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## Memorandum

## TO :

Members of the House and Senate Committees on Education
FROM: Policy Analysis and Research Section, Bureau of Legislative Research
DATE : January 7, 2013
SUBJECT: NSL State Categorical Funding, Project \#14-001-25b

Arkansas statute §10-3-2102 requires the House and Senate Committees on Education to evaluate the cost of providing an adequate education. As one part of that responsibility, the law requires the Committees to review the expenditures from National School Lunch (NSL) state categorical funding. NSL funding is state money distributed to school districts based on the concentrations of poverty in their student populations. This document provides information on the funding provided to districts, the number of low income students in Arkansas, data on the performance of these students on state and national tests and information about districts' use of state NSL funding.

The NSL state poverty funding program should not be confused with the federal school lunch program. The state funding is called NSL funding because eligibility for the federal National School Lunch Act program is used as the measure of poverty. According to the federal program rules, children from families with incomes below 130 percent of the poverty level are eligible for free meals, and those with incomes between 130 percent and 185 percent of the poverty level are eligible for reduced-price meals.

Under the state NSL categorical funding program, districts receive one of three funding rates for each student eligible for a free or reduced-price lunch. The funding rates for 2012-13 are provided in the table below. Each district's funding rate is based on the percentage of students eligible for the free or reduced-price lunch program. For example, if a 1,000-student district has 800 students eligible for free or reduced-price lunches (80\%), the district would receive $\$ 1,033$ for each of those 800 students, or $\$ 826,400$.

| \% NSL Students | FY13 Funding Rate |
| :---: | :---: |
| $<70 \%$ | $\$ 517$ |
| $70 \%-90 \%$ | $\$ 1,033$ |
| $90 \%>$ | $\$ 1,549$ |

## Student Count

Nearly 280,000 of the more than 460,000 students enrolled in the state's school districts, or about $60 \%$, are eligible for free or reduced price lunch. The following chart indicates that both the number and the percentage of NSL students, has been increasing annually over the last six years.


Source: Arkansas Department of Education, Annual Oct. Enrollment Data. Data does not include charter schools, Arkansas School for the Blind, Arkansas School for the Deaf or Arkansas Division of Youth Services.

Typically, about $50 \%$ of all students are eligible for free lunches, $10 \%$ are eligible for reduced-price lunches and $40 \%$ of students are ineligible for free or reduced-price lunches. Over the last six years, the number of free lunch students has been increasing, while the number of students who are not eligible for either free or reduced-price lunches (shown on the chart as "Full Price") is decreasing.


Source: Arkansas Department of Education, Annual Oct. Enrollment Data. Data does not include charter schools, Arkansas School for the Blind, Arkansas School for the Deaf or Arkansas Division of Youth Services.

About 60\% of the districts fall into the lowest NSL funding rate (<70\%), while 37\% are in the middle rate ( $70 \%-<90 \%$ ) and just eight districts (3\%) are in the highest funding rate ( $90 \%+$ ). The number of districts in the lowest funding rate has been decreasing in recent years, while those in the middle rate has been increasing.


Source: Arkansas Department of Education, Certified Free and Reduced-price-Lunch Students. The data represents the October enrollment data collected in each school year. For example, 2012 represents the enrollment data collected in Oct. 2011 of the 2011-12 school year and used to calculate NSL funding distribution for the 2012-13 school year.

The districts with the highest concentrations of NSL students are located along the eastern edge and southern region of the state, as indicated by the following map. Districts with mid-level concentrations of poverty are scattered across the state.


## NSL Funding Background

The Arkansas General Assembly introduced NSL state categorical funding during the Second Extraordinary Session of 2003, with the first appropriation for the 2004-05 school year. The new funding was based on recommendations made by Lawrence O. Picus and Associates, the education finance consulting firm the General Assembly hired in 2003 to help devise a new funding formula for the state's education system. The consultants made recommendations in 2003 (Odden \& Picus, 2003) and again in 2006 (Odden, Picus, \& Goetz, 2006), when the state rehired them to recalibrate the funding formula.

Picus and Associates argued that districts with high concentrations of poverty need additional resources and, in both 2003 and 2006, they recommended the state provide additional funding for two purposes: teacher tutors and pupil support personnel.

In 2003, Picus and Associates noted that, for struggling students, "the most powerful and effective strategy is individual one-to-one tutoring provided by licensed teachers" (Odden \& Picus, 2003, p. 25). The consultants recommended that Arkansas fund one fully licensed teacher tutor for every 100 NSL students, with a minimum of one for every school. They also suggested funding extended day and summer school programs as secondary measures if the state found its tutoring strategy was not fully sufficient. Picus and Associates also noted that schools need a strategy for student support and family outreach, and that strategy should be based on the district's level of poverty. The general standard, they said, is one licensed professional for every $20-25 \%$ of the student body that is low income. In total, the consultants recommended 2 full-time employee (FTE) positions for every 100 NSL students-one teacher tutor and one pupil support services FTE.

The Legislature then enacted Act 59 of the Second Extraordinary Session of 2003. Instead of funding one teacher tutor and one pupil support services FTE for every 100 NSL students, as recommended by the consultants, the Legislature turned the staffing level into a dollar amount that essentially funded 1 FTE position for districts with NSL concentrations below 70\%, two for districts with NSL concentrations between $70 \%$ and less than $90 \%$ and three positions for districts with NSL concentrations at $90 \%$ and above.

