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EXHIBIT G1



Review of Adequacy Studies

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Presentation

- Review Four Approaches to Adequacy
- Examine the Number and Type of Adequacy Studies since 2003
- Examine the Resources Identified
 - Instructional
 - Student Support
 - Administrative

Adequacy Approaches

- Four Approaches have been developed over the past 25 years to examine adequacy
 - **Professional Judgment** – Educators identify the resources needed at the school and district level to meet state standards. Identifies the base cost and adjustments for district and student characteristic differences
 - **Evidence Based** – Utilizes academic and school reform research to identify the resources needed at school and district level to meet state standards. Identifies the base cost and adjustments for district and student characteristic differences

Adequacy Approaches (Cont.)

- **Successful Schools** – Identifies districts or schools that are outperforming other districts in the state on absolute performance and/or student growth. Only identifies a base cost figure
- **Cost Function** – Utilizes statistical analysis to examine the relationships between spending and outcomes considering the differences in student and district characteristics. Identifies the base cost and adjustments for district and student characteristic differences

Studies Since 2003

- Studies have been undertaken across the country. The study team identified each study, the approach(es) used, and the type of entity the study was done for including:
 - State
 - Advocacy Group

Studies

- Forty-nine studies were done from 2003-2019 in 31 states
 - 21 studies used Professional Judgement
 - 18 studies used Evidence-Based
 - 17 studies used Successful Schools
 - 8 studies used cost function
- Studies were either sponsored by state entities or outside organizations
 - 47% of the studies were done for state entities
 - 53% of the studies were done for outside organizations

SREB Studies

	No Study/ Other Study	Cost Function	Evidence Based	Professional Judgement	Successful Schools
Arkansas			X		
Alabama				X	X
Delaware				X	X
Florida	X				
Georgia	X				
Kentucky			X	X	
Louisiana	X				
Maryland			X	X	X
Massachusetts	X				
Mississippi	X				
North Carolina		X			
Oklahoma	X				
South Carolina	X				
Tennessee		X			
Texas			X		
Virginia	X				
West Virginia	X				

Identifying Resources

- The professional judgment and evidence-based approach studies generate specific resources that can be compared to the Arkansas matrix resources
 - The successful schools and cost function provide dollar amounts and weights, but do not provide information specific resource information
- The following slides look at the resources from the studies for schools/districts that seemed most comparable to Arkansas based on school and district sizes

Comparison Approach

- Identified most recent study done for each state and examined the resources for districts/schools closest to 500 students
- Tables show the minimum and maximum student to staff ratio for personnel resource areas, the national mode (most frequent), and detail for all SREB studies
- **Important to remember these are study results, not actual funding levels in most states**

Instructional Resources: Class Size - Elementary

	K	1	2	3	4	5
Arkansas (Matrix)	20:1	23:1	23:1	23:1	25:1	25:1
All State Low	15:1	15:1	15:1	15:1	17:1	17:1
All State High	20:1	20:1	21:1	25:1	25:1	25:1
All State Mode	15:1	15:1	15:1	25:1	25:1	25:1
Alabama	18:1	18:1	21:1	21:1	25:1	25:1
Delaware	17:1	17:1	17:1	17:1	17:1	17:1
Kentucky	15:1	15:1	15:1	25:1	25:1	25:1
Maryland	15:1	15:1	15:1	25:1	25:1	25:1
Texas	15:1	15:1	15:1	25:1	25:1	25:1

Instructional Resources: Class Size - Secondary

	6	7	8	9	10	11	12
Arkansas (Matrix)	25:1	25:1	25:1	25:1	25:1	25:1	25:1
All State Low	16:1	16:1	16:1	16:1	16:1	16:1	16:1
All State High	25:1	25:1	25:1	25:1	25:1	25:1	25:1
All State Mode	25:1	25:1	25:1	25:1	25:1	25:1	25:1
Alabama	25:1	25:1	25:1	25:1	25:1	25:1	25:1
Delaware	20:1	20:1	20:1	20:1	20:1	20:1	20:1
Kentucky	25:1	25:1	25:1	25:1	25:1	25:1	25:1
Maryland	25:1	25:1	25:1	25:1	25:1	25:1	25:1
Texas	25:1	25:1	25:1	25:1	25:1	25:1	25:1

Instructional Resources: Takeaways

- Elementary
 - Arkansas matrix ratios are higher than national mode and most SREB state studies for K-2
 - Grade 3-5 ratios are similar to national mode and many of the SREB studies
- Secondary
 - Grade 6-12 ratios are similar to national mode and many of the SREB studies

Instructional Resources: Other

	Instructional Facilitators		Library Media Specialist	
	Elementary	Secondary	Elementary	Secondary
Arkansas (Matrix)	1:200	1:200	1:588	1:588
All State Low	1:80	1:80	1:200	1:184
All State High	1:540	1:600	1:450	1:1,025
All State Mode	1:200	1:200	1:450	1:525
Alabama	1:400	1:600	1:450	1:400
Delaware	1:540	1:120	1:425	1:470
Kentucky	1:200	1:200	1:450	1:525
Maryland	1:150	1:180	1:450	1:480
Texas	1:200	1:200	1:450	1:525

