to meeting any of the standards in various settings across the state. In addition to the in-person stakeholder engagement, an online survey will be created to allow for further feedback from educators and the general public.

The study team will also triangulate these data with quantitative analysis of the state's currently identified measures to attain college and career readiness, which includes the current administration and results from standardized assessments in English Language Arts and mathematics. Once this information is collected, the study team will identify measures to determine if districts are meeting those standards for students and examine remediation rates by district against those measures.

The results of the stakeholder engagement and the data analysis will be used to adjust the definition recommendation, which will then be presented to the committees for review and comment. Once the recommendation has been reviewed by the committees, it will be finalized for use during the adequacy study processes.

In conjunction with this work on a college/career readiness definition, the study team will review best practices in other states, as well as survey districts on existing CTE programs to better understand what is presently available to students and how access varies across the state. APA will also examine current district CTE expenditure information.

Section 3.0.B School and District Size

The work in section 3.0.B primarily focuses on issues related to class and school size (Sections 3.0.B.1-5), as well as isolation and remoteness (Sections 3.0.B.6 and 8). Section 3.0.B.7 examines the relationship of class size requirements, student teacher ratios, teacher salaries, and other factors.

Section 3.0.B							
	Fiscal and Performance Data Analysis	Case Studies	Literature/ Document Review	Educator Panels/ Stakeholder Engagement	District Survey	Additional Quantitative Work	Additional Qualitative Work
1. Current School Size Policies					X	X	
2. School Size Best Practices			X		X		X
3. Impacts of School/ District Size			X		X	X	
4. Recommendations on Ideal Size of Schools			X				
5. Public Input on School Size Standards				X	X		X
6. Addressing Small District Size and Remoteness	X		X				
7. Class Size Requirements, Student/Teacher Ratios and Salary Variations	X		X				
8. Identification and Operation Criteria for Isolated Schools and/or Districts			X				

Current School Size Policies (3.0.B.1)

Objective: To understand whether local school systems currently have policies regarding the size of schools, including high schools, middle schools, elementary schools, and alternative schools.

This component will investigate and report on the current status of existing school size policies established by school districts. The analysis and outcomes will be differentiated by school level-- high schools, middle schools, elementary schools, and alternative schools.

The study team believes that this information is not readily available at the state level or obtainable from the existing data files of the Arkansas Department of Education (ADE). As a result, it will be necessary to collect the information from each local school system. Data collection will be done through a specially designed survey that will be developed by the study team. The survey format will be electronic for easy and efficient implementation. The survey will query the districts about whether they have school size policies established by their school board and request that the district provide written or digital copies of these policies. Prior to distributing the survey, it will be provided to the Bureau of Legislative Research (BLR) for review and approval. Once approved, the surveys will be sent to the districts with a requested return date of about two weeks. Follow-up requests will be made to the non-returning districts to increase the response rate.

As the surveys are returned, the responses will be compiled. For each school level, the existing policies will be listed, analyzed, and summarized. For example, elementary school results will be tabulated by school sizes or ranges of sizes to show the variety and concentration of existing district policies. Where feasible, correlations will be utilized to examine possible relationships between school size and district

characteristics, such as area in square miles, number of students, geographic location, and other relevant variables and school size policies.

The results will be presented in a report containing a written description of the findings on school size, tables and charts to illustrate the key outcomes, commentary to assist in interpreting the results, and recommendations on how to utilize the results in policy considerations.

School Size Best Practices (3.0.B.2)

Objective: To determine what are the best practices in other states regarding school and district size, and what criteria are used to identify and determine best practices.

This component will begin with a thorough review of recent research findings and practices regarding school and district size. The scope of the review will include practices and policies in other states, published research findings in academic and professional publications and information from the Arkansas Department of Education. The purpose of the review is to identify and collect examples of best practice and to provide the basis for a comparison of practices in Arkansas. Included in the review will be related factors established and required at a state Department of Education level that impact school size, such as school construction regulations or school district consolidation guidelines. To supplement the survey of best practice, selected state and school district administrators will be contacted for a telephone interview to verify that the literature has provided a complete and accurate explanation of the practice.

The survey results will be compiled and analyzed to show the range of practices for different levels of schools, as well as the specific size guidelines and the rationale/criteria for each. The report will also contain comparisons of policy and practice of district and school size in Arkansas with research findings of best practice across the country.

Impacts of School and District Size (3.0.B.3)

Objective: Determine how school and school district size impacts the educational and extracurricular programs and what the impact of school and school district size is on the community.

This component will begin with a review of research findings of the impact on both educational and extracurricular offerings of school and school district size. The review will seek information from research reports and descriptions of practice to consider the research findings on the impact of school district size on the community. The findings will further inform the types of data collection efforts and analysis to be performed to study the effects of school and school district size on educational and extracurricular programs in Arkansas.

As a first step, relevant information available from the Arkansas Department of Education website will be downloaded; this information will include course offerings, Advanced Placement test participation rates, achievement data, and a number of other education and instructional factors. These data will be analyzed and correlated with measures of district and school size. The findings will be reported in tables

and charts and further illustrated using geographic information system (GIS) generated maps to show relationships of school size, program offerings, and socioeconomic data from U.S. Census.

Extracurricular information is not available from the Arkansas Department of Education. Therefore, questions on this topic will be included in the district survey; questions will be submitted for approval to the BLR and the ADE.

The results from the district survey will be summarized in a report to document the relationships, if any, between school and district size and the number of educational and extracurricular programs offered, as well as participation rates where relevant. The results will be reported, including the use of charts, data tables, and maps.

Recommendations on Ideal Size of Schools (3.0.B.4)

Objective: Assess the ideal sizes for high schools, middle schools, elementary schools, and alternative schools in Arkansas.

Based on the review of research, a recommendation for ideal school size will be prepared. However, the multiple factors that influence an appropriate size for a given school insure that “one size will not fit all.” To begin, there will be separate recommendations by school level, with different recommendations for high schools, middle schools, elementary schools, and alternative schools. Additionally, the recommendations will likely be in terms of ranges of school sizes by school level, rather than a single number. The ranges will be developed considering demographic, socioeconomic, community, and geographic factors, along with the scarcity or density of enrollment in the catchment areas. An additional consideration will be the various regional education services available to school districts and schools in Arkansas. The influence of each of the primary factors to push the recommendation to the lower or upper end of the range will be specified.

A set of draft recommendations for school size in Arkansas will be prepared that contains ranges of appropriate sizes by school level and key factors influencing the specific size for a given school. The school size report will contain instructions of how to utilize the factors to select a correct size for an individual school and examples to guide implementation. The recommendations will be provided to BLS and ADE for review, prior to being included in the overall adequacy report.

Public Input on School Size Standards (3.0.B.5)

Objective: Understand the current practices regarding public input in decisions on school size and how these current practices in Arkansas compare with best practices.

This component will begin with discussions with ADE officials regarding the standards, guidelines, and existing regulations requiring public input in decisions on school size. This will also review the state’s role in the school construction approval processes governing school size decisions and the requirements to obtain public input. Additionally, a review of land use and land development requirements in Arkansas will determine the extent of public input generally required at the municipal and county

government levels, some of which may have special requirements for school construction approval. Several leading architectural firms currently designing school projects will be interviewed, along with several superintendents and school business and facility managers to determine the public input processes they typically use in making design decisions on school size.

A literature review will be conducted to determine common practices in other states and school systems throughout country. Interviews with key officials in other state Departments of Education will be conducted to document the public input requirements either required or generally used by school districts in their state. Based on these findings, a survey will be prepared for approval by the BLR and ADE to obtain information from school districts on the amount of public input they have used when making school size decisions.

The report will compare best practices used in other school systems with current practices in Arkansas school systems and make recommendations for standards, guidelines, and possible regulations at the state level, including changes to the school construction approval process

Addressing Small District Size and Remoteness (3.0.B.6)

Objective: To understand which school district functions have limited operational efficiency because of small size or rural geography, what types of organizational structures are available in Arkansas to increase operational efficiency, and what types of support services are needed to improve operational efficiency in rural or small schools.

Utilizing available staffing and financial data, operational efficiencies and inefficiencies will be analyzed for all Arkansas school systems. This information will be supplemented by other research identifying typical operational efficiencies and inefficiencies related to district or school size.

Through interviews with ADE officials, the regional education service agencies, and other professional associations offering support to rural and small schools, a list of the currently available services will be compiled. The degree of participation and utilization of these support services will also be compiled to the extent possible. In addition, these interviews will identify any joint operating agreements or other intergovernmental relationships that improve efficiencies through shared services.

The report will discuss best practice examples already operating in Arkansas and successful arrangements from other states that improve operational efficiency. The report will also recommend changes to the existing services, including expansion of existing programs or entirely new programs and recommend the organizations to provide the services.

Class Size Requirements, Student/Teacher Ratios, and Teacher Salaries (3.0.B.7)

Objective: Compare Arkansas class size requirements and student/teacher ratios to those in other states. Additionally, assess the variation in class sizes and instructional staffing level in Arkansas and their impact on salaries, including why salary disparities exist.

The study team will conduct a full review of relevant literature to determine what class size and student/teacher ratios are recommended to improve student learning. In addition, the study team will conduct a 50-state analysis of legislation to determine current requirements for class sizes and student/teacher ratios. This review will include details about state mandates or recommendations on class sizes and student-teacher ratios and when possible will provide background on how these decisions were derived. Class size policies are one of the most significant drivers of education costs for states, school districts, and charter schools. This research will aim to provide Arkansas with a set of recommendations on class sizes and student/teacher ratios that will cost-effectively foster improved student learning in the state.

The study team will collect staffing data for all school districts in the state that will allow for an analysis of the class size and instructional staffing levels differences across the state. These figures will then be combined with district and teacher demographic data, revenue, expenditure, and geographic information to allow for analysis of the factors that contribute to disparities in salaries. A regression analysis will be conducted that will determine any specific characteristics can predict the differences in salaries found between districts across the state. Differences might be found by region, for districts with higher or lower levels of teacher experience, district size or levels of instructional staff per student in districts.

Operation or Consolidation Criteria for Isolated Schools and/or Districts (3.0.B.8)

Objective: Understand and recommend criteria for when school or districted would be deemed isolated. Additionally, explore the cost impacts faced in these isolated settings.

A number of states provide funding for isolated schools or districts. This funding is intended to ensure students in these remote setting can receive similar educational opportunities as students in other settings in a state. The study team will examine the criteria used in states to identify schools or districts as being in isolated settings. The various criteria will be presented to the Committee to identify a few possible definitions for Arkansas and the study team will identify the schools or districts that would be identified under each model.

To understand the cost implications of isolation, the study team will review how other states compensate for the cost impacts and conduct a literature review to examine the research associated with isolated settings. This research will include the findings from sections 3.0.B.4 and 3.0.B.6 of this study which examine school size and adjustments for operational efficiencies. Utilizing the research and modeling the study team will provide a recommendation for adjusting for isolated settings in Arkansas, if needed.

Section 3.0.C Additional Studies

The last section of the RFP identifies a number of additional studies areas to be addressed on a variety of topics. It also specifically requires the use of case studies (Section 3.0.C.9) and educator panels (3.0.C.16), both of which are referred to in earlier sections of this proposal.

Section 3.0.C							
	Fiscal and Performance Data Analysis	Case Studies	Literature/ Document Review	Educator Panels/ Stakeholder Engagement	District Survey	Additional Quantitative Work	Additional Qualitative Work
1. Evaluation of Economically Disadvantaged Student Proxy							
1.a Community Eligibility Provision Evaluation			X			X	
1.b Impact on State Aid Formulas						X	
1.c Alternative Proxies			X			X	
2. Impacts on Equity						X	
3. Impacts of Enrollment Changes			X			X	
4. Attracting and Retaining Administrative and Educational Staff			X	X		X	
5. Attracting and Retaining Nurses			X	X		X	
6. Resources for Student Mental Health Issues			X	X			
7. Capital Needs			X		X	X	
8. Best use of Poverty Funds	X	X	X	X	X		
9. Case Studies of Successful Schools		X					
10. Impact of Vouchers	X		X			X	
11. Impact of Waivers			X			X	
12. Examination of Uniform Tax Rate			X			X	
13. Funding for Concentrations of Poverty	X		X				
14. Professional Development and Extra Duty Time		X	X		X		
15. Comparison of Prior Study Recommendations and Legislation			X				
16. Educator Panels				X			

Evaluation of Economically Disadvantaged Student Proxy (3.0.C.1a-c)

Objective: Evaluate whether the number of students eligible for free and reduced-price meal (FRPM) should continue to be used as a proxy for identifying economically disadvantaged students in several state education aid formulas, primarily National School Lunch (NSL) categorical funding.

The study team will review the Community Eligibility Provision, its impact on state aid formulas, and alternative proxies. Each element of this study will be further discussed below.

3.0.C.1a. Community Eligibility Provision

For its evaluation of whether to continue using FRPM counts as a proxy for identifying economically disadvantage students, APA will build upon a similar study it conducted with the Maryland Equity

Project of the University of Maryland for the Maryland State Department of Education.¹ In this study, APA and the Maryland Equity Project undertook a literature review of the research on the viability of using FRPM data as a proxy for disadvantaged students, inventoried the various measures other states use as a proxy, and analyzed how the use of alternative counts may impact the overall number of students identified as disadvantaged in the state, the distribution of counts across school districts, and the costs of program formulas driven by free and reduced-price meal counts.

Under the Healthy, Hunger-Free Kids Act (HHFKA) of 2010, Congress included a Community Eligibility Provision (CEP) that permits all students in high-poverty schools to receive free breakfast and lunch under the School Breakfast Program and the National School Lunch Program in schools with 40 percent or more of students who are directly certified as participating in one or more of the following programs: Supplemental Nutrition Assistance, Temporary Assistance for Needy Families, or the Food Distribution Program on Indian Reservations. In addition to participation in these programs, schools may consider the percent of students who are in foster care, enrolled in Head Start, homeless, runaway or migrant. Because the income eligibility thresholds for these programs tend to be lower than FRPM, direct certification counts in eligible schools tend to be significantly lower than their FRPM counts. Therefore, a multiplier of 1.6 is used to approximate a CEP school's FRPM count. Districts are only required to recertify these counts every four years, although they are encouraged to do so annually to ensure accurate and up to date counts. Any decline in the number of eligible students found during one of these interim counts will not be recognized until the official four-year certification period expires.

Among the intended effects of the Community Eligibility Provision was to increase participation and federal reimbursement for schools providing meals to students and to reduce the administrative costs of providing subsidized meals.² Ten states and the District of Columbia piloted implementation of the law and it was implemented nationwide during the 2014-2015 school year.

In updating this study for Arkansas, APA will 1) update its review of the literature on issues concerning the use of FRPM counts in education funding formulas, 2) analyze the impact of increasing CEP participation on state formulas in a set of comparison states with higher rates of CEP participation than Arkansas, 3) use longitudinal data on how counts have changed over time in Arkansas schools and districts that have implemented CEP, 4) analyze the impact of using various alternative counts as proxies for the number of economically disadvantaged students, and 5) develop recommendations.

3.0.C.1b. Estimating the potential impact of CEP on state aid formulas using FRPM counts

APA will assess the impact of CEP on state aid formulas that currently use FRPM counts using several different approaches. First, we will review the experiences of a sample of states that piloted CEP or were early adopters – focusing on those most similar to Arkansas – to assess the long-term impact of CEP on the costs and distribution of their state aid programs that relied on FRPM counts. In this review

¹ Croninger, R. G., King Rice, J. & Checovich, L., 2015

² Levin & Neuberger, 2013

the study team will examine how, over time, CEP impacted the total cost of state aid programs, the distribution of impacted state aid across school districts, and policy changes adopted by states to address issues identified as a result of CEP.

Next, APA will collect longitudinal data on Arkansas FRPM counts at the district level, dating back to several years prior to CEP implementation through the most recent data available, to examine how counts have changed as CEP participation increased in the state. The first step of this analysis is to assess how counts changed over time in those districts and schools adopting CEP. As of 2018, only about 29 percent of eligible or near eligible schools in Arkansas had enrolled in CEP (Food Research and Action Center, 2019). Based on the findings from this analysis, the study team will project the expected impact on FRPM counts as participation by eligible schools increases, perhaps by increments of 10 percent (e.g. assess the impact when participation of eligible schools increases by 10 percent, 20 percent, etc.). The impact will be evaluated both from a statewide perspective and a district-level perspective.

3.0.C.1c. Examining alternative proxies for identifying economically disadvantaged students

In recent years, and particularly since the creation of CEP, education finance experts have begun to question whether FRPM counts provide the most accurate proxy for the number of disadvantaged students in a school or district. They have identified several concerns. First, some researchers question whether FRPM enrollment counts accurately capture variation between schools in the challenges that educators face in addressing the needs of economically disadvantaged students. Because students who qualify for FRPM fall within a broad range of family incomes (between 130 and 185 percent of the federal poverty level), schools with equal percentages of FRPM enrollments may enroll students from substantially different economic backgrounds. Second, many families do not apply for FRPM services, even though they are eligible, especially in the upper grades where students fear being stigmatized by participating in the program.³ There is also growing evidence that FRPM enrollments, though a convenient indicator of economic disadvantage, may not capture fully the effects of having concentrated enrollments of low-income students at schools.⁴

As part of the proposed adequacy study for Arkansas, the study team will explore alternative indicators of economic disadvantage that could be used in Arkansas' school funding formulas. For example, in the Maryland study, APA and the Maryland Equity Project examined nine different alternatives ranging from direct certification, to hybrid models using a combination of direct certification and family application, to continuing using a state-administered family application, to direct certification and hybrid models employing different multipliers for better approximating current FRPM counts. In a study of the District of Columbia's school funding formula, APA and The Finance Project explored using indicators

³ Kurki, Boyle, & Aladjem, 2005

⁴ Jargowsky, 2013

associated with CEP under HHFKA for determining additional funding for economically disadvantaged students.⁵

Drawing on APA's extensive experience in evaluating school funding formulas and conducting adequacy studies across the nation, the study team will utilize our database of education formulas used in most states to identify alternative proxies for economically disadvantaged student counts already in use in other states. The team will also conduct a literature review to identify the alternative proxies proposed by research that connects indicators of school and neighborhood disadvantage to education outcomes, such as census data on family households and neighborhoods⁶ as well as factors from human services and other sources that could be accessed by the state.⁷

Once the study team has developed a list of potential proxies for economic disadvantage, it will explore the statistical relationship of these indicators with each other and as predictors of education outcomes, primarily achievement. Possible indicators will be assessed in terms of accessibility, accuracy, stability and validity. Using these analyses, the study team will provide recommendations to the state regarding the tradeoffs associated with different indicators of economic disadvantage, including FRPM. The study team will identify an indicator or set of indicators that are readily accessible, accurate in predicting education outcomes, stable over time and have strong face validity.

Impacts on Equity (3.0.C.2)

Objective: Understand the impact of the current finance system on equity between school districts, including how varying levels of property tax assessment and revenue affect the equitability of education resources across the state. Analyze current district revenue and expenditure data in order to understand the equity of the current system as a baseline, then evaluate any alternative tax policies.

In the context of K-12 education finance, the term equity is concerned with how state, local and federal resources are allocated across school districts, and ultimately across schools and students. The most common notion of what equity means assumes that a school finance system that distributes resources *equally* is equitable. However, both research and experience show that students possessing certain characteristics, such as students living in poverty, students with limited English proficiency, or students with disabilities, may face challenges to learning which require additional resources to provide supplemental and specialized learning opportunities. Local school districts also differ in their ability to raise revenues locally due to disparities in local property and income wealth—disparities that can lead to significant variation in spending levels. As a result, a truly equitable system is one that accounts for and accommodates these differences in student need and local revenue-raising capacity.

There are also multiple equity concepts that are typically addressed in school finance equity analyses.⁸ The most common equity concepts are horizontal equity, vertical equity and fiscal neutrality. Horizontal

⁵ The Finance Project & Augenblick, Palaich, & Associates, 2013

⁶ Kingsley & Pitingolo, 2013

⁷ Fantuzzo, LeBoeuf, & House, 2014

⁸ Berne & Stieffel, 1984

equity is concerned with how equally resources are allocated to similarly situated districts or students. It is sometimes said that horizontal equity addresses the “equal treatment of equals.” That is, an equitable school finance system will provide a roughly equal amount of resources to students with similar educational needs. Under a school finance system with high horizontal equity, students with no special needs are funded roughly equally regardless of which school districts they attend. Vertical equity measures how well the school finance system takes into account varying student need. A system with high vertical equity will provide more resources for students with greater educational need to support the programs and interventions that are required for these students to succeed in school. The third equity concept, fiscal neutrality, assesses the link between local wealth and the amount of revenue available to support a school district. A touchstone of school finance theory asserts that there should be little or no relationship between local wealth, such as the local property tax base, and the amount of revenues provided to a local school system. A school finance system with high fiscal neutrality minimizes the relationship between local wealth or capacity and school spending.

The primary purpose of this equity analysis is to analyze the impact of varying levels of local property tax assessments and state aids on the equitable distribution of education funding across the state’s school districts. The analysis will employ a particular focus on fiscal neutrality, that is, how changes in the formula’s reliance on local property taxes may affect the amount of revenues districts with different levels of property wealth are able to raise.

The methods APA will use to analyze the three principal equity concepts include:

- 1) **Horizontal equity.** Among the equity statistics APA will use are the coefficient of variation (the standard deviation of a distribution of values divided by the average of the distribution) for measuring the dispersion of an education resource around the mean (for example, how far above or below the mean the distribution of education resources may fall) and the range (the difference between the lowest and highest values in the distribution of an education resource).
- 2) **Vertical equity.** To examine vertical equity, APA will apply a set of standard student weights it has developed through its experience in conducting equity analyses, to enrollment data to account for variation in the level of student need across districts. The weights will be used to simulate each district’s level of need based on the weighted count of economically disadvantaged students, English Learners, and special education students. Once district enrollment figures are adjusted using these weights, APA will run the same set of equity statistics used for measuring horizontal equity to assess how well the state’s funding formula adjusts funding for student need.
- 3) **Fiscal neutrality.** APA will use the correlation coefficient for measuring the degree to which per student revenues and expenditures are linked to local measures of fiscal capacity such as property wealth per student.

APA will begin its analysis by establishing a baseline of how equitable Arkansas’ funding system is currently. The study team will examine the distribution of per student revenues and expenditures

across districts, the amount of dispersion in per student revenues and expenditures, how the range and dispersion are affected when student need is taken into consideration, and the degree to which local property wealth is correlated with revenue and spending levels. The study team will then work with Committee members to determine a range of alternative local property tax assessment levels to analyze and assess their impact on equity. Based on the results of these analyses, the study team will make recommendations to the Committee for possible changes in the mix of local and state revenues to improve the equity of the state's school finance formula.

Impacts of Enrollment Changes (3.0.C.3)

Objective: Evaluate the impact of increasing and declining enrollments on local school systems, including transportation costs, particularly for local jurisdictions with large geographic areas but small populations, and provide recommendations that include strategies for addressing any impacts.

Changes in student enrollment play a key role in the fiscal health of any school system. Because most state school funding formulas base funding on some form of student counts, districts with significant increases or decreases in enrollment may experience fiscal stress depending on how a state's funding formula is designed to account for these changes. If the revenues generated by the funding formula fail to adequately account for enrollment increases, then a school system may not be able provide the staff and services necessary to serve its additional students. Alternatively, districts with declining enrollment may be impacted if revenues decrease more quickly than districts are able to make adjustments intended to save money.

Changing enrollments also affect the cost side of the fiscal ledger. In a study of enrollment changes led by APA for the State of Maryland, the study team examined the two types of costs that come into play when attempting to adjust expenditures due to declining enrollment. Variable costs are costs that are more readily varied with the number of students served or programs provided. Examples of variable costs include teaching staff for both regular and special education students, instructional aides, and consumable instructional supplies.

Fixed costs, on the other hand, are independent of enrollment or the level of educational services provided. Examples of fixed costs include one-of-a-kind positions (many central office administrative staff, principals, school building secretaries, school custodians, school nurses, librarians, etc.), library books, computer lab equipment, school building utilities, contracted maintenance services, and grounds keeping. In the study team's experience, about 15 percent of all personnel costs and most non-personnel costs are fixed costs in a typical school.

However, even some variable costs are difficult to adjust over short periods of time. These costs include changes that occur in one-unit increments, such as personnel changes based on caseload regulations or class sizes limits. These may include guidance counselors or specialist teachers (for example art, music, and physical education teachers, who provide classroom coverage according to the instructional schedule for regular teachers during planning and lunch periods). Often, enrollment decreases must reach a critical mass before districts are able to reduce the number of these positions.

Finally, enrollment changes may impact the efficiency of school system services and operations. Districts with growing enrollment may realize efficiency improvements as economies of scale increase and assets such as school facilities reach peak utilization. Alternatively, districts with declining enrollment may experience diminishing economies of scale. Sparsely populated districts that serve large geographic areas may be especially impacted as school buildings become underutilized but cannot be closed due to large distances that would result in unreasonably long bus rides.

Although enrollment changes are rarely extreme during the course of a single year, the effect of changes over time can be substantial. APA's enrollment study will focus on the effects of enrollment changes on local school systems. It will specifically focus on school systems with small enrollments that serve large geographic areas. This analysis will also examine how enrollment changes affect transportation costs, revenues, and efficiency.

The study team will employ four primary analyses for examining the impacts of enrollment change. First, a thorough examination of the state's funding formulas along with an analysis of data for all Arkansas school districts over a period of up to ten years will be conducted. This analysis will rely on data collected from ADE and will include:

- **Local school system characteristics**, including geographic size, wealth, student demographic characteristics, and population density;
- **Student demographics**, including total enrollment, students with special needs, students eligible for transportation, students transported, and school sizes;
- **Transportation variables** such as the number of vehicles, total miles traveled, and transportation expenditures; and
- **Per student revenue and expenditure data** by school district for instruction, operations and maintenance, transportation, and other enrollment-related operating areas.

Using these data, the study team will examine the design of the funding formulas to gain an understanding of how they are intended to respond to changes in enrollment and analyze per student revenue and expenditure data over time to track how these are affected at the district level by changes in enrollment. The study team will pay particular attention to the effects of Growth and Declining Enrollment revenues, Isolation revenue, and local property tax revenues raised in excess of the Uniform Rate of Tax. This analysis of operations costs will include instruction, maintenance and operations, technology, transportation, staffing levels, and facility utilization.

The second analysis of this study will consist of a review of the literature on the effects of enrollment changes on school system operations and costs, effective strategies local school systems may use to respond to enrollment changes, and adjustments to state funding formulas to adequately account for increasing or declining enrollment.

The third analysis of this study will consist of a national scan of how enrollment changes are addressed in the funding formulas in other states. Specifically, this analysis will look at if, and how, other states'

funding formulas are designed to compensate for the effects of enrollment changes on operational costs, including transportation. In addition, the laws and regulations that control certain costs, such as those for charter schools or nonpublic transportation, will be identified and discussed.

Finally, the study team will develop a financial model to contrast the revenue and spending changes possible in a district with growing enrollments and a district with declining enrollments. The examples provided will be based on actual school districts, selected with the assistance of ADE, that experienced rapid enrollment change. An important factor in recent years has been a decline in birth rates in the years following the Great Recession due to job and economic insecurity of young families, causing them to postpone the start or expansion of their families. The birth years now entering school frequently have a 10 percent to 30 percent decline in births during the five years following 2009. It is very difficult for school systems to anticipate these enrollment changes, which has caused many districts to overstaff in recent years, thereby unintentionally reducing class sizes. The assumptions related to the degree of variability or “fixedness” in costs will be reviewed by the district-level educator panels.

Computer mapping from a sophisticated geographic information system will also be used to illustrate many of the findings in the enrollment report, including correlations to U.S. Census data updated annually through the American Community Survey.

As a result of these three analyses, the study team will make recommendations, in consultation with the Committees, on policies to address the impacts of enrollment changes on school systems’ operations and transportation. Particular emphasis will be placed on creating recommendations for small local school systems serving large geographic areas. These recommendations will include best practices in shared or regional services including vocational education, online education, and specialized coursework and programs offered remotely. In addition, the study will review the options and methods used by districts in making decisions on whether to use shared services, particularly instructional services, upon declining enrollments reaching minimum thresholds.

Attracting and Retaining Administrative and Educational Staff (3.0.C.4)

Objective: Examine best practices in other states for attracting and retaining high quality educational and administrative staff for schools, including without limitation information regarding salaries and benefits and the funding mechanisms for those items.

Having high-quality educational staff in all schools in the state is necessary to ensure a quality education for all students in Arkansas, so the study team will provide Arkansas with a set of recommendations on how it can most efficiently establish policies to recruit and retain high-quality educational staff in the state. The study team will conduct a full literature review to determine what research has identified as the best practices for recruiting and retaining high-quality teacher and administrators. As part of this review, the study team will conduct a 50-state analysis of legislation to determine state practices for recruiting and retaining quality educational staff. In addition, the study team will attempt to identify quality recruitment and retention programs through a review school and district programs. This review of state and local policies will include strategies dealing with salary and benefits, but also other non-

compensation procedures that have been used to ensure that districts have the high-quality educational staff that they need.

Attracting and Retaining Nurses (3.0.C.5)

Objective: Determine the best practices used in other state and school districts to attract and retain school nurses through compensation systems.

This study will start with obtaining current compensation information for school nurses in Arkansas through information available from the ADE, numerous salary comparisons available online or in current reports, or a survey to school districts. Information on nursing compensation in other sectors throughout Arkansas will be compiled from other sources. With that information, the compensation of school nurses and other similarly qualified nurses will be compared and adjusted for the variation of days worked per year. Information on school nurse qualifications and certifications will be compiled from both the ADE regulations and selected school systems.

The study will also compare the funding mechanisms from other states for nursing services. This information will be compiled from recent research on school funding systems nationally.

The literature on nursing turnover in all sectors and school certificated professional turnover, including nurses, teachers, and other school professionals, will be reviewed to identify causes of turnover other than compensation.

The report will discuss the findings from research that identify the causes of nursing turnover as well as the various best practices used in other states and school systems. These practices can include signing bonuses, loan forgiveness, subsidized housing or mortgage assistance programs, and numerous other approaches. In addition, it will discuss funding mechanisms in other states and compare those with funding mechanisms in Arkansas.

Resources for Student Mental Health Issues (3.0.C.6)

Objective: Identify the resources necessary and available for coping with student mental health issues, including best practices in other states.

The National Alliance on Mental Illness estimates that up to one in five youth lives with a mental health condition. In Arkansas, this means that approximately 95,000 students may be experiencing some form of mental health condition. These students require additional supports to help them cope with their unique needs. The study team will review other states' policies and look at best practices to find recommendations on how the state can improve its schools by supplying students with the mental supports that they need.

The study team will conduct a full literature review to determine what research has identified as the best practices for improving student mental health policies. Part of this review will include a 50-state analysis of legislation to determine state practices staffing schools with mental health professionals

(psychologists, councilors and social workers). In addition, the study team will review other non-staffing policies that have been implemented by states to address the issue of improving student mental health.

Capital Needs (3.0.C.7)

Objective: Study the critical capital needs of public schools in Arkansas in an effort to ensure equitable access to quality school buildings, equipment, and buses. Recommendations should ensure that state funding supports low wealth districts, districts with declining enrollments that nevertheless must replace existing buildings, and growing districts that require frequent new construction.

Examining the capital needs of districts is often done as a separate large-scale study in a state. In this case, Arkansas already tracks the facility condition of each school in the state and a report was delivered by the “Advisory Committee on Public School Academic Facilities” in 2018. Knowing that detailed capital information exists and has been examined recently, the study team will focus its analysis on the equity of the Arkansas’ capital funding system utilizing the collected data. The study team’s approach will include a literature review of how other states address capital funding and data analysis of the current funding in the state. The analyses will focus on the concept of funding capacity for districts. Low wealth, declining enrollment, and high growth districts all face particular funding capacity constraints. Low wealth districts have little local wealth to tap to build new buildings, while declining enrollment districts have fewer funding-generating students to support new buildings, and growing districts often have to create capacity for students they do not yet enroll. The analysis will not just focus on capital but will also include transportation and capital equipment funding. All mention of capital below assumes inclusion of these other two areas.

The literature review will examine the general structure of capital funding systems in other states. An emphasis of the review will examine how states provide additional capacity for districts in unique circumstances. The review will provide information on the general types of systems used by states for capital funding, specifics for each state, and a comparison table of SREB states’ systems.

The data analysis will examine the available facilities information against district characteristics that can help the study team understand the equity of the system. For example, the facilities condition index for buildings will be compared to district demographic information such as wealth, student demographics, density of student population, and growth/decline of the student population. This analysis will provide insights into any gaps in the current funding system related to specific district characteristics. Similar analysis will be done for transportation and capital equipment.

Finally, questions regarding capital needs will be included in the survey of districts.

Using the literature review, data analyses, and survey data, the study team will examine if Arkansas’s funding for capital, transportation, and capital equipment purchases can be more equitable.

Best Use of Poverty Funds (3.0.C.8)

Objective: Identify best practices and research-based programs for the best use of poverty funds (NSL), as well as funding methodologies available and necessary for supporting students with additional needs including without limitation physical or mental disabilities, learning disabilities, behavioral issues, economic disadvantages, and English language barriers.

The study team will examine the use of poverty funds in sections 3.0.A.1-6. This includes:

- Understanding how other states have identified the resources for poverty studies through the adequacy study review.
- Conducting research on the types of interventions being identified as making differences for poverty students as part of the evidence-based review for the adequacy studies.
- Providing detailed information on the types of programs and interventions Arkansas schools are using, identified through the case studies. This information will include the resources needed to implement the programs.

All of this information will be compiled to provide a specific set of recommendations for Arkansas on how it can best serve poverty students.

Case Studies of Successful Schools (3.0.C.9)

Objective: Identify and examine the best practices (financial, instructional and otherwise) of successful Arkansas schools, including schools that serve a high proportion of students with additional needs.

Based upon student characteristic and performance data analysis completed in Section 3.0.A, the study team will identify 12-16 successful schools from across the state to visit for case studies. Schools will be chosen that have high concentrations of ELL or economically disadvantaged students, allowing the study team to understand what types of programs and interventions are being used to increase performance for schools with these student populations. In addition to the student demographics, the study team will select schools from different grade spans, size, and geographic area of the state.

The study team will tailor an existing interview protocol and data collection device employed previously by APA in other states in order to gather the following key data and insights during each of the school visits:

- Community and student characteristics and their effect on the school.
- School staffing, including administrators, class sizes by grade, the number of specialist teachers, the number of special needs teachers (e.g. Title I, ELL, and special education), teacher leader roles, and certified and non-certified instructional support staff.
- Spending for instructional materials and technology, including supplemental materials beyond those provided districtwide.
- Use of time at the school, including the school schedule and how collaborative teacher time and individual teacher planning and preparation time are provided and utilized.

- School curriculum and instruction strategy, including a description of any promising instructional strategies that have been developed.
- Specific interventions used for students who are performing below grade-level expectations, including tutoring, extended learning time strategies, and approaches for providing services to students with disabilities and ELL students.
- Formative and teacher developed assessments, districtwide assessments, and state assessments administered at the school and how these data are used to inform and modify instruction.
- Professional development opportunities for the school staff, including the form (e.g. workshops, school and classroom based, summer institutes, etc.), topics covered, and amount of investment in professional development.
- Characteristics of the school culture, including teacher collaboration and the degree to which schools are characterized by ongoing discussions of instruction that are oriented to individual student learning ability.

The site visits will involve one on-site visit to each school. Using the structured case study protocol and data collection device described above, a team of two researchers will visit the school and conduct a series of one-on-one and small group interviews with the principal, classroom and special needs teachers, instructional leaders, and key support staff. Prior to the visit, the researchers will contact each school to request relevant documents, such as school budgets, staff rosters, and school improvement plans to review prior to the site visit.

After the site visits have been completed, the information collected from these schools will be reviewed and categorized. Quantitative data such as budget and staffing data, will be entered into a database. The qualitative data, such as information pertaining to school culture and instructional strategies, will be summarized. Information on commonalities between the programs, interventions, and resources being used for special needs populations will be highlighted.

Impact of Vouchers (3.0.C.10)

Objective: Analyze the impact of voucher programs and tax credits on funding for public education in the state and in other states.

Some states have adopted policies that allow for the use of school vouchers and/or tax credits that can be used by parents to send their students to private schools, and some lessons can be learned from states that have implemented these policies. The study team's research review will gather these lessons and analyze the impact of voucher programs and tax credits on funding for public education in these states. To do so, the study team will conduct a full literature review to determine what impact voucher/tax credit policies have had on education systems across the states. As part of this review, the study team will conduct a 50-state analysis to determine which states currently have voucher/tax credit policies and how those policies function. Through this review, the study team will determine how those policies have impacted the state's public education system.

Impact of Waivers (3.0.C.11)

Objective: Assess the impact of waivers granted to schools and districts on the quality and cost of education in the state, and to use the results of this analysis to develop policy recommendations as warranted.

The state began allowing for waivers from certain state regulations and statutes beginning with the establishment of conversion charter schools in 1995. Since then, eligibility for waivers has been expanded to include open-enrollment charter schools, innovation schools and districts, and with Act 1240, traditional school districts from which open-enrollment charter schools draw enrollment. To date, the State Board of Education has granted a total of nearly 4,000 waivers.

The study team will begin this analysis by inventorying all current waivers by collecting the following information:

- The total number of waivers;
- The number of waivers by topic area; and
- The number of waivers by type of school or district receiving the waiver (e.g. open-enrollment or conversion charter, innovation school or district, or Act 1240 district).

Cost Impact

The cost to the state of waivers will be estimated by estimating the total number of items funded through the state funding matrix subject to waivers and multiplying by the funding matrix allowance for that item. For example, the cost of waivers related to librarian/media specialists will be estimated by multiplying the number of waivers relieving schools or districts from this requirement, times the staffing standard presented in the funding matrix, times its funding matrix allocation. This estimation process will be applied to all funding matrix items impacted by waivers and then summed to a statewide estimate of the total cost of waivers.

Performance Impact

The study team will estimate the impact of waivers on school and district performance by using a regression analysis to compare performance on state assessments between schools or districts with a larger number of waivers to those with few or no waivers. This analysis will focus on waivers most directly impacting a school or district's instructional program, such as waivers regarding teacher licensure, curriculum, librarian/media specialist, class size and teaching load, principals, etc. We will control for other factors potentially affecting performance such as the number of special needs students, enrollment size, student mobility, and student attendance. As part of the stakeholder engagement process, the study team can also gather feedback on perceived impacts of waivers on performance.

The study team will then develop a set of recommendations for addressing any issues emerging from these analyses.

Examination of Uniform Tax Rate (3.0.C.12)

Objective: Analyze the Uniform Rate of Tax (URT) funding method to assess how well it meets the revenue needs of districts, how it affects equity across districts, the amount debt service millage exceeds current debt service payments and how districts use these excess funds, and what the impact of increasing the URT millage.

Similar to a majority of other states, Arkansas employs a foundation school finance formula. Under a foundation formula, the state establishes a minimum per student allocation of revenue. For the 2018-19 school year Arkansas's per student foundation amount is \$6,781. Foundation formulas also attempt to "equalize" revenue raising capacity across districts by establishing a uniform millage or tax rate that is applied to the local tax base of all districts in the state. This equalization attempts to sever the relationship between local district revenue raising capacity and per student revenues by using state aids to fill the gap between the foundation revenue amount and the amount raised by the uniform millage rate. This uniform millage or tax rate is known in Arkansas as the Uniform Rate of Tax and is set at 25 mills.

APA's analysis of the Uniform Rate of Tax (URT) will be in the following three areas: how well the URT meets the revenue and equity needs of school districts, impacts of different URT increases, and changes over time related to debt service.

Meeting the Revenue and Equity Needs of School Districts

APA will assess how well the URT meets the revenue needs of school districts through several steps. First, we will identify the number of districts that have increased their URT beyond the minimum 25 mills. If a significant number, or a majority, of districts have asked their voters for a higher URT, this suggests that the foundation amount is not currently meeting districts revenue needs. If the data are available, we will also review local election information from the past five to ten years to identify how many districts without a voter approved URT held an election to increase their URT but failed to gain voter approval. Finally, we will examine the relationship, or correlation, between the URT millage and local wealth to assess the degree to which those districts with the capacity to raise additional revenues through a higher URT tend to do so. Using revenue data provided by the state, we will examine how much additional revenue, on average, these districts are raising on an annual basis.

Our analysis of the URT will be informed by the equity analysis required in Section 3.0.C.2. Our equity analysis will include the disaggregation of local millage revenues to isolate the impact of the URT on equity. The study team will compare the equity statistics generated in this analysis to generally accepted benchmark statistics to assess how equitable the formula is compared to recommendations from the school finance literature.

Finally, the study team will gather input for the Committees and stakeholders about their concerns about the URT or other issues they have experienced under the current URT.

Increasing the URT

The study team will consult with Bureau of Legislative Research staff to identify a reasonable range of alternate URT millage rates. The study team will then develop a model used to estimate the district and state level impacts of the different millage rates on local property tax levels and state aid amounts. The study team will also use the equity model developed in 3.0.C.2 to run equity statistics on the different URT millage rates to assess their impact on the system's fiscal equity.

Debt Service Millage

The study team will collect district level data for the past 10 years on the amount of revenue raised through districts' debt service millage and their actual debt service payments to identify the change over time in the amount debt service revenues exceed debt service costs. Excess revenue trends will be developed by district and as a state total.

We will use this analysis to identify a representative sample of districts with excess debt service revenues to interview regarding how they use their excess revenues, for example, if they set aside for anticipated future capital projects.

The findings from these analyses will be used to guide the development of a set of recommendations for the Committees' consideration.

Funding for Concentrations of Poverty (3.0.C.13)

Objective: Examine funding levels to support districts or schools with high concentrations of poverty and recommend a formula that provides increasing funding rates for districts and schools with higher proportions of economically disadvantaged students that attempts to avoid significant increases or decreases in funding for minor changes in concentrations of poverty.

Building off the work related to concentrations of poverty in Section 3.0.A.2, the study team will address funding for concentrations of poverty through the following study activities:

- Reviewing how other states address funding for concentrations of poverty.
- Updating its review of the literature around how best to serve students in high poverty areas. This includes a scan of the additional wrap-around services needed for students.

Detailed information on the types of programs and interventions Arkansas high poverty schools are using will be identified through the case studies (Section 3.0.C.9). This information will include the resources needed to implement the programs.

All of this information will be compiled to provide a specific set of recommendations for Arkansas on how to best address concentrations of poverty.

Professional Development and Extra Duty Time (3.0.C.14)

Objective: Examine professional development and teachers' extra duty time.

The study team will examine professional development and teachers' extra duty time through conducting a literature review, discussing the resource needs and implementation approaches for each as a part of the case studies in Section 3.0.C.9 and educator panels in Section 3.0.C.16 and by asking districts about their policies for each as part of the larger district survey. The research design will provide the study team with information on the variation in delivery of professional development across districts. It will also highlight differences in expectations for extra duty time.

Comparison of Prior Study Recommendations and Legislation (3.0.C.15)

Objective: Provide a comparison of the recommendations previously provided to the Committees by Lawrence O. Picus and Associates and the policy and funding decisions implemented by the Arkansas General Assembly.

The study team will review the following three Lawrence O. Picus and Associates reports, including the report of the original evidence-based adequacy study and the subsequent recalibration and desk audit reports, and develop a matrix chart of the original report's adequacy recommendations and estimated costs, and any changes recommended by the subsequent reports.

1. Lawrence O. Picus and Associates. (2003, September 1). *An Evidence-Based Approach to School Finance Adequacy in Arkansas*.
2. Lawrence O. Picus and Associates. (2006, August 30). *Recalibrating the Arkansas School Funding Structure*.
3. Lawrence O. Picus and Associates. (2014, September 5). *Desk Audit of the Arkansas School Funding Matrix and Developing an Understanding of the Potential Costs of Broadband Access for All Schools*.

The study team will then review session laws, Bureau of Legislative Research documents, and other relevant sources to compile the actions taken by the Legislature in response to the Picus and Associates' recommendations and add these to the matrix chart along with estimated costs and cost differences between the Picus and Associates recommendations and the implementation actions taken by the Legislature. In addition to the matrix chart, the study team will provide a summary highlighting the major policy and cost differences between the adequacy recommendations and actual implementation.

As noted previously, Appendix E, "Past Performance Work Samples," includes a power point presentation from APA's Wyoming study that similarly reviewed the state's allocation resource model. Wyoming's model is similar to Arkansas funding matrix that specifies the resources (teachers, principals, central office staff, etc.) needed at schools and provided funding for these resources. It was also based upon recommendations from Picus Odden and Associates. In this example, APA compared the resource recommendations from their study to current law.

Educator Panels (3.0.C.16)

Objective: Convene panels of educators in a variety of locations throughout the state and seek input on the needs of schools and potential solutions.

Incorporating the voice of educators is a crucial component of any state finance study. The study team proposes: 1) four in-person listening sessions with educators in four different locations in the state that will be open to all educators in the region; and 2) up to 16 targeted educator panels – four in each region, one for teachers, one for school leaders, one for superintendents and one for CFOs/business managers – with up to 20 educators per panel. These panel participants could be identified by educator associations or through a nomination process. Each educator panel will be staffed by at least two study team members, including one person from APA and one person from our local university partner. These opportunities to hear from educators will allow the study team to gather feedback in areas such as the college/career readiness definition, attraction and retention of staff, and resources needs not currently addressed in the state’s funding matrix.

In the targeted educator panels, the study team can also leverage its decades of experience interviewing school and district staff regarding resource use to help panel participants identify gaps in the current funding matrix and the costs associated with those gaps (Section 3.0.A.6). For example, if student mental health services appeared to be a gap in the current funding matrix, the study team could probe panel participants to identify the specific resources needed (Are more counselors or psychologists needed? What would be an appropriate caseload?? Do teachers need more professional development in this area?). Focusing on specific tangible items allows panelists to focus better on how resources specifically will be utilized to meet resource needs.

The study team also recommends that an online survey be open to both educators and the public, including parents, students, business leaders and community members to gather further feedback in each of these areas.

Section 3.0.D Reporting and Support

The study team understands the requirements for reporting and support as described in the RFP. A final report detailing all activities will be completed in November 2020. The study team will work with the Committees and staff throughout the process to ensure that all required information is included in the report. A draft report will be submitted in September 2020, allowing for up to a month of review by the Committees and staff.

The study team will provide monthly updates to staff and be available at all Committees meetings as requested. Working with the committees and staff, study team members will be available for additional research and data inquiries. As the draft report is completed, study team members will begin work with committee staff on creating draft legislation if needed.

Section 3.1 Education Adequacy Consulting

APA and its partners agree to all stated specifications and requirements in the RFP and has outlined its proposed scope of work to address all requirements to provide the requested services to the Committees. As previously noted, the study team is committed to attending meetings of the Committees and other legislative committees of the Arkansas General Assembly. The study team does

not anticipate any limitations in its ability to attend meetings or provide any of the services described in Section 3.0.D.

Timeline

The proposed timeline assumes a project start date of mid-October 2019 and a completion date of December 2020. The final report will be delivered in November 2020, providing time for presentations and other work related to any drafted legislation. Other timeline highlights:

- **Section 3.0.A:** Literature reviews and collection of existing data (fiscal, staffing, student characteristics, performance) will begin immediately, with stakeholder engagement and analysis to occur in the spring of 2020. All work in this section will be completed by June 2020.
- **Section 3.0.B and 3.0.C:** The additional studies will run throughout the study timeframe with many of the literature reviews finished by January 2020.

The timeline, as outlined above and presented in greater detail on the following page, is preliminary and the study team will work with the Committees and staff to finalize the timeline to best meet Arkansas' needs.

	2019			2020											
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Section 3.0.A															
Section 3.0.A.1 Recommendations for Reviewing Adequacy															
- Literature Review	←→														
Section 3.0.A.2 Concentrations of Poverty															
- Literature Review	←→														
- Fiscal and Performance Data Analysis			←→												
- District Survey						←→									
- Additional Qualitative Analysis	←→														
Section 3.0.A.3 Identification of Gaps and Programs to Address															
- Fiscal and Performance Data Analysis			←→												
- Case Studies							←→								
- Additional Qualitative Analysis	←→														
- Additional Qualitative Analysis				←→											
Section 3.0.A.4 Correlation Between Performance and Funding															
- Fiscal and Performance Data Analysis			←→												
- Case Studies							←→								
Section 3.0.A.5 Review of Adequacy Studies															
- Literature Review	←→														
Section 3.0.A.6 Review of Resources in Matrix															
- Fiscal and Performance Data Analysis			←→												
- Case Studies							←→								
- District Survey						←→									
- Stakeholder Engagement						←→									
- Additional Quantitative Analysis				←→											
Section 3.0.A.7 College and Career Readiness															
- Literature Review	←→														
- Stakeholder Engagement						←→									
- Additional Qualitative Analysis				←→											

	2019			2020											
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Section 3.0.B															
3.0.B.1 School Size Policies															
- District Survey															
- Additional Quantitative Analysis															
3.0.B.2 School Size Best Practices															
- Literature Review															
- District Survey															
- Additional Qualitative Analysis															
3.0.B.3 Impacts of School and District Size															
- Literature Review															
- District Survey															
- Additional Quantitative Analysis															
3.0.B.4 Ideal Size of Schools															
- Literature Review															
3.0.B.5 Public Input on School Size Standards															
- Stakeholder Engagement															
- District Survey															
- Additional Qualitative Analysis															
3.0.B.6 Addressing Small District Size and Remoteness															
- Literature Review															
- Fiscal and Performance Data Analysis															
3.0.B.7 Class Size Requirements, Student/Teacher Ratios and Salary Variations															
- Literature Review															
- Fiscal and Performance Data Analysis															
- Additional Quantitative Analysis															
3.0.B.8 Isolated Districts															
- Literature Review															
- Additional Quantitative Analysis															

	2019			2020											
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Section 3.0.C															
3.0.C.1 Evaluation of Economically Disadvantaged Student Proxy															
- 3.0.C.1a Community Eligibility Provision															
- 3.0.C.1b Estimating the Potential Impact of CEP															
- 3.0.C.1c Alternative Proxies for Identifying Economically Disadvantaged Students															
3.0.C.2 Impacts on Equity															
3.0.C.3 Impacts of Enrollment Changes															
3.0.C.4 Attracting and Retaining Administrative and Educational Staff															
3.0.C.5 Attracting and Retaining Nurses															
3.0.C.6 Resources for Student Mental Health Issues															
3.0.C.7 Capital Needs															
3.0.C.8 Best Use of Poverty Funds															
3.0.C.9 Case Studies of Successful Schools															
3.0.C.10 Impact of Vouchers															
3.0.C.11 Impact of Waivers															
3.0.C.12 Examination of Uniform Tax Rate															
3.0.C.13 Funding for Concentrations of Poverty															
3.0.C.14 Professional Development and Extra Duty Time															
3.0.C.15 Comparing Prior Studies to Legislation															
3.0.C.16 Educator Panels															

	2019			2020											
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Section 3.0.D															
Draft Report															
Final Report															
Monthly Status Updates and Committee Meetings															
Answer Research Requests															
Assist with Draft Legislation															

Appendix A: Contract and Grant Disclosure and Certification Form

CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM

Failure to complete all of the following information may result in a delay in obtaining a contract, lease, purchase agreement, or grant award with any Arkansas State Agency.

SUBCONTRACTOR NAME: _____

SUBCONTRACTOR NAME: _____

Yes No

IS THIS FOR:

TAXPAYER ID NAME: Augenblick, Palach and Associates, ll Goods? Services? Both?

YOUR LAST NAME: Silverstein

FIRST NAME: Justin

M.I.: _____

ADDRESS: 1547 Gaylord St

CITY: Denver

STATE: CO

ZIP CODE: 80206

COUNTRY: USA

AS A CONDITION OF OBTAINING, EXTENDING, AMENDING, OR RENEWING A CONTRACT, LEASE, PURCHASE AGREEMENT, OR GRANT AWARD WITH ANY ARKANSAS STATE AGENCY, THE FOLLOWING INFORMATION MUST BE DISCLOSED:

FOR INDIVIDUALS *

Indicate below if: you, your spouse or the brother, sister, parent, or child of you or your spouse is a current or former member of the General Assembly, Constitutional Officer, State Board or Commission Member, or State Employee:

Position Held	Mark (✓)		Name of Position of Job Held <small>[senator, representative, name of board/ commission, data entry, etc.]</small>	For How Long?		What is the person(s) name and how are they related to you? <small>[i.e., Jane Q. Public, spouse, John Q. Public, Jr., child, etc.]</small>	Person's Name(s)	Relation
	Current	Former		From MM/YY	To MM/YY			
General Assembly								
Constitutional Officer								
State Board or Commission Member								
State Employee								

None of the above applies

FOR AN ENTITY (BUSINESS) *

Indicate below if any of the following persons, current or former, hold any position of control or hold any ownership interest of 10% or greater in the entity: member of the General Assembly, Constitutional Officer, State Board or Commission Member, State Employee, or the spouse, brother, sister, parent, or child of a member of the General Assembly, Constitutional Officer, State Board or Commission Member, or State Employee. Position of control means the power to direct the purchasing policies or influence the management of the entity.

Position Held	Mark (✓)		Name of Position of Job Held <small>[senator, representative, name of board/commission, data entry, etc.]</small>	For How Long?		What is the person(s) name and what is his/her % of ownership interest and/or what is his/her position of control?	Person's Name(s)	Ownership Interest (%)	Position of Control
	Current	Former		From MM/YY	To MM/YY				
General Assembly									
Constitutional Officer									
State Board or Commission Member									
State Employee									

None of the above applies

Contract and Grant Disclosure and Certification Form

Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this contract. Any contractor, whether an individual or entity, who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the agency.

As an additional condition of obtaining, extending, amending, or renewing a contract with a state agency I agree as follows:

1. Prior to entering into any agreement with any subcontractor, prior or subsequent to the contract date, I will require the subcontractor to complete a **CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM**. Subcontractor shall mean any person or entity with whom I enter an agreement whereby I assign or otherwise delegate to the person or entity, for consideration, all, or any part, of the performance required of me under the terms of my contract with the state agency.
2. I will include the following language as a part of any agreement with a subcontractor:
Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this subcontract. The party who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the contractor.
3. No later than ten (10) days after entering into any agreement with a subcontractor, whether prior or subsequent to the contract date, I will mail a copy of the **CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM** completed by the subcontractor and a statement containing the dollar amount of the subcontract to the state agency.

I certify under penalty of perjury, to the best of my knowledge and belief, all of the above information is true and correct and that I agree to the subcontractor disclosure conditions stated herein.

Signature Justin Silverstein Title Co-CEO Date 9/17/19

Vendor Contact Person Justin Silverstein Title Co-CEO Phone No. 303-725-6143

Agency use only	Agency Name	Agency Contact Person	Contact Phone No.	Contract or Grant No.
Agency Number				

Appendix B: Certificate of Good Standing



Arkansas Secretary of State John Thurston

State Capitol Building ♦ Little Rock, Arkansas 72201-1094 ♦ 501-682-3409

Certificate of Good Standing

I, John Thurston, Secretary of State of the State of Arkansas, and as such, keeper of the records of domestic and foreign corporations, do hereby certify that the records of this office show

AUGENBLICK, PALAICH AND ASSOCIATES, INC.

formed under the laws of the state of Colorado, and authorized to transact business in the State of Arkansas as a Foreign For Profit Corporation, was granted a Application for Certificate of Authority by this office April 4, 2019.

Our records reflect that said entity, having complied with all statutory requirements in the State of Arkansas, is qualified to transact business in this State.



In Testimony Whereof, I have hereunto set my hand and affixed my official Seal. Done at my office in the City of Little Rock, this 11th day of April 2019.


John Thurston
Secretary of State

Online Certificate Authorization Code: 9fdf0170167636c

To verify the Authorization Code, visit sos.arkansas.gov

Appendix C: Resumes for Key Project Staff



AUGENBLICK,
PALAICH AND
ASSOCIATES

Justin Silverstein

Co-CEO

720.227.0075 | jrs@apaconsulting.net

Summary of Related Experience

Justin Silverstein joined APA in 1998. He is currently co-CEO and leads APA's school finance and cost modeling work. He has worked with over 25 states to help them understand the costs associated with meeting state educational standards. This included helping to develop and refine two of the nationally recognized adequacy approaches. Additionally, he has helped states identify the costs of specific programs and legislation, such as Colorado's Achievement Plan for Kids (CAP4K). Through his work with states, Mr. Silverstein understands how to work with policymakers to design and implement projects that are digestible to the general public and create actionable next steps.

Mr. Silverstein's cost modeling work includes models for policymakers in Idaho, Michigan, the District of Columbia and other states. His cost models are dynamic providing the user with the ability to understand the consequences of changes in specific parameters of programs. The models have been developed in excel and in online formats.

Areas of Expertise

- Project leadership/management
- K-12 school finance
- Determining the costs of programs, legislation and initiatives
- Stakeholder engagement
- Fiscal modeling
- Cost effectiveness, return on investment
- Technical assistance

Education

B.S., Business Administration (Accounting)
University of Colorado, Boulder, CO

1998

Professional Experience

Augenblick, Palaich & Associates (APA), Denver, CO
Co-CEO

**2017-
Present**

- Oversees the school finance and cost modeling areas for the firm.
- Has provided project management on multiple large-scale projects.
- Oversees finance and operations for APA.
- Has organized and conducted school finance studies in over 25 states over the past 20 years.
- Leads the continued refinement and implementation of nationally recognized school finance research strategies, including professional judgment and successful district schools approaches.
- Project lead on numerous state level school finance studies including:
 - Reviewing Alaska's current funding formula and suggesting changes to the formula to better serve students,
 - Conducting an equity and adequacy study for the state of Alabama,

- Conducting an update of the Nevada Adequacy study,
- An analysis of New Jersey’s census-based funding approach for special education.
- Conducted analysis of educator compensation systems including:
 - A study of Hawaii’s current teacher compensation system including the structure and pay levels of the system.
 - Ongoing support of Jefferson County Public Schools staff compensation system including: yearly analysis of pay levels, support in designing the district’s TIF application, and analyzing and modeling the costs of alternative pay structures for the district.
- Researched student assessment practices in both Illinois and Colorado by designing, implementing, and analyzing data generated through statewide surveys of assessment practices.
- Provides facilitation and support to district committees in Jefferson County Public Schools and Littleton Public Schools examining the districts’ facility usage.

Augenblick, Palaich & Associates (APA), Denver, CO **2009-2016**
Vice President

- Organizational lead in the area of school finance.
- Organized and conducted school finance studies nationally.

Augenblick, Palaich & Associates (APA), Denver, CO **2003-2008**
Senior Associate

- Conducted multiple adequacy studies across the country including statewide studies for Colorado, Pennsylvania, Montana, Nevada, and others.
- Provided facilitation and support to a district committee in the Littleton Public schools examining the district’s facility usage. The work resulted in the repurposing of two district buildings.
- Provided support to the Poudre Public Schools staff in the design of a student-based budgeting formula.

Augenblick, Palaich & Associates (APA), Denver, CO **1998-2002**
Associate

- Conducted school funding adequacy analyses in multiple states, including work for the Thornton Commission in Maryland which established a state school aid formula designed to ensure that school systems have the resources needed to provide every student with an adequate and equitable education.
- Participated in the development and refinement of the Professional Judgment and Successful School District approaches to study adequacy, which have become nationally recognized models for conducting school finance research.

Selected Reports and Other Publications

- “Alternative Approaches to Recalibration and Reconciliation of Study Results to Provide Final Recommendations” for the Wyoming Select Committee on School Finance Recalibration (2018).
- “Costing Out the Resources Needed to Meet Michigan’s Standards and Requirements” for the Michigan School Finance Collaborative (2018).
- “Michigan Education Finance Study” for the State of Michigan (2016).
- “Final Report of the Study of Adequacy of Funding for Education in Maryland” for the Maryland State Department of Education (2016).

- “Review of Alaska’s School Funding Program,” Silverstein, J., Brown, A., Fermanich, M. Denver, CO. Augenblick, Palaich, and Associates (2015).
- “Equity and Adequacy in Alabama Schools and Districts” for the Alabama State Department of Education (2015)
- “Equity Analysis of Colorado’s Education Funding System.” Prepared for the Colorado School Finance Project, August 2015.
- “Professional Judgment Study Report,” with APA staff. Prepared for Lincy Institute at the University of Nevada, Las Vegas, January 2015.
- “Study of Hawaii’s Compensation System,” by Augenblick, Palaich and Associates with Chris Stoddard, November 2014.
- “Study of Assessment Use in Colorado Districts and Schools,” with APA staff. Prepared for the HB14 - 1202 Standards and Assessment Task Force, November 2014.
- “Analysis of the Impact of Colorado’s Achievement Plan for Kids (CAP4K): Postsecondary and Workforce Readiness, Final Report”, Prepared for Colorado Department of Education, October 2014.
- “Overview of the Structure of the Illinois School Finance System,” with APA staff. Prepared for the Illinois State Board of Education, September 2013.
- “Study of Assessment Use and Need in Illinois Race to the Top Districts,” with APA staff. Prepared for Illinois State Board of Education, May 2013.
- “Cost of Student Achievement: Report of the DC Education Adequacy Study,” with The Finance Project and APA staff. Prepared for D.C. Deputy Mayor for Education, December, 2013.
- “Salary Schedule Comparison.” Prepared for Jefferson County Public Schools, April 2012
- “Analysis of New Jersey’s Census-Based Special Education Funding System,” with APA staff. Prepared for the New Jersey Department of Education, October 2011.
- “Costing Out the Resources Needed to Meet Colorado Education Standards and Requirements,” with APA staff. Prepared for Children’s Voices, March 2011.
- “Colorado Average Daily Membership Study: A Feasibility Study of Alternatives to the October 1 Student Count Method,” with Mark Fermanich and Tracie Rainey. Prepared for the Colorado Department of Education, January 2011.
- “Recommendations to Strengthen North Carolina’s School Funding System,” with APA staff. Prepared for the North Carolina General Assembly, September 2010.
- “Final Report: Jeffco Facilities Usage Committee,” with committee staff. Prepared for the Jefferson County Public Schools, December 2009.
- “Facility Use Task Force Final Report,” with committee staff. Prepared for the Littleton Public Schools, October 2008.
- “Costing Out the Resources Needed to Meet Pennsylvania’s Public Education Goals,” with APA staff. Prepared for the Pennsylvania State Board of Education, November 2007.



AUGENBLICK,
PALAICH AND
ASSOCIATES

Amanda Brown

Senior Associate

720.227.0088 | arb@apaconsulting.net

Summary of Related Experience

Amanda Brown's primary focus areas are school finance and evaluation, both at the state and local level. Since joining APA nearly 15 years ago, she has worked at the state level on large-scale adequacy studies; completed evaluations of state funding mechanisms to improve allocation of resources; conducted studies to understand the resource implications of specific education reform legislation and implementation of instructional best practices; and led stakeholder engagements efforts including in-person listening sessions, interviews and statewide surveys. She led APA's recent study of Wyoming's education finance system and has contributed to all of APA's state-level school finance studies since 2005. At the local level, Brown has assisted local school districts to develop school-based budgeting formulas; conducted salary competitiveness studies; addressed issues of declining enrollment; determined the efficiency of facilities usage; and evaluated the implementation costs and return on investment of programs.

Areas of Expertise

- Project leadership/management
- K-12 school finance
- Determining the costs of programs, legislation and initiatives
- Stakeholder engagement
- Fiscal modeling
- Cost effectiveness, return on investment
- Technical assistance
- Program evaluation
- Qualitative research methods

Education

M.P.A., Public Administration **2009**
University of Colorado, Denver, CO

B.A., Sociology, and **B.S.**, Advertising **2005**
University of Colorado, Boulder, CO

Professional Experience

Augenblick, Palaich & Associates (APA), Denver, CO **Jan. 2005-
Present**
Senior Associate

Senior Associate Policy Analyst (08/11- present) in a firm that conducts studies on education policy issues for state and local policymakers. Previous positions: Associate; Intern.

- Recent projects: Implementation and impact evaluations of early literacy and early childhood professional development programs; conducting adequacy studies at the state and district across the country to determine the resources needed to effectively meet federal and state

standards; evaluating the cost implications of education programs and policies; and working with local school districts and community groups to address declining enrollment, the use of student-based budgeting, and the implementation of best practice standards.

- Recent clients: Nevada Department of Education; Wyoming State Legislature; Maryland State Department of Education; State of Michigan; Alaska State Legislature; Alabama Board of Education; Deputy Mayor of Education's Office, District of Columbia; Colorado Department of Education; New Jersey Department of Education; North Carolina General Assembly; Pennsylvania State Board of Education; Nevada State Legislature; Louisiana State Board of Elementary and Secondary Education; Virginia Department of Education; Jeffco Public Schools; Littleton Public Schools; Poudre School District; Denver Public Schools; Colorado Governor's State Council on Educator Effectiveness; Lincy Institute at the University of Las Vegas; Colorado Legacy Foundation; Colorado School Finance Project; Denver Preschool Program; Donnell-Kay Foundation; Piton Foundation; Children's Voices; Reach Out and Read Colorado; and Providers Advancing School Outcomes (PASO), funded through Mile High United Way.
- Duties: project management; program evaluation; research; data collection and analysis; observation; conducting interviews; focus groups, and surveys; meeting facilitation; writing and presenting reports; accounting and office management.

P.S.1 Charter School Denver, CO

Member of the Board of Directors, served as Accountability Committee Chair

May 2009-

June 2011

Selected Reports and Other Publications

In collaboration with other Augenblick, Palaich, and Associates staff:

- "Nevada School Finance Study" for the Nevada Department of Education, October 2018.
- "Evaluation of ELPASO Program, 2017-18" for the ELPASO Movement, July 2018.
- "Evaluation of Providers Advancing School Outcomes: Years 1-5; for PASO and Mile High United Way, 2012-2018.
- "Alternative Approaches to Recalibration and Reconciliation of Study Results to Provide Final Recommendations" for the Select Committee on School Finance Recalibration, WY Legislature, January 2018.
- "Final Report of the Study of Adequacy of Funding for Education in Maryland" for the Maryland State Department of Education, November 2016.
- "Michigan Education Finance Study" for the State of Michigan, June 2016.
- "Review of Alaska's School Funding Program" for the Alaska State Legislature, July 2015.
- "Equity and Adequacy in Alabama Schools and Districts" for the Alabama State Department of Education, March 2015.
- "Professional Judgment Study Report" for the Lincy Institute at the University of Nevada, Las Vegas, January 2015.
- "Study of Assessment Use in Colorado Districts and Schools" for Prepared the HB14- 1202 Standards and Assessment Task Force, November 2014
- "Cost of Student Achievement: Final Report of the DC Education Adequacy Study" for the Deputy Mayor of Education, District of Columbia, December 2013.
- "Costing out the Resources Needed to Meet Colorado Education Standards and Requirements:

Final Report,” for Children’s Voices, March 2011, and “Update Report,” for the Colorado School Finance Project, February 2013.

- “Analysis of the Costs of Colorado’s Achievement Plan for Kids (CAP4K): First Interim Report,” “Second Interim Report” and “Final Report”, for the Colorado Department of Education, March 2010, October 2011, November 2014.
- “Analysis of New Jersey’s Census-Based Special Education Funding System,” for the New Jersey Department of Education, October 2011.
- “An Evaluation of the Denver Preschool Program 2008-09; 2009-10; 2010-11,” for the Denver Preschool Program, June 2009, September 2010, September 2011.
- “Costing Out the Resource Implications of SB 10-191 in Colorado School Districts,” for the State Council for Educator Effectiveness, March 2011.
- “Recommendations to Strengthen North Carolina’s Funding System,” for North Carolina General Assembly, November 2010.
- “Participant Perceptive of Reach Out and Read Colorado,” for Reach Out and Read Colorado, August 2010.
- “Final Report: Jeffco Facilities Usage Committee,” for Jefferson County Public Schools, December 2009.
- “Assessment of Denver Public Schools Student-Based Budgeting System,” for Metro Organizations for People, December 2008.
- “Facilities Usage Analysis,” for Facility Use Task Force, for Littleton Public Schools, October 2008
- “Costing Out the Resources Needed to Meet Pennsylvania’s Public School Education Goals,” for the Pennsylvania State Board of Education, December 2007.
- “State and Local Costs of the No Child Left Behind Act in West Virginia,” for the West Virginia Dept. of Education, May 2007.
- “Estimating the Cost of an Adequate Education in Nevada,” for the Nevada State Legislature, August 2006.
- “The Cost of Fulfilling the Approved Procedural Requirements of the No Child Left Behind Act in New Mexico,” for the New Mexico Public Education Department, May 2005.



AUGENBLICK,
PALAICH AND
ASSOCIATES

Dr. Mark Fermanich
Senior Associate

720.227.0101 | mlf@apaconsulting.net

Summary of Related Experience

Dr. Mark Fermanich joined APA in 2013, bringing nearly 30 years of experience working in the fields of education policy, research and administration. He has worked at the state policy level as a legislative education policy analyst; at the LEA level as a policy analyst and administrator for two large, urban school districts; and as a researcher in higher education settings. He also has nearly 10 years of experience teaching adult learners working toward graduate degrees or certification as K-12 or post-secondary administrators. For six years Dr. Fermanich served as a national technical assistance provider for grantees of the federal Teacher Incentive Fund Grant program. He has extensive experience in helping education organizations design, implement and estimate the costs of state or local school financing systems, alternative educator compensation plans, and in identifying and assessing the costs and effectiveness of educational strategies and interventions.

Areas of Expertise

- Project leadership/management
- Technical assistance
- K-12 school finance
- Cost benefit, cost effectiveness, and return on investment analysis
- Teacher recruitment, retention, mentoring, and quality
- Teacher compensation
- Fiscal modeling

Education

Ph.D., Educational Leadership and Policy Analysis **2003**
University of Wisconsin Madison, Madison, WI

M.A., Public Administration **1982**
University of Wisconsin Madison, Madison, WI

B.A., Political Science **1979**
University of Wisconsin Oshkosh, Oshkosh, WI

Professional Experience

Augenblick, Palaich & Associates (APA), Denver, CO **2013-**
Senior Associate **Present**

Serve as principal investigator on small- to large-scale research and evaluation projects. Conduct policy research, evaluation, and cost-effectiveness analyses in the areas of education policy, finance, and reform; teacher compensation and effectiveness; and early childhood education. Prepare and present reports, both technical and academic for clients, policymakers and academic journals. Advise and provide technical assistance to state and local education policymakers.

Oregon State University, Corvallis, OR **2011-2013**
Assistant Professor

Taught courses, both campus-based and online, in the areas of education policy, finance and politics for K-12 and higher education leadership graduate programs in the College of Education. Maintained active research agenda, served on Master's and Doctoral committees and engaged in service activities.

University of Colorado Denver, Center for Education Policy Analysis, Denver, CO **2009-2011**
Research Faculty

Served as principal investigator and researcher on small- to large-scale research and evaluation projects. Conducted policy research and evaluation in areas of education policy, finance and reform; and state fiscal policy. Advised and provided technical assistance to state and local education policymakers. Taught core graduate classes in the School of Public Affairs.

Colorado Children's Campaign, Denver, CO **2007-2009**
Research Director

Directed policy research and analysis on education, health care and early childhood issues for nonprofit policy research and advocacy organization. Directed the use of data and research to shape and guide the organization's policy agenda and proposals within the Colorado state context. Worked collaboratively with policy actors including state and local policymakers, foundations and higher education institutions.

Sonoma State University, Rohnert Park, CA **2004-2007**
Associate Professor

Taught graduate courses in the areas of education policy, finance, politics, and leadership for the Department of Educational Leadership and Special Education in the School of Education and for the Capital Area North Doctorate in Educational Leadership Program at the University of California Davis. Other responsibilities included supervising educational administration interns in school placements, serving on masters and doctoral committees, and engaging in scholarship and service activities.

University of Wisconsin Madison, Consortium for Policy Research in Education, Madison, WI **1998-2003**
Assistant Researcher

Conducted policy research in areas of education finance and reform with a focus on spending for school and instructional improvement, professional development, resource reallocation, school-based budgeting, decentralization, and education finance equity and adequacy.

St. Paul Public Schools, St. Paul, MN **1997-1998**
Compensatory Education Coordinator

Coordinated all activities pertaining to district and site-based compensatory education programs for disadvantaged and at-risk students. Responsibilities included reviewing and approving expenditures for \$40 million compensatory education program and assisting school sites with budget, administration, best practice, and program implementation issues. Also assumed a leadership role in the district's site-based management initiative and provided troubleshooting in areas of budget and state policy.

Minneapolis Public Schools, Minneapolis, MN 1995-1997
Manager, Intergovernmental Relations

Managed the district's intergovernmental relations efforts in support of its policies and strategic direction. Served as the district's liaison with the legislature, state executive branch, and other state and local government agencies. Responsibilities included identifying and analyzing key district policy issues and assisting the district in formulating solutions and initiatives; developing and nurturing collaborative efforts with state, county and city governments; and providing the Board of Education and district administration with interpretation and analysis of local, state and federal legislation.