## Original Intent of Funding

Over the last year, as the distribution and the use of NSL funding have been examined by legislators and educators, questions have surfaced about which students the funding is intended to serve. Some have argued that because the funding is based on the number and concentration of low income students, the funding was intended to target low-income students. Others believe the funding is intended to serve students who are not testing on grade level, and that the funding uses eligibility for a free or reduced-price lunch as merely a proxy for targeting struggling learners. Finally, others believe the funding is intended to raise the achievement of all students, not just poor students or struggling learners. Determining which students are targeted is important, in part, because it's difficult to measure the "success" of the funding until it's known who it is intended to help.

The Bureau of Legislative Research (BLR) was asked to review legislation, legal filings and consultants' reports leading up to the creation of NSL funding to determine the intended population. This review found the intention was not discussed uniformly. For example, Judge Collins Kilgore, in his 2001 Chancery Court Opinion, to which the General Assembly would ultimately respond, noted, "Generally, children who qualify for free and reduced lunches come from homes that cannot provide opportunities such as internet access, ample reading and writing supplies, and parents who emphasize the importance of education and reading at an early age. A heavy concentration of free and reduced lunch students placed in one classroom over-taxes the teacher and puts a strain on
available resources. These students typically require extraordinary resources to help them achieve proficiency." This suggests that Judge Kilgore was concerned about providing resources for the specific challenge of educating low income students.

On the other hand, the General Assembly's consultants noted in a 2003 recommendation that led to the creation of NSL funding that schools need additional resources for "struggling learners." "Every school should have a powerful and effective strategy for struggling students, i.e., students who must work harder and who need more time to achieve to proficiency levels. Such students generally include those from lower income backgrounds, those struggling to learn English, and those with learning and other mild disabilities.

The BLR's full review of the intent of this funding can be found at the following link:
http://www.arkleg.state.ar.us/education/K12/AdequacyReports/2014/2014-01-07/Original\ Intent\ of\ NSL\ Funding,\ BLR,\ 7-19-2013.pdf

As part of the current adequacy study, the BLR surveyed all 238 school districts in the state through an online survey. One of the survey questions sought information on how the districts target NSL funds.

## Question: Which one of the following goals is most important when your district is deciding how to allocate NSL funding?

a.) Raising the achievement of economically disadvantaged students
b.) Raising the achievement of students who are not performing on grade level
c.) Raising the achievement of all students

To date, 228 of the 238 districts have responded to the survey. Their responses indicate that nearly half of the districts do not target the funding toward any particular group of students. Instead, they consider the funding to be a resource for all students.

|  | All Responding <br> Districts (228) |
| :--- | :---: |
| Raising the achievement of economically disadvantaged students | $31 \%$ |
| Raising the achievement of students who are not performing on grade level | $20 \%$ |
| Raising the achievement of all students | $49 \%$ |

When the responses are broken down by districts' NSL percentages, the results indicate that, as the concentration of poverty increases, the more likely a district is to see the funding as serving all students. That response may be explained in part by the fact that, in districts with student populations above $90 \%$ NSL, there is little difference in targeting funding to economically disadvantaged students and targeting the funding to all students.

|  | $<\mathbf{7 0 \%}$ | $\mathbf{7 0 \% - 9 0 \%}$ | $\mathbf{9 0 \%} \boldsymbol{+}$ |
| :--- | :---: | :---: | :---: |
| Raising the achievement of economically disadvantaged students | $31.4 \%$ | $29.8 \%$ | $37.5 \%$ |
| Raising the achievement of students who are not performing on <br> grade level | $26.3 \%$ | $10.7 \%$ | $0 \%$ |
| Raising the achievement of all students | $42.3 \%$ | $59.5 \%$ | $62.5 \%$ |

## Other Types of NSL Funding

In addition to the regular NSL funding, there are two other related state funding programs: NSL growth funding and NSL transitional adjustments.

## NSL Growth Funding

Because NSL funding is based on the prior year's enrollment data, growing districts receive NSL funding for a smaller number of students than they are responsible for educating. To adjust for this issue, Act 2283 of 2005 created a provision that provides additional NSL funding for growing districts. (This funding is separate from regular growth funding, which is another appropriation in the public school fund.) Districts that have grown at least one percent in enrollment each of the last three years qualify for NSL growth funding. For those districts that qualify for funding, the amount they receive is calculated by multiplying the three-year average growth in enrollment by the district's previous year's NSL percentage. That amount is then multiplied by the district's per-student NSL funding rate. An example of the NSL growth calculation is provided below.

| Year | Enrollment | \% Increase | Enrollment <br> Increase | 3-Year Average <br> Increase | NSL \% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2008-09$ | 1,000 |  |  |  |  |
| $2009-10$ | 1,010 | $1 \%$ | 10 |  |  |
| $2010-11$ | 1,025 | $1.49 \%$ | 15 |  |  |
| $2011-12$ | 1,036 | $1.07 \%$ | 11 |  |  |

A total of \$512,943 in NSL growth funding was provided to 11 districts in FY2012-13.