Instructional Resources: Other Takeaways

- **Instructional Facilitators**
 - Variation across studies including the SREB studies
 - Arkansas Matrix ratios are in line with national mode for both elementary and secondary
- **Library/Media Specialist**
 - SREB studies and national mode produce relatively consistent results
 - Arkansas Matrix ratios are about 30% higher

Student Support Services

	Total Student Support	
	Elementary	Secondary
Arkansas (Matrix)	1:200	1:200
All State Low	1:100	1:81
All State High	1:500	1:500
All State Mode	1:150	1:180
Alabama	1:375	1:173
Delaware	1:101	1:122
Kentucky	1:281	1:182
Maryland	1:150	1:118
Texas	1:450	1:250

Student Support Services: Takeaways

- Looked at guidance counselor, nurse, psychologist, and social worker levels identified for all students in studies
- Variation across studies, including across SREB state studies
- Arkansas Matrix ratios are 33% higher in elementary and about 10% higher in secondary

Administration Services

	Administrators		Administrator Support	
	Elementary	Secondary	Elementary	Secondary
Arkansas (Matrix)	1:500	1:500	1:500	1:500
All State Low	1:150	1:170	1:100	1:110
All State High	1:500	1:525	1:360	1:263
All State Mode	1:450	1:300	1:225	1:203
Alabama	1:225	1:245	1:225	1:175
Delaware	1:400	1:170	1:210	1:190
Kentucky	1:450	1:375	1:225	1:213
Maryland	1:150	1:190	1:150	1:190
Texas	1:450	1:300	1:225	1:213

Administrative Services: Takeaways

- Arkansas matrix ratios for administrators are higher than the national mode and all SREB study results for elementary and secondary
- Arkansas matrix ratios for administrative support are higher for both elementary and secondary when compared to national mode and SREB studies

English Learner Resources

	Total Instructional		Total Student Support	
	Elementary	Secondary	Elementary	Secondary
Arkansas (Matrix)	Categorical	Categorical	Categorical	Categorical
All State Low	1:7	1:6	1:75	1:100
All State High	1:250	1:250	1:180	1:325
All State Mode	1:100	1:100	1:100	1:100
Alabama	1:30	1:30		
Delaware	1:8	1:7	1:75	1:290
Kentucky	1:100	1:100		
Maryland	1:14	1:13	1:180	1:192
Texas	1:100	1:100		

At-risk Student Resources

	Total Instructional		Total Support		Total Admin	
	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary
Arkansas (Matrix)	NSL/ESA	NSL/ESA	NSL/ESA	NSL/ESA	NSL/ESA	NSL/ESA
All State Low	1:18	1:30	1:75	1:45	1:125	1:290
All State High	1:100	1:100	1:545	1:315	1:790	1:700
All State Mode	1:50	1:50	1:100	1:100	1:390	1:300
Alabama	1:100	1:325	1:100	1:265	1:520	1:640
Delaware	1:35	1:35	1:390	1:211	1:785	
Kentucky	1:50	1:50				
Maryland	1:25	1:45	1:75	1:120		1:290
South Dakota	1:20	1:35	1:100	1:45		
Texas	1:100	1:100	1:100	1:100		

Special Education Resources

	Total Student Support		Total Admin	
	Elementary	Secondary	Elementary	Secondary
Arkansas	1:22	1:22	N/A	N/A
All State Low	1:5	1:5	1:22	1:33
All State High	1:23	1:23	1:79	1:157
All State Mode	1:6	1:6	1:34	1:65
Alabama	1:6	1:6	1:46	1:145
Delaware	1:6	1:6	1:48	1:103
Maryland	1:9	1:20	1:34	1:75

Special Education Resources: Takeaways

- Used the statewide average of 13% of students in special education for a total of 65 students
- Arkansas Matrix ratio is high for elementary and secondary compared to national mode and SREB studies

Other Costs

	Technology		Instruction		Activities		Assessment	
	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary
Arkansas (Matrix)	\$250	\$250	\$250	\$250	N/A	N/A	N/A	N/A
All State Low	\$100	\$100	\$125	\$160	\$385	\$145	\$5	\$5
All State High	\$250	\$250	\$300	\$385	\$250	\$630	\$25	\$25
All State Mode	\$250	\$250	\$250	\$250	\$25	\$250	\$20	\$20
Alabama	\$100	\$100	\$150	\$200	\$25	\$250	\$15	\$15
Kentucky	\$250	\$250	\$140	\$160	\$250	\$250	\$25	\$25
Maryland			\$125	\$140	\$20	\$145	\$5	\$5
Texas	\$250	\$250	\$140	\$160	\$250	\$250	\$25	\$25

Other Costs: Takeaways

- Technology dollars per student in the Arkansas Matrix are the same as the national mode and similar to most of the SREB studies
- Instructional materials dollars per student in the Arkansas Matrix are the same as the national mode and the same or higher than SREB studies



Questions?