Senate Counsel and Research, St. Paul, MN 1990-1995
Legislative Analyst

Served as nonpartisan staff for State Senate K-12 Education Committee, providing analytical, technical and legal staff support. Responsibilities included researching salient policy issues, formulating proposals, drafting legislation, conducting fiscal analyses of legislative proposals, and projecting state and local costs. Extensive work in areas of education finance, special education, early childhood education, teacher preparation, and school-social services collaboration.

American International School of Rotterdam, Rotterdam, The Netherlands 1989-1990
Finance Manager

Managed all business affairs for this K-8 elementary school with a budget of \$1.5 million.

State of Minnesota, Intertechnologies Group, St. Paul, MN 1988-1989
Information Center Analyst

Primary support person within state government for SAS statistical software.

Minnesota State Department of Revenue, St. Paul, MN 1983-1988
Research Analyst

Served as lead researcher on large-scale research projects in the areas of state and local tax policy and finance. Responsibilities included programming and maintaining a statewide property tax model for projecting state-paid aids and credits.

Selected Reports and Other Publications

Refereed Publications

Ely, T. & Fermanich, M. L. (2018). *Building blocks: Financing charter school facilities*. Manuscript submitted for publication.

Fermanich, M. L. (2017). *Interactions between tax and expenditure limits and school finance equity: An analysis of Colorado's TABOR*. Manuscript in preparation.

Ely, T. & Fermanich, M. L. (2013). *Learning to count: School finance formula count methods and attendance-related student outcomes*. *Journal of Education Finance*, 38(4), 343.

Fermanich, M. L. (2011). Money for music education: A district analysis of the how, what and where of spending for music education. *Journal of Education Finance*, 37(2), 130-149.

Odden, A. R., Borman, G. & Fermanich, M. L. (2004). A framework for assessing teacher, classroom and school effects, including fiscal effects. *Peabody Journal of Education*, 79(4), 4-32.

- Miles, K. H., Odden, A. R., Fermanich, M. L., & Archibald, S. (2004). Inside the black box of school district spending on professional development: Lessons from five urban districts. *Journal of Education Finance*, 30(1), 1-26.
- Picus, L.O., Odden, A. R. & Fermanich, M. L. (2004). Assessing the equity of Kentucky's SEEK formula: A ten-year analysis. *Journal of Education Finance*, 29(4), 315-336.
- Odden, A. R., Archibald, S., Fermanich, M. L., & Gross, B. (2003). Defining school-level expenditure structures that reflect educational strategies. *Journal of Education Finance*, 28(3), 323-356.
- Fermanich, M. L. (2002). School spending for professional development: A cross-case analysis of seven schools in one urban district. *The Elementary School Journal*, 103(1), 27-50.
- Fermanich, M. L. & Kimball, S. M. (2002). You can get there from here: How three urban schools could use existing resources to afford comprehensive school reform. *Journal of Education Finance*, 28(1), 75-96.
- Odden, A. R., Archibald, S., Fermanich, M. L., & Gallagher, H. A. (2002). A cost framework for professional development. *Journal of Education Finance*, 28(1), 51-74.
- Odden, A. R., Archibald, S., Fermanich, M. L., & Gallagher, H. A. (2002). How to figure the cost of professional development. *Journal of Staff Development*, 23(2), 53-58.

Book Chapters

- Odden, A. R., Archibald, S. & Fermanich, M. L. (2003). Rethinking the finance system for improved student achievement. In W. L. Boyd & D. Miretzky (Eds.), *American educational governance on trial: Change and challenge (102nd Yearbook of the National Society for the Study of Education)*. Chicago: The University of Chicago Press.

Research Reports and Other Publications

- APA Consulting. (2016). *Final Report of the Study of Adequacy of Funding for Education in Maryland*. Denver, CO: Author.
- APA Consulting. (2016). *A Return on Investment Analysis of Aurora Public Schools' Retired Mentors for New Teachers Program*. Denver, CO: Author.
- APA Consulting. (2015). *Equity and Adequacy in Alabama Schools and Districts*. Denver, CO: Author.
- Fermanich, M. L., Carl, B., & Finster, M. (2015). *Development and Implementation Costs of Student Learning Objectives: Considerations for TIF Grantees*. Washington, D.C.: U.S. Department of Education, Office of Innovation and Improvement.
- Fermanich, M. L. & Picus, L. O. (2015). *Adequacy Cost Study: An Interim Report on Methodology and Progress*. Denver, CO: Augenblick, Palaich & Associates.
- Humann, C., Palaich, R., Fermanich, M. and Griffin, S. (2015). *Final School Size Study Report: Impact of Smaller Schools*. Denver, CO: APA Consulting.
- Silverstein, J., Brown, A., & Fermanich, M. L. (2015). *Review of Alaska's School Funding Program*. Denver, CO: Augenblick, Palaich & Associates.
- Wool, S., Fermanich, M., & Reichardt, R. (2015). *A Review of the Literature on the Effects of Concentrations of Poverty on School Performance and School Resource Needs*. Denver, CO: APA Consulting.

- Aportela, A., Picus, L., Odden, A. & Fermanich, M. (2014). *A Comprehensive Review of State Adequacy Studies Since 2003*. Denver, CO: Augenblick, Palaich & Associates
- Fermanich, M., Picus, L. O. & Odden, A. (2014). *Proposed Methodology for Establishing Adequate Funding Levels in the State of Maryland*. Denver, CO: Augenblick, Palaich & Associates.
- Germeroth, C., Day-Hess, C. & Fermanich, M. (2013). *Evaluation study of early childhood workforce professional development strategies*. Denver, CO: McREL.
- Fermanich, M. L. (2011). *Colorado's fiscal future: We'll get what we pay for* (White Paper). Denver, CO: University of Colorado Denver, School of Public Affairs, Buechner Institute for Governance.
- Fermanich, M. L. (2010, September). *An analysis of decentralized funding plans for DPS innovation schools*. Denver, CO: University of Colorado Denver, School of Public Affairs, Buechner Institute for Governance.
- Fermanich, M. L. (2010). *Money for music: Exploring the costs and benefits of music programs in Mountain View School District*. Carlsbad, CA: NAMM Foundation.
- Fermanich, M. L. & Hupfeld, K. (2009). *Student-centered funding and its implications for Colorado: A primer for policy makers*. Denver, CO: Donnell-Kay Foundation and University of Colorado Denver, Center for Education Policy Analysis.
- Harris, C., Clemons, T., Williams, J., & Fermanich, M. (2009). *Greater Louisville Education Project Report*. Denver, CO: McREL.
- Fermanich, M. L. (2007). *They are all our kids: Examining resources for supporting CALSTAT leadership site models*. Rohnert Park, CA: California Institute on Human Services.
- Fermanich, M. L. (2006). Is the 65% solution THE solution? *School Business Affairs*, 72(2), 29.
- Fermanich, M., Picus, L. O. & Odden, A. (2006). *Washington Learns: Successful district study final report*. North Hollywood, CA: Lawrence O. Picus and Associates.
- Odden, A., Picus, L. O., Goetz, M., & Fermanich, M. (2006). *An evidence-based approach to school finance adequacy in Washington*. North Hollywood, CA: Lawrence O. Picus and Associates.
- Odden, A., Picus, L. O., Goetz, M., Fermanich, M., Seder, R. C., Glenn, W., & Nelli, R. (2006). *An evidence-based approach to recalibrating Wyoming's block grant school funding formula*. North Hollywood, CA: Lawrence O. Picus and Associates.
- Odden, A., Picus, L. O., Fermanich, M., & Goetz, M. (2004). *An evidence-based approach to school finance adequacy in Arizona*. North Hollywood, CA: Lawrence O. Picus and Associates.
- Odden, A., Picus, L. O. & Fermanich, M. (2003). *An evidence-based approach to school finance adequacy in Arkansas*. North Hollywood, CA: Lawrence O. Picus and Associates.
- Odden, A., Fermanich, M. & Picus, L. O. (2003). *A state-of-the-art approach to school finance adequacy in Kentucky*. North Hollywood, CA: Lawrence O. Picus and Associates.
- Picus, L. O., Odden, A. & Fermanich, M. (2003). *A professional judgment approach to school finance adequacy in Kentucky*. North Hollywood, CA: Lawrence O. Picus and Associates.
- Miles, K. H., Hornbeck, M. & Fermanich, M. L. (2002). *Chicago Public Schools: Professional development project*. Chicago, IL: The Chicago Public Education Fund.
- Picus, L. O., Odden, A. & Fermanich, M. (2001). *Assessing the equity of Kentucky's SEEK formula: A ten-year analysis*. North Hollywood, CA: Lawrence O. Picus and Associates.



AUGENBLICK,
PALAICH AND
ASSOCIATES

Jennifer Piscatelli
Associate

720.227.0090 | jhp@apaconsulting.net

Summary of Related Experience

Jennifer Piscatelli joined APA in 2012 and brings over 20 years of education policy experience to the Comprehensive Center proposal. She has contributed to APA's role in REL Central for the past 7 years, contributing to the development of REL Central's research alliances and managing APA's regional educational laboratory subcontract. She regularly works with policymakers through her roles in APA school finance, evaluation, and assessment projects. Prior to joining APA, Jennifer spent over 8 years as a researcher and policy analyst at the Education Commission of the States, staffed New Hampshire Governor Jeanne Shaheen's Kids Cabinet, and served as a Legislative Aide to the New Hampshire State Senate Education Committee.

Areas of Expertise

- Program/project administration
- School finance
- Education policy development and implementation
- Meeting facilitation
- Survey development and analysis
- Qualitative data analysis
- Focus group and Interview development and facilitation

Education

M.A., Political Science (Emphasis: Public Policy) **2006**
University of Colorado at Denver, Denver, CO

B.A., Political Science and Women's Studies (Magna Cum Laude) **1998**
University of New Hampshire, Durham, NH

Professional Experience

Augenblick, Palaich & Associates (APA), Denver, CO **Feb. 2012-**
Associate **Present**

- Member of APA's school finance team. Contribute to school finance adequacy and costing out projects and Professional Judgment Group panels in multiple states, including Alabama, Alaska, Maryland, Michigan, and Nevada.
- Provide analysis, support and facilitation for a variety of APA projects, including educator evaluation systems, student assessment, teacher compensation, and early childhood education. Lead focus groups, conduct interviews and surveys and facilitate meetings.
- Serve as administrator of APA's subcontract as a partner providing services as the Regional Educational Laboratory Central (REL Central). Conduct research as part of REL Central. Research projects have included educator effectiveness, teacher mentoring, competency-based education, and cost-benefit analysis.

Independent Consultant, Castle Rock, CO

Aug. 2010-

Self-employed

Feb. 2012

- Managed multiple clients and projects while delivering high-quality work. Developed a “case statement” and accompanying funding scout report for a Washington, D.C.-based non-profit organization.
- Designed and facilitated a session on service-learning policy for the Wisconsin Department of Public Instruction.
- Provided support to the Executive Director of an education professional association. Responsible for managing and executing all communication with association members and coordinating the association’s annual conference.

Education Commission of the States (ECS), Denver, CO

Feb. 2002-

Policy Analyst; Assistant Policy Analyst; Researcher; Special Projects Associate

Aug. 2010

- Supported ECS’ vision to serve state policymakers across the country as they develop education policy through multiple roles over 8+ years:
 - Supported the ECS National Center for Learning and Citizenship’s (NCLC) national initiatives on state and school district policy to sustain high-quality citizenship education and service-learning. Authored and co-authored grant proposals to fund and sustain the Center’s work. Supervised the creation and updating of web-based state policy databases. Presented findings at state and national conferences.
 - Contributed to ECS’ Postsecondary and Workforce Development Institute; conducted state policy research on postsecondary remedial education. Managed the institute’s database and generated reports, and facilitated discussions of experts and policymakers.
 - Served as an ECS State Liaison, regularly connecting with up to 28 ECS Commissioners in 4 states and conducting needs assessments.
 - Coordinated the ECS President’s “Distinguished Senior Fellows” program.
 - Served as the ECS liaison for the Pathways to College Network policy; Coordinated and participated in interviews of 35 national education experts on school accountability; represented ECS at state meetings.

Office of the Governor, Concord, NH

Feb. 2001-

Program Specialist

Sept. 2001

- Staff to New Hampshire Governor Jeanne Shaheen, the Governor’s Kids Cabinet and three Cabinet Subcommittees. Prepared the Governor’s briefing materials and served as liaison between the Governor’s Office and the thirteen Cabinet members (state agency heads).
- Coordinated monthly Cabinet and subcommittee meetings, developed meeting agendas consistent with Cabinet priorities, provided research and administrative support for Cabinet and Subcommittee members and meetings. Secured private grant funding for the KIDS Cabinet School Age Care Outreach Project.

New Hampshire State Senate, Concord, NH

Jan. 1999-

Legislative Aide

Feb. 2001

- Served as legislative aide to the New Hampshire Senate Education Committee and all education-related study committees and commissions. Attended committee hearings and meetings, prepared meeting/hearing reports, reviewed committee amendments for accuracy, researched bills and issues, drafted interim and final study committee reports.

- Drafted Senators' floor statements outlining committee recommendations for Senate floor debate. Responded to information requests and inquiries from legislators, members of the public, state agency personnel, lobbyists and other interested parties in a timely manner.

Selected Reports and Other Publications

"Costing Out the Resources Needed to Meet Michigan's Standards and Requirements," with APA staff and Picus, Odden and Associates. Denver, CO. Augenblick, Palaich and Associates, 2018.

"Overview of selected state policies and supports related to K–12 competency-based education" (REL 2017–249). Brodersen, R. M., Yanoski, D., Mason, K., Apthorp, H., and Piscatelli, J. (2016). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Central.

"A Review of Teacher and Principal Input Regarding The 27J Teacher Evaluation System," with APA staff. Prepared for School District 27J, Colorado, June 2015.

"Review of Alaska's School Funding Program." Silverstein, J., Brown, A., Fermanich, M. Denver, CO. Augenblick, Palaich and Associates, 2015.

"Professional Judgment Study Report," with APA staff. Prepared for Lincy Institute at the University of Nevada, Las Vegas, January 2015.

"A Review of Teacher Survey Data Regarding The 27J Teacher Evaluation System," with APA staff. Prepared School District 27J, Colorado, August 2013.

"Study of Assessment Use and Need in Illinois Race to the Top Districts," with APA staff. Prepared for Illinois State Board of Education, May 2013.

"State Policies on School Climate and Bully Prevention Efforts: Challenges and Opportunities for Deepening State Policy Support for Safe and Civil Schools," with Chiqueena Lee. National School Climate Center, July 2011.

Jason Willis

730 Harrison Street, San Francisco, CA 94107



SUMMARY OF EXPERIENCE

Jason Willis is the Director of Strategy & Performance at WestEd. In this role, he oversees and guides the expansion of the agencies performance and accountability services, which include support to state and local education agencies to implement policies and financial infrastructure to support school system reform. Performance and accountability services provides this support through capacity building, facilitation, and analysis of financial data including the effective use of resources. He has also worked with numerous states and urban school systems to reimagine their funding distribution and regulatory systems to increase the effective use of resources.

Prior to joining WestEd, Willis served as Assistant Superintendent for the San Jose Unified School District. He also served as the Chief Financial Officer/Chief Business Official for the Stockton Unified School District and Budget Director for the Oakland Unified School District. Willis began his career as an Assistant Product Manager with Standard & Poor’s analyzing the debt and financial profile of public institutions.

EDUCATION

- 2005 MAEd, Policy & Finance, Teachers College, Columbia University, New York, NY
- 2003 BA, Educational Studies & Psychology, The Catholic University of America, Washington, DC

PROFESSIONAL EXPERIENCE

- 2016– Present *Strategy and Performance Director*, Comprehensive School Assistance Program WestEd, Washington, DC

Oversee and guide the expansion of CSAP’s existing performance and accountability services, which include support to California’s state and local education agencies to implement policies and practices to support the Local Control Funding Formula (LCFF) and realization of genuine continuous improvement efforts in school systems. Performance and accountability services provides this support through capacity building, facilitation of professional learning networks, and analysis of financial data including the effective use of resources.

- 2011– 2016 *Assistant Superintendent, Engagement & Accountability*, San Jose Unified School District, San Jose, California

Guided the design, development, and implementation of the school district’s strategic plan for 2012-2017, including significant reforms such as teacher evaluation and

compensation, transformational school redesign, and school performance management systems. In addition, oversaw departments within the school district, including technology and information services; data, research, and accountability; strategic planning/implementation; student services; charter schools; public/media relations; and alternative programs.

2009–
2011 *Chief Financial Officer/Chief Business Official*, Stockton Unified School District, Stockton, California

Led and oversaw all non-instructional operations for the school district including finance, facilities, information technology, transportation, food services, and procurement. Balanced the SUSD district budget totaling approximately \$475 million. Managed approximately 600 staff, providing daily support for the instruction and education of students.

2007–
2009 *Budget Director and Program Manager*, Oakland Unified School District Oakland, California

Supervised and managed the overall OUSD budget functions. Develop annual budget that aligned strategy with resource allocations. Managed the school district's annual \$710 million budget, which included operating, facilities, food service, early childhood, and adult education funds. Supervised nine staff members in the budget department who were responsible for assisting and communicating with school sites and central office departments. Provided support and training on budget management and strategic planning to school district principals.

2003–
2006 *Assistant Product Manager, Senior Research Assistant, and Research Assistant*, School Evaluation Services, Standard & Poor's New York, New York

Helped to lead efforts to implement the Resource Management Service (RMS) for education leaders. Provided tools, analysis, and training to improve the management of school districts through a data-driven decision-making framework. Led efforts to design and implement the Municipal Analytical Platform, a web-based platform aimed to allow data comparisons of public entities for use in the S&P Public Finance department. Provided analytical and research support for the 'Resource Adequacy Study' for the New York State Commission on Education Reform.

SELECTED PUBLICATIONS AND PRESENTATIONS

Willis, J., Krausen, K., Nakamatsu, E., & Caparas, R. (September 2018). Leading in the Local Control Funding Formula Era: The Shifting Role of California's Chief Business Officers. Getting Down to Facts II: Technical Report. Palo Alto, CA.

Grunow, A., Hough, H., Park, S., Willis, J., & Krausen, K. (September 2018). Towards a Common Vision of Continuous Improvement in California. Getting Down to Facts II: Technical Report. Palo Alto, CA.

Krausen, K. & Willis, J. (April 2018). Silent Recession: Why California School Districts Are Underwater Despite Increases in Funding. WestEd. San Francisco, CA.

- Taylor, L., Willis, J., Berg-Jacobson, A., Jaquet, K., & Caparas, R. (March 2018). Estimating the Costs Associated with Reaching Student Achievement Expectations for Kansas Public Education Students: A Cost Function Approach. Prepared for the Kansas Legislature. WestEd. San Francisco, CA.
- Taylor, L., Berg-Jacobson, A., Atchison, D., Willis, J. & Levin, J. (March 2018). Cost Differentials Across School Districts in Florida: Initial Report. WestEd. San Francisco, CA.
- Baumgardner, C., Frank, S., Willis, J., & Berg-Jacobson, A. (February 2018). Finding a Path Toward Equity: What States Can Learn from the Transformation of California's School Funding Model. WestEd. San Francisco, CA.
- Hough, H., Willis, J. Grunow, A., Krausen, K., Kwon, S., Mulfinger, L., & Park, S. (October 2017). Continuous Improvement in Practice. Policy Analysis for California Education (PACE). Palo Alto, CA.
- Willis, J. & Hill, M. (November 2010). Budgeting to Support Student Achievement: New Strategies for Central Office. *Voices in Urban Education*. Annenberg Institute for School Reform. Providence, RI.
- Willis, J., Gazzo, P., Durante, R. (May 2006). Towards Effective Resource Use: The Case for the Resource Management Service. Prepared for the National Working Group on Funding School Success. A project of the School Finance Redesign Project. University of Washington.
- Durante, R. & Willis, J. (November 2005). The benefits dilemma: Rising healthcare and pension costs are squeezing education resources. *School Business Affairs*. Association for School Business Officials International: Reston, VA.
- Cox, W., Durante, R., Stewart, M., Gazzo, P., Hampel, M., Willis, J., Sharp, A., Skuthan, N. (March 2004). *Resource Adequacy Study for the New York State Commission on Education Reform*. School Evaluation Services Reports & Findings, Standard & Poor's: New York, NY.

SELECTED PROFESSIONAL ACTIVITIES

- Urban Institute. School Funding Reform – Stories from the States. Washington, DC, 2018
- National Conference of State Legislatures. The Cost of Addressing Barriers to Learning. Baltimore, MD, 2018
- National Conference of State Legislatures. Costing Out in Action – Experiences, Challenges and Successes in Costing Out Educational Adequacy. Baltimore, MD, 2018
- Board Member. Alder Graduate School of Education. Palo Alto, CA, 2017-2020
- Public Financing Equity and Excellence in Schooling. Haas School of Business: University of California – Berkeley. Berkeley, CA, 2017

- Advisory Board Member. California Office for Reforming Education (CORE). Sacramento, CA, 2017-2019
- Technical Working Group Member. National Study on the Impact of Weighted Student Funding Systems. Institute for Educational Studies (IES). U.S. Department of Education, 2016-2018
- School-level Per Pupil Allocations: Political and Technical Implications. Association for Education Finance Professionals Annual Gathering. Washington, DC, 2017
- Implications for Weighted Student Funding Systems in our Public School Systems. Future of Education Finance Summit. Baltimore, MD, 2016
- Implementing College Readiness Indicator Systems: Linking Data and Design in District Settings Panelist, Education Northwest, Portland, OR, 2015
- Data Quality Campaign, District Data Use Working Group Advisory Committee Member, 2013-2015
- National Governor's Association (NGA) Resource Reallocation Policy Academy Presenter, "Using Data to Inform Strategic Decision-Making," 2012
- Testimony before the National Equity and Excellence Commission, U.S. Department of Education, on Effects of Implementing the Results-Based Budgeting System in an Oakland Unified School District, San Jose, CA, 2011
- Haas Education Leadership Case Competition, UC Berkeley. Judge, "Los Angeles Unified: Budgeting for Student Achievement" Case, 2011
- Turning Around the Nation's Lowest-Performing Schools: Steps to Success Panelist, Center for American Progress, Washington, DC, 2011
- School Site Finance and Resources, Principal Leadership Institute Adjunct Professor, Graduate School of Education, UC Berkeley, 2009, 2011
- The Broad Center Academy & The Broad Center Residency Presenter, "Effective Resource Allocation and Budgeting in Urban School Districts, 2009, 2010, 2011
- Testimony before the Student-Based Budget Task Force, Louisiana Board of Elementary and Secondary Education, on Effective Practices of Student-Based Budgeting Systems on Urban Schools, 2010
- Deregulating School Aid in California: How Local Educators Allocate Flexible Dollars and Stimulus Funds, RAND Corporation and Policy Analysis for CA Education Advisory Committee Member, Sacramento, CA, 2009-2011

SUMMARY OF RELATED EXPERIENCE

WestEd research associate Raifu Durodoye Jr. is an experienced administrative practitioner and researcher. He provides technical assistance to school districts and state education agencies, and designs and conducts experimental and quasi-experimental evaluations of education programs. Dr. Durodoye Jr. supports work affiliated with the REL – Northeast & Islands, REL-Mid-Atlantic, and WestEd’s Comprehensive School Assistance Program. His work is focused on the implementation and effectiveness of academic interventions, state education agency strategies to support low-performing schools, and the implications of school funding disparities for at-risk student populations.

Previously Dr. Durodoye Jr. was the Title 1 – Part A program manager for the Delaware Department of Education. In that role, he worked to align planning and budgeting processes with school level needs assessment findings, institute internal financial controls, and provide data and policy supports to district administrators. Dr. Durodoye Jr. also served in the Delaware Department of Education as a data strategist with their Educator Support Division, and as a data fellow with the Strategic Data Project at the Center for Education Policy Research. Dr. Durodoye Jr. supported the agency in forming their long-range educator workforce goals under ESSA, and generating and disseminating reporting to monitor educator equity gaps within districts and schools.

Prior to joining a state education agency, Dr. Durodoye Jr. worked in higher education as an analyst, and senior analyst in offices of institutional research, evaluation, and assessment. In those roles, Dr. Durodoye Jr. oversaw the development of university-wide early alert systems, evaluated student support initiatives, and communicated research findings to executive officers. Dr. Durodoye Jr. has managed portions of university accreditation processes, developed performance budgeting tools, and led racial and gender equity investigations within the Office of the Provost. He received his undergraduate degree, and master’s in public administration from the University of North Texas. He received his PhD in public administration and policy from Virginia Polytechnic Institute & State University.

EDUCATION

- 2015 PhD in Public Administration & Policy, Virginia Polytechnic Institute
- 2008 Master of Public Administration, University of North Texas
- 2006 Bachelor of Arts & Sciences

PROFESSIONAL EXPERIENCE

- 2018 - *Education Associate, Title I - Part A*
2019 Delaware Department of Education, Dover, DE
Student Support Division
- Steer district budgeting, programmatic, and monitoring practices to meet policy objectives
 - Steward over \$46 million in federal funds
 - Create systems of technical assistance and programmatic oversight
 - Streamline budgeting, management, and financial practices for stakeholders
 - Evaluate program performance and efficacy
 - Liaison to the U.S. Department of Education
- 2016 - *Strategic Data Project Fellow*
2018 Harvard Graduate School of Education, Cambridge, MA
Center for Education Policy Research
- Embedded in the Delaware Dept. of Education, Dover, DE
 - Formulated educator equity goals for Delaware's ESSA plan
 - Data analyses and briefings for executive cabinet, and district chiefs
 - Outreach to union leadership, advisory board members, and district superintendents
 - Team lead on standardized assessment metrics
 - Offered professional development for teachers and school leaders
- 2014 – *Research Analyst*
2016 Virginia Polytechnic Institute, Blacksburg, VA
Office of Institutional Research & Effectiveness
- Conducted institutional efficiency and benefit-cost analyses
 - Authored the Office of the Provost's institutional salary equity study
 - Managed sections of SACSCOC accreditation report submission
 - Data analysis and advanced statistical modeling in SAS
 - Instituted automated reporting and data quality scans
- 2013 – *Assistant Editor for Administration & Society*
2014 Virginia Polytechnic Institute, Blacksburg, VA
Center for Public Administration & Policy
- Administration of peer review process
 - Initial review of manuscripts
 - Author and reviewer point of contact
- 2011 – *Graduate Assistant*
2013 Virginia Polytechnic Institute, Blacksburg, VA
Office of Institutional Research & Effectiveness
- Data analysis and ad hoc reporting in SAS & SQL
 - Data curation and quality control responsibilities
 - Annual internal and federal reporting

2011– *Institutional Research Analyst III*
2010 University of North Texas, Denton, TX
Office of Institutional Research & Effectiveness

- Developed an early alert process to increase first year student retention
- Statistical identification of at-risk students for program identification
- Data analysis and statistical modeling in SAS & STATA
- Presentation of findings to academic administrators and constituents
- Supervision of graduate assistants

SELECTED PUBLICATIONS AND PRESENTATIONS

PUBLICATIONS

Gumpertz, M., Durodoye, R., Wilson, A., & Griffith, E. (2017, October). Retention and promotion of women and underrepresented minority faculty in science and engineering at four large land grant institutions. *PLOS ONE*.

Tampke, D. R., & Durodoye, R. O. (2013). Improving Academic Success for Undecided Students: A First-Year Seminar/Learning Community Approach. *Learning Communities Research & Practice, 1*(2).

Durodoye, R., Gumpertz, M., Wilson, A., Griffith, E., Ahmad, S. (*forthcoming*). Tenure and Promotion Outcomes at Four Large Land Grant Universities: Examining the Role of Gender, Race, and Academic Discipline. *Research in Higher Education*.

UNDER CONTRACT

Ahmad, S., & Durodoye, R. (2019). Dig the Well Before You're Thirsty: Long-Term Strategies to Strategically Cultivate the Teacher Workforce. In B. A. Durodoye, & R. Bryant (Eds.), *From Disagreement to Discourse: A Chronicle of Controversies in Schooling and Education*. Charlotte, NC: IAP.

SELECTED PROFESSIONAL ACTIVITIES

- St. Anne's Episcopal School Trustee 2018
- DDOE Equity Council Co-Chair 2018
- Family Services Cabinet Council - Integrated Data Systems Committee 2017
- Comprehensive Tableau Training 2017
- TeenSHARP Volunteer & Mentor 2017
- Commission on Equal Opportunity and Diversity Vice Chair 2016
- Commission on Equal Opportunity and Diversity Workgroup Chair 2016
- Commission on Equal Opportunity and Diversity Member / University Council Representative 2015(16)
- IPEDS Data & Benchmarking Workshop 2014
- HopeTree Family Services Volunteer 2013(14)(15)(16)
- Association for Institutional Research Member 2012(13)(15)

- IR LEADERSHIP AWARD IN STUDENT RETENTION AWARD RECIPIENT (CSRDE) 2010
- Retention and Graduation Committee Member 2010(11)
- Soaring Eagle Award Recipient 2010
- Texas Association for Institutional Research Member 2010
- AIR Forum IPEDS Workshop 2010
- North Texas Council for International Visitors Volunteer 2010
- North Texas Athletics Academic Coach 2008-2011
- MPA Alumni Scholarship Award Recipient 2008
- Mediation Certification 2008

Lauren R. Outlaw

1140 Third Street NE, Washington, DC 20002

SUMMARY OF RELATED EXPERIENCE AND AREAS OF EXPERTISE

Lauren Outlaw is a Senior Policy Specialist and a member of the Learning Innovations and Comprehensive School Assistance Program teams at WestEd. Her work includes providing targeted technical assistance to help schools improve program quality, structures, and resource allocation and efficiency; and, using her extensive background in charter school administration and strategic risk management to provide high-value implementation support of WestEd's Charter Schools Program Grant Monitoring project and the National Charter Schools Resource Center. In this role, Ms. Outlaw also translates K-12 education laws and regulations into actionable resources for schools, districts, and regional systems, and engages a broad range of stakeholders on service assessment, process design, and leadership development.

Before joining WestEd, Ms. Outlaw successfully advocated for increased school-based mental health resources for public school students in the District of Columbia and structured and negotiated the 15-year charter school renewal agreement with the DC Public Charter School Board on behalf of KIPP DC. Her expertise is grounded in federal and local charter school and choice policies; legislative analysis and legal compliance; business and process improvement strategies; and promoting school safety, positive school climates, and the effective use of restorative practices.

EDUCATION

2011 Doctor of Jurisprudence, Indiana University Maurer School of Law, Bloomington, IN

2007 Bachelor of Arts in Political Science, Columbia College, Columbia University, New York, NY

PROFESSIONAL EXPERIENCE

2019-Present *Senior Policy Specialist*
WestEd, Washington, DC

Assists state and local agencies with planning, implementing, and managing resources and evidence-based practices to grow high-quality education opportunities and improve outcomes for students. Recommends individualized adjustments to state school finance, accountability, and support systems consistent with the Every Student Succeeds Act (ESSA) and other state laws. Contributes to the CSP monitoring project.

2015-2019 *Director of Policy*
KIPP DC, Washington, DC

Designed and implemented robust infrastructures founded on equitable, evidence-based policies, and best practices to promote consistency and legal compliance across 16 schools with approximately 6,400 students (e.g., student property searches, school visitors, and field trip protocols; discipline and due process procedures). Provided daily school-based support grounded in restorative practices, including risk assessment; conflict resolution; and, liaising with families, school leaders, executive staff, and third-party agencies. Mitigated potential liability through over 20-30 confidential employee,

parent/guardian, and student investigations per year. Served as Title IX Coordinator and central point of contact for 50+ formal complaints annually on school-based issues such as sexual harassment, bullying, student safety and discipline, grade retention, and special education. Compiled myriad legally-mandated performance and data submissions (e.g., annual reports, student handbooks, discipline reporting to the Board of Trustees, responses to special education and other external audits, and residency verification documentation). Conducted detailed analyses of local budgets to determine annual appropriations to schools and education agencies and identify critical shortages (e.g., funding for school-based mental health personnel, social emotional learning practices, special education investments that are more aligned with students' needs, and health and sex education curricula). Collaborated with the District's state education agency, government officials, and a diverse group of local education stakeholders to implement ESSA's new achievement targets and accountability system. Leveraged collaborative partnerships with 150+ families, elected and appointed city officials, state and city education agencies, and community members to: meaningfully inform pending legislation, rule-making, and policy initiatives by (i) delivering and/or training staff members to provide testimony before the DC Council, and (ii) preparing written public comments.

2014-2015 *Judicial Law Clerk*

The Honorable Robert R. Rigsby, Associate Judge, District of Columbia Superior Court

Supervised a domestic relations docket of 100+ cases, including litigant mediation; researching and writing bench memoranda on nuanced legal issues involving families and children. Managed 15-20 legal interns by delegating assignments, delivering constructive feedback, and facilitating high-quality final work product. Administered the Law and Government Explorers' Program (Law Camp) for 30-45 local high school students and professional mentor partners to expose DC high school students to various career opportunities while also helping them navigate the complex challenges impacting today's youth.

2012-2014 *Policy and Advocacy Associate*

Friends of Choice in Urban Schools (FOCUS), Washington, DC

Collaborated with the DC Public Charter School Board to modify local charter school renewal guidelines to ensure consistency with the DC School Reform Act (local charter law) and facilitated workshops on the revised guidelines for school leaders. Advanced pro-charter legislation and policy priorities to defend charter school autonomy, advocate for the equitable distribution of local funds and use of surplus public school buildings, and prevent the enactment of overly burdensome and/or duplicative federal and local monitoring requirements. Mobilized and trained a coalition of 75 parents and community member activists to advocate for their school-specific needs at the annual *Charter School DC Council Day*.

Spring 2011 *Policy Intern*

Early Childhood Development Policy Department, Children's Defense Fund (CDF), Washington, DC

Created a database with state-by-state analyses of school attendance requirements, Head Start and pre-kindergarten enrollment figures, early learning and kindergarten standards, and full-day kindergarten (FDK) programs, and then used this research to shape CDF's FDK campaign and prepare related materials. Evaluated national child welfare and education statistical data for CDF's *State of America's Children* publications. Analyzed President Barack Obama's FY 2012 budget proposal and the implications on early childhood education initiatives.

SELECTED PRESENTATIONS

B22-950. Students in the Care of DC Coordinating Committee Act. (2018, October.) Testimony before the DC Council, Committee on Education, Washington, DC.

Recommendations for the Department of Behavioral Health. (2018, April.) Testimony at the DC Council, Committee on Health, Budget Oversight Hearing, Washington, DC.

B22-023. School Innovations Grant Act of 2017. (2017, May.) Testimony before the DC Council, Committee on Health, Washington, DC.

Overview of KIPP DC's Restorative Practices at the FY 2017 Budget Oversight Hearing for the DC Office of the State Superintendent of Education. (2017, April.) Testimony before the DC Council, Committee on Education, Washington, DC.

B21-140. School Attendance Clarification Amendment Act of 2015. (2016, January.) Testimony before the DC Council, Committee on Education and Committee of the Whole, Washington, DC.

DC Municipal Regulations, Chapter 5A-21, The DC Office of the State Superintendent of Education Compulsory Education and School Attendance Rulemaking. (2013, May.) Testimony before the DC State Board of Education, Washington, DC.

Darius Taylor

101 Ferry St., Apt. 1, Easthampton, MA 01027



SUMMARY OF RELATED EXPERIENCE

Darius D. Taylor is a Research Associate with the WestEd Justice & Prevention Research Center. Mr. Taylor historically has concentrated his academic and research experiences within the fields of behavioral health, chronic disease epidemiology and biostatistics. He brings to the JPRC team a sound quantitative background and passion for change within the fields of education, justice, health and social action.

While at WestEd, Darius has supported multiple initiatives that have catered to marginalized populations, specifically adolescents and young adults who are low income, homeless, or have behavioral issues. The evaluations of Nebraska's *Connected Youth Initiative* and Massachusetts' *Safe and Successful Youth Initiative* are two such projects that support the aforementioned populations by providing various services to aid recovery and life achievement in respect to health and well-being. Mr. Taylor has supported the process and summative evaluation of these programs by providing quantitative (data analysis and reporting) and qualitative (site visits, interviews and observations) support.

He continues to expand the scope of his research and evaluation experience by focusing on the WestEd 2020 goals of serving 'The Whole Child', 'Underserved Populations, Diverse Learners', and developing 'Next-Generation Assessments'. His current scholastic efforts while enrolled in his fourth year as a doctoral student at UMass focus on the social consequences of current testing practices in America and the differential aspirations and achievements of marginalized groups (specifically low socio-economic status black and brown students).

EDUCATION

- | | |
|-----------------------------------|--|
| 2016-2020
<i>(anticipated)</i> | Ph.D. Candidate, Research, Educational Measurement, Psychometrics, UMASS-Amherst College of Education, Amherst, MA |
| 2014 | M.P.H. Epidemiology, UNTHSC – School of Public Health, Fort Worth, TX |
| 2012 | B.S. Health Science, Truman State University, Kirksville, MO |

PROFESSIONAL EXPERIENCE

- 5/2019-
Current
- Research Associate*, WestEd Justice & Prevention Research Center
WestEd, Easthampton, MA (home office)

Assist in the development of research and evaluation projects related to justice, education and health. Duties include: survey of literature, academic writing, survey coordination, survey validation, statistical and measurement consulting, data collection, management and statistical analysis.

3/2016- *Research Assistant*, WestEd Justice & Prevention Research Center
5/2019 WestEd, Woburn, MA

Assist in the development of research and evaluation projects related to justice, education and health. Duties include: survey of literature, academic writing, survey coordination, data collection, management and statistical analysis.

9/2016- *Research Assistant*, Research, Educational Measurement & Psychometrics Program,
5/2019 University of Massachusetts, Amherst, MA

Serve as a student resource for the college of education. Assist in the development of research and evaluation projects related to: professional growth and development of graduate programs within the College of Education under the supervision of Dr. Jennifer Randall; educational measurement and psychometrics for Pearson & ETS contracts under the supervision of Drs. Steve Sireci, Lisa Keller & Craig Wells. Duties currently include literature review, proposal development, survey development, score report design, standard setting, statistical workshop facilitation, statistical consulting, data collection, management, analysis and dissemination.

06/2018- *Summer Fellow*, Data Strategy, Education Analytics, Inc., Madison, WI
09/2018

Experience the duties of the multi-faceted Data Strategy team by supporting research and analytic projects in production, attending business development meetings with partners, and serving as a resource for statistical and psychometric methods. Duties included literature review, proposal development, data analysis and dissemination.

2015- *Analyst*, Health Services and Outcomes Research
2016 Walgreen Co., Deerfield, IL

Assisted in the development of research and evaluation projects related to Medication Adherence, Pharmacy Retail, Digital Health and Health Outcomes. Duties included systematic surveys of literature, data mining and querying using SAS/SQL, Unix & Teradata, data management and statistical data analysis

2014- *Private Tutor*, Algebra, Pre-Calc, Statistics, ACT, GRE
2016 Lake and Cook County, IL

Academically assisted students upon request in the subject areas of pre-algebra, algebra 1&2, statistics, quantitative reasoning for ACT and GRE preparation. Duties included working through theory and homework, assigning additional practice and serving as a resource for knowledge specific to subject areas.

2014 *Evaluation Support Analyst*, Chronic Disease Prevention
Tarrant County Public Health Department, Fort Worth, TX

Served as a resource for the evaluation of two 1115 Waiver DSRIP Programs at Tarrant County Public Health Department: Chronic Disease Self-Management Program and Freedom From Smoking Tobacco Cessation Program. Duties included the preliminary analysis of program data, providing SPSS workshops to program leads and serving as a

resource for the proper use of evaluation metrics. Workshops and tutorials focused on teaching program leads how to clean, manage and analyze data respective to their program according to the metrics and measures needed for reporting using SPSS and Excel.

2014 *Data Manager*, Behavioral and Community Health Department
UNT Health Science Center – School of Public Health, Fort Worth, TX

Assisted in the evaluation of various community and locally funded programs under the leadership of Dr. Emily Spence-Almaguer in the Behavior and Community Health Department. Duties included data management, analysis and assisting with the development of evaluation reports (using SPSS and SAS). Acted as a data manager for several (at most times co-occurring) evaluation projects. Responsibilities included cleaning, managing, manipulating and analyzing data. Also reported queries and outcomes in graphical, tabular and narrative form as requested by lead evaluator.

2014 *BEST Scholar*, Behavioral and Community Health Department
UNT Health Science Center – School of Public Health, Fort Worth, TX

Received a scholarship award from the Biostatistics and Evaluations Services and Training Team to complete a specific project for Dr. Emily Spence-Almaguer. Duties included a survey of literature and data collection via telephone interviews and e-mail to create a compendium of Best Practices Related to Asthma Prevention and Control in Texas for the Texas Department of State Health Services.

2013-
2014 *Graduate Research Assistant*, Obstetrics and Gynecology Department
UNT Health Science Center – Texas Col. of Osteopathic Medicine, Fort Worth, TX

Assisted in the development of various research projects related to cancer epidemiology under the mentorship of Dr. Martha Felini and Dr. Raquel Qualls-Hampton in the Obstetrics and Gynecology Department of the Texas College of Osteopathic Medicine. Duties included data management, analysis, evaluation reporting, publication development and conference presentations. Managed data for multiple projects (at times co-occurring), created and validated survey tools, managed both physical and electronic data files, performed weighted hierarchal regression analysis of national survey data and presented research and evaluation to lay audiences.

2013 *Data Collector*, Alcohol Study – Behavioral and Community Health Department
UNT Health Science Center – School of Public Health, Fort Worth, TX

Assisted in data collection for the dissertation study of doctoral student, Matthew Rossheim in the Behavioral and Community Health Department. Duties entailed recruiting and surveying undergraduate students from local bar scene on their perceptions of driving under the influence in Denton, TX.

2011 *Research Intern*, Ronald E. McNair Post Baccalaureate Achievement Program
Truman State University, Kirksville, MO

Conducted Research under the mentorship of Dr. Jerry Mayhew entitled “Alcohol Protective Factors of Truman Students: A Logistic Regression Analysis” funded by the Ronald E. McNair Post-Baccalaureate Achievement Program. Self-taught the essentials of logistic regression analysis to obtain estimates for the association between Truman Student’s alcohol protective factors and attitudes using the 2010 Missouri College Health Behavior Survey data in SPSS. Manuscript accepted for publication in 18th Vol. of the McNair Scholarly Review.

2010- *Program Developer*, Health and Exercise Sciences Department
2011 Truman State University, Kirksville, MO

Attended the Institution of Higher Learning Bystander Intervention Conference (Boston, Massachusetts; July 12-17, 2010). Conducted research on how the bystander intervention program effected the knowledge, attitudes, and behaviors of selected Truman students. Co-developed, implemented and evaluated (using SPSS) an individualized bystander intervention program to various Truman student audiences; findings presented at annual student research conference.

2009- *Student Liaison*, Missouri Partners in Prevention
2010 Truman State University, Kirksville, MO

Promoted the “CHEERS to Designated Drivers” program to health classes and various student organizations. CHEERS is a designated driver program funded by Missouri Partners in Prevention that allows designated drivers to drink free non-alcoholic beverages at participating establishments around Kirksville, MO.

SELECTED PUBLICATIONS AND PRESENTATIONS

Taylor, D. & Keller, L. (2018) *Using differential option functioning to examine trends of differential post-secondary aspirations across demographics groups* presented at the Northeastern Educational Research Association 2018 Annual Conference in Trumbull, CT.

Padellaro, F., Taylor, D., Keller, L. (2018) *Improving validity in image-based assessment using simplified line drawings* co-presented at the National Council on Measurement in Education 2018 Annual Conference in New York, NY.

Fronius, T., Guckenbug, S., Taylor, D., Persson, H., & Petrosino, A. *Keeping Kids in School Initiative: Final Evaluation Report*, WestEd (JPRC), Dec. 2017.

Taylor, D., Keller, L. (2017) *Using differential item functioning to examine differential goals for college and career across demographic groups* presented at the Northeastern Educational Research Associations 2017 Annual Conference in Trumbull, CT.

Taylor, D. (2017) *UMass teacher candidate performance on the new state practicum assessment* presented as part of a symposium *Implementing the new Massachusetts candidate assessment of performance at the university of Massachusetts Amherst* at the

Northeastern Educational Research Associations 2017 Annual Conference in Trumbull, CT.

- Sireci, S. G., Randall, J., Zenisky, A., Keller, L., Diao, H., Banda, E., Taylor, D., Rick, F., Park, Y., Botha, S., Lewis, J., Ezzelle, C., & Kirkpatrick, R. (2017). Setting the Accomplished Teaching Standard on the Selected-Response Sections of the National Board Certification Exams. Center for Educational Research Report No. 955. Amherst, MA: Center for Educational Assessment.
- Keller, L., Keller R., Nering, M. Taylor, D. (2017) *Comparing circle arc and nominal weights mean equating with small samples* presented at the 2017 National Council on Measurement in Education Annual Meeting in San Antonio, TX.
- Taylor, D., Rodriguez, G. (2016) *Rater training in educator preparation assessments* presented as part of a symposium *Riding uphill: Addressing issues in teacher preparation programs* at the Northeastern Educational Research Associations 2016 Annual Conference in Trumbull, CT.
- Fronius, T., Guckenburger, S., Petrosino, A., Taylor, D., Persson, H., MacDougall, P., Fuxman, S., O'Donnell. *More than dream: Mas que un sueno – Final Evaluation Report*, WestEd (JPRC) and Educational Learning Center, Sept. 2016.
- Spence-Almaguer EE, Ghanta G, Chhetri S, Taylor DD. *Quarterly Evaluation Reports: United Way of Tarrant County Earn Well Initiative*, Department of Behavioral and Community Health, Sch. of Public Health – UNTHSC, Feb - Aug 2014.
- Qualls-Hampton RY, Shuler M, Taylor DD. *CPRIT Evaluation Reports: ALIVE! Intervention*, Department of Obstetrics and Gynecology, TCOM – UNTHSC, May 2013-2014.
- Qualls-Hampton, R., Taylor D., Shuler, M., Flynt-Wallington, S. (2014) *"Whatever ya say doc": A legislative approach to HPV vaccine acceptance among adolescents using the National Immunization Survey - Teen, 2010 - 2012"* presented at the 142nd APHA Annual Meeting and Exposition, New Orleans, LA.
- Qualls-Hampton, R., Taylor D., Shuler, M., Flynt-Wallington, S. (2014) *"Parental perceptions and HPV vaccine initiation and completion: A gender comparison using the National Immunization Survey - Teen, 2010 - 2012"* presented at the 142nd APHA Annual Meeting and Exposition, New Orleans, LA.
- Qualls-Hampton, R., Taylor D., Shuler, M. (2014) *"Evaluation of an interactive, web-based nutrition intervention in African-American church members"* presented at the Texas Public Health Association 90th Annual Education Conference, Omni Hotel, Corpus Christi, TX.
- Donahue, R. & Taylor, D. (2012) *"Autogenic Training break out session"* presented at the University Conference Day, Truman State University, Kirksville, MO.
- Donahue, R., Sexton, C., Taylor, D. (2011) *"Bystander Intervention"* research presented at the Student Research Conference, Truman State University, Kirksville, MO.

Taylor DD. *Analysis of Alcohol Protective Factors and Attitudes of Truman State University Students*. McNair Scholarly Review: Truman State University. Spring 2012; (18): 91-97

Taylor, D. (2011) “*Alcohol Protective Factors of Truman Students: A Logistic Regression Analysis*” research presented at The 15th Annual MKN McNair Heartland Research Conference, Marriot Hotel, Kansas City, MO.

PROFESSIONAL AFFILIATIONS

- American Educational Research Association
- American Evaluation Association
- Northeastern Educational Research Association
- National Council on Measurement in Education

SUMMARY OF RELATED EXPERIENCE

As a Program Assistant for the Center for IDEA Fiscal Reporting (CIFR), Mari Shikuzawa is responsible for database management and coordinating technology and communication efforts. She has extensive experience in data analysis and managing operational activities including program development and reporting. Ms. Shikuzawa previously supported programs for U.S. AID, Medtronic Philanthropy, and New Leaders.

EDUCATION

- 2017 Master of science, International Business, Economics and Management, University of Leuven, Brussels, Belgium
- 2010 Bachelor of arts, International Studies and Global Relations, Minor, Anthropology, University of the Pacific, Stockton, CA

PROFESSIONAL EXPERIENCE

- 2017– Present *Program Assistant, Center for IDEA Fiscal Reporting*
WestEd Center for Prevention & Early Intervention, Sacramento, CA
- Manage technical assistance database and ensure data quality.
 - Analyze program data to inform internal practices and reporting to funders.
 - Use data visualizations and dashboard to share project metrics across a range of audiences.
 - Coordinate with technology lead around new features development and bug fixes for a Salesforce technical assistance management system, improving functionality and efficiency.
 - Track state education fiscal news.
 - Support external communication through social media, external newsletter, success stories.
 - Provide logistics support for conferences.
 - Provide administrative support to technical assistance providers as needed.
- 2016– 2018 *Market Development and Instagram Growth Manager, Business Development*
Kickstagram, San Diego, CA
- Coordinated with chief officers to analyze potential markets and implement market development strategies including marketing funnel initiatives.
 - Developed metrics and data dashboards to analyze ROI, target clientele, and lead generation methods.
 - Developed recruitment materials and managed interview processes to successfully recruit for account management, sales, and software developer positions.
 - Organized and facilitated social media webinars for 75-plus attendees.
 - Increased customer base and monthly revenue by 27 percent as a result of direct sales.
- 2013– 2015 *Program Support*
Public Health Institute
- Collaborated with executive directors in program design and strategic development for Medtronic Philanthropy Global Health Leaders. Key outputs included program framework, outcomes framework, professional development framework and administrative processes.
 - Worked with executive directors to design and complete international recruitment of program directors and on boarding including advertisements, screening, and interview processes.
 - Facilitated work groups and meetings with partner and affiliate staff.

- Monitored and analyzed program results and progress for reporting.
- Directly managed budgets and contracts relating to offices in India and South Africa.
- Served as program liaison to U.S. AID security officials in Washington, D.C. and overseas missions.
- Coordinated successful strategic planning for intern cohort. Key outputs included development of Security and Overseas Dependent Orientation and online community.

2012–
2013 *Special Assistant, Programs and Cities*
New Leaders

- Managed and maintained national and regional program data dashboards for senior management. Contents of information included program consistency across cities, effectiveness of programs, satisfaction, and recruitment.
- Managed and maintained national and regional development dashboard for senior management containing grant proposals and cash flow.
- Organized and facilitated management training on company's intranet (WIKI).
- Developed presentations and talking points for chief program officer.

2008–
2010 *Intake Coordinator*
Safe Place

- Managed intake process and reporting to meet regulatory standards.
- Managed and developed financial statements including income statement, balance sheet, and tax forms.
- Organized and conducted certification trainings for foster family continuing education for CPR and first aid.

SELECTED PROFESSIONAL ACTIVITIES

Completed Soft Stack Coding Academy. The course focused on learning a complete technology stack and best practices regarding technology and corporate etiquette. Used HTML, CSS, Javascript, MongoDB, Express, Angular, Node, and Ionic to develop several web and mobile applications during the course.

Other Subcontractor Resumes

MICHAEL GRIFFITH

891 14th Street, Unit 3210
Denver, Colorado 80202
(720) 272-1826
griff103@hotmail.com

EMPLOYMENT HISTORY

Independent School Finance Consultant

2012 - Present

Working with clients on a variety of education policy topics including: Early learning funding, the current condition of state education budgets and the adequacy and equity of school funding in states. Current and former clients include: Augenblick, Palaich and Associates, Education Commission of the States, Illinois State Board of Education, Kentucky Council for Better Education, Pew Charitable Trusts - Philadelphia Research Initiative, Picus Odden & Associates, Research for Action (Pennsylvania), Research on Social and Educational Change (RSEC) and state legislatures in Colorado, Delaware, Idaho, Maine, Maryland, Michigan, Nevada, Pennsylvania, Rhode Island, Vermont and Wyoming.

Senior School Finance Analyst, Education Commission of the States

2008 - 2012

Policy Analyst, Education Commission of the States

2000 - 2008

- Managed ECS's education finance efforts, produced policy briefs, reports, presentations and other documents that are published to the ECS website and distributed to educators and legislators nationwide
- Oversaw project and proposal budgets ranging from \$15,000 to over \$1 million. Worked directly with stakeholders including the National Center on Time and Learning, Pearson Publishing, Pew Center on the States and multiple state government clients.
- Worked as part of a team on school funding adequacy and equity studies in Connecticut, Kansas, Maine, Maryland, Missouri, Montana, South Dakota, and Vermont
- Conducted research on various education topics, including: the condition of state budgets, the adequacy and equity of state finance formulas, state funding of early-learning programs and promising practices in funding programs for high-need students
- Assisted in acquiring financial support from private funders, including: Ford Foundation, Foundation for Child Development, Bill and Melinda Gates Foundation, GE Foundation, Pre-K Now and the Pew Charitable Trusts
- Worked with state policy makers, and their staff, to shape early learning, K-12 and higher education funding policy in all fifty states
- Testified to state legislatures or governors' commissions in twenty-five states on educational issues, including: charter schools, education funding, school choice, virtual learning and vouchers
- Quoted over 300 times by numerous national media outlets, including: CNN, Education Week, NBC Nightly News, National Public Radio and The New York Times
- Presented on various education policy issues to numerous local, state and national organizations, including: Council of State Governments, Education Writers Association, League of Women Voters, National Association of Latino Elected & Appointed Officials, National Conference of State Legislatures and National School Boards Association

Policy Analyst, Consulting Firm of Augenblick & Myers

1999 – 2000

- Worked on research projects in areas that included adequacy in school funding, school district consolidation and special education funding reform in order to assist policymakers in Kansas, Minnesota and South Carolina

Finance/Tax Policy Analyst, Michigan State Senate

1995 – 1999

- Staffed the Michigan Senate Taxation/Finance and Capital Construction committees.
- Drafted legislation dealing with taxation, K-12 and higher education funding, bonding and capital construction
- Helped design Request for Proposals and Request for Qualifications for state projects.
- Monitored the K-12, higher education and capital construction budgets
- Worked with state and national groups to draft or amend legislation. Groups included: AFL-CIO, American Association of School Administrators, Michigan Chamber of Commerce, National Association of State Boards of Education, National Education Association and state universities and community colleges

EDUCATION

M.Ed. (Education Management) - Trinity College, University of Dublin

M.P.A (Government Finance) - The Ohio State University

B.A. (Political Philosophy) - James Madison College at Michigan State University

RECENT PUBLICATIONS

- 2018 [Costing Out the Resources Needed to Meet Michigan's Standards and Requirements](#). Augenblick, Palaich and Associates.
- 2018 [Alternative Approaches to Recalibration and Reconciliation of Study Results to Provide Final Recommendations](#), Prepared for the Wyoming Select Committee on School Finance. Aguenblick, Palaich and Associates
- 2016 [Using the Evidence-Based Method to Identify Adequate Spending Levels for Vermont Schools](#). Picus Odden & Associates. With Allan Odden and Lawrence O. Picus.
- 2016 [State Teacher Salary Schedules](#). Education Commission of the States
- 2015 [Local Wealth Measures in Maryland](#). APA Consulting and Picus Odden & Associates. With William Glenn, Lawrence O. Picus, and Allan Odden.
- 2015 [Progress of Education Reform: A Look at Funding Students with Disabilities](#). Education Commission of the States.
- 2015 [A School Funding Formula for Philadelphia](#). The Pew Charitable Trusts. With Maria Millard.
- 2014 [Adequacy for Excellence in Kentucky](#). Picus Odden & Associates. With Michael Goetz, Allan Odden, Lawrence O. Picus, Anabel Aportela and Adriane Williams.

- 2014 [What State Policymakers Need to Know about Funding Virtual Charter Schools.](#) Education Commission of the States
- 2013 [An Independent Review of Maine's Essential Programs and Services Funding Act.](#) Picus Odden & Associates. With Lawrence O. Picus, Allan Odden, Michael Goetz, William Glenn, Diane Hirshberg and Anabel Aportela.
- 2012 [Understanding State School Funding.](#) Education Commission of the States.
- 2012 [An Evaluation of Vermont's Education Finance Systems.](#) Picus Odden & Associates. With Lawrence O. Picus, Allan Odden, William Glenn and Michael Wolkoff.

WILLIAM T. HARTMAN
Education Finance Decisions, President
Professor of Education. Emeritus
The Pennsylvania State University

EDUCATION

Ph.D. Stanford University, Educational Administration and Policy Analysis, March 1979
M.B.A. Harvard University, 1967 (J. Spencer Love Fellowship)
B.M.E. University of Florida, 1965, Mechanical Engineering (high honors, Tau Beta Pi)

AREAS OF SPECIALIZATION AND INTEREST

Resource Allocation in Education	Special Education Funding
Education Finance and Equity	New Fiscal Reality for Education

EXPERIENCE

The Pennsylvania State University, College of Education, Emeritus: (2016-current), Educational Leadership Program 1986 – 2016 (Professor in Charge 1991-93, 2008-2010)
Center for Total Quality Schools: Executive Director (1992-95, 1998-2016), Director of Research (1995-98)
University of Oregon, College of Education, (1981–1986)
Stanford University, School of Education (1979–1981. Institute for Research on Educational Finance and Governance (1979–1980).

Management Analysis Center, Inc., Palo Alto, CA, 1969 - 1978: Vice President.

Major areas of activity included special education, organizational studies, marketing strategy and organization, and sales force management. Within special education, assignments included: development of planning process and computerized projection models; comprehensive organizational reviews; conceptual and implementation planning for state educational agencies; resource allocation and financial projections; comprehensive review of special education finance theory and practice; cost effectiveness analysis; organizational evaluation; evaluation design; program review and evaluation; policy analysis; and case writing and teaching. Principal author of various reports.

Additional assignments were performed for private sector firms in the areas of organizational design, financial and economic analyses, development of management control systems, marketing strategy, market research, industry analysis and evaluation, sales force management, distribution cost studies, and compensation.

Institute Centroamericano de Administracion de Empresas, Managua, Nicaragua, 1968:
Instructor.

INCAE was the graduate business school for Central America and was sponsored by the Harvard Business School and USAID. Designed and taught the Advanced Control course to second-year students.

Banco Central de Nicaragua, Managua, Nicaragua, 1967 - 1968: Management Consultant.

Other Consulting Activities, 2000 - present:

Pennsylvania State Senate: study of the use of federal funds for special education in Pennsylvania, 2001-02.

Center for Special Education Finance, American Institutes for Research: Cost-effectiveness analysis of PA prereferral system for special education; consultant on various reports, 1993-98; member, Technical Advisory Group for National Special Education Expenditure Project, 1999-00.

Ad Hoc Subsidy Group, a group of the litigants and interveners in the Pennsylvania Association of Rural and Small Schools lawsuit (challenging the constitutionality of Pennsylvania's current system of funding schools): development of alternative subsidy funding formula and creation of microcomputer simulation models for policy analysis, 1997-99.

National Center for Educational Statistics: Principal author of paper analyzing multiple approaches for school-level financial reporting, 1999-2001.

Foundation for American Communications: Seminar on school finance for selected members of Pennsylvania Newspaper Association, 2005.

Community Justice Project: Financial analysis of special education funding in Pennsylvania, 2006-2008.

Augenblick, Palaich, & Associates: Transportation Analysis for the Pennsylvania Costing Out Study, 2007.

Appleseed Foundation: Development of a national Resource Equity Assessment template to track and compare non-monetary resources across neighborhoods of differential affluence, 2010.

Augenblick, Palaich, & Associates: Analysis of North Carolina's Public Education Student Transportation System, 2010.

Augenblick, Palaich, & Associates: Consultant to Study of New Jersey's Special Education Funding System, 2010.

Ministry of Justice, Province of British Columbia. Victoria, BC. Analysis of Resource Allocation Patterns. 2012

RECENT PUBLICATIONS

Books:

Hartman, W. (1999). School district budgeting, 2nd ed. Reston, VA: Association of School Business Officials. (1st. ed. (1988). Englewood Cliffs, NJ: Prentice-Hall)

Books - Co-Authored

Hartman, W. & Boyd, W. (Eds.) (1998). Resource allocation and productivity in education. White Plains, NY: Greenwood.

Hartman, W. & Stefkovich, J. (2004). Ethics for School Business Officials. Lanham, MD: ScareCrow Education.

Chapters and Articles

Stoicescu, C. & Hartman, W. (2004). Funding elementary and secondary education in Pennsylvania: Trends in state and local funding in the 1990s. Journal of Education Finance , 29(4), 337-357.

Denison, D., Hartman, W., Stiefel, L., & Deegan, M. M. (2011). A Model for School-level Resource Reporting Benefits and Challenges. Public Performance & Management Review, 35(1), 29-53.

Shrom, T. & Hartman, W. (forthcoming 2014). "Property Tax Restrictions on School Board Fiscal Authority." Educational Considerations.

Papers

Schoch, R. & Hartman, W. (2010). "School Energy Management Programs." Paper presented at the American Education Finance Association Annual Meeting. Richmond, VA.

Shrom, T. & Hartman, W. (2010) "Object Lessons: Examination of Spending Patterns over Time." Paper presented at the American Education Finance Association Annual Meeting. Richmond, VA.

Hartman, W. (2010) "Data Systems to Support Instruction." Paper presented at the British Educational Leadership, Management, and Administration Society. Reading, UK.

Shrom, T. & Hartman, W. (2014). "Property Tax Restrictions on School Board Fiscal Authority." Educational Considerations.

Frankenberg, E., Fuller, E., Hartman, W., Kotok, S., and Schafft, K... (2014). Assessing the Enrollment Trends and Financial Impact of Charter Schools on Rural and Non-Rural School Districts in Pennsylvania. A report for the Center for Rural Pennsylvania.

Hartman, W. (2015). Analysis of Special Education Enrollments and Funding in Rural and Urban School Districts in Pennsylvania. Harrisburg, PA: Center for Rural Pennsylvania.

Hartman, W. (2016). "Special Education Funding in Pennsylvania: The Effects of a Policy of Neglect." Commonwealth Journal of PA Politics and Policy. Temple University Press. Forthcoming

Other Recent Publications

Hartman, W., Stiefel, L. Dennison, D., Shaffer, G., Zelanko, E., Shrom, T. Potter, L., & Deegan, M. (2009). Linking School Resources to Student Outcomes. Final Report to Institute of Education Sciences. Award # R305E050089. Cost Accounting for Student Level Resources.

2014). Charter Schools and School District Spending: Observations of Spending Share by Function. PASBO Report. 34(8), pp. 20, 17.

OTHER SELECTED PROFESSIONAL ACTIVITIES

Program Chair, Leadership Workshops for School Business Officials of Lancaster-Lebanon Intermediate Unit 13. 1987-current.

School Executive Development Institute, Penn State University. 1990. Member of Planning Committee; developed and presented a day-long workshop on microcomputer models for long range planning in school districts.

Pennsylvania Educational Policy Consortium. 1990-91.

Penn State representative to Consortium

Presenter, seminar for educational policy makers in Pennsylvania, Harrisburg, PA. 1991.

Pennsylvania School Study Council

Executive Committee. 1991-93, 2008-2010

UCEA Center for the Study of Educational Finance

National Advisory Board. 1990-91.

Visiting Fellow in Education, University of Sussex, Falmer, UK. 1994.

Educational Considerations. Editorial Advisory Board, 1994-current.

Sponsor for visiting scholars: Brazil (1994) and Hong Kong (1995) studying total quality management in education; Egypt (2010-12) studying educational leadership preparation programs in the US.

Co-director: Brazilian Educational Study Missions for advanced training in quality management in education. University Park, PA. 1994, 1995.

Director, Benchmarking in School Business Management Project. 1995-2002.

Advisory board member, Pennsylvania Education Policy Center, 1998-current.

Advisory committee member, New Ohio Institute. 1998-2000.

Member, Technical Work Group, an advisory committee to the Special Education Expenditure Project, Center for Special Education Finance, Washington, DC. 2000-2002.

Invited Participant, Educational Equity Forum, Harrisburg, PA. 2001.

American Journal of Education. Consulting Editor, 2004-current

Editorial Board. Education Finance and Policy. 2005-current

Director, visit from UK Bursars to Lancaster County, PA. 2008. Sponsored by National Bursars Association.

Director, study tour for US Business Managers to visit UK, 2009. Sponsored by National Bursars Association.

Steering Committee Member. 2008-10. Children Youth & Families Consortium/Social Science Research Institute.

Editorial Advisory Board. Journal of Education Finance. 2013-current.

PROFESSIONAL ORGANIZATIONS

National Education Finance Conference

Member, 2011-current

Chair, Board of Advisors

Chair, Journal of Education Outstanding Award Selection Committee

Chair, Lifetime Achievement Award Committee

Chair, State of the States program sessions

Chair, Interim Task Force to Create a Membership-based Organization for Educational Finance

Member, Legal Advisory Council Group

American Education Finance Association

Member, 1983-2012

Board of Directors, 1988-91

Dissertation Awards Committee, 1988-89

Conference Evaluation Chairperson, 1989

Nominations Committee, 1989-90

Distinguished Service Award, 1991

American Education Research Association

Division A: Administration; Division L: Educational Policy and Politics

Proposal Reviewer for annual meetings

Fiscal Issues, Policy, and Education Finance Special Interest Group

Proposal Reviewer for annual meetings

Association of School Business Officials International

Member, Ethics Subcommittee, 2005-06

Pennsylvania Association of School Business Officials

Benchmarking Committee, Founding member and University Liaison, 1998-current

University Council for Educational Administration

Treasurer, 1991

ROBERT A. SCHOCH

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Lititz, PA. 17543

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bobschoch@comcast.net

EDUCATION:

Bachelor of Arts, Economics and History, Bard College, Annandale, New York, 1976
Masters Program, Planning and Public Administration, Cornell University, 1979-81
Masters Degree, Educational Administration, Pennsylvania State University, 2007
Thesis-Baldrige Quality Management Program in Public Education
Doctoral Program, Educational Leadership, Pennsylvania State University, 2004-Present,
Dissertation in progress-school energy management program effectiveness
Coursework and comprehensive examination completed
Auditor/Lead Auditor, Quality Management Systems
Baldrige Quality Management Program Examiner Training, Keystone Alliance for Performance Excellence

PROFESSIONAL EXPERIENCE:

School District Business Administrator

1984-1996 Penn Manor School District, Millersville, PA (4,800 students)

- Administered construction of ten new and renovated schools
- Negotiated a number of difficult collective bargaining agreements
- Restructured compensation system for support staff
- Attended Institutional Energy Efficiency Partnership Project
- Coordinated reengineering study of school support services with consulting service from major accounting firm
- Wrote grant to acquire land adjacent to new middle school for an environmental education center

1996-2003 School District of Lancaster, Lancaster, PA (11,500 students)

- Implemented ISO 9001 quality management system and led initiative to develop flowcharted procedure manuals for support service functions
- Coordinated litigation necessary to reconstruct structurally unsound five year old school requiring relocation of entire school for one year
- Developed Special Education Case Study and presented twice to Legislature
- Strategic planning team
- Led technology planning and implementation of new student, financial, and curriculum management software
- Empowerment (academic distress) district improvement planning team
- Initiated the Institute for Development of Educational Alliances
- Implemented Coopers & Lybrand InSite Financial Analysis Software
- Wrote and implemented grants for Technology Literacy Challenge Fund, Intergovernmental Cooperation for Nonpublic Transportation, and Administrative Consolidation for Special Education Process Redesign
- Participated in grant writing program resulting in over \$30 million in competitive grants in three years

2003-2005 Reading School District, Reading, PA (17,500 students)

- Led effort to increase state support to balance budget (See case study by Education Commission of the States)
- Led team to develop Financial Recovery Plan assisted by PSBA research director, several consultants, and PDE liaison
- Planned construction program and site selection for new high school
- Negotiation team for five labor agreements

2005-2009 Council Rock School District, Newtown, PA (12,500 students)

- Initiated energy management program resulting in 49% reduction in energy use recognized by Energy Star Partner of the Year awards for 2007 and 2008
- Reduced copier cost by 40% through better procurement methods
- Initiated transportation efficiency study and transportation contract bidding
- Implemented Support Function Improvement Plans for facilities management and purchasing departments
- Recommended consultant for strategic planning effort and participated in development and implementation of the strategic plan
- Implemented collaborative budget process for difficult financial challenges that resulted in eight benchmarking studies and 50 One Page Analysis studies of options to increase revenues and reduce expenditures
- Selected and implemented new financial software
- Received \$35,000 grant to implement LEED-EB (operating procedures for energy management for existing buildings) as one of 12 pilot schools nationwide
- Negotiation team for salary concessions and contract extension

2010-2014 North Penn School District, Lansdale, PA (12,800 students)

- Negotiated five year teachers' contract during strike in fourth month in position
- Participated in successful application for recognition by Keystone Alliance for Performance Excellence (state equivalent of Baldrige Performance Excellence Program), served as Examiner for site evaluations of KAPE program applications from other organizations
- President, Montgomery County Transportation Consortium-regional transportation system for nonpublic and special education transportation
- Initiated Innovation Celebration to develop and receive input on innovative ways to balance difficult budgets, over 170 presentations developed by staff, resulted in ASBO Pinnacle Award in 2012
- Initiated energy management program resulting in 37% reduction in energy use, recognized by Energy Star Partner of the Year award for 2013 and 2014
- Implemented budget balancing initiatives worth over \$20 million in three years of very difficult budgets during the Great Recession, extensive communication and workforce engagement efforts, proposed several positive and proactive approaches that protected instructional programs
- Initiated Investment in Productivity and Innovation Revolving Fund to stimulate creative problem solving

2014-present

- Subcontractor to Public Financial Management-distressed school district financial analysis and planning
- School Management Consultant
 - Quakertown Area School District-transportation and redistricting
 - Cheltenham School District-transportation efficiency
 - Stroudsburg Area School District-collective bargaining analysis and financial forecasting
 - Wallingford-Swarthmore School District-collective bargaining analysis as Certified Analytics Partner, Forecast5Analytics performance benchmarking software
 - Methacton School District-transportation efficiency analysis
- Subcontractor to Augenblich Pailich Associates, Denver, Colorado-Enrollment change and transportation funding formula research for Maryland Department of Education and Wyoming Department of Education
- Subcontractor to Pennsylvania Economy League-geographic information systems for municipal consolidation and tax analysis
- Subcontractor to Research for Action, Charter school fiscal impact study

January 2016

- Founder and President, School Business Intelligence LLC-business established for school financial analysis and planning, performance measurement and management, and process management
- Appointed Turnaround Specialist, Chester Upland School District, by Pennsylvania Department of Education and Court

Instructor, Course on New Fiscal Reality, Graduate School in Educational Leadership, Pennsylvania State University, 2011-2016

Consultant

Flowcharted procedure manuals

- Online financial procedures-Texas statewide
- Regional education services agency procedures-Berks County Intermediate Unit, Pennsylvania
- Municipal government procedures-Pottstown Borough, Pennsylvania

Budget analysis-Cheltenham School District, Pennsylvania

Revenue Consultant for Pennsylvania-Edison Schools (2001-2004)

PROFESSIONAL ASSOCIATION LEADERSHIP ROLES:

Pennsylvania Association of School Business Officials

Founding Member, Benchmarking Committee, 1996 to present

Founding Chairman, Green Committee, 2008 to present

- Developed 25 mini-case studies demonstrating cost savings from school green initiatives

Member, Cost Reduction Task Force, 2011 to present

Member, Mandate Waiver Task Force

American Society for Quality

Baldrige in Education, Web Forum Moderator, 2008-09
Education Division Committee, 2008-09

AWARDS:

Pennsylvania Association of School Business Officials, Awards of Achievement
1995 Utilizing Local Construction Professionals in School Design
1999 Financial Procedures Manual, a Foundation for Continuous Improvement
2000 Documenting Procedures to the ISO 9001 Standard
2007 Benchmarking Toward Energy Efficiency
Pennsylvania School Public Relations Association
1999 Special Education Funding: The Lancaster Case Study
1999 Financial Challenges Facing The School District of Lancaster
Association of School Business Officials International, Pinnacle Achievement Award 2007
Energy Management Program
2012 Innovation Celebration
Energy Star Partner of the Year-2007 and 2008 for Council Rock School District
Energy Star Sustained Excellence Award-2009 for Council Rock School District
Energy Star Partner of the Year-2013 and 2014 for North Penn School District
Juran Fellowship Finalist-May 2009-support doctoral dissertation in quality management
National Education Finance Association, Research Fellow

PUBLICATIONS:

Articles Published in the *PASBO Report* of the PA Association of School Business Officials
Using Benchmarking Effectively, November 2010
Setting Green Policies District-Wide, August 2010
Keeping Busy by Going Green, June 2009
Maintaining Balance in Unprecedented Times, March 2009
More About LEED, January 2009
A Busy Year Ahead for the Green Committee, October 2008
Joining Forces to Reduce Copying and Printing Expenses, September 2008
Benchmarking Resources of Energy Star, May 2008
Benchmarking Copying and Printing Costs, August 2007
Benchmarking Towards Energy Efficiency, January 2007
How Cost Effective is Your District, March 2003
The Electronic Resource Center-A Timely Tool to Assist with Financial Comparisons,
February 2002
Leading the Way Through Financial Comparisons, April 2001
The ISO 9001 Quality Management Program In the School District of Lancaster, April
1997
Pay Attention to Land Use Controls, April 1993

Articles Published in *School Business Affairs*

Developing Flowcharted Procedure Manuals for School District Administration Within
the ISO 9000 Context, *School Business Affairs*, January 2002
Understanding, Detecting, and Preventing Fraud, *School Business Affairs*, August 2008
Creating a Culture of Innovation, November 2013

Appendix D: References

Croninger, R. G., King Rice, J. & Checovich, L. (2015). Evaluation of the Use of Free- and Reduced-Price Meal Eligibility as a Proxy for Identifying Economically Disadvantaged Students: Alternative Measures and Recommendations. Denver, CO: Augenblick, Palaich & Associates.