| District | NSL Growth Funding |
| :--- | :---: |
| Springdale | $\$ 221,452$ |
| Jonesboro | $\$ 81,442$ |
| Bentonville | $\$ 75,661$ |
| Bryant | $\$ 59,462$ |
| Brookland | $\$ 16,399$ |
| Caddo Hills | $\$ 15,340$ |
| Valley View | $\$ 11,412$ |
| Pea Ridge | $\$ 11,016$ |
| Bauxite | $\$ 8,065$ |
| Clinton | $\$ 6,421$ |
| Farmington | $\$ 6,273$ |

## NSL Transitional Adjustments

Districts with NSL percentages that are close to the funding rate break points (for example, 69\%$70 \%$ and $89 \%-90 \%$ ) can easily shift between rates from one year to the next, resulting in significant gains or losses. To ease the transition from one rate to another, Act 811 of 2007 created a provision that allows districts moving from a higher or lower funding rate to receive adjustments over a three year period. The rate is changed by a third each of the three years of transition, or $\$ 172$ per NSL student per year (based on current funding amounts). Adjustments can be either negative, when a district moves to a higher funding rate, or positive, when a district moves to a lower funding rate.

| Shifting to a Higher Rate |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From | To | Year One | Year Two | Year Three |
| $69 \%$ | $71 \%$ | $\$ 1,033-(2 \times \$ 172)=$ | $\$ 1,033-\$ 172=$ | $\$ 1,033-\$ 0=$ <br> $\$ 1,033$ |
| $\$ 517$ | $\$ 1,033$ | $\$ 689$ | $\$ 861$ |  |
| Shifting to a Lower Rate |  |  |  |  |
| From | To | Year One | Year Two | Year Three |
| $71 \%$ | $69 \%$ | $\$ 517+(2 \times \$ 172)=$ | $\$ 517+\$ 172=$ | $\$ 517+\$ 0=$ |
| $\$ 1,033$ | $\$ 517$ | $\$ 861$ | $\$ 689$ | $\$ 517$ |

In 2012-13, 21 districts received a transitional adjustment. Of those, 3 shifted to a lower rate, and their funding was adjusted upward. Eighteen shifted to a higher rate, and their funding was adjusted downward. Five districts (Lincoln, Hartford, North Little Rock, Little Rock, and Trumann) were in their final year of transition, and therefore received no transitional adjustment. Transitional adjustments totaled a negative $\$ 7.5$ million.

| District | NSL Transitional <br> Adjustment |
| :--- | ---: |
| Hamburg | $\$ 382,184$ |
| Clinton | $\$ 160,476$ |
| Hillcrest | $-\$ 53,344$ |
| Stephens | $-\$ 56,932$ |
| Bradford | $-\$ 81,700$ |
| Hazen | $-\$ 100,620$ |
| Barton-Lexa | $-\$ 110,252$ |
| Jasper | $-\$ 136,568$ |
| Foreman | $-\$ 157,2882$ |
| Des Arc | $-\$ 172,344$ |
| Cotter | $-\$ 201,068$ |
| Clarendon | $-\$ 210,528$ |
| Waldron | $-\$ 240,112$ |
| Jessieville | $-\$ 260,408$ |
| Centerpoint | $-\$ 334,712$ |
| Malvern | $-\$ 680,432$ |
| Cave City | $-\$ 747,856$ |
| Jonesboro | $-\$ 1,029,592$ |
| Watson Chapel | $-\$ 3,348,152$ |
| Texarkana |  |
| Fort Smith |  |

When NSL growth funding is added and transitional adjustments are applied, the NSL funding districts received in 2012-13 totals nearly $\$ 193$ million.

| FY2013 | Districts |
| :--- | ---: |
| NSL Funding | $\$ 199,936,831$ |
| NSL Transitional | $(7,472,024)$ |
| NSL Growth | $\$ 512,943$ |
| Total | $\$ 192,977,750$ |

## Allowable Uses and 2013 Expenditures

Unlike the per-pupil foundation funds, NSL funding is considered restricted, meaning districts can spend NSL dollars only for certain activities. A.C.A. § 6-20-2305(b)(4)(C) requires the State Board of Education to establish by rule a list of approved uses of NSL funds. The statute also provides a list of eligible uses for which districts may expend funding, but it notes that approved uses are not limited to those included in statute. The following chart lists the allowable uses specified in statute and the year in which the allowable use was adopted by the Legislature. It also lists the allowable uses spelled out in ADE's Rules Governing the Distribution of Student Special Needs Funding. Each allowable use that does not have a year in the first column ("Year Added to Statute") was added by rule only, not statute. The far right column, "\% of NSL Exp.", shows the percentage of all NSL expenditures statewide spent on each allowable use during the 2012-13 school year. The uses recommended by Picus and Associates - tutors and pupil support services - are shaded in light blue. (The consultants also recommended before- and after-school programs and summer school if tutoring was insufficient.)

| Year <br> Added <br> to <br> Statute | Arkansas Code | ADE Rules | $\%$ of <br> NSL <br> Exp. |
| :--- | :--- | :--- | :--- |
| 2003 | Classroom teachers, <br> provided the district meets <br> the minimum salary <br> schedule without using NSL <br> funds | Highly qualified classroom teachers in K-12 | $8.15 \%$ |
| 2003 | Curriculum specialists | Curriculum specialists and instructional facilitators or <br> literacy, mathematics, or science specialists/coaches that <br> meet specified requirements | $21.15 \%$ |
| 2003 | Before-school academic <br> programs and after-school <br> academic programs, <br> including transportation to <br> and from the programs | Research-based before and after-school academic <br> programs, including transportation to and from the <br> programs | $1.97 \%$ |
| 2003 | Pre-kindergarten programs <br> coordinated by the <br> Department of Human <br> Services | Research-based pre-kindergarten programs that meet the <br> program standards as outlined in the Rules Governing the <br> Arkansas Better Chance program. | $4.01 \%$ |
| 2003 | Tutors | Tutors | $2.0 \%$ |
| 2003 | Teachers' aides | Teacher's aides | $8.54 \%$ |
| 2003 | Counselors, social workers, <br> and nurses | Licensed counselors and nurses above the mandates of the <br> Standards for Accreditation; human service workers, | $8.13 \%$ |
| 2003 | Parent education | licensed mental health counselors, licensed certified social <br> workers or licensed social workers |  |


|  | Arkansas Code | ADE Rules | \% of NSL Exp. |
| :---: | :---: | :---: | :---: |
| 2003 | Summer programs | Summer programs that implement research-based methods and strategies targeted at closing the achievement gap | 1.26\% |
| 2003 | Early intervention programs | Early intervention programs | 1.41\% |
| 2003 | Materials, supplies, and equipment, including technology used in approved programs or for approved purposes | Materials, supplies, and equipment, including technology, used in approved instructional programs or for approved purposes in support of the local educational agency's ACSIP | ** |
| 2007 | Supplement all classroom teacher salaries, after minimum teacher salary schedule is met | Bonuses or supplements to salaries above the minimum salary schedule | 2.33\% |
| 2011 | Federal child nutrition program free meals under the Provision 2 program or free meals for reduced-price students | Expenses of federal child nutrition programs to the extent necessary to provide school meals without charge to all students under the United States Department of Agriculture Special Assistance Alternative "Provision 2" or students otherwise eligible for reduced-price meals | 1.31\% |
| 2011 | Expenses directly related to a longer school day or school year | Expenses directly related to funding a longer school day or school year | 0\% |
| 2011 | Remediation programs partnering with higher education institutions | Partnering with local institutions of higher education to remediate students while those students are still in high school so that the students are college and career ready upon graduation from high school | .17\% |
| 2011 | Teach For America professional development | Teach For America professional development | .03\% |
| 2011 | The Arkansas Advanced Initiative for Math and Science | Implementing components of the Arkansas Advanced Initiative for Math and Science | .01\% |
| 2011 | College and career coaches. | College and career coaches, as defined by the Department of Career Education | .05\% |
| 2011* | Transfers to other categorical funds |  | $\begin{gathered} \hline 11.27 \% \\ \text { (ALE, } \\ \text { 8.35\%; } \\ \text { ELL, } \\ 1.92 \% ; \\ \text { PD, 1\%) } \\ \hline \end{gathered}$ |
| 2013 | Program using arts-infused curriculum | This statutory allowable use has not been added to ADE rules yet. |  |
| NA |  | Research-based professional development in the areas of literacy, mathematics, or science in K-12 | 1.67\% |
| NA |  | School Resource Officers whose job duties include research-based methods and strategies tied to improving achievement of students at risk | ** |
| NA |  | Experience-based field trips | ** |
| NA |  | Coordinated school health coordinator | ** |

[^0]| Year Added to | Arkansas Code | ADE Rules | \% of NSL Exp. |
| :---: | :---: | :---: | :---: |
| NA |  | A chronically underperforming school's ACSIP shall provide for the use of national school lunch state categorical funding to fund without limitation the following: <br> - Use of an Arkansas Scholastic Audit. <br> - Use of disaggregated school data to set academic targets in reading, writing, mathematics, and science. <br> - Use of improvement targets to define professional development needs related to content, instruction, differentiation, and best practices in educating student subgroups as identified in need. <br> - Development of interim building-level assessments to monitor student progress toward proficiency on the state benchmark assessments. <br> - Development of a plan to immediately address gaps in learning. <br> - Examination and realignment, as needed, of school scheduling, academic support systems, and assignment of personnel to improve student achievement. <br> - Design of a plan for increasing parental knowledge and skill to support academic objectives. <br> - Evaluation of the impact of the before-mentioned educational strategies on student achievement. | 12.56\% |
| NA |  | Paying for students in grade eleven (11) to take the ACT Assessment, pursuant to the Voluntary Universal ACT Assessment Program or operating a postsecondary preparatory program. | .09\% |
| NA |  | Other activities approved by the ADE. Such activities include, but are not limited to, research-based activities and activities directed at chronically underperforming schools | 13.49\% |

[^1]The funding can also be examined by the number of districts that spent NSL funds-of any amount-on each funding use. The most popular NSL use, as shown in the following chart was curriculum specialists and instructional facilitators, followed by pupil support staff, other ADEapproved activities and teachers' aides.