Fantuzzo, J., LeBoeuf, W., & Rouse, H. (2014). An investigation of the relations between school concentrations of student risk factors and student education well-being. *Educational Researcher*, 43(1), 25-36.

Jargowsky, P. (December 2013). Concentration of poverty in the new millennium. Change in prevalence, composition and location of high poverty neighborhoods. New York: Century Foundation and Rutgers Center for Urban Research and Education.

Kingsley, G., & Pitingolo, R. (April 2013). Concentrations of poverty and regional equity. Findings from the National Neighborhood Indicators Partnership's shared indicators initiative. Washington, DC: Urban Institute.

Kurki, Anja, Andrea Boyle, and Daniel K. Aladjem. (2005). Beyond Free Lunch – Alternative Poverty Measures in Educational Research and Program Evaluation. Paper presented at the Annual Meetings of the American Educational Research Association. Montreal, Canada.

Levin, M., & Neuberger, Z. (October 2013). Community eligibility. Making high poverty schools hunger free. Washington DC: Center for Budget and Policy Priorities and Food Research and Action Center.

The Finance Project, & Augenblick, Palaich, & Associates. (December 2013). Cost of student achievement: Report of the DC Education Adequacy Study. Washington, DC & Denver, CO: Authors.

Appendix E: Past Performance Samples

Executive Summary, Maryland Adequacy Study

Final Presentation Materials, Wyoming Adequacy Study

Final Report of the Study of Adequacy of Funding for Education in Maryland

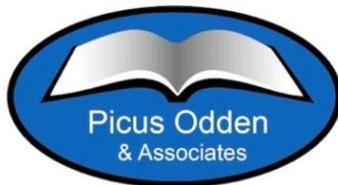
Prepared for

Maryland State Department of Education

By

APA Consulting

November 30, 2016



In 2002, the Maryland General Assembly enacted Chapter 288, the Bridge to Excellence in Public Schools Act. The Act established new primary state education aid formulas based on adequacy cost studies. These adequacy cost studies, conducted in 2000 and 2001 under the purview of the Commission on Education Finance, Equity, and Excellence, employed the professional judgment and successful schools methods and other education finance analytical tools. State funding to implement the Bridge to Excellence in Public Schools Act was phased-in over six years, reaching full implementation in fiscal year 2008. Chapter 288 requires that a follow-up study of the adequacy of education funding in the State be undertaken approximately 10 years after the enactment of the Bridge to Excellence in Public Schools Act. The study must include, at a minimum, (1) adequacy cost studies that identify (a) a base funding level for students without special needs and (b) per pupil weights for students with special needs, where weights can be applied to the base funding level, and (2) an analysis of the effects of concentrations of poverty on adequacy targets. The adequacy cost study must be based on Maryland's College and Career Ready Standards (MCCRS) adopted by the State Board of Education, and include two years of results from the new state assessments aligned with the standards. These assessments were first administered statewide in the 2014-2015 school year.

There are several additional components that are mandated for inclusion in the study. These components include evaluations of (1) the impact of school size, (2) the Supplemental Grants program, (3) the use of Free and Reduced Price Meals eligibility as the proxy for identifying economic disadvantage, (4) the federal Community Eligibility Provision in Maryland, (5) prekindergarten services and the funding of such services, (6) equity and the current wealth calculation, and (7) the impact of increasing and decreasing enrollments on local school systems. The study must also include an update of the Maryland Geographic Cost of Education Index.

APA Consulting, in partnership with Picus Odden & Associates and the Maryland Equity Project at the University of Maryland, must submit a final report to the State no later than November 30, 2016.

This final report presents the findings of Augenblick, Palaich and Associates' (APA) adequacy analysis for the State of Maryland. The APA study team's estimate of the cost of an adequate education in Maryland used three approaches for estimating adequacy, the results of which were crafted into a single adequacy recommendation for the State. The study team also developed recommendations for a new funding formula incorporating its adequacy recommendation and a model to analyze the impacts of the proposed school funding formula on the State and on individual school districts.

Suggested Citation: Augenblick, Palaich & Associates. (2016). *Final Report of the Study of Adequacy of Funding for Education in Maryland*. Denver, CO: Author.

Executive Summary

The *Final Report of the Study of Adequacy of Funding for Education in Maryland* presents the findings of Augenblick, Palaich and Associates' (APA) adequacy analysis for the State of Maryland. The APA study team's estimate of the cost of an adequate education in Maryland used three approaches for estimating adequacy, the results of which were crafted into a single adequacy recommendation for the State. The study team also developed recommendations for a new funding formula incorporating its adequacy recommendation and a model to analyze the impacts of the proposed school funding formula on the State and on individual school districts.

This report is the culmination of two years of work by the study team to estimate the cost of an adequate education in Maryland and to conduct a number of related analyses required in the State's Request for Proposals (RFP).

State Context

There are 879,601 students in grades prekindergarten through 12 enrolled in 24 school districts in the State of Maryland.¹ Sixty-one percent of all students are racial or ethnic minorities. The proportion of students receiving specialized services includes 44.6 percent who are low income as measured by eligibility for the federal free and reduced-price lunch program, 7.9 percent who receive limited English proficiency services, and 11.3 percent who receive special education services.

Of the State's 24 school districts, 23 are county-based and the remaining district serves Baltimore City. There is a wide range in district enrollment, ranging from 2,029 students in Kent County to 156,380 in Montgomery County. Six districts enroll more than 50,000 students and three districts enroll more than 100,000 students. All of the districts are fiscally dependent, meaning that they do not have to raise their own tax revenues but rely on local appropriations from the county or city in which they are located.

In 2010, Maryland adopted new Common Core-based State standards, the Maryland College and Career Ready Standards, and in the 2014-15 school year, they began administering the Partnership for Assessment of Readiness for College and Careers (PARCC) assessments statewide.

In fiscal year 2015, Maryland spent more than \$5.8 billion on its major state education aid programs,² while local jurisdictions contributed another \$5.7 billion in local appropriations for education, totaling \$11.5 billion in State and local support for prekindergarten through grade 12 education.

¹ Enrollment and demographic information are taken from the 2016 Maryland State Report Card found at: <http://reportcard.msde.maryland.gov>

² Total State spending includes the foundation, compensatory education, limited English proficiency, and special education programs; student transportation; guaranteed tax base; net taxable income grants; supplemental grants; declining enrollment grants; and the State share of teachers' retirement costs.

Study Context

APA carried out a similar adequacy study for the State in 2000 and 2001 under the direction of the Commission on Education Finance, Equity, and Excellence, also known as the Thornton Commission. The 2002 legislation resulting from that study, the Bridge to Excellence in Public Schools Act, significantly increased state support for education and established the school finance formulas that are still used to allocate resources to county boards of education and the Baltimore City Public Schools today. The state aid distributed through these formulas is primarily based on differences in student enrollment, student need, and local wealth. The 2002 Act also required a follow-up study of the adequacy of education funding in the State to be undertaken approximately 10 years after its enactment.

Current School Finance System

The new school funding formula established by the Bridge to Excellence in Public Schools Act retained the foundation style funding formula previously used by the State but set a level of funding based on adequacy. Foundation formulas set a minimum per student amount of funding, known as the foundation amount, which is multiplied by the count of eligible students to generate a total foundation program funding amount. The foundation amount set by the Act was based on the adequacy recommendations from the Thornton Commission study. The adequacy of the foundation amount was to be maintained by adjusting it for inflation annually. However, recent state budget shortfalls have curtailed the inflationary increases. In fiscal year 2015 the foundation level was set at \$6,860 per student. In addition to an inflation adjustment, the Act also called for the development of a Maryland specific geographic cost of education index (GCEI) for adjusting the foundation total program amount to account for regional cost differences. The GCEI adopted by the State in 2005 takes into account regional cost differences in professional district salaries, non-professional district salaries, energy, and other instructional costs. As implemented, the index is truncated at 1.0, or the statewide average cost, which provides additional funding for districts in high-cost regions but does not make corresponding reductions for districts in low-cost regions. The additional funding generated by the GCEI consists entirely of state aid.

Like other foundation funding formulas, Maryland's formula attempts to reduce the amount of disparities in education funding due to differences in local wealth through "wealth equalization." To accomplish wealth equalization, Maryland's foundation formula specifies a uniform local contribution rate that is multiplied by a jurisdiction's local wealth to determine its local share of total program. Jurisdictions with less local wealth generate a smaller local share and receive a larger share of total program funding in aid provided by the State. Conversely, jurisdictions with greater wealth generate a larger local share and receive a smaller share of state aid. The local contribution rate is designed so that, on average across all local jurisdictions, state aid comprises half of the total program funding amount. The measure of local wealth that the local contribution rate is applied to consist of the real and personal property assessable value in the jurisdiction plus its total net taxable income (NTI).

Maryland uses a similar formula for calculating total program funding for three state aid programs used to support students with special needs: 1) the compensatory education program for serving at risk

students, 2) the limited English proficiency (LEP) program,³ and 3) the special education program. The per student program funding amount for these three programs is determined by multiplying the per student foundation amount by a weight to account for the additional costs of educating these students. The program amounts for these three funding programs are also wealth equalized to account for differences in local wealth. Unlike the foundation program, local jurisdictions are not required to appropriate a local share for these three programs.

Table 1 shows the student count, special needs program weights, and per pupil total program amounts for the foundation, compensatory education, LEP, and special education funding formulas. On average across all districts, the State funds 50 percent of these total program amounts, although the percentage in any given district will vary based on the jurisdiction’s local wealth. Local jurisdictions are required to provide a local appropriation for the foundation total program but not for the other total program amounts.

Table 1
FY 2015 Formula Components

Program	Student Count	Weight	Per Pupil Total Program Amount
Foundation	FTE* Enrollment Grades K-12	N/A	\$6,860
Compensatory Education	Eligible for Federal Free and Reduced- Price Lunch	0.97	\$6,654
Limited English Proficient	Eligible for Program Services	0.99	\$6,791
Special Education	Eligible for Program Services	0.74	\$5,076

*Full-Time Equivalent

A minimum amount of state aid is also guaranteed for each of these programs. The minimum state aid guarantee for the foundation program is 15 percent of total program funding. The minimum state aid guarantee for each of the three special needs programs is 40 percent of the state share of funding.

Maryland’s funding system includes several other major funding programs, each of which is listed below:

- **Guaranteed tax base (GTB):** the GTB provides a financial incentive for jurisdictions with less than 80 percent of the statewide average local wealth per pupil to increase their local education appropriation. These jurisdictions may receive up to 20 percent of the per pupil foundation amount in additional state aid;

³ Limited English proficiency (LEP) students are also commonly referred to as English language learners (ELL). Maryland’s funding system refers to these students as LEP students. For the sake of consistency in this report, they will be referred to as LEP students throughout.

- **net taxable income education grants:** when the federal government changed the federal income tax extension filing deadline from August to October, the State conformed to this schedule for state income tax purposes. Beginning in fiscal year 2014, the State began calculating state aid using both the September and November net taxable income totals for local jurisdictions. The State then uses the NTI which produces the largest state aid amount. If the November NTI-based aid amount is larger, districts receive the difference in additional state aid. This increase in state aid was to be phased-in over a five-year period;
- **grants to counties with declining enrollment:** assists smaller districts with declining enrollment by providing a state grant equal to 50 percent of the decrease in state education aid from the prior year. Only two districts meet the grant program's eligibility criteria;
- **supplemental grants:** beginning in fiscal year 2009 supplemental grants were paid to ensure that all districts received at least a one percent annual increase in state funding following a freeze of the per pupil foundation in fiscal years 2009 and 2010. The grant amounts paid to nine districts were frozen beginning in fiscal year 2011; and
- **student transportation:** state aid for student transportation is based on a district's prior year grant with adjustments for inflation and increases in enrollment. Districts are guaranteed a minimum annual increase of one percent.

New Adequacy and Related Studies

In March 2014, the Maryland State Department of Education (MSDE) issued an RFP for the follow-up adequacy study required by the Bridge to Excellence in Public Schools Act. The study was to include, at a minimum, adequacy cost studies that identified a base funding level for students without special needs, per pupil weights for students with special needs to be applied to the base funding level, and an analysis of the effects of concentrations of poverty on adequacy targets. The adequacy cost study was to be based on the requirements of the Maryland College and Career Ready Standards adopted by the State Board of Education.

Augenblick, Palaich and Associates (APA), in partnership with Picus, Odden and Associates (POA) and the Maryland Equity Project (MEP) at the University of Maryland, were selected to conduct the study. The RFP required the consultants to undertake a broad analysis including the following tasks:

- Conduct an adequacy study using at least two approaches;
- calibrate the study to identify the funding required to implement the Maryland College and Career Ready Standards;
- identify a per pupil base level of funding and per pupil weights for students with special needs, such as economically disadvantaged students eligible for the federal free and reduced-price lunch program (FRPM), students with limited English proficiency (LEP), and students eligible for special education services;
- analyze the effects of concentrations of poverty on the adequacy estimates;
- identify gaps in growth and achievement among student groups and make recommendations of programs that might address these gaps;
- find possible relationships between student performance and funding deficits;

- assess the impact of quality prekindergarten on school readiness as a factor in the adequacy estimates;
- make recommendations on any other factors to be included as part of the adequacy study; and
- conduct a review of adequacy studies carried out in other states and report on best practices and recommendations for the Maryland study.

Approaches to Adequacy

The concept of adequacy as it relates to education funding grew out of the standards based reform movement. As states implemented specific learning standards and performance expectations for what students should know, along with consequences for districts and schools failing to meet these expectations (and, eventually, federal expectations imposed through No Child Left Behind and continued by the Every Student Succeeds Act), the focus of school finance shifted to an examination of the resources necessary to provide districts, schools, and students with reasonable opportunities to achieve state standards. Over the past two decades, researchers have developed four approaches to creating estimates for the level of funding necessary to provide all students with the opportunity to receive an adequate education. APA and its partners employed the first three approaches to estimate adequacy in Maryland:

1. The **evidence-based (EB)** approach was developed by Picus, Odden, and Associates. The EB approach assumes that information from research can be used to define the resource needs of a prototypical school or district to ensure that the school or district can meet state standards. The approach not only estimates resource levels but also specifies the programs and strategies by which such resources could be used efficiently. The costs are then estimated using a model of prototypical schools and a district central office. The EB approach conducts case studies of existing high-performing schools in the State and convenes multiple panels of state educators to review the EB model to ensure that it is consistent with the State's context. The EB approach is used to identify a base cost figure and adjustments for special needs students. In Maryland, the study team conducted case studies of 12 high-performing schools and convened four educator panels across the State.
2. The **professional judgment (PJ)** approach was first used in Wyoming in the mid-1990s and has since become one of the most widely used adequacy approaches. The PJ approach begins with evidence-based research but relies on and defers to the experience and expertise of educators in the State to identify the resources needed to ensure that all districts, schools, and students can meet state standards and requirements. Resources include school-level personnel, non-personnel costs, additional supports and services, technology, and district-level resources. The costs of these resources are then estimated via a cost model based on schools and district central offices representative of school and district sizes in the State. The PJ approach identifies both a base cost and adjustments for special needs students. Nine panels of Maryland educators were convened, ranging from school-level to state-level perspectives, to develop the PJ model.

3. The **successful schools/school district (SSD)** approach was developed by APA. The SSD approach determines an adequate per pupil base cost amount by using the actual expenditure levels of schools or school districts that are currently outperforming other schools on state performance objectives. This approach assumes that every school and school district, in order to be successful, needs the same level of base funding that is available to the most successful schools and districts. However, the SSD approach does not necessarily indicate what it would take for a school and its students to meet all state requirements. The SSD approach is only able to look at the base spending amount for a student with no additional needs, due to limitations on collecting expenditure data on special needs students. Finally, the SSD approach does not provide the study team with detailed information on the types of programs or interventions being employed by the schools. SSD studies are typically conducted at the district-level, but because Maryland has only 24 districts, this study examined school-level expenditures. Seventy-two schools representing 10 districts were selected for the study.

4. The fourth approach, the **cost function or statistical (CF)** approach, is an econometric method that estimates the level of funding needed to achieve a given level of student achievement as measured on assessments while controlling for student and district characteristics. The cost function approach was not used because it consists of a district-level statistical model that requires a much larger number of districts than the 24 districts in Maryland to produce reliable results. Also, due to its complexity and use of econometric modeling techniques, this approach has proven difficult to explain in situations other than academic forums.

Table 2 summarizes the three approaches APA used for developing its adequacy estimates for Maryland.

Table 2
Summary of Three Approaches to Adequacy Used by APA

	Evidence-Based	Professional Judgment	Successful Schools/Districts
Benchmark of Success	Ensuring students can meet all State standards	Ensuring students can meet all state standards	Currently outperforming other Maryland schools
Data Source	Best practice research, reviewed by Maryland educators; when conflict arises in resource recommendations, the EB approach defers to the research	Expertise of Maryland educators serving on PJ panels; uses research as a starting point but defers to educators when conflict arises in resource recommendations	2014-15 expenditure data from selected successful schools
Available Data Points			
Base	Yes	Yes	Yes
Student Adjustments (Weights)	Yes	Yes	No

Reconciling Adequacy Approaches

The different perspectives of the three approaches used by the study team to estimate an adequate education in Maryland led to differing results. Table 3 shows the estimated base cost and weights for students with special needs for each of the three approaches and compares them to current funding.

Table 3
Base and Weights by Different Study Approach

	2014-15 Maryland	Evidence-Based	Professional Judgment	Successful Schools
Base Cost	\$6,860	\$10,551	\$11,607	\$8,716
Weights				
Compensatory Education (At risk)	0.97	0.30	0.36	N/A
Limited English Proficient	0.99	0.38	0.61	N/A
Special Education	0.74	0.70	1.18	N/A
Prekindergarten		0.40	0.26	

The study team felt that the best benchmark of success for developing a single adequacy figure in Maryland was to identify the resources needed not just to outperform other districts today but to reach the higher benchmark of ensuring all students have the opportunity to achieve all state standards.

Therefore, the study team recommends that an adequacy base cost figure be derived from the EB and PJ approaches. While the study team does not believe the SSD figure fully represents the cost of adequacy, it does present an important reference point for phasing in a new funding system, if necessary.

The EB and PJ approaches produced relatively similar base cost figures: the EB base is \$10,514 and the PJ base is \$11,607. However, larger differences existed in the weights for special needs students. In reviewing the EB and PJ resource models, the study team identified five important resource areas driving the differences in the estimates generated by the two approaches:

- Elementary school teacher-to-student ratios;
- middle school teacher preparation time;
- school administration staffing, specifically assistant principals;
- school-level student support services; and
- inclusion of CTE resources in the models.

The study team reviewed the resource differences and made a recommendation in each area to create an adjusted model for each approach. It is important to note that the study team was not attempting to create a specific model for implementation but instead was reconciling the largest resource differences in order to create a single cost estimate. The study team also examined differences in the resources included in each model for determining special needs weights, particularly for the LEP and special education weights, which differed the most, and used professional judgment panel and school case study information to determine new, blended weights.

This analysis resulted in a single estimate of an adequate per pupil base cost and weights. These figures were further adjusted to account for federal education funds and a net base cost and weights were calculated. Table 4 presents the study team’s final estimate of an adequate base cost and weights.

Table 4
Final Adequacy Base and Weights

Final Estimates	
Base Cost	\$10,880
Weights	
Compensatory Education	0.35
Limited English Proficient	0.35
Special Education	0.91
Prekindergarten	0.29

These estimates represent a significant shift from the current funding model used in Maryland. The per pupil base cost presented here is much higher than the current Maryland base of \$6,860 for fiscal year 2015 and includes a significantly higher level of supports and services for all students, which was a recurring theme voiced by the PJ panels in discussions of specific resources. Conversely, the estimated weights for students with special needs are considerably lower than current weights, with the exception of the weight for special education. This change is a result of the much higher base cost and the expectation that a higher level of services will be provided through the base cost allocation. Both the EB

and PJ approaches, and thus the resulting blended base figure, represent an important shift toward allocating more resources through the base cost to provide a higher level of services to all students regardless of need.

Recommendations

The study teams' recommendations result in a significant increase in the state's investment in prekindergarten through grade 12 education. However, they also change the way in which funding is allocated through the funding formulas and the distribution of state and local shares across districts. Although implementing these recommendations will present some challenges, the recommendations reflect the professional judgment of educators across the State, the findings of a wide range of research literature, and are consistent with the results of numerous adequacy studies conducted across the country over the past decade. The study team believes these changes are necessary for Maryland's students to significantly increase their performance on the new state standards and assessments. In the first year of statewide administration of the PARCC assessments, an average of 57 percent of students met or exceeded proficiency in math and 65 percent of students met or exceeded proficiency in reading. The changes to the formula recommended here are geared toward increasing the number of students meeting these new, higher standards. Other factors also drive the need for these changes, such as the increased costs of the State's new educator evaluation system, the need for more extensive student supports for all students, and improved funding equity.

The study team thinks of the recommended formula in two parts. The first part is the calculation of district adequacy targets. This includes determining: (1) the student counts that are used, (2) the base amount of funding per pupil, (3) the adjustments for special needs students (including special education, compensatory education, and LEP students), and (4) any adjustment for regional cost of living differences. The calculation of an adequacy target is done outside any considerations of the state and local responsibilities to pay for the adequacy target.

The second part of the formula revision focuses on the state and local shares for paying for the adequacy target. Recommendations include: (5) how to measure each district's capacity to pay for the adequacy target, and (6) if any minimum state aid guarantees should be included and whether local jurisdictions should be required to appropriate the local share of special needs programs. Combining the adequacy targets with the calculation of funding sources allows the study team to compare the current funding system to the recommended system.

Calculating District Adequacy Targets

To calculate a district's total adequacy target, regardless of the state or local share, student counts are multiplied by the base cost and special needs adjustments and then adjusted for regional cost differences. The decisions for each of these key components of calculating adequacy targets are described below.

Student Counts

The study team recommends changes to current student count methods for: (1) addressing declining enrollments for general education formulas, (2) counting low-income students for compensatory total program, and (3) including prekindergarten students in the State's full-time equivalent enrollment counts to provide universal prekindergarten services.

The study team recommends retaining the same general student count methods used for the current formulas, including total FTE enrollment, compensatory education students, LEP students, special education students, and prekindergarten students. Our recommendations for addressing declining enrollment, counting compensatory education students, and counting prekindergarten students are presented below.

Declining Enrollment

The study team recommends including a declining enrollment calculation when calculating total enrollment for each district. Currently, total enrollment is based on the September 30 FTE enrollment count for the prior school year. The November 2015 *Final Report of the Study of Increasing and Declining Enrollment in Maryland schools* discusses the reasoning for a declining enrollment adjustment. Generally speaking, as a district loses enrollment, it cannot necessarily reduce costs in a fashion that is proportional to the loss of students. The proposed methodology would use three years of enrollment information in the calculation of the total enrollment figure, allowing districts to absorb the loss of funding related to the loss of students over time. A district would receive the greater of two counts — the prior year's enrollment count or the average of the three prior years' counts. The calculation ensures that districts with growing enrollments receive funding based on the most recent enrollment count. Table D.1 in Appendix D shows the effect on enrollment numbers and funding by using the greater of a single year or a three-year rolling average or just implementing a single year count. The recommended method increases student enrollment in 10 of the 24 districts. Also, the proposed enrollment count results in higher total funding by \$11,468,199 compared to using the single year enrollment count

Counting Low-Income Students

The issue of how to best count low-income students was raised as a result of the growing use of the Community Eligibility Provision (CEP) included in the 2010 Healthy, Hunger-Free Kids Act (HHFKA), which allows eligible⁴ participating schools to serve free meals to all of its students. In a move to reduce reporting burdens on schools, the law prohibits participating schools from collecting application forms for the federal free and reduced-price lunch program during the four-year CEP eligibility period, which results in incomplete district and statewide FRPM counts.

⁴ Schools are eligible for CEP if 40 percent or more of its students have been identified as being vulnerable to hunger during the spring of the prior school year. Among the factors that may be used to identify children are homelessness, placement in foster care, participation in Head Start, migrant status, and living in households receiving services from the SNAP, FDPIR, or TANF programs.

In July 2015 the study team released the report entitled *Evaluation of the Use of Free and Reduced-Price Meal Eligibility as a Proxy for Identifying Economically Disadvantaged Students: Alternative Measures and Recommendations*. The report examined the various options for identifying students for compensatory education funding. It attempted to identify the best count for compensatory education generally and with a focus on the potential impact of CEP program, which would suspend FRPM counts in eligible schools for up to four years. The implication of CEP is that students no longer need to complete the federal form required to qualify for FRPM in these schools, creating an undercount of FRPM students and, in turn, an undercount of low-income students.

The report discusses the impact of this provision on student counts. The study team recommended using either of two alternatives from the various approaches examined in the report. The first alternative, which is the preferred approach, is to continue to use FRPM eligibility to identify students for compensatory education funding but use an alternative state-developed form for collecting FRPM eligibility information. The second of the two alternative recommendations relies on direct certification of students eligible for programs such as the Supplemental Nutritional Assistance Program (SNAP), Transitional Assistance for Needy Families (TANF), or Medicaid using existing administrative data from state and local social services agencies.⁵ However, the statewide direct certification count is much lower than the current FRPM count, about 56 percent of the FRPM count, and would result in significantly less compensatory education funding. An adjustment factor could be applied to the direct certification count to generate a statewide eligibility count comparable to the current FRPM count, but counts at the district-level would still vary significantly from current counts. Due to this redistribution in the compensatory education eligibility counts, any implementation of direct certification should be phased-in over time. The study team recommends using the first alternative, in which the State creates an alternative form for collecting FRPL eligibility information because this approach will continue to provide a comprehensive count while minimizing the redistribution of counts across districts.

Counting Prekindergarten Students

Maryland currently provides funding for prekindergarten students who meet specific qualifying criteria related to the income of the child's family. In the January 2016 report entitled *A Comprehensive Analysis of Prekindergarten in Maryland*, the study team identified the need to expand the coverage and the quality of prekindergarten services in the state to ensure students would be prepared to meet the MCCRS. The report recommends a goal of providing high-quality prekindergarten for all four-year-old children. Though offered to all families, it is expected that no more than 80 percent of families with four-year-old children will participate. To be eligible for state funding, four-year-old prekindergarten students must be enrolled in a "quality" program, which is defined as a program that is six and a half hours long and located in a public or private setting that: 1) has earned an EXCELS⁶ rating of level 5, 2) has earned state or national accreditation (for example, accreditation through the National Association

⁵ The recommendation suggests including eligibility for Medicaid or the Children's Health Insurance Program among the criteria used for determining eligibility if the direct certification method is chosen.

⁶ Maryland uses a Quality Rating and Improvement System (QRIS) called EXCELS to accredit prekindergarten providers.

for the Education of Young Children), or 3) is a public school program which must, at a minimum, meet EXCELS level 5 standards.

In September 2013, the total public prekindergarten enrollment reported by local school districts was 29,724. After adjusting the school district figures to convert half-day programs to their full-day equivalent, the number of full-day public program spaces available in the State is 26,631. In addition, most, though not all, districts have private EXCELS Level 5 and accredited programs within their boundaries. This adds 1,607 EXCELS Level 5 full-time slots and 4,413 accredited full-time slots that are eligible for funding. This approach would recognize 32,651 prekindergarten slots as being eligible for funding through the foundation formula, which is the funding method recommended by the study team. This represents an increase of 2,927 eligible prekindergarten students in the State from the September 2013 enrollment count, or approximately 60 percent of all four-year-olds. In the modeling below, the study team uses the 32,651 count of “high-quality” slots for use in the foundation formula. This count is expected to grow over time up to 80 percent of all four-year-old children as more Level 5 slots become available.⁷

Base Cost

The base cost figure of a formula should be designed to represent the resources that a student with no special needs, in a district with no special circumstances, needs to meet state standards. The base cost includes resources for instructional, administrative, and other costs associated with meeting student needs. Maryland’s standards and requirements have changed over time, and the base cost needs to keep up with these changes to ensure all students, schools, and districts have the resources needed to meet the new standards. As will be mentioned in Chapters II-IV, the study team identified three base cost figures from the various adequacy approaches. The base cost figures from the evidence-based approach (EB) and professional judgment approach (PJ) were determined to best estimate the resources needed for all students to meet the MCCRS. The three adequacy study approaches are reconciled in Chapter V to create a final base cost recommendation based upon blending the EB and PJ approaches. This new base cost, once federal dollars were considered, was \$10,880. For comparison, the current base cost used for the 2014-15 foundation program was \$6,860.

This difference between the recommended base cost (\$10,880) and the current base cost (\$6,860) is substantial and represents a greater focus on providing resources at the base level to all students (instead of through adjustments tied to student need) than in the previous adequacy work done for the Thornton Commission, from which the current base figure is derived. The professional judgment panelists and the extensive research reviews of the EB and PJ approaches strongly argued for a larger base amount for several reasons. First, the new College and Career Ready state standards and other

⁷ The rate at which existing slots for prekindergarten students are converted to EXCELS Level 5 or its equivalent is limited by the number of prekindergarten programs that earn and move to EXCELS Level 5. To meet the goal of 80 percent of Maryland four-year-olds being served in a Level 5 program, the objective would be to have the capacity to serve approximately 60,300 four-year-olds in high-quality programs. This figure is approximately 27,650 higher than the 32,651 slots that are available today. The study team included the 32,651 figure in the recommendation estimate. The study team elected to use the lower count in recognition that it will take several more years before the number of “high quality” EXCELS Level 5 slots become available to accommodate 80 percent of four-year-olds.

state requirements are more rigorous than those in place at the time of the first study. Stronger accountability systems at both the state and federal levels also place higher stakes on adequately supporting students to meet these standards. The professional judgment panelists and research literature also indicated that most, if not all, students are coming to school with greater needs, requiring more support services even if they have not been formally identified as at risk, LEP, or special education. Further, since 2002 there are additional requirements for schools and districts, such as educator evaluations that require additional resources to accomplish.

While the study team does not intend to be prescriptive in how resources should be used, the base figure reflects the resource level needed to enable schools to provide the following key resources to meet the higher state standards and requirements, shown in Table 5.

Table 5
Base Cost Components

Key Resources in the Development of the Base Figure
Small class sizes
Staffing to support (but not limited to) the following areas: art, music, PE, world languages, technology, CTE, and advanced courses
Significant time for teacher planning, collaboration, and imbedded professional development
Additional instructional staff, including instructional coaches, and librarian/media specialists
High level of student support, such as counselors, nurses, behavior specialists, or social workers, for <u>all</u> students
Administrative staff to allow for instructional leadership, data-based decision making, and evaluation
Technology rich learning environments, resourced at a level that would allow for one-to-one student devices
Resources for instructional supplies and materials, assessment, textbooks, and student activities
District-level personnel and other resources to support schools

Weights

Student adjustments, or weights, are designed to provide the additional resources these students need above the base cost to ensure they can meet state standards. The study team is recommending the

following student need adjustments for special education, compensatory education, LEP, and prekindergarten students as shown in Table 6:

Table 6
Recommended Weights

Student Category	Weight
Compensatory Education	0.35
LEP	0.35
Special Education	0.91
Prekindergarten	0.29

The recommended compensatory education and LEP weights, both 0.35, are lower than the current weights. This is reflective of the shift to providing additional resources in the base instead of through adjustments tied to student need as discussed above. These weights were set at the level needed to raise sufficient funding when applied to the higher base to fund the additional staff and non-staff resources identified in the PJ and EB studies as necessary to adequately serve these students. The lower weights also reflect that all students, including students at risk of academic failure and students with limited English proficiency, will receive a higher level of services through the general education program due to the higher base amount. Further, both weights are recommended to be linear, that is, the weights remain constant regardless of the concentration of these students. In this final chapter of this report addressing additional studies, a discussion on funding for higher concentrations of low-income students is included. This section goes into detail on the research related to funding for concentrations of poverty and the basis for the study team’s recommendation of funding compensatory education on a linear basis. It builds on the December 2015 report *The Effects of Concentrations of Poverty on School Performance and School Resource Needs: A Literature Review* (APA, 2015). The study team recommends that regardless of a district’s percentage of compensatory education students, all eligible students receive the 0.35 weight. Districts with higher concentrations would receive more funding overall, but not more on a per student basis.

The study team concludes that at this time the evidence is not compelling to justify nonlinear funding mechanisms,⁸ even though the challenges that high-poverty schools face are readily observed. Neither the research literature nor the results from the PJ and EB studies indicate a need for a nonlinear approach. The research team believes that given the level of funding recommended by this study, Maryland’s schools would have the necessary resources for services to meet state standards, such as the supplemental strategies highlighted in the *Concentrations of Poverty* report and those highlighted in the EB and PJ approach sections of this report such as prekindergarten, summer school, after-school

⁸ Under a nonlinear weighting approach, a higher weight would be applied to districts (or schools) with higher concentrations of students in poverty. Under this approach, districts with higher concentrations of students in poverty would receive more funding per eligible student than districts with lower concentrations. Under a linear weighting approach, all students receive the same weighting (and amount of additional funding) regardless of poverty concentrations.

programs, arts education, and the coordination of wrap-around services through the use of school-based community liaisons to address the needs of these students.

Second, the study team recommends that the State continue to use a single weight for special education students. The recommended weight is 0.91, which is higher than the current weight of 0.74. The proposed weight both reflects the level of services identified by the PJ and EB studies and is in-line with recommendations made in recent adequacy studies for other states as presented in the *A Comprehensive Review of State Adequacy Studies Since 2003* report.⁹

Finally, the study team proposes a prekindergarten weight of 0.29 to fund quality prekindergarten programs for four-year-olds. The 0.29 weighting is needed to pay for the additional costs of high-quality programs. The primary cost drivers are related to staff, including higher total compensation packages required to attract and retain early childhood education certified teachers and credentialed program administrators, a small instructor-to-student ratio of one certified teacher and assistant (or two certified teachers) per 15 students, a 6.5 hour program day, planning time and ongoing professional development for staff, and time to conduct routine child screenings and assessments.

At a participation rate of 80 percent of all four-year-olds, the study team estimated a total cost of \$439.6 million with state aid accounting for 51 percent of total costs on average and local appropriations accounting for the remaining 49 percent of costs. Contributions from families based on their income is an option for offsetting part of these costs. However, the study team estimated that the State would accrue a return on investment of \$5.54 for each dollar spent through reduced special education and remedial program spending in grades kindergarten through 12 and lower criminal justice and child welfare system costs.¹⁰

Though the recommended weights may be lower than the current weights in some cases, it does not necessarily mean special needs students would receive fewer resources for two reasons. One reason is that the weights are applied to a higher recommended base. Another reason is that current weights may not be fully funded at present, as only the state share of funding for these weights is guaranteed. The study team recommends that the recommended weights from this study be fully funded. A detailed comparison of per student amounts generated under both current and recommended bases and weights will be provided later in this chapter.

As one final recommendation regarding weights, the study team recommends a student receive all weights for which they are eligible, with the exception of LEP weights for prekindergarten students.

Regional Cost Adjustment

Regional cost adjustments are applied to funding targets to account for geographical differences in the costs faced by districts across the State. There are few states that take a similar approach to Maryland's

⁹ See Aportela, A., Picus, L., Odden, A. & Fermanich, M. (2014). *A Comprehensive Review of State Adequacy Studies Since 2003*. Denver, CO: Augenblick, Palaich & Associates.

¹⁰ For more information on prekindergarten costs and return on investment, see Workman, S., Palaich, R., & Wool, S. (2016, January). *A Comprehensive Analysis of Prekindergarten in Maryland*. Denver, CO: APA Consulting.

current GCEI, Alaska and Wyoming being two examples, while most states with cost of living indices, such as Massachusetts, Missouri, New York, Virginia, and Florida, use wage indices¹¹. For example, the school funding formula in Missouri includes a Dollar Value Modifier (DVM), which is an index of the relative purchasing power of a district in order to provide additional funds to districts with higher costs of living. Missouri's DVM is calculated based upon the ratio of a regional average wage per job in relation to the state's median wage per job, and it is applied to a district's weighted average daily attendance multiplied by the state adequacy target¹². Similarly, New York uses a Regional Cost Index (RCI) to reflect regional variations in purchasing power around the state, based on wages of non-school professionals.¹³ New York's RCI is applied to a district's foundation funding amount.

Two reports were produced examining regional cost adjustments for the Maryland school funding model. In November 2015, the *Geographic Cost of Education Adjustment for Maryland* report examined the current approach used by the State, the GCEI, and the alternative approaches available for adjusting for regional cost differences. The report recommended switching from the GCEI to a Comparable Wage Index (CWI) approach for regional cost adjustments to better account for the differences in costs faced by districts in Maryland. The June 2016 report *A Comparable Wage Index for Maryland* calculated the CWI figure for each school district in the State.

As a result, the study team is recommending using the CWI figure to adjust for regional cost differences. The study team recommends all formula funds be adjusted by the CWI, which is a further change from the current funding system. Currently, only foundation funding is adjusted by the GCEI. However, regional differences in costs impact all program areas, not only programs supported by foundation funding. Additionally, the study team also recommends that adjustments be made for districts with CWI figures above and below the statewide average. Currently, adjustments are made only for those districts with GCEI figures above the state average, providing for additional funding for districts in regions with higher than average costs. By not applying GCEI figures below the state average, funding for districts in lower cost regions is not reduced, resulting in a financial advantage for these districts in the competition for attracting and retaining qualified staff. Finally, the study team recommends that the CWI adjustment be applied prior to determining the state and local shares. Currently, the GCEI adjustment is made after the local share has been calculated and the entire cost of the GCEI adjustment is included in state foundation aid. However, under this recommendation the full range of the CWI will be applied (both above and below the state average), therefore local jurisdictions should share in any savings as well as extra costs resulting from the application of the CWI.

Determining State and Local Funding

Equalized state funding systems determine state and local funding based on the wealth of each district, the required local share, any additional adjustments such as minimum aid guarantees or guaranteed tax

¹¹ Silverstein, J., Brown, A., Fermanich, M. (2015). Review of Alaska's School Funding Program. Denver, CO. Augenblick, Palaich, and Associates.

¹² *id.*

¹³ *id.*

bases, and the ability of districts to raise dollars above the foundation formula. This section examines each of the study team's recommendations for these components.

Local Wealth

The study team examined three issues related to determining the local wealth of districts: 1) the choice of using September or November Net Taxable Income (NTI), whichever provided the largest amount of state aid, when determining local wealth; 2) the method for combining local, assessed property values and NTI; and 3) whether all or a portion of the tax increment of tax increment financing (TIF) districts should be exempted from the local property wealth portion of a district's wealth for school aid formula purposes. All three of these issues are presented in more detail in APA's December 2015 report *Analysis of School Finance Equity and Local Wealth Measures in Maryland*. The study team provided recommendation on the issues of NTI and the method used for combining assessed property values and NTI but did not make a specific recommendation related to tax increment financing.

Net Taxable Income

Currently, MSDE calculates each funding formula impacted by local wealth using both the September and November NTI. Districts receive the calculation that results in the largest amount of state aid. The study team believes that the November NTI provides the more accurate measure of NTI, and hence the fiscal capacity of each district, because it includes a larger proportion of a county's income tax returns – including those filed closer to the extension deadline of October 15. Thus, the study team recommends using only the November NTI data for determining local wealth.

Combining Assessed Property Values and NTI

Maryland, along with five other states (Connecticut, Massachusetts, New Jersey, New York, and Virginia), includes both property and income wealth in its measure of local wealth to reflect the fact that the State's local jurisdictions raise revenues through both property and income taxes. Including a measure of income when determining local wealth also enables the State to more directly account for taxpayers' ability to pay – an important factor in local tax and spending decisions (Mankiw, 1998) and improving the funding system's equity. The study team's earlier equity analysis¹⁴ showed that although Maryland's school finance system is quite equitable, high-wealth jurisdictions still generally spend more per pupil than lower-wealth jurisdictions, an indication that the finance system is not entirely fiscally neutral.¹⁵

The State's current method of combining assessable property values and NTI, the measure of income used in determining local wealth, is to add the two components together. However, adding NTI to assessable property values may not fully account for the effects of differences in NTI across jurisdictions. For example, the effect of the income measure could be overwhelmed by a much larger property wealth amount. To help ensure that the effect of variation in NTI across jurisdictions is fully accounted for, the

¹⁴ See Glenn, W. J., Griffith, M., Picus, L.O., & Odden, A. (2015). *Analysis of School Finance Equity and Local Wealth Measures in Maryland*. Denver, CO: APA Consulting.

¹⁵ In a fiscally neutral finance system there is no relationship between a jurisdiction's wealth and per pupil spending.

study team recommends that the State consider using a multiplicative approach instead of the current additive approach for combining the two measures of wealth. Under the multiplicative approach, each county's assessed property wealth is adjusted by multiplying it by the ratio of the jurisdiction's NTI to the state average NTI. In essence, under this approach, assessed property wealth is adjusted by an income index to account for differences in jurisdictions' NTI.

Moving to the multiplicative approach helps to increase the equity and fairness of the State's school finance system by ensuring the use of NTI in the local wealth calculation works to the benefit of lower wealth jurisdictions. One of the basic tenets of a fair taxation system is the ability to afford the tax (Institute on Taxation and Economic Policy, 2011, Oates & Schwab, 2004). Under the current additive approach, the real and personal property assessable value component comprises between 60 percent and 90 percent of total local wealth. However, possessing high assessable property wealth does not necessarily mean a jurisdiction also has high taxable incomes. In Maryland, there is only a moderate correlation between the two (0.58).¹⁶ Studies also show that the property tax is regressive, with low-income families paying 3.6 percent of income in property taxes compared to 0.7 percent of income for high-income families (ITEP, 2015). The ability to pay property taxes may also change over time. For example, seniors may find it difficult to pay the property taxes on their home once retired and living on a fixed income (Oates & Schwab, 2004). Some states, including Maryland, have attempted to address this by providing some property tax relief through an income-based circuit breaker (Lyons, Farkas, & Johnson, 2007).

The examples of Calvert and Montgomery Counties help to illustrate how the multiplicative approach would change local wealth amounts. Calvert County's average assessable property wealth per student is almost equal to the state average at just over 100.0 percent. However, the county's November NTI per student is only 85.2 percent of the state average. Using the State's current additive method, the county's total November wealth measure is 94.9 percent of the state average. Using the multiplicative approach, Calvert County's November wealth measure would fall to 85.3 percent of the state average, resulting in an increase in its state share of funding. Under the current additive approach In Montgomery County, its wealth measure using November NTI is 42.5 percent above the state average. If the State adopted the multiplicative method, Montgomery County's total wealth measure would rise from 144.3 percent of the state average to 197.3 percent of the state average. This change would result in a significant decrease in state aid to Montgomery County and other districts that have incomes above the state average.

Table 7 compares measures of two important equity concepts for the proposed formula if wealth is determined using the multiplicative approach or if it is determined using the additive approach. The first is fiscal neutrality, the measure of the relationship between local wealth and education funding. Ideally, there should be little or no relationship between how wealthy a community is and the amount of money available to fund its schools. The second concept is equity, or how much variation in spending exists

¹⁶ The correlation between per pupil assessable property values and NTI is 0.58. On a per capita basis the correlation is 0.50.

across local jurisdictions. An equitable school finance system should show minimal variation except for spending differences driven by student need.¹⁷

Each of the equity statistics is calculated using two different student counts to examine two different ways of looking at equity. The first, labeled “Unweighted Enrollment,” uses the September 30th enrollment counts. The equity statistics using this count provide a measure of horizontal equity, or how equitable the finance system is without taking student need into account. The second, labeled “Weighted Enrollment” uses the enrollment counts adjusted by the proposed weights for special need students. These statistics provide a measure of vertical equity, or how equitable the system is when accounting for differences in student need.

The table also includes benchmarks, or the generally accepted maximum value for each equity measure. The benchmark for fiscal neutrality should be no more than 0.50. This represents a moderate or lower positive relationship. The benchmark for equity should not exceed 0.10, a fairly low level of variation.

Table 7
Equity Statistics for Multiplicative and Additive Approaches
to Combining Assessed Property Value and NTI

	Benchmark	Multiplicative	Additive
Fiscal Neutrality			
Unweighted Enrollment	0.50	(0.32)	(0.20)
Weighted Enrollment	0.50	(0.19)	0.02
Equity			
Unweighted Enrollment	0.10	0.10	0.09
Weighted Enrollment	0.10	0.10	0.10

The table shows that for all measures both the multiplicative and additive approaches meet or exceed all benchmarks. There is essentially no difference in the equity measure whether using unweighted or weighted enrollment counts. The measure for fiscal neutrality, which would be expected to be impacted the most by a change in the way wealth is calculated, shows that both the additive and multiplicative approaches favor lower wealth jurisdictions (as demonstrated by a negative correlation between wealth and spending in both cases) when using unweighted enrollment counts. This means that the formula provides a somewhat larger state share to lower wealth jurisdictions than a perfectly neutral system. When weighted enrollment is used, the correlation of the additive approach becomes slightly positive (indicating a very small positive relationship between wealth and spending) while the correlation for the

¹⁷ Fiscal neutrality is measured by the correlation coefficient, a statistical measure of the relationship between per student local wealth and per student funding. The correlation coefficient may range from -1.0 (a perfect negative relationship) to 1.0 (a perfect positive relationship). Equity is measured by the coefficient of variation, a statistic that measures the amount of variation around the average for a set of values. The coefficient of variation typically ranges from 0.0 (no variation) to 1.0 (very high variation). An equitable school finance system should show minimal variation except for spending differences driven by student need.

multiplicative approach remains negative. In sum, the multiplicative approach remains somewhat more favorable for lower wealth jurisdictions whether using unweighted or weighted enrollment.

Adopting the multiplicative approach would also result in an increase in the range between the lowest and highest wealth jurisdictions. Under the current additive approach, the range in per pupil wealth between the lowest wealth jurisdiction and highest wealth jurisdiction is \$830,870 per pupil. Under the multiplicative approach this range increases to just over \$1.1 million per pupil.

Adopting a multiplicative approach to combining measures of property wealth and income is not the only way to increase the effect differences in income have on total local wealth. Another alternative is to change the relative weight of the income measure to property wealth. Under the current additive approach in Maryland, NTI comprises 35 percent of total wealth on average. Three of the five other states that incorporate income in their local wealth measure (Massachusetts, New Jersey, and New York) weight income and property wealth so that each comprises 50 percent to the total wealth calculation. The remaining two states, Connecticut and Virginia, place less weight on income. Connecticut weights income as only 10 percent of total local wealth and Virginia weights income as 40 percent of the total. None of these states use the multiplicative approach to combine income and property wealth.

Minimum State Aid Guarantees and Local Shares of Special Needs Programs

Maryland's current funding programs provide minimum state funding guarantees in two ways. First, each district is guaranteed to receive at least 15 percent of its total foundation total program as state aid. Under the minimum foundation aid guarantee, a district with high local wealth may generate the full foundation total program through its local share, but still receive at least 15 percent of the foundation total program in state aid, thus generating additional funding for the district or enabling the jurisdiction to reduce its local share in other program areas.

The second way in which state aid is guaranteed is by guaranteeing that all districts receive at least 40 percent of their special needs total program (compensatory education, LEP, and special education) as state aid. Further, districts are not required to provide a local share for any of these special needs program formulas. Again, under this minimum state aid guarantee, wealthier districts may reduce their local share amounts due to the guaranteed state aid, thereby increasing the cost of the program to the state and reducing or even eliminating any local effort. Further, providing the state aid minimums to wealthier districts and not requiring local shares of the special needs programs may be contributing to inequities identified in the formula in the study team's earlier school funding equity analysis.¹⁸

The study team makes two recommendations concerning these issues. First, the minimum state aid guarantees should be eliminated for foundation and special needs funding programs. Eliminating the state aid minimums will free-up state funding dollars which could be used to provide additional support to those districts with lower local wealth and higher needs. Other states, including Colorado and

¹⁸ See Glenn, W. J., Griffith, M., Picus, L.O., & Odden, A. (2015). *Analysis of School Finance Equity and Local Wealth Measures in Maryland*. Denver, CO: APA Consulting.

Wyoming, take a similar approach. As of fiscal year 2009-10, Colorado eliminated its guarantee for minimum state aid with passage of House Bill 09-1318. Colorado's districts are no longer guaranteed to receive a minimum amount of aid from the state.¹⁹ Wyoming takes a step further than the study team's recommendation; the state does not provide a minimum funding amount, and, when local resources exceed the Foundation Guarantee amount, the excess is recaptured by the state from other aid programs.²⁰

Second, the study team recommends that all districts should be required to appropriate the full local share for all of the special needs funding programs. This change would both improve equity and ensure that districts are receiving the full funding amount identified by the adequacy study.

Under the study team's recommendation, a required local share would be calculated for each special needs (compensatory education, LEP, and special education) program using the same method as the foundation calculation. A total program amount, adjusted by the CWI, would be determined; an equalized local share determined; and a state share equaling the difference between the total program amount and the local share. The local share is equalized using the same method used for calculating the foundation local share; that is, by determining a statewide local contribution rate assuming the state average state and local shares are equal to 50 percent each.²¹ The study team recognizes that this approach differs from the current method of equalization used with the special needs programs, but it elected to use the foundation program's method for two reasons. First, the study team's rationale for requiring a full local share for the special needs funding programs is to ensure that the full adequacy level of funding is provided to all students in every district — students with and without special needs. Second, by making the calculations for the foundation and special needs programs the same, the State could potentially streamline the formula by calculating the total program and state and local shares all within the foundation formula by using weighted student counts, i.e. taking the FTE enrollment count, calculating a weighted count by adjusting for the student need weights, and then multiplying by the foundation amount. A single local contribution rate could then be used to determine the state and local shares.

Under the proposed method of determining state and local shares, the State should also revise its maintenance of effort requirement, which requires each jurisdiction to appropriate the greater of its total foundation local share or its prior year per pupil total local appropriation. Because the proposed total required local share would consist of the foundation, compensatory education, LEP, and special education local shares, the maintenance of effort should be changed to the greater of the proposed total required local share or its prior year per pupil total local appropriation to make it consistent with the changes to the required local share.

¹⁹ See Colorado Department of Education. *Understanding Colorado School Finance and Categorical Funding*. July 2016. <https://www.cde.state.co.us/cdefinance/fy2015-16brochure>

²⁰ See State of Wyoming School Foundation Block Grant Flow Chart. March 2016.

<http://legisweb.state.wy.us/InterimCommittee/2016/SchoolFoundationBlockGrantFlowChart.pdf>

²¹ The formula for determining the local contribution rate is: $(\text{total program} \times 0.50) / \text{total statewide local wealth}$.

Other State Funding Programs and Tax Increment Financing

There are several issues that the study team explored but for which specific recommendations were not provided. These consist of transportation aid, the guaranteed tax base (GTB) state aid program, and tax increment financing. In all three cases, the study team determined there were insufficient research findings or examples of best practices from other states in the literature to support making a recommendation. However, the research team recognizes that these issues should be explored and recommends that the State continue to study these issues and develop recommendations in the future.

Transportation Aid

Transportation aid provides funding for the transportation of general education and disabled students to and from school. The current formula begins with a base amount equal to a district's prior year grant and is then adjusted for inflation and enrollment growth. The study team's recommendations would potentially impact the amount of transportation aid in two ways. First, the study team's recommendation to use the greater of the prior year's FTE enrollment or the average of the three prior years' FTE enrollment will result in higher enrollments in declining enrollment districts, thus providing more aid for these districts and increasing state costs. Second, the State must determine whether prekindergarten students will be transported via district transportation services, and if so, should prekindergarten counts be included in the enrollment counts used to adjust districts' base grant amount. It should be noted that the research team recommended that the transportation aid formula should be thoroughly studied to determine if an updated formula is warranted.²²

Guaranteed Tax Base

The current GTB program was established to incentivize districts with less than 80 percent of the statewide average per pupil wealth to provide a larger local education appropriation. The GTB provides additional state aid for these districts based on two factors: 1) the amount of their local education appropriation in excess of their local foundation share; and 2) the ratio of their wealth per pupil to 80 percent of the statewide average wealth per pupil. Under the current system, the GTB program is an important incentive for jurisdictions to provide a local appropriation for the special needs funding programs. Also, given the current low base funding amount, it aids lower wealth jurisdictions to provide an additional local appropriation to supplement their foundation total program funding. However, under the study team's recommendation that all jurisdictions provide a full local share of the special needs total program amounts, and with a new, adequate base funding amount, the State should examine whether the GTB should be continued in its present form and purpose.

Statutory Inflation Adjustment

In the current education funding formula the per pupil foundation amount is adjusted annually for inflation using the lesser of the Consumer Price Index for the Baltimore-Washington region, the implicit

²² See Hartman, W. & Schoch, R. (2015). *Final Report of the Study of Increasing and Declining Enrollment in Maryland Public Schools*. Denver, CO: APA Consulting.

price deflator for state and local governments, or 5 percent. The study team did not make any specific recommendations for changing or eliminating the current inflation adjustment.

Tax Increment Financing

Tax increment financing (TIF) is an economic development tool that uses the growth in property values in a designated area to pay for some of the costs of redevelopment. For example, the principle and interest of municipal bonds issued to pay for new infrastructure. Because the tax assessments on these properties are used for other purposes, they are not available to support the general operations of local jurisdictions. In Maryland, the growth in property values in designated TIF areas are included in the calculation of property wealth for counties and the City of Baltimore, but these jurisdictions are not able to use the local tax revenues generated by these properties for education funding purposes. In several counties and the City of Baltimore this results in either a loss of education funding or higher tax assessments on other properties. The study team’s analysis of the calculation of local wealth examined this issue and presented an example of how another state has dealt with this issue.²³ However, the study team does not offer a specific recommendation but instead suggests that the State continue to study this issue.

Tables 8 presents a summary of the study team’s recommendations compared to current practice in Maryland.

**Table 8
Summary of Recommendations**

Key Components of Formula	Currently Done in Maryland	Recommendation to Maryland
Student Counts		
Declining Enrollment	Total enrollment is based on the September 30 th FTE enrollment count for the prior school year.	A district would receive the greater of two counts — the prior year’s September 30 th enrollment count or the average of three prior years’ counts.
Counting Low-Income Students	Uses the FRPM eligibility form created by the federal government	Use a FRPM eligibility form that is created by the State and returned to the State
Counting Prekindergarten Students	Prekindergarten students who meet specific qualifying criteria related to the income of a child’s family.	Provide high-quality prekindergarten for up to 80 percent of eligible programs for four-year-old students. In order to receive funding a student must be enrolled in a program that has earned a Level 5 EXCELS rating, has earned state or national accreditation, or is a public school program that reaches EXCELS level 4 standards.
Base Cost	\$6,860	\$10,880 - The recommended base has a greater focus on providing more resources at the base level to all students to meet higher state standards and requirements.
Weights		

²³ See Glenn, W. J., Griffith, M., Picus, L.O., & Odden, A. (2015). *Analysis of School Finance Equity and Local Wealth Measures in Maryland*. Denver, CO: APA Consulting.

Key Components of Formula	Currently Done in Maryland	Recommendation to Maryland
Special Education	0.74	0.91
LEP	0.99	0.35
Compensatory	0.97	0.35
Prekindergarten	N/A	0.29
Regional Cost Adjustment	Uses the GCEI applied only to the foundation amount.	Uses the CWI, includes indices less than 1.0, and is applied to the foundation and all special needs total programs.
Local Wealth		
Net Taxable Income (NTI)	Districts receive the largest amount of state aid that results from using either the September or November NTI.	Recommends that the State only uses the November NTI data for determining local wealth.
Combining Assessed Property Values and NTI	Uses the additive approach by adding together both property and income wealth in its measure of a district's local wealth.	Uses the multiplicative approach. Each district's assessed property wealth is adjusted by multiplying it by the ratio of the district's NTI to that the state average NTI.
Tax Incremental Financing (TIF)	The full value of designated TIF areas is included in the calculation of property wealth of local jurisdictions, but these jurisdictions are not able to use local tax revenue generated by these properties for education funding purposes.	No recommendation
Minimum State Aid Guarantees		
Foundation	Districts are guaranteed to receive at least 15 percent of the foundation total program in state aid.	Should be eliminated
Special Needs Programs	Districts are guaranteed to receive at least 40 percent of their special needs total program as state aid	Should be eliminated
Transportation Aid	Has a base amount equal to a district's prior year grant and is then adjusted for inflation and enrollment growth.	No recommendation
Guaranteed Tax Base	Provides additional state aid for districts based on the amount of their local education appropriation in excess of local foundation share and the ratio of their wealth per pupil to 80 percent of the statewide average wealth per pupil.	No recommendation

Table 9 compares the total of the proposed state and local shares for the foundation, compensatory education, LEP, and special education programs, to the total of the current state share for these programs and jurisdictions' total local appropriation. This is not a perfect apples-to-apples comparison because the proposed local shares do not include any additional local appropriation that jurisdictions may elect to contribute. This comparison shows that total state shares plus local appropriations statewide would increase by 29 percent. Potentially, this increase could be larger if jurisdictions make additional local appropriations above the proposed required local share. The difference between proposed and current ranges from increases of 40 percent or greater in Harford, Prince George's, and St. Mary's counties. Worcester County is the only jurisdiction that would experience a decrease. However, Worcester County currently appropriates a significant amount of additional local funding in addition to

what is required for the foundation local share. If the county continued providing additional local support above the proposed required local share the decrease would be reduced or eliminated.

Table 9
Comparison of Proposed State and Local Shares and the Sum of
Current State Share for Major State Aid Programs and Current Total Local Appropriations
Fiscal Year 2015

Local Unit	Proposed State and Local Shares	Current State Share and Total Local Appropriations ¹	Change	Percent Change
Allegany	\$106,193,944	\$97,205,705	\$8,988,240	9%
Anne Arundel	\$1,161,936,991	\$872,262,781	\$289,674,210	33%
Baltimore City	\$1,449,109,710	\$1,091,079,255	\$358,030,454	33%
Baltimore	\$1,636,358,800	\$1,245,979,562	\$390,379,238	31%
Calvert	\$225,294,976	\$181,704,584	\$43,590,392	24%
Caroline	\$73,873,587	\$57,008,563	\$16,865,024	30%
Carroll	\$338,196,159	\$280,777,814	\$57,418,345	20%
Cecil	\$220,398,254	\$164,695,494	\$55,702,760	34%
Charles	\$370,978,635	\$296,167,005	\$74,811,631	25%
Dorchester	\$63,156,163	\$51,155,643	\$12,000,520	23%
Frederick	\$560,038,906	\$440,349,772	\$119,689,134	27%
Garrett	\$45,089,530	\$42,020,842	\$3,068,687	7%
Harford	\$550,008,571	\$389,381,412	\$160,627,158	41%
Howard	\$766,474,431	\$710,431,292	\$56,043,139	8%
Kent	\$28,665,436	\$24,122,223	\$4,543,213	19%
Montgomery	\$2,467,169,557	\$1,979,122,636	\$488,046,921	25%
Prince George's	\$2,110,671,451	\$1,510,255,217	\$600,416,234	40%
Queen Anne's	\$95,172,967	\$77,598,633	\$17,574,334	23%
St. Mary's	\$252,865,758	\$175,201,983	\$77,663,775	44%
Somerset	\$43,559,075	\$33,971,997	\$9,587,078	28%
Talbot	\$58,485,958	\$45,203,937	\$13,282,021	29%
Washington	\$300,346,598	\$245,648,490	\$54,698,108	22%
Wicomico	\$203,312,762	\$159,344,270	\$43,968,491	28%
Worcester	\$89,045,641	\$89,985,968	(\$940,327)	(1%)
Total State	\$13,216,403,859	\$10,260,675,080	\$2,955,728,780	29%

¹Current state share includes the foundation, compensatory education, LEP, special education, GCEI, guaranteed tax base, supplemental grant, NTI adjustment, and declining enrollment state aid programs. It excludes student transportation grants and the State share of teachers' retirement costs. The current total local appropriation excludes the local appropriation for student transportation.

Table 10 shows the same information as Table 9 but on a per pupil basis. The statewide average increase would be 24 percent on a per pupil basis. The per pupil increase is less than the total dollar increase because the proposed student counts, which now include four-year-olds in the prekindergarten program, are larger. The per pupil differences range from increases of 38 percent in Harford and St. Mary's counties to a decrease of eight percent in Worcester County.

Table 10
Comparison of Proposed Per Pupil State and Local Shares and the Sum of
Current Per Pupil State Share for Major State Aid Programs and Current Total Local Appropriations
Fiscal Year 2015

Local Unit	Proposed	Current ¹	Change	Percent Change
Allegany	\$12,000	\$11,693	\$307	3%
Anne Arundel	\$14,789	\$11,450	\$3,339	29%
Baltimore City	\$17,165	\$13,750	\$3,416	25%
Baltimore	\$15,115	\$11,940	\$3,175	27%
Calvert	\$13,873	\$11,484	\$2,389	21%
Caroline	\$13,339	\$10,890	\$2,450	22%
Carroll	\$12,801	\$10,821	\$1,981	18%
Cecil	\$14,003	\$10,907	\$3,096	28%
Charles	\$14,049	\$11,604	\$2,446	21%
Dorchester	\$13,395	\$11,355	\$2,039	18%
Frederick	\$13,757	\$11,156	\$2,601	23%
Garrett	\$11,434	\$11,100	\$333	3%
Harford	\$14,477	\$10,508	\$3,969	38%
Howard	\$14,397	\$13,760	\$637	5%
Kent	\$13,327	\$12,091	\$1,235	10%
Montgomery	\$16,197	\$13,421	\$2,776	21%
Prince George's	\$16,959	\$12,661	\$4,298	34%
Queen Anne's	\$12,313	\$10,386	\$1,927	19%
St. Mary's	\$14,269	\$10,373	\$3,896	38%
Somerset	\$14,588	\$12,458	\$2,130	17%
Talbot	\$12,650	\$10,516	\$2,134	20%
Washington	\$13,261	\$11,197	\$2,064	18%
Wicomico	\$13,765	\$11,439	\$2,325	20%
Worcester	\$13,239	\$14,400	(\$1,161)	(8%)
Total State	\$15,241	\$12,295	\$2,946	24%

¹Current state share includes the foundation, compensatory education, LEP, special education, GCEI, guaranteed tax base, supplemental grant, NTI adjustment, and declining enrollment state aid programs. It excludes student transportation grants and the State share of teachers' retirement costs. The current total local appropriation excludes the local appropriation for student transportation.

Total Cost of the Recommendations

The study team's adequacy recommendations would result in a significant additional investment in education by the State and some local jurisdictions. The recommendations would also result in some redistribution of resources across districts, even though all districts would experience an increase in funding.

The total state share for major state aid programs, excluding transportation, would increase from \$4.9 billion to \$6.8 billion, an increase of \$1.9 billion or 39 percent over current fiscal year 2015 state aid.²⁴ It is impossible to make an apples-to-apples comparison of current and proposed local shares, since local jurisdictions are not currently required to provide a local share for the special needs aid programs, and many jurisdictions make additional local appropriations beyond what would be required to fund the local share of all of the major aid programs. However, a comparison of the proposed local share for the foundation and special needs programs to the current fiscal year 2015 total local appropriation (excluding transportation) provides a reasonable estimate of the local impact of these recommendations. Using this comparison, the local share would increase from \$5.4 billion to \$6.4 billion, an increase of \$1.0 billion or 19 percent.

Together, again estimating the local share using the local share for all major state aid programs as the proposed local appropriation and the actual current total local appropriation, total funding for all major state aid programs, excluding transportation, would increase from \$10.3 billion currently to \$13.2 billion, an increase of \$2.9 billion or 29 percent.

Comparison to Prior Adequacy Study

Since Maryland conducted a prior adequacy study, the study team has the unique opportunity to be able to compare the total adequacy recommendation not just to current funding but also to the estimates from the earlier work conducted on behalf of the Thornton Commission.

It is important to note what this comparison represents and what it does not represent. The comparison offered here simply examines the total adequacy need level(s) identified in the original work to that of the current study. Comparisons are only of the identified adequacy amounts and do not take into account the actual implementation of the original work. They are meant to examine what the results of the original work would be if adjusted to 2014-15 dollars. To make the base cost figures comparable, the original study figures were adjusted for inflation. The study team used a 1.40 factor to adjust the 2002 report figures to 2014-15 dollars based on the Bureau of Labor Statistics Consumer Price Index for Washington-Baltimore, DC-MD-VA-WV²⁵. The inflation figures used here differ from the method used by the State for the purposes of school funding formulas.²⁶ Total figures used in this section will vary from

²⁴ Fiscal year 2015 is the latest year for which all of the data necessary for making these estimates were available.

²⁵ http://www.bls.gov/regions/mid-atlantic/data/consumerpriceindexhistorical_washingtondc_table.htm

²⁶ The inflation adjustment used by the State in the funding formula is the lesser of the Consumer Price Index for the Baltimore-Washington region, the implicit price deflator for state and local governments, or 5 percent.

those in the previous section as the computations are made at the state level and are not district specific.

The original study used the SSD and PJ approaches to determine adequacy, both of which have been used in the current study. The current work also includes a third approach to determining adequacy: the EB approach. With that in mind, the study team compared the prior study’s SSD results to the current SSD results and the prior study’s PJ results to the current study’s final adequacy recommendations, the blended results of the EB and PJ approaches.

To make this comparison as directly as possible, two assumptions were made. First, for both the original and current study results, the figures used are prior to the federal funds adjustments as the study team feels this is the most direct comparison of the full cost of adequacy from each study. Second, because the SSD approach does not itself generate weights, weights were imputed for the current SSD estimate so that it could be compared to the base and weights of the other approaches. Weights for the current SSD column were calculated by dividing the SSD base into the per pupil resources identified for each special needs category from the current recommendation.

Table 11 below shows the results from this comparison. Again, these figures are the estimates prior to any adjustments for federal funding and are limited to costs generated from applying the base costs and weights to current student counts, so differ from full recommended system estimates in the prior section.

Table 11
Base Costs and Weights for Original and Current Adequacy Studies*

	Original SSD	Current SSD	Original PJ	Current Recommended**
Base Cost	\$5,969	\$8,716	\$6,612	\$10,970
Base Cost Adjusted for Inflation	\$8,362	\$8,716	\$9,263	\$10,970
Compensatory Education Weight	1.10	0.50	1.10	0.40
LEP Weight	1.00	0.50	1.00	0.40
Special Education Weight	1.17	1.39	1.17	1.10

*All base costs and weights are the amounts prior to the adjustments for federal funding.

**The current recommendation is a blended figure from PJ and EB results.

As shown in Table 11 when adjusted for inflation, the original SSD base cost figure is only about \$350 below the SSD base cost figure from the current study. The original PJ base cost figure is more than \$1,700 below the current study’s recommended base cost figure, representing the shift toward more resources at the base level for all students. The weights for the original SSD and PJ studies are much higher than those produced by the current study, with the original compensatory and LEP weights being at least double that of the current weights. Special education weights are more similar between the original studies and current studies.

While the base and weights from the two studies varied, it is also important to consider the overall total costs. Therefore, the study team calculated total cost figures utilizing the inflation adjusted bases and the 2014-15 FTE, compensatory education, LEP, and special education student counts for Maryland. The student counts do not include the increased prekindergarten enrollment discussed in the recommendation section to create a more straightforward comparison. The figures are also prior to any adjustments for regional cost differences such as the GCEI or the CWI that are included as part of the full system comparison in the preceding section.

Table 12 shows the total adequacy cost estimates from the prior adequacy study compared to the current.

Table 12
Total Adequacy Cost Estimates for Original and Current Adequacy Studies (in Millions)

	Original SSD	Current SSD	Original PJ	Current Recommended*
Total Adequacy Cost Estimate	\$11,974.3	\$10,473.8	\$13,264.2	\$12,380.1

*The current recommendation is a blended figure from PJ and EB results.

Overall, the comparison shows that though the results differ between the original and current studies in where resources are focused, low base and high weights versus high base and lower weights, the overall scale of adequacy need is within a comparable range across all four estimates when adjusted for inflation. The original PJ figures provide the highest total adequacy estimate, and the current SSD identifies the lowest total adequacy estimate. Using the original SSD figures and then adjusted annually for inflation from 2002, the target adequacy cost estimate from the prior study in today’s dollars would be very similar to the current recommended total cost of adequacy, about \$400 million apart.²⁷

Summary of Previously Released Reports

The adequacy recommendations detailed above were informed by 13 studies conducted prior to this draft final report. These reports range from research summaries to final impact analyses and provide detailed research methodologies, findings, and recommendations. Specifically, three of the reports focus on school size and two center on enrollment trends and prekindergarten. The remaining studies involve aspects of school finance equity, such as concentrations of poverty and the geographic cost of education. Abstracts and links to PDFs of these reports are provided in Appendix A of *Appendices A-E: Final Report of the Study of Adequacy of funding for Education in Maryland*, a supplemental document to this report. The reports are also available on the Maryland State Department of Education’s adequacy study website at the following link: <http://marylandpublicschools.org/Pages/adequacystudy/index.aspx>.

²⁷ It is interesting to note that the results of the current PJ approach (prior to blending with the EB approach to create the final adequacy study recommendation) would be nearly identical to the original PJ estimate, about \$100 million lower at \$13,152.1 million.



AUGENBLICK,
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Study of the Wyoming Educational Program and Recalibration and Reevaluation of the Wyoming Education Resource Block Grant Funding Model

Task 1A: Educational Program Comparison

Justin Silverstein, Amanda Brown and Mark Fermanich, APA

Presentation to the Select Committee on School Finance Recalibration
Casper, WY
October 12, 2017

1

Presentation Topics

- Review of educational program
- Brief overview of comparison tasks and benchmark states selected
- Initial cross-state comparison findings

2

What is the Educational Program?

- By law, the Legislature has “established a basket of educational goods and services constituting the proper education to which Wyoming students are entitled, including a common core of knowledge and skills.”
 - Implemented through content standards by grade level developed by the State Board of Education in consultation and coordination with local school districts.
- The basket is by law also required to include programs designed to address the special needs of identified student populations, including:
 - students with disabilities (special education programs);
 - economically disadvantaged students;
 - students with limited English proficiency; and
 - gifted and talented students.

Source: Legislative Service Office

3

What is the Educational Program?

Common Core of Knowledge

- Reading/language arts
- Social Studies
- Mathematics
- Science
- Fine arts/performing arts
- Physical education
- Health and safety
- Humanities
- Career/vocational education
- Foreign cultures & languages
- Applied technology
- Government and civics including state and federal constitutions

Common Core of Skills

- Problem solving
- Interpersonal communications
- Keyboarding and computer applications
- Critical thinking
- Creativity
- Life skills, including personal financial management skills

Source: Legislative Service Office

4

What is the Educational Program?

- Successful completion of content standards is measured through performance on state and district assessments and mandatory graduation requirements, as defined by statute:
 - Four school years of English;
 - Three school years of mathematics;
 - Three school years of science;
 - Three school years of social studies, including history, American government, and economic systems and institutions.
- All basket components are “implemented and enforced by rule and regulation of the State Board of Education, to be of sufficient quality to prepare students for future post-secondary education or employment opportunities and participation as citizens.”

Source: Legislative Service Office

5

What is the Educational Program?

- The study’s RFP also includes the opportunity for students to meet the requirements of the Hathaway Scholarship program as a component of the educational program.
 - Awards Wyoming students that meet eligibility requirements a scholarship for up to eight semesters at a Wyoming community college or the University of Wyoming.
- The Hathaway Scholarship program has four levels with different course , ACT and GPA requirements, achievement benchmarks, and award amounts, lengths and requirements:
 - Provisional Opportunity
 - Opportunity
 - Performance
 - Honors

6

What is the Educational Program?