In 2012-13, districts received nearly $\$ 193$ million in NSL funding (including NSL transitional adjustments and NSL growth funding), and collectively they spent nearly $\$ 197$ million, including $\$ 22.2$ million in transfers from NSL funds to other categorical funding programs. (These figures do not include the funding or expenditures of open enrollment charter schools.)

| FY2013 |  |
| :---: | :---: |
| NSL Funding Received <br> by Districts | Districts' NSL <br> Expenditures |
| $\$ 192,977,750$ | $\$ 196,927,712$ |

## NSL Fund Balances

The fact that districts collectively spent more NSL funding than they received in 2012-13 is likely the result of 2011 legislation that requires districts to spend down their NSL fund balances. Collectively districts had $\$ 18.36$ million in NSL fund balances, or $\$ 65.26$ per NSL student. (These figures do not include charter school balances.) Districts collectively reduced the total amount of fund balances from $\$ 26.65$ million in 2011 to $\$ 18.36$ million in 2013. At the end of 2012-13, 222 districts had NSL fund balances.

|  | Total NSL Fund Balance | Districts |
| :---: | :---: | :---: |
| $2010-11$ | $\$ 26.65$ million | 213 |
| $2011-12$ | $\$ 21.68$ million | 212 |
| $2012-13$ | $\$ 18.36$ million | 222 |


| Ending Fund Balance | Number of Districts |  |  |
| :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 1 0 - 1 1}$ | $\mathbf{2 0 1 1 - 1 2}$ | $\mathbf{2 0 1 2 - 1 3}$ |
| $\$ 0$ | 26 | 27 | 17 |
| $1-\$ 50,000$ | 114 | 124 | 141 |
| $\$ 50,001-\$ 100,000$ | 41 | 39 | 40 |
| $\$ 100,001-\$ 500,000$ | 44 | 37 | 34 |
| $\$ 500,001-\$ 1,000,000$ | 11 | 10 | 5 |
| More than $\$ 1,000,000$ | 3 | 2 | 2 |
| Total | 239 | 239 | 239 |

Act 1220 of the 2011 Regular Session (A.C.A. §6-20-2305) requires districts to spend at least 85\% of the total NSL allocation they receive each year. At the end of the year, districts with NSL fund balances above $15 \%$ of their current year allocation are required to reduce their balance by at least $10 \%$ each year until their balance is within $15 \%$ of the year's allocation. If a district fails to comply, the Education Department may withhold a portion of the district's NSL funding in the following year. The law also allows ADE to redistribute to other districts any funding it withholds.

The law was applied for the first time to NSL fund balances at the end of 2011-12, requiring 53 districts (and two charter schools) to reduce their NSL fund balances in the 2012-13 school year. At the end of 2012-13, any of those 53 school districts that did not spend down the required $10 \%$ of their 2011-12 fund balance will have NSL funding withheld in 2013-14. Eleven districts were unable to adequately spend down their fund balances, and ADE will withhold the following amounts from their NSL funding this school year.

| District | Amount to be <br> Withheld |
| :--- | ---: |
| Helena-West Helena | $\$ 926,998$ |
| Lee County | $\$ 337,989$ |
| South Mississippi County | $\$ 112,696$ |
| Mineral Springs | $\$ 31,172$ |
| Des Arc | $\$ 16,885$ |
| Cleveland County | $\$ 16,018$ |
| Stephens | $\$ 11,611$ |
| Highland | $\$ 5,599$ |
| Booneville | $\$ 4,304$ |
| Cutter-Morning Star | $\$ 4,143$ |
| Riverside | $\$ 151$ |

State statute allows ADE to redistribute to other districts any NSL funding the department withholds. ADE has not decided how the department will handle any redistribution of the 2013-14 funding.

## Student Achievement

## State Assessments

The following charts show the percentage of students who took a state benchmark or end of course exam and scored proficient (i.e., on grade level) or advanced. (Students in some grades, such as second grade, do not take benchmark or end of course exams.) The charts compare the percentage of NSL students (low income) who tested proficient or advanced with the percentage of non low income (all non NSL students) who were proficient or advanced. Student achievement among NSL students has increased since the funding began, but it continues to lag behind that of students who are not eligible for free or reduced-price lunch.


Source: The National Office for Research on Measurement and Evaluation Systems


Source: The National Office for Research on Measurement and Evaluation Systems
While differences in student achievement between low income students and non low income students has been well documented, recently some people have questioned whether there are also differences between the student achievement of free lunch students (those under $130 \%$ of the federal poverty level) and reduced-price lunch students (those between 130\% and 185\% FPL). The BLR analyzed the average scale scores of free, reduced-price and full-price students on state exams in 2012. These comparisons involved the state population of all students, except those with disabilities who were assessed using an alternate portfolio assessment rather than the traditional test.

The same data is provided for 2008 to offer a comparison over time. (As a reference, the 2012 and 2008 scale score ranges for each test and the cut score ranges for the four proficiency designations-below basic, basic, proficient and advanced-are provided in the Appendix.) The mean scale scores are also color-coded as follows to indicate where each group's average scale score would place it among the four proficiency designations.

## Below Basic $\quad$ Basic $\quad$ Proficient $\quad$ Advanced

The comparisons in both years clearly show that students who receive free lunches have lower average math and literacy scores than those who have reduced-price lunches, who in turn have lower scores than students who pay full price. This pattern of differences was observed at every grade level, including high school, in 2012 and in 2008. These findings are unique in that the amount of differences between the groups are nearly the same at each grade level in 2012 and 2008.

| 2012 |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Math (Mean Scale Score) |  |  |  | Literacy (Mean Scale Score) |  |  |
| ACTAAP Exam | Free-lunch | Reduced- <br> price | Full-price | Free- <br> lunch | Reduced- <br> price | Full-price |  |
| $3^{\text {rd }}$ Grade | 581.99 | 611.82 | 647.05 | 603.10 | 658.05 | 723.85 |  |
| $4^{\text {th }}$ Grade | 610.23 | 641.60 | 676.89 | 682.34 | 741.70 | 799.06 |  |
| $5^{\text {th }}$ Grade | 641.10 | 674.73 | 713.43 | 723.42 | 776.08 | 828.72 |  |
| $6^{\text {th }}$ Grade | 678.81 | 713.27 | 759.43 | 694.03 | 747.95 | 815.67 |  |
| $7^{\text {th }}$ Grade | 704.28 | 737.67 | 773.90 | 749.98 | 803.84 | 856.10 |  |
| $8^{\text {th }}$ Grade | 712.58 | 742.54 | 778.90 | 775.19 | 824.58 | 873.37 |  |
| Algebra | 218.79 | 233.25 | 248.86 |  |  |  |  |
| Geometry | 211.92 | 226.61 | 241.20 |  |  |  |  |
| Grade 11 Literacy |  |  |  | 199.34 | 206.82 | 216.11 |  |


|  | 2008 |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Math (Means) |  |  | Literacy (Means) |  |  |
| ACTAAP Exam | Free-lunch | Reduced- <br> price | Full-Price | Free- <br> lunch | Reduced- <br> price | Full-Price |
| $3^{\text {rd }}$ Grade | 543.11 | 579.39 | 613.28 | 484.13 | 556.17 | 622.59 |
| $4^{\text {th }}$ Grade | 584.23 | 617.21 | 653.19 | 572.45 | 632.16 | 703.12 |
| $5^{\text {th }}$ Grade | 611.83 | 640.46 | 673.60 | 587.46 | 654.88 | 732.35 |
| $6^{\text {th }}$ Grade | 663.74 | 700.20 | 738.25 | 615.61 | 696.51 | 772.44 |
| $7^{\text {th }}$ Grade | 666.18 | 709.85 | 744.21 | 622.17 | 697.76 | 764.19 |
| $8^{\text {th }}$ Grade | 674.06 | 713.60 | 752.21 | 699.07 | 753.99 | 818.38 |
| Algebra | 199.77 | 217.98 | 229.85 |  |  |  |
| Geometry | 196.17 | 212.24 | 222.78 |  |  |  |
| Grade 11 Literacy |  |  |  | 189.06 | 197.72 | 205.44 |

To examine the impact of concentration of poverty on the academic performance of low-income students specifically, Arkansas school districts were separated into two groups according to their NSL percentage. Districts with NSL rates above the median (middle) rate (65\%) were categorized together as having a high concentration of poverty, and those below the median as having a low concentration of poverty.

The table below shows the average percentages of low-income students who had ACTAAP scale scores that were proficient or above for each group of districts. A comparison of "low-poverty" average percentages to "high poverty" averages was made at each grade level, including high school, in math and literacy. All comparisons indicated that low-income students in districts with high concentrations of poverty have significantly lower scores in math and literacy than low income
students in districts with less poverty. A standard t-test was used to formally test these differences in performance. The only comparison that was not statistically significant at the conventional 0.05 level (denoted with an *) was 4th grade literacy, and it was significant at 0.06.

| 2012 | Math (\% Proficient or >) |  | Literacy (\% Proficient or >) |  |
| :---: | :---: | :---: | :---: | :---: |
| ACTAAP Exam | Low Poverty | High Poverty | Low Poverty | High Poverty |
| $3^{\text {rd }}$ Grade | $86.64 \%$ | $81.55 \%$ | $79.98 \%$ | $76.39 \%$ |
| $4^{\text {th }}$ Grade | $80.84 \%$ | $76.76 \%$ | $83.48 \%^{*}$ | $81.56 \% \%^{*}$ |
| $5^{\text {th }}$ Grade | $74.58 \%$ | $67.31 \%$ | $84.34 \%$ | $80.08 \%$ |
| $6^{\text {th }}$ Grade | $73.26 \%$ | $69.00 \%$ | $72.97 \%$ | $68.52 \%$ |
| $7^{\text {th }}$ Grade | $75.38 \%$ | $67.18 \%$ | $77.34 \%$ | $71.96 \%$ |
| $8^{\text {th }}$ Grade | $66.11 \%$ | $55.80 \%$ | $77.24 \%$ | $72.38 \%$ |
| Algebra 1 $_{\text {Geometry }}$ | $77.44 \%$ | $68.66 \%$ |  |  |
| Grade 11 Literacy | $74.29 \%$ | $64.78 \%$ |  |  |

## NAEP Assessment

Because each state assesses students using its own test, it is difficult to accurately compare student proficiency from one state to another in the same way that the state compares one school's or one district's student performance with another. The best way to compare the student achievement of low income students in Arkansas with those in other states is with the National Assessment of Educational Progress (NAEP) scale scores.