- Hathaway Scholarship program levels:
 - Provisional Opportunity
 - Course Requirements: Meeting current graduation requirements in Language Arts, Math, Science, and Social Studies, and 2 years of either fine arts, CTE, or two years of foreign language
 - Achievement Benchmarks: 2.5 GPA and 17 on ACT
 - Opportunity
 - Course Requirements: 4 years of Language Arts, Math, and Science, 3 years of Social Studies, and 2 years of either fine arts, CTE, or additional foreign language
 - Achievement Benchmarks: 2.5 GPA and 19 on ACT
 - Performance
 - Course Requirements: same requirements as Opportunity, plus 2 years of foreign language
 - Achievement Benchmarks: 3.0 GPA and 21 on ACT
 - Honors
 - Course Requirements: same requirements as Performance
 - Achievement Benchmarks: 3.5 GPA and 25 on ACT

7

Task 1A. Research and Cross-State Comparison of the Educational Program, including Hathaway Scholarship Program Requirements

Comparison included:

- Overview of content areas each state has standards in
- In-depth comparison of English Language Arts, Mathematics and Science standards in terms of breadth, depth and rigor
- Hathaway Scholarship requirements against each state's graduation and university entrance requirements
- Requirements for the following special needs populations:
 - Special Education
 - English Language Learners
 - Gifted and Talented

8

Benchmark States

- Two sets of benchmark states selected and approved, regional and high performing:
 - Regional
 - Colorado, Montana, Idaho, North Dakota, South Dakota, Nebraska, and Utah.
 - High Performing
 - Massachusetts, New Hampshire, New Jersey, Indiana, Vermont, and Virginia.
 - Selected based upon K-12 achievement and PWR indicators

9

Cross-State Comparison of Standard Content Areas

- Compared against the 13 benchmark states, Wyoming has standards in similar content areas.
- While terminology differed, all states have content standards in: English Language Arts, Mathematics, Science, Social Studies, Fine and Performing Arts, Foreign Language, and Health Education/Physical Education.
- Standards related to Career and Vocational Training, or CTE, vary and most frequently are specific to a given career course area.
 - New Hampshire and New Jersey are similar to Wyoming, in that they have related CTE standards that apply to all K-12 students.
- Ten of the states have separate technology and/or computer science content standards.
- Other content areas included separately by more than one state in their standards include: Library (4 states), Financial Literacy (3 states) and Driver's Education (2 states).

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In-Depth Review of English Language Arts Standards

	Identical to Wyoming	Similar to Wyoming	Different from Wyoming
Regional States	South Dakota (K-12) and Utah (6-12)	Idaho, Montana, North Dakota, and Utah (K-5)	Colorado and Nebraska
High Performing States	New Hampshire and Vermont	Indiana and New Jersey	Massachusetts and Virginia

11

In-Depth Review of English Language Arts Standards

- Wyoming's standards were similar or identical to the standards in nine of the comparison states
- Wyoming's standards varied significantly from the standards in Colorado, Nebraska, Massachusetts, and Virginia
 - Colorado has more content standards while also excluding a few of the content standards in Wyoming
 - Nebraska's standards are not based on the Common Core State Standards (CCSS) and varied both in terms of specificity and expanding upon many of Wyoming's standards

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In-Depth Review of English Language Arts Standards

- Massachusetts standards are based on the CCSS but vary in many ways including, but not limited to, the following key differences:
 - Addition of Pre-K standards and other standards at earlier grade levels.
 - Explicitly linking their ELA and mathematics standards at the K-5 level.
 - Additional content area ELA standards such as differentiated reading standards for History/Social Studies and Science and Career and Technical Subjects, and Speaking and Listening standards for content areas.
- Virginia’s standards vary greatly from those of Wyoming and are not directly comparable to the CCSS.
 - Some of the areas addressed in Virginia’s content standards that are not included in the Wyoming ELA standards include: strategy usage, handwriting, research, and ethical and safe usage of the Internet and technology.

13

In-Depth Review of Mathematics Standards

	Identical to Wyoming	Similar to Wyoming	Different from Wyoming
Regional States	Idaho and South Dakota	Colorado, Montana, North Dakota, Utah	Nebraska
High Performing States	Vermont and New Hampshire	Massachusetts and New Jersey	Indiana and Virginia

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In-Depth Review of Mathematics Standards

- Wyoming's math standards were similar or identical to the standards in ten of the comparison states.
- Wyoming's math standards varied significantly from the standards in Nebraska, Indiana, and Virginia.
 - Nebraska's mathematics standards do not align to the CCSS and are less comprehensive than Wyoming's standards.
 - Indiana's standards are substantially different than those of Wyoming. There are different sets of standards, and many standards are either more condensed or alternately more expansive than those of Wyoming. Some standards have higher rigor.
 - Virginia's standards are fewer in number and generally less comprehensive than those of Wyoming.

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In-Depth Review of Science Standards

	Identical to Wyoming	Similar to Wyoming	Different from Wyoming
Regional States	None	Colorado, Idaho, Montana, Nebraska, and South Dakota	Utah
High Performing States	New Hampshire (K-5), New Jersey (K-5), and Vermont	Indiana (K-5), New Hampshire (6-12), New Jersey (6-12), Massachusetts, and Vermont (6-12)	Indiana (6-12) and Virginia

16

In-Depth Review of Science Standards

- Wyoming's science standards are similar or identical to the standards in ten of the comparison states, as well as similar to the K-5 standards in another state (Indiana).
- Wyoming's science standards vary significantly from the standards in Utah, Virginia, and the 6-12 standards in Indiana.
 - Utah's standards cover the same areas (earth and space science, life science, and physical science), but the standards are structured differently with fewer objectives and are located at different grade levels; also less rigorous in some areas.

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In-Depth Review of Science Standards

- Indiana's high school science standards are organized by course and go into much greater depth than Wyoming's standards.
 - Additional standards were also added at the middle school level which is organized into discrete grade levels.
- Virginia's Science Standards of Learning were adopted in 2010, prior to the release of the National Research Council's (NRC) 2011 framework and the NGSS.
 - Wyoming's standards are more focused on precursors for scientific method and show greater alignment to NGSS and NRC than Virginia's.
 - Overall, Wyoming's standards are more rigorous and more specific than Virginia, and involve more investigation and problem solving.

18

Comparison of Hathaway Scholarship Program Requirements

- The Hathaway Program was first compared against Wyoming's graduation requirements.
 - The Provisional Opportunity level most closely aligns to the state's graduation requirements.
 - Provisional requires additional coursework in career/technical education (CTE), fine arts, and foreign languages (two years total).
 - The other three scholarship levels are more rigorous, requiring an additional year of math, while the Performance and Honors also require two years of foreign language.

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Comparison of Hathaway Scholarship Program Requirements

- It can be difficult to compare graduation requirements across states due to the way courses/credits are accumulated.
 - Two of the states focus on competency-based outcomes, Colorado and Massachusetts.
- All states that identify course requirements require English and mathematics:
 - Most states require 4 years of English and three years of math.
 - States with tiered diplomas required a 4th year of math for the advanced diploma.

20

Comparison of Hathaway Scholarship Program Requirements

- On average, states with course requirements included three years of social studies and three years of science.
- Foreign language requirements varied, tending to be either included in a broad category where students could elect to take the courses (such as world language, arts, or CTE) or not required.
- CTE requirements varied with about half including in some capacity
 - most frequently as an option from a category of electives
 - New Jersey and Montana required a year for all students and Indiana encouraged elective choices to be college and career course options
- Other requirements can include fine arts, humanities, physical education, health, and personal finance and economics.

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Comparison of Hathaway Scholarship Program Requirements

- Hathaway requirements are aligned to the University of Wyoming's admission requirements at the Honors and Performance level.
- Comparable universities in the benchmark states had similar coursework requirements.
- GPA and ACT/SAT score minimums or the range for the middle 50 percent of entering students were comparable to the requirements of the Performance or Honors Level.
- South Dakota and Utah have similar scholarship programs that are merit-based and with eligibility requirements that are somewhat similar to those of the Hathaway Scholarship.

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Comparison of Special Education Requirements

- Individuals with Disabilities Education Act (IDEA) requires all states to provide a free appropriate public education (FAPE) to all students with disabilities in the least restrictive environment (LRE) possible.
 - Generally, there is minimal variation from state to state in their requirements for special education students.
 - The study team examined a number of areas where there could be variation: whether states had optional alternate achievement standards, and their age ranges for eligibility and transition services

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Comparison of Special Education Requirements

- Similar to Wyoming, all regional and selected high performing states have alternate achievement standards in ELA, mathematics, and science.
- Colorado, Indiana, Massachusetts, and Virginia have alternate standards in social studies and/or history, although students may not be tested in these areas.
- Except for two states (Nebraska which starts at birth and Virginia which starts at age 2), all states have an age range for eligibility for services similar to that of Wyoming which is ages 3-21.
- In most cases, the age range for delivery of transition services is like that of Wyoming, which is ages 16-21.

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Comparison of English Language Learner Requirements

- Most comparison states identify ELL students through performance on the ACCESS for ELLs assessment.
- Wyoming and all but one state- Nebraska- use the WIDA English Development Standards for their ELL students.
- No states have set program models for serving ELL students and instead follow the federal requirement that any program of service or curriculum provided to ELLs must be research or evidence-based.
 - The types of programs that meet this requirement and are noted in Wyoming and the comparison states include: two-way immersion/dual language, transitional bilingual education, ESL pullout, content-based ESL, sheltered English instruction, structured English immersion, heritage language, specially designed academic instruction in English, and native language literacy.

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Comparison of Gifted and Talented Requirements

- Definitions for gifted and talented (GT) students vary state to state.
 - Most define as high performing or high ability students that need additional supports and services
 - Typically specific to academic or intellectual capability, some states have broader definitions that also includes high performance capability in creative or artistic areas, leadership, or particular fields.
- While Wyoming requires that programs are provided for gifted students as part of the basket of goods and services, it does not specifically mandate the services or supports that need to be provided.
 - Less than half of states have state mandates about how to serve GT students
 - If mandated, differentiated instruction is most frequently noted.

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AUGENBLICK,
PALAICH AND
ASSOCIATES

**Wyoming School Funding Model Recalibration:
Implementing Alternative Approaches
to Recalibration**

Justin Silverstein, Amanda Brown and Mark Fermanich, APA

Presentation to the Select Committee
Casper, WY
November 2017

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Presentation Topics

- Implementing Three Alternative Approaches:
 - Professional Judgment Study
 - Modified Successful Schools Study
 - Statistical Study
- Comparison of Resources Across Approaches

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Alternative Approaches

- Employed three approaches to determine what resources were needed to provide the required basket of goods and services:
 - Professional Judgement
 - Modified Successful Schools
 - Statistical
- The resources identified in the professional judgment and successful schools approach will be compared against the current legislative model and the 2015 Evidence-based Study recommendations.

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Professional Judgment (PJ) Study

- Relies on the experience and expertise of Wyoming educators to identify the resources needed to ensure all students can meet state standards (in Wyoming, the basket of goods and services)
- Convened 8 PJ panels between September and November
 - 3 School-Level Panels: Elementary, Middle, and High School
 - 3 Special Needs Panels: At-risk/ELL Panel, Special Education Panel, CTE Panel
 - 1 K-12 School/District Panel
 - 1 Statewide Review Panel
- Panelists included teachers, principals, superintendents, CFOs, technology specialists, Special Education administrators, and ELL/Student Services administrators
 - Worked with professional associations to identify participants for all PJ panels

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Professional Judgment (PJ) Study

- Resources (personnel, non-personnel costs, technology and additional programs) were identified for a series of representative schools and districts based upon average schools and districts in Wyoming:
 - 3 elementary schools: 150, 210 and 300 students
 - 3 middle schools: 150, 300, and 525 students
 - 3 high schools: 200, 400 and 1,000 students
 - 1 K-12 school/district of 104 students
 - 4 districts of 500, 1,200, 3,025, and 10,700 students
- Resources were identified for all students (base), as well as the additional resources needed for at-risk, ELL and special education students
 - Resources for gifted and talented, and CTE included in base resources
- Resources can be examined as a specific set of resources, similar to the current model to generate funding, or can be converted to a base cost and adjustments for student needs, and school and district characteristics

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Professional Judgment (PJ) Study

- **Key Resources Identified:**
 - Teachers
 - Class sizes of 16:1 in grades K-2, 18:1 in grade 3, and 22/23:1 in grades 4-12.
 - Lower in K-12 school (1 teacher per grade)
 - Specials/elective teachers staffed at 20% of core teachers in elementary, and 33% of core teachers at the secondary level
 - Instructional Support
 - Instructional Facilitators and Technology Specialists to provide coaching to teachers
 - Library/Media Specialists and Paraprofessionals to provide a 1.0 combined position at each school
 - Student Support
 - Student support position (could include counselor, social worker, behavior specialist) at a ratio of 200:1
 - 1.0 nurse per campus

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Professional Judgment (PJ) Study

- **Key Resources Identified (continued):**
 - Administration
 - Assistant principals at secondary level (1 per 350 students)
 - Support for At-Risk Students
 - Teacher Tutor/Interventionists and Instructional Aides
 - Student Support staff
 - Extended day/extended year opportunities
 - Support for ELL students
 - ELL teachers and instructional aides, interpreter support
 - Support for Special Education students
 - Discussed resources for three levels of need: mild, moderate, severe
 - Special Education teachers and instructional aides at low student ratios
 - Related services
 - However, strong emphasis on not changing from the 100% reimbursement model that panelists feel best meets the needs of students

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Professional Judgment (PJ) Study

- **Key Resources Identified (continued):**
 - CTE programs
 - Provide CTE opportunities to 100% of middle and high school students, by providing CTE teachers to lower class sizes in CTE courses at high school; supplies and materials at both middle and high school
 - Preschool
 - Voluntary half-day preschool for all four year olds
 - Technology
 - One to one student devices
 - Other costs, such as supplies and materials, student activities, and professional development based upon actual district expenditures for past three years
 - Salaries and benefits: use actual district salaries, which are higher than current funded in the model

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Professional Judgment (PJ) Study

- **Key Resources Identified (continued):**
 - Size adjustment
 - Based upon the different representative schools created, APA was able to determine the impact of school and district size on resource needs and develop a size adjustment for elementary, middle, and high school grade bands as well as an adjustment for district size
 - Size adjustment formulas used as an alternative to creating funding “cliffs” within a model by differentiating resources above and below a certain threshold
 - Addresses diseconomies due to size, such as the need for smaller class sizes or more teachers to provide the same basket, higher non-personnel costs such as supplies and materials, student activities, and fixed positions needed such as principal and clerical staff

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Modified Successful Schools Study

- The Successful Schools approach examines the resources employed by schools that are performing better than their peers
- In Wyoming, successful schools were identified based on performance on the state’s accountability system over three years
 - Schools were determined to be successful if they received the designation of “Exceeding Expectations” in two out of three years, and at least “Meeting Expectations” in the other year
 - 56 schools identified as successful based upon this criteria
- Study team conducted 12 school site visits
- The study team also analyzed staffing and expenditure data provided by WDE for all 56 successful schools

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Successful Schools

- The 56 successful schools examined during the data analysis are included as a separate document.
- The following 12 successful schools were also visited to gather additional qualitative detail:
 - Albin Elementary, Laramie 2
 - Big Horn High School, Sheridan 1
 - Big Piney Middle School, Sublette 9
 - Douglas Middle School, Converse 1
 - Evansville Elementary, Natrona 1
 - Gilchrist Elementary, Laramie 1
 - Glenn Livingston Elementary, Park 6
 - Jackson Hole High School, Teton 1
 - Meeteetse School, Park 16
 - Paintbrush Elementary, Campbell 1
 - Snowy Range Academy, Albany 1
 - Truman Elementary, Sweetwater 2

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Modified Successful Schools Study

- **Common Themes from Site Visits**
 1. A strong, collaborative culture across teachers. Schools developed this by:
 - a. Providing professional development support and coaching
 - b. Creating blocks of common time for teachers to meet, plan, and collaborate together with the support of their instructional facilitator
 - c. Ensuring that data plays a central role in all decision making, and that training and regular coaching is provided on the use of formative and summative assessments and the use of resulting data to inform instruction
 2. Added student support outside regular school time
 - a. Most held after school programs to provide extended learning time for struggling students
 - b. Several schools operated before school tutoring and summer school programs

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Modified Successful Schools Study

- **Common Themes from Site Visits (continued)**

3. Small Class Sizes

- Class size ratios varied from 8-25 students per teacher in the schools APA visited (varying by school size and school level)
- In the cases where schools had higher ratios, principals expressed concern over the impacts that higher numbers of students have on both teacher instructional capacity and student performance
- Small class sizes were cited by school leaders as critical to preserving their ability to tailor instruction to each student's needs

4. Instructional Interventions

- Currently, each school visited placed an emphasis on providing students with tailored interventions. Examples included:
 - Tutors/interventionists to pull students into small groups based on ability

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Modified Successful Schools Study

- **Common Themes from Site Visits (continued)**

4. Instructional Interventions (continued):

- In a few instances, schools utilized high performing students in later grades to tutor and create role models for students in earlier grades
- Other schools created blocks within their schedule where teachers could pull certain students back into their classroom for extended teaching periods, or could send students to other classrooms and teachers for additional support

5. Support for Special Education and ELL students

- For special education students, the successful schools focused on delivering instruction in the regular classroom rather than pulling these students out into separate classrooms of their own
 - Principals at most schools strongly believed in prioritizing “push-in” services over “pull-out programs”
 - 100 percent reimbursement was essential to providing needed staffing and services

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Modified Successful Schools Study

- **Common Themes from Site Visits (continued)**

5. Support for Special Education and ELL students (continued):

- English Language Learner (ELL) population levels varied at the schools visited
- Many schools had very few students requiring ELL supports. In schools where ELL populations were low, the school (or in some cases district) employed a para-professional or support staff to support the students
- At schools with larger ELL populations, ELL classroom teachers offered both push-in and pull-out services. Schools also placed an emphasis on intervening in earlier grades to try to prevent falling behind in later years

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Modified Successful Schools Study

- **Common Themes from Site Visits (continued)**

6. Added support to address student emotional and health needs and family/parent outreach

- Strong relationships between the school, teachers, students and parents
 - Culture of high expectations for all students and assure their students that the schools' teachers and staff care about them
 - Examples of programs to build student and family relationships:
 - » Home rooms
 - » Family liaisons
 - » "Parent Academies"
- Full time counselors to support student social-emotional needs and maintain strong relationships with parents, especially those whose children have specific behavioral or emotional needs that must be addressed.
 - Reducing behavior issues to lower classroom interruptions so that teachers can focus their efforts on instruction
 - At the secondary level, support students to identify career interests and to help tailor education plans for students to prepare them for postsecondary and workforce success

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Modified Successful Schools Study

- **Common Themes from Site Visits (continued)**
 6. Added support to address student emotional and health needs and family/parent outreach (continued)
 - Many of the schools have also implemented positive behavior intervention and support (PBIS) and anti-bullying programs to address behavior problems while minimizing suspending or expelling students.
 7. Salaries and Benefits
 - School leaders indicated a key to the success of schools is the talent of the staff, and the ability to attract and retain teachers
 - Competitive salaries essential
 - » Compared to highest performing districts in neighboring states, not just the state averages there
 - » Compared to other professions

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Modified Successful Schools Study

- **Common Themes from Site Visits (continued)**
 8. Technology
 - Technology use varied, some using one-to-one devices, such as Chromebooks, others using mobile carts and labs
 - Leaders in a number of the schools APA interviewed, however, believe that technology plays a critical role in their success
 - In particular, where schools utilize one-to-one devices for students, the technology plays an important role in providing teachers with nearly instant access to data regarding student understanding of academic material

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Statistical Approach

- Regression-based statistical techniques to estimate an equation that best fits the available data:

$$S_{it} = \alpha + \beta_1 T_{it} + \beta_2 T_{it-1} + \beta_3 P_{it} + \beta_4 Z_{it} + \beta_4 F_{it} + \epsilon_{it} + u_{it}$$

S_{it} : Per-pupil expenditures in district i in year t

T_{it} : Public school performance (and lagged performance, T_{it-1})

P_{it} : vector of input prices

Z_{it} : characteristics of the student body

F_{it} : other characteristics of the school district such as its size

E_{it} : vector of unobserved characteristics of the school district

u_{it} : random error term

β 's : marginal impact on expenditures from one-unit change in associated variable

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Statistical Approach

- Regression-based statistical techniques to estimate an equation that best fits the available data:

$$S_{it} = \alpha + \beta_1 T_{it} + \beta_2 T_{it-1} + \beta_3 P_{it} + \beta_4 Z_{it} + \beta_4 F_{it} + \epsilon_{it} + u_{it}$$

→ If T_{it} = percent of students achieving at a proficient level on state tests, then for two *identical* schools, a one-unit difference in the percent proficient would be associated with a β_1 difference in per-pupil expenditures

- Can use results to predict the minimum amount of money necessary to achieve various educational performance goals for districts with various characteristics
- Base costs = minimum costs predicted for a district with low or average values of all the included cost factors
- Marginal costs for specific cost factors determined by β_4 coefficients

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Strengths and Weaknesses

Strengths

- Directly quantifies relationship between outcomes and costs for districts with variety of characteristics
- Provides straightforward estimate of base and marginal costs

Weaknesses

- Cost function is a 'black box' approach → does not provide information on *how* money is spent
- Based on observed data → not appropriate to extrapolate to different context
- Underlying theory makes strong assumptions about district behavior (maximizing included outcomes, efficient use of resources)
- Statistical reliability requires adequate data

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Statistical Challenges for Wyoming

- With no district-level outcomes in the accountability system, the analysis had to be conducted at the school level. Requires deciding what to do with district-level expenditures
 - Used different models: one with school expenditures only; one with district expenditures allocated equally across schools
- Cost function should be estimated for schools with similar cost structures (elementary, high school)
 - To do this in Wyoming, schools with different cost structures (such as K-12 schools) were excluded
 - Middle schools were also excluded because of the variation in grade configurations

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Statistical Challenges for Wyoming

- Small sample size reduces statistical reliability
 - 175 elementary schools and 59 high schools with valid data
- Cannot include all relevant outcome measures
 - More variables increases problems with statistical reliability, so want to include smallest set of variables possible
 - Accountability system includes many different measures; excluding some may mean that full costs are not estimated accurately

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Data: Elementary Schools

Variable	Mean	Std Dev	Minimum	Maximum
Per-Pupil School Expenditures, All	\$13,628	\$6,643	\$3,318	\$59,068
Per-Pupil School Expenditures, Operating	\$13,003	\$5,630	\$3,318	\$59,068
Per-Pupil School + District Expenditures, All	\$22,276	\$10,747	\$13,768	\$122,941
Per-Pupil School + District Expenditures, Operating	\$19,420	\$6,073	\$13,521	\$64,132
Achievement 2016-17	59.5%	12.7%	13.0%	91.0%
Achievement 2015-16	59.6%	12.8%	7.0%	96.0%
Growth 2016-17	51.6	10.0	28.0	82.5
Growth 2015-16	52.0	10.5	23.0	85.5
Equity 2016-17	53.9	12.8	26.0	94.0
Equity 2015-16	53.4	13.0	18.0	92.0
Teacher Cost Index	1.364	0.061	1.303	1.453
Enrollment	253.45	138.63	6	822
Percent At-Risk	42.6%	18.1%	0.0%	100.0%
Percent ELL	4.1%	6.5%	0.0%	36.9%
Percent Special Education	14.5%	4.7%	0.0%	28.0%
Percent High-Cost Disabilities	1.3%	1.1%	0.0%	5.7%

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Data: High Schools

Variable	Mean	Std Dev	Minimum	Maximum
Per-Pupil School Expenditures, All	\$18,216	\$8,539	\$8,164	\$63,663
Per-Pupil School Expenditures, Operating	\$15,911	\$5,693	\$8,164	\$37,974
Per-Pupil School + District Expenditures, All	\$29,769	\$16,924	\$16,785	\$131,060
Per-Pupil School + District Expenditures, Operating	\$23,663	\$7,134	\$15,284	\$44,997
Achievement 2016-17	34.1%	10.5%	5.0%	57.0%
Achievement 2015-16	36.3%	12.2%	4.0%	61.0%
Growth 2016-17	49.5	6.4	32.0	63.5
Growth 2015-16	48.8	6.2	28.0	62.0
Equity 2016-17	50.3	10.5	26.0	76.0
Equity 2015-16	50.8	7.9	35.5	65.0
Graduation Rate 2016-17	84.6%	11.8%	48.5%	100.0%
Graduation Rate 2015-16	83.9%	12.9%	36.4%	100.0%
Teacher Cost Index	1.36	0.06	1.30	1.45
Enrollment	425.49	448.22	15	1790
Percent At-Risk	31.8%	17.0%	4.8%	100.0%
Percent ELL	2.0%	3.3%	0.0%	21.5%
Percent Special Education	12.2%	4.3%	6.2%	33.3%
Percent High-Cost Disabilities	1.7%	1.2%	0.0%	6.7%

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Results: Elementary Schools

	School-only operating expenditures	District + School operating expenditures
Achievement 2016-17	-0.616*	-0.213
	[0.300]	[0.176]
Achievement 2015-16	0.454	-0.085
	[0.305]	[0.179]
Teacher Cost Index	-0.620*	0.129
	[0.312]	[0.183]
Enrollment (log)	-0.592**	-0.335**
	[0.166]	[0.097]
Enrollment-squared	0.040*	0.014
	[0.018]	[0.011]
Percent At-Risk	0.226+	0.137+
	[0.119]	[0.070]
Percent ELL	0.700*	0.362*
	[0.301]	[0.177]
Percent Special Education	0.085	0.619*
	[0.457]	[0.268]
Percent High-Cost Disabilities	-0.229	0.412
	[1.879]	[1.101]
Constant	12.201**	11.040**
	[0.588]	[0.345]

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Results: High Schools

	School-only operating expenditures	District + School operating expenditures
Achievement 2016-17	0.185 [0.430]	0.188 [0.213]
Achievement 2015-16	-0.005 [0.356]	-0.134 [0.177]
Teacher Cost Index	-0.571 [0.512]	0.217 [0.254]
Enrollment (log)	-0.777** [0.264]	-0.407** [0.131]
Enrollment-squared	0.051* [0.023]	0.018 [0.012]
Percent At-Risk	0.178 [0.254]	0.386** [0.126]
Percent ELL	0.839 [1.150]	0.323 [0.571]
Percent Special Education	-0.395 [1.132]	0.017 [0.562]
Percent High-Cost Disabilities	1.937 [3.535]	1.699 [1.754]
Constant	0.185 [0.430]	0.188 [0.213]

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Results

- Coefficients on outcome variables are not statistically significant (high school model) or negative (elementary)
 - Any resulting cost estimates would not be useful or reliable
 - A “power analysis” found that the sample size, particularly for high schools, was too small to reliably distinguish whether results were due to actual differences in schools or to random chance
- Coefficients on school (student) characteristics are sometimes statistically significant, magnitudes are generally consistent with literature
 - Could use these to support weights of 0.17-0.23 for at-risk and 0.35-0.70 for ELL in elementary schools

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Comparison of Resources Across Approaches

The following slides compare the resources identified in key resource areas in the current legislative model as well as from:

1. 2015 Evidence-Based Study
2. Professional Judgement Approach Study
 - Note that identified resources presented will be for the largest representative school of each grade configuration, representing the “base,” which would then be adjusted for a school’s size using a size adjustment formula
3. Successful Schools Study

Note: statistical approach not included

Teachers

Model Element	Legislative Model	2015 Evidence-Based Recommendation	Professional Judgment Panel Recommendations	Successful Schools
Core and Elective Teachers				
Overall Teacher Staffing	Across all grades, an average student to teacher ratio of 15:1	Across all grades, an average student to teacher ratio of 18:1	Across all grades, an average student to teacher ratio of 16:1	Across all grades, an average student to teacher ratio of 16:1. Successful school site visits highlighted the importance of small class sizes to support positive relationships and differentiated instruction
Full-Day Kindergarten	Full-day kindergarten provided. At least one school in each district must have a full-day kindergarten program	Full-day kindergarten provided	Full-day kindergarten provided	Full-day kindergarten provided
Elementary Core Teachers/ Class Size	Grades K-5/6: 16. Average class size of 16.	Grades K-3: 15; Grades 4-5: 25. Average class size of 18.3.	Grades K-2: 16; 3-18: 4-5: 22. Average class size of 18.3.	Elementary Schools: Average class size overall was 17.1 for schools ranging from 10 to 560 students. For elementary schools at or above 288 ADM, the average class size was 18.4.
Secondary Core Teachers/ Class Size	Grades 6-12: 21	Grades 6-12: 25	Grades 6-8: 23. Grades 9-12: 22	Secondary Schools: Average class size overall was 19.3 for middle and high schools between 47 and 765 students. For middle and high schools over 300 students, the average class size was 21.3.
Elective/ Specialist Teachers	Elementary Schools: 20% of core elementary school teachers	Elementary Schools: 20% of core elementary school teachers	Elementary Schools: 20% of core elementary school teachers	Elementary Schools: On average, specials are staffed at about 16% of core teachers
	Middle Schools: 33% of core middle school teachers	Middle Schools: 20% of core middle school teachers	Middle Schools: 33% of core middle school teachers	Middle Schools: On average, specials/electives are staffed at about 38% of core teachers
	High Schools: 33% of core high school teachers	High Schools: 33% of core high school teachers	High Schools: 33% of core high school teachers	High Schools: On average, specials/electives are staffed at about 51% of core teachers. <i>Note, only one high school was over 150 students, so variation is likely due to size and minimum staffing.</i>
Additional CTE Teachers	Apply an additional weighting factor of 29% to vocational education (CTE) student FTEs. Based upon weighted student count, provide an additional teacher for every 21 students.	No additional vocational education teachers resourced	1.0 additional CTE teacher per 400 high school ADM to reduce class sizes in CTE courses	included above

Teachers

Model Element	Legislative Model	2015 Evidence-Based Recommendation	PJ Panel Recommendations	Successful Schools
Core and Elective Teachers				
6. Minimum Teachers and Staff Resources	<p>Minimum Teachers</p> <p>Elementary Schools: a minimum of 6.0 teachers provided for elementary school grade bands with ADM greater than 49</p> <p>Middle Schools: a minimum of 8.0 teachers provided for middle school grade bands with ADM greater than 49</p> <p>High Schools: a minimum of 10.0 teachers provided for high school grade bands with ADM greater than 49</p> <p>For school grade bands of 49 and below, minimum teacher resources are provided on a prorated basis at 1.0 teacher for every 7 students with a minimum of 1.0 teacher. Additionally, there is a "Small District Adjustment," which provides districts with 243 or fewer ADM a minimum of one teacher at each school for every grade level ADM exists</p> <p>Minimum Staff (Small School Adjustment) For elementary, middle and high schools of 49 ADM & below, minimum staff resources are provided on the basis 1.0 assistant principal and 1.0 teacher for every 7.0 ADM, with a minimum of 1.0 teacher</p>	<p>Minimum Teachers</p> <p>Elementary Schools: a minimum of 7.0 teachers provided for elementary school grade bands with ADM greater than 49</p> <p>Middle Schools: a minimum of 7.0 teachers provided for middle school grade bands with ADM greater than 49</p> <p>High Schools: a minimum of 7.0 teachers provided for high school grade bands with ADM greater than 49</p> <p>For school grade bands of 49 and below, minimum teacher resources are provided on a prorated basis at 1.0 teacher for every 7 students, with a minimum of 1.0 teacher</p> <p>Non-Teacher Staff Resources for schools with ADM less than the highest grade band's one-section school (96 elementary, 105 middle and high school): 1.0 assistant principal position is provided and other non-teacher staff elements are resourced based on total school ADM at the highest grade band and prorated down from a one-section school for all schools, where identified. Additionally, resources generated by the at-risk and ELL student counts are provided for all schools</p>	<p>For smallest elementary schools, recommend 1.0 per grade at 50 students, with a minimum of 1.0 teacher for a school. At secondary schools of similar size, a minimum of 8.0 teachers was discussed. Recommend school size adjustment (formula) to adjust base resources</p>	<p>For elementary schools of less than 100, on average 1.0 teacher per grade. Only two middles and high schools less than 100, so no average minimums reported. For K-12 schools, about 16 teachers total (11 core, 5 elective)</p>

Instructional and Student Support

Model Element	Legislative Model	2015 Evidence-Based Recommendation	PJ Panel Recommendations	Successful Schools
Instructional and Student Support				
Instructional Facilitators/Coaches	Resourced equal to 54% of the 2015 Evidence-Based recommendation for 2017-18 and 30% for 2018-19. Included in the block grant.	Provide 1.5 instructional facilitator/coaches for prototypical elementary (288 ADM) and secondary (315 ADM) schools at the highest grade band level, with a minimum of 1.0 FTE for each school districts; Fund as a categorical grant.	Provide 1.0 instructional facilitator/coach per 15 teachers	Most successful schools had instructional facilitators at 1.0 per 80 ADM, or 1.0 per every 25 teachers
Tutors/Tier 2 Interventionists	Provide a minimum of 1.0 tutor position for each prototypical school, resourced at the highest grade band level, less tutor positions provided on basis of at-risk student count (1.0 tutor position for every 100 at-risk students)	Provide 1.0 tutor position for each prototypical school (288 ADM elementary school and 315 ADM middle or high school), resourced at the highest grade-band level	Provide 1.0 Tutor/Interventionist per 300 Elementary and Middle School ADM, 1.0 per 400 High School ADM	Elementary: over half had a tutor position at 1.0 per 230 ADM on average. Middle and High School: only 3% schools had a tutor position with a high variation in staffing ratio
Student Support Staff	<p>Core Pupil Support Staff: A minimum of 1.0 pupil support staff position is provided for each prototypical school, resourced at the highest grade band level, less pupil support staff positions provided on basis of at-risk student count (1.0 pupil support staff position for every 100 at-risk students)</p> <p>Core Guidance Counselors: Provide 1.0 guidance counselor position for every 250 middle and high school students</p>	<p>Core Pupil Support Staff: Only provided on the basis of at-risk student counts</p> <p>Core Guidance Counselors: Provide 1.0 guidance counselor position for each prototypical elementary school (288 ADM) and 1.0 guidance counselor position for every 250 middle and high school ADM</p>	Provide 1.0 Student Support position (could include counselors, social workers, behavior specialists) per 200 ADM	Successful schools visited noted the importance of social emotional support staff to meet student needs and ensure teachers could focus on instruction in the classroom. Elementary: Not every school had a student support position less than 288 ADM. Above that threshold, most had counselors at a ratio of 380:1. Middle: all schools had student support staffed on average at 250:1. High Schools: all schools had student support staff at an average ratio of 170:1
Nurses	No nurses resourced directly, but can utilize minimum pupil support resources as nurse positions	Provide 1.0 nurse position for every 750 ADM	Provide 1.0 nurse position for each campus	On average, successful schools had a 0.5 nurse, with larger schools more likely to have a 1.0 nurse

Instructional and Student Support

Model Element	Legislative Model	2015 Evidence-Based Recommendation	PJ Panel Recommendations	Successful Schools
Instructional and Student Support				
Supervisory and Instructional Aides	Provide funding at an amount equal to 2.0 supervisory aide positions for each prototypical elementary school (288 ADM); 2.0 supervisory aide positions for each prototypical middle school (315 ADM); 5.0 supervisory aide positions each prototypical high school (630 ADM); resourced at the highest-grade prototype using total school ADM	Provide funding at an amount equal to 2.0 supervisory aide positions for each prototypical elementary school (288 ADM); 2.0 supervisory aide positions for each prototypical middle school (315 ADM); 3.0 supervisory aide positions each prototypical high school (630 ADM); resourced at the highest-grade prototype using total school ADM	Paraprofessionals: Provide 1.0 per 100 Elementary ADM or 300 Middle School ADM or 400 High School ADM. Supervisory Aides: Provide 1.0 per 150 Elementary and Middle ADM or 200 High School ADM. Floor of 1.0 per campus	Instructional Aides: On average, 1.0 FTE per 175 Elementary ADM and 1.0 FTE per 350 middle school ADM. Used in half of the successful high schools, at a similar ratio to middle school. Most schools did not have supervisory aides
Librarians and Librarian Media Technicians	Librarian Positions: Provide 1.0 librarian position for prototypical elementary schools (288 ADM) prorated up and down, below and above 288 ADM. For middle or high schools with ADM between 105 and 630 ADM, 1.0 librarian position. Below 105 ADM prorated down and above 630 ADM prorated up Library Media/Computer Technician Position: Provide 1.0 library media/computer technician position for every 315 middle and high school ADM, prorated up and down	Librarian Positions: For elementary schools, provide librarian resources at the following levels: for elementary schools with ADM less than 96 ADM, prorate a 0.50 librarian position down; for elementary schools with ADM between 96 and 143, provide a 0.50 librarian position; for elementary schools with ADM between 143 and 288, provide a 1.0 librarian position prorated down to 143 ADM. For middle and high schools, provide librarian resources at the following levels: for middle and high schools with ADM less than 105 ADM, prorate a 0.50 librarian position down; for middle and high schools with ADM between 105 and 157.5, provide a 0.50 librarian position; for middle and high schools with ADM between 157.5 and 315, provide a 1.0 librarian position prorated down to 157.5 ADM. For all school districts, provide a minimum of 1.0 librarian position Library Aide Positions: For elementary schools, provide library aide resources at the following levels: for elementary schools with ADM greater than 288, prorate a 1.0 library aide position between 288 and 576 ADM; for elementary schools with more than 576 ADM, provide an additional library aide position for every 630 ADM. For middle and high schools, prorate up 1.0 library aide from 315 to 630 ADM; above 630 ADM prorate up 1.0 library aide for every additional 630 ADM. School Computer Technician Position: Provide 1.0 school computer technician position for every 630 elementary, middle and high school ADM, prorated up and down, with a minimum of a 0.5 position for each district	Provide librarian/media specialists at a ratio of 300:1 up to 1.0 FTE. If less than 1.0 FTE, provide library/media paraprofessional to make up difference School Computer Technician Position: Provide 1.0 computer technician per 250 ADM	Librarian Positions: Elementary: about 50% successful schools did not have certified librarian, 30% had a full-time librarian, and 35% had a partial librarian FTE (0.3 on average). Middle and High School: about 25% had a combined 1.0 FTE position between the librarian FTE noted, and library/media aides. Below 300 ADM, most schools had a partial library/media aide if they did not have a librarian, or had a combination of the two

Administration

Model Element	Legislative Model	2015 Evidence-Based Recommendation	PJ Panel Recommendations	Successful Schools
Administration and Clerical Staff				
Principals and Assistant Principals	Provide 1.0 principal position for all schools down to 96 ADM for elementary schools and 105 ADM for middle and high schools, prorated by ADM below 105 ADM down to 49 ADM Provide 1.0 assistant principal position for every 288 elementary ADM beginning at 289 ADM; 1.0 assistant principal for every 315 ADM middle and high school beginning at 316 ADM Resourced at the highest grade band level	Provide 1.0 principal position for all schools down to 96 ADM for elementary schools and 105 ADM for middle and high schools Provide 1.0 assistant principal position for every 288 elementary ADM beginning at 289 ADM and for elementary schools below 96 ADM; 1.0 assistant principal for every 315 ADM middle and high school beginning at 316 ADM, and for middle and high schools below 105 ADM Resourced at the highest grade band level	Provide 1.0 principal for every campus. Above 350 ADM, assistant principals provide at a ratio of 1.0 per 350 ADM at secondary level	Across grade configurations, schools less than 125 students had a partial principal position (ranging from a 0.2 to a 0.9, with a 0.5 FTE average). Middle and High Schools over 315 ADM had an assistant principal
School Site Secretarial and Clerical Staff	Secretarial Staff: Provide 1.0 secretary position for all schools down to 96 elementary ADM and 105 middle and high school ADM, prorated by ADM below these ADM levels. Provide an additional 1.0 secretary position for every 288 elementary ADM starting at 289 ADM and every 315 middle and high school ADM starting at 315 ADM Clerical Staff: Provide 1.0 clerical position for every 288 elementary ADM and 315 middle school ADM, prorated above and below 288 elementary ADM and 315 middle school ADM. Provide 4.0 clerical positions for every 630 high school ADM, prorated above and below 630 ADM All FTE positions prorated up or down from prototypical level and resourced at the highest-grade prototype using total school ADM	Secretarial Staff: Provide 1.0 secretary position for all schools down to 96 elementary ADM and 105 middle and high school ADM, prorated by ADM below these ADM levels. Provide an additional 1.0 secretary position for every 288 elementary ADM starting at 289 ADM and every 315 middle and high school ADM starting at 315 ADM Clerical Staff: Provide 1.0 clerical position for every 288 elementary ADM and 315 middle school ADM, prorated above and below 288 elementary ADM and 315 middle school ADM. Provide 2.0 clerical positions for every 630 high school ADM, prorated above and below 630 ADM All FTE positions prorated up or down from prototypical level and resourced at the highest grade prototype using total school ADM	Elementary: provide 1.0 Office Manager and 1.5 clerical positions in base school of 300 Middle: provide 1.0 Office Manager and 3.0 clerical in base school of 525 High: provide 1.0 Office Manager and 6.0 clerical positions in base school of 1000	For schools over 300, clerical staff at 1.0 FTE per 250 students (1.0 FTE per 175 ADM overall)
Substitute Teachers	Provide for 5% (8.75 days) of core teachers, elective teachers, minimum teacher positions, tutors, ELL teachers, instructional coaches and teacher positions for summer school and extended day. Resourced at a daily salary equal to \$102.97 plus 7.65% for social security and Medicare benefits (\$110.85). Substitute resources provided for small schools	Provide for 5.715% (10 days) of core teachers, elective teachers, minimum teacher positions, tutors, ELL teachers, instructional coaches and teacher positions for summer school and extended day. Resourced at a daily salary equal to \$102.97 plus 7.65% for social security and Medicare benefits (\$110.85). Daily salary adjusted by regional cost adjustment	\$270 per ADM for substitutes	District resources not addressed in Successful Schools

Non-Personnel Costs

Model Element	Legislative Model	2015 Evidence-Based Recommendation	PJ Model	Successful Schools
Non-Personnel Costs				
Gifted and Talented Students	Provide an amount equal to \$40.29 per ADM	Provide an amount equal to \$40.00 per ADM	Provide an amount equal to \$40.00 per ADM <i>1.0 FTE Gifted and Talented Teacher per 420 elementary ADM included in prior Specials/Electives Staffing</i>	Elementary: 25% had a partial FTE (0.2 on average), and 10% had a 1.0 FTE (all 8 schools over \$50). Two middle schools and one K-12 also had a partial GT teacher FTE, all remaining schools did not have an identified GT teacher.
Intensive Professional Development	Provide 10 days of student free time for training in salary levels; \$125.90 per ADM for trainers	Provide 10 days of student free time for training in salary levels; \$125.00 per ADM for trainers	10 days of professional development included in current contract amount; \$150 per ADM for trainers, stipends, materials, etc.	Collaboration and professional learning communities stressed as critical. District resources not addressed
Instructional Materials	Provide \$191.37 per ADM.	Provide \$190.00 per ADM for elementary, middle and high schools	Provide \$250 per elementary ADM, \$312 per middle ADM, and \$472 per high school ADM.	On average, about \$250 per ADM.
Short Cycle/Formative Assessments	Provide \$25 per ADM; not subject to an ECA	Provide \$25.00 per ADM; not subject to an ECA	Provide \$30 per ADM.	Not addressed
Technology and Equipment	Provide an amount equal to \$250 per ADM	Provide an amount equal to \$250.00 per ADM; not subject to an ECA	<i>Provide an amount equal to \$260 per ADM for annual technology hardware. Technology licensing/software and supplies in supplies and materials amount above. (Finalizing technology prices)</i>	Specific cost not addressed. Successful schools visited varied on if they had 1 to 1, or mobile labs
CTE Equipment/Materials	Provide an amount equal to \$9,428.77 per CTE teacher.	Provide an amount equal to \$9,361.46 per vocational education teacher FTE	\$25 per middle school ADM and \$100 per high school ADM.	Not addressed
Extra Duty Funds/Student Activities	Funded at grade-band level, by school. For grades K-5, provide an amount equal to \$23.79 per student. For grades 6-12, use inverse sliding scales based on student enrollment for grades 6-8 and grades 9-12. Grades 6-8 school funding levels range from \$782.54 for 1 ADM and \$202.18 per ADM for a school of 1,260 ADM. Grades 9-12 funding levels range from \$2,017.22 for 1 ADM and \$594.63 per ADM for a school of 1,260 ADM. Fund alternative schools as any other school.	Provide a total level of funding equal to \$314.66 per ADM, but utilize a per ADM amount for elementary schools and sliding scale amounts for middle and high schools, at reduced levels. For elementary grades, provide an amount equal to \$23.62 per ADM. For middle and high schools, use inverse sliding scales based on ADM. Middle school funding levels range from \$776.95 for 1 ADM and \$200.74 per ADM for a school of 1,260 ADM. High school funding levels range from \$2,002.82 for 1 ADM and \$590.39 per ADM for a school of 1,260 ADM. For alternative schools, fund as any other school. Sixth grade elementary students funded using the elementary per ADM amount and ninth grade students included in the high school ADM for the schools they would attend	\$60 per Elementary ADM, \$300 per middle school ADM, \$720 per high school ADM.	\$60 per Elementary ADM, about \$350 per middle school ADM, about \$650 per high school ADM

At-Risk

Model Element	Legislative Model	2015 Evidence-Based Recommendation	PJ Panel Recommendations	Successful Schools
Additional Supports for Special Needs Students				
At-Risk Tutors	Provide 1.0 tutor position for every 100 at-risk students. Not provided for small or alternative schools	Provide 1.0 tutor position for every 125 at-risk students	Panelists identified the following resources: Elementary: tutors/interventionists at 1.0 FTE per 80 at-risk students, 1.0 FTE instructional aide per 40 at-risk students, and 1.0 FTE student support position for every 225 students.	Tutors noted above, but difficult to disaggregate into at-risk vs. base. One school staffed an additional 1.0 FTE per 70 at-risk students (Title school)
At-Risk Pupil Support Staff	Provide 1.0 at-risk pupil support position for every 100 at-risk students. Not provided for small or alternative	Provide 1.0 at-risk pupil support position for every 125 at-risk students	Middle: tutors/interventionists at 1.0 FTE per 60 at-risk students, 1.0 FTE instructional aide per 50 at-risk students, and 1.0 FTE student support position and 1.0 FTE family liaison for every 225 students	Counselors noted above, who were cited as critical to success. Additional Title teachers at about 1.0 FTE per 100 at-risk students in qualifying schools
Extended Day Program Funding	For both extended-day and summer school programs, funding is provided outside of block grant and as a categorical grant at an amount equal to a 0.15 teacher FTE for every 30 at-risk students. Not provided for small or alternative schools. A minimum 0.50 FTE is provided for school districts that do not generate that amount based upon the district's at-risk count	Provide 1.0 teacher position for every 120 at-risk students. Provide resources outside the block grant as a categorical grant	High school: tutors/interventionists at 1.0 FTE per 50 at-risk students, and 1.0 FTE student support position and 1.0 FTE family liaison for every 300 students. For supplies and materials, \$100 per at-risk student. For all grades, extended day and extended year to 50% of at-risk students at a teacher ratio of 10:1 at elementary grades and 15:1 at secondary grades	Most successful schools interviewed offered extended learning opportunities before or after school and during the summer to support struggling students
Summer School Funding	For both extended-day and summer school programs, funding is provided outside of block grant and as a categorical grant at an amount equal to a 0.15 teacher FTE for every 30 at-risk students. Not provided for small or alternative schools. A minimum 0.50 FTE is provided for school districts that do not generate that amount based upon the district's at-risk count	Provide 1.0 at-risk position for every 120 at-risk students. Provide resources outside the block grant as a categorical grant	<i>To allow for differing service models, provide a 0.30 weight for each at-risk ADM</i>	
Alternative Schools	Provide funding for all staff at a ratio of 1.0 assistant principal and 1.0 teacher position for every 7 ADM	No separate formula; Fund as any other school	Identified resources to provide approved alternative programs on schools. For a program for 150 students: 18.2 teacher FTE (class size half that of a traditional high school), 1 instructional aide, support staff at a ratio of 100:1, a nurse at 375:1, 1.0 principal FTE, and 2.0 clerical FTE	Not addressed

ELL

Model Element	Legislative Model	2015 Evidence-Based Recommendation	PJ Panel Recommendations	Successful Schools
Additional Supports for Special Needs Students				
English Language Learner (ELL) Students	Provide 1.0 ELL teacher position for every 100 ELL students; Not provided for small or alternative schools	Provide 1.0 ELL teacher position for every 100 ELL students	Panelists identified the following resources: 1.0 ELL teachers per 45 elementary ELL students, or per 35 middle school ELL students, or per 25 high school ELL students, due to the increasing intensity of support needed for language acquisition in later grades. 1.0 ELL instructional aide per 15 ELL students and 1.0 FTE interpreter per 100 ELL students in all grades. To provide noted services, assign a 0.60 weight to each ELL student	About half of the successful schools had an ELL population and of schools that did, a third did not provide ELL staffing. Another third provided ELL teachers, staffed on average at 1.0 FTE per 20 ELL students, and another third of schools with an ELL population provided 1.0 FTE ELL aide per every 30 students on average

Special Education

Model Element	Legislative Model	2015 Evidence-Based Recommendation	PJ Panel Recommendations	Successful Schools
Additional Supports for Special Needs Students				
Special Education	100% reimbursement of approved expenditures	100% reimbursement of approved expenditures	<p>Panelists strongly encouraged keeping the 100% reimbursement. Needed resources were identified for three levels of special education - mild, moderate, and severe:</p> <p>Mild: 1.0 teacher and 1.0 instructional aide FTE per 14 mild special education students</p> <p>Moderate: 1.0 teacher FTE per 12 moderate special education students and 1.0 instructional aide FTE per every 2 moderate special education students</p> <p>Severe: 1.0 teacher FTE per 3 severe special education students, and 1.0 instructional aide FTE per 2 severe special education students</p> <p>Additional related service staff (Speech Pathologist, OT/PT Therapist, Case Manager, Assistive Technology Specialist, Psychologist, Transitions Coordinator, Community Living/Job Coordinator, Transition/Job Paraprofessional) were also identified at about 1.0 FTE Related Service Professional per 25 special education students (mild, moderate and severe)</p> <p>Additional dollars were identified for supplies and materials, adaptive equipment and technology, as well as dollars for Extended School Year (ESY), out of district placement and administration personnel at the district-level</p>	<p>Interviewed schools also indicated how important the 100% reimbursement model was to serving their students.</p> <p>Current special education staffing on average in successful schools was 1.0 special education teacher per 16 special education students, 1.0 instructional aide per 8 special education students, and 1.0 related service professional per 27 special education students</p>

District Staff

Model Element	Legislative Model	2015 Evidence-Based Recommendation	PJ Panel Recommendations	Successful Schools
District Resources				
Central Office Personnel/ Non-Personnel Resources	<p>Central Office Personnel: 500 or fewer ADM: 3.0 administrative and 3.0 classified positions</p> <p>1,000 ADM: 4.0 administrative and 4.0 classified positions. Position counts prorated down linearly between 1,000 to 501 ADM</p> <p>3,500 ADM: 8.0 administrative and 10.0 classified positions. Position counts prorated down linearly between 3,500 to 1,000 ADM; Position counts prorated up linearly above 3,500 ADM</p> <p>Non-Personnel Resources: Provide an amount equal to \$365.86 per ADM for non- personnel resources</p>	<p>Central Office Personnel: 500 or fewer ADM: 3.0 administrative and 3.0 classified positions</p> <p>1,000 ADM: 4.0 administrative and 6.5 classified positions. Position counts prorated down linearly between 1,000 to 501 ADM</p> <p>2,000 ADM: 5.5 administrative and 9.0 classified positions. Position counts prorated down linearly between 2,000 to 1,000 ADM</p> <p>4,000 ADM: 8.0 administrative and 16.0 classified positions. Position counts prorated down linearly between 4,000 to 2,000 ADM</p> <p>12,000 ADM: 24.0 administrative and 39.0 classified positions. Position counts prorated down linearly from 12,000 to 4,000 ADM. Position counts prorated up linearly above 12,000 ADM</p> <p>Non-Personnel Resources: Provide an amount equal to \$363.25 per ADM for non-personnel resources</p>	<p>Central Office Personnel: At base district of 10,700 ADM: 17 administrators, 20 professionals, and 24 classified positions</p> <p>Non-Personnel Resources: provide \$203 per ADM</p> <p>District-level size adjustment (formula) to account for diseconomies of scale due to district size, such as higher supplies and materials costs and minimum position needs</p>	District resources not addressed

Parameters and Adjustments

Model Element	Legislative Model	2015 Evidence-Based Recommendation	PJ Panel Recommendations	Successful Schools
Student Counts/Definitions				
ADM	ADM used to generate resources is the greater of the prior year or the three-year average for each school.	ADM used to generate resources is the greater of the prior year or the three-year average for each school.	Not addressed.	Not addressed
At-Risk	At-risk students are defined as the unduplicated count of ELL students in grades K-12, free and reduced lunch eligible students in grades K-12, and mobile students in grades 6-12.	Same as legislative model definition.	Not addressed.	Not addressed
ELL	The definition of an Active EL student is a student who: is newly enrolled in the district or enrolled in the district after the state annual ELP assessment, ACCESS for ELLs™ was given in the prior school year; and has been identified and evaluated by the district as being an Active EL through the use of an ELP screening assessment, or o is returning to the district from the previous school year; and o Took the state's annual ELP assessment in the prior school year and has not yet achieved the "proficiency" level. The state also includes students that have exited the EL program but are in the first two years of monitoring.	Same as legislative model definition.	Not addressed.	Not addressed.

Parameters and Adjustments

Model Element	Legislative Model	2015 Evidence-Based Recommendation	PJ Panel Recommendations	Successful Schools
Salary and Benefits				
Salary Levels	<p>Superintendent: Base salary \$77,260; Bachelor's premium \$18,613; Master's premium \$24,654; Doctorate's premium \$29,678; State experience per year premium \$208; District per ADM premium \$4.13</p> <p>Assistant Superintendent: 80% of Superintendent.</p> <p>Business Manager: Base salary \$42,446; Bachelor's premium \$18,613; Master's premium \$24,654; Doctorate's premium \$29,678; State experience per year premium \$208; District per ADM premium \$4.13</p> <p>Principal: Base salary \$71,645; Doctorate's premium \$8,282; State experience per year premium \$622; School per ADM premium \$14.15</p> <p>Assistant Principal: Base salary \$58,275; Doctorate's premium \$8,282; State experience per year premium \$622; School per ADM premium \$14.15</p> <p>Teacher: Base salary \$37,017; Master's premium \$6,164; Doctorate's premium \$13,449; Experience per year premium for 20 years or below \$822; Experience per year premium for above 20 years \$219</p> <p>School Computer Technician: Base salary \$38,432; Bachelor's or above premium \$13,261; State experience per year premium \$641</p> <p>Supervisory Aide: Base salary \$16,980; Bachelor's or above premium \$1,977; State experience per year premium \$273</p> <p>School Secretary: Base salary \$28,793; State experience per year premium \$397</p> <p>School Clerical: Base salary \$22,152; State experience per year premium \$305</p> <p>Central Office Classified: Base salary \$31,269; State experience per year premium \$397</p> <p>Central Office Maintenance and Operations: Base salary \$31,526; State experience per year premium \$467</p> <p>Custodian: Base salary \$25,593; State experience per year premium \$467</p>	Accept Legislative Model salaries as cost-based and used in the 2015 EB Model. Additionally, continue the labor market monitoring process currently in place	Use actual district salaries in model	Not specifically examined; Successful schools visited believed competitive salaries were essential to attracting and retaining the best staff

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Parameters and Adjustments

Model Element	Legislative Model	2015 Evidence-Based Recommendation	PJ Panel Recommendations	Successful Schools
Salary and Benefits				
Health Insurance	Compute a health insurance composite amount for each generated FTE based upon prior year statewide average district weighted actual participation in district health insurance plans as to the proportion of employee only, split contract, employee plus spouse or children and family coverage for the State's health insurance contribution amounts paid on behalf of State employees as of January 1 of the preceding school year.	Compute a health insurance composite amount for each generated FTE based upon prior year statewide average district weighted actual participation in district health insurance plans as to the proportion of employee only, split contract, employee plus spouse or children and family coverage for the State's health insurance contribution amounts paid on behalf of State employees as of January 1 of the preceding school year.	Current approach recommended.	Not addressed
Benefits	<p>Worker's Compensation: 0.70% of salary</p> <p>Unemployment Insurance: 0.06% of salary</p> <p>Retirement: 12.69% of salary within the block grant (7.12% employer share and 5.57% employee share) and reimburse actual expenditures as required by current law</p> <p>Social Security and Medicare: 7.65% (6.20% for Social Security and 1.45% for Medicare)</p>	<p>Worker's Compensation: 0.70% of salary</p> <p>Unemployment Insurance: 0.06% of salary</p> <p>Retirement: 12.69% of salary within the block grant (7.12% employer share and 5.57% employee share) and reimburse actual expenditures as required by current law</p> <p>Social Security and Medicare: 7.65% (6.20% for Social Security and 1.45% for Medicare)</p>	Current benefit rates recommended.	Not addressed

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Parameters and Adjustments

Model Element	Legislative Model	2015 Evidence-Based Recommendation	PJ Panel Recommendations	Successful Schools
Adjustments				
Size Adjustment (new element)	Currently minimum staffing is recommended at the school and district-level, with additional prorating of most but not all, positions.	Currently minimum staffing is recommended at the school and district-level, with additional prorating of most but not all, positions.	Recommend a school-level and a district-level size adjustment (formula) to base resources.	Not addressed
Regional Cost Adjustment	Provide the greater of the 2005 Hedonic Wage Index (HWI) or the average of the last six Wyoming Cost of Living Indices (WCLI), with a minimum of 1.0 (statewide average)	Adjust salaries by the 2015 OES CWI as calculated in Dr. Lori Taylor's report to the Select Committee	Not addressed as part of PJ approach; addressed in separate analysis	Not addressed
37. External Cost Adjustment	Monitoring process established by W.S. 21-13-309(u). Recommended cost indices include: <ul style="list-style-type: none"> Professional staff – use a Wyoming specific Comparable Wage Index; Non-professional staff – use a Wyoming specific High School Comparable Wage Index; Supplies and Materials – use the Producer Price Index for Office Supplies and Accessories; and Energy – use the Producer Price Index (PPI) for Commercial Electric Power (weighted at 44.1%) and the PPI for Commercial Natural Gas (weighted at 55.9%) <i>Not currently funded</i>	Monitoring process established by W.S. 21-13-309(u). Recommended cost indices include: <ul style="list-style-type: none"> Professional staff – use a Wyoming specific Comparable Wage Index; Non-professional staff – use a Wyoming specific High School Comparable Wage Index; Supplies and Materials – use the Producer Price Index for Office Supplies and Accessories; and Energy – use the Producer Price Index (PPI) for Commercial Electric Power (weighted at 28.12%), the PPI for Commercial Natural Gas (weighted at 59.41%) and PPI for Gasoline (weighted at 11.83%) 	Not addressed as part of PJ approach; addressed in separate analysis	Not addressed

Additional Resources Not Currently in Model

Model Element	Legislative Model	2015 Evidence-Based Recommendation	PJ Panel Recommendations	Successful Schools
Other Areas				
Preschool/Early Childhood Education Programs	Not part of the educational basket of goods and services or the Legislative Model	Provide a voluntary, full-day Preschool program for all children aged 3 and 4 as a categorical program outside the block grant, funded at the rate of \$14,271 for every 1.0 full day preschool student	Provide a voluntary, half-day Preschool program for all 4 year-olds, funded at the rate of \$12,510 for every 1.0 full day preschool student (adjusted for school size)	Not addressed
School Resource Officers (SROs)/School Security	Not part of the educational basket of goods and services or the Legislative Model	Do not recommend funding SROs, but if the Legislature elects to do so, it should be funded through a categorical grant program that reimburses the portion of time SROs actually spend in school (175 school days times 6.5 hours) and assumes that local government agencies remain the employers of SROs for insurance and equipment purposes A comprehensive school safety and security program should include additional mechanisms, such as climate surveys and coordination of local law enforcement, emergency responders and public schools	Recommend 1.0 SRO per campus	Not addressed
Food Service Programs	Not part of the Legislative Model; Assumed to be self-supporting	Not part of the Evidence-Based Model; Assumed to be self-supporting	According to panels, food service is not self sustaining and supplemental funding should be available	Not addressed



AUGENBLICK,
PALAICH AND
ASSOCIATES

Wyoming School Funding Model Recalibration: Reconciling Results and Recommendations

Justin Silverstein, Amanda Brown and Mark Fermanich, APA

Presentation to the Select Committee
Casper, WY
November 2017

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Reconciling Results to Develop Draft Recommendations

- The three adequacy approaches each provide valid, cost-based estimates on the resources needed to provide the basket of goods and services
 - As noted previously, Wyoming’s current funding model is generally comparable to recommendations in other adequacy studies nationally
 - Data points from each approach were used to triangulate a single reconciled set of resources
 - Recommendations based upon providing resources in an effective and efficient manner within the range of data from the three approaches
 - Current legislative model also included for comparison

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Reconciling Results to Develop Draft Recommendations

- All recommendations presented are draft recommendations and subject to revision prior to final report
 - Will be collecting stakeholder feedback prior to finalizing recommendations
 - Have not identified cost implications of any recommendations
 - An equity analysis will be conducted to ensure any changes improve equity

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Teachers

Model Element	APA Draft Recommendation	Rationale
Overall Teacher Staffing	Across all grades, an average student to teacher ratio of 17:1	<i>Range between 16:1 (PJ and Successful Schools and 18:1 (EB) across all approach models. Comparable to national adequacy recommendations. Current legislative model is 15:1.</i>
Full-Day Kindergarten	Full-day kindergarten provided	<i>Recommended across all models</i>
Elementary Core Teachers/Class Size	Grades K-3: 16 Grades 4-5: 23 <i>Average class size of 18.3.</i>	<i>Average class size is the same for the EB and PJ models, as well as the average class size seen in Successful Schools of similar size.</i>
Secondary Core Teachers/Class Size	Grades 6-12: 23	<i>Within range of 21-25 for all models. Note, facility capacity should be considered with any change to class size. Current legislative model is 21:1.</i>
Elective/Specialist Teachers	<u>Elementary Schools:</u> 20% of core elementary school teachers <u>Middle Schools:</u> 33% of core middle school teachers <u>High Schools:</u> 33% of core high school teachers	<i>Elementary and High School elective staffing level recommended by EB and PJ model (also the same as the legislative model). Middle School staffing level recommended by PJ and supported by Successful Schools. Comparable to national adequacy recommendations.</i>
Additional CTE Teachers	1.0 additional CTE teacher per 400 high school ADM to reduce class sizes in CTE courses	<i>Recommended in PJ model. Legislative model currently provides resources for a more limited number of students, but at a higher level.</i>

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Teachers

Model Element	APA Draft Recommendation	Rationale
Core and Elective Teachers		
Minimum Teachers and Staff Resources	APA recommends applying a size adjustment at the school and district level, as opposed to creating specific break points based on representative schools/districts. APA may include an approach similar to the current adjustment for schools below 49 students if it provides the best resource fit, depending on the final determination of resources	<i>The school and district size adjustments are derived from the representative school and district models built through the PJ approach. Current funding model includes a number of cliffs where an increase or decrease of one student can significantly change the amount of resources a school receives. Applying a smooth size adjustment to the system addresses economies of scale issues while also eliminating any cliffs in funding.</i>

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Instructional and Student Support

Model Element	APA Draft Recommendation	Rationale
Instructional and Student Support		
Instructional Facilitators/Coaches	Provide 1.0 instructional facilitator/coach per 15 teachers	<i>Recommended by PJ approach. Similar to legislative model.</i>
Tutors/Tier 2 Interventionists	Provide 1.0 Tutor/Interventionist per 300 Elementary and Middle School ADM, and 1.0 per 400 High School ADM	<i>Recommended by PJ approach.</i>
Student Support Staff	Provide 1.0 Student Support position (could include counselors, social workers, behavior specialists) per 200 ADM	<i>Recommended by PJ approach. EB provides counselors for secondary at a ratio of 250:1 (as does the legislative model), and EB also provides a counselor for a prototype elementary, but do not provide additional student support without at-risk. PJ panels strongly encouraged social-emotional supports be a part of the base resources for all students. National adequacy comparisons suggest that the current model is lower in this area</i>
Nurses	Provide 1.0 nurse position for every 750 ADM. Consider adjustment for remoteness to address response time issue.	<i>EB recommendation. PJ panels also thought nurse positions were important, up to 1.0 per campus/area depending in part on response time, so remoteness should be considered and adjusted for. Not currently in legislative model.</i>

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Instructional and Student Support

Model Element	APA Draft Recommendation	Rationale
Instructional and Student Support		
Supervisory and Instructional Aides	Provide 1.0 per 150 Elementary ADM or 350 Secondary ADM. <i>(Note, does not include special education or transportation aides)</i>	<i>Within range of all models.</i>
Librarian/Media Specialists	Provide a certified librarian/media specialist at a ratio of 300:1 up to 1.0 FTE.	<i>Recommended by PJ model.</i>
IT Technicians	Provide 1.0 computer technician per 250 ADM.	<i>Recommended by PJ model.</i>

7

Administration

Model Element	APA Draft Recommendation	Rationale
Administration and Clerical Staff		
Principals and Assistant Principals	Provide 1.0 principal for every campus; Provide assistant principals at a ratio of 1.0 per 350 ADM at secondary level.	<i>PJ recommendation. Provides Assistant Principal positions without cliffs.</i>
School Site Secretarial and Clerical Staff	Provide 1.0 Secretarial/Office Manager FTE per campus. Provide 1.0 clerical FTE per 200 ADM.	<i>Blended recommendation of all models.</i>
Substitute Teachers	Provide 15 days per core and elective teacher; Resourced at a daily salary equal to \$106.84 including benefits. Daily salary adjusted by regional cost adjustment.	<i>Similar allocation approach to EB model (and current legislative model) but increasing to 15 days to reflect educator feedback that 10 days was not sufficient.</i>

8

Other Costs

Model Element	APA Draft Recommendation	Rationale
Other Costs		
Gifted and Talented Students	1.0 FTE Gifted and Talented Teacher per 420 elementary ADM <u>included in prior Specials/Electives Staffing</u> ; Provide \$40.00 per ADM/	<i>PJ recommendation. Per ADM figure from both PJ/EB.</i>
Intensive Professional Development	Provide 10 days of student free time for training in salary levels; \$125.00 per ADM for associated costs	<i>EB recommendation.</i>
Instructional Materials	Provide \$250 per elementary ADM, \$312 per middle ADM, and \$472 per high school ADM.	<i>PJ recommendation, based upon three-year average for actual district expenditures. National adequacy recommendations suggested the current model was higher in this area.</i>
Short Cycle/ Formative Assessments	Provider \$25 per ADM over a three-year phase out as state-provided interim assessments begin to provide longitudinal data.	<i>EB/PJ recommendation.</i>
Technology and Equipment	Provide an amount equal to \$250 per ADM.	<i>EB recommendation. Draft PJ recommendation similar.</i>
CTE Equipment/ Materials	\$25 per middle school ADM and \$100 per high school ADM; Includes computer science as part of CTE. Could be provided as a categorical grant	<i>PJ recommendation. Stakeholder feedback indicated the need for increased emphasis on CTE; Could address computer science as part of CTE.</i>
Extra Duty Funds/Student Activities	\$60 per Elementary ADM, \$300 per middle school ADM, \$720 per high school ADM.	<i>PJ recommendation, based upon three-year average for actual district expenditures.</i>

Note: Variations in Other Costs is a key driver of size adjustment, so figures represent base unadjusted for smaller size.

Special Needs

Model Element	APA Draft Recommendation	Rationale
Additional Resources for Special Needs Students		
At-Risk Tutors	Provide a 0.30 weight for every at-risk student to provide interventionists, student support and extended learning opportunities	<i>Weight developed through PJ approach. National comparison suggested that the current model was lower in this area. The identified resources and weight of 0.30 is aligned with adequacy recommendations for at-risk nationally</i>
At-Risk Pupil Support Staff		
Extended Day Program Funding		
Summer School Funding		
English Language Learner (ELL) Students	Provide a 0.30 weight to every ELL student, assuming they will also receive the at-risk weight	<i>Weight developed through PJ approach. National comparison suggested that the current model was lower in this area. While national adequacy recommendations for ELL vary, the identified resources and combined weight is within the observed range, and also within range identified by statistical approach</i>
Alternative Schools	For separate alternative schools, fund as any other school, but ensure all students receive the at-risk weight.	<i>High school amount generated and additional weight produce the same level of resources (as a dollar figure) as identified by PJ panel.</i>
Special Education	Continue 100% reimbursement of approved expenditures. Consider incentivizing increased efficiencies through shared services (such as through BOCES) and Medicaid billing for school-based services and developing/adopting best practices for staffing ratios. Focus on reducing incidence rates through offering interventions prior to identification, as well as addressing any special education over-identification prior to entering the K-12 system.	<i>Supported by EB, PJ, Successful Schools and all stakeholder feedback. Given federal restrictions, it is difficult to recommend immediate changes to the current model.</i>

District Resources

Model Element	APA Recommendation	Rationale
District Resources		
Central Office Personnel/Non-Personnel Resources <i>(excludes special education and transportation)</i>	Central Office Personnel: At base district of 10,700 ADM: 17 administrators, 20 professionals, and 24 classified positions Non-personnel resources: provide \$240 per ADM; District-level size adjustment (formula) to account for diseconomies of scale due to district size, such as higher supplies and materials costs and minimum position needs	<i>Resources identified by the PI panel are similar to current resource levels, with a higher emphasis on professional staff</i>
Operations and Maintenance	Recommend reconsidering definition of allowable square footage. Consider: increasing allowable square footage to account for actual square footage for buildings built after 2002 to the state's specifications (excluding district-elected enhancements). Also consider revisiting allowable square footage for declining enrollment districts. Restricting allowable definition for non-instructional district acreage. For utilities, funding on basis of prior three-year average for actual utilities expenditures. Otherwise, use existing calculations	<i>APA believes the current M&O calculations are rational and cost-based. Suggest consideration of modifications to better reflect the needs of districts. Would like Select Committee direction.</i>
Transportation	Promote efficiencies through greater WDE oversight of rules pertaining to reimbursable costs, shared services, and increased use of technology for bus capacity and routing decisions. Explore transitioning to a density formula for funding transportation operations	<i>The number of daily and fleet miles and the cost per mile transported have risen steadily since 1999-2000. Further, the number of buses has increased while bus utilization appears to be well below national benchmarks. Meaningful savings could be realized through improving operating efficiencies</i>

Parameters and Adjustments

Model Element	APA Recommendation	Rationale
Student Counts/Definitions		
ADM	Use the best of prior year ADM or three-year average ADM at the <u>district level</u> .	<i>APA believes funding at the district-level is most appropriate method to address declining enrollment.</i>
At-risk	Continue to use current approach to identifying at-risk students.	<i>APA believes the current approach is rational and in line with national methods.</i>
ELL	Continue to include ELL students in at-risk count and as well as separate ELL count.	<i>APA believes that by counting ELL students in each category ensures both their social-emotional and instructional intervention support needs (related to being at-risk) as well as their language acquisition needs can be met. If ELL was not included in at-risk count, ELL weight would need to be adjusted to combined weight level.</i>

Parameters and Adjustments

Model Element	APA Recommendation	Rationale
Salaries and Benefits		
Salaries	The study is still finalizing salary analysis. Preliminarily, APA is considering applying current actual salaries to recommended resource levels (staffing ratios).	<i>Preliminary data suggests actual salary growth have outpaced model salaries. Districts currently staff at higher ratios than the funding model allocates in order to attract and retain staff by offering higher salaries.</i>
Health Insurance	Compute a health insurance composite amount for each generated FTE based upon prior year statewide average district weighted actual participation in district health insurance plans as to the proportion of employee only, split contract, employee plus spouse or children and family coverage for the State's health insurance contribution amounts paid on behalf of State employees as of January 1 of the preceding school year.	<i>APA believes the current approach is rational and cost-based. Note, adjusting staffing ratios while raising salaries would lower health insurance costs by applying amount to more accurate FTE employed in districts.</i>
Benefits	<ul style="list-style-type: none"> • Worker's Compensation: 0.70% of salary • Unemployment Insurance: 0.06% of salary • Retirement: 12.69% of salary within the block grant (7.12% employer share and 5.57% employee share) and reimburse actual expenditures as required by current law (1.25% employer share) • Social Security and Medicare: 7.65% (6.20% for Social Security and 1.45% for Medicare) 	<i>APA believes the current approach is rational and cost-based.</i>

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Parameters and Adjustments

Model Element	APA Recommendation	Rationale
Adjustments		
Size Adjustment	APA recommends applying a size adjustment at the school and district level, as opposed to creating specific break points based on representative schools/districts. The size adjustments are derived from the representative school and district models built through the professional judgment approach. Applying a smooth size adjustment to the system addresses economies of scale issues, while also eliminating any cliffs in funding. APA may include an approach similar to the current adjustment for schools below 49 students if it provides the best resource fit, depending on the final determination of resources.	<i>The school and district size adjustment are derived from the representative school and district models built through the PI approach. Current funding model includes a number of cliffs where an increase or decrease of one student can significantly change the amount of resources a school receives. Applying a smooth size adjustment to the system addresses economies of scale issues, while also eliminating any cliffs in funding</i>
Regional Cost Adjustment	Adjust salaries by the 2015 OES CWI as calculated in Dr. Lori Taylor's report to the Select Committee	<i>The CWI is the most commonly used regional cost adjustment in other states; it accounts for differences in both cost of living and local amenities, is not influenced by local district decisions, and is easily updated</i>
External Cost Adjustment (ECA)	Monitoring process established by W.S. 21-13-309(u). Recommended cost indices include: <ul style="list-style-type: none"> • Professional staff: use a Wyoming specific Comparable Wage Index; • Non-professional staff: use a Wyoming specific High School Comparable Wage Index; • Supplies and Materials: use the Producer Price Index for Office Supplies and Accessories; and • Energy: use the Producer Price Index (PPI) for Commercial Electric Power (weighted at 44.1%) and the PPI for Commercial Natural Gas (weighted at 55.9%) 	<i>A consistent method for estimating the ECA will help to provide stability and predictability of funding model resources between recalibrations. The four-part approach recommended by Taylor specifically addresses price increases in each of the four major cost areas impacting districts. Use of the CWI for the two staff salary adjustments incorporates the advantages described above</i>

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Additional Resources Not Currently in Model

Model Element	APA Draft Recommendation	Rationale
Additional Resources		
Preschool/Early Childhood Education Programs	Provide a voluntary, half-day Preschool program for all 4 year olds, funded at the rate of \$12,510 for every 1.0 full day preschool student (adjusted for school size) when resources allow. Consider housing ECE entirely under the Department of Education to increase possibility for shared service and potentially reduce identification rates of special education students (particularly speech)	<i>Recommended by both EB and PJ models and well supported by research. While an initial investment, could reduce K-12 resource needs in the long run</i>
School Resource Officers (SROs)/School Security	Consider adding resources for SROs when resources allow	<i>Recommended by PJ panels at a rate of 1.0 per campus; Regional variation in police response time that creates security issues.</i>
Food Service Programs	Consider adding resources for food service when resources allow	<i>Not currently self-sustaining, according to district staff and expenditure data.</i>

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Questions?