However, caution must be used in making state-to-state NAEP comparisons. The NAEP scores are based on a random sample of students in each state - not the entire state population of students. Therefore, these scores are estimates with sampling errors. If the entire population had been tested, the score may have differed somewhat.

Considering those cautionary notes, the following tables show how the average scale score for Arkansas's low income students (those eligible for free or reduced-price lunch) and non low income (not eligible for free or reduced-price lunch) compares with the average scale scores in surrounding states and nationally. Arkansas's low income $4^{\text {th }}$ grade students outperform most of the surrounding states and the national average, but the state's $8^{\text {th }}$ grade students perform below the national average.

| 2013 | 4th Grade Reading |  |  | 8th Grade Reading |  |  |  |
| :--- | :---: | :--- | :---: | :--- | :--- | :--- | :---: |
|  | Low <br> Income |  | Non-Low <br> Income |  | Low <br> Income | Non-Low <br> Income |  |
| Missouri | 211 | Tennessee | 237 | Missouri | 256 | U.S. | $\mathbf{2 7 8}$ |
| Arkansas | 209 | Missouri | 236 | Tennessee | 256 | Missouri | 277 |
| Oklahoma | 208 | U.S. | 236 | Texas | 254 | Tennessee | 276 |
| U.S. | 207 | Texas | 234 | U.S. | $\mathbf{2 5 4}$ | Texas | 276 |
| Texas | 206 | Arkansas | 233 | Oklahoma | 254 | Arkansas | 275 |
| Tennessee | 205 | Mississippi | 231 | Arkansas | 253 | Oklahoma | 271 |
| Louisiana | 203 | Oklahoma | 230 | Louisiana | 250 | Louisiana | 271 |
| Mississippi | 201 | Louisiana | 230 | Mississippi | 246 | Mississippi | 269 |


| 2013 | 4th Grade Math |  |  |  | 8th Grade Math |  |  |
| :--- | :---: | :--- | :---: | :--- | :---: | :--- | :---: |
|  | Low <br> Income |  | Non-Low <br> Income |  | Low <br> Income | Non-Low <br> Income |  |
| Texas | 233 | Texas | 256 | Texas | 279 | Texas | 300 |
| Oklahoma | 232 | U.S. | $\mathbf{2 5 4}$ | Missouri | 271 | U.S. | 297 |
| Arkansas | 232 | Tennessee | 254 | U.S. | 270 | Missouri | 294 |
| Missouri | 230 | Arkansas | 251 | Arkansas | 267 | Arkansas | 292 |
| U.S. | 230 | Missouri | 250 | Oklahoma | 266 | Tennessee | 292 |
| Tennessee | 228 | Oklahoma | 249 | Louisiana | 265 | Mississippi | 288 |
| Mississippi | 226 | Mississippi | 248 | Tennessee | 265 | Louisiana | 287 |
| Louisiana | 226 | Louisiana | 244 | Mississippi | 263 | Oklahoma | 286 |

Other Reports on NSL Funding Use and Closing the Achievement Gap
The Arkansas Department of Education (ADE) is required to produce two reports regarding the use of NSL funding and its impact on closing the achievement gap. One of the two reports must be included in the adequacy study process. That report is due May 31, 2014, and will be provided to the Education Committees at that time. Additionally, the Arkansas Commission on Closing the Achievement Gap is statutorily required to produce an annual report that addresses NSL expenditures,

| Statute | Due Date | Entity <br> Responsible | Report must address | Links to Reports |
| :---: | :---: | :---: | :---: | :---: |
| 6-15-2701 | August 1, annually | ADE | The use of NSL funding by chronically underperforming schools in the state and the status of the achievement gaps at chronically underperforming schools in the state. | http://www.arkleg.state.ar.us/assembly/2013/C ommitteeDocuments/810/DocsAndReports/AD E\%20Report\%20on\%20Chronically\%20Under performing\%20Schools\%20\%2008012013.pdf |
| $\begin{aligned} & \text { 6-20-2305 } \\ & \text { (b)(4)(C)(x } \\ & \text { ii)(E)(ii) } \end{aligned}$ | May 31 of even numbered years | ADE | The impact of NSL funding on closing the achievement gap, including <br> - How school districts spend NSL funds, including specific programs used by school districts; <br> - The amount of NSL funds transferred to other categorical funds, including a reason for the transfers; <br> - The analysis of student achievement data evaluated in growth models, including the evaluation of the best estimates of classroom, school, and school district effects on narrowing the achievement gap. Report must be included in adequacy study. | Link to the 2012 Report http://www.arkleg.state.ar.us/education/K1 2/InitiativesDevelopmentsDocs/NSLA Ach vGapReport2012 A-F-Index.pdf <br> http://www.arkleg.state.ar.us/education/K1 2/InitiativesDevelopmentsDocs/NSLA Ach vGapReport2012 A-FIndex Attachment\%20G.pdf |
| 6-15-1601 | Nov. 1, annually | Commission on Closing the Achievement Gap | - Profiles of underachieving students and chronically under-performing schools and districts <br> - Review of policies and programs approved by ADE for NSL expenditures on closing the achievement gap <br> - Child poverty statistics in the state and the impact poverty has on education <br> - Successful strategies with students of poverty <br> - Best practices for teacher preparation for student and language diversity <br> - Review of leadership challenges in closing the achievement gap <br> - Suggested policy changes to improve the achievement gap at the legislative, ADE, and school district level | http://www.arkansased.org/divisions/policy larkansas-commission-on-closing-the-achievement-gap |