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Thayer, Jill E.

From: Justin Silverstein <JRS@apaconsulting.net>
Sent: Wednesday, October 02, 2019 07:37 AM
To: Thayer, Jill E.
Cc: Smith, Estella; Griffin, Michelle; Jason Willis; Amanda Brown
Subject: RE: RFP No. BLR-19003 -- Oral Presentations

Jill,

Here are our answers to the Committees' questions.

- The Committees have asked that you provide **hourly rates for your listed subcontractors.**
 - Michael Griffith - \$150/hr
 - Education Finance Decisions - \$150/hr
 - Local University Partner - \$100/hr
- There was also a question from a Senator regarding the omission of Dr. Taylor as a subcontractor – she would like to know the reason for removing her from your previous proposal.
 - The study team made significant modifications to our prior submission in response to the Committees' changes in the current RFP. One of the key changes to the RFP was the exclusion of the requirement to implement an adequacy cost study. As such, we have eliminated all three adequacy studies (professional judgement, cost function, and successful school district approaches) from our current proposed scope of work, as the new RFP clearly does not call for any recommendations on specific adequacy amounts. Dr. Lori Taylor from Texas A&M was included as a subcontractor to support the cost function adequacy approach in the prior submission. Without the required use of these approaches, the corresponding resources for the studies were excluded, including the subcontract with Dr. Taylor.
 - Similarly, we did not include the support of Dr. Chris Stoddard, who was contracted to support the cost of living differences study in the prior RFP which is no longer required as part of the current RFP. We also have removed Dr. Sara Kraemer and reduced the support needed from our other subcontractors to allow for the inclusion of a local university partner and to align the level of support to the scope of the new RFP.
 - Further, WestEd's team in this current proposal includes Dr. Darius Taylor, a WestEd staff member, who appeared to have been confused with Dr. Lori Taylor during the last meeting of the Committees.
- Finally, you have stated in your proposal that you will have **a local university partner** – which university will that be?

Prior to the submittal of our proposal, we spoke with and received confirmation that The University of Arkansas Pine Bluff, School of Education would be willing to work with the study team to support stakeholder engagement if the contract was awarded.
- Additionally, may we request a review and update of our study summary presented to the Committees and posted publicly to ensure that it is aligned with the study team's response to the current RFP. For example, there is still mention of Amanda Brown running the professional judgment approach. The approach has been eliminated from our work along with all other adequacy approaches and we do not want to give the impression that this work is still being proposed.

Justin

Justin Silverstein



**Proposal in Regards to RFP Number:
BLR – 190003
Education Adequacy Consulting Services**

Submitted to the Bureau of Legislative Research, Arkansas

(This copy contains the Official Proposal Price Sheet)

James V. Shuls, Ph.D., Managing Member
Shuls and Associates
1720 Briarmanor Dr.
Lake Saint Louis, MO 63367
(417) 425-3086
james@shulsassociates.com
Federal Employer ID Number: 84-2853313

September 20, 2019

**ATTACHMENT A
OFFICIAL PROPOSAL PRICE SHEET**

This OPPS is submitted by Shuls and Associates in regards to BLR – 190003.

- This bid is valid for 180 days.
- Prices in this proposal have been arrived at independently, without consultation, communication, or agreement for the purpose of restricting competition.
- No attempt has been made nor will be made by the proposer to induce any other person or firm to submit a proposal for the purpose of restricting competition.
- The person signing this proposal is authorized to represent the company and is legally responsible for the decision as to the price and supporting documentation provided as a result of this RFP.
- Prices in this proposal have not been knowingly disclosed by the proposer and will not be prior to award to any other proposer.

Shuls and Associates

Description	Price Per Hour	Number of Hours	Number of Positions	Price
James Shuls, Managing Member	\$195	780	1	\$152,100

Subcontractors

Description	Price
Office for Education Policy	\$169,176
Shaun Simms	\$90,000
Michael Ford	\$10,000
Sara Hodges	\$20,000
Matt Richmond	\$20,000
Travel Expenses	\$15,460
Other (Including copying, editing services, supplies, overhead)	\$22,500
Total Maximum Amount of Bid:	\$499,236



 James V. Shuls, Ph.D.
 Managing Member
 Shuls and Associates (DBA Shuls Policy Consulting)

9/20/2019

SHULS & ASSOCIATES

September 20, 2019

Ms. Jillian Thayer
Director, BLR Legal Counsel
State Capitol Building
Room 315
Little Rock, AR 72201

Dear Ms. Thayer,

Please find enclosed the Shuls and Associates, LLC proposal for education adequacy consulting services as called for in the Bureau of Legislative Research's request for proposals (BLR – 190003).

Shuls and Associates is a privately-owned firm, organized for the specific purpose of seeking this contract to serve the state of Arkansas. Although the firm is new, the team I have assembled to respond to this RFP has extensive experience in public policy analysis and school finance. Combined, my associates in the Office for Education Policy at the University of Arkansas, the independent consultants on this project, and I have published more than 80 peer-reviewed journal articles in the top journals in the fields of economics, education policy, school finance, and public administration. We have authored dozens more reports, white papers, book chapters and assorted publications, made hundreds of presentations at academic conferences, seminars or in other settings. We have been invited to testify before numerous legislative bodies and have served in important roles in government or on appointed boards and committees.

With Shuls and Associates, you will get a skilled team of researchers dedicated to answering your questions with the most sophisticated methods available. You will not find any cookie-cutter responses. This team was assembled specifically for this task.

In the proposal that follows, I outline our analysis plan and strategy to answering the important issues and questions raised in the RFP. I will personally lead the team to the successful completion of this endeavor.

My colleagues and I look forward to discussing in more depth how we can serve the State Legislature and the citizens of the Natural State. Do not hesitate to contact me if I can answer any questions regarding this proposal.

Regards,



James V. Shuls, Ph.D.
Managing Member
Shuls and Associates

PROPOSAL SIGNATURE PAGE

Type or Print the following information:

Prospective Contractor Contact Information

Contact Person: James V. Shuls Title: Managing Member
Phone: (417) 425-3086 Alternate Phone: _____
Email: james@shulsassociates.com

Confirmation of Redacted Copy

YES, a redacted copy of proposal documents is enclosed.

NO, a redacted copy of submission documents is not enclosed. I understand a full copy of non-redacted submission documents will be released if requested.

Note: If a redacted copy of the proposal documents is not provided with the Vendor's proposal, and neither box is checked a copy of the unredacted documents will be released in response to any request made under the Arkansas Freedom of Information Act (FOIA).

Illegal Immigrant Confirmation

By signing and submitting a response to this RFP and by certifying online at _____, the Vendor agrees and certifies that they do not employ or contract with illegal immigrants. If selected, the Vendor certifies that they will not employ or contract with illegal immigrants during the aggregate term of the contract.

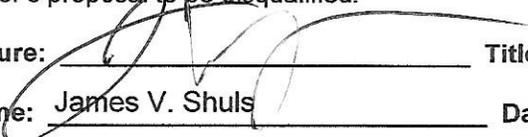
Israel Boycott Restriction Confirmation

By checking the box below, the Vendor agrees and certifies that they do not boycott Israel, and if selected, will not boycott Israel during the aggregate term of the contract.

Vendor does not and will not boycott Israel.

An official authorized to bind the Vendor to a resultant contract shall sign below.

The Signature below signifies agreement that any exception that conflicts with the requirements of this RFP will cause the Vendor's proposal to be disqualified.

Authorized Signature:  Title: Managing Member
Printed/Typed Name: James V. Shuls Date: 9/16/2019

EXECUTIVE SUMMARY

Ensuring that every child receives an adequate education is a tremendous responsibility that falls to the state’s legislature. As such, it is incumbent upon state policymakers to ensure systems are in place to promote the success of all students. To this end, the Bureau of Legislative Research released a wide-ranging call for proposals regarding issues of school finance, class size, teacher recruitment, and a host of other issues. Shuls and Associates (DBA Shuls Policy Consulting) was formed with the express purpose of answering this call. By partnering with the Office for Education Policy (OEP) at the University of Arkansas and a team of highly skilled independent subcontractors, we have assembled a team uniquely qualified to answer the important questions and to serve the State of Arkansas.

For the past several decades, few firms have conducted the type of fiscal analyses requested in BLR – 190003. As a result, these firms have amassed significant experience. Our experience is quite different. Indeed, members of our team have served as expert witnesses in school finance cases. Our task has been to show how some of these firms use flawed methodologies, such as the Professional Judgement approach to determine the cost of an adequate education.

Robert Costrell, a member of the OEP’s research team, for instance, has been hired by state attorneys in Washington, Missouri, and Massachusetts to provide expert witness testimony in school finance cases. In 2017, James Shuls, the managing member of Shuls and Associates, was hired by attorneys representing the State of New Mexico in the school finance case, *Martinez, et al./Yazzie, et al. v. The State of New Mexico*. The plaintiffs in the case were using a costing out study conducted by American Institutes for Research (AIR) to make the claim that the state was underfunding education. The study primarily utilized a professional judgement approach to estimate the cost of an adequate education. Shuls was retained by the state’s attorneys to analyze the AIR report and offer expert testimony.

Shuls testimony regarding the Professional Judgement methodology, in part, led the court to conclude, the methodology “struck the Court as being one where a collective wish list was compiled and then reduced based on political reality.”

In many ways, Shuls’ experience in the New Mexico case led to the formation of Shuls and Associates. Shuls believes in using methodologically sound research methods to inform public policy. To that end, he created Shuls and Associates to provide rigorous analysis of education policy and school finance issues.

The Research Team

We have assembled a team of high-quality educational researchers to conduct this analysis. Below, are short bios of each of the members of the team. You will find a more detailed bio in the proposal and curriculum vitas are attached.

Shuls and Associates Key Staff

James V. Shuls, Ph.D., is the managing member of Shuls and Associates and will serve as the leader of the project. Shuls is an assistant professor of educational leadership and policy studies at the University of Missouri – St. Louis. In this capacity, he teaches courses in program evaluation, education policy analysis, and school finance. He has published in numerous peer-reviewed journals, such as the *Journal of Education Finance*, *Educational Policy*, *Education Economics*, *Social Science Quarterly*, and the *International Review of Accounting, Banking and Finance*. He is a former public-school teacher.

Office for Education Policy Key Staff

Opened in the fall of 2003, the Office for Education Policy (OEP) is an applied research center in the College of Education and Health Professions at the University of Arkansas. The OEP's staff includes faculty members, research associates, and graduate students who specialize in education research and policy.

The OEP's mission is to serve as a resource to Arkansas' lawmakers, educators, administrators, and other stakeholders to support them in thoughtful decision-making concerning K-12 education in the State of Arkansas. We seek to help the state's education leaders bridge the gap between research and practice by providing them with timely, actionable information and advice on current education policy issues.

The Office for Education policy will conduct the analyses on Projects 1, 2, 6, and 7, and will provide critical review on other projects. Key staff include:

Joshua B. McGee, Ph.D., will serve as the chief economist on the project. McGee is associate director of the Office for Education Policy and a research assistant professor in the Department of Education Reform at the University of Arkansas. McGee is an economist whose work focuses on evidence-based policy and public finance. His research investigates issues related to retirement policy, K–12 education, and economic development and has been published in many popular media outlets and scholarly journals.

Sarah McKenzie, Ph.D., is Executive Director of the [Office for Education Policy](#) at the University of Arkansas. Sarah received her PhD from the University of Arkansas in Educational Statistics and Research Methods in 2009 and was awarded a Walton Foundation Doctoral Fellowship Award.

Robert Costrell, Ph.D., is Professor of Education Reform and Economics and holds the Endowed Chair in Education Accountability at the University of Arkansas. His academic career has featured seminal publications on teacher pensions, the economic theory of educational standards, income distribution and testing, and school finance litigation. From 1999 to 2006, Dr. Costrell served in major policy roles for three governors of Massachusetts, including policy research director and chief economist, with a focus on education policy as that state's landmark reforms were implemented.

Independent Consultants

Shaun M. Simms, PMP, SA, CSSGB is a Director, Supply Chain Project Management at a Fortune 20 company. He will serve as Program Director on this evaluation. With over 10 year of experience in portfolio, program, and project management, his career project portfolio is over \$250m dollars. In 2018, he was named the Project Management Institute of Metro St. Louis "Project Leader of the Year."

Michael Ford, Ph.D., will lead Project 12 – Analysis of Waivers. Michael is an associate professor of public administration at the University of Wisconsin at Oshkosh. His research focuses on education finance policy and law, education reform, board governance, and legislative fiscal note practices.

Sara Hodges will provide general research support and data visualization. Sara is currently the Director of Data & Visualizations at EdBuild. She leads the team that analyzes large, complex datasets and turns them into compelling stories and visualizations.

Matt Richmond will provide general research support. He is currently the Chief Program Officer at EdBuild, a nonprofit focused on bringing common sense and fairness to the way states fund public schools.

Proposed Analysis Plan

The RFP calls for analyses on a wide variety of education policy and finance areas. Our first task as a team was to break these items into coherent projects. We reviewed the scope of work/specifications looking for items that were related to one another. We then grouped alike items or items that touched on similar aspects. In this manner, we broke the scope of work/specifications into 14 distinct projects.

Although we have structured this analysis plan around the 14 projects, we have paid close attention to address every point of the RFP. It should also be noted that these projects are not wholly distinct from one another. Many projects feed into other projects and all inform the overall recommendations we will make to the committee regarding school funding models.

In Table 1, we crosswalk each item in the Scope of Work/Specifications section of the RFP to our Projects. Organizing the work in this manner helps us to plan out the entire research process. Additionally, it allows us to see how the work from one project may feed into the analysis in another project. It also allows us to break down the deliverables into chunks that can be delivered at intervals throughout the grant period.

Table 1: Crosswalk with Projects and Scope of Work

Project Number	Project Name	Scope of Work/Specifications
1	Funding Formula Analysis and Recommendation	<ul style="list-style-type: none"> • 3.0 A. 1: Recommend methods for routinely (biennially) reviewing educational adequacy. The recommendations will provide the Committees a process to follow for determining adequacy, rather than a particular dollar amount; • 3.0 A. 6: Currently, the state’s base-level per-student funding is determined based on a formula called the matrix, which specifies the resources (teachers, principals, central office staff, etc.) schools need and the cost of those resources. The Vendor should: <ul style="list-style-type: none"> ○ a. Identify any resources school districts need that are not currently provided for through the funding formula and the cost for each; ○ b. Identify the resources on which school districts are spending foundation funding that are not included in the state’s funding formula; and ○ c. Assess the need for such spending and recommend solutions to any problems identified;
2	Analysis of the Relationship between Funding and Performance	<ul style="list-style-type: none"> • 3.0 A. 3: Identification of gaps in growth and achievement among student groups disaggregated by race and income and make recommendations on specific programs to address the gaps in growth or achievement; • 3.0 A. 4: Analysis of correlation between deficits in student performance and deficits in funding;
3	Review of Adequacy Cost Studies	<ul style="list-style-type: none"> • 3.0 A. 5: Review of adequacy cost studies completed in other states and provide a report on best practices in those states;
4	Defining College and Career-Readiness	<ul style="list-style-type: none"> • 3.0 A. 7: Recommend a definition of college-readiness and/or career-readiness, including criteria for determining when students have achieved college-readiness and/or career-readiness as well as standards for determining if school districts are preparing students for college-readiness and/or career-readiness, and address the reason for the continuing need for remediation at the college level. Vendor shall include identification of career and technical programs available to students, including a recommendation for funding methods and policies for ensuring students have equitable access to these programs.
5	Class, School, and District Size Analysis	<ul style="list-style-type: none"> • 3.0 B. 1-8: In determining the best method for providing educational adequacy to the public schools of the State of Arkansas, the Committees feel it is also imperative to include in any study by the Successful Vendor the following research analyses, including site visits to Arkansas schools, regarding the size of schools and school districts in the state: <ol style="list-style-type: none"> 1. Whether local school systems currently have policies regarding the size of schools, including high schools, middle schools, elementary schools, and alternative schools; 2. Best practices in other states regarding school and school district size; 3. Educational and extracurricular impacts of school and school district size, and the impact, if any, on the surrounding communities and neighborhoods; 4. Recommendations for the ideal size for high schools, middle schools, elementary schools, and alternative schools; 5. Processes that can assist in ensuring public input into the establishment of any school size standards or guidelines; 6. Recommendations for addressing the needs of school districts whose small size or rural geographic location limits operational efficiency; 7. Comparison of class size requirements and student/teacher ratios in other states. In completing the comparison, the Vendor shall: <ul style="list-style-type: none"> ○ Assess the variations in class sizes and instructional staffing levels in Arkansas schools and their impact on teacher salaries; and ○ Address why salary disparities exist; and 8. Assess and recommend criteria to be used for identifying isolated schools or isolated school districts. Assess the cost implications of school isolation and

		recommend funding adjustments that adequately compensate districts for any additional costs.
6	Poverty and Proxies	<ul style="list-style-type: none"> • 3.0 A. 2: Analysis of the effect of concentrations of poverty on the adequacy targets and whether additional adjustments are necessary to provide adequate funding for local education agencies with high concentrations of poverty; • 3.0 C. 1: Evaluation of whether the number of students eligible for free and reduced price meal (FRPM) should continue to be used as a proxy for identifying economically disadvantaged students in several state education aid formulas, primarily National School Lunch (NSL) categorical funding; <ul style="list-style-type: none"> ○ a. In conducting this evaluation, the Successful Vendor shall consider the federal Community Eligibility Provision that allows high-poverty schools or local education agencies (at least forty percent (40%) of their students must be directly certified as FRPM-eligible) that meet other specified criteria to participate in the program, which provides all of the students in a school with free and reduced price meals without requiring all of the students to be certified as eligible to receive the free and reduced price meals. ○ b. The Successful Vendor shall evaluate the potential impact of this program on state aid formulas that use FRPM counts if more Arkansas schools participate in the program. ○ c. The Successful Vendor shall also examine alternative proxies for identifying economically disadvantaged students, including those used in other states, and provide a recommendation to the state as to whether FRPM eligibility or another factor should be used to represent economically disadvantaged students in stated education aid formulas; • 3.0 C. 13: Examination of funding levels to support districts or schools with high concentrations of poverty, and recommend a formula that provides increasing funding rates for districts and schools with higher proportions of economically disadvantaged students that attempts to avoid significant increases or decreases in funding for minor changes in concentrations of poverty;
7	Evaluating Assessment and Tax Policies	<ul style="list-style-type: none"> • 3.0 C. 2: Examination of the way varying levels of property tax assessment and revenue affect the equitability of education resources across the state; • 3.0 C. 12: Examination of the Uniform Rate of Tax funding method to include and examination of the following: <ul style="list-style-type: none"> ○ a. The extent to which the URT revenue generated by each school district meets the needs of schools and affects the educational equity among districts; ○ b. The impact of increasing URT beyond 25 mills; ○ c. The amount of revenue school districts receive from their debt service millage that exceeds the amount the districts spend on debt service payments; and ○ d. The growth in this excess debt service revenue and districts' use of that funding;
8	Recruitment and Staffing Policies	<ul style="list-style-type: none"> • 3.0 C. 4: Examination of best practices in other states for attracting and retaining high quality educational and administrative staff for schools, including without limitation information regarding salaries and benefits and the funding mechanisms for those items; • 3.0 C. 5: Examination of best practices regarding attracting, retaining, and compensating school nurses, including without limitation information regarding salaries and benefits and the funding mechanisms employed in other states for those items; • 3.0 C. 6: Resources necessary and available for coping with student mental health issues, including best practices in other states; • 3.0 C. 14: An examination of professional development and teachers' extra duty time
9	Enrollment and Facilities	<ul style="list-style-type: none"> • 3.0 C. 3: Evaluation of the impact of increasing and declining enrollments on local school systems, including transportation costs, particularly for local jurisdictions with large geographic areas but small populations, and provide

		<p>recommendations that include the following:</p> <ul style="list-style-type: none"> ○ a. Strategies for addressing any impacts; and ○ b. Changes in ADM-based funding sources (foundation funding, declining enrollment funding, and student growth) to ensure the funding is more responsive to the enrollment changes occurring in the current year. The changes should establish a threshold at which districts are held harmless for large enrollment increases during the school year; <ul style="list-style-type: none"> ● 3.0 C. 7: Study the critical capital needs of public schools in Arkansas in an effort to ensure equitable access to quality school buildings, equipment, and buses. Recommendations should ensure that state funding supports low wealth districts, districts with declining enrollments that nevertheless must replace existing buildings, and growing districts that require frequent new construction;
10	Best Practices	<ul style="list-style-type: none"> ● 3.0 C. 8: Identifying best practices and research-based programs for the best use of poverty funds (NSL), as well as funding methodologies available and necessary for supporting students with additional needs including without limitation physical or mental disabilities, learning disabilities, behavioral issues, economic disadvantages, and English language barriers; ● 3.0 C. 9: Identification and examination of the practices of successful Arkansas schools, including those with large proportions of students with additional needs. The Vendor shall identify practices – financial, instructional, and otherwise – that result in the schools’ high performance;
11	Fiscal Impacts of School Choice	<ul style="list-style-type: none"> ● 3.0 C. 10: Analysis of the impact of voucher programs and tax credits on funding for public education in the state and in other states;
12	Analysis of Waivers	<ul style="list-style-type: none"> ● 3.0 C. 11: Assessment of the impact that waivers from state requirements (statute and rules) have on the quality and cost of education, including a recommendation of policy solutions to correct any problems that may be identified;
13	Crosswalk of Picus and Odden Recommendations	<ul style="list-style-type: none"> ● 3.0 C. 15: Comparison of the recommendations previously provided to the Committees by Allan Odden and Lawrence Picus and the policy and funding decisions implemented by the Arkansas General Assembly;
14	Convening of Educators	<ul style="list-style-type: none"> ● 3.0 C. 16: The convening of panels of educators in the State of Arkansas, which shall occur in a variety of locations throughout the state and seek input on the needs of schools and potential solutions.

Our next task was to determine how we would analyze each project, making sure to address each point of the scope of work. Our goal is to use the most appropriate, and rigorous research methods to address the scope of work in each project.

Many of the projects will utilize literature reviews to assess best practices or the current knowledge in the field. Additionally, we will conduct many quantitative analyses. For instance, in Project 3 we will calculate school level value added measures to show how much students in each school grow, on average, over the course of a year. We will use these value-added measures in other projects as well. Our analysis will also rely on surveys and qualitative approaches, such as interviews and focus groups with educators. We will also utilize agency records and other government documents to address many items in the scope of work. When appropriate, we will also conduct geospatial mapping or use other tools for data visualization. In Table 2, we show which methods will be used to address each item in the scope of work.

Table 2: Overview of Analysis Plan

Scope of Work/ Specifications	Project	Literature Review	Quantitative Analysis	Interviews	Focus Groups	Survey	Review of Agency Records	Geospatial Mapping or Data Visualization
3.0 A.1	1	◆			◆	◆	◆	
3.0 A.2	6		◆					◆
3.0 A.3	2		◆					
3.0 A.4	2		◆					
3.0 A.5	3	◆						
3.0 A.6	1	◆			◆	◆	◆	
3.0 A.7	4	◆	◆		◆	◆		◆
3.0 B.1	5					◆		
3.0 B.2	5	◆						
3.0 B.3	5		◆			◆		
3.0 B.4	5	◆						
3.0 B.5	5	◆						
3.0 B.6	5	◆						
3.0 B.7	5		◆				◆	◆
3.0 B.8	5	◆	◆					
3.0 C.1	6	◆	◆					
3.0 C.2	7		◆				◆	
3.0 C.3	9	◆	◆				◆	
3.0 C.4	8	◆	◆					
3.0 C.5	8	◆	◆					
3.0 C.6	8	◆		◆		◆		
3.0 C.7	9							
3.0 C.8	10	◆						
3.0 C.9	10			◆				
3.0 C.10	11		◆					
3.0 C.11	12		◆				◆	
3.0 C.12	7		◆	◆				
3.0 C.13	6	◆	◆					
3.0 C.14	8			◆		◆		
3.0 C.15	13						◆	
3.0 C.16	14				◆	◆		

If we are awarded the grant, we anticipate beginning work in November 2019 and being finished by November 2020. In Table 3, we present a Gantt chart of project completion. We organized the sequence of our analyses to build upon one another. For instance, we plan to conduct Project 14, our focus groups and surveys of educators, early in our process. We do this strategically, because we know the responses in these sessions will be informative for much of the work we conduct later in the process.

Table 3: Gantt Chart of Project Completion

Project	Nov	Dec	Jan	Feb	Mar	Apr	May	June	June	July	Aug	Sept	Oct	Nov
#11 – Fiscal Impacts of School Choice	█	█	█											
#3 – Review of Adequacy Cost Studies		█	█	█										
#14 – Convening of Educators			█	█	█									
#4 – Defining College and Career-Readiness				█	█	█								
#2 – Analysis of the Relationship between Funding & Performance					█	█	█	█						
#12 – Analysis of Waivers						█	█	█	█					
#7 – Evaluating Assessment & Tax Policies							█	█	█	█				
#8 – Recruitment & Staffing Policies								█	█	█	█			
#9 – Enrollment & Facilities									█	█	█	█		
#5 – Class, School, and District Size Analysis										█	█	█	█	
#6 – Poverty & Proxies											█	█	█	
#10 – Best Practices												█	█	
#13 – Crosswalk of Picus & Odden Recommendations													█	█
#1 – Funding Formula Analysis & Recommendations														█

Summary

Together, Shuls and Associates (DBA Shuls Policy Consulting), the Office for Education Policy, and our independent consultants, have assembled a team that is uniquely qualified to address the scope of work in BLR – 190003. We are experienced researchers, with significant experience in conducting education policy and fiscal analyses.

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SECTION 1. GENERAL INFORMATION

I, James V. Shuls, managing member of Shuls and Associates, acknowledge and agree with the requirements set forth in the following sections:

- 1.0 Introduction
- 1.1 Issuing Agency
- 1.2 Schedule of Events
- 1.3 Caution to Vendors
- 1.4 RFP Format
- 1.5 Requirement of Amendment
- 1.6 Alteration of Original RFP Documents
- 1.7 RFP Questions
- 1.8 Sealed Prices/Cost
- 1.9 Proprietary Information
- 1.10 Delivery of Response Documents
- 1.11 Bid Evaluation
- 1.12 Oral and/or Written Presentations/Demonstrations
- 1.13 Intent to Award
- 1.14 Appeals
- 1.15 Past Performance
- 1.16 Type of Contract
- 1.17 Payment and Invoice Provisions
- 1.18 Prime Contractor Responsibility
- 1.19 Delegation and/or Assignment
- 1.20 Conditions of Contract
- 1.21 Statement of Liability
- 1.22 Award Responsibility
- 1.23 Independent Price Determination
- 1.24 Publicity
- 1.25 Confidentiality
- 1.26 Proposal Tenure
- 1.27 Warranties
- 1.28 Contract Termination
- 1.29 Vendor Qualifications
- 1.30 Negotiations
- 1.31 Licenses and Permits
- 1.32 Ownership of Materials & Copyright

The following sections will be addressed in further depth elsewhere in the proposal:

- 1.8 Sealed Prices/Cost – Addressed in the Official Proposal Price Sheet
- 1.15 Past Performance – Addressed in the Vendor Profile
- 1.27 Warranties – Addressed in the Vendor Profile
- 1.29 Vendor Qualifications – Addressed in the Vendor Profile

SECTION 2: OVERVIEW

I, James V. Shuls, managing member of Shuls and Associates, acknowledge and agree with the requirements set forth in the following section:

2.0 Objectives

It is the intention of Shuls and Associates to enter into a contract for education adequacy consulting services, in order to provide the members of the Arkansas General Assembly with detailed and accurate information concerning the current efficacy of the biennial adequacy study and evaluation undertaken by the Committees, and to provide the Committees with recommendations regarding reform or replacement of the current methods for determining educational adequacy in the State of Arkansas.

To fulfil this stated purpose, Shuls and Associates will use the following definition of “educational adequacy,” as stated in the RFP, to serve as a basis for identifying resources required for Adequacy:

- The standards included in the state’s curriculum frameworks, which define what all Arkansas students are to be taught, including specific grade-level curriculum and a mandatory thirty-eight (38) Carnegie units defined by the Arkansas Standards of Accreditation to be taught at the high school level, and opportunities for students to develop career-readiness skills;
- The standards included in the state’s testing system. The goal is to have all, or all but the most severely disabled, students perform at or above proficiency on these tests; and
- Sufficient funding to provide adequate resources as identified by the General Assembly.

In the following section, I will present our Analysis Plan to address the specific scope of the work requested in the RFP.

SECTION 3: EDUCATION ADEQUACY CONSULTING SERVICES

In this section, I will specifically address all the requirements set forth in sections 3.0 A, 3.0 B, and 3.0 C of the RFP. Similarly, I specifically address section 3.1. Section 3.2 Procurement of Goods and Services is not addressed explicitly, however, I, James V. Shuls, managing member of Shuls and Associates, acknowledge and agree with the requirements set forth therein.

3.0 Scope of Work/Specifications

Analysis Plan

The RFP calls for an analysis of many different facets of Arkansas’ education system, including school funding, staffing policies, class sizes, and school choice. While many of the points in the scope of work are connected, others are distinct from one another. After an initial analysis by our team, we have divided the work requested in the RFP into 14 distinct projects. That is, we have grouped tasks on related matters. Below, we list each project. Although we have structured this

analysis plan around the 14 projects, we have paid close attention to address every point of the RFP. It should also be noted that these projects are not wholly distinct from one another. Many projects feed into other projects and all inform the overall recommendations we will make to the committee regarding school funding models.

Table 1: Crosswalk with Projects and Scope of Work

Project Number	Project Name	Scope of Work/Specifications
1	Funding Formula Analysis and Recommendation	<ul style="list-style-type: none"> • 3.0 A. 1: Recommend methods for routinely (biennially) reviewing educational adequacy. The recommendations will provide the Committees a process to follow for determining adequacy, rather than a particular dollar amount; • 3.0 A. 6: Currently, the state’s base-level per-student funding is determined based on a formula called the matrix, which specifies the resources (teachers, principals, central office staff, etc.) schools need and the cost of those resources. The Vendor should: <ul style="list-style-type: none"> ○ a. Identify any resources school districts need that are not currently provided for through the funding formula and the cost for each; ○ b. Identify the resources on which school districts are spending foundation funding that are not included in the state’s funding formula; and ○ c. Assess the need for such spending and recommend solutions to any problems identified;
2	Analysis of the Relationship between Funding and Performance	<ul style="list-style-type: none"> • 3.0 A. 3: Identification of gaps in growth and achievement among student groups disaggregated by race and income and make recommendations on specific programs to address the gaps in growth or achievement; • 3.0 A. 4: Analysis of correlation between deficits in student performance and deficits in funding;
3	Review of Adequacy Cost Studies	<ul style="list-style-type: none"> • 3.0 A. 5: Review of adequacy cost studies completed in other states and provide a report on best practices in those states;
4	Defining College and Career-Readiness	<ul style="list-style-type: none"> • 3.0 A. 7: Recommend a definition of college-readiness and/or career-readiness, including criteria for determining when students have achieved college-readiness and/or career-readiness as well as standards for determining if school districts are preparing students for college-readiness and/or career-readiness, and address the reason for the continuing need for remediation at the college level. Vendor shall include identification of career and technical programs available to students, including a recommendation for funding methods and policies for ensuring students have equitable access to these programs.
5	Class, School, and District Size Analysis	<ul style="list-style-type: none"> • 3.0 B. 1-8: In determining the best method for providing educational adequacy to the public schools of the State of Arkansas, the Committees feel it is also imperative to include in any study by the Successful Vendor the following research analyses, including site visits to Arkansas schools, regarding the size of schools and school districts in the state: <ol style="list-style-type: none"> 1. Whether local school systems currently have policies regarding the size of schools, including high schools, middle schools, elementary schools, and alternative schools; 2. Best practices in other states regarding school and school district size; 3. Educational and extracurricular impacts of school and school district size, and the impact, if any, on the surrounding communities and neighborhoods; 4. Recommendations for the ideal size for high schools, middle schools, elementary schools, and alternative schools; 5. Processes that can assist in ensuring public input into the

		<p>establishment of any school size standards or guidelines;</p> <p>6. Recommendations for addressing the needs of school districts whose small size or rural geographic location limits operational efficiency;</p> <p>7. Comparison of class size requirements and student/teacher ratios in other states. In completing the comparison, the Vendor shall:</p> <ul style="list-style-type: none"> ○ Assess the variations in class sizes and instructional staffing levels in Arkansas schools and their impact on teacher salaries; and ○ Address why salary disparities exist; and <p>8. Assess and recommend criteria to be used for identifying isolated schools or isolated school districts. Assess the cost implications of school isolation and recommend funding adjustments that adequately compensate districts for any additional costs.</p>
6	Poverty and Proxies	<ul style="list-style-type: none"> • 3.0 A. 2: Analysis of the effect of concentrations of poverty on the adequacy targets and whether additional adjustments are necessary to provide adequate funding for local education agencies with high concentrations of poverty; • 3.0 C. 1: Evaluation of whether the number of students eligible for free and reduced price meal (FRPM) should continue to be used as a proxy for identifying economically disadvantaged students in several state education aid formulas, primarily National School Lunch (NSL) categorical funding; <ul style="list-style-type: none"> ○ a. In conducting this evaluation, the Successful Vendor shall consider the federal Community Eligibility Provision that allows high-poverty schools or local education agencies (at least forty percent (40%) of their students must be directly certified as FRPM-eligible) that meet other specified criteria to participate in the program, which provides all of the students in a school with free and reduced price meals without requiring all of the students to be certified as eligible to receive the free and reduced price meals. ○ b. The Successful Vendor shall evaluate the potential impact of this program on state aid formulas that use FRPM counts if more Arkansas schools participate in the program. ○ c. The Successful Vendor shall also examine alternative proxies for identifying economically disadvantaged students, including those used in other states, and provide a recommendation to the state as to whether FRPM eligibility or another factor should be used to represent economically disadvantaged students in stated education aid formulas; • 3.0 C. 13: Examination of funding levels to support districts or schools with high concentrations of poverty, and recommend a formula that provides increasing funding rates for districts and schools with higher proportions of economically disadvantaged students that attempts to avoid significant increases or decreases in funding for minor changes in concentrations of poverty;
7	Evaluating Assessment and Tax Policies	<ul style="list-style-type: none"> • 3.0 C. 2: Examination of the way varying levels of property tax assessment and revenue affect the equitability of education resources across the state; • 3.0 C. 12: Examination of the Uniform Rate of Tax funding method to include and examination of the following: <ul style="list-style-type: none"> ○ a. The extent to which the URT revenue generated by each school district meets the needs of schools and affects the educational equity among districts; ○ b. The impact of increasing URT beyond 25 mills; ○ c. The amount of revenue school districts receive from their debt service millage that exceeds the amount the districts spend on debt service payments; and ○ d. The growth in this excess debt service revenue and districts' use of that funding;
8	Recruitment and	<ul style="list-style-type: none"> • 3.0 C. 4: Examination of best practices in other states for attracting and

	Staffing Policies	<p>retaining high quality educational and administrative staff for schools, including without limitation information regarding salaries and benefits and the funding mechanisms for those items;</p> <ul style="list-style-type: none"> • 3.0 C. 5: Examination of best practices regarding attracting, retaining, and compensating school nurses, including without limitation information regarding salaries and benefits and the funding mechanisms employed in other states for those items; • 3.0 C. 6: Resources necessary and available for coping with student mental health issues, including best practices in other states; • 3.0 C. 14: An examination of professional development and teachers' extra duty time
9	Enrollment and Facilities	<ul style="list-style-type: none"> • 3.0 C. 3: Evaluation of the impact of increasing and declining enrollments on local school systems, including transportation costs, particularly for local jurisdictions with large geographic areas but small populations, and provide recommendations that include the following: <ul style="list-style-type: none"> ○ a. Strategies for addressing any impacts; and ○ b. Changes in ADM-based funding sources (foundation funding, declining enrollment funding, and student growth) to ensure the funding is more responsive to the enrollment changes occurring in the current year. The changes should establish a threshold at which districts are held harmless for large enrollment increases during the school year; • 3.0 C. 7: Study the critical capital needs of public schools in Arkansas in an effort to ensure equitable access to quality school buildings, equipment, and buses. Recommendations should ensure that state funding supports low wealth districts, districts with declining enrollments that nevertheless must replace existing buildings, and growing districts that require frequent new construction;
10	Best Practices	<ul style="list-style-type: none"> • 3.0 C. 8: Identifying best practices and research-based programs for the best use of poverty funds (NSL), as well as funding methodologies available and necessary for supporting students with additional needs including without limitation physical or mental disabilities, learning disabilities, behavioral issues, economic disadvantages, and English language barriers; • 3.0 C. 9: Identification and examination of the practices of successful Arkansas schools, including those with large proportions of students with additional needs. The Vendor shall identify practices – financial, instructional, and otherwise – that result in the schools' high performance;
11	Fiscal Impacts of School Choice	<ul style="list-style-type: none"> • 3.0 C. 10: Analysis of the impact of voucher programs and tax credits on funding for public education in the state and in other states;
12	Analysis of Waivers	<ul style="list-style-type: none"> • 3.0 C. 11: Assessment of the impact that waivers from state requirements (statute and rules) have on the quality and cost of education, including a recommendation of policy solutions to correct any problems that may be identified;
13	Crosswalk of Picus and Odden Recommendations	<ul style="list-style-type: none"> • 3.0 C. 15: Comparison of the recommendations previously provided to the Committees by Allan Odden and Lawrence Picus and the policy and funding decisions implemented by the Arkansas General Assembly;
14	Convening of Educators	<ul style="list-style-type: none"> • 3.0 C. 16: The convening of panels of educators in the State of Arkansas, which shall occur in a variety of locations throughout the state and seek input on the needs of schools and potential solutions.

Table 2: Overview of Analysis Plan

Scope of Work/ Specifications	Project	Literature Review	Quantitative Analysis	Interviews	Focus Groups	Survey	Review of Agency Records	Geospatial Mapping or Data Visualization
3.0 A.1	1	◆			◆	◆	◆	
3.0 A.2	6		◆					◆
3.0 A.3	2		◆					
3.0 A.4	2		◆					
3.0 A.5	3	◆						
3.0 A.6	1	◆			◆	◆	◆	
3.0 A.7	4	◆	◆		◆	◆		◆
3.0 B.1	5					◆		
3.0 B.2	5	◆						
3.0 B.3	5		◆			◆		
3.0 B.4	5	◆						
3.0 B.5	5	◆						
3.0 B.6	5	◆						
3.0 B.7	5		◆				◆	◆
3.0 B.8	5	◆	◆					
3.0 C.1	6	◆	◆					
3.0 C.2	7		◆				◆	
3.0 C.3	9	◆	◆				◆	
3.0 C.4	8	◆	◆					
3.0 C.5	8	◆	◆					
3.0 C.6	8	◆		◆		◆		
3.0 C.7	9							
3.0 C.8	10	◆						
3.0 C.9	10			◆				
3.0 C.10	11		◆					
3.0 C.11	12		◆				◆	
3.0 C.12	7		◆	◆				
3.0 C.13	6	◆	◆					
3.0 C.14	8			◆		◆		
3.0 C.15	13						◆	
3.0 C.16	14				◆	◆		

Project 1: Funding Formula Analysis and Recommendation

Scope of Work/Specifications Addressed:

- 3.0 A. 1: Recommend methods for routinely (biennially) reviewing educational adequacy. The recommendations will provide the Committees a process to follow for determining adequacy, rather than a particular dollar amount;
- 3.0 A. 6: Currently, the state’s base-level per-student funding is determined based on a formula called the matrix, which specifies the resources (teachers, principals, central office staff, etc.) schools need and the cost of those resources. The Vendor should:
 - a. Identify any resources school districts need that are not currently provided for through the funding formula and the cost for each;
 - b. Identify the resources on which school districts are spending foundation funding that are not included in the state’s funding formula; and
 - c. Assess the need for such spending and recommend solutions to any problems identified;

Proposed Analysis Plan:

This project will consist of the following:

- A survey of administrators
- Literature reviews
- An analysis of budget documents (agency records).

Arkansas biennially reviews education adequacy and adjusts the funding formula. The RFP calls for recommendations for a process to determine adequacy, rather than a specific dollar amount. Additionally, the RFP requests an analysis of the effect of concentrations of poverty on adequacy targets and whether additional adjustments are necessary to provide adequacy funding for local education agencies. Currently, base level funding is determined on a formula called the matrix. The matrix is a resource cost model. The RFP asks the vendor to identify resources not currently on the matrix and for recommendations to the funding formula.

We view this project as the culmination of the analysis plan. Ultimately, this project will offer suggestions about how the state should fund public schools. Thus, this project will be informed by the work undertaken in the other projects. That work will be supplemented by additional analyses in order to provide robust recommendations to the committee in terms of the state’s determination of adequacy and the structure of the state’s funding formula (3.0 A. 1).

In addition to relying on the work from other projects, we will conduct an analysis budgets (agency records) from a random sample of Arkansas school districts (3.0 A. 6). This sample will be stratified, to ensure school districts from every region and of various sizes are included in the sample. In the review of the budgets, we will examine where school districts spend their resources and whether those expenditures are outside of the current items on the matrix. Additionally, we will conduct a survey of school level administrators and a review of the related literature on school funding. This will include an examination of how other states currently fund public education.

Through the budget analysis and the survey, we will identify resources that school districts need, but are not receiving funds for and things that districts are spending foundation funds on that are not currently in the matrix. This work will also be informed by the focus groups conducted in Project 14 of this proposal.

Project 2: Analysis of the Relationship between Funding and Performance

Scope of Work/Specifications Addressed:

- 3.0 A. 3: Identification of gaps in growth and achievement among student groups disaggregated by race and income and make recommendations on specific programs to address the gaps in growth or achievement;
- 3.0 A. 4: Analysis of correlation between deficits in student performance and deficits in funding;

Proposed Analysis Plan:

This project will consist of the following:

- A quantitative analysis of student performance
- Data visualization

The RFP calls for an examination of gaps in growth and achievement among student groups, disaggregated by race and income. Additionally, the RFP asks for an analysis of the correlation between student performance and funding. Importantly, the state is seeking strategies for ameliorating gaps in growth and achievement.

Using a longitudinal dataset of student performance, we will calculate a school level value added measure (VAM) (3.0 A. 3). This measure will show how much students in each school grow, on average, over the course of year. When the data permits, we will create VAM measures of student subgroups. Using this growth measure and the state's achievement measure, we will analyze the correlation between growth, performance, and school district finances (3.0 A. 4). We will display the results of our analysis using a variety of data visualization strategies, such as maps to display the relative performance of each school district.

Using this information and information gathered from the research literature, we will investigate the extent to which and how funding can be a tool for closing the achievement gap.

Project 3: Review of Adequacy Cost Studies

Scope of Work/Specifications Addressed:

- 3.0 A. 5: Review of adequacy cost studies completed in other states and provide a report on best practices in those states;

Proposed Analysis Plan:

This project will consist of the following:

- A literature review and analysis of adequacy cost studies

The RFP calls for a review of adequacy cost studies completed in other states and asks for the vendor to provide a report based on best practices in those states.

We will conduct a systematic literature review of adequacy cost studies. Most of these analyses have not been published in academic journals and some are not readily available. We will cull all publicly available studies from online sources, such as the websites of the authors of the studies. In our analysis, we will describe the different types of costing out strategies used, such as the professional judgement model or the successful schools approach. We will discuss the relative trade-offs of each of these approaches. We will also synthesize the findings and main conclusions of all these studies.

Project 4: Defining College and Career-Readiness

Scope of Work/Specifications Addressed:

- 3.0 A. 7: Recommend a definition of college-readiness and/or career-readiness, including criteria for determining when students have achieved college-readiness and/or career-readiness as well as standards for determining if school districts are preparing students for college-readiness and/or career-readiness, and address the reason for the continuing need for remediation at the college level. Vendor shall include identification of career and technical programs available to students, including a recommendation for funding methods and policies for ensuring students have equitable access to these programs.

Proposed Analysis Plan:

This project will consist of the following:

- A literature review regarding definitions of college- and career-readiness
- A quantitative analysis of student success metrics
- A survey of administrators
- Geospatial mapping of programs
- This project will also be informed by the focus groups and survey conducted in Project 14.

The RFP asks for the vendor to recommend a definition of college-readiness and/or career-readiness. With this definition in mind, the vendor is to develop standards to determine whether school districts are preparing students for college- and/or career readiness. Additionally, the vendor is to identify what career and technical education programs are currently available to students. The state seeks funding and policy recommendations to improve equitable access to these programs.

To determine an effective definition of college- and career-readiness, we will first conduct a literature review. Additionally, we will review the data collected in the survey and focus groups conducted with educators in Project 14. From this, we will develop a working definition of college and career-readiness for Arkansas.

We will then conduct a descriptive analysis of student success metrics. In this analysis, we will compare Arkansas to other states (specifically the SREB states) on measures such as ACT scores, high school graduation, percent passing AP exams, and college remediation rates. Additionally, we will examine college enrollment and attainment metrics using national student

clearinghouse data. In addition to these college-readiness measures, we will examine career and technical certifications.

To better understand what programs are currently available to students, we will survey school administrators and review state administrative data. This will allow us to create a list of programs available for students and the location of these programs. We will also examine the patterns of CTE course taking using administrative data from the Arkansas Department of Education. Using this information, we will create geospatial maps to visually display student access to career and technical programs.

Project 5: Class, School, and District Size Analysis

Scope of Work/Specifications Addressed:

- 3.0 B.: In determining the best method for providing educational adequacy to the public schools of the State of Arkansas, the Committees feel it is also imperative to include in any study by the Successful Vendor the following research analyses, including site visits to Arkansas schools, regarding the size of schools and school districts in the state:
- 3.0 B. 1. Whether local school systems currently have policies regarding the size of schools, including high schools, middle schools, elementary schools, and alternative schools;
- 3.0 B. 2. Best practices in other states regarding school and school district size;
- 3.0 B. 3. Educational and extracurricular impacts of school and school district size, and the impact, if any, on the surrounding communities and neighborhoods;
- 3.0 B. 4. Recommendations for the ideal size for high schools, middle schools, elementary schools, and alternative schools;
- 3.0 B. 5. Processes that can assist in ensuring public input into the establishment of any school size standards or guidelines;
- 3.0 B. 6. Recommendations for addressing the needs of school districts whose small size or rural geographic location limits operational efficiency;
- 3.0 B. 7. Comparison of class size requirements and student/teacher ratios in other states. In completing the comparison, the Vendor shall:
 - a. Assess the variations in class sizes and instructional staffing levels in Arkansas schools and their impact on teacher salaries; and
 - b. Address why salary disparities exist; and
- 3.0 B. 8. Assess and recommend criteria to be used for identifying isolated schools or isolated school districts. Assess the cost implications of school isolation and recommend funding adjustments that adequately compensate districts for any additional costs.

Proposed Analysis Plan:

This project will consist of the following:

- A survey of central office personnel regarding district class-size policies and availability of extracurricular activities,
- A literature review on best practices regarding class size
- A descriptive analysis of class size policies in other states
- A quantitative analysis of the relationship between size and salaries
- Data visualization

There is much concern about how the number of students in a class and in a school or district impacts learning and extracurricular activities. To better understand these issues, the RFP calls for an analysis of current district class size policies, an examination of best practices in other states, an analysis of the impact of class size on extracurricular activities, an analysis of class-size requirements and student/teacher ratios in other states and the impact of these issues on teacher salaries. The committee is particularly interested in how these issues might be addressed in isolated school districts.

Our team will conduct a robust literature review to identify best practices in other states regarding school and school districts size (3.0 B. 2), to provide recommendations for the ideal size of schools (3.0 B. 4), and to identify criteria that may be used for identifying isolated schools or school districts (3.0 B. 8). This review and our other research will be used to develop a process that can be used to solicit public input into the establishment of any school size standards or guidelines (3.0 B. 5). The literature review will also be used in the development of recommendations for addressing the needs of school districts whose small size or rural geographic location limits operational efficiency (3.0 B. 6).

Additionally, our team will survey central office personnel to determine the current class and school size policies of districts within the state (3.0 B. 1). This will allow us to draft a descriptive report on the current state of class and school size policies. We will also conduct a descriptive analysis of class size policies in neighboring and SREB states. In the survey, we will also solicit information regarding academic and non-academic extracurricular activities (3.0 B. 3). We will also obtain data from the Arkansas Activities Association regarding sport offerings in each school district. With this information, we analyze the relationship between school and district size and offerings of various extracurricular activities.

Using data from the Arkansas Department of Education, we will conduct a quantitative analysis of the relationship between class sizes and teacher salaries, providing a detailed analysis and data visualizations by each region of the state (3.0 B. 7). This analysis will also include an analysis of school districts listed by the Arkansas Department of Education as having a geographic teacher shortage. Using school finance data, school descriptive characteristics, and community characteristics, we will estimate the factors which explain variation in teacher salaries. Using data from the National Center for Education Statistics, we will conduct a descriptive analysis of current student/teacher ratios across the country. We will also review agency records of other states to determine state requirements.

Our analysis will provide suggestions, as well as trade-offs to consider, when drafting state class size requirements. For any suggestions we make to the funding formula, we will provide a fiscal analysis of the funding adjustment (3.0 B. 8).

Project 6: Poverty and Proxies

Scope of Work/Specifications Addressed:

- 3.0 A. 2: Analysis of the effect of concentrations of poverty on the adequacy targets and whether additional adjustments are necessary to provide adequate funding for local education agencies with high concentrations of poverty;

- 3.0 C. 1: Evaluation of whether the number of students eligible for free and reduced-price meal (FRPM) should continue to be used as a proxy for identifying economically disadvantaged students in several state education aid formulas, primarily National School Lunch (NSL) categorical funding;
 - a. In conducting this evaluation, the Successful Vendor shall consider the federal Community Eligibility Provision that allows high-poverty schools or local education agencies (at least forty percent (40%) of their students must be directly certified as FRPM-eligible) that meet other specified criteria to participate in the program, which provides all of the students in a school with free and reduced price meals without requiring all of the students to be certified as eligible to receive the free and reduced price meals.
 - b. The Successful Vendor shall evaluate the potential impact of this program on state aid formulas that use FRPM counts if more Arkansas schools participate in the program.
 - c. The Successful Vendor shall also examine alternative proxies for identifying economically disadvantaged students, including those used in other states, and provide a recommendation to the state as to whether FRPM eligibility or another factor should be used to represent economically disadvantaged students in stated education aid formulas;
- 3.0 C. 13: Examination of funding levels to support districts or schools with high concentrations of poverty, and recommend a formula that provides increasing funding rates for districts and schools with higher proportions of economically disadvantaged students that attempts to avoid significant increases or decreases in funding for minor changes in concentrations of poverty;

Proposed Analysis Plan:

This project will consist of the following:

- A review of FRPM and other proxies for poverty
- A quantitative analysis of changes to FRPM participation
- A quantitative analysis of current funding levels

Student eligibility for free and reduced-price meals (FRPM) has traditionally been used as a measure of poverty in many states. Increasingly, however, there is a question as to whether this is a useful proxy. With the advent of community eligibility rules, many communities no longer collect FRPM information from students. For this and a variety of reasons, it is reasonable to examine whether FRPM remains a useful proxy for poverty and a worthwhile mechanism for distributing funding.

Using our value-added estimates from Project 2 and data from the Arkansas Department of Education, we will analyze the relationship between the percentage of students who qualify for free or reduced-price meals (3.0 A. 2). In this analysis we will examine the relationship between poverty (as measured by FRPM) and expenditures; as well as the relationship between poverty and achievement.

Using a time series of data, pre-and post-Community Eligibility Provision rules, we will examine how the provision is affecting reported FRPM rates in Arkansas (3.0 C. 1). We will then investigate whether there are better poverty measures that could be used in the funding formula. For any proposed poverty measure, we will examine the fiscal impact on state aid formulas.

Additionally, we will review policies in other states and provide a descriptive analysis of their measures of poverty.

Using the information obtained from these analyses and a literature review, we will make recommendations for providing state aid to school districts with varying rates of poverty (3.0 C. 13).

Project 7: Evaluating Assessment and Tax Policies

Scope of Work/Specifications Addressed:

- 3.0 C. 2: Examination of the way varying levels of property tax assessment and revenue affect the equitability of education resources across the state;
- 3.0 C. 12: Examination of the Uniform Rate of Tax funding method to include and examination of the following:
 - a. The extent to which the URT revenue generated by each school district meets the needs of schools and affects the educational equity among districts;
 - b. The impact of increasing URT beyond 25 mills;
 - c. The amount of revenue school districts receive from their debt service millage that exceeds the amount the districts spend on debt service payments; and
 - d. The growth in this excess debt service revenue and districts' use of that funding;

Proposed Analysis Plan:

This project will consist of the following:

- A descriptive analysis of assessment practices (agency records)
- A quantitative analysis of property assessment
- A quantitative analysis of Uniform Rate of Tax policies
- A quantitative analysis of debt service revenue and expenditures
- Interviews with district personnel

School funding is significantly impacted by assessment practices and tax policy. As such, it is important to understand how current Arkansas policies are impacting the state's public schools. First, we will analyze agency records to describe how various types of property (agricultural, residential, and commercial) are assessed in Arkansas (3.0 C. 2). We will then explore in a descriptive, quantitative analysis how these assessment practices impact school funding, especially as it relates to equity.

Arkansas currently has a Uniform Rate of Tax (URT) of 25 mills. This is a constitutionally required tax rate. To analyze Arkansas' URT and other millage rates, we will obtain longitudinal financial records for each school district from the Arkansas Department of Education (3.0 C. 12). Using these data, we will answer three primary questions: (1) What would be the impact of increasing the URT beyond 25 mills, (2) How much revenue do school districts receive via their debt service millage that exceeds their debt payments? On this second question, we will examine this phenomenon over a period of time. We will also use these data to examine the impact of the URT and tax policy on school funding equity.

Once we identify which school districts receive an excess amount of funds from their debt service millage, we will select a sample of school districts for follow-up interviews. In these targeted school districts, we will interview either the superintendent or the CFO regarding the use of excess debt service revenue to determine how these funds are being spent.

Project 8: Recruitment and Staffing Policies

Scope of Work/Specifications Addressed:

- 3.0 C. 4: Examination of best practices in other states for attracting and retaining high quality educational and administrative staff for schools, including without limitation information regarding salaries and benefits and the funding mechanisms for those items;
- 3.0 C. 5: Examination of best practices regarding attracting, retaining, and compensating school nurses, including without limitation information regarding salaries and benefits and the funding mechanisms employed in other states for those items;
- 3.0 C. 6: Resources necessary and available for coping with student mental health issues, including best practices in other states;
- 3.0 C. 14: An examination of professional development and teachers' extra duty time

Proposed Analysis Plan:

This project will consist of the following:

- A quantitative analysis of certifications
- A literature review of best practices
- A survey of counseling, student service professionals, and/or human resources professionals
- Interviews with education professionals

Schools are only as good as the people in them. As such, the RFP calls for an analysis of recruitment and staffing policies. The goal is to determine which policies are most effective at helping the state recruit and retain high quality educators, administrators, and nurses. Part of retention is making sure educators are equipped to handle the challenges of the job. Therefore, the RFP calls for an examination of the resources necessary and available for coping with student mental health issues and issues related to teacher professional development.

First, we will conduct a quantitative, descriptive analysis of Arkansas current educator, leader, and nurse pipeline. Using data from the Arkansas Department of Education and the Arkansas Department of Higher Education, we will examine the current enrollment, graduation, and certification trends of Arkansas educators. This will allow us to determine where gaps may exist in the current pipeline of educators, leaders, and nurses.

Next, we will conduct an exhaustive literature review to determine which policies and practices help states and school districts attract and retain teachers (3.0 C. 4 & 3.0 C. 5). Special attention will be made to identify policies that are effective when implemented in contexts similar to those of Arkansas' public schools. In this manner, we will develop policy suggestions for the development of a recruitment pipeline for Arkansas public schools.

In addition to conducting a literature review regarding best practices for coping with student mental health issues, we will survey counselors, student service professionals, and/or human

resources professionals to determine what supports are in place for students and teachers to deal with student mental health issues as they may arise (3.0 C. 6). In the survey, we will also ask questions related to school district policies and practices regarding teacher professional development and professional duty time (3.0 C. 14). After the survey, we will conduct follow up interviews with a subset of education professionals to discuss issues related to student mental health issues and teacher professional development.

Project 9: Enrollment and Facilities

Scope of Work/Specifications Addressed:

- 3.0 C. 3: Evaluation of the impact of increasing and declining enrollments on local school systems, including transportation costs, particularly for local jurisdictions with large geographic areas but small populations, and provide recommendations that include the following:
 - a. Strategies for addressing any impacts; and
 - b. Changes in ADM-based funding sources (foundation funding, declining enrollment funding, and student growth) to ensure the funding is more responsive to the enrollment changes occurring in the current year. The changes should establish a threshold at which districts are held harmless for large enrollment increases during the school year;
- 3.0 C. 7: Study the critical capital needs of public schools in Arkansas in an effort to ensure equitable access to quality school buildings, equipment, and buses. Recommendations should ensure that state funding supports low wealth districts, districts with declining enrollments that nevertheless must replace existing buildings, and growing districts that require frequent new construction;

Proposed Analysis Plan:

This project will consist of the following:

- A literature review
- A quantitative analysis
- A review of state policies (agency records)

Within a state, it is quite common for some school districts to experience rapid growth while other school districts are seeing significant declines in enrollment. As such, state policies must be cognizant of the varying realities faced by school districts. The RFP calls for an evaluation of the impact of increasing and declining enrollments on school systems.

First, we will conduct a literature review on the impacts of enrollment changes on school district finances (3.0 C.3). Specifically, we will review how schools respond in times of change and which types of costs tend to be variable or fixed (at least in the short-run). Additionally, we will analyze the relationship between enrollment patterns and various aspects of school finance using longitudinal data from the Arkansas Department of Education.

The literature review and our analysis will allow us to provide the state with strategies for addressing issues related to increasing or declining enrollment. Additionally, we will examine Arkansas' current practices for using average daily membership (ADM) in funding decisions. This work will be informed by a review of policies in other states regarding enrollment changes.

Using the National Center for Education Statistics’ “Condition of America’s Public School Facilities” as a guide, we will develop a survey for school administrators regarding school conditions (3.0 C. 7). With this and the information gleaned from our literature review and our quantitative analysis of enrollment patterns, we will offer recommendations to ensure state funding is targeted to meet the needs of individual school districts.

Project 10: Best Practices

Scope of Work/Specifications Addressed:

- 3.0 C. 8: Identifying best practices and research-based programs for the best use of poverty funds (NSL), as well as funding methodologies available and necessary for supporting students with additional needs including without limitation physical or mental disabilities, learning disabilities, behavioral issues, economic disadvantages, and English language barriers;
- 3.0 C. 9: Identification and examination of the practices of successful Arkansas schools, including those with large proportions of students with additional needs. The Vendor shall identify practices – financial, instructional, and otherwise – that result in the schools’ high performance;

Proposed Analysis Plan:

This project will consist of the following:

- A Literature Review
- Interviews

To identify the best practices and research-based programs, as called for in the RFP, we will first conduct a literature review (3.0 C. 8). The literature review will focus on policies and programs that support students with diverse student needs and students who are disadvantaged.

Using the value-added measures developed in Project 2, we will develop a list of schools that are “beating the odds.” These will be schools that appear to be performing significantly better than their demographics would predict. Once we have this set of school districts, we will select a sample of these districts and conduct interviews with school personnel (3.0 C.9). In the interviews, we will identify what practices, financial, instructional, and otherwise, contribute to the success of students in the school district. Combined, our literature review and our interviews in school personnel will allow us to provide recommendations on school, district, and state policies which promote student success.

Project 11: Fiscal Impacts of School Choice

Scope of Work/Specifications Addressed:

- 3.0 C. 10: Analysis of the impact of voucher programs and tax credits on funding for public education in the state and in other states;

Proposed Analysis Plan:

This project will consist of the following:

- A literature review
- A quantitative analysis determining the cost and/or cost-savings of the Succeed Scholarship program,
- A quantitative forecast of potential cost and/or cost-savings of a new or expanded voucher program with a broader pool of eligible students,
- A quantitative forecast of potential cost and/or cost-savings of a new tax credit scholarship program, assuming various tax credit levels.

The RFP calls for an analysis of the impact of voucher programs and tax credits on funding for public education in the state (3.0 C. 10). Arkansas’ first voucher program, the Succeed Scholarship, was enacted in 2015 and families were eligible to enroll in 2018.¹ In the 2018-19 school year, roughly 260 students enrolled in the voucher program. To be eligible for the Succeed Scholarship program, students must have an Individualized Education Program (IEP), or be a foster care child living in a group home or facility.² The state currently does not have a tax credit scholarship program.

To analyze the fiscal impacts of the current Succeed Scholarship program, we will require student-level information indicating whether the scholarship recipient was previously enrolled in a public school, whether the student has an IEP, and the scholarship amount. If a scholarship student never attended a public school, and never intended to, the cost associated with the student’s scholarship may be considered a new or additional cost to the state. However, if the scholarship recipient would have attended a public school, the state would have had some cost associated with that child’s education. Using the current state funding formula, we can estimate the cost or cost-savings of the program.

Similarly, we can estimate the cost or cost-savings of a new and/or expanded voucher program with a broader pool of eligible students using a similar methodology. In this case, we will estimate the number of “switchers” based on the current percentage of students in the Succeed Scholarship program who have switched from a public to a private school. We will use bands around this number to provide a range of estimates. A similar approach will be utilized to assess the potential cost and/or cost-savings of a tax credit scholarship program. In this case, we will also provide projections using a variety of tax credit levels, such as a credit of 50, 75, or 100 percent.

[Project 12: Analysis of Waivers](#)

Scope of Work/Specifications Addressed:

- 3.0 C. 11: Assessment of the impact that waivers from state requirements (statute and rules) have on the quality and cost of education, including a recommendation of policy solutions to correct any problems that may be identified;

¹ EdChoice. (2019). Arkansas – Succeed Scholarship Program. Retrieved from: <https://www.edchoice.org/school-choice/programs/arkansas-succeed-scholarship-program-for-students-with-disabilities/>

² Arkansas Department of Education. (2019). Succeed Scholarship. Retrieved from: <http://dese.ade.arkansas.gov/divisions/learning-services/special-education/policy-regulations/succeed-scholarship>

Proposed Analysis Plan:

This project will consist of the following:

- An analysis of agency records
- A quantitative analysis
- A descriptive analysis

Since at least 1995, Arkansas has allowed public schools to apply for and obtain waivers exempting them from certain state education requirements.³ The specifics of what requirements can be waived, and the circumstances in which schools and districts can apply for waivers, have evolved due to legal and legislative decisions. As of 2016-2017, 55 Arkansas schools and 81 of Arkansas' 234 regular school districts were operating under a waiver.⁴ Previously collected data from the State of Arkansas Bureau of Legislative Research show that waivers are most often granted for teacher licensure and curriculum requirements. As outlined in the Education Adequacy Consulting Services Request for Proposals, this work product will both assess the impact waivers are having on the quality and cost of education in Arkansas and offer research-based policy solutions to identified problems.

Using agency records from the State of Arkansas Bureau of Legislative Research, archived state statutes, and the Arkansas Department of Education, we will first examine the full legislative history of waivers in Arkansas in order to establish the context for the quantitative analyses. In this analysis, we will include a full overview of the types of waivers granted and the processes for obtaining them. Next, we will conduct a descriptive analysis of the full history of the usage of waivers by type and school/district type.

Using the data from the descriptive analysis and state academic achievement data, we will attempt to assess the impact of waivers on student achievement and cost. This analysis will be based on the creation of a six-year longitudinal statewide dataset in which both schools and districts are the units of analyses. The six-year timing window was chosen to align with the availability of Arkansas Report Card data from the Arkansas Department of Education. The dataset will include school- and district-level student demographic data, finance data, test score performance data, student attainment data, school typologies (i.e. charter or traditional public), and indicators of the type of waivers obtained. The report will then utilize quantitative methodologies (specifically random-effects regression models) to determine the impact of waiver adoptions on school- and district-level test score and attainment outcomes. Subgroup analyses will also be conducted. Additionally, we will conduct an analysis of the impact of waivers on education cost using the same dataset.

Using all this information, we will provide a list of policy solutions for any problems identified. This work will be informed based on a review of waiver policies in other states, and the results of the analysis.

³ District- and School-Level Waivers, State of Arkansas Bureau of Legislative Research, December 19, 2017: <http://www.arkleg.state.ar.us/education/K12/AdequacyReports/2018/2017-12-19/DistrictAndSchoolLevelWaiversReportBLR15.pdf>

⁴ District- and School-Level Waivers, State of Arkansas Bureau of Legislative Research, December 19, 2017: <http://www.arkleg.state.ar.us/education/K12/AdequacyReports/2018/2017-12-19/DistrictAndSchoolLevelWaiversReportBLR15.pdf>

Project 13: Crosswalk of Picus and Odden Recommendations

Scope of Work/Specifications Addressed:

- 3.0 C. 15: Comparison of the recommendations previously provided to the Committees by Allan Odden and Lawrence Picus and the policy and funding decisions implemented by the Arkansas General Assembly;

Proposed Analysis Plan:

This project will consist of the following:

- A review of agency records

We will review the recommendations previously provided to the Committees by Allan Odden and Lawrence Picus and crosswalk those recommendations to the current funding policies of the State of Arkansas. In this manner, we will highlight which recommendations were embraced fully, partially, or not at all.

Project 14: Convening of Educators

Scope of Work/Specifications Addressed:

- 3.0 C. 16: The convening of panels of educators in the State of Arkansas, which shall occur in a variety of locations throughout the state and seek input on the needs of schools and potential solutions.

Overview:

This project will consist of the following:

- Focus Groups
- Surveys

The RFP calls for the convening of panels of educators in a variety of locations throughout the state. The purpose of the convening is to seek input on the needs of schools and potential solutions. Educators are on the front lines, dealing directly with students and seeing the needs of their communities. Hearing from them is foundational for all the work we propose to do. As such, we will make every effort to hear from teachers, principals, and other educators in every part of the state.

Proposed Analysis Plan:

This project will consist of the following:

- Focus groups with educators
- A survey of educators throughout the state.

We will conduct a total of 10 focus groups with educators, two focus groups in each of the five regions of the state. One of the focus groups in each region will consist only of instructional staff. The other focus group will consist of administrative and support staff. We will start the process by first identifying a site to host the focus groups in each region. After securing the location, a date, and time, we will solicit recommendations to participate in the convening from a

host of education related organizations, such as the Arkansas Education Association and the Arkansas Association of Educational Administrators. Once we have a list of potential attendees, we will send out an invitation to apply. If we have more than the target number of attendees, we will utilize a stratified random sampling technique to select participants for the focus group. This will allow us to ensure we have individuals from various disciplines, schools, races, ethnicities, etc.

Using data collected from the focus groups, we will develop a survey to be sent to educators throughout the state. Again, we will contact a host of organizations to share the survey to increase the response rate.

3.1 Education Adequacy Consulting

I, James V. Shuls, managing member of Shuls and Associates, acknowledge and agree with the requirements set forth in this section.

As requested, I intend to attend various meetings of the Committees and other legislative committees of the Arkansas General Assembly. Given that a significant portion of our research team are based in Arkansas, I anticipate no obstacle in having someone present at any required meeting.

SECTION 4: COST PROPOSAL

I, James V. Shuls, managing member of Shuls and Associates, acknowledge and agree with the requirements set forth in the following sections:

- 4.0 Compensation
- 4.1 Payment Schedule
- 4.2 Travel, Lodging, and Meals

SECTION 5: ADDITIONAL VENDOR REQUIREMENTS

I, James V. Shuls, managing member of Shuls and Associates, acknowledge and agree with the requirements set forth in the following sections:

- 5.0 Comprehensive Vendor Information
- 5.2 General Information
- 5.3 Disclosure of Litigation
- 5.5.1 Background Investigation

The following sections will be addressed in further depth elsewhere in the proposal:

- 5.1 Vendor Profile – Addressed in the Vendor Profile
- 5.4 Executive Summary – Provided at the beginning of this document
- 5.5 Vendor’s Qualifications – Addressed in Vendor Qualifications

5.1 Vendor Profile

Shuls and Associates

Business Name

Shuls and Associates, LLC; Doing business as “Shuls Policy Consulting”

Primary Contact Information and Business Address

James V. Shuls
Managing Member
Shuls and Associates
1720 Briarmanor Dr.
Lake Saint Louis, MO 63367
(417) 425-3086
James@shulsassociates.com

Years in Business

Shuls and Associates is a new firm, organized in August 2019. The firm was specifically developed in order to address the needs in this RFP. Although the firm is new, James Shuls has been engaged in education policy research for the past seven years.

Proof Vendor is qualified to do business in the State of Arkansas

Shuls and Associates is incorporated in the state of Missouri and is registered and in good standing as a foreign LLC within the State of Arkansas, DBA “Shuls Policy Consulting.” See Appendix A for the Certificate of Good Standing issues by the Arkansas Secretary of State.

Corporation Information

Shuls and Associates is organized as a single-member limited liability corporation in the state of Missouri. James V. Shuls is the sole member.

1720 Briarmanor Dr.
Lake Saint Louis, MO 63367

States and Jurisdictions where Shuls and Associates works

Shuls and Associates is registered and in good standing in Missouri and Arkansas.

Currently, the firm has one contract with the Schindler Law Firm in the State of Missouri to provide an analysis of the state’s funding formula.

As an individual, James Shuls has contracted with firms in Washington D.C., Maryland, Indiana, Missouri, and Texas to provide public policy analysis.

States where Shuls and Associates is currently providing similar services

Shuls and Associates is currently contracted with the Schindler Law Firm to conduct an analysis of Missouri’s funding formula. Missouri’s foundation formula for public schools currently calculates a school district’s local effort based on 2005 assessed valuations. There is concern that this has led to greater inequity as property taxes have increased over time, more so in thriving school districts. In this analysis, I am calculating how state aid would be impacted by updating local effort to current levels. Additionally, I am providing recommendations for changing the formula to increase funding equity. This contract was entered in August 2019.

James Shuls is currently contracted as an individual with the following organizations:

- The Show-Me Institute, a 501(c) 3 located in Missouri. Shuls conducts public policy analysis for the institute. In the past, he has authored a primer on Missouri’s funding formula and fiscal notes for school choice programs. Shuls has contracted with the Show-Me Institute for five years.
- American Federation for Children Growth Fund, a 501(c) 3 located in Washington D.C. For AFC, Shuls is using data from the National Center for Education Statistics’ Private School Universe Survey to estimate the total number of available seats in existing public schools in each of the 50 states. Shuls has contracted with AFC three times since 2016.

Disclosures

No member of Shuls and Associates has any known felonies or other criminal offenses, other than a traffic violation.

No member of Shuls and Associates has any bankruptcies, insolvencies, reorganizations, or takeovers to disclose.

Equal Employment Opportunity Policy

Shuls and Associates is committed to maintaining a positive and productive work environment in which all individuals are treated with respect and dignity. Shuls and Associates complies with all applicable laws related to unlawful discrimination in each jurisdiction where the firm operates.

Scope: This policy applies to applicants, employees, and subcontractors of Shuls & Associates.

Policy Statements: Shuls and Associates is an equal opportunity employer and prohibits discrimination against any applicant, employee or subcontractor based on any legally protected characteristic in the locality in which it operates. For example, in the United States, decisions related to recruiting, hiring, promoting, compensation, benefits, training, demotions, terminations, and all other aspects of employment must be made without regard to race, color, age, disability, sex (including pregnancy), childbirth or related medical conditions including but not limited to lactation, sexual orientation, gender identity or expression, veteran or military status, religion, national origin, ancestry, marital or familial status, genetic information, status with regard to public assistance, citizenship status or any other characteristic protected by applicable equal employment opportunity laws. Harassment, threats, bullying, and slurs based on such protected characteristics are also prohibited.

Shuls and Associates prohibits retaliation against any person based upon that individual's complaint of discrimination, participation in any investigation (internal or external) of discrimination, opposition to any act or practice that is discriminatory or reasonably viewed as discriminatory, or exercise of any other right protected by applicable equal employment opportunity laws. For example, an employee may not be terminated, demoted, or disciplined because he or she engaged in these protected activities.

Shuls and Associates undertakes efforts to recruit diverse qualified applicants in compliance with all applicable equal employment opportunity laws.

Shuls and Associates makes reasonable accommodations for the known disabilities of qualified applicants and employees and for sincerely held religious beliefs, unless undue hardship would result.

5.5 Vendor's Qualifications

History of Company

Over the past seven years, James V. Shuls, Ph.D., has established himself as a premier scholar in the school finance community. His interest in finance began while completing his Ph.D. at the University of Arkansas, when one of his professors required him to analyze and explain how the school funding system worked in one state. Upon graduating with his Ph.D. in education policy, Shuls was named the director of education policy at the Show-Me Institute, a non-profit, non-partisan, 501(c)3 think tank, focused on market-oriented solutions to public policy. Quickly, his knowledge of school finance was put to use as he authored a primer on Missouri's foundation formula. His ability to take a complex topic and make it accessible to policymakers and concerned citizens has made the primer one of his most read pieces. Indeed, the primer has been used by many state policymakers (including candidates for governor) to understand how Missouri funds schools.

In addition to his explanation of Missouri's funding formula, as director of education policy, Shuls also conducted a variety of analyses related to school finance. This includes analyzing teacher salaries, examining teacher pension systems, and conducting fiscal analyses of school choice programs.

In 2014, the department chair of Education Leadership and Policy Studies at the University of Missouri-St. Louis took note of Shuls scholarship on school finance matters and recruited him to join the department. As a professor, Shuls has taught courses in school finance, collective bargaining, school facilities, education policy, and program evaluation to aspiring school principals and superintendents. He has also continued to conduct research related to school finance, publishing in journals such as: the *International Review of Accounting, Banking, and Finance*; the *Journal of Education Finance*; the *Kansas Journal of Law & Public Policy*; and *Education Economics*, among others. Additionally, he has authored a chapter on rural school finance in the edited book, "No longer forgotten: The triumphs and struggles of rural education in America."

For his research on inequities embedded in teacher pension systems, Shuls was awarded the University of Missouri – St. Louis' "Junior Investigator of the Year" award in 2017. This is the highest research award the university gives to junior faculty members, pre-tenure.

Shuls understanding of school funding formulas and school finance issues brought him to the attention of the lawyers representing the State of New Mexico in the school finance case, *Martinez, et al./Yazzie, et al. v. The State of New Mexico*. The plaintiffs in the case were using a costing out study conducted by American Institutes for Research (AIR) to make the claim that the state was underfunding education. The study primarily utilized a professional judgement approach to estimate the cost of an adequate education. In 2017, Shuls was retained by the state's attorneys to analyze the AIR report and offer expert testimony. Shuls testimony regarding the Professional Judgement methodology, in part, led the court to conclude, the methodology "struck the Court as being one where a collective wish list was compiled and then reduced based on political reality."

In his written testimony to the New Mexico court, Shuls noted “the Professional Judgment methodology has significant potential for bias among the study’s participants and it is not replicable.” Moreover, he showed that “Professional Judgment studies consistently produce adequacy estimates that are biased upwards.” Importantly, he noted that every single Professional Judgment study, so far as he could find, found that states needed to spend significantly more money than they were currently spending. Moreover, the Professional Judgment approach consistently produced adequacy estimates that were significantly larger than all other costing-out methods.

In many ways, Shuls’ experience in the New Mexico case led to the formation of Shuls and Associates. At this time, there are only a handful of firms that states can turn to for analysis of school finance issues. Most of these firms continue to utilize these flawed methods to analyze state spending. Shuls believes in using methodologically sound research methods to inform public policy. To that end, he created Shuls and Associates to provide rigorous analysis of education policy and school finance issues.

Plan for Assisting the Committees

In addition to executing the analysis plan laid out in this proposal, Shuls and Associates is committed to assisting the Committees in meeting their goals and objectives. A member of our team will be available to attend any requested meeting. James Shuls will typically attend these meetings. In his absence, a member of the Office for Education Policy will fill in. The OEP’s proximity to Little Rock allows them to respond on relatively short notice and to be readily available to the Committees.

Three Most Recent Comparable Contracts and References

Client: Schindler Law Firm
Contact: Joshua Schindler
Dates: August 2019 – Present
Email: josh@shindlerlawfirm.com
Phone: (314) -862-1411

Scope of Work: Shuls and Associates is currently contracted with the Schindler Law Firm to conduct an analysis of Missouri’s funding formula. Missouri’s foundation formula for public schools currently calculates a school district’s local effort based on 2005 assessed valuations. There is concern that this has led to greater inequity as property taxes have increased over time, more so in thriving school districts. In this analysis, I am calculating how state aid would be impacted by updating local effort to current levels. Additionally, I am providing recommendations for changing the formula to increase funding equity. This contract was entered in August 2019. See Appendix B for a sample of the work being conducted.

Client: Maryland Public Policy Institute

Contact: Christopher Summers

Dates: February 2018 – June 2018

Email: csummers@mdppolicy.org

Phone: (240) 686-3510

Scope of Work: James Shuls contracted with the Maryland Public Policy Institute as an individual. From 1998 to 2014, Maryland public schools increased spending on operating expenses by \$3.8 billion in inflation adjusted dollars. In 2016, the Maryland legislature established the Commission on Innovation and Excellence in Education to review the findings of the state's adequacy study conducted by Augenblick Palaich and Associates and to provide suggestions for revising the state's funding system. In 2018, the commission released a preliminary report calling for a host of reforms and new spending items.

The Maryland Public Policy Institute is a 501(c)3 public policy think tank and is considered a fiscal watch dog in the state. Given the extensive recommendations of the commission's report, the Institute wanted an education expert to conduct an independent analysis of the commission's recommendations. As such, I entered into a contract with the Institute and authored "An Analysis of the Kirwan Commission Recommendations." You can see this report in Appendix C.

Client: Show-Me Institute

Contact: Brenda Talent

Dates: August 2014 – Current

Email: brenda.talent@showmeinstitute.org

Phone: (314) 454-0647

Scope of Work: The Show-Me Institute, a 501(c) 3 located in Missouri. For the past five years, James Shuls has contracted with the Institute as an individual to provide public policy analysis. In the past, he has authored a primer on Missouri's funding formula and fiscal notes for school choice programs. When invited, Shuls has also provided testimony to the state's legislative bodies. In Appendix C, you will find Shuls testimony, "Fiscal Notes for Education Savings Accounts (ESAs) Fail to Account for Cost Savings. In this piece, he uses his knowledge of the state's funding formula to demonstrate how the state should calculate potential cost savings of school choice programs.

Shuls and Associates Key Staff

James V. Shuls, Ph.D., will serve as the leader of the project. Shuls is an assistant professor of educational leadership and policy studies at the University of Missouri – St. Louis. In this capacity, he teaches courses in program evaluation, education policy analysis, and school finance. At the University, he also serves as the education leadership graduate program director and the associate chair of Educator Preparation and Leadership department. Shuls has conducted education policy consulting for seven years. His knowledge of Missouri's funding formula, as well as the primer he wrote on the topic, have made him a go to source for many policymakers within the state. He has published in numerous peer-reviewed journals, such as the *Journal of Education Finance*, *Educational Policy*, *Education Economics*, *Social Science Quarterly*, and the

International Review of Accounting, Banking and Finance. Shuls is a member of the Association for Education Finance and Policy and Missouri Professors of Education Administration.

Office for Education Policy Key Staff

Opened in the fall of 2003, the Office for Education Policy (OEP) is an applied research center in the College of Education and Health Professions at the University of Arkansas. The OEP's staff includes faculty members, research associates, and graduate students who specialize in education research and policy.

The OEP's mission is to serve as a resource to Arkansas' lawmakers, educators, administrators, and other stakeholders to support them in thoughtful decision-making concerning K-12 education in the State of Arkansas. We seek to help the state's education leaders bridge the gap between research and practice by providing them with timely, actionable information and advice on current education policy issues.

Address

214 Graduate Education Building
University of Arkansas
Fayetteville, AR

Primary Contact

Josh McGee
JoshMcGee@uark.edu
(479) 575-3773

The Office for Education policy will conduct the analyses on Projects 1, 2, 6, and 7, and will provide critical review on other projects. Key staff include:

Joshua B. McGee, Ph.D., will serve as the chief economist on the project. McGee is associate director of the Office for Education Policy and a research assistant professor in the Department of Education Reform at the University of Arkansas. He is also a senior fellow at the Manhattan Institute. McGee is an economist whose work focuses on evidence-based policy and public finance. His research investigates issues related to retirement policy, K–12 education, and economic development and has been published in many popular media outlets and scholarly journals. He has deep experience both in the non-profit and government sectors. His experience includes nearly a decade as an executive at the Laura and John Arnold Foundation and as chairman of the Texas State Pension Review Board where he was appointed by Governor Greg Abbott. He currently serves on the boards of EdBuild, a non-profit focused on school finance issues, MDRC, and the Equable Institute.

Sarah McKenzie, Ph.D., is Executive Director of the [Office for Education Policy](#) at the University of Arkansas. Sarah received her PhD from the University of Arkansas in Educational Statistics and Research Methods in 2009 and was awarded a Walton Foundation Doctoral Fellowship Award. She received her Master of Arts in Early Childhood Education from Mills College in 1994 and her B.A. in Literature from Claremont McKenna College.

Originally from Arizona, Dr. McKenzie was most recently the Director of Assessment, Research and Accountability for Fayetteville Public Schools. Sarah is a certified Phi Delta Kappa International Curriculum Auditor and has presented at conferences nationally and internationally on educational statistics. Previous experience includes the National Office for Research on Measurement and Evaluation Systems, Central's Center for Children, and San Ramon Valley Unified School District in California.

Robert Costrell, Ph.D., is Professor of Education Reform and Economics and holds the Endowed Chair in Education Accountability at the University of Arkansas. His recent research topics include teacher pension policy, fiscal impact of school choice, and methodologies for school funding estimation.

Professor Costrell has both an academic and policy-making background. His academic career has featured seminal publications on teacher pensions, the economic theory of educational standards, income distribution and testing, and school finance litigation. These have appeared in the *American Economic Review*, the *Journal of Political Economy*, the *Journal of Public Economics*, the *Journal of Pension Economics and Finance*, and *Education Finance and Policy*, as well as general interest publications, such as *Brookings Papers on Education Policy* and *Education Next*.

From 1999 to 2006, Dr. Costrell served in major policy roles for three governors of Massachusetts, including policy research director and chief economist, with a focus on education policy as that state's landmark reforms were implemented. As education advisor to Governor Mitt Romney, he helped develop the governor's comprehensive proposal for a second round of education reform in 2005 and led the reforms of the state's district and charter funding formulas. In 2003, Dr. Costrell's extensive expert testimony in Massachusetts' school finance case (*Hancock v. Driscoll*) proved critical to the successful defense of that state's education reform program. He represented the administration on the Public Employee Retirement Administration Commission (2001-03) and the Massachusetts School Building Authority (2005-06).

Dr. Costrell has served on the U.S. Department of Education's Advisory Council on Education Statistics, appointed by Secretary Paige (2001-02) and the National Technical Advisory Council for NCLB (2008-09), appointed by Secretary Spellings.

[Independent Consultants](#)

Shaun M. Simms, PMP, SA, CSSGB is a Director, Supply Chain Project Management at a Fortune 20 company. He will serve as Program Director on this evaluation. Shaun currently leads a multi-million dollar portfolio of projects, aimed at making prescription drugs safer and more affordable. With over 10 year of experience in portfolio, program, and project management, his career project portfolio is over \$250m dollars. In 2018, he was named the Project Management Institute of Metro St. Louis "Project Leader of the Year" for his leadership in The Bloom Café, a social enterprise providing individuals with disabilities career training, career experience, and career placement. Shaun has also spoken at local, regional, and national project management conferences, and is on the Project Management Institute Metro St. Louis Board of Directors. He

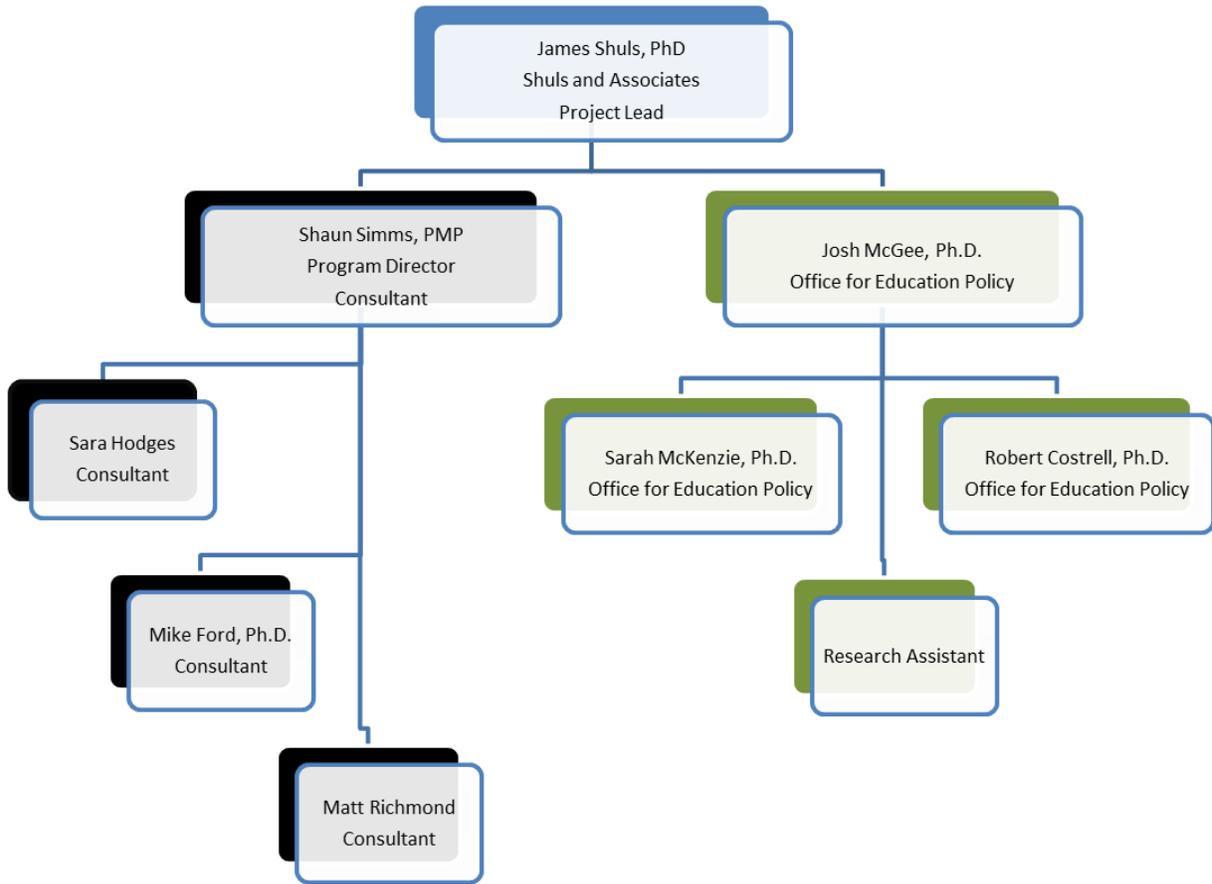
holds a Bachelor's in Business Administration, along with a Master's of Science in Administration from Lindenwood University.

Michael Ford, Ph.D., will lead Project 12 – Analysis of Waivers. Michael is an associate professor of public administration at the University of Wisconsin at Oshkosh. As a professor, Ford teaches courses in analytic methods for public administration, public budgeting and financial management, as well as a variety of other public administration courses. His research focuses on education finance policy and law, education reform, board governance, and legislative fiscal note practices. Ford is an active member in public administration professional societies. In 2016, he was named an American Society for Public Administration Founders' Fellow.

Sara Hodges will provide general research support and data visualization. Sara is currently the Director of Data & Visualizations at EdBuild. She leads the team that analyzes large, complex datasets and turns them into compelling stories and visualizations. Prior to EdBuild, she had an environmental mapping consultancy and worked on projects with the United Nations Environment Programme, New York Hall of Science, Carnegie Museum of Natural History, and others. She received a master's degree in Geography from CUNY Hunter College and a bachelor's degree in Mathematics from Colorado College.

Matt Richmond will provide general research support. He is currently the Chief Program Officer at EdBuild, a nonprofit focused on bringing common sense and fairness to the way states fund public schools. He is the author of *The Hidden Half: School Employees Who Don't Teach* and co-author of *Financing the Education of High-Need Students*; his work has been featured on NPR: Marketplace, The Huffington Post, RealClear Politics, Education Week, and other media outlets. At EdBuild, Matt manages all program-related activities, including state partnerships related to education-finance reform and national-level research. Prior to EdBuild, Matt worked as an adviser to the Government of Malawi on civil-service reform, through a Fulbright Fellowship, and was a research analyst at the Thomas B. Fordham Institute. He received a master's degree in international development from the University of Pittsburgh and a bachelor's in political science and economics from the University of North Carolina at Chapel Hill.

Organizational chart of the project



SECTION 6: EVALUATION CRITERIA FOR SELECTION

I, James V. Shuls, managing member of Shuls and Associates, acknowledge and agree with the requirements set forth in the following sections:

6.0 Generally

6.1 Evaluation Criteria

APPENDIX A:
CERTIFICATE OF GOOD STANDING



Arkansas Secretary of State John Thurston

State Capitol Building ♦ Little Rock, Arkansas 72201-1094 ♦ 501-682-3409

Certificate of Good Standing

I, John Thurston, Secretary of State of the State of Arkansas, and as such, keeper of the records of domestic and foreign corporations, do hereby certify that the records of this office show

SHULS POLICY CONSULTING

formed under the laws of the state of Missouri, and authorized to transact business in the State of Arkansas as a Foreign Limited Liability Company, was granted a Registration of Foreign Limited Liability Company by this office September 13, 2019.

Our records reflect that said entity, having complied with all statutory requirements in the State of Arkansas, is qualified to transact business in this State.



In Testimony Whereof, I have hereunto set my hand and affixed my official Seal. Done at my office in the City of Little Rock, this 16th day of September 2019.


John Thurston
Secretary of State

Online Certificate Authorization Code: 613869e8bb906b8

To verify the Authorization Code, visit sos.arkansas.gov

APPENDIX B:
CONTRACT AND GRANT DISCLOSURE CERTIFICATION FORM

CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM

Failure to complete all of the following information may result in a delay in obtaining a contract, lease, purchase agreement, or grant award with any Arkansas State Agency.

SUBCONTRACTOR: _____

Yes No

IS THIS FOR:

TAXPAYER ID NAME: Shuls and Associates, LLC Goods? Services? Both?

YOUR LAST NAME: Shuls FIRST NAME: James M.I.: V

ADDRESS: 1720 Briarmanor Dr.

CITY: Lake Saint Louis STATE: MO ZIP CODE: 63367 ... COUNTRY: USA

AS A CONDITION OF OBTAINING, EXTENDING, AMENDING, OR RENEWING A CONTRACT, LEASE, PURCHASE AGREEMENT, OR GRANT AWARD WITH ANY ARKANSAS STATE AGENCY, THE FOLLOWING INFORMATION MUST BE DISCLOSED:

FOR INDIVIDUALS *

Indicate below if: you, your spouse or the brother, sister, parent, or child of you or your spouse is a current or former: member of the General Assembly, Constitutional Officer, State Board or Commission Member, or State Employee:

Position Held	Mark (✓)		Name of Position of Job Held <small>(senator, representative, name of board/ commission, data entry, etc.)</small>	For How Long?		What is the person(s) name and how are they related to you? <small>(i.e., Jane Q. Public, spouse, John Q. Public, Jr., child, etc.)</small>	Relation
	Current	Former		From MM/YY	To MM/YY		
General Assembly	<input type="checkbox"/>	<input type="checkbox"/>					
Constitutional Officer	<input type="checkbox"/>	<input type="checkbox"/>					
State Board or Commission Member	<input type="checkbox"/>	<input type="checkbox"/>					
State Employee	<input type="checkbox"/>	<input type="checkbox"/>					

None of the above applies

FOR AN ENTITY (BUSINESS) *

Indicate below if any of the following persons, current or former, hold any position of control or hold any ownership interest of 10% or greater in the entity: member of the General Assembly, Constitutional Officer, State Board or Commission Member, State Employee, or the spouse, brother, sister, parent, or child of a member of the General Assembly, Constitutional Officer, State Board or Commission Member, or State Employee. Position of control means the power to direct the purchasing policies or influence the management of the entity.

Position Held	Mark (✓)		Name of Position of Job Held <small>(senator, representative, name of board/ commission, data entry, etc.)</small>	For How Long?		What is the person(s) name and what is his/her % of ownership interest and/or what is his/her position of control?		
	Current	Former		From MM/YY	To MM/YY	Person's Name(s)	Ownership Interest (%)	Position of Control
General Assembly	<input type="checkbox"/>	<input type="checkbox"/>						
Constitutional Officer	<input type="checkbox"/>	<input type="checkbox"/>						
State Board or Commission Member	<input type="checkbox"/>	<input type="checkbox"/>						
State Employee	<input type="checkbox"/>	<input type="checkbox"/>						

None of the above applies

Contract and Grant Disclosure and Certification Form

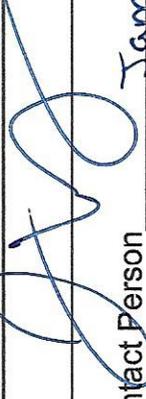
Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this contract. Any contractor, whether an individual or entity, who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the agency.

As an additional condition of obtaining, extending, amending, or renewing a contract with a state agency I agree as follows:

1. Prior to entering into any agreement with any subcontractor, prior or subsequent to the contract date, I will require the subcontractor to complete a **CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM**. Subcontractor shall mean any person or entity with whom I enter an agreement whereby I assign or otherwise delegate to the person or entity, for consideration, all, or any part, of the performance required of me under the terms of my contract with the state agency.
2. I will include the following language as a part of any agreement with a subcontractor:

Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this subcontract. The party who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the contractor.
3. No later than ten (10) days after entering into any agreement with a subcontractor, whether prior or subsequent to the contract date, I will mail a copy of the **CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM** completed by the subcontractor and a statement containing the dollar amount of the subcontract to the state agency.

I certify under penalty of perjury, to the best of my knowledge and belief, all of the above information is true and correct and that I agree to the subcontractor disclosure conditions stated herein.

Signature  Title Managing Member Date 9/18/2019
Vendor Contact Person James Shuls Title Managing Member Phone No. (417)425-3086

Agency use only

Agency Number _____ Agency Name _____

Agency Contact Person _____

Contact Phone No. _____ Contract or Grant No. _____

APPENDIX C:
ANALYSIS OF MISSOURI'S FOUNDATION FORMULA

Analysis of Missouri's Foundation Formula

James V. Shuls, Ph.D.

(This is a first draft of an ongoing project)

Prepared for Joshua Schindler, Esq.
The Schindler Law Firm
141 N. Meramec, Suite 201
St. Louis, MO 63105

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1.0 Introduction

Passed in 2005, Senate Bill 287 sought to remake Missouri’s funding formula for public education. The summary of the bill sums up the desire of the new funding model, “Currently, the state’s education formula is essentially an equalized tax-rate driven formula, meaning that the formula provides a certain amount of money per student, per penny of tax rate. This act seeks to transition the state away from this tax-rate driven philosophy to a formula that is primarily student-needs based.”¹ By changing the funding formula, the state was hoping to achieve two goals. First, the state wanted to ensure that each school district received an *adequate* amount of funds to educate students. Second, the state sought to increase *equity* among school districts.

Four basic parts in the funding formula help determine how much state aid a school district will receive: weighted average daily attendance (WADA), the dollar value modifier (DVM), the state adequacy target (SAT), and local effort. The state uses WADA instead of enrollment or average daily attendance in an effort to provide additional assistance to school districts with high concentrations of students with special needs or from disadvantaged backgrounds, these students are “weighted” and count as more than one student in districts with high concentrations. As such, WADA helps to increase equity in the funding formula. The DVM is an adjustment which provides school districts additional funds if they are in areas with a higher cost-of-living, such as Kansas City and Saint Louis. The SAT is the dollar amount the state has determined is an “adequate” amount of funding to educate a child. By multiplying WADA by the DVM and the SAT, we determine how much revenue a school district should have to educate each child in the school district.



In Missouri, the funding formula relies on both local and state dollars. To determine how much the state should provide the school district, the state subtracts out how much revenue a school district can raise locally. Here again is a way in which the funding formula increases equity among school districts. School districts in more affluent parts of the state will have higher property values and, therefore, will have higher local effort than districts in less affluent areas. As a result, the state provides more assistance to needier school districts.

Unlike the other portions of the formula, however, local effort is not a “true” estimate of how much school districts raise locally. Local effort is derived by multiplying a district’s 2005 assessed valuation by what is known as the performance levy, \$3.43 per \$100 of assessed valuation. Residents in school districts can choose to tax themselves more or less than the performance levy. In 2018, 2016 of 515 school districts taxed themselves at a rate lower than \$3.43.

In this analysis, we are not concerned with the variation in actual revenue and the formula estimated revenue caused by differences in tax rates. After all, school districts and their residents

have the ability to set these rates and are, to some extent, responsible for this variation. Using a property tax assessment fixed to 2005 valuations, however, is a matter of state policy. It is possible that this policy could lead, over time, to greater inequities in the state’s funding formula.

1.1 Understanding Local Effort

Take for example two hypothetical school districts (Table 1). Both school districts have a WADA of 1,000 and are in an area with a DVM of 1.0. In 2005, these two hypothetical school districts even had the same assessed valuation, \$50,000,000. As a result, they receive an equal allotment of funds from the state through the funding formula, \$4.593 million. Over time, however, the assessed valuation of property grows at a slower rate in one district. By 2018, the low growth district’s assessed valuation is \$75 million, while the high growth district’s AV is \$100 million. Yet, since the formula is based on 2005 property values, the two districts will continue to receive the same amount of state funding, \$4.593 million. As a result, the high growth school district will now have \$858,000 less than the low growth district, a difference of \$858 per pupil

Table 1: Impact of Changes in Assessed Valuation in Two Hypothetical School Districts

		Low Growth District	High Growth District
District Characteristics	WADA	1,000	1,000
	DVM	1.0	1.0
	SAT	\$6,308	\$6,308
	Total Needed (WADA x DVM x SAT)	\$6,308,000	\$6,308,000
<hr/>			
Revenue Calculation Using 2005 Assessed Valuation	Assessed Valuation 2005	\$50,000,000	\$50,000,000
	Performance Levy	\$3.43 per \$100 of assessed valuation	\$3.43 per \$100 of assessed valuation
	Local Effort	\$1,715,000	\$1,715,000
	State Aid	\$4,593,000	\$4,593,000
	Total Revenue	\$6,308,000	\$6,308,000
<hr/>			
Revenue Calculation Using Actual Local Effort and State Aid Based on 2005 Assessed Valuation	Assessed Valuation 2018	\$75,000,000	\$100,000,000
	Local Effort	\$2,572,500	\$3,430,000
	State Aid	\$4,593,000	\$4,593,000
	Total Revenue	\$7,165,000	\$8,023,000

This example is a bit simplistic, but it illustrates the issue at hand. If the state continues to hold local effort constant, at 2005 levels, the funding formula will increasingly favor school districts with higher rates of growth in assessed valuation. These tend to be wealthier school districts. The formula will increasingly become less progressive. On average, from 2005 to 2018, school district assessed valuations increased by 67.7 percent.¹ These changes, however, were not uniform. At the 25th percentile, districts saw an increase in assessed valuation of 63.0 percent; at the 75th percentile the increase was 72.7 percent. At the top, the 99th percentile almost doubled assessed valuation, 95.0 percent.

1.2 Hold-Harmless

When the legislature enacted the current foundation formula, it included a hold-harmless provision. Often, hold-harmless provisions are instituted as a political compromise. These provisions are a way to ensure school districts will not lose funds when switching to a new formula. Policymakers may choose to sunset hold-harmless provisions over time or to phase them out. No such provision was included in Missouri's hold-harmless clause.

Under the foundation formula, Missouri public school districts can choose if they want to be a "formula" district or if they wish to be held-harmless.² Districts make this decision annually. If a school district would have received more funds under the old funding formula, as compared to the new formula, the district chooses to be held-harmless. Essentially, this is a guarantee that a school district's funding will not decline below what they received prior to the switch to the current formula. Each year, roughly one-third of all public school districts are held-harmless.

There are two different types of hold-harmless provisions, depending on school district size. School districts with fewer than 350 students are guaranteed the exact same amount of total state aid as they received in 2005-06. Meanwhile, school districts with more than 350 students are guaranteed they will receive the same amount of funding per-pupil.

1.3 Overview of Paper

This paper seeks to estimate the level to which the current funding formula, with a fixed local effort, has, over time, led to increased funding for some school districts. I do this in two ways. First, I estimate the impact of updating how local effort is calculated. Instead of using assessed valuation from 2005, as is the current practice, I estimate how much state aid each school district would receive if 2018 assessed valuations were used to calculate local effort. Because assessed valuation tends to increase over time, a drop in state aid should be expected by this change.

To offset the drop in state aid, I demonstrate the impact of moving to a dynamic funding formula that would be capable of annually updating local effort while maintaining a consistent level of state funding. To do this, the SAT would need to be adjusted upwards. In this analysis, I adjust the SAT to a level that will keep the total amount of state formula aid almost constant.

¹ This figure represents the average district, not the state average.

2.0 Calculating State Aid Using 2018 Assessed Valuation

In the funding formula, the first three parts (WADA, DVM, SAT) determine how much revenue a school needs to adequately educate a student. The fourth part, local effort, nets out how much of that revenue could be raised locally if the school district were to have an assessed valuation of \$3.43 per \$100 of assessed valuation. It should go without saying but changing any one part of this formula would lead to changes in the amount of funds the state provides to school districts. If WADA, the DVM, or the SAT are increased, required state aid would increase, and vice versa. Similarly, if local effort were to increase, the required amount of state aid would decrease. The local school districts would be providing more funds for schools and the state would be able to spend less.

The first key question I answer in this paper is, “What would happen if the formula used 2018 assessed valuation instead of 2005 assessed valuation to determine local effort?”

To answer this research question, data were obtained via DESE.³ These data include the assessed valuation of each school district for the years 2005 and 2018. Assessed valuation is a key component in calculating a school district’s local effort. DESE also provided Excel workbooks which provided all the necessary parts to calculate state aid for each school district, including the 2018 WADA, the DVM, and the SAT.

2.1 Methods for Updating Local Effort

To calculate how much state aid would be required, I had to first update local effort to 2018 levels. Step one in this process was to multiply 2018 AV by the performance levy (\$3.43 per \$100 of assessed valuation). Next, I deducted the tax collection fees from the revenue received based on the performance levy. This yielded the local property tax effort. This was then added to the portion of funds received from Prop C, the state sales tax, which are counted as local dollars. The sum of these two figures provided the local effort based on 2018 property tax values.

As we might expect, AV generally increased from 2005 to 2018. Just four school districts saw a decline in assessed valuation from 2005 to 2018.² As a result, if we used 2018 AV instead of 2005, we would see an increase in local effort. On average, local effort would increase by \$1.95 million. In total, it would increase by over \$1 billion. The largest increase occurred in the Parkway School District, which saw an increase in local effort of \$41.5 million.

2.2 Methods for Updating State Aid

Once local effort was calculated, I inserted it into the funding formula to determine how much state aid a school district would receive if the AV were updated from 2005 to 2018. To determine state aid, WADA is multiplied by the DVM and the SAT to provide the District Total Modified SAT. Next, I deducted the updated local effort. Then, I determined if the school district would be eligible to be held-harmless. This occurs if the district’s 2005 state aid is higher than the new 2018 state aid.

² Riverview Gardens, Campbell R-II, New Madrid, and South Iron.

2.3 Impact of Updating Local Effort

As noted, between 2005 and 2018 all but four school districts saw an increase in overall assessed valuation. Thus, if the formula were updated to use 2018 AV instead of 2005 AV, the level of state aid would be reduced significantly. In Table 2, I present the current calculation of required state aid, which uses 2005 AV, and a projected calculation of required state aid if 2018 AV were to be used. These calculations use the current SAT of \$6,308. In 2018, using 2005 AV, the state funding formula called for \$3.368 billion for school districts. This was the equivalent of \$3,693.44 per WADA. At this time, 186 school districts were held-harmless, meaning they were not on the current formula. They were guaranteed the same level of funding they received under the previous formula.

Table 2: Comparison of State Aid using Assessed Valuation from Different Years

	Total State Aid	Per WADA aid	Districts Gaining Funds	Districts Losing Funds	Number of Hold-Harmless Districts
Using AV FY 2005	\$3,367,931,220	\$3,693.44	NA	NA	186
Using AV FY 2018	\$2,823,591,061	\$3,096.49	0	330	328

If the AV were updated to 2018, and this were the only change in the formula, total state aid would drop by \$544 million to \$2.824 billion. The per WADA amount would be \$3,096.49. In this scenario, 328 school districts would qualify for hold-harmless status. This indicates they received more funding per pupil in 2005 than they would receive under this new formula. In total, 330 school districts would see a decline in state aid. As expected, no school district would be better off in this scenario. School districts with higher AV would have higher local effort in the formula and would receive less state funding. The current formula already adjusts when property values decrease, therefore, these districts would not see any gain in only adjusting AV to 2018 levels.

Table 3 displays the school districts that would see the largest decline in overall state dollars if the state went from using 2005 AV to the 2018 AV. Not surprisingly, these tend to be larger school districts in areas of the state that are growing. Wentzville, for example, has been one of the fastest growing school districts in the state. They would receive \$34.4 million less if the formula was updated to 2018 AV.

Table 3: Top 10, Change in State Revenue if 2018 AV is Used in Funding Formula

WENTZVILLE R-IV	\$(34,435,358.00)
SPRINGFIELD R-XII	\$(28,289,347.00)
FT. ZUMWALT R-II	\$(19,937,733.00)
PARK HILL	\$(19,343,699.00)
ROCKWOOD R-VI	\$(16,098,036.00)
LEE'S SUMMIT R-VII	\$(15,855,691.00)
COLUMBIA 93	\$(12,107,748.00)
LIBERTY 53	\$(11,223,483.00)
BLUE SPRINGS R-IV	\$(10,144,834.00)
NORTH KANSAS CITY 74	\$(9,856,490.00)

2.4 Summary and Conclusions

In this section, I have shown what would happen if the state were to update the funding formula to rely on 2018 AV instead of being fixed at 2005 levels. Not surprisingly, a majority of school districts would see a decline in state revenue. This is because their AV is higher in 2018 and as a result, so is their local effort. If local effort increases, without a change to any other part of the formula, state aid will decrease.

In this section, I have described the changes as resulting in a “loss” of revenue for school districts. That is how this type of change would be perceived by public school officials. Another way to look at this is that the state may be overfunding some school districts and underfunding others. By keeping local effort static, fixed to 2005 AV, state funding does not decrease in school districts that are becoming increasingly wealthy. This can lead to greater inequities over time. If instead the funding formula were dynamic, it would be possible to shift state funding from school districts that are experiencing an increase in local effort to those who are experiencing less growth in local effort. This is what I explore in the next section.

3.0 Calculating State Aid Using 2018 Assessed Valuation and Updating SAT

Our current formula is static when it comes to assessing local effort.³ Over time, this leads to the state providing greater support for flourishing school districts than they otherwise would under other funding systems. For instance, if the state used current year AV, it could adjust the SAT to offset any state aid that would be “lost” by school districts. Doing so would allow the state to maintain the same amount of total state aid, meaning this proposed change would be revenue neutral.⁴

3.1 Methods for Calculating State Aid Using a Dynamic Formula

In the previous section, I detailed how I updated the formula to use 2018 AV. Doing so led to a precipitous drop in state aid, as local effort increased in all but four school districts. Using that

³ The formula does allow for local effort to adjust if a school district loses assessed valuation.

⁴ The state could still have a mechanism in place to allow state aid to increase and keep pace with inflation.

information, I calculated what the new SAT would have to be to maintain the total level of state aid. I identified \$7,237.69 as the SAT that would provide an almost identical amount of total state aid while using 2018 AV.

3.2 Moving to a Dynamic Funding Formula, using 2018 AV and Adjusting the SAT

In Table 4, I present total state aid under the current static funding formula, which uses 2005 assessed valuation, and a dynamic formula which uses 2018 AV and adjusts the SAT to maintain the same level of funding. By moving to this formula, 111 school districts would see a decline in state funding; while 241 school districts would see an increase in state funds. The total number of school districts held-harmless would increase from 186 to 190.

Table 4: Updating AV to 2018 while Adjusting SAT to be Revenue Neutral (\$7,237.69)

	Total State Aid	Per WADA aid	Districts Gaining Funds	Districts Losing Funds	Number of Hold-Harmless Districts
Using AV FY 2005	\$3,367,931,220	\$3,693.44	NA	NA	186
Using AV FY 2018	\$3,367,933,024	\$3,693.45	241	111	190

In Table 5, I highlight the ten districts receiving the largest total increase in funds and the largest decrease in funds under this proposed plan.

Table 5: Biggest Winners and Losers

Districts Receiving an Increase in State Aid	Amount of Change	Districts Receiving a Decrease in State Aid	Amount of Change
HAZELWOOD	\$15,243,753	WENTZVILLE R-IV	\$(17,979,613)
NORTH KANSAS CITY 74	\$10,973,596	ROCKWOOD R-VI	\$(16,098,036)
RAYTOWN C-2	\$7,559,750	PARK HILL	\$(12,140,559)
INDEPENDENCE 30	\$6,265,645	COLUMBIA 93	\$(12,107,748)
RITENOUR	\$5,815,623	SPRINGFIELD R-XII	\$(9,386,543)
RIVERVIEW GARDENS	\$4,697,744	FRANCIS HOWELL R-III	\$(9,312,387)
FERGUSON-FLORISSANT R-II	\$4,331,640	FT. ZUMWALT R-II	\$(9,299,713)
ST. LOUIS CITY AND LEA CHARTER SCHOOLS	\$3,981,854	LEE'S SUMMIT R-VII	\$(6,221,414)
CARTHAGE R-IX	\$3,406,877	MEHLVILLE R-IX	\$(4,783,574)
ST. JOSEPH	\$3,289,646	WEBSTER GROVES	\$(4,640,818)

3.3 Demographic Characteristics of School Districts with Revenue Changes

By relying on a static year to calculate local wealth, rather than a dynamic model which regularly updates local effort and adjusts the SAT to maintain a similar level of state funding, the state

provides additional assistance to school districts that experience more growth in assessed valuation. As we might expect, these school districts, on average, are different from other school districts. In Table 6, I present descriptive statistics of school districts that would stand to gain state aid by moving to a dynamic model, districts whose state aid would remain unchanged, and districts that would experience a decline in state aid.

On average, districts gaining and losing state aid under this proposed plan are similar in size. The key difference is in terms of assessed valuation and student characteristics. Districts gaining aid have an assessed valuation per pupil that is 55 percent of the assessed valuation per pupil in school districts losing state aid, on average. Districts gaining aid also tend to have a higher percentage of minority students and a higher percentage of students qualifying for free or reduced price lunches (FRPL). In short, this funding model would provide additional assistance to school districts that are less well-financed and that have a more disadvantaged student body.

Table 6: Descriptive Statistics of School Districts based on Proposed Dynamic Model of Calculating Local Effort

	Districts Gaining State Aid	Districts with no Change in State Aid	Districts Losing State Aid
Number of Districts	241	164	111
Total Group WADA	478,214	95,668	337,986
Average District WADA	10,509	4,824	10,375
Median District WADA	825	215	1,058
Average Assessed Valuation (in thousands of dollars)	\$75.5	\$259.1	\$136.7
Average Percentage of Minority Students	37.6%	26.8%	19.3%
Average Percentage of Students Eligible for FRPL	57.1%	40.9%	34.6%
Average Percentage of 8 th Graders Scoring Proficient or Advanced (ELA)	52.9%	60.9%	65.9%
Average Percentage of 8 th Graders Scoring Proficient or Advanced (Math)	26.1%	25.9%	29.5%

It is important to note the districts that would not gain or lose any revenue under this proposed funding model tend to be more affluent than either of the other two groups, on average. This group also tends to be comprised of relatively smaller school districts. All 164 school districts in this group are currently held-harmless. Their funding does not change by updating to 2018 levels because they are already at the guaranteed minimum assistance that they can expect from DESE.

To change that, we would also have to update the hold-harmless provision. That, currently, is outside the scope of this work.

In the figures that follow, I present scatterplots of the change in revenue, from the current method of using 2005 assessed valuation to determine local effort and the proposed update to 2018 levels and the corresponding change to the SAT, and various district characteristics. In each of these, I remove the school districts who do not experience a change in revenue. Doing so allows us to visually see more clearly the patterns that emerge from these changes. As the figures make clear, there is a negative relationship between assessed valuation and change in state aid, as AV increases state aid decreases. The relationship between student characteristics and change in aid are less pronounced, but still present clear relationships. The size of the circles indicates the size of the school district.

Figure 1: Change in Aid and Assessed Valuation per Wada

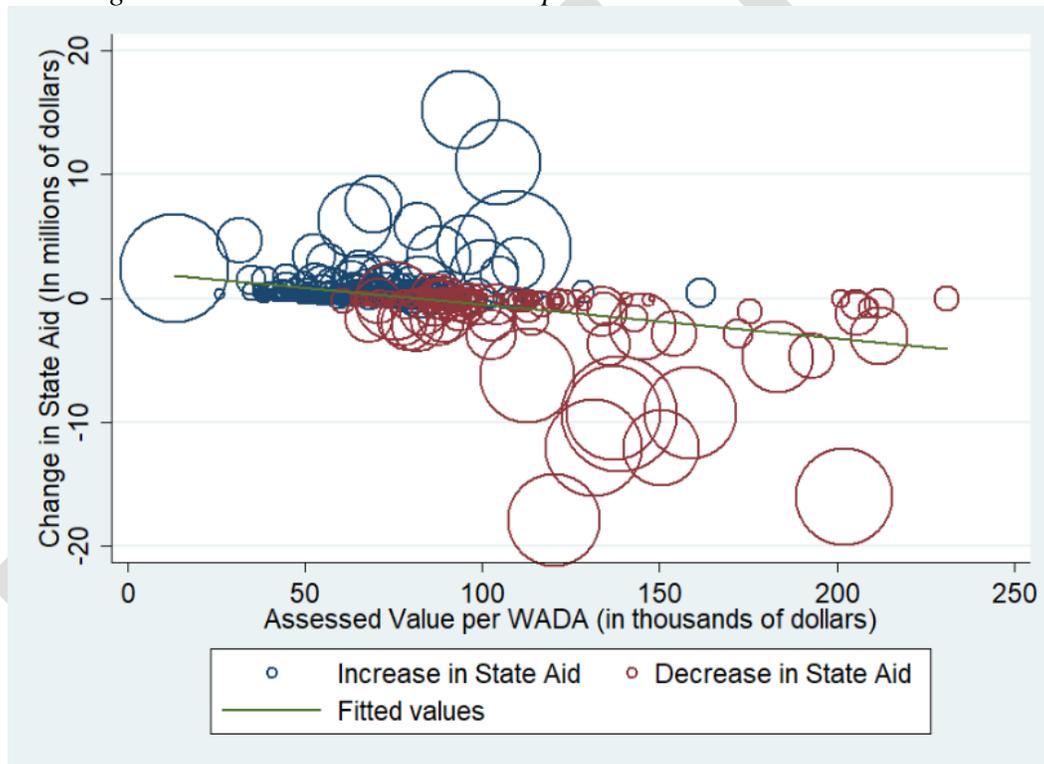


Figure 2: Change in Aid and Percent Minority Students

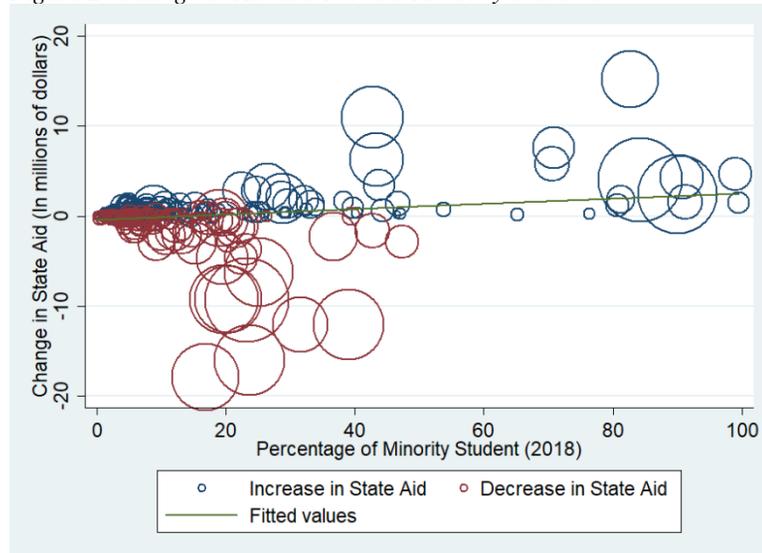


Figure 3: Change in Aid and Percent FRPL Eligible Students

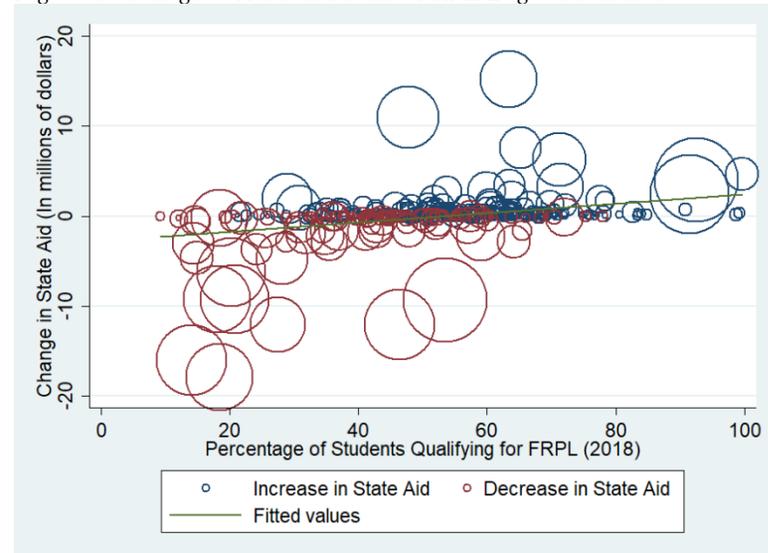


Figure 4: Change in Aid and Percent 8th Graders Scoring Proficient or Advanced, Math

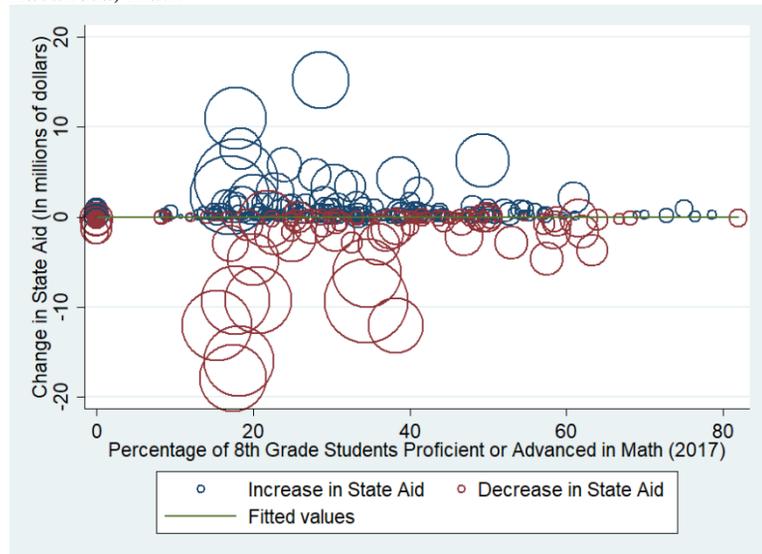
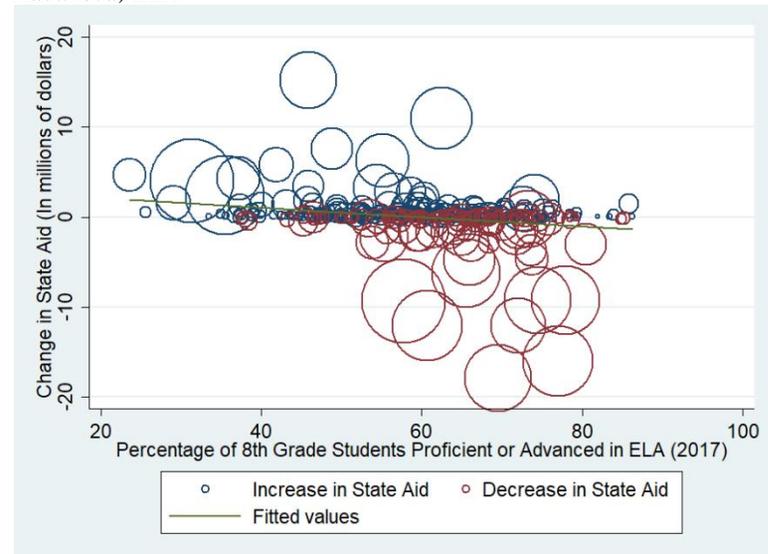


Figure 5: Change in Aid and Percent 8th Graders Scoring Proficient or Advanced, ELA



4.0 Summary and Conclusion

Missouri's foundation formula for public schools determines how much state aid each district will receive. To do this, the formula calculates how much a school district will need to provide an adequate education. It then subtracts how much revenue a school district can raise through local sources, such as property taxes. This is known as local effort. For the past 15 years, the state has calculated local effort based on the assessed value of property from the same year. Despite the fact that property values have increased substantially in almost every school district, this critical piece of the funding formula remains static.

In this paper, I examine the impact of updating the funding formula to rely on 2018 assessed valuations to determine local effort. Not surprisingly, state aid would decline if the formula relied on the current, higher assessed valuation. Indeed, the amount of state aid necessary to fund the foundation formula would decline by \$544 million.

There are two ways to look at this \$544 million. On one hand, it could be argued the state is overfunding the need of some school districts. As their local wealth has increased, state funding could have decreased. This would result in a significant fiscal savings for the state. On the other hand, it could be argued that the state is simply misappropriating these funds. If state lawmakers wanted to keep total state funding steady, they could better distribute these funds by making a modification to another part of the funding formula—the state adequacy target. Doing so, would increase equity in spending among school districts.

I examined which school districts would stand to gain and which would lose state aid if the foundation formula were adjusted to rely on 2018 assessed valuation and the state adequacy target was increased. The results are clear. The winners from this type of change are, on average, poorer school districts with lower assessed valuations and more minority students. Conversely, it could be said the school districts that profit from the current static method of calculating state aid tend to be more affluent school districts.

When the Missouri legislature passed the current foundation formula into law, pegging local effort to the assessed valuation of a fixed point in time may have been a rational course of action. After all, they were very close to that point in time. As we move further away, however, and assessed values change heterogeneously among school districts, this method of funding schools becomes increasingly irrational. It favors school districts that are vibrant and growing, school districts that are experiencing larger increases in assessed valuation. The formula favors these districts to the detriment of higher poverty school districts.

¹ https://www.senate.mo.gov/05info/BTS_Web/Bill.aspx?SessionType=R&BillID=10668

² See Missouri Revised Statute 163.031: <http://www.moga.mo.gov/statutes/C100-199/1630000031.HTM>

³ Special thanks to>>>>>>>

APPENDIX D:
ANALYSIS OF THE KIRWAN COMMISSION RECOMMENDATIONS



The Maryland Public Policy Institute

AN ANALYSIS OF
THE KIRWAN
COMMISSION
RECOMMENDATIONS



The Maryland Public Policy Institute

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AN ANALYSIS OF THE KIRWAN COMMISSION RECOMMENDATIONS

INTRODUCTION

From 1998 to 2014, Maryland public schools increased spending on operating expenses by \$6.47 billion—an increase of \$3.8 billion in inflation-adjusted dollars. If the state follows the recommendations presented by the Kirwan Commission, a statewide panel that is reevaluating Maryland public school funding, taxpayers can expect to see education spending continue to increase at a rapid rate in the years to come.

The commission has called for an expansion of pre-K programs, increased teacher pay, more rigorous certification requirements for teachers (including pre-K teachers), and a series of other reforms and initiatives. The exact cost of the commission's recommendations is unknown at the moment, but will likely require billions more in funding for Maryland's public schools.

The Maryland legislature established the Commission on Innovation and Excellence in Education in 2016. The Commission, comprised of 25 individuals appointed by various policymakers and education organizations, is also called the Kirwan Commission in recognition of commission chair William E. (Brit) Kirwan, who was chosen by the governor, senate president, and house speaker. Other members of the committee include Chester Finn, appointed by the president of the state board of education, and Elizabeth Ysla Leight, appointed by the Maryland PTA.¹

Lawmakers established the commission for two reasons. First was to “review the findings of the Study on Adequacy of Funding for Education in the State of Maryland.”² In 2000 and 2001, Augenblick, Palaich and Associates conducted an adequacy study for the state. The report provided suggestions for revising the state's funding system. Following the release of the report, the legislature passed the Bridge to Excellence in Public Schools Act 2002. That legislation led to a new funding formula and a significant increase in education funding.

The act also called for a follow-up study to be conducted approximately 10 years after the act was established.³ The follow-up study, also conducted by Augenblick, Palaich and Associates, was released in 2016. The Study on Adequacy report called for an increase of \$2.9 billion in state and local dollars—a 29

TABLE 1 COMPARISON OF 2015 PER PUPIL REVENUE, NOMINAL AND COST-ADJUSTED

STATE/DISTRICT	NOMINAL REVENUE PER PUPIL	RANKING BASED ON NOMINAL REVENUE PER PUPIL	RANKING BASED ON COST-ADJUSTED REVENUE PER PUPIL
DISTRICT OF COLUMBIA	\$26,487	1	1
NEW YORK	\$21,317	2	3
NEW JERSEY	\$19,188	3	2
CONNECTICUT	\$17,477	4	6
VERMONT	\$17,087	5	5
ALASKA	\$15,885	6	10
WYOMING	\$15,638	7	4
MASSACHUSETTS	\$15,529	8	17
PENNSYLVANIA	\$14,886	9	7
MARYLAND	\$14,744	10	8

percent increase in funding. It also called for various adjustments in the state’s funding formula.⁴

The second task of the commission was to “provide recommendations on preparing students in the state to meet the challenges of a changing global economy, to meet the state’s workforce needs, to be prepared for postsecondary education and the workforce, and to be successful citizens in the 21st century.”⁵ To date, the work of the commission has fallen mostly in this second category. In January 2018, the commission released a preliminary report calling on the state to develop initiatives in five key areas:

- Early childhood education
- High-quality teachers and leaders
- College and career readiness pathways
- More resources for at-risk students
- Governance and accountability

The report did not call for a specific level of funding, but given the policies recommended in the report, the cost will be substantial.

The Commission’s report suggests that if Maryland were to adopt the policies outlined in the commission’s report, such as expanded pre-K programs and increased learning standards, the state’s educational achievement would rise to the levels of both Massachusetts and top-performing countries.⁶ Unfortunately, the report provides few, if any, citations of the actual efficacy of these suggestions. Given the scope of the recommendations in the report and the immense cost that is sure

to follow, it is important to examine these suggestions with a critical eye.

First, this report examines current trends in spending and their impact on policy decisions, showing how Maryland compares with other states in the nation in terms of spending. The focus will be on trends in inflation-adjusted dollars. Next, we examine some of the Kirwan Commission’s recommendations. Because of the breadth of the recommendations, which range from birth through college, we will not address each one. Rather, we summarize the major points of each section and offer clarity and questions on specific recommendations. After this, we offer some suggestions that the Commission appears to not have considered. These recommendations include policies that may help achieve the same goals, but at reduced cost or more educational freedom for students or educators.

SPENDING IN MARYLAND

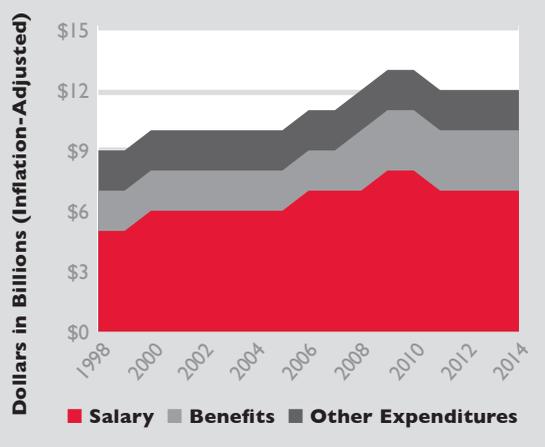
Before considering additional spending or new programs, it is important to first understand the context of school funding in Maryland. This section offers some comparisons of Maryland to other states and examines some historical trends in spending within the state. This will allow the reader to examine the proposals of the Kirwan Commission with an understanding of Maryland’s current spending situation and past trends. To begin, we compare Maryland’s per-pupil spending to other states.

EdBuild, a school finance organization focused on funding equity, reported in 2016 that 2014–15

TABLE 2 COMPARISON OF 2015 STARTING TEACHER SALARIES, NOMINAL AND COST-ADJUSTED

STATE/DISTRICT	NOMINAL STARTING TEACHER SALARY	RANKING BASED ON NOMINAL STARTING TEACHER SALARY	RANKING BASED ON COST-ADJUSTED STARTING TEACHER SALARY
DISTRICT OF COLUMBIA	\$51,539	1	9
NEW JERSEY	\$48,631	2	2
ALASKA	\$44,166	3	16
NEWYORK	\$43,839	4	30
WYOMING	\$43,269	5	1
MARYLAND	\$43,235	6	4
CONNECTICUT	\$42,924	7	32
PENNSYLVANIA	\$41,901	8	10
CALIFORNIA	\$41,259	9	34
HAWAII	\$41,027	10	42

FIGURE 1 CHANGE IN SPENDING IN 2014 INFLATION-ADJUSTED DOLLARS, 1998 TO 2014



revenues for Maryland public schools were \$14,744 per pupil,⁷ ranking the state 10th in the nation, behind the District of Columbia and eight other states. For perspective, a classroom of 20 students would generate more than \$295,000. For a class of 25 students, the figure is nearly \$370,000. Based on these figures, Maryland fares relatively well compared with the nation.

The ranking improves when cost of living is factored into the equation, bumping Maryland up to eighth place.⁸ As the Table 1 shows, states spending the most on public education tend to be in the northeastern part of the country, with two exceptions—Alaska and Wyoming. These states

benefit from plentiful natural reserves that have helped bolster state revenues.

Just as the state fares well in comparisons of spending on public education, starting teacher salaries also compare favorably with other states. In 2014–15 the average starting teacher’s salary in the state was \$43,235,⁹ putting the state sixth in the nation. Once again, Maryland moved up in the rankings when cost of living was factored into the analysis. EdBuild placed Maryland fourth in cost-adjusted starting teacher salaries, trailing only Wyoming, New Jersey, and Louisiana. Table 2 displays the states with the highest starting teacher salaries and their cost-adjusted rankings.

Trends in Spending

The National Center for Education Statistics collects state-level spending data. At the time of publication, NCES maintained Maryland data up to 2014. Using these data, we examine trends in Maryland spending. Maryland’s strong position in the rankings above can be explained in part by the steady increase in funding over a 10-year period starting in 1998. From 1998 to 2008, Maryland increased education spending an average of 3.8 percent each year in inflation-adjusted dollars (6.7 percent in current dollars).¹⁰

Following the great recession, large increases stopped. When adjusting for inflation, the state saw two years of decreases in funding followed small gains. Overall, inflation-adjusted funding has been flat since 2008.

FIGURE 2 INFLATION-ADJUSTED PERCENT CHANGE IN SALARY, BENEFITS, OPERATING EXPENDITURES, 1998 TO 2014

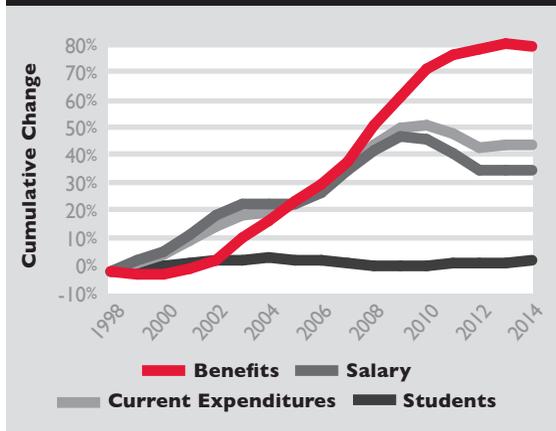


FIGURE 3 PERCENT OF OPERATING EXPENDITURES SPENT ON SALARY AND BENEFITS ANNUALLY, 1998 TO 2014

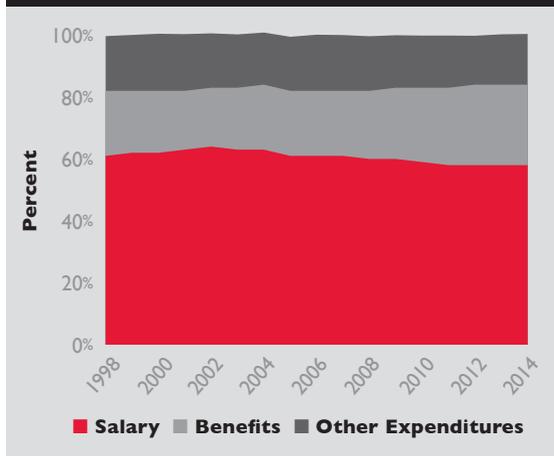


Figure 1 displays changes in operating expenditures over time.¹¹ Operating expenditures are used for operating expenses such as salaries, benefits, and educational supplies. They do not include money spent on facilities or debt servicing.¹² Two of the biggest pieces of a school’s operating expenses are salary and benefits for workers. As such, Figure 1 shows how much of operating expenditures are spent on each of these categories.¹³ We have adjusted all the previous years’ spending figures to account for inflation. The resulting figure shows spending each year in 2014- equivalent dollars.

Pension and Benefits Crowd Out Salary

Aside from the overall increases discussed previously, the increase in spending on benefits is significant. “Other expenditures” in Figure 1 refers to any other operating expense that is not included in salaries or benefits. Spending in Maryland far surpassed inflation in the pre-recessionary years, and after a slight dip, has remained relatively steady in recent years. From 1998 to 2014, Maryland increased spending on education by \$3.83 billion in inflation-adjusted dollars. This is an increase of roughly 45 percent during this period of time.

An important trend to note here is that benefits appear to be crowding out salaries. Indeed, from 1998 to 2014, Maryland saw a significant increase in the fraction of operating expenditures that were dedicated to benefits. During this period, total operating expenditures increased by 45 percent (inflation-adjusted) and expenditures on salaries

increased just 36 percent while expenditures on benefits increased 77 percent. Figure 2 shows the percent change in expenditures dedicated to benefits, salary, and total operating expenditures. It also includes the percent change in the number of students.

Figure 3 puts this into greater perspective. It shows the percentage of operating expenditures that were dedicated to salary and benefits in each year. In 1998, 61 percent of all operating expenditures went to salaries, while 21 percent was spent on benefits. In 2014, the amount spent on salary had decreased to 58 percent and that spent on benefits had increased to 26 percent. If the cost of benefits, such as pensions and health care, continues to increase, it may continue to have a substitutionary effect on teacher salaries by shifting compensation from salary to benefits. It may also decrease funding on non-personnel-related items, such as textbooks and supplies.

Some pension payments are not even going to fund the retirement for currently working teachers; they are going to pay down the debt owed to previous teachers. Public pension plans accumulate debt, known as the unfunded actuarial accrued liability. When employees or their employers make contributions to the pension system, a portion of their contributions go to pay down this debt. Bellwether Education Partners estimated that 71.1 percent of Maryland’s pension contributions are going toward pension debt.¹⁴ In other words, the increases in benefits as a percent of ex-

FIGURE 4 INFLATION-ADJUSTED PER-PUPIL EXPENDITURES

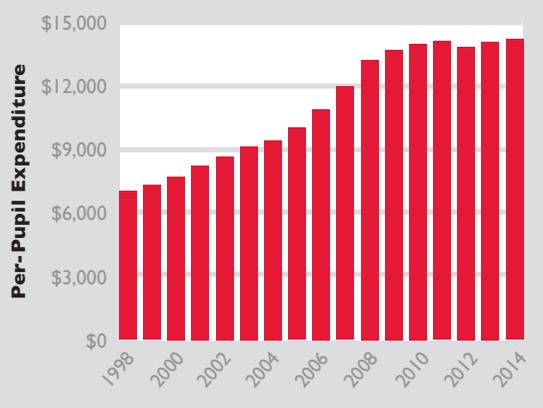
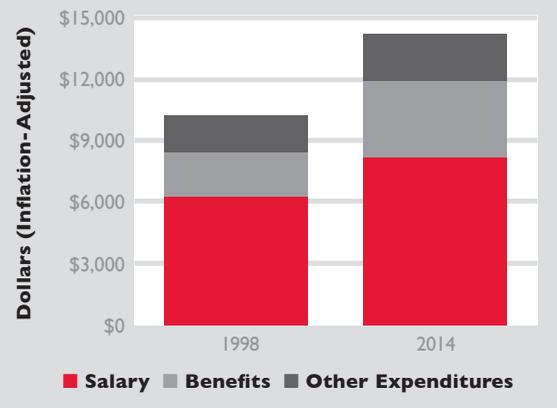


FIGURE 5 INFLATION-ADJUSTED PER-PUPIL EXPENDITURES



penditures are not going to improve pensions. The additional funds are going to pay down debt.

Increases in Non-Teaching Employees

With increases in spending of \$3.83 billion in inflation-adjusted dollars, we might expect that teacher salaries improved during this time period. However, that does not appear to be the case. Using a slightly longer timeframe, economist Benjamin Scafidi found that Maryland increased per-student spending in inflation-adjusted dollars by

...Maryland increased per-student spending in inflation-adjusted dollars by 45 percent from 1992 to 2014.

45 percent from 1992 to 2014.¹⁵ However, during this time, average teacher salaries decreased by 2 percent in inflation-adjusted dollars.

The benefits crowd-out noted above is part of the explanation for this. Another explanation is the continual increase in the number of teachers and other staff members. From 1992 to 2015, the pupil teacher ratio decreased from 16.9 to 14.8 as the total number of teachers increased by a substantial 36 percent during this time period. Yet, this was surpassed by a 60 percent increase in all other staff. In short, despite significantly increasing funding for public education, teacher salaries

have not seen commensurate increases. Pension and health care costs have been increasing and school districts have sought to decrease class sizes and hire more support staff. In other words, when given more money, schools have elected to not put the money into pay raises.

Per-Pupil Spending Over Time

Figure 4 shows per-pupil spending from 1998 to 2014 in inflation-adjusted dollars. Similar to the overall picture on operating expenses, we see significant increases following 1998 and then a leveling off after the recession. In 2014, the state spent an average of \$14,217 per pupil.

Next, Figure 5 highlights just 1998 and 2014. The two bar charts illustrate the increase in inflation-adjusted spending during this time period, and how much money is being spent entirely on benefits. In 2014, Maryland spent \$3,709 per student on the benefits of teachers, principals, and staff. That is almost the amount spent in 1998 on benefits and other expenditures.

THE KIRWAN COMMISSION ON INNOVATION AND EXCELLENCE IN EDUCATION

Now that we understand the financial context of Maryland education spending, we shift to considering the recommendations of the Kirwan Commission. The commissions are in five broad areas: early childhood education, high-quality teachers and leaders, college and career readiness pathways, more resources for at-risk students, and governance and accountability. In each of these ar-

eas, the commission offers numerous recommendations. Some recommendations are substantial, others small. Some recommendations are detailed, others not. Here, we examine some of the more prominent recommendations in each area.

The Recommendations

Early Childhood Education

The commission recognizes that “Maryland is widely regarded as a leader in early childhood education in the United States.”¹⁶ Nevertheless, the commission believes the state must do a lot more. Their first major recommendation in this area is to expand the “early childhood education program so that all 4-year-olds, regardless of income, have the opportunity to enroll in a full-day program.” Four-year-olds from homes earning below 300 percent of the federal poverty line would receive pre-kindergarten services at no cost, while “higher-income families would be expected to pay a portion of the cost.”¹⁷ In addition, the state would provide access to full-day early childhood programs for 3-year-olds from low-income families.

The commission says this could be accomplished via public and private providers. However, all providers would be heavily regulated by the state. The state would set internationally benchmarked standards for the state’s 3 and 4-year-olds that must be followed in all pre-kindergarten settings. Moreover, the commission suggests the adoption of a statewide testing system for students entering kindergarten.

To help teachers implement the new pre-K standards, the state would create staffing and professional development systems. The commission recognizes that essentially adding a grade level to the public education system will require substantially more certified pre-K teachers. Indeed, the commission calls for all pre-K teachers to be certified. This may preclude many preschools from participating in the state system.

Maryland already has some pre-K programs. To date, no studies have assessed their impact.¹⁸ Moreover, the commission’s report does not mention any analysis that has shown the current service gap. That is, many Maryland families currently enroll their children in pre-K programs, either by paying tuition themselves or by participating in existing public programs. Other families may not desire to enroll their children in pre-K, preferring to keep their children at home with a stay-at-home parent.

We do not know the percentage of families that want pre-K services but are unable to attain the services for their children. This trend, of course, is different from the percentage of families that prefer a free public pre-K option. Without knowing this information, the state cannot know the magnitude of the problem it is attempting to solve. It is likely that a universal program, as described in the commission’s report, would greatly increase the size of government and diminish civil society while costing taxpayers billions.

While the body of research on pre-K suggests that high-quality programs can have substantial benefits for students, there are reasons for caution

Very few policy prescriptions are slam dunks, even those that seem to have good research behind them.

before the state implements such a costly strategy. In Tennessee, for example, the state implemented a large scale pre-K program. Researchers conducted a rigorous randomized-control trial to evaluate the impact of the program.¹⁹ While students who attended the pre-K program exhibited early learning gains, the control group consisted of students who did not attend pre-K surpassed the treatment group by second and third grades. This evidence should give policymakers pause before implementing a large-scale program.

Policymakers would be wise to consider the words of caution offered by Grover “Russ” Whitehurst of the Brookings Institution before implementing a universal pre-K program:

Don’t place big and irrevocable bets on conclusions and recommendations that are far out in front of what a careful reading of the underlying evidence can support. Very few policy prescriptions are slam dunks, even those that seem to have good research behind them. In the early education and care of children, just as in the rest of social policy, we need to be a learning society, prepared to try new approaches to address pressing problems and to learn

systematically from trial and error in their implementation.²⁰

Once a universal program of the type mentioned in the commission's report is created, removing it or changing it will be incredibly challenging. A wise initial step would be to conduct a needs analysis of the current service gap and evaluate the quality of the programs currently in place.