## Appendix

The following tables show the 2012 and 2008 scale score range for each state ACTAAP assessment and the cut score ranges for the four proficiency designations.

| 2012 Math |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| ACTAAP Exam | Score Range | Below Basic | Basic | Proficient | Advanced |
| $3^{\text {rd }}$ Grade | $0-974$ | $0-408$ | $409-499$ | $500-585$ | $586+$ |
| $4^{\text {th }}$ Grade | $0-972$ | $0-494$ | $495-558$ | $559-639$ | $640+$ |
| $5^{\text {th }}$ Grade | $0-982$ | $0-543$ | $544-603$ | $604-696$ | $697+$ |
| $6^{\text {th }}$ Grade | $0-985$ | $0-568$ | $569-640$ | $641-721$ | $722+$ |
| $7^{\text {th }}$ Grade | $0-996$ | $0-621$ | $622-672$ | $673-763$ | $764+$ |
| $8^{\text {th }}$ Grade | $0-999$ | $0-654$ | $655-699$ | $700-801$ | $802+$ |
| Algebra I | $0-463$ | $0-150$ | $151-199$ | $200-249$ | $250+$ |
| Geometry | $0-440$ | $0-153$ | $154-199$ | $200-249$ | $250+$ |


| 2012 Literacy |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| ACTAAP Exam | Score Range | Below Basic | Basic | Proficient | Advanced |
| $3^{\text {rd }}$ Grade | $0-987$ | $0-329$ | $330-499$ | $500-653$ | $654+$ |
| $4^{\text {th }}$ Grade | $0-989$ | $0-353$ | $354-558$ | $559-747$ | $748+$ |
| $5^{\text {th }}$ Grade | $0-989$ | $0-381$ | $382-603$ | $604-798$ | $799+$ |
| $6^{\text {th }}$ Grade | $0-988$ | $0-416$ | $417-604$ | $641-822$ | $823+$ |
| $7^{\text {th }}$ Grade | $0-991$ | $0-425$ | $426-672$ | $673-866$ | $867+$ |
| $8^{\text {th }}$ Grade | $0-990$ | $0-506$ | $507-699$ | $700-913$ | $914+$ |
| Grade <br> Literacy | $0-321$ | $0-168$ | $169-199$ | $200-227$ | $228+$ |

2008 Math

| ACTAAP Exam | Score Range | Below Basic | Basic | Proficient | Advanced |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $3^{\text {rd }}$ Grade | $0-985$ | $0-408$ | $409-499$ | $500-585$ | $586+$ |
| $4^{\text {th }}$ Grade | $0-966$ | $0-494$ | $495-558$ | $559-639$ | $640+$ |
| $5^{\text {th }}$ Grade | $0-976$ | $0-543$ | $544-603$ | $604-696$ | $697+$ |
| $6^{\text {th }}$ Grade | $0-984$ | $0-568$ | $569-640$ | $641-721$ | $722+$ |
| $7^{\text {h }}$ Grade | $0-994$ | $0-621$ | $622-672$ | $673-763$ | $764+$ |
| $8^{\text {th }}$ Grade | $0-996$ | $0-654$ | $655-699$ | $700-801$ | $802+$ |
| Algebra I | $0-487$ | $0-151$ | $152-199$ | $200-249$ | $250+$ |
| Geometry | $0-455$ | $0-151$ | $152-199$ | $200-249$ | $250+$ |


| 2008 Literacy |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| ACTAAP Exam | Score Range | Below Basic | Basic | Proficient | Advanced |
| $3^{\text {rd }}$ Grade | $0-986$ | $0-239$ | $330-499$ | $500-653$ | $654+$ |
| $4^{\text {th }}$ Grade | $0-987$ | $0-353$ | $354-558$ | $559-747$ | $748+$ |
| $5^{\text {th }}$ Grade | $0-987$ | $0-381$ | $382-603$ | $604-798$ | $799+$ |
| $6^{\text {th }}$ Grade | $0-990$ | $0-416$ | $417-640$ | $641-822$ | $823+$ |
| $7^{\text {h }}$ Grade | $0-988$ | $0-425$ | $426-672$ | $673-866$ | $867+$ |
| $8^{\text {th }}$ Grade | $0-987$ | $0-506$ | $507-699$ | $700-913$ | $914+$ |
| Grade <br> Literacy | $0-315$ | $0-168$ | $169-199$ | $200-249$ | $250+$ |


[^0]:    *Statutory language was added in 2011 (Act 1220 of 2011) that specifically permits districts to transfer funding between categorical funds. However, districts transferred funding between categorical funds prior to the statute's enactment.

[^1]:    ** These uses do not appear to have a specific expenditure code for districts to use to record these types of expenditures.