While the commission's recommendations on pre-K are bold, they are just a sampling of recommendations that call for more state involvement in the lives of young children. In addition to pre-K, the commission suggests, families need "free medical care, paid family leave, and free or heavily subsidized child care."²¹ Moreover, "In many other countries they also include subsidized housing, parental 'allowances' and baby 'bonuses,' and other financial support."²² Interestingly, although the commission recognizes these recommendations "may not be explicitly part of its charge," they do not fail to offer them anyway.²³ This should give some hint to the scope and reach of the policies recommended by the commission.

High-Quality Teachers and Leaders

Most scholars recognize that teacher qualification in the classroom is the most important in-school factor impacting student learning. The commission recognizes this and therefore is concerned about the quality of individuals entering the profession in Maryland: "The academic record of the high school students going into teacher education at UMCP [University of Maryland, College Park] are among the lowest of those going into any professional preparation program."²⁴

Unfortunately, this is not just true in Maryland. Teachers tend to score lower on standardized tests than almost every other major. In 2014, the national average for the SAT was 1497. For test takers who indicated their major would be education, it was just 1438.²⁵ The question is, how do we change this?

Test scores and performance in the classroom are not perfectly correlated.²⁶ Studies have consistently found a positive relationship between tests and the ability to increase student achievement, but the correlation can be rather weak. Some people who score relatively low on tests, such as the ACT or SAT, can be more effective as teachers than others who scored higher. As a result, it is imprac-

tical to simply refer to test scores as a sole proxy for teacher quality.

Here, when we refer to teacher quality, we are talking about a teacher's ability in the classroom. There are only three ways a school can improve the overall quality of teachers—hiring, professional development, and firing. The commission leans heavily on front-end policies. The commissioners want to "mandate that universities improve the quality and rigor of their teacher preparation programs at both the undergraduate and graduate levels."²⁷ Moreover, the commission says it will hold them accountable for doing so, although, it doesn't say exactly how.

The recommendations here are contradictory. The commission calls both for higher quality, as measured by test scores and similar metrics, and more diversity. There is just one problem with this—these goals are at odds. There is a substantial achievement gap between white and underrepresented minorities in the United States. If a state were to increase the rigor of its licensure exams, this may increase overall quality but at the expense of minority teachers.²⁸ This approach would also likely create a teacher shortage problem.

While it is not inappropriate to consider these front-end policies, Maryland would be much

Studies have consistently found a positive relationship between tests and the ability to increase student achievement, but the correlation can be rather weak.

wiser to consider policies that will help improve teacher development and policies that would remove ineffective teachers from the classroom. The commission's report emphasizes improving professional development, but fails to address tenure and dismissal of low-performing teachers. Economist Eric Hanushek has shown that removing the bottom five to eight percent of teachers and replacing them with a teacher of average quality would help the United States rise to the level of the top countries in math and science.²⁹

Interestingly, the commission’s report attacks alternative certification programs. Policymakers should understand the following regarding alternative teacher certification programs. First, they help address teacher shortages. Second, alternatively certified teachers regularly score higher on standardized tests.³⁰ Third, alternatively certified teachers typically perform on par with traditionally trained teachers.³¹ It is clear that these types of programs attract people who may not have been interested in earning a traditional teaching degree. These programs serve a useful purpose and should not be jettisoned so easily.³²

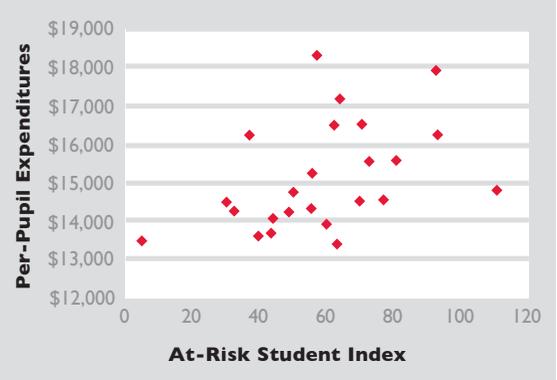
College and Career Readiness Pathways

One of the strongest and most prevalent recommendations throughout the commission’s report is the idea of benchmarking Maryland’s education system to internationally benchmarked standards. Keep in mind that Maryland adopted what it considered to be rigorous standards in recent years. Moreover, a recent analysis of Maryland’s assessment system, which is based on the standards, suggested that Maryland has the third highest proficiency standard in the country.³³ Nevertheless, the commission wants even tougher standards, writing, “Such systems enable their students to emerge from high school two to three years ahead of where Maryland’s typical student is at present and ready for both demanding college-level work and no-less-demanding technologically-demanding careers.”³⁴

We all want high standards for students, but this standards-based system of improvement is the same we have seen since the 1990s. Maryland first implemented “consequential accountability” in 1999.³⁵ This was the first year the state attached stakes to student performance on standardized exams. The logic behind this is clear. By setting high standards and backwards-mapping down to the earliest grades, and assessing performance, we can ensure that all children will receive a world-class education. Unfortunately, this strategy was not very successful. According to the commission:

The most recent data from 2017 shows that just under half (49.3 percent) of students taking the English 10 exam received a proficient score (4 or 5) indicating college and career readiness. Further, there are racial and socioeconomic gaps in student perfor-

FIGURE 6 SCATTERPLOT OF PER-PUPIL EXPENDITURES AND AT-RISK STUDENT INDEX



mance. For example, while 67.5 percent of white students and 77.5 percent of Asian students were proficient, only 29.0 percent of African American students and 34.3 percent of Hispanic students were proficient.³⁶

Despite years of maintaining, and increasing, standards, Maryland students continually fall short of the benchmark:

Maryland was among the first states to develop the Maryland College and Career Ready Standards built on the Common Core State Standards that are measured by the Partnership for Assessment of Readiness for College and Careers (PARCC) tests aligned with the standards. Students are currently expected to reach the Maryland College and Career Ready standard by the end of their junior year, although only about 40 percent of high school students have so far done so.³⁷

Decades of experience should tell us that simply implanting a new set of standards would not yield substantially different results.

More Resources for At-Risk Students

The commission’s report calls for more money for at-risk students. This is not a bad idea. Disadvantaged students clearly have more needs than their more affluent peers. The concern is how this looks in practice. The report recognizes that “Maryland has the highest weight in the country for low-in-

come students in its funding formula,³⁸ yet suggests the state's system is still regressive. This simply does not appear to be the case. Figure 6 plots the state-calculated "At-Risk Student Index" and per-pupil expenditures for each school district.³⁹ There is a clear, positive relationship between the two. This implies that at-risk students in Maryland tend to receive more funding.

Governance and Accountability

The overarching premise permeates the commission's report is that the education bureaucracy in Maryland must grow. Nearly every area calls for a new office of oversight, a new commission, a new task force, or some new entity to measure and monitor the performance of preschools, public schools, and colleges of education. The model presented in the commission's report is one of top-down rules and regulation. The commission suggests the state should create syllabi for each course and lesson plans for teachers. The state should oversee professional development, curriculum adoption, and testing. This type of system will greatly diminish any freedom that teachers have in the classroom and greatly homogenize all of the schools in the state. It also has potential to negatively impact the state's ability to attract teachers.

OTHER IDEAS TO CONSIDER

The cost to implement and comply with the recommendations of the Kirwan Commission will be exorbitant. Some policies will reduce student and teacher freedom and many will simply not work as intended. Below are some alternatives. These are practical solutions intended to address some of the problems listed in the commission's report.

Increasing Teacher Pay

The commission called for an increase in teacher pay and the development of a career ladder that would further allow teachers to increase their pay. In theory, a career ladder, which allows teachers to develop and take on greater responsibilities, sounds like a good idea, but in practice it will likely fail to make the intended impact on student achievement. School administrators notoriously give teachers high ratings.⁴⁰ In states that have implemented teacher evaluation programs, the vast majority of teachers gain high marks. In an analysis of 24 states, most rate less than 1 percent of teachers as unsatisfactory.⁴¹ It seems unlikely

that a career ladder program, with salary implications, would fare much better.

Still, policymakers and school officials can adopt other approaches to increase teacher pay. First, schools should attempt to maintain current staffing levels. As we have seen in the past two decades, the bulk of increased funding has gone to hiring additional teachers and staff. If schools attempt to increase efficiency, by holding class sizes steady or reducing duplicative staff and administration, they could funnel more resources to teacher salaries.

Second, the state should examine opportunities to reform the benefit structure of public educators. Rising pension costs mean more operating expenses are going to pay for the retirement benefits of people already out of the classroom. As previously stated, 71.1 percent of pension contributions go to pay down debt.⁴² If this issue is not addressed, it is likely that pension costs and health care costs will continue to consume more of the operating budget.

This leaves less for teacher salaries. While benefits are incredibly important, up-front pay is typi-

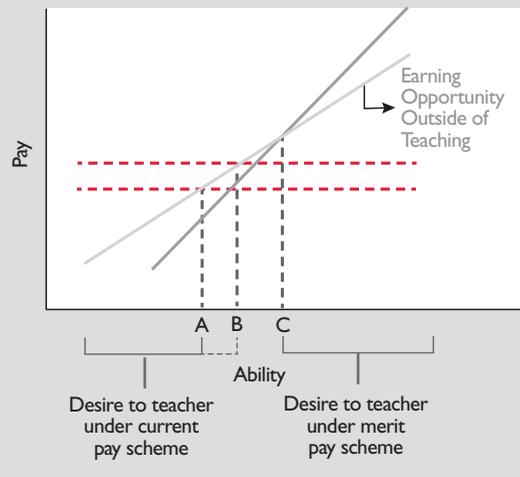
In states that have implemented teacher evaluation programs, the vast majority of teachers gain high marks.

cally of higher value to workers.⁴³ This means the state may be able to attract and retain more teachers by shifting compensation from benefits to salary.

Increasing Teacher Quality and High-Need Teachers

The proposed solutions in the commission's report would make teacher certification more challenging, but raising the bar is not an automatic path to improving the profession.⁴⁴ Increased requirements also increase teacher shortages and have a minimal impact on teacher quality. A more effective strategy is to remove ineffective teachers. Unfortunately, tenure and other protections make this difficult. Policymakers should provide more support to administrators in this regard.

FIGURE 7 COMPARING THE IMPACT OF BLANKET TEACHER PAY INCREASES AND PERFORMANCE PAY ON TEACHER QUALITY⁴⁶



At the same time, policymakers and school administrators should begin implementing market-based pay, versus merit pay, which pays based on performance, although performance could be considered. Market-based pay allows teachers to earn more money by teaching in high-need subject areas or high-need schools, or by being a highly effective teacher. Currently, most districts pay physics teachers on the same pay scale as elementary school teachers. Yet, an opening for a physics position may get a handful of applicants and the elementary position hundreds. And, the market demands a higher salary for physics teachers.

The same can be said about highly effective teachers. In most professions, including higher education, when a desirable worker gets an offer for another job, their current employer will make a counter-offer. This is not the case in education. Schools make few attempts to keep highly effective teachers.⁴⁵ If we want to attract and retain highly qualified individuals to the teaching profession, we have to create a market for their talent. As long as teachers are paid on a step-and-lane salary schedule, the system will continue to struggle in this area.

The figure below helps explain how market-based pay and merit-pay would help improve the quality of the teacher work force. The blue line indicates that individuals with higher ability tend to earn more money outside of teaching. The solid red line represents the current step-and-lane pay

schedule that pays all teachers the same amount. Under this system, all individuals to the left of Point A would desire teaching, while those to the right would prefer not to teach. In other words, the current system of pay helps us attract individuals from the lower end of the ability spectrum as the commission has noted.

If pay is increased (red dashed line) the number of individuals who would prefer teaching increases (Point B), but the individuals are still drawn from the lower portion of the distribution. The green line represents a system that pays people based on their ability. This type of system has the ability to attract higher skilled workers into the profession and to discourage lower-skilled workers from entering the profession. In short, a merit-based pay system could help increase teacher quality more than blanket pay raises.

Innovation in Education

While the Kirwan Commission’s full title included the word “innovation,” little about the recommended policies was innovative. Rather, they would create a bureaucratic top-down system that regulates everything from teacher training through pre-school. It is hard for innovation, creation, or entrepreneurial spirit to flourish in this type of environment. Instead, policymakers should consider a different direction that increases educational options for all children.

Nobel-winning economist Milton Friedman said, “A society that puts equality before freedom will get neither. A society that puts freedom before equality will get a high degree of both.” Maryland has a tremendous opportunity here. The state can double down on standards-based accountability, increased spending, and top-down control, or begin to allow freedom into public education through market-based approaches such as school choice and market-based pay. Innovation comes through choice and competition, not from standards and tests. Accountability comes when parents vote with their feet on the school that meets their needs, not from arbitrary accountability systems. Job satisfaction for teachers comes from having the freedom to determine the mission and vision in their schools, not a prescribed career-ladder program.

CONCLUSION

In 2002, the Maryland General assembly enacted the Bridge to Excellence in Public Schools Act.

That legislation led to an increase of \$1.3 billion in state aid for public schools in the Old Line State. When coupled with additional state funding, the increases amounted to approximately \$3.6 billion. The Kirwan Commission suggests the additional funding appeared to be working, citing Maryland's top ranking in the Quality Counts rankings for five years in a row.

Yet by the commission's own admission, student achievement in the state is average, "Despite Maryland's investment in pre-K-12 education and the modest progress that has been made, Mary-

Accountability comes when parents vote with their feet on the school that meets their needs, not from arbitrary accountability systems.

land's pre-K-12 system is average at best within the U.S."⁴⁷ In other words, a \$1.3 billion investment has barely made a splash when it comes to improving student outcomes.

Most people would look at these results and conclude that spending more money in the current education system has minimal results, at best, and is a colossal waste of resources at worst. Even the commission alluded to this fact when it said,

Above a certain funding level, *how* the money is spent is at least as important as how much is spent. If that is true, then Maryland must find a way to hold the schools and districts accountable for spending the money in a way that is highly likely to produce the expected result in student performance.⁴⁸

Nevertheless, the commission goes on to offer recommendations for a slew of new programs and initiatives that will cost Maryland taxpayers billions more. The suggestions do not offer systemic change, but aim to repeat failed policies of the past. They are not innovative, nor do they require school districts to reallocate funds.

Public funding for education must come from increased taxes, whether through increased rates

or a more productive economy, or from cuts to other programs. Before marching forward with the commission's suggestions, which will cost untold billions, Maryland policymakers should fully consider the costs and the alternatives.

JAMES V. SHULS is an assistant professor and the graduate program director of educational leadership and policy studies at the University of Missouri, St. Louis. He earned his Ph.D. in education policy from the University of Arkansas. He also holds a bachelor's degree from Missouri Southern State University and a master's degree from Missouri State University, both in elementary education. Prior to joining UMSL, he served as the director of education policy for the Show-Me Institute, where he is currently a distinguished fellow of education policy. Previously, he taught first grade and fifth grade in the Republic, MO R-III School District.

Dr. Shuls' research focuses primarily on teacher labor markets, school finance, and school choice. He has served as an expert witness in the school finance case *Martinez/Yazzie v. New Mexico*. His research has been published in various scholarly journals such as *Social Science Quarterly*, *The Rural Educator*, *Educational Policy*, *the Journal of Education Finance*, and *the Journal of School Choice: International Research and Reform*, where he serves on the editorial board.

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ABOUT THE MARYLAND PUBLIC POLICY INSTITUTE

Founded in 2001, the Maryland Public Policy Institute is a nonpartisan public policy research and education organization that focuses on state policy issues. Our goal is to provide accurate and timely research analysis of Maryland policy issues and market these findings to key primary audiences.

The mission of the Maryland Public Policy Institute is to formulate and promote public policies at all levels of government based on principles of free enterprise, limited government, and civil society.

In order to maintain objectivity and independence, the Institute accepts no government funding and does not perform contract research. The Maryland Public Policy Institute is recognized as a 501 (C) (3) research and education organization under the Internal Revenue Code.

The Maryland Public Policy Institute

One Research Court | Suite 450 | Rockville, Maryland 20850 | mdpolicy.org



**Proposal in Regards to RFP Number:
BLR – 190003
Education Adequacy Consulting Services**

Submitted to the Bureau of Legislative Research, Arkansas

(This copy contains the Official Proposal Price Sheet)

James V. Shuls, Ph.D., Managing Member
Shuls and Associates
1720 Briarmanor Dr.
Lake Saint Louis, MO 63367
(417) 425-3086
james@shulsassociates.com
Federal Employer ID Number: 84-2853313

September 20, 2019

**ATTACHMENT A
OFFICIAL PROPOSAL PRICE SHEET**

This OPPS is submitted by Shuls and Associates in regards to BLR – 190003.

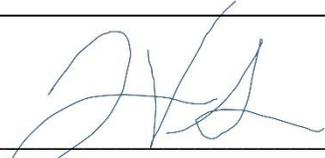
- This bid is valid for 180 days.
- Prices in this proposal have been arrived at independently, without consultation, communication, or agreement for the purpose of restricting competition.
- No attempt has been made nor will be made by the proposer to induce any other person or firm to submit a proposal for the purpose of restricting competition.
- The person signing this proposal is authorized to represent the company and is legally responsible for the decision as to the price and supporting documentation provided as a result of this RFP.
- Prices in this proposal have not been knowingly disclosed by the proposer and will not be prior to award to any other proposer.

Shuls and Associates

Description	Price Per Hour	Number of Hours	Number of Positions	Price
James Shuls, Managing Member	\$195	780	1	\$152,100

Subcontractors

Description	Price
Office for Education Policy	\$169,176
Shaun Simms	\$90,000
Michael Ford	\$10,000
Sara Hodges	\$20,000
Matt Richmond	\$20,000
Travel Expenses	\$15,460
Other (Including copying, editing services, supplies, overhead)	\$22,500
Total Maximum Amount of Bid:	\$499,236



 James V. Shuls, Ph.D.
 Managing Member
 Shuls and Associates (DBA Shuls Policy Consulting)

9/20/2019

APPENDIX E:
FISCAL NOTES TESTIMONY



TESTIMONY

February 21, 2017

FISCAL NOTES FOR EDUCATION SAVINGS ACCOUNTS (ESAS) FAIL TO ACCOUNT FOR COST SAVINGS

By James V. Shuls, Ph.D.

Testimony Before the Missouri Senate Education Committee

My name is James V. Shuls, Ph.D. and I am a professor of educational leadership and policy studies at the University of Missouri–St. Louis and a distinguished fellow in education policy at the Show-Me Institute, a nonprofit, nonpartisan Missouri-based think tank that supports free-market solutions for state policy. The ideas presented here are my own. This testimony is intended to explain the errors in the fiscal notes on Senate Bill 32, Senate Bill 313, and any other education savings account bill that fails to account for the potential savings generated by these programs. In this testimony, I simply illustrate how funding of Missouri public schools works and how, as a result of students leaving public schools to participate in a tax credit–funded ESA program, the state would save money.

As a professor, I often have students give only half the answer on a homework assignment or test. Being the generous person that I am, I typically give partial credit. The Fiscal Notes from the Committee

on Legislative Research for Senate Bill 32 and Senate Bill 313 appear to fall within the category of work worthy of only partial credit. Fiscal notes are supposed to capture the net effect a bill might have on the state budget. The fiscal notes for these bills take into account the costs, but fails to consider the potential savings. This incomplete analysis paints a mistakenly bleak picture of the bill's Empowerment Scholarship Accounts.

In the calculations presented below, I use the numbers from SB 32. The findings would be the same for SB 313. As introduced, SB 32 would create Empowerment Scholarship Accounts (ESAs) that any public school student in the state would be eligible for. SB 313 limits eligibility to kindergarteners and students with special needs. The accounts would be funded by donations from individuals and corporations who would receive tax credits for their donations. Table 1 highlights some of the important details of this program.

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Table 1: Details of SB 32–Missouri Empowerment Scholarship Accounts Program

Qualified students	Students who attended a public school for 100 days in the prior year or who are entering kindergarten.
Amount of tax credit	100%
Total tax credits offered	\$25 million
Maximum amount of empowerment scholarship account	\$6,241 (State Adequacy Target)

Identifying the costs in this type of program is relatively straightforward, and the fiscal note does an adequate job of doing so. If all of the tax credits are claimed, the state would collect \$25 million less in taxes. Additionally, there would be costs of administering the program and ensuring the funds are used for the intended purpose. The fiscal note suggests this would cost an additional \$465,845, for a total of \$25,465,845.

When it comes to savings, however, the fiscal note simply states that the figure is “unknown.” The report notes the program would save money when students transfer from a public school, but fails to quantify this figure.

An Empowerment Scholarship Account program, however, could yield significant savings to offset the costs listed in the fiscal note, and those savings should be part of any analysis of the program.

To understand how the state saves money when a student leaves a public school to use an ESA, it is important to understand how the funding formula works. I provide a basic overview here, but you can go in more depth by reading my primer on the matter.¹

Schools are funded based on the following formula:



Accordingly, the state saves the full State Adequacy Target for every student who leaves

Often, reports on the fiscal effects of school choice programs only account for the average amount of state funding per pupil when calculating state savings. According to data from the Department of Elementary and Secondary Education (DESE), the state spent approximately \$3,700 per pupil in 2017. Using this figure to calculate cost savings for the state, however, would greatly underestimate the total amount of money saved by the state. When you understand the formula, it is clear that the state will save the full value of the State Adequacy Target—\$6,241—for every student who transfers from a public school. This figure represents the minimum saved for each student who switches out of the public school system. To better understand this, refer to Table 2.

In the table, you see a district that has one student leave because of the ESA program. As the table illustrates, when one student leaves and lowers the WADA, the state saves the full value of the State Adequacy Target. The district would lose that money, but would typically still have more money per pupil (Line 9). Readers here may be confused by Line 4 and Line 7. Here again I will refer you to my funding formula primer.² Suffice it to say that the amount of local effort used in the funding formula is different from the amount of funds actually raised by school districts.

Table 2: **State Savings for One Student Who Leaves the Public School System**

Line	Funding Category	Pre-ESA	Post-ESA	State Savings
1	WADA	1,000	999	
2	State Adequacy Target	\$6,241	\$6,241	
3	Total Amount Required (Line 1 × Line 2)	\$6,241,000	\$6,234,759	(Pre – Post) \$6,241
4	Local Effort as calculated in the formula (\$3.43 per \$100 assessed valuation)	\$2,540,000	\$2,540,000	
5	Total State Effort (Line 3 – Line 4)	\$3,701,000	\$3,694,759	
6	State Funding Per Pupil (Line 5 / Line 1)	\$3,701	\$3,698.46	
7	Actual Local Effort (Based on actual property tax rate)	\$5,796,000	\$5,796,000	
8	Local Funding Per Pupil (Line 7 / Line 1)	\$5,796	\$5,801.80	
9	Total Spending Per Pupil (Line 6 + Line 8)	\$9,497	\$9,500.26	

Table 3: Potential State Savings Based on WADA

Student Weight Category	Amount Saved Per Student
No weight	\$6,241
FRL ($\$6,241 \times 1.25$)	\$7,801
IEP ($\$6,241 \times 1.75$)	\$10,922
LEP ($\$6,241 \times 1.6$)	\$9,986
FRL + IEP + LEP ($\$6,241 \times 2.6$)	\$16,226

the public school to use an ESA. Actually, the savings would be even higher than this. In my illustration, I assumed the student leaving would only be counted as one student. Our funding formula, however, weights students who have special circumstances, such as those SB 313 is designed to help. The weights are listed below:

- Free or reduced price lunch (FRL)weight = .25
- Individualized Education Plan (IEP) weight = .75
- Limited English Proficiency (LEP)weight = .60

It is possible for a student to be weighted in all three categories, weighting the student at an additional 160%. In other words, a low-income student who is determined to have limited English proficiency and who has an IEP would be counted as 2.6 students. If this student were to use an ESA to leave the public school system, the state would save \$16,226 ($\$6,241 \times 2.6$). Table 3 illustrates the potential savings for each type of student.

For every student who leaves the public school system, the state saves between \$6,241 and \$16,226.

The fiscal note for SB 32 states that a total of 4,005 students could transfer under the program and receive the maximum scholarship amount of \$6,241. Based on the evidence presented here, it is easy to see that if each of these students were switching out of the public school system, the savings could offset the cost of the tax credit. If no students were weighted, the cost would just be the costs associated with administration of the program (see Table 4). If some of the students were weighted, the savings could potentially offset even the administrative costs and generate savings for the state.

Keep in mind that even these estimates understate the potential savings. A key piece of the funding formula is the Dollar Value Modifier (DVM). This awards more money to school districts in areas with a higher cost of living. In the Saint Louis area, the DVM is 1.092. As a result, a

Table 4: **Cost Savings by Student Weight Category**

Student Weight Category	Cost/Savings
4,005 Students with no weight	(\$470,640)
4,005 Students with FRL weight	\$5,778,161
4,005 Students with IEP weight	\$18,275,764
4,005 Students with LEP weight	\$14,526,483
4,005 Students with FRL + IEP + LEP weight	\$39,521,688

regular student switching out of a Saint Louis area school would save the state \$6,815. In Kansas City, the DVM is 1.08. A student from the Kansas City metropolitan area who switches would save the state \$6,704.

Because a large number of students attend school in the Saint Louis and Kansas City metropolitan areas, and these areas have many private schools with available seats, it is reasonable to assume students from these areas would use a non-trivial number of ESAs.³ If we assume none of the students are weighted and one-third of the ESAs (1,335) are used by students from the Saint Louis area, another one-third are from the Kansas City area, and the final third are from an area with a DVM of 1, the program would generate nearly a million dollars in savings. The savings would be substantially more if a portion of the students were weighted as FRL, IEP, or LEP.

CONCLUSION

Because the fiscal note for SB 32 discusses the cost of an ESA program but fails to discuss the potential savings, it only tells part of the story. While it is difficult to put a precise figure on the savings that could be realized from this ESA program, it is not difficult to come up with a simple estimate. If we assume 4,005 students leave the public school system, the savings would offset the cost of the tax credit and the state would only be out administration costs.

It is more likely that the program would generate enough savings over time to outweigh all of the costs associated with the program. The state would realize additional savings as some students would be weighted as FRL, IEP, or LEP and some students would be from school districts where the DVM is greater than 1. It is also important to note that more than 4,005 students could switch because of this program. That number is the maximum number

of students who could receive the maximum scholarship. The bill, however, allows for smaller scholarships to be awarded. Other states have experienced significant savings with this type of program.⁴

Clearly, the total estimated cost of the program is not the full \$25,464,845 reported in the fiscal note. Rather, it is more likely that the program will be cost-neutral or will generate significant savings for the state.

James Shuls is a professor of educational leadership and policy studies at the University of Missouri–St. Louis and a distinguished fellow in education policy at the Show-Me Institute

ENDNOTES

1. Shuls, James. (2012). A Primer on Missouri's Foundation Formula for K-12 Public Education. Show-Me Institute. Available online at: http://showmeinstitute.org/sites/default/files/FundingFormulaPrimer_9_0.pdf
2. Ibid., pages 16–18.
3. For more information on Available Seats in Missouri Private schools, view: Shuls, James. V. (2014). Available seats? Survey analysis of Missouri private school participation in potential state scholarship programs. Show-Me Institute. Available at: http://showmeinstitute.org/sites/default/files/Essay_AvailableSeats_Shuls_Jan2014_0.pdf
4. Lueken, Martin F. (2016). The tax-credit scholarship audit: Do publicly funded private school choice programs save money? *EdChoice*. Available at: <https://www.edchoice.org/wp-content/uploads/2016/10/Tax-Credit-Scholarship-Audit-by-Martin-F.-Lueken.pdf>

NOTES



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APPENDIX F:
CURRICULUM VITAS

PROFESSIONAL EXPERIENCE

University of Missouri – St. Louis (August 2014 – Present)

Assistant Professor, Educational Leadership & Policy Studies

Assistant Department Chair (May 2016 – Present)

Educational Leadership Program Director (May 2016 – Present)

Director responsibilities: Manage the operations for M.Ed., Ed.S., and Ed.D. programs in education leadership. Lead team of 3 faculty members, numerous adjuncts.

The Show-Me Institute, St. Louis, MO (July 2012 – August 2014)

Director of Education Policy (January 2014 – August 2014)

Education Policy Analyst (July 2012 – December 2014)

Republic R-III School District, MO (January 2005 – August 2009)

5th Grade: Math and Social Studies Classroom Teacher

1st Grade: Classroom Teacher

Kindergarten: Summer School Classroom Teacher

2nd Grade Reading Paraprofessional

Missouri Certifications

- Elementary Education, Career CPC, Grades 1-6
- Early Childhood Education, Career CPC, Birth-Grade 3

EDUCATION

Ph.D. in Education Policy, University of Arkansas (2013)

Dissertation: “Do Teacher Characteristics Affect Student Achievement? Evidence from a Rural State”

Committee: Jay P. Greene (Chair/Advisor), Patrick J. Wolf, & Gary W. Ritter

M.S.E. in Elementary Education, Missouri State University (2007)

B.S.E. in Elementary Education, Missouri Southern State University (2004)

OTHER AFFILIATIONS

Distinguished Fellow of Education Policy, Show-Me Institute (2014 – Present)

Fellow, The Hammond Institute at Lindenwood University (2015 – Present)

Fellow, EdChoice (2017 – Present)

Editorial Board, Journal of School Choice (2015 – Present)

RESEARCH INTERESTS

Education policy, labor markets and pay systems, school finance, teacher pensions, educational leadership, & school systems.

SCHOLARLY PRODUCTIVITY

EXPERT WITNESS TESTIMONY

- (1) Yazzie v. State of New Mexico and Martinez v. State of New Mexico. (2017).
 - Hired by state’s attorney to analyze plaintiff’s reports regarding school finance.

PEER-REVIEWED JOURNAL ARTICLES

- (10) **Shuls, J.V.** & Lux, J. (In Press) Examining the prevalence of salary spiking in a public school teacher defined benefit pension plan. *International Review of Accounting, Banking, and Finance*.
- (9) **Shuls, J.V.** (2018). School choice: The personal and the political. *Journal of School Choice: International Research and Reform*, 12(1), 80-97, DOI 10.1080/15582159.2017.1374151
- (8) **Shuls, J. V.** (2018). Raising the bar on teacher quality: Assessing the impact of increasing licensure exam cut scores. *Educational Policy*. 32(7), 969-992. DOI [10.1177/0895904816682315](https://doi.org/10.1177/0895904816682315)
- (7) **Shuls, J. V.** (2017). Examining inequities in teacher pension benefits. *Journal of Education Finance*. 42(4), 435-447.
- (6) **Shuls, J.V.** & Trivitt, J. (2015). Teacher qualifications and productivity in U.S. Secondary Schools. *Journal of School Choice: International Research and Reform*. 9(1), 49-70.
- (5) **Shuls, J.V.** & Trivitt, J. (2015). Teacher Effectiveness: An analysis of licensure screens. *Educational Policy*. 29(4), 645-675.
- (4) Bowen, D.H., Buck, S., Deck, C., Mills, J., & **Shuls, J.V.** (2015). Risky Business: An experimental analysis of teacher risk preferences. *Education Economics*. 23(4), 470-480.
- (3) **Shuls, J. V.** (2014). Analysis of superintendent survey responses regarding teacher tenure. *eJournal of Education Policy*, Fall, 1-9.
- (2) **Shuls, J.V.** & Maranto, R. (2014). Show them the mission: A comparison of materialistic and idealistic recruitment incentives in high need communities. *Social Science Quarterly*, 95(1), 239-253.
- (1) Maranto, R. & **Shuls, J.V.** (2012) How to get them on the farm? Efforts to improve rural teacher recruitment and retention in Arkansas. *Rural Educator*. 34(1), n1.

MANUSCRIPTS UNDER REVIEW & IN PROGRESS

Shuls, J. V. & Wolf, P. J. (Revise and Resubmit, *Journal of School Choice*). The School Choice Dilemma

Shuls, J. V. & Tipping, A. (Revise and Resubmit, *Educational Researcher*). Pension winners and losers: How salary schedules create cross-district variation in returns on investments.

Costrell, R., Hitt, C., & **Shuls, J.V.** (Drafting). Undermining equity: How state pension subsidies favor wealthy school districts.

Shuls, J.V. & Lux, J. (Submitted to the Journal of Education Finance). The impact of the great recession on teacher salaries: Evidence from Missouri.”

Flores, J. & **Shuls, J. V.** (Submitted to the Journal of Educational Leadership and Policy Studies). Improving teacher retention through support and development.

Shuls, J.V. (In progress). Wrong turn in Albuquerque: A critique of professional judgement methods for determining an adequate cost of education.

LAW REVIEW ARTICLES

- (1) **Shuls, J.V.** (2018). Financing School Choice: How program design impacts issues regarding legality and equity. *Kansas Journal of Law & Public Policy*. 27(3), 500-514.

EDITOR-REVIEWED PUBLICATIONS

- (4) **Shuls, J.V.**, Hitt, C., & Costrell, R.M. (2019). Undermining equity through state pension subsidies. *Phi Delta Kappan*. 100(8), 37-41.
- (3) **Shuls, J.V.** & Ritter, G.W., (2013). Teacher Preparation: not an either/or. *Phi Delta Kappan*. 94(8), 28-32.
- (2) Ritter, G.W. & **Shuls, J.V.** (2012). If a tree falls in a forest, but no one hears... *Phi Delta Kappan*. 94(3), 34-38.
- (1) Maranto, R. & **Shuls, J.V.** (2011). Lessons from KIPP Delta. *Phi Delta Kappan*. 93(3), 52-56.

BOOK CHAPTERS

- (1) **Shuls, J.V.** (2018) School finance in rural America. In McShane, M.Q. & Smarick, A. (Eds.), *No longer forgotten: The triumphs and struggles of rural education in America*. Rowman & Littlefield.

BOOK REVIEWS

- (4) **Shuls, J.V.** (Forthcoming 2019). A dangerous belief. A review essay of “The Education of Eva Moskowitz: A Memoir”, by Eva Moskowitz and “Changing the Course of Failure: How Schools and Parents Can Help Low-Achieving Students,” by Sandra Stotsky. *Academic Questions*.
- (3) **Shuls, J.V.** (2018). Review of “When school policies backfire: How well-intentioned measures can harm our most vulnerable students” by Michael A. Gottfried and Gilberto Q. Conchas, eds.. *Public Administration Review*, 78(4), 650-651 .
- (2) **Shuls, J.V.** (2016). Review of “Work hard, be hard: Journeys through “No Excuses” teaching. *Journal of School Choice: International Research and Reform*, 10(3), 402-403.
- (1) **Shuls, J.V.** (2013). The book that got me to leave the classroom. *Journal of School Choice: International Research and Reform*. 7(3), 424-425.

REPORTS & ESSAYS

- (19) Lueken, M. & **Shuls, J.V.** (2018). The future of K-12 funding: How can states fund K-12 education to equalize opportunity and make funding more equitable? *EdChoice*
- (18) **Shuls, J.V.** (2018). Available Seats 2.0: Opportunities abound with private school choice. *Show-Me Institute*.
- (17) McShane, M. Q., Pendergrass, S., & **Shuls, J.V.** (2018). Bryce’s law revisited: Serving Missouri’s neediest students through targeted scholarships. *Show-Me Institute*.
- (16) **Shuls, J.V.** (2018). An analysis of the Kirwan Commission recommendations. *Maryland Public Policy Institute*.
- (15) McShane, M. & **Shuls, J.V.** (2017). Teachers’ opinions on Missouri’s public school retirement system. *Show-Me Institute*.
- (14) **Shuls, J.V.** (2017). Is Missouri’s teacher pension system unfair? *Show-Me Institute*.
- (13) **Shuls, J.V.** (2017). Values-based education: How education savings accounts provide options. *Texas Public Policy Foundation*.
- (12) Rathbone, M. & **Shuls, J.V.** (2015). Betting on the big returns: How Missouri teacher pension plans have shifted to riskier assets. *Show-Me Institute*.
- (11) Fallon, A. J. & **Shuls, J.V.** (2015). Vacant school buildings: An examination of Kansas City and Saint Louis. *Show-Me Institute*.

- (10) **Shuls, J.V.** (2015). Interdistrict choice for students in failing schools: Burden or boon? *Show-Me Institute*.
- (9) **Shuls, J.V.** with West, C. & Davis, A. (2014). Decentralization through centralization: The story of the recovery school district. *Show-Me Institute*. Case Study, No. 22.
- (8) **Shuls, J.V.** (2014). Available Seats? Survey analysis of Missouri private school participation in potential state scholarship programs. *Show-Me Institute*.
- (7) **Shuls, J.V.** & Barnes, K. (2013). The Power to Lead: Analysis of Superintendent Survey Responses Regarding Teacher Tenure. *Show-Me Institute*.
- (6) **Shuls, J.V.** (2013). Redefining Public Education. *Show-Me Institute*.
- (5) **Shuls, J.V.** (2013). Public Dollars, Private Schools: Examining the Options in Missouri. *Show-Me Institute*.
- (4) **Shuls, J.V.** (2012). A primer on Missouri's foundation formula for K-12 public education. *Show-Me Institute*. Policy Study (35).
(Revised edition, 2017)
- (3) **Shuls, J.V.** (2012). The salary straitjacket: The pitfalls of paying all teachers the same. *Show-Me Institute*.
- (2) **Shuls, J.V.**, Burks, S. M., & Ritter, G. W. (2012). What do schools look for in prospective teachers? An analysis of teacher application documents? *Office for Education Policy*, Department of Education Reform, University of Arkansas.
- (1) **Shuls, J.V.**, Jensen, N.C., Rose, C.P., Ritter, G.W. (2010). Comprehensive Analysis of Arkansas Teacher Salaries: State, Region, and District. *Office for Education Policy*, Department of Education Reform, University of Arkansas.

EXTERNAL FUNDING

- (5) Laura and John Arnold Foundation. *Undermining equity: How state pension subsidies favor wealthy school districts*. (2018-2020). \$156,930.
Co-PIs: Robert Costrell, University of Arkansas
Collin Hitt, Southern Illinois University
- (4) The Charles Koch Foundation. *Examining Inequities in Teacher Pension Wealth*. Principal Investigator. (2016-2017). \$30,000
- (3) The Kemper Foundation. *Evaluation of Missouri's Inter-District Transfer Laws*. Principal Investigator. (2014-2015). \$25,000.

- (2) The Walton Family Foundation. *Evaluation of Missouri's Inter-District Transfer Laws*. Principal Investigator. (2014-2015). \$40,000.
- (1) The Walton Family Foundation. *Analysis of private school market in Kansas City and St. Louis*. Principal Investigator. (2013-2014). \$25,000.

Total External Funding: \$276,930

INTERNAL FUNDING

- (2) University of Missouri – St. Louis Research Award. *Undermining Equity: A Pilot Study of Illinois Teacher Pension Funding Policy*. Principal Investigator. (2017-2018). \$4, 965.
- (1) University of Missouri Research Board. *Examining Inequities in Teacher Pension Wealth*. Principal Investigator. (2015-2016). \$13,757.

Total Internal Funding: \$18,722

UNFUNDED GRANTS

- (2) Kern Family Foundation. *Infusing Character Education in Leadership Preparation*. (2019). Principal Investigator. (2019). Requested amount: \$19,946.
Co-PI: Vanessa Garry, University of Missouri – St. Louis
- (1) Laura and John Arnold Foundation. *Examining Inequities in Teacher Pension Wealth* Principal Investigator. (2015-2016). \$50,282.

ACADEMIC RESEARCH PRESENTATIONS & PANELS

- (31) **Shuls, J.V.**, Hitt, C., & Costrell, R. (2019). Undermining equity: How state pension subsidies favor wealthy school districts. *Presented at the Association for Education Finance and Policy's annual meeting in Kansas City, Missouri*.
- (30) **Shuls, J.V.**, & Lux, J. (2019). Salary Spiking?: How Late Career Raises Lead to Disparity in Pension Benefits. *Presented at the Association for Education Finance and Policy's annual meeting in Kansas City, Missouri*. (Poster Session)
- (29) **Shuls, J.V.**, & Lux, J. (2019). Salary Spiking?: How Late Career Raises Lead to Disparity in Pension Benefits. *Presented at the Midwest Economics Association's annual meeting in St. Louis, Missouri*.
- (28) **Shuls, J.V.**, Hitt, C., & Costrell, R. (2018). Undermining equity: How state pension subsidies favor wealthy school districts. *Presented at the Association for Public Policy Analysis and Management's Annual Conference in Washington D.C.*

- (27) **Shuls, J.V.** & Lux, J. (2018). Salary Spiking?: How Late Career Raises Lead to Disparity in Pension Benefits. *Presented at the Association for Public Policy Analysis and Management's Annual Conference in Washington D.C.* (Poster session).
- (26) DeAngelis, C. A. & **Shuls, J.V.** (2018). School choice benefits teachers too? The effect of school choice programs on teacher salary and employment opportunity. *Presented at the Association for Public Policy Analysis and Management's International Conference in Mexico City.*
- (25) DeAngelis, C. & **Shuls, J.V.** (2018). School choice benefits teachers too? The effect of school choice programs on teacher salary and employment opportunity. *Presented at the Association for Education Finance and Policy's annual meeting.*
- (24) **Shuls, J. V.** & Tipping, A. (2018). Are public pensions regressive? Calculating internal rates of return for public school district salary schedules. *Presented at the Association for Education Finance and Policy's annual meeting.*
- (23) (Invited Presenter) (2018) The Future of Education seminar hosted by the Institute for Humane Studies. Charleston, S.C.
- (22) **Shuls, J. V.** & Tipping, A. (2018). Are public pensions regressive? Calculating internal rates of return for public school district salary schedules. *Presented at the Southern Political Science Association's annual meeting.*
- (21) (Invited Presenter) Rural Education in America: Challenges and Promise. Hosted by the American Enterprise Institute.
- (20) **Shuls, J.V.** (2017). Pension Winners and Losers: How salary schedules impact retirement benefits. *Presented at the Association for Education Finance and Policy's annual meeting.*
- (19) **Shuls, J.V.** (February 2017). Pension Winners and Losers: How salary schedules impact retirement benefits. *Presented at the National Education Finance Conference.*
- (18) **Shuls, J.V.** (June 2016). Examining inequities in teacher pension benefits. *Presented at the Association for Public Policy Analysis and Management's International conference in London.*
- (17) **Shuls, J.V.** (March 2016). Examining inequities in teacher pension benefits. *Presented at the Association for Education Finance and Policy's annual meeting.*
- (16) **Shuls, J.V.** (November 2015). Examining inequities in teacher pension wealth. *Presented at the Association for Public Policy Analysis and Management's annual meeting.*
- (15) **Shuls, J.V.** & Wolf, P.J. (May 2015). School vouchers and racial politics in the U.S.: Explaining the strange bedfellows supporting and opposing private school choice.

Workshop: Public Opinion and the Political Economy of Education – hosted by the Ifo Institute for Economic Research at the University of Munich and the Program on Education Policy and Governance at Harvard University.

- (14) **Shuls, J.V.** (February 2015). Inter-district choice for students in failing schools: Burden or boon? *Presented at the Association for Education Finance and Policy's annual meeting.*
- (13) (Panel Organizer) What is in store for the Common Core?: The politics and policy of implementation. (2015). *Panel Session at the Association for Education Finance and Policy's annual meeting.* Panelists include: Michael Q. McShane, Morgan S. Polikoff, Ashley E. Jochim, **James V. Shuls**, and Andy Smarick (chair).
- (12) **Shuls, J. V.** & Wolf, P. J. (August 2014). School vouchers and racial politics in the U.S.: Explaining the strange bedfellows supporting and opposing private school choice. *Presented at the American Political Science Association's annual meeting.*
- (11) **Shuls, J.V.** (March 2014). Spiking salaries: Analyzing the impact of collective bargaining on teacher salaries and pension benefits. *Presented at the Association for Education Finance and Policy's annual meeting.*
- (10) **Shuls, J.V.** & Trivitt, J. (March 2013). High school, high scores: Analyzing determinants of effectiveness on end-of-course exams. *Presented at the Association for Education Finance and Policy's annual meeting.*
- (9) **Shuls, J.V.** & Galbraith, K. (March 2013). Available seats?: Survey analysis of Missouri private school participation in potential state scholarship programs. *Presented at the Association for Education Finance and Policy's annual meeting.* (Poster session)
- (8) **Shuls, J.V.** & Trivitt, J. (March 2012). What makes a teacher effective?: An analysis of teacher credential's impact on value-added student achievement. *Presented at the Association for Education Finance and Policy's annual meeting.*
- (7) Bowen, D., Buck, S., Mills, J., & **Shuls, J.V.** (March 2012). Risky business: An experimental analysis of teacher risk preferences. *Presented at the Association for Education Finance and Policy's annual meeting.*
- (6) **Shuls, J.V.** & Trivitt, J. (Nov. 5, 2011). Teacher Prep: Examining Determinants of Teacher Effectiveness. *Presented at the Association for Public Policy Analysis and Management's 33rd annual research conference.* (Poster session).
- (5) **Shuls, J.V.**, Maranto, R., & Ritter, G. (April 9, 2011). Overcoming the Geographic Teacher Shortage: Lessons from KIPP Delta. *Presented at the American Educational Research Association's annual meeting.*

- (4) Maranto, R. & **Shuls, J.V.** (April 9, 2011). KIPPnotization: A case study of culture building. *Presented at the American Educational Research Association's annual meeting.*
- (3) **Shuls, J.V.**, Ritter, G., & McGee, J.B. (March 25, 2011). Coming and Going: Selection and Attrition at One KIPP Campus. *Presented at the Association for Education Finance and Policy's annual meeting.* (Poster Session).
- (2) Maranto, R. & **Shuls, J.V.** (Jan. 7, 2011). The first day of KIPP: A case study. *Presented at the Southern Political Science Association's annual meeting.*
- (1) Jensen, N.C., Ritter, G.W., & **Shuls, J.V.** (2010). NWEA assessments and performance pay: A case study of the eSTem Public Charter Schools. *Presented at NWEA Summer Conference, Portland, OR.*

REGIONAL AND LOCAL

- (2) **Shuls, J.V.** (October 2013). Compensation schedules and performance pay. *Presented at the Missouri Charter Public School Association's annual meeting.*
- (1) **Shuls, J.V.** (August 2013). Panelist. *Urban Summit Education Cell Panel, Kansas City, MO.*

INVITED PRESENTATIONS

- (16) **Shuls, J.S.** (May 21, 2019). School Choice 101. *Invited by the U.S. Chamber of Commerce Foundation for their Business Leads Fellowship Program.*
- (15) **Shuls, J.V.** (March 7, 2019). Debating Blaine. *Hosted by the Federalist Society at the University of New Mexico.*
- (14) **Shuls, J.V.** (February 5, 2019). School finance wars: Adequacy strikes back. *Hosted by the Federalist Society at Washburn University.*
- (13) **Shuls, J.V.** (November 2018). School Finance Panel Discussion. *Invited by the Southern Education Foundation to participate in a panel discussion at the organization's annual forum.*
- (12) **Shuls, J.V.** (October 2018). School Accountability. *Invited by EdChoice to present at the State Policy Network's pre-conference workshop.*
- (11) **Shuls, J.V.** (September 2018). School Choice 101. *Invited by the U.S. Chamber of Commerce to present at the Business Leads Fellowship Program in New Orleans.*
- (10) **Shuls, J.V.** (February 2018). Financing school choice: How program design impacts issues regarding legality and equity. *2018 Kansas Journal of Law & Public Policy Symposium, Lawrence, KS.*

- (9) **Shuls, J.V.** (December 2017). School Finance in Rural America. *As part of the Rural Education in America: Challenges and Promise conference hosted by the American Enterprise Institute.*
- (8) **Shuls, J.V.** (November 2017). School Choice as a Means of Integration. *Hosted by the Federalist Society at Saint Louis University.*
- (7) **Shuls, J.V.** (June 2016). Common Core and the Growing Need for Decentralization in Education. *Hosted by the Orange County Federalist Society.*
- (6) **Shuls, J.V.** (February 2016). Debate with Hyman Bass on the Common Core State Standards. *Hosted by the Federalist Society and the Education Policy and Law Society of the University of Michigan.*
- (5) **Shuls, J.V.** (October 2015). Vergara and the Future of Teacher Tenure. *Hosted by the Federalist Society of the University of California, Davis.*
- (4) **Shuls, J.V.** (February 2015). The future of education in Kansas City. (Panelist). *Hosted by the Kansas City Federalist Society.*
- (3) **Shuls, J.V.** (February 2015). Learning to teach in a changing system. *Presented as part of the "What's Current Wednesdays" series hosted by The Current at the University of Missouri – St. Louis.*
- (2) **Shuls, J.V.** (October 2014). The Blaine amendment: The school choice barrier from the state of Maine. *Presented at the Annual assembly of the Missouri Catholic Conference.*
- (1) **Shuls, J.V.** (November 2012). The salary straitjacket. *Presented to the Missouri Mathematics and Science Coalition, Jefferson City, MO.*

HONORS AND AWARDS

University of Missouri-St. Louis Junior Faculty Investigator of the Year (2017)
 Artinian Travel Award, Southern Political Science Association (2017)
 Doctoral Academy Fellow, University of Arkansas (2009 – 2012)
 Will Myers Memorial Scholarship, Association for Education Finance and Policy (2012)
 Prestage Cook Award, Southern Political Science Association (2011)
 Hayek Fund for Scholars Award, Institute for Humane Studies (2011)
 Omicron Delta Kappa, National Leadership Honor Society (2003)
 Kappa Delta Pi, International Honor Society in Education (2003)

TEACHING AND MENTORSHIP

UNIVERSITY OF MISSOURI – ST. LOUIS

Ed Adm 6000: Charles Fazzaro Leadership Seminar
Ed Adm 6200: Demographic Contexts of Education
Ed Adm 6301: Education Policy Analysis
Ed Adm 6401: School Staff Development and Supervision
Ed Adm 6404: Collective Negotiations in Education Organizations
Ed Adm 6501: Principles of School Finance in Missouri
Ed Adm 6502: School Buildings and Sites
Ed Adm 6503: Organizational Change in Education
Ed Adm 6701: Leadership for Equity
Ed Adm 6706: Diagnostic and Strategic Planning
Ed Rem 6730: Educational Program Evaluation
Ed Rem 6732: Advanced Educational Program Evaluation

UNIVERSITY OF ARKANSAS

CIED 3033: Classroom Learning Theory
CIED 3093: Essentials of Literacy

DOCTORAL DISSERTATION COMMITTEES

- (8) Amy Meeks, Ph.D. (Completed, Aug. 2016). Below the surface of special education administration turnover (Committee Member)
- (7) Kathleen Vierod, Ed.D. (Completed, March 2016). School based mental health as it related to student outcomes (Committee Member)
- (6) Will Armon, Ed.D. (Completed, March 2016). The paradox of impoverished Missouri schools: The school districts in Missouri that need more often get less (Committee Member)
- (5) Cheryl Hermann, Ed.D. (Completed, March 2016). Educational research for children who are Deaf (Committee Member)
- (4) Joycelyn Pugh, Ed.D. (Completed, March 2016). The impact of Every Student Succeeds Act on equitable Title I services for nonpublic school students (Committee Member)
- (3) Katie Rahn, Ed.D. (Completed, March 2016). The early childhood crisis in Missouri: The demand for access to high quality ECE for low-income children (Committee Member)
- (2) Kevin Martin, Ed.D. (Completed, March 2016). Elevating teacher quality: Teacher tenure reform applying lessons from other fields (Committee Member)
- (1) Mary Hardy, Ed.D. (Completed, March 2016). Missouri's missing education policy: Supporting systems for districts with high student mobility rates (Committee Member)

Current doctoral advisees: Josh Flores, Patrick Fisher, Susan Marino, Sarah Ranney, Ashley McMichael, and Kimberly Loomis.

SPECIALIST ADVISEES - COMPLETED

- (11) Michael Zitzer, Ed.S. in Educational Administration (2019). Analysis of school level math curricula. (**Committee Chair**)
- (10) Shannon Seger, Ed.S. in Educational Administration (2018). Special education administrator internship program: Current practice and opportunities for growth. (**Committee Chair**)
- (9) Robin Vaulx-Williams, Ed.S. in Educational Administration (2018). Daily writing across the curriculum. (**Committee Chair**)
- (8) Kimberly Loomis, Ed.S. in Educational Administration (2018). Literature review of grade point average and high school athletic participation. (Committee Member)
- (7) Joshua Flores, Ed.S. in Educational Administration (2018). Retaining teachers: Advice from Missouri's best districts. (**Committee Chair**)
- (6) Patrick Fisher, Ed.S. in Educational Administration (2018). You're the principal, now what? (**Committee Chair**)
- (5) Jody Romeo, Ed.S. in Educational Administration (2018). Restorative practices make a difference: Positive change equals positive results. (Committee Member)
- (4) Donald Frazier, Ed.S. in Educational Administration (2018). Building School Culture: Action Research. (**Committee Chair**)
- (3) Ashley McMichael, Ed.S. in Educational Administration (2017). Improving School Culture: Implementing a Rubric for School Walkthroughs (**Committee Chair**)
- (2) Jeff Tandler, Ed.S. in Educational Administration (2016). High Expectations Yielding High Results in Urban Education. (**Committee Chair**)
- (1) Richard Regina, Ed.S. in Educational Administration (2015). Descriptive Analysis of Teacher Attendance Patterns in a Suburban Midwestern School District. (**Committee Chair**)

PROFESSIONAL DEVELOPMENT

LEC Public Policy Conference on Solving the Public Pension Crisis for Law Professors (Accepted to Attend, December 1-2, 2016), George Mason University

University of Missouri Faculty Scholars (2015 – 2016)

SERVICE CONTRIBUTIONS

PROFESSIONAL AFFILIATIONS

Association for Education Finance and Policy (2010 – Present)
American Education Research Association (2011 – 2012, 2015 – 2016)
Association for Public Policy Analysis and Management (2011 – 2012, 2015 – Present)
Missouri Professors of Educational Administration (2015 – Present)

NATIONAL & INTERNATIONAL SERVICE

Peer Reviewer:

Educational Policy, Journal of School Choice: International Research and Reform, The Social Science Journal, The Rural Educator

Volunteer:

Association for Education Finance and Policy annual conference

- Assisted with registration and organized attendance counting (2012 – 2016)

Session Chair:

Midwest Economics Association's annual conference (2019)
Association for Public Policy Analysis and Management's annual conference (2015)
Association for Education Finance and Policy's annual conference (2015, 2016)

Grant Reviewer:

Office of Public Charter School Financing and Support at the Office of the State Superintendent of Education, Washington D.C. – CS3 Grants, and Replication and Growth Grants. (2011)

DEPARTMENT, COLLEGE, & UNIVERSITY SERVICE

University of Missouri – St. Louis

Faculty Senate, elected college representative (2018 – Present)

Council for Accreditation of Educator Preparation (CAEP) college committee member (2018 – Present)

- Gathering evidence for Standard 1: Content and Pedagogical Knowledge

College Doctoral Research and Travel Awards Committee, committee chair (2018 – Present)

- Evaluates applications and determines award winners

University Spring Research Panel Award Committee, member (2018 – 2019)

- Evaluates internal grant applications and determines award winners

Faculty Affairs Subcommittee on Faculty Research, elected committee member (2017 – Present)

- The committee supports faculty members develop their research agenda by organizing training events, generating scholarly discussions, and supporting grant writing

Graduate Program Director, Education Leadership Studies (2016 – Present)

- Manage admissions process (2015 – Present)
- Organized Leadership Speakers Series (2016)
- Oversaw the complete redesign of the M.Ed. program, including the development of 10 new courses (2014 – 2016)
- Reorganized the Ed.S. program
- Liaison, Dept. of Elementary and Secondary Education (2015 – Present)

Curriculum and Program Quality Committee, elected department representative (2015 – Present)

- Evaluates and approves all bulletin changes to courses or programs
- Develops and monitors metrics to enhance program quality

Guest Evaluator for Ed.D. Comprehensive Exams (2015)

Search Committee, *E. Desmond Lee Endowed Professor of Urban Education* (2014)

Proposal Reviewer, *University of Missouri Research Board* (2014, 2017, 2019)

Committee Member, College of Education Graduate Education Committee (2014)

University of Arkansas

Coordinator, Department of Education Reform's Lecture Series (2011 – 2012)

COMMUNITY SERVICE

Appointed by Missouri Senate President Pro Tem Ron Richard to serve on the Personal Finance Working Group tasked with developing new learning standards (2016 – 2017)

Member, St. Louis Public Schools Superintendent's Leadership Advisory Committee (2015 – 2016)

Appointed by Missouri Senate President Pro Tem Tom Dempsey to serve on K-5 committee tasked with developing new learning standards (2014 – 2015)

MEDIA

I have published dozens of opinion editorials. They have appeared in the *St. Louis Post-Dispatch*, the *Arkansas Democrat-Gazette*, the *Springfield News-Leader*, the *Springfield Business Journal*, the *Press of Atlantic City*, the *Columbia Missourian*, the *Sedalia Democrat*,

the *Columbia Daily Tribune*, *Education News*, the *St. Louis Beacon*, the *St. Louis American*, *Southeast Missourian*, *The 74 Million*, and the *Baltimore Sun*.

From 2013 to 2019, I have appeared on more than 50 radio or television programs. I have made appearances on the following programs: *The Charlie Brennan Show* (KMOX – St. Louis), *The Mark Reardon Show* (KMOX – St. Louis), *The McGraw Milhaven Show* (KTRS – St. Louis), *The Morning Magazine* (KRMS – Lake of the Ozarks), *The Morning Show with Greg Knapp* (KCMO – Kansas City), *KMBZ Live with Darla Jaye* (KMBZ – Kansas City), *The Gary Nolan Show* (KSSZ – Columbia, MO), *Morning Newswatch* (KZRG—Joplin), *Morningline* (KWTO – Springfield, MO), *Mornings with Nick Reed* (KSGF – Springfield, MO), *Stay Tuned* (KETC – St. Louis), *The Jaco Report* (KTVI- St. Louis), *WBAL News Now with Bryan Nehman* (WBAL – Maryland), *News* (KMBC – Kansas City), *News* (KSHB – Kansas City), *News* (Fox4KC – News), *St. Louis Public Radio* (KWMU), *Fox 2 News* (KTVI).

Joshua B. McGee

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Current Positions and Affiliations

University of Arkansas

Associate Director, Office for Education Policy, 2019-Present

Research Assistant Professor, Department of Education Reform, 2019-Present

Senior Fellow, Manhattan Institute for Policy Research, 2015-Present

Director, Equable Institute, New York, NY, 2018-Present

Director, EdBuild, Jersey City, NJ, 2015-Present

Director, MDRC, New York, NY, 2013-Present

Professional Experience

Laura and John Arnold Foundation

Executive Vice President, 2017-2018

Vice President, March 2011-2017

Chairman, Texas State Pension Review Board, Appointed by Governor Abbott, 2015-2019

Member, Urban Institute-Brookings Tax Policy Center Leadership Council, 2016-2018

Advisory Group Member, Exploring Collaborative Strategies for Clients, Feeding America, 2012

Member, Brookings Institution Advisory Panel on Public Pension Reform, 2013

Advisory Board Member, Houston Education Research Consortium, Rice University, 2011-2018

Adjunct Faculty, Jones Graduate School of Business, Rice University, 2011-2012

Research Associate, Department of Education Reform, University of Arkansas, 2009-2011

Research Assistant, Center for Business and Economic Research, Sam M. Walton College of
Business, University of Arkansas, 2006-2007

Haas Hall Academy (public charter high school)

Headmaster, 2005-2006

Mathematics Instructor, 2004-2006

Education

Ph.D., Economics, University of Arkansas, 2011

M.S., Industrial Engineering, University of Arkansas, 2007

B.S., Industrial Engineering, University of Arkansas, 2003

Refereed Publications

Rethinking the Structure of Teacher Retirement Benefits: Analyzing the Preferences of Entering Teachers (with Marcus Winters), *Educational Evaluation and Policy Analysis*, 41(1), 63-78, March 2019.

Cross-Subsidization of Teacher Pension Costs: The Case of California (with Robert Costrell), *Education Finance and Policy*, 14(2), 327-354, March 2019.

How Pensions Contribute to the Premium Paid to Experienced Public School Teachers (with Marcus Winters), *Educational Researcher*, 46(5), 250-258, July 2017.

Growth Networks (with Raja Kali, Javier Reyes and Stuart Shirrell), *Journal of Development Economics*, 101, 216-227, March 2013.

When the Best is Mediocre (with Jay Greene), *Education Next*, 12(1), 35-40, Winter 2012.

Teacher Pension Incentives, Retirement Behavior, and Potential for Reform in Arkansas (with Robert Costrell), *Education Finance and Policy*, 5(4), 492-518, Fall 2010.

A Closer Look at Charter Schools and Segregation (with Gary Ritter, Nathan Jensen and Brian Kisida), *Education Next*, 10(3), 69-73, Summer 2010.

Quantifying the effect of transportation practices in military supply chains (with Manuel Rossetti and Scott Mason), *Journal of Defense Modeling and Simulation*, 2(2), 87-100, April 2005.

Simulating Transportation Practices in Multi-Indenture Multi-Echelon (MIME) Systems (with Manuel Rossetti and Scott Mason), *Proceedings of the 2004 Winter Simulation Conference*, R.G. Ingalls, M.D. Rossetti, J.S. Smith, and B.A. Peters, eds., Piscataway, New Jersey: Institute of Electrical and Electronics Engineers, 2004.

Policy Briefs, Book Chapters, and Other Publications

How to Avert a Public-Pension Crisis, National Affairs, Washington D.C., Summer 2019.

Garden State Crowd-Out: How New Jersey's Pension Crisis Threatens the State Budget, Manhattan Institute (with Steven Malanga), New York, NY, January 2018.

The Future of Effective Government: Use Evidence, Build Evidence, Repeat (with Erica Brown and Kathy Stack), in *What Matters: Investing in Results to Build Strong, Vibrant Communities*, Federal Reserve Bank of San Francisco, 2017.

The Never-Ending Hangover: How New York City's Pension Costs Threaten Its Future (with E.J. McMahon), *Report No. 41*, Manhattan Institute, New York, NY, June 2017.

A Pivotal Moment: Assessing Houston's Plan for Pension Reform (with Paulina Diaz Aguirre), Laura and John Arnold Foundation, Houston, TX, April 2017.

A Boomtown at Risk: Austin's Mounting Public Pension Debt (with Paulina Diaz Aguirre), Laura and John Arnold Foundation, Houston, TX, November 2016.

Feeling the Squeeze: Pension Costs Are Crowding Out Education Spending, *Report No. 22*, Manhattan Institute, New York, NY, October 2016.

The Dallas Public Pension Crisis: A Warning for Cities Across Texas (with Paulina Diaz Aguirre), Laura and John Arnold Foundation, Houston, TX, October 2016.

Better Pay, Fairer Pensions III — The Impact of Cash-Balance Pensions on Teacher Retention and Quality (with Marcus Winters), *Report No. 15*, Manhattan Institute, New York, NY, June 2016.

Chicago Crowd-Out: How Rising Pension Costs Harm Current Teachers—and Students, *Issue Brief No. 52*, Manhattan Institute, New York, NY, May 2016.

Modeling Pension Benefits (with Michelle Welch), Urban Institute, Washington, D.C., March 2016.

Rewarding Experienced Teachers: How Much Do Schools Really Pay? *Civic Report No. 104*, Manhattan Institute, New York, NY, October 2015.

Swamped: How Pension Debt Is Sinking the Bayou City (with Michelle Welch), *LJAF Policy Perspective*, Laura and John Arnold Foundation, Houston, TX, August 2015.

Defined-Contribution Pensions Are Cost-Effective, *Civic Report No. 100*, Manhattan Institute, New York, NY, August 2015.

Why Government Needs More Randomized Controlled Trials: Refuting the Myths (with Stuart Buck), *LJAF Policy Perspective*, Laura and John Arnold Foundation, Houston, TX, July 2015.

Risky Retirement: Colorado’s Uncertain Future and Opportunities for Reform (with Michelle Welch), *LJAF Policy Perspective*, Laura and John Arnold Foundation, Houston, TX, June 2015.

School Grades (with Jacob Vigdor), Manhattan Institute, New York, NY, Summer 2015, www.SchoolGrades.org.

Modernizing Teacher Pensions (with Marcus Winters), National Affairs, Washington D.C., Winter 2015.

Better Pay, Fairer Pensions II: Modeling Preferences Between Defined-Benefit Teacher Compensation Plans (with Marcus Winters), *Civic Report No. 90*, Manhattan Institute, New York, NY, June 2014.

State Public Pension Investments Shift Over Past 30 Years (with Michelle Welch and Pew Charitable Trusts staff), Pew Charitable Trusts, Washington, D.C., June 2014.

Equivalent Cost for Equivalent Benefits: Primary DC Plans in the Public Sector, *LJAF Policy Perspective*, Laura and John Arnold Foundation, Houston, TX, October 2013.

Kentucky's Successful Public Pension Reform (with Pew Charitable Trusts staff), Pew Charitable Trusts, Washington, D.C., September 2013.

Better Pay, Fairer Pensions: Reforming Teacher Compensation (with Marcus Winters), *Civic Report No. 79*, Manhattan Institute, New York, NY, September 2013.

Illinois' Pension Challenges (with Pew Charitable Trusts staff), Pew Charitable Trusts, Washington, D.C., July 2013.

Montana's Pension Challenges (with Pew Charitable Trusts staff), Pew Charitable Trusts, Washington, D.C., May 2013.

The Transition Cost Mirage – False Arguments Distract from Real Pension Reform Debates, *LJAF Policy Perspective*, Laura and John Arnold Foundation, Houston, TX, March 2013.

Review of *Whither Opportunity? Rising Inequality, Schools, and Children's Life Chances*. by Greg J. Duncan and Richard J. Murnane (Eds.), *Journal of School Choice*, 7(1), 107-110, 2013.

The Charges of Racial Segregation in Charter Schools Are Overstated (with Nathan Jensen, Brian Kisida, and Gary Ritter), in *Charter Schools: Opposing Viewpoints*, Margaret Haerens and Lynn M. Zott, eds., Farmington Hills, MA: Greenhaven Press, 2012.

Houston School Finance Report, *LJAF Policy Perspective*, Laura and John Arnold Foundation, Houston, TX, November 2012.

Arizona's Pension Challenges (with Pew Charitable Trusts staff), Pew Charitable Trusts, Washington, D.C., November 2012.

Kentucky's Pension Challenges (with Pew Charitable Trusts staff), Pew Charitable Trusts, Washington, D.C., August 2012.

Creating a New Public Pension System, *LJAF Solution Paper*, Laura and John Arnold Foundation, Houston, TX, Fall 2011.

The Global Report Card (with Jay Greene), The George W. Bush Institute, Dallas, TX, Fall 2011, www.globalreportcard.org.

A Proposal to Change Arkansas' Growth Model under Act 35 (with Jay Greene), Arkansas Department of Education, Little Rock, AR, 2010.

Estimating Teachers' Behavioral Response to Pension Incentives (with Robert Costrell), *JSM Proceedings*, Business and Economic Statistics Section, Alexandria, VA: American Statistical Association, 2010.

Quantifying the Effect of Commercial Transportation Practices in Military Supply Chains (with Manual Rossetti and Scott Mason), Air Force Research Laboratory, Dayton, Ohio, 2003.

Working/In-Progress Papers

An Analysis of the Effect of Consolidation on Student Achievement: Evidence from Arkansas (with Jay Greene and Jonathan Mills), EDRE Working Paper 2013-02.

Cross-Subsidization Of Teacher Pension Costs: The Impact Of Assumed Market Returns (with Robert Costrell), EDRE Working Paper 2017-19.

Op-Eds

“Worried about the retirement savings ‘crisis’ in the U.S.? Don’t be,” Los Angeles Times, June 21, 2019.

“Failing to adequately fund pensions harms teachers and taxpayers,” Austin American Statesman and Houston Chronicle, May 8, 2019.

“Teachers strike for higher pay because administration and benefits take too much money,” USA Today, February 18, 2019.

“Pension Plan Fix Is a Sign of Progress,” Houston Chronicle, June 9, 2017.

“Defuse This City Pension Bomb,” with E.J. McMahon, New York Daily News, April 29, 2017.

“The Real Cost of CPS Borrowing: District Now Owes \$38,000 per Student,” Crain's Chicago Business, May 25, 2016.

“Calling Attention to Excellence Among Philadelphia Schools,” with Jacob Vigdor, Philadelphia Inquirer, January 15, 2016.

“Teacher Pension Rules Heavily Favor Longevity,” with Marcus Winters, Orange County Register, October 24, 2015.

“While Rethinking Pensions, Push Fairness Among Teachers,” with Marcus Winters, Philadelphia Inquirer, October 20, 2015.

“The True Teacher-Experience Premium,” with Marcus Winters, Education Next, October 6, 2015.

“Courts Worsen the Pension Mess,” Real Clear Policy, August 24, 2015.

“Here's how to eliminate pension underfunding once and for all,” Crain’s Chicago Business, August 12, 2015.

“Returning sense and security to teachers' pensions,” Washington Examiner, April 2, 2015.

“Firefighters pension deal will cost more in long run,” Houston Chronicle, March 10, 2015.

“What accountability ratings don’t say about Texas schools,” Dallas Morning News, September 24, 2014.

“Correcting the teacher pension issue,” with Marcus Winters, Orange County Register, July 11, 2014.

“Transition cost not a bar to pension reform,” with Andrew Biggs and Michael Podgursky, Pensions and Investments Magazine, January 6, 2014.

“Reform Teacher Pensions,” with Marcus Winters, Philadelphia Inquirer, September 24, 2013.

“Teacher Pensions That Are Fair To All,” with Marcus Winters, New York Daily News, September 8, 2013.

“Better Pay, Fairer Pensions for Los Angeles Teachers,” with Marcus Winters, Los Angeles Daily News, September 6, 2013.

“Agree on bipartisan, funded pension reform,” with David Draine, The Lexington Herald-Leader, March 5, 2013.

“Voters have spoken. But what did they say?” The Houston Chronicle, June 17, 2012.

“Suburban Districts Lagging on a Global Scale,” with Jay P. Greene, Atlanta Journal Constitution, October 24, 2011.

“Suburban School Districts Falling Behind,” with Jay P. Greene, The Statesman, October 16, 2011.

“Suburban Schools Post Low Global Grades,” with Jay P. Greene, Hartford Courant, October 9, 2011.

“Suburban Schools Can Use Improvement, Too,” with Jay P. Greene, The Oklahoman, October 9, 2011.

“Suburban Schools Fall Short Globally,” with Jay P. Greene, The Sacramento Bee, October 9, 2011.

“Policy Burdens State's Charter Schools,” with Brian Kisida, Arkansas Democrat Gazette, November 29, 2009.

Invited Presentations and Testimony (selected)

Volker Alliance and Federal Reserve Bank of Chicago, Conference, September 2018
Harvard, Gathering Storm: The Risks Of State Pension Underfunding, October 2017
Southern Municipal Finance Society, Conference, September 2017
Urban Institute Pay for Success National Symposium, June 2017
J-PAL State and Local Innovation Initiative, Conference, January 2017
White House and Stanford University, Summit on Technology and Opportunity, Nov 2016
PIE Network Members' Meeting & Policy Summit, October 2016
National Federation of Municipal Analysts Advanced Seminar, October 2015
National Council on Teacher Retirement, Conference, October 2015
Louisiana Public Retirement Systems' Actuarial Committee, September 2015
National Governors Association Innovation Summit, September 2015
National Conference of State Legislatures Legislative Summit, August 2015
Pennsylvania Senate Finance Committee, April 2015
White House OSTP and the Coalition for Evidence-Based Policy, Conference, July 2014
Texas Association of Public Employee Retirement Systems, Conference, March 2014
Minnesota Legislative Commission on Pensions and Retirement, January 2014
Illinois Public Pension Fund Association, Conference, October 2013 and 2014
Conference of Consulting Actuaries Annual Meetings, October 2013
The Hoover Institution Leadership Forum, October 2013
Robert F. Kennedy Compass Conference, April 2013
Children at Risk 7th Annual Children's Summit, January 2013
Arizona Defined Contribution and Retirement Study Committee, November 2012
PIE Network Policy Summit, September 2012
Kentucky Retirement System Task Force, multiple meetings between July and December 2012
Council of Chief State School Officers Summer Institute, July 2012
National Governors Association Resource Reallocation Policy Academy, June 2012
University of Chicago Municipal CFO Forum, April 2012
Pelican Institute, Louisiana Legislature Policy Orientation, December 2011
Buckeye Institute, Conference, December 2011
City of Houston Financial Management Taskforce, December 2011
National Conference of State Legislatures Fall Forum, December 2011
Philanthropy Roundtable and State Policy Network, Conference, October 2011
Fordham Institute, Panel, October 2011
George W. Bush Institute, Conference, September 2011
Illinois House Working Group on Public Employee Benefits, September 2011
Harvard Program on Education Policy and Governance, Conference, August 2011
Arkansas Public School Resource Center, Conference, October 2010.
The European Association for Research on Learning and Instruction, Conference, August 2010
NCES Summer Data Conference, July 2010

Academic Conference Presentations (selected)

American Economic Association
Association for Education Finance and Policy
Association for Public Policy Analysis and Management
Econometric Society North American Summer Meetings
Joint Statistical Meetings
National Center for Performance Incentives
Southern Economic Association
Winter Simulation Conference

Funded Research and Fellowships

Principal Investigator, Anonymous, Measuring the Effects of Rising Teacher-Pension Costs on School District Budgets, (\$81,989) 2015-16
Co-Principal Investigator, Walton Family Foundation, School Quality Matrix, (\$240,000) 2009-11
Doctoral Academy Fellowship, University of Arkansas, Aug. 2007 to Dec. 2008
ISEO Summer School Scholarship, summer 2008
Co-Principal Investigator, Arkansas Economic Development Commission Energy Office, Arkansas Energy Data Profile, 2007
Co-Principal Investigator, City of Ozark, 2007
Co-Principal Investigator, Baxter County Library, 2007

Professional Memberships

Association for Education Finance and Policy
Association for Public Policy Analysis and Management

CURRICULUM VITAE

July 2019

Robert M. Costrell
Professor of Education Reform and Economics (since August 2006)
Endowed Chair in Education Accountability
201 Graduate Education Building
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<http://edre.uark.edu/people/faculty/uid/costrell/name/Robert-Costrell/>

PERSONAL DATA

Born April 10, 1950, Washington, D.C.; U.S. Citizen
Widower, two children

EDUCATION

University of Michigan, 1968-72: B.A. in Economics, High Distinction, Magna Cum Laude
Phi Beta Kappa, Sims Senior Honors Scholarship in Economics

Harvard University, 1972-78: Ph.D. in Economics

Dissertation: "Unemployment, Distribution, and Capacity Utilization on Equilibrium Paths"

Dissertation Chair: Professor Kenneth Arrow

PRIOR GOVERNMENT POSITIONS

Education Advisor to Governor Mitt Romney (2005 – 2006)

Executive Office for Administration and Finance, Commonwealth of Massachusetts:

Chief Economist, Commonwealth of Massachusetts (2003 – 2006)

Director of Research and Development (1999 - 2002).

PRIOR ACADEMIC APPOINTMENTS

University of Massachusetts at Amherst, Department of Economics: Professor (1992 – 2006)

Associate Professor (1985 - 1992); Assistant Professor (1978 - 1985); Lecturer (1978).

Boston University, Department of Economics: Visiting Scholar (1993 - 1994)

Brandeis University, Department of Economics: Adjunct Associate Professor (1986).

University of Toronto, Faculty of Management Studies:

Visiting Assistant Professor of Economics and Finance (1982 - 1984).

BOARDS, PANELS, GRANTS, AWARDS

Laura and John Arnold Foundation, "Undermining Equity: How State Pension Subsidies Favor Wealthy School Districts," co-PI with James Shuls, University of Missouri at St. Louis, 2018-20, \$156,930 (\$80,169 subcontract from UMSL to University of Arkansas)

Laura and John Arnold Foundation, "Cross-Subsidization of Teacher Pension Normal Cost," 2016-17, \$93,764.

Bill and Melinda Gates Foundation, "What Teacher Pension Plans Should Report to Their Members...and the Public," 2011-13. \$132,907.
(Grant awarded, but not completed due to illness and death of my wife; about ½ returned.)

[Education Advisory Committee](#), Mitt Romney Presidential campaign, 2012.

Fellow in Education Reform, George W. Bush Institute, Southern Methodist University, Dallas, TX, 2011-2013 (compensated).

"Analysis of Educator Retirement Benefit Systems in Chicago, Illinois, and Indiana," co-PI, with Michael Podgursky, \$295,000. Joyce Foundation. May 1, 2009 - October 31, 2010.

"Teacher Retirement Benefit Systems and K-12 Education," co-PI, with Michael Podgursky, \$250,000. Smith Richardson Foundation. March 1, 2008-September 30, 2010.

"Significant Research Award," University of Arkansas, College of Education and Health Professions, 2008-09.

National Technical Advisory Council, U.S. Dept. of Education (Secretarial appointee), 2008-09.

"Who's Who in America, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016"

Senior Research Associate, School Choice Demonstration Project, University of Arkansas, 2006-.

Massachusetts School Building Authority (designee of the Secretary of Administration and Finance) (2005-06).

Commissioner (Gubernatorial designee to serve for Secretary of Administration and Finance), Massachusetts Public Employee Retirement Administration Commission (2001-03).

Advisory Council on Education Stat's, U.S. Dept. of Education (Secretarial appointee) (2001-02).

Steering Committee, NAEP Economics Framework and Specifications (2001-02).

Teaching Faculty, Lincoln Institute for Land Policy, Spring 2002, 2006.

Board of Advisors, MassInsight Building Blocks Program (2001-06).

BOARDS, PANELS, GRANTS, AWARDS (cont'd)

Templeton Foundation Freedom Project (with Jeffrey Sedgwick). For John Templeton Seminar & Lectures on Freedom and Education, University of Massachusetts at Amherst (2000).

Judge, Better Government Competition, Pioneer Institute (1999).

Christian Herter Teaching Award for Service to the University, UMass Republican Club (1999).

Board of Academic Advisors, Pioneer Institute, MA (1999-2006).

Board of Academic Advisors, Thomas B. Fordham Foundation (1998-99).

Gubernatorial Appointee to Massachusetts Taxation Alternatives Commission. (1997-98).

Committee to Review National Standards, a project of the American Enterprise Institute, (1994).

PUBLISHED PAPERS IN REFEREED JOURNALS

- “[Cross-Subsidization of Teacher Pension Costs: The Impact of the Discount Rate](#),” *Journal of Pension Economics and Finance*, forthcoming, [Version of record online](#), November 5, 2018.
- (with Josh McGee), “[Cross-Subsidization of Teacher Pension Costs: The Case of California](#),” *Education Finance and Policy*, Spring 2019 (Vol. 14, No. 2), pp. 327-354. [Version of record online](#), 16 November, 2017.
- “[The 80 Percent Pension Funding Target, High Assumed Returns, and Generational Inequity](#),” *Contemporary Economic Policy*, July 2018 (Vol. 36, no. 3), pp. 493-504. Special issue on aging. [Version of record online](#), 7 October, 2016.
- “[Accounting for the Rise in Unfunded Public Pension Liabilities: Faulty Counterfactuals and the Allure of Simple Gain/Loss Summations](#),” *Journal of Pension Economics and Finance*, January 2018 (vol. 17, no. 1), pp. 23-45. [Version of record online](#) 3 October, 2016.
- “[Collective Bargaining and District Costs for Teacher Health Insurance: An Examination of the Data from the BLS and Wisconsin](#),” *Journal of School Choice*, 2015 (vol. 9, no. 4), pp. 578-603.
- (with Jeffery Dean), “[The Rising Cost of Teachers' Health Care](#),” *Education Next*, Spring 2013 (vol. 13, no. 2), pp. 66-72 (refereed research section); [unabridged version](#).
- (with Josh McGee), “[Teacher Pension Incentives, Retirement Behavior, and Potential for Reform in Arkansas](#),” *Education Finance and Policy*, Fall 2010 (Vol. 5, no. 4), 492-518.
- (with Michael Podgursky), “[Distribution of Benefits in Teacher Retirement Systems and their Implications for Mobility](#),” *Education Finance and Policy*, Fall 2010 (Vol. 5, no. 4), 519-557.
- (with Michael Podgursky), “[Golden Handcuffs: Teachers who change jobs or move pay a high price](#),” *Education Next*, Winter 2010 (vol. 10, no. 1), pp. 60-66 (refereed research section); [unabridged version](#).
- (with Michael Podgursky), “[Peaks, Cliffs and Valleys: The Peculiar Incentives in Teacher Retirement Systems and their Consequences for School Staffing](#),” *Education Finance and Policy*, Spring 2009 (Vol. 4, No. 2), 175-211.
- (with Michael Podgursky), “[Teacher Retirement Benefits](#),” *Education Next*, Spring 2009 (vol. 9, no. 2), pp. 58-63 (refereed research section); [unabridged version](#). Updated quarterly at <https://sites.uark.edu/costrell/>
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"[Stability of Zero Production Under Life-Cycle Savings](#)," *Review of Economic Studies* 48 (October 1981), 661-665.

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(with James V. Shuls and Collin Hitt), "[How State Pension Subsidies Undermine Equity](#)," *Phi Delta Kappan*, 100(8), 37-41. April 2019.

[Book Review](#), "Commitment and common sense: leading education reform in Massachusetts," by David P. Driscoll, *Journal of School Choice*, January 2019, Vol. 13, No. 1, 121-124.

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"[District Costs for Teacher Health Insurance: An Examination of the Data from the BLS and Wisconsin](#)," refereed, George W. Bush Institute, *The Productivity for Results Series*, No. 8, January 2015.

"[Teacher Pension Enhancement in Missouri, 1975 to the present](#)," Show-Me Institute, July 2014.

(with Larry Maloney), "The Big Squeeze: Retirement Costs and School District Budgets. [Ohio Pension Reform in Cleveland: New Teachers Beware](#)," Thomas B. Fordham Institute, September 2013.

(with Larry Maloney), "The Big Squeeze: Retirement Costs and School District Budgets. [Milwaukee: Saved by Act 10 ... For Now](#)," Thomas B. Fordham Institute, July 2013.

(with Larry Maloney), "The Big Squeeze: Retirement Costs and School District Budgets. [Paying the Pension Price in Philadelphia](#)," Thomas B. Fordham Institute, June 2013.

(with Michael Podgursky), "[Teacher Pension Costs: High, Rising, and Out of Control](#)," blog on *Education Next*, June 25, 2013. updated quarterly at <https://sites.uark.edu/costrell/>

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["GASB Won't Let Me': A False Objection to Public Pension Reform,"](#) Policy Perspective, Laura and John Arnold Foundation, May 2012.

["GASB Won't Let Me': A False Objection to Public Pension Reform,"](#) op-ed, *Pensions & Investments*, June 20, 2012.

"Interview with Dr. Robert Costrell on Public Employee Unions," Common Good, December 14, 2011.

["Collective Bargaining Weakens Cities,"](#) op-ed, *Wall Street Journal*, November 23, 2011.

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"[The Fiscal Impact of the Milwaukee Parental Choice Program: 2009 Update](#)," School Choice Demonstration Project Milwaukee Evaluation Report #7, March 2009.

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with Josh McGee, ["Cross-Subsidization of Teacher Pension Normal Cost: The Case of CalSTRS,"](#) Social Science Research Network, U of Arkansas Department of Education Reform [Working Paper 2016-17](#): October 24, 2016; revised version, *Education Finance and Policy* forthcoming. [Version of record online](#), 16 November, 2017, DOI: https://doi.org/10.1162/edfp_a_00253

["The 80 Percent Pension Funding Target, High Assumed Returns, and Generational Inequity,"](#) Social Science Research Network, U of Arkansas Department of Education Reform [Working Paper 2016-04](#): April 7, 2016; revised version, *Contemporary Economic Policy*, special issue on aging and pensions. [Version of record online](#), 7 October, 2016, DOI: [10.1111/coep.12200](https://doi.org/10.1111/coep.12200)

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"You Can't Get There From Here: Transition Costs to Teacher Pension Reform, Real and/or Imaginary," University of Arkansas and George W. Bush Institute, October 2011.

with Martin Lueken, ["The Simple Analytics of Teacher Pension Funding and Reform,"](#) University of Arkansas, March 2011.

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with Michael Podgursky, "[Distribution of Benefits in Teacher Retirement Systems and Their Implications for Mobility](#)," National Center for Performance Incentives, Conference Paper 2009-04, October 2009. (revised version published in EFP refereed special issue) Appears also as [CALDER/Urban Institute Working Paper 39](#), December 2009.

with Julie Trivitt, "Charter School Participant Effects in Massachusetts," November 2008.

with Eric Hanushek and Susanna Loeb, 2007, "[What Do Cost Functions Tell Us About the Cost of an Adequate Education?](#)" conference paper for *From Equity to Adequacy to Choice: Perspectives on School Finance and School Finance Litigation*, Show-Me Institute and the Truman School of Public Affairs, University of Missouri-Columbia, Education Working Paper Archives (refereed), December 2007.

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"[Massachusetts' Hancock Case and the Adequacy Doctrine](#)," Harvard Kennedy School of Government, Rappaport Institute for Greater Boston discussion paper, April 2006; also University of Arkansas Education Working Paper Archives (refereed), August 2006.

"Are High Standards Good or Bad for Those Who Fail?" October 1999.

with Glenn C. Loury, "Information and Job-Matching: Is There an Efficiency-Equity Tradeoff?" July 1996.

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"Can National Educational Standards Raise Welfare?" Working Paper 1994-6, University of Massachusetts, Department of Economics (November 1994).

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"Equilibrium and Optimal Product Diversity Under Consistent Conjectures with Free Entry," (May 1986).

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"Appropriability, Duplication, and Diversification of R&D Under Competition," (revised June 1984).

"Rent Acquisition Expenditures and Investment in Macro Models," (June 1982).

"Anatomy of Market Failures in Research," (March 1982).

"Symmetric and Asymmetric Price Dynamics," (revised February 1982).

"Quantity Expectations in Macro Models," (revised February 1982).

"The Composition of Risky Inventive Activity Under Social and Private Incentives," (Jan. 1982).

"An Extension of the Class of CES Functions to Some Non-Differentiable Forms," (July 1980).

SELECTED PUBLIC PRESENTATIONS, SEMINARS, PANELS, ETC.

"Cross-Subsidization of Teacher Pension Costs in Traditional vs. Cash Balance Plans: The Case of Kansas, the First Teacher CB Plan," Association for Education Finance and Policy, Annual Conference, Kansas City, MO, March 21, 2019.

With Dillon Fuchsman (presenter), "Teacher Attrition and Teacher Pension Costs," Association for Education Finance and Policy, Annual Conference, Kansas City, MO, March 21, 2019.

(with James Shuls [presenter] and Collin Hitt), "Undermining Equity: How State Pension Subsidies Favor Wealthy School Districts," Association for Public Policy and Management, Fall Research Conference, Washington, DC, November 8-10, 2018; Association for Education Finance and Policy, Annual Conference, Kansas City, MO, March 21, 2019.

"Arkansas Teacher Retirement Plan: Risks, Redistribution & Remedies," Testimony to Arkansas Legislature, Joint Committee on Public Retirement, September 11, 2018. ([video](#), [slides](#))

SELECTED PUBLIC PRESENTATIONS, SEMINARS, PANELS, ETC. (continued)

- [“Cross-Subsidization of Teacher Pension Costs: The Impact of the Discount Rate,”](#) invited presentation, “Teacher Pension Workshop: Connecting Evidence-Based Research to Pension Reform,” RAND corporation, March 8-9, 2018, Santa Monica, CA.
- (with Josh McGee) [“Cross-Subsidization of Teacher Pension Costs: The Impact of Assumed Market Returns,”](#) Association for Public Policy and Management, Fall Research Conference, Chicago, IL, November 4, 2017.
- (with Josh McGee) [“Cross-Subsidization of Teacher Pension Costs: The Case of California,”](#) Association for Education Finance and Policy, Annual Conference, Washington, DC, March 18, 2017.
- “Accounting for the Rise in Unfunded Public Pension Liabilities,” CFA (Chartered Financial Analyst) Society of Arkansas, Little Rock, AR, April 8, 2016.
- [“The Steady-State Math of the “80 % Standard” and High Assumed Return,”](#) Association for Education Finance and Policy, Annual Conference, Denver, CO, March 18, 2016.
- “Pension Reform in Colorado,” Secure Futures Colorado, Denver, CO, March 16, 2016.
- “Research Presentation,” Pension Collaborative Meeting, NCTQ (National Council on Teacher Quality) and Students First, Denver, CO, March 16, 2016.
- [“Assessing the Impact of Investment Shortfalls on Unfunded Pension Liabilities: The Allure of Neat, but Faulty Counterfactuals,”](#) Association for Public Policy and Management, Fall Research Conference, Miami, FL, November 12, 2015.
- [“Why Did the Costs of the Connecticut Teachers’ Pension System Rise So Much?”](#) Association for Education Finance and Policy, Annual Conference, Washington, DC, February 21, 2015.
- “GASB Won't Let Me': A False Objection to Public Pension Reform," APPAM Fall Research Conference, Baltimore, November 9, 2012; AEFPP Annual Conference, Boston, March 17, 2012 (presented on my behalf by Josh McGee).
- "The Fiscal Impact of the Milwaukee Parental Choice Program, 1993-2011," APPAM Fall Research Conference, Baltimore, November 9, 2012. [summary of my work, written and presented by Anna Jacob]
- (with Jeffery Dean), "District Costs for Teacher Health Insurance: An Examination of the Data from the BLS and Wisconsin," George W. Bush Institute, School Productivity Project Conference, Dallas, September 20, 2012.

SELECTED PUBLIC PRESENTATIONS, SEMINARS, PANELS, ETC. (continued)

"You Can't Get There From Here: Transition Costs to Teacher Pension Reform, Real and/or Imaginary," APPAM Fall meetings, Washington, DC, November 3, 2011.

Comments on Biggs and Richwine, "Are Public School Teachers Overpaid?" American Enterprise Institute, Washington, DC, November 1, 2011. [Audio](#).

"Transition Costs: Real and Imaginary," at "Getting from Here to There: Research to Implement Teacher Pension Reform," George W. Bush Institute, Southern Methodist University, September 28, 2011.

"[The Simple Analytics of Teacher Pension Funding and Reform](#)," Association for Education Finance and Policy, Seattle, March 25, 2011.

"Teacher Retirement Benefits," George W. Bush Institute, Dallas, December 10, 2010. (with Michael Podgursky)

"Research on State Teacher Pension Systems and Reform," Regional Educational Laboratory Southwest (U.S. Department of Education, Institute of Education Sciences) Governing Board, Dallas, December 3, 2010.

"Longitudinal Analysis of Teacher Retirement Behavior in Arkansas," NCES Summer Data Conference, July 29, 2010, Bethesda, MD. Invited presentation (with Josh McGee).

"Teacher Pension Incentives and Distribution of Benefits in Illinois & Chicago," Illinois Project Advisory Committee Meeting, Chicago, February 17, 2010; follow-up presentation on September 30, 2010.

Comments on "Changes in Firm Pension Policy: The Case of Cash Balance Plan Conversions," Allied Social Science Assn meetings, Atlanta, January 5, 2010.

"Teacher Pension Incentives and Distribution of Benefits in Indiana," Indiana Project Advisory Committee Meeting, Indianapolis, November 28, 2009; follow-up presentation on May 13, 2010.

"The Case for Economics in the College Curriculum," remarks for ACTA Press Conference, "What Will They Learn?" August 19, 2009, National Press Club, Washington, DC.

"Teacher Response to Pension System Incentives: Evidence from Arkansas," presentation to Regional Education Laboratory Southwest (U.S. Department of Education, Institute of Education Sciences) Forum, "Educator Staffing, Quality, and Teacher Retirement Systems," Dallas, July 29, 2009.

"Using Pension Data: the Case of Arkansas," Fourth Annual U.S. Department of Education, Institute of Education Sciences Research Conference, Washington, D.C., June 8, 2009.

SELECTED PUBLIC PRESENTATIONS, SEMINARS, PANELS, ETC. (continued)

"Teacher Pensions and Early Retirement," presentation to joint retreat of National Commission on Teaching and America's Future (NCTAF) and Council of Chief State School Officers (CCSSO). George Washington University, Washington, DC, April 28, 2009.

"Distribution of Benefits in Teacher Retirement Systems and Their Implications for Mobility," National Center for Performance Incentives, Second Annual Conference, "Rethinking Teacher Retirement Benefit Systems, Vanderbilt University, February 19-20, 2009. Also American Education Finance Association, Nashville, March 20, 2009 (refereed).

(by co-author Joshua McGee), "Teacher Pension Incentives, Retirement Behavior, and Potential for Reform in Arkansas," National Center for Performance Incentives, Second Annual Conference, "Rethinking Teacher Retirement Benefit Systems, Vanderbilt University, February 19-20, 2009; Allied Social Science Association meetings, Atlanta, January 5, 2010; American Education Finance Association, Richmond, March 20, 2010; Joint Statistical Meetings, Vancouver, British Columbia, August 4, 2010.

"Pension Policy and Teacher Quality," Regional Education Lab Southwest Discussion Forum, Washington, D.C., May 7, 2008.

"What Do Cost Functions Tell Us About the Cost of an Adequate Education?" *From Equity to Adequacy to Choice: Perspectives on School Finance and School Finance Litigation*, Show-Me Institute and the Truman School of Public Affairs, University of Missouri-Columbia, October 30, 2007. also Carnegie-Mellon University seminar, Department of Economics and Heinz Public Policy School, December 11, 2007; American Education Finance Association, Denver, April 12, 2008.

"Incentives of Teacher Pension Benefits: Arkansas and Selected Other States," Arkansas Teacher Retirement System Annual Board Seminar, Heber Springs, AR, June 18, 2007.

"Public School Finance Under U.S. Fiscal Federalism," special invited dinner lecture, Lincoln Land Institute International Conference on "Land Policies and Fiscal Decentralization," June 3, 2007, Cambridge, Massachusetts.

"The Case for Teacher Pension Reform," American Legislative Exchange Council (ALEC) Education Task Force, Spring Task Force Summit, Hilton Head, SC, April 27, 2007.

"Efficiency and Equity in the Time Pattern of Teacher Pension Benefits: An Analysis of Four State Systems" (with Michael Podgursky), annual meeting of American Education Finance Association, Baltimore, March 2007.

"Significance of Endowed Chair in Education Accountability," investiture ceremony, College of Education and Health Professions, University of Arkansas, January 24, 2007.

SELECTED PUBLIC PRESENTATIONS, SEMINARS, PANELS, ETC. (continued)

“Systemic Effects of Milwaukee Parental Choice Program on School Finance: Proposed Study,”
School Choice Demonstration Project Research Advisory Board Meeting, Georgetown
University, Dec. 1, 2006

“Accountability,” Discussant and Presenter at University of Arkansas Department of Education
Reform Conference, October 2006, Kauffman Conference Center, Kansas City.

“Massachusetts’ *Hancock* Case,” Governor Jodi M. Rell’s Commission on Education Finance, New
Haven, May 2006.

“Education Reform, Finance & Property Taxes in Massachusetts,” Lincoln Land Institute,
Cambridge, Massachusetts, May 2006.

Legislative testimony on Governor Romney’s proposed reforms to education funding formula,
February – March 2006.

“Merit pay proposals in Massachusetts,” panel discussion Harvard Graduate School of Education
and Rennie Center, December 2005.

“Massachusetts’ *Hancock* Case and the Adequacy Doctrine,” Harvard Kennedy School of
Government, Program on Education Policy and Governance, conference “Adequacy
Lawsuits: Their Growing Impact on American Education,” October 12-14, 2005.

“Accountability and Education Reform in Massachusetts,” Tufts University, April 2005.

“The *Hancock* Case and Education Reform in Massachusetts: A Post-Mortem and a Pre-Mortem,”
Harvard Kennedy School of Government, Program on Education Policy and Governance,
March 2005. Similar presentation at Lincoln Land Institute, May 2005.

Fiscal Outlook Panel for Municipal Officials, Rappaport Institute for Greater Boston, Harvard
Kennedy School of Government, December 2004.

“The Hancock Case: What’s Adequate and Equitable?” Askwith Education Forum, Harvard
Graduate School of Education, November 2004. [Video](#). (and similar forum by MassINC).

“Equity in School Finance,” presentation to annual conference of Massachusetts Associations of
Superintendents and School Committees, Worcester, MA, October 2004.

“Standards and Accountability,” discussant at Brookings Institution conference on Hopeful Signs
of Change in American Education, May 2004.

“Will More Resources Help?” panel chair at Harvard Kennedy School conference on 50 Years after
Brown, April 2004.

SELECTED PUBLIC PRESENTATIONS, SEMINARS, PANELS, ETC. (continued)

“Taking Account of Accountability,” panelist at Harvard Kennedy School conference on school accountability, June 2002.

Panelist, “The State of Pre-College Economic Education and Major Issues,” National Summit on Economic Literacy, NCEE/Federal Reserve, Washington, May 2002.

“Policy Research and Development in the Massachusetts Executive Branch: An Insider View,” University of Massachusetts, April 2002; Pioneer Institute Board of Academic Advisors, May 2002.

“Education Reform in Massachusetts: Phase Two,” presentation to National Conference of State Tax Judges, Lincoln Institute of Land Policy, March 2002.

“Education Funding Reform in Massachusetts: Phase Two,” presentation to annual conference of Massachusetts Associations of Superintendents and School Committees, Worcester, MA, November 2001 (and other similar forums).

“Testing Testing: School Accountability in Massachusetts and Beyond,” panelist at Harvard Kennedy School conference, October 2001.

Presenter (with Julian R. Betts), “Incentives and Equity Under Standards-Based Reform,” Brookings Papers on Education Policy Conference on Educational Standards, May 2000.

Invited Participant, Templeton Institute for the Advanced Study of Freedom, Newport, Rhode Island, May 22-30, 1999; Galway, Ireland, June, 2000.

Co-organizer and Moderator, "Remediation Reform in Higher Education and its Implications for K-12," 3rd Annual Conference of the New England Affiliates of the National Association of Scholars, May 8, 1999, Assumption College, Worcester, MA.

"Local Control is not Entirely a Myth in Massachusetts," Forum on "Money Matters: Alternatives in Education Funding," by Harvard University's Taubman Center for State & Local Government, and Pioneer Institute for Public Policy Research, September, 1998

"Information and Earnings Inequality with Skill Complementarity," NBER Income Distribution Small Group Meeting, April 1997 (co-authored with Glenn C. Loury)

"Information and Job-Matching: Is There an Efficiency-Equity Tradeoff?" NBER 1996 Summer Institute, Income Distribution Workshop (co-authored with Glenn C. Loury).

"Some Welfare Economics of Testing," NBER 1995 Summer Institute, Income Distribution Workshop (presented by co-author Glenn C. Loury).

"Can National Educational Standards Raise Welfare?" Wayne State University, November 1994.

SELECTED PUBLIC PRESENTATIONS, SEMINARS, PANELS, ETC. (continued)

"Centralized vs. Decentralized Educational Standards Under Pooling," Boston University Economics Department, Nov. 1993.

"Is Open Admission Optimal?" American Economic Association Meetings, Anaheim, January 1993.

"Wage Impact of Sectoral Shift," Eastern Economic Association Meetings, Boston, March 1988.

"The Role of Technology, Trade, and Other Factors in the Shift to Service Employment," National Academy of Sciences, Panel on Technology and Employment, January 1986.

"Equilibrium and Optimality Under Monopolistic Competition," Brandeis, September 1985.

"Instability of the U.S. Deficit," National University of Singapore, July 1985.

"Recent Trends in the U.S. Economy," International Trade Research Institute, Beijing; Beijing Institute of Foreign Languages, June 1985.

"Rents and Suboptimality in Demand-Constrained Macro Model," University of Tokyo, May 1985.

"Diversification and Duplication of R&D," Canadian Economic Association Meetings, Guelph, Ontario, May 1984.

"Profitability and Aggregate Investment Under Demand Uncertainty," University of Toronto Workshop on Capital Markets, January 1982.

"Inflation and the Law of Supply and Demand," Eastern Economic Association Meetings, Montréal, May 1980.

OTHER RECENT PROFESSIONAL ACTIVITIES

Co-organizer (with James Guthrie, Michael Podgursky, and Josh McGee), “Getting from Here to There: Research to Implement Teacher Pension Reform,” Conference, George W. Bush Institute, Southern Methodist University, September 28, 2011.

Organizer, "Issues in Transition to Pension Reform," Conference, University of Arkansas Department of Education Reform, April 15, 2011.

Guest co-editor (with Michael Podgursky) of special issue (refereed) of *Education Finance and Policy*, MIT Press, "[Rethinking Teacher Retirement Benefit Systems](#)," Fall 2010 (Vol. 5, no. 4)

Co-organizer (with Michael Podgursky), National Center for Performance Incentives, Second Annual Conference, "Rethinking Teacher Retirement Benefit Systems, Vanderbilt University, February 19-20, 2009.

COMPENSATED PROFESSIONAL ACTIVITIES

Retained by Office of the Attorney General of Tennessee, *Shelby County and Hamilton County Boards of Education v. William Haslam, et al* (school finance case), August 2018.

Retained by New York State Office of the Attorney General, *Maisto v. State of New York* (school finance case), July 2014 – February 2015.

“The Impact of Connecticut Teacher Pensions on School District Budgets,” StudentsFirst Institute and EdBuild (successor organization), June 2014 – April 2015.

"Teacher Pension Enhancement in Missouri, 1975 to the present," Show-Me Institute, July 2014.

Laura and John Arnold Foundation, policy report, "GASB Won't Let Me," May 2012

TIAA-CREF Institute, contract to co-author "Reforming K-12 Educator Pensions: A Labor Market Perspective." Completed and released February 2011.

Subcontract with Fordham Institute for Joyce Foundation-funded project on Fiscal Impact of Teacher Pensions on Selected School Districts, 2013.

Retained by Connecticut Department of Education on *CCEJF v. Rell* (school finance case), 2011 (withdrew from the case in 2012)

Subcontract with Public Impact for Mind Trust-funded project on teacher pension obligations and reform proposals for a large Midwestern school district, 2010.

COMPENSATED PROFESSIONAL ACTIVITIES (continued)

Consult with Regional Education Laboratory Southwest (U.S. Department of Education, Institute of Education Sciences), to help organize Policy Forum, "Educator Staffing, Quality, and Teacher Retirement Benefit Systems," Dallas, July 29, 2009.

Expert witness in *McCleary, et. al. v. State of Washington*, Washington school finance case, October 2009.

Consult with MT Attorney General's Office on school finance, May 2008.

Consult with NH Gov. John Lynch on school finance, May 2007; consult with NH Legislative Cost Commission, October 2007 - March 2008; consult with NH Attorney General's Office, September - November 2009, November 2010 - January 2011.

Expert witness in *Committee for Educational Equality, et. al. v. State of Missouri, et. al.*, Missouri school finance case, February 2007.

Expert witness in *Hancock v. Driscoll*, Massachusetts school finance case, November 2003.
(testified as Chief Economist for Commonwealth of Massachusetts; no extra compensation)

Joint Economic Committee, U.S. Congress: Contractor (1987-88).

National Academy of Sciences, Panel on Technology and Employment: Contractor (1986)

PROFESSIONAL MEMBERSHIPS

American Economic Association

Association for Education Finance and Policy

Association for Public Policy Analysis and Management

National Association of Scholars

Ph.D. PROGRAM IN EDUCATION POLICY

Director of International Studies, 2016-. Organized “Education Policy in Israel,” first University of Arkansas Faculty-Led Study Abroad program in Israel, May 2018.

Founding Graduate Director, Ph.D. program in Education Policy, University of Arkansas, 2006-2011. (First class, Fall 2009)

AREAS OF TEACHING EXPERIENCE

School Finance and Education Policy (Ph.D. level)

Economics of Education (Ph.D. level)

Seminar in Education Accountability (Ph.D. level)

Research Seminar in Education Policy (Ph.D. level)

Econometrics (independent study, masters’ level)

Microeconomic Theory at M.B.A., Intermediate and Intro Levels.

Mathematical Methods of Economics at Ph.D. and Undergraduate Level.

Game Theory at Undergraduate Level.

Undergraduate Seminar in Economics of Education.

Theoretical Industrial Organization at Undergraduate Level.

Macroeconomic Theory at Ph.D., M.B.A., and Undergraduate Levels.

Corporate Finance at M.B.A. and Undergraduate Levels.

Money and Banking at Undergraduate Level.

International Trade at Undergraduate Level.

International Monetary Theory at Undergraduate Level.

Freedom and Education (inter-disciplinary course, team taught in Spring 2000, with Professor Jeffrey Leigh Sedgwick, of Political Science, under grant from the John Templeton Foundation’s Freedom Project)

Shaun M. Simms, PMP, SA

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P: 636-578-6568

E: Shaun.Simms@Outlook.com

EDUCATION

- Master of Science in Business Administration – Lindenwood University, St. Charles, MO
- Bachelor of Business Administration – Lindenwood University, St. Charles, MO

CERTIFICATIONS



AWARDS

- St. Louis Project of the Year, The Bloom Café (2018), PMI Metro St. Louis
- St. Louis Project Leader of the Year (2018), PMI Metro St. Louis

PROFESSIONAL EXPERIENCE

Director, Supply Chain – Express Scripts - St. Louis, MO ▪ April 2019 – Present

Responsible for the Retail Network Strategy & Execution team (PMO), leading the Issue Management team, which is responsible for resolution of both retail network issues and integration issues related to retail networks, and leading the Reporting & Analytics team, responsible for completion of reporting & analysis around our retail networks and integration.

Major accomplishments:

- Built Retail Network Strategy & Execution PMO to lead Retail, Supply Chain, and Enterprise wide strategic projects
- Leader of Patience Assurance Program, creating stability in pricing for insulin (\$25 copay cap for enrolled clients and their members)
 - <https://www.nytimes.com/2019/04/03/health/drug-prices-insulin-express-scripts.html>
- Program Manager for creation of Switzerland Rebates GPO, Ascent Health Services to drive value to clients and members
- Retail Network Leader for Cigna/ESI integration Early-Go, Med D, and Monthly Migrations
- Project Leadership Series Director, leading workshops for Finance, Operations, Supply Chain, and Product (40+ members)

Director, Finance Strategic Initiatives – Express Scripts - St. Louis, MO ▪ July 2018 – March 2019

Responsible for the Finance Transformation Office, overseeing multi-year strategic initiatives on three separate work streams, while leading the Finance Project Management Office.

- Lead team on a portfolio of 10+ strategic initiatives, and 40+ projects with a benefit value of \$20M
- Measures and reports on portfolio's performance to Senior Management
- Team successfully lead the Finance Integration for the Cigna Acquisition
- Change Management Leader, leading workshops for Finance, Operations, and Supply Chain

Sr. Manager, Finance Strategic Initiatives – Express Scripts - St. Louis, MO ▪ July 2017 – July 2018

- Lead team of Project Managers on a portfolio of 15+ projects with benefit value of \$10M
- Leader of multiple large (\$1M+) programs/projects (teams of 20+):
 - Procurement system which manages \$1.5B in indirect spend, resulting in \$28M dollars in savings

- Lease accounting system to comply with new SEC reporting requirements
- Credit Card Processor Project saving \$1M annually in fees
- Bank Account Restructure Initiative (15 projects – 80 members), which reduced banking fees by \$4M, simplified account structures, and implemented strategic banking services
- Selected as Voice of the Employee (VOE) Leader
 - Created process for simultaneous, 10-site trivia contests for 600 employees, while raising money for Toys for Tots (\$5,000) and Walk to End Alzheimer's (\$6,000)
 - Created "Days of Service", where 300 employees volunteered across 5 states with community partners
 - Organized a food drive that raised \$6,000 in food and funds

Program Manager | Sr. Project Manager – Express Scripts - St. Louis, MO ▪ February 2016 – July 2017

- Selected as one of 8 members leading Corporate Systems Agile transition
- Effectively manages multiple complex projects simultaneously through their project lifecycle, both in Waterfall in Agile methodologies (up to \$10M)
- Program manager for our FCO group, representing around \$4M in spend
- Successfully created new processes for benefit realization, project intake

Project Manager | Process Improvement – HD Supply - St. Louis, MO ▪ October 2012 – February 2016

- Direct process improvement initiatives, saving the company 500K
- Leader of SharePoint linear workflows, implementing 20 new processes
- Successfully created process reducing new location opening cycle time by 40 percent
- Compiled industry, demographic, and economic data to create a strategic five-year footprint plan to maximize profitability
- Direct new location growth process from beginning to completion, opening 10 new locations to increase footprint, overseeing \$40M
- Manage Fleet optimization project to improve operational efficiency and profitability, managing \$5M annually
- Created process to better assess the current and long-term capital investment needs of our 250+ nationwide locations, managing \$4M

Project Manager | Process Improvement – Graybar Electric - St. Louis, MO ▪ September 2010 – October 2012

- Leader of Echelon project (software selection, development, implementation), which led to increase of 20 percent in market baskets bid
- Project manager for market segmentation initiative, collecting data, and analyzing market information to create segments, which helped lead to an 11 percent increase in business
- Created data analysis process through pilot program, saving \$1.5M in single district
- Analyzed and renegotiated costs with suppliers, saving nearly \$1.1M
- Work with Business Management team to maintain \$25M in current contracts
- Creatively work with Business Development team to win over \$10M in new strategic national contracts

Cost Analyst | Continuous Improvement – Graybar Electric - St. Louis, MO ▪ May, 2007 – September 2010

- Continuous Improvement project manager for Customer Relations Management process with suppliers to improve communication and reduce process errors by over 70 percent
- Continuous Improvement team leader for department integration, and cost metrics
- Perform daily analysis of department cost changes, including impact on company investment

Auditor – Citigroup – O’Fallon, MO ▪ 2003 – 2007

- Prepared and submitted audit findings, making recommendations to management

TECHNICAL KNOWLEDGE

Microsoft Word, Excel, PowerPoint, Office, Project, Visio, Access, SharePoint, JIRA

AFFILIATIONS

- Metro St. Louis Chapter, Project Management Institute (PMI)
 - Vice President (2016 – 2020)
 - Director (2015 – 2016)
 - Founder and Leader of our Confluence Event, providing pro bono strategic planning to non-profits
 - Speaker, North America Leadership Institute Meeting (2017 in Chicago, 2018 in LA)
 - Speaker, Region 6 Leadership Institute Meeting (2017 in San Antonio, 2018 in St. Louis)
- Association of Change Management Professionals, Member
- PMO Global Alliance, Member

CURRICULUM VITAE

Michael R. Ford

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University of Wisconsin Oshkosh

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@fordm10

ACADEMIC APPOINTMENTS

University of Wisconsin Oshkosh 2019 - Present
Associate Professor of Public Administration (with Tenure)

University of Wisconsin Oshkosh 2013 – 2019
Assistant Professor of Public Administration

Helen Bader Institute for Nonprofit Management 2018 - Present
Affiliate Faculty

Classes Taught:

- MPA 711 – Intro to Public Administration
- MPA 725 – State and Local Government
- MPA 730 - Public and Private Nonprofit Partnerships
- MPA 732 – Analytic Methods in Public Administration
- MPA 744 – Nonprofit Management and Leadership
- MPA 752 – Public Budgeting and Financial Management
- MPA 780 – Student Capstone
- MPA 792 – Special Topics in Public Administration:
Privatization
- PA 102 – Contemporary Public Issues: Wisconsin’s Collective
Bargaining Reform
- PA 221 – Intro to Public Administration
- PA 307 – Administrative Law and Procedure
- PA 336 – Government and the Economy

EDUCATION

University of Wisconsin-Milwaukee August 2013
Ph.D. Urban Studies
Dissertation: “*The Impact of School Board Governance on Academic
Achievement in Diverse States*”

University of Wisconsin-Milwaukee May 2008
M.A. Political Science
Masters Paper: “*Graduation Rates and Market Share in the Milwaukee
Public Schools*”

Marquette University May 2004
B.A. Political Science
Cum Laude

Ford, M. & Ihrke, D. (Accepted Manuscript). Comparing School Board Governing Dynamics in Small Rural and Suburban Districts. *Public Administration Quarterly*.

Ford, M. & Ihrke, D. (2019). School Board Member Strategic Planning Prioritization and School District Performance. *Leadership and Policy in Schools*. DOI: 10.1080/15700763.2019.1638420.

Ford, M. & Andersson, F. (2019). Sources of Isomorphism in the Milwaukee Voucher School Sector. *Public Policy and Administration*. DOI: 10.1177/0952076719838298.

Ford, M.R. & Ihrke, D. (2018). Perceptions are Reality: A Framework for Understanding Governance. *Administrative Theory & Praxis*, DOI: 10.1080/10841806.2018.1512337.

Ford, M.R. & Ihrke, D. (2018). Third Party Governance Training and Voucher School Performance. *Journal of School Choice*, 11(3), 382-400.

Ford, M.R. & Ihrke, D. (2018). Determinants of Priority Conflict on City School Boards. *Urban Education*. DOI: 10.1177/0042085918770713.

Ford, M.R. & Ihrke, D. (2018). Linking the Distribution of Board-Executive Governance Responsibilities To Charter School Performance. *International Journal of Organizational Analysis*, 26(1), 2-18.

Ford, M.R. & Ihrke, D. (2017). Bridging the Charter School Accountability Divide: Defining a Role for Nonprofit Charter School Boards. *Education and Urban Society*. DOI: 10.1177/0013124517747365.

Ford, M.R. & Andersson, F. (2017). Taking Stock and Moving Forward: Lessons From Two Plus Decades of Research on the Milwaukee Parental Choice Program. *Journal of School Choice*. DOI: 10.1080/15582159.2017.1350085.

Ford, M.R. & Andersson, F. (2017). Determinants of Organizational Performance in a Reinventing Government Setting: Evidence from the Milwaukee School Voucher Program. *Public Management Review*. DOI: 10.1080/14719037.2017.1296487.

Ford, M.R. & Ihrke, D. (2017) School Board Member Definitions of Accountability: A Comparison of Charter and Traditional Public School Board Members. *Journal of Educational Administration*, 55(3), 280-296.

Ihrke, D. & **Ford, M.R.** (2017). Board Development Practices on Public Versus Nonprofit School Boards: Is There a Difference? *Journal of Nonprofit Education and Leadership*. 7(2), 139-150.

Andersson, F. & **Ford, M.R.** (2017). Entry Barriers and Nonprofit Founding Rates: An Examination of the Milwaukee Voucher School Population. *Nonprofit Policy Forum*. 8(1), 71-90.

Ford, M.R. & Ihrke, D. (2017). Board Conflict and Public Performance on Urban and Non-Urban Boards: Evidence From a National Sample of School Board Members. *Journal of Urban Affairs*, 39(1), 108-121.

Ford, M.R. & Ihrke, D (2016). Differences in School Board Member Relations with Hired and Elected Superintendents: A First Look. *International Review of Public Administration*, 21(4), 292-304.

Ford, M.R. & Ihrke (2016). The Impact of Wisconsin's Act 10 on Municipal Management in Smaller Municipalities: Views from Local Elected Officials. *Public Policy and Administration*. DOI: 10.1177/0952076716683763.

Ford, M.R. (2016) Funding Impermanence: Quantifying the Public Funds Sent to Closed Schools in the Nation's First Urban School Voucher Program. *Public Administration Quarterly*, 40(4), 882-912.

Ford, M.R. & Ihrke, D. (2016). Understanding School Boards and Their Use of Different Models of Governance. *Journal of Public and Nonprofit Affairs*, 2(2), 67-81.

Ford, M.R. & Ihrke, D. (2016) Comparing Nonprofit Charter and Traditional Public School Board Member Perceptions of the Public, Conflict, and Financial Responsibility: Is There a Difference and Does it Matter? *Public Management Review*, 18(7), 972-992.

Ford, M. D. Ihrke (2016). Are we on the same page? Determinants of school board member understanding of group accountability perceptions. *Public Organization Review*, DOI: 10.1007/s11115-016-0350-6.

Ford, M.R. & Andersson, F. (2016). Determinants of Organizational Failure in the Milwaukee School Voucher Program. *Policy Studies Journal*, DOI: 10.1111/psj.12164.

Ford, M.R. (2016). Milwaukee Voucher School Leaders' Views on Accountability: What Are They, and Why do They Matter? *Leadership and Policy in Schools*, DOI: 10.1080/15700763.2016.1181189.

Ford, M.R. D. Ihrke, N. Grasse, & Brian Cherry (2016). Perceptions of Council Member-Department Head Interactions in Local Government. *Journal of Public Affairs*, DOI: 10.1002/pa.1597.

Ford, M.R. & Andersson, F. (2016). Organizational Failure in the Hollow State: Lessons from the Milwaukee Voucher Experience. *International Journal of Public Administration*, DOI: 10.1080/01900692.2015.1053613.

Ford, M.R. (2015). Governing for Results on a Post-Collective Bargaining Wisconsin School Board. *Journal of School Choice*, 9(4), 529-550.

Ford, M.R. (2015). Nailing Shut the Policy Window: The Policy Evolution of America's First Urban School Voucher Program. *Journal of Public and Nonprofit Affairs*, 1(2), 97-99.

Ford, M.R. & Ihrke, D. (2015). School Board Member Definitions of Accountability: What are they, and Do they Impact District Outcomes? *Public Performance & Management Review*, 39(1), 198-222.

Ford, M.R. & Ihrke, D. (2015). Determinants of Conflict on Wisconsin School Boards. *Public Policy and Administration*, DOI: 10.1177/0952076715610414.

Ford, M.R. (2015). A Faith-Based Advantage? Comparing the Academic and Fundraising Performance of Sectarian and Non-Sectarian Nonprofit Schools In Milwaukee's School Voucher Program. *Nonprofit Management & Leadership*, 26(1), 91-104.

Ford, M.R. & Ihrke, D. (2015). Do School Board Governance Best Practices Improve District Performance? Testing the Key Work of School Boards in Wisconsin. *International Journal of Public Administration*, 39(2), 87-94.

Ford, M.R. & Ihrke, D. (2015). A Comparison of Public and Charter School Board Governance in Three States. *Nonprofit Management & Leadership*, 25(4), 403-416.

Andersson, F. & **Ford, M.R. (2015)** Social entrepreneurship through an organizational ecology lens: Examining the emergence and evolution of the voucher school population in Milwaukee. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, DOI: 10.1007/s11266-015-9576-0.

Andersson, F. & **Ford, M.R. (2014)** Reframing Social Entrepreneurship Impact: Productive, Unproductive and Destructive Outputs and Outcomes of the Milwaukee School Voucher Programme, *Journal of Social Entrepreneurship*, 6(3), 299-219.

Ford, M.R. (2014). Changes in School Enrollment Patterns After the First-Time Release of School-Level Test Scores in Milwaukee's School Voucher Program A First Look. *Education and Urban Society*, DOI: 0013124514536439.

Ford, M., & Merrifield, J. (2013). School Choice Legislation: Impact Assessment and Fiscal Notes. *Journal of School Choice*, 7(1), 37-60.

Ford, M. (2011). School Exits in the Milwaukee Parental Choice Program: Evidence of a Marketplace? *Journal of School Choice*, 5(2), 182-204.

PEER-REVIEWED BOOK

Ford, M. R. (2017). The Consequences of Governance Fragmentation: Milwaukee's School Voucher Legacy. *Lexington Books: Lanham, MD*.

BOOK CHAPTERS

Ford, M. R., & Velez, W. (2017). The Failure of Accountability in the Milwaukee Parental Choice Program. In G. Q. Conchas, M. Gottfried, B. M. Hinga, & L. Oseguera (Eds.), *Educational Policy Goes to School*. New York: Routledge.

Ford, M. R. (2016). No-Bid Contracts. In N.S. Lind, E.T. Rankin, & G. Harris (Eds.), *Today's Economic Issues*. Denver, CO: ABC-CLIO.

Ford, M. R. (2016). Deficits and Balanced Budgets. In N.S. Lind, E.T. Rankin, & G. Harris (Eds.), *Today's Economic Issues*. Denver, CO: ABC-CLIO.

BOOK REVIEWS

Ford, M. R. (2018). Book Review of Can Governments Earn our Trust by Donald F. Kettl, *Journal of Public and Nonprofit Affairs*, (4)2, 244-246.

Ford, M. R. (2013). Book Review of Education Governance for the 21st Century: Overcoming the Structural Barriers to School Reform by Paul Manna and Patrick McGuinn (Eds.), *Journal of School Choice*, (7)4, 603-605.

ENCYCLOPEDIA ENTRIES

Ford, M. R. (2017) Organizational Lifecycles. *Global Encyclopedia of Public Administration, Public Policy, and Governance*. Ali Farazmand (ed.).

Ford, M. R. (2017) Population Ecology Theory of Organizations. *Global Encyclopedia of Public Administration, Public Policy, and Governance*. Ali Farazmand (ed.).

OTHER SELECTED PUBLICATIONS

Is American Public Administration in Decline? *PA Times*. August, 2018.

Lessons in Performance Measurement from Wisconsin. *PA Times*. August, 2018.

Challenging the Public Administration Status Quo. *PA Times*. July, 2018.

The Value Research of Research in Practitioner-Focused MPA Programs. *PA Times*. April, 2018.

Good Practices are Good for Students. *Wisconsin School News*. March, 2018.

The Practical Challenge of Doing What Works. *PA Times*. March, 2018.

Lessons from the Government Shutdown. *PA Times*. February, 2018.

The Big Questions Facing Public Administration in 2018. *PA Times*. January, 2018.

The Makings of a Good Municipal Budget Document. *PA Times*. December, 2017.

In Defense of Democratic Governance. *PA Times*. November, 2017.

Recommitting to Public Service Values in Troubled Times. *PA Times*. October, 2017.

What happened in Milwaukee? The city's school voucher legacy. *Thomas B. Fordham Institute Flypaper Blog*. July 2017.

Making the Most of Undergraduate Public Administration. *PA Times*. September, 2017.

The Importance of Studying Small Municipalities. *PA Times*. August, 2017.

Yes, school board members are often ideological, and that's OK. *Brookings Institution Brown Center Chalkboard Blog*. January, 2017.

In Milwaukee, school vouchers have helped many private schools to fail. *London School of Economics US Centre Daily Blog on American Politics and Policy*. January, 2017.

What's the Root of School Board Conflict. *School Administrator (Monthly Magazine of the School Superintendents Association)*. January, 2017.

Identifying and Addressing Unproductive Conflict on Wisconsin School Boards. *Wisconsin School News*. June-July, 2016.

The Challenge of Linking Governance to Performance. *PA Times*. May, 2016.

Governance and Student Achievement. *Wisconsin School News*. December, 2015. Co-Authored with Douglas Ihrke.

The Fiscal Calculator. *The Friedman Foundation for Educational Choice*. September 24, 2015. Co-Authored with John Merrifield: <http://www.edchoice.org/research/the-fiscal-calculator/>.

An Overview of Milwaukee's K-12 Education System, Section in *Pathway to Success for Milwaukee Schools*, Wisconsin Policy Research Institute, June 2013.

Understanding School Finance in Wisconsin: A Primer. *Wisconsin Policy Research Institute*, May 2013.

The Impact of Disruptive Students in Wisconsin School Districts. *Wisconsin Policy Research Institute*, April 2013.

Using Value-Added Analysis to Raise Student Achievement in Wisconsin. *Wisconsin Policy Research Institute*, June 2012. Co-authored with Sarah Archibald.

MPS' Looming Fiscal Crack-Up. *Wisconsin Interest Magazine*, July 2012.

A Modern Teacher Compensation System for Wisconsin. *Wisconsin Policy Research Institute*, January 2012.

How to Deal with State's School Wake-Up Call. *Madison Capital Times*, June 11, 2012. Co-authored with Sarah Archibald.

Education Wake-Up Call is Looming. *Milwaukee Journal Sentinel*, June 5, 2012. Co-authored with Sarah Archibald.

"Milwaukee's Lessons for Madison Prep." *Capital Times*, Madison, WI, December 16, 2011.

SELECTED RECENT CONFERENCE/SYMPOSIUM PRESENTATIONS

"School Sector Mobility in a Mature School Choice Environment." Annual Conference of the American Society of Public Administration, March 2019.

"Learning from School Choice in Milwaukee." *Center for the Advancement of Opportunity (Funded symposium)*, Washington D.C., September 2018.

"School Administration Reform Adoption in a Post-Collective Bargaining Governance Environment." *Midwest Public Affairs Conference*, Chicago, IL, May 2018. With Douglas Ihrke.

"The Challenge of Nonprofit Accountability in the Urban Hollow State." *Texas Tech University Symposium on Nonprofits (Competitive funded symposium)*, Lubbock, TX. March 2018

"Governance in Small Municipalities: Priorities, Dynamics, and Challenges." *Annual Conference of the American Society for Public Administration*, Denver, CO, March 2018. With Douglas Ihrke.
"Third Party Governance Training and Milwaukee Voucher School Performance." *International Conference on School Choice and Reform*, Fort Lauderdale, FL. January 2018. With Douglas Ihrke.

“Fiscal and Customer Isomorphism in the Milwaukee Voucher School Sector.” *Public Administration, Public Policy and Nonprofit Studies Research: Are we All Touching the Same Camel Symposium at George Washington University (Competitive funded symposium)*. June, 2017. With Fredrik Andersson.

“Leveraging Media, Social and Otherwise to Connect Local Government Research to Practice.” *Midwest Public Affairs Conference*, Omaha, NE. June 2017.

“Understanding Perceptions of Council Member Department Head Interactions in Wisconsin Local Government: What Factors Make a Difference?” *Midwest Public Affairs Conference*, Omaha, NE. June 2017. With Douglas Ihrke.

“Increased Executive Power Over the Administrative Rules Process: Information from a Natural Experiment.” *Midwest Public Affairs Conference*, Omaha, NE. June 2017. With Joshua Tegen.

“Bridging the Charter School Accountability Divide: Defining a Role for Nonprofit Charter School Boards.” *75th Annual Midwest Political Science Association Conference*, Chicago, IL. April 2017. With Douglas Ihrke.

“City Council Member Attitudes Toward Nonprofit Policy Roles and Nonprofit Capacity in Small Wisconsin Communities.” *47th Annual Urban Affairs Association Conference*, Minneapolis, MN, April 2017. With Douglas Ihrke.

“Perceptions are Reality: A Framework for Understanding Governance.” *Annual Conference of the America Society for Public Administration*, Atlanta, GA, March 2017. With Douglas Ihrke.

“Understanding Gender Differences in Ranking the Causes of Local Government Conflict: The Case of Small Wisconsin Municipalities.” *Midwest Public Affairs Conference*, Columbus, OH. June 2016. With Douglas Ihrke.

“Entry Barriers and Nonprofit Founding Rates: An Examination of the Milwaukee Voucher School Population.” *The 2016 Research Colloquium on Social Entrepreneurship at the Midwest Center for Nonprofit Leadership*, Kansas City, MO. May 2016. With Fredrik Andersson.

“Determinants of Priority Conflict on City Schools Boards.” *74th Annual Midwest Political Science Association Conference*, Chicago, IL. April 2016. With Douglas Ihrke

“The Impact of Wisconsin’s Act 10 on Municipal Management in Smaller Municipalities: Views from Local Elected Officials.” *Annual Conference of the America Society for Public Administration*. Seattle, WA. March 2016.

“School Board Member Definitions of Accountability: Applying the Romzek and Dubnick Framework.” *Annual Conference of the America Society for Public Administration*. Seattle, WA. March 2016. With Douglas Ihrke.

“Determinants of School Failure in the Milwaukee Voucher Program.” *Annual Conference of the America Society for Public Administration*. Seattle, WA. March 2016. With Fredrik Andersson.

OTHER SELECTED INVITED PRESENTATIONS/MEDIA APPEARANCES

“Connecting Group Dynamics, Governance and Performance: Evidence from Minnesota Charter School Boards.” Invited Speaker at *University of Wisconsin-Madison School of Human Ecology*. November 9, 2018.

“Lessons Lost.” Quoted in *Milwaukee Journal Sentinel*, October 5, 2018.

“Accountability and Nonprofit Failure.” Guest Lecture at *University of Wisconsin-Milwaukee Program Evaluation and Policy Analysis Course*. April, 2018.

“The Wisconsin Superintendent: Priorities, Challenges, and Board Relations.” Invited Speaker at the *Annual Wisconsin Association of School District Administrators Conference*, Oshkosh, WI, April, 2018.

“School boards increasingly embrace the ABCs of social activism.” Quoted in *Washington Post*, February 17, 2018.

“Making the Most Out of Your School Board.” Invited Speaker at the *Wisconsin State Education Convention*, Milwaukee, WI, January, 2018.

“Wisconsin Schools Lack Minority Teachers.” UpFront with Mike Gousha, *WISN Milwaukee*, December 3, 2017.

“The Next Generation of School Choice Research.” Funded invited presentation at EdChoice, Indianapolis, IN. December, 2017.

“Local Government in Wisconsin.” Invited Speaker at Leadership Oshkosh Government Day. Oshkosh, WI. November, 2017.

“Small Houston charter school pays top dollar to leader, owns luxury condo.” Quoted in *Houston Chronicle*, November 4, 2017.

“How a bizarrely complex structure blocks change for Milwaukee students.” Book discussed in *Milwaukee Journal Sentinel*, October 27, 2017.

“Walker And Evers Clash Over Future Of Education.” Guest on *Wisconsin Public Radio Central Time*, September 21, 2017.

“A quiet change in Indiana law could mean a bigger voucher program — and a wild ride for families.” Quoted in *Chalkbeat*, April 10, 2017.

“Few challengers in local primary elections.” Quoted in *Appleton Post-Crescent*, February 19, 2017.

“Scott Walker's boost in aid tied to Act 10; school staff must pay 12% of health care costs.” Quoted in *Milwaukee Journal Sentinel*, February 10, 2017.

“Local Government in Wisconsin.” Invited presentation to Leadership Oshkosh. November 16, 2016.

“The Future of K-12 Education in Wisconsin.” Invited presentation to *The Oshkosh League of Women Voters*. November 9, 2016.

Research referenced in the *Washington Post*, August 19, 2016: Trump's Perplexing Comments About Education,

Quoted in the *American School Board Journal*, April, 2016: The Key to Success.

Quoted in the *Oshkosh Northwestern*, March 14, 2016: Finance expert: OASD not 'crying wolf' on deficit.

Interviewed on Fox 11 News Green Bay WI, March 1, 2016: Five years under Act 10.

Quoted in the *Wisconsin State Journal*, February 13, 2016: Local officials divided over whether Act 10 is working in their communities.

Guest on Central, Wisconsin Public Radio, Feb. 10, 2016. Topic: Education Expert Proposes Unified Board For All Milwaukee Schools.

Quoted in the *Milwaukee Journal Sentinel*, January 30, 2016: Pie in the sky? Here's an idea for turning schools around.

"From Bold Experiment to Status Quo: The Policy Evolution of America's First Urban School Voucher Program." Invited Presentation to the UW-Oshkosh African-American Studies Program. November, 2015.

"Accountability and the Role of Schools Boards." Invited Presentation at the Wisconsin Association of School Boards Legislative Advocacy Conference. November, 2015.

"The State of Communities under 10,000 & Why It Matters for Everyone: Results from a Recent Survey." Invited Presentation at the 117th Annual Conference of the Wisconsin League of Municipalities. October, 2015.

"Evaluating Financial Condition in the Nonprofit Sector." Invited Guest Lecturer at the University of Wisconsin-Milwaukee, NonProf 958:Topics in Nonprofit Administration: Leadership of Nonprofit Organizations. November, 2015.

"The State of Wisconsin Communities with Under 10,000 Residents." Invited presentation at the League of Wisconsin Municipalities CEOs Conference. August, 2015.

"Charter School Board Member Productivity: Perceptions and Reality." Invited Guest Lecturer at the University of Wisconsin-Milwaukee, Business Management 725, Governances and Executive Leadership in Non-Profit Organizations. February, 2015.

"Milwaukee Voucher School Leaders' Views on Accountability: What Are They, and Why do They Matter?" Presented at the Nonprofit Research Colloquium at the Helen Bader Institute for Non-Profit Management, Milwaukee, WI. February 2015.

"Clintonville Public Library Survey." Presented to the Clintonville, WI Library Board, December 8th 2014.

"Communicating with Elected Officials: Lessons for Community Leaders." Invited presentation at 2014 Leadership Wisconsin Conference, Oshkosh, WI. November 17, 2014.

"Evaluating Financial Condition in a Municipality: Can it Apply to the Nonprofit Sector?" Invited Guest Lecturer at the University of Wisconsin-Milwaukee, NonProf 958:Topics in Nonprofit Administration: Leadership of Nonprofit Organizations. November 10, 2014.

“Miller’s Bay Neighborhood Plan: Presentation to the Miller’s Bay Neighborhood Association.” October 7, 2014.

“Evansville Community Survey: Presentation to the City of Evansville Plan Commission.” May 5, 2014, with Karl Nollenberger.

“Board Member Conflict, Attitudes Towards the Public, and Responsibilities: A Comparison of Charter and Traditional Public School Board Members in Minnesota.” Invited Guest Lecturer at the University of Wisconsin-Milwaukee, Public Administration 958: Governance and Executive Leadership of Non-Profit Organization. February 17, 2014.

“From Bold Experiment in Privatization to Status Quo: The Policy Evolution of America’s first Urban School Voucher Program.” Presented as part of the panel, “Life After Vouchers: Expansion, Accountability & Outcomes,” at the 7th annual Henry W. Maier State of Milwaukee Summit, November 2013.

“Statewide Voucher and Regional Independent Charters: What Lies Ahead?” Presented at the Wisconsin Association of School Boards Legislative Advocacy Conference, Stevens Point, WI. November 2013.

“Comparing Governance Behaviors on Traditional Public School Boards and Non-Profit Charter School Boards in Three Midwestern States.” Presented at the Nonprofit Research Colloquium at the Helen Bader Institute for Non-Profit Management, Milwaukee, WI. October 2013 with Douglas Ihrke.

Guest on Lake Effect, WUWM Milwaukee, April 18, 2013. Topic: The impact of disruptive students on K-12 education.

Panelist at the 2012 Midwest Catholic Education Advocate Conference at Marquette University, July 12, 2012.

“Milwaukee K-12 Education,” Presented at the 2012 Alliance for Catholic Education Parental Choice Symposium: Marquette University, June 15, 2012.

“Independent Charter School Per-Pupil Payments: Projections and Policy Options.” Presented at the Milwaukee Charter School Advocates Seminar Number One, June 27, 2012.

Appearance on Eau Claire, WI WEAU News, “Could Wisconsin Interstates Become Tollways?” February 13, 2012

“Wisconsin’s Economy and the Public Mood,” Presented at the Wisconsin Counties Association 2012 Legislative Exchange, February 7, 2012.

Guest on UpFront with Mike Gousha, WISN Milwaukee, January 15, 2012. Topic: Teacher compensation policies.

Panelist at the Illinois Policy Institute Vouchers and the Future of Education in Illinois discussion in Chicago, IL: Feb. 5, 2010.

Guest on WGN Radio’s Milt Rosenberg show: September 21, 2009. Topic: Education reform.

Guest on Wisconsin Public Radio’s Conversations with Kathleen Dunn: February 28, 2008. Topic: Milwaukee education research.

SERVICE/AWARDS AND CONTRACTS

Service to the University

Faculty Advisor to the UW-Oshkosh Student Lacrosse club.	Sept. 2015 - Present
Faculty Advisor to the UW-Oshkosh Graduate Student Association.	Aug. 2015 - Present
Member of the University of Wisconsin –Oshkosh IRB Committee.	Feb. 2014 - Present

Service to the Department

Advisor to the Public Administration Minor.	Fall 2013 - Present
Chair of Public Administration Department Faculty Search Committee.	2016-2017
Chair of Public Administration Department Assessment Committee.	Fall 2013 – 2015

Service to the Profession

President of the <i>Midwest Public Affairs Conference</i>	2018 - Present
Conference Coordinator, <i>5th annual Midwest Public Affairs Conference</i>	2018
Chair of the Awards Committee, <i>4th annual Midwest Public Affairs Conference.</i>	2017
Discussant, <i>4th annual Midwest Public Affairs Conference</i>	2017
Discussant, <i>3rd annual Midwest Public Affairs Conference.</i>	2016
Chair of the Awards Committee, <i>3rd annual Midwest Public Affairs Conference</i>	2016
Discussant, <i>Annual Conference of the American Society for Public Administration</i>	2016, 2017
Member of the Midwest Public Affairs Conference Advisory Board.	2015 - 2018
Discussant, <i>72nd Midwest Political Science Association Conference.</i>	2014
Peer reviewer for: State and Local Government Review, the American Review of Public Administration, Administration and Society, Journal of Public and Nonprofit Affairs, Public Budgeting, Accounting & Financial Management, Nonprofit & Volunteer Sector Quarterly, Education Policy Analysis Archives, Public Policy and Administration, International Journal of Organizational Analysis, Public Administration Review, Journal of Nonprofit Education and Leadership, Public Performance and Management Review, Journal of Public Administration and Theory, Urban Education, Journal of School Choice, Social Policy & Administration, Public Management Review, and Review of Public Personnel Administration.	2013 - Present

Service to the Community

Member of the City of Oshkosh Long Range Financial Planning Committee	2019 - Present
President of the Miller's Bay Neighborhood Association	2018 - Present

Member of the Oshkosh, WI United Way Fiscal Health Committee	2018
Member of the City of Oshkosh Plan Commission.	2017- Present
Vice President of the Miller's Bay Neighborhood Association.	2016 - 2018
Member of the Oshkosh, WI United Way Women in Poverty Committee.	2016 - Present
Chair of the Miller's Bay Neighborhood Planning Committee, Oshkosh, WI.	2015

Awards and Contracts

UW Oshkosh College of Letters and Sciences Community Engagement Award.	2018
UW Oshkosh Faculty development grant: <i>Connecting School Board Governance to Performance</i> , for \$5,000.	2017
Collaborator on Social Sciences and Humanities Research Council Insight Development Grant: <i>Canadian School Board Governance and School District Performance</i> , for \$61,790 (Canadian). With Nathan Grasse, Carleton University, Jack Lucas, University of Calgary, and Douglas Ihrke, University of Wisconsin-Milwaukee.	2016 - Present
PAVE Milwaukee: <i>Governance Training Evaluation</i> , \$1,500.	2016-2018
EdChoice: <i>The Fiscal Calculator Project</i> , \$5,000.	2016-2017
American Society for Public Administration Founders' Fellow.	2016
Thomas B. Fordham Institute Emerging Education Policy Scholar.	2016
Awarded contract to conduct the 2014 Clintonville, WI library satisfaction survey.	2014
Awarded contract to conduct the 2014 City of Evansville, WI community needs survey. With Karl Nollenberger.	2013
University of Wisconsin-Milwaukee Urban Studies Dissertation Grant.	2012
University of Wisconsin-Milwaukee Urban Studies Graduate Teaching Fellow.	2011-2012

PROFESSIONAL EXPERIENCE

<i>Wisconsin Policy Research Institute</i> Director of Research Hartland, WI	September 2011 - July 2013
<i>School Choice Wisconsin</i> Vice-President of Operations Milwaukee, WI	June 2008 - September 2011
<i>School Choice Wisconsin</i> Research Associate Milwaukee, WI	September 2004 - June 2008

Jason Fields for Wisconsin 11th Assembly District
Campaign Manager/Consultant
Milwaukee, WI

Fall 2006, Fall 2008

PROFESSIONAL MEMBERSHIPS

American Society for Public Administration
Association for Research on Nonprofit Organizations and Voluntary Action
Public Management Research Association
ICMA

Sara Hodges

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EdBuild

February 2015 – Present

Director of Data & Visualization

www.edbuild.org

Managing a team of data analysts and web developers

- Oversee all data and visualization products for a nonprofit that uses maps and data analysis to redefine education finance problems and solutions
- Develop data-driven stories and visuals that have been covered by over 100 news outlets including The Washington Post, Vox, The Atlantic, New York Times Magazine and NPR, submitted in at least two federal court cases, and cited in numerous academic papers
- Story identification, data analysis, research, writing, web development, maps, graphics, and project management in a deadline-driven environment
- Train team in geography, data-driven analysis of public policies, and web map development

Sara Hodges LLC - *Environmental research and mapping consultancy*

July 2012 – 2017

Web Map Developer

www.cuspmap.org

New York Hall of Science | Carnegie Museum of Natural History

Created interactive map platform on local impacts of climate change in two cities

- Research, data collection and writing to explain impacts on local infrastructure
- Full stack development of website and maps

Environmental & Geospatial Expert

United Nations Environment Programme in Afghanistan August 2013 – 2015

Managed Afghanistan Environmental Data Centre and UNEP data team

- Established a collaborative environmental data platform that collected data from NGOs and international government agencies and trained Afghan data scientists to use the data to inform policy and decision-making

EverPower Wind Holdings

May 2008 – June 2012

GIS Manager

| *Environmental analysis for the design and construction of commercial-scale wind farms*

Blue Bass Vintage Clothing

September 2006 – August 2009

Co-owner

| *Owned and operated vintage and handmade clothing store*

Urban Heat Island Group

September 2004 – May 2006

Statistician

| *Statistical analysis to assess green infrastructure strategies to reduce electricity use*

CUNY-Hunter College

September 2003 – September 2004

Researcher

| *Spatial analysis for DEP project on the resiliency of wastewater infrastructure*

New York City Environmental Justice Alliance

September 2001 – September 2003

GIS Analyst

| *Analyzed the distribution of and access to open space in New York City*

Technical Skills

Research	<ul style="list-style-type: none">• Lexis Advance, FOIA, US Census, persistence
Mapping/ Data Analysis	<ul style="list-style-type: none">• R, ArcGIS, QGIS
Design/Data Visualization	<ul style="list-style-type: none">• R, Adobe Illustrator, JavaScript, HTML, d3.js, MapBox, Carto

Education	M.A. in Geography Hunter College – City University of New York	2001 - 2004
	B.A. in Mathematics, Minor in Fine Arts Colorado College	1994 – 1998

Publications	<ul style="list-style-type: none">• \$23 Billion• Fractured – The Accelerating Breakdown of America’s School Districts• Stranded - How States Maroon Districts in Financial Distress• Fault Lines - America's Most Segregating School District Borders• Dividing Lines - Gated School Districts• Power In Numbers• Lotteries As School Funding - The Game Is Rigged• CUSP Map• <i>Mitigating New York City's Heat Island: Integrating Stakeholder Perspectives and Scientific Evaluation</i> - Sept 2009 Bulletin of the American Meteorological Society.
Awards	<ul style="list-style-type: none">• PIE Network, Most Actionable Research, 2018• The Atlantic, most important education visualizations – 2015 and 2017• George N Shuster Award for most outstanding Master’s thesis• Society of Women Geographers Fellowship• CUNY Graduate Center Science Fellow

Interests	Biking, Exploring, Dioramas, Infrastructure, Public Policy, Food
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Matthew Richmond
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New York, NY 10010

EDUCATION

University of North Carolina at Chapel Hill

BA with Honors, Political Science and Economics

University of Pittsburgh – Graduate School of Public and International Affairs (GSPIA)

MID - Development Planning and Environmental Sustainability

WORK/RELATED EXPERIENCE

Chief Program Officer

Nov 2016–Present

EdBuild (*Jersey City, NJ*)

- Manages all program-related activity, including national-level research related to education finance and resource equity.
- Involved at all levels of state-level consulting. Includes the analysis of state education funding formulas, the evaluation of effective/efficient/equitable targeting of state and local dollars, identification of potential improvements, and presentation to stakeholders.

Consultant

Aug 2015–June 2016

Malawian Office of the President and Cabinet (*Lilongwe, Malawi*)

- Consulted on issues related to civil service reform, anti-corruption, and accountability systems.
- Included legislation edits and country-wide trainings on new methodology.

Director of Policy

Nov 2014–July 2015

EdBuild (*Jersey City, NJ*)

- Developed and wrote on policy priorities on topics related to state financial formulas, political boundaries, and equity in education dollars.
- Managed the development of a financial simulator for school districts.

Research Analyst

June 2012–Aug 2014

Thomas B. Fordham Institute (*Washington, D.C.*)

- Research focused on education-policy issues, including school staffing, special-education funding and policy, policy framing, and poverty.

Focus Group Facilitator/Analyst

Summer of 2012

AIDS Coalition of Southwestern Pennsylvania (*Pittsburgh, PA*)

- Developed interview protocols and facilitated focus groups of HIV+ beneficiaries.

Volunteer

Summer of 2011

Lisha Mtoto Initiative, School and Food Program (*Nairobi, Kenya*)

- Designed contract and framework of a micro-finance program for business owners.

Counselor

Summers 2007, 2008

Autism Society of North Carolina (ASNC) (*Asheville, NC*)

AUTHORED RESEARCH

School-Level Spending in the D.C. Metro Area

October 2014

- Analyzed patterns within per-pupil expenditures, reporting based on income, district, school type, and other variables.

The Hidden Half: School Employees Who Don't Teach

August 2014

- Describes growth of non-teaching staff since 1950 at the national, state, and district level.

Financing the Education of High-Need Students

November 2013

- Offers district- and state-level policy recommendations geared toward improving the funding of services for students with exceptional needs.

RECOGNITION/AWARDS

Fulbright Public Policy Fellowship

Aug 2015–June 2016

- A fellowship within the U.S. State Department's Fulbright Scholars program, includes a consultancy position and research done within a foreign ministry.

Johnson Center's Leadership Portfolio Program

Jan 2011–April 2012

- Selective leadership program at the Graduate School for Public & International Affairs.