



TO : House and Senate Education Committees

FROM: Bureau of Legislative Research, Policy Analysis and Research Section

DATE : June 9, 2014

SUBJECT : Teacher Salary Increase Proposals

PROJECT # 14-001-32c

During the March Adequacy Study meeting, members of the House and Senate Education Committee requested information on the impact of increasing the minimum statutory teacher salary. Arkansas Code §6-17-2403 establishes the minimum salary schedule for teachers in Arkansas. The minimum salary for a teacher with a bachelor's degree is \$29,244, while the minimum salary for a teacher with a master's degree is \$33,630.

Members asked the Bureau of Legislative Research (BLR) to explore three proposed increases to the statutory minimum salary.

- **Proposal #1: Increase the minimum salary to \$31,000.** Under this option, the minimum salary for teachers with a master's degree would be set at 115% of the salary for teachers with only a bachelor's degree. This mirrors the salary differential used historically. Each step for teachers with a bachelor's degree would provide an additional \$450 for each year of experience, while each step for teachers with a master's degree would provide \$500.
- **Proposal #2: Increase the salary schedule by 1%.** This option would add 1% to each step in the current salary schedule.
- **Proposal #3: Increase the salary schedule by 2%.** This option would add 2% to each step in the current salary schedule.

For each proposal, the Committees requested answers to the following questions:

1. How much would each proposal cost?
2. How would each proposal affect the matrix?
3. How would each proposal affect salary disparities among districts?
4. What would it cost to expand the salary schedule from 15 steps to 20?

The BLR analysis examined the details of salary paid to all non-federal classroom teachers as defined for purposes of the Teacher Salary report presented on March 11, 2014. The BLR used data from the Arkansas Public School Computer Network (APSCN) state warehouse for approximately 33,000 teachers. The BLR's approach to this analysis was to apply the increases under each proposal to the 2013 expenditure data to see what the additional cost would have been had the increases been in place in 2013.

The potential impacts of the three proposals discussed in this report are based on the amount of change in the 2013 average salary for non-federal classroom teachers as calculated by the BLR. For this analysis, it was necessary to use a slightly different methodology than that used for the March

Teacher Salary report. The average teacher salaries provided in that report were calculated by ADE using total compensation expenditures (including bonuses) for teacher salaries for each district, divided by the total number of full time teachers (FTEs) the districts report. However, that data does not include enough detail to determine what degree (bachelor's or master's degree) or step (one year of experience or 15 years of experience) of individual teachers. The individual-level data is housed elsewhere in the APSCN system. However, the individual-level data does not include information about whether a teacher is full-time or part-time employee. For example, an individual earning a salary of \$30,000 may be a full-time employee (1 FTE) or a 30-hour a week employee (.75 FTE). The BLR developed a program using available information in APSCN to approximate the percentage of an FTE for each individual salary listed. Under the BLR's methodology, the 2013 state average is slightly different from the average salary reported in the March Teacher Salary report. Before simulating the effects of the three proposals, the estimated average salary was \$47,678, compared with the average salary of \$47,316 reported in March. Because it was important to use a consistent methodology to calculate FTEs and the average salary, the impact of the three proposals was measured against the BLR's calculated average salary.

The program also excluded bonus payments. The average salary data provided in March included all types of teacher payments, including bonuses. However, if the minimum pay schedule were increased, the bonuses paid to teachers would be unaffected. For example, a first-year teacher in a high priority district currently earns the minimum \$29,244 and a \$5,000 bonus, or \$34,244. If the minimum salary were increased by 1%, the teacher's salary would increase to \$29,536.44, but the bonus would remain the same. To examine how teachers' salaries would be affected, bonuses needed to be separated from the base salaries.

To calculate the cost of the salary adjustments, several assumptions were made. First we assumed that districts with salary schedules above the proposed increase would not make any increases. For example, many school districts' salary schedules are above the three proposed increases. Any increase in the minimum teacher salary would require no change for these districts. In reality, however, if the state increased the minimum salary schedule, these districts could choose to increase their salary schedule at a commensurate rate. Because we cannot predict how these school districts would respond, we assumed there would be no change.

Second, the statutory minimum salary schedule extends to 15 steps for 15 years of experience. There is no legally required minimum salary for teachers with more than 15 years of experience, and what districts choose to do after teachers' 15th year varies. According to ADE, some districts do not continue providing step increases after step 15, while other districts do. The BLR examined the impact of each proposal for steps 0 through 15 and then separately for steps 16 through 20, as requested, but ignored the effects of any possible actions a district might make with regard to step levels beyond these ranges.

Most districts have multiple schedules for bachelor's and master's degrees. For example, a district may have one pay schedule for teachers with a bachelor's degree, a second pay schedule for teachers with a bachelor's degree + 15 hours of course credit toward a higher degree, and a third pay schedule for a bachelor's degree + 30 hours of credit. The BLR analysis applied the same proposed minimum salary amount for a bachelor degree to all three bachelor pay schedules.

Finally this analysis excludes two school districts because both had a number of teachers with unusually high steps. Both districts had pay schedules that would be unaffected by any of the three proposals. Because their step levels appeared to be inconsistent with other districts, they were excluded from our analysis of the impact of the three proposals.

PROPOSAL #1: INCREASE THE MINIMUM SALARY TO \$31,000.

Proposal #1 would bring the minimum salary for teachers with bachelor’s degrees up to \$31,000. It would also increase the minimum salary for teachers with master’s degrees to \$35,650, or 115% of the bachelor’s degree minimum. It would add \$450 for each step for teachers with bachelor’s degrees and \$500 for each step for teachers with master’s degrees.

Current Schedule		
Years of Exp.	BA	MA
0	\$29,244	\$33,630
1	\$29,694	\$34,130
2	\$30,144	\$34,630
3	\$30,594	\$35,130
4	\$31,044	\$35,630
5	\$31,494	\$36,130
6	\$31,944	\$36,630
7	\$32,394	\$37,130
8	\$32,844	\$37,630
9	\$33,294	\$38,130
10	\$33,744	\$38,630
11	\$34,194	\$39,130
12	\$34,644	\$39,630
13	\$35,094	\$40,130
14	\$35,544	\$40,630
15	\$35,994	\$41,130

Proposal #1		
Years of Exp.	BA	MA
0	\$31,000	\$35,650
1	\$31,450	\$36,150
2	\$31,900	\$36,650
3	\$32,350	\$37,150
4	\$32,800	\$37,650
5	\$33,250	\$38,150
6	\$33,700	\$38,650
7	\$34,150	\$39,150
8	\$34,600	\$39,650
9	\$35,050	\$40,150
10	\$35,500	\$40,650
11	\$35,950	\$41,150
12	\$36,400	\$41,650
13	\$36,850	\$42,150
14	\$37,300	\$42,650
15	\$37,750	\$43,150

How much would it cost?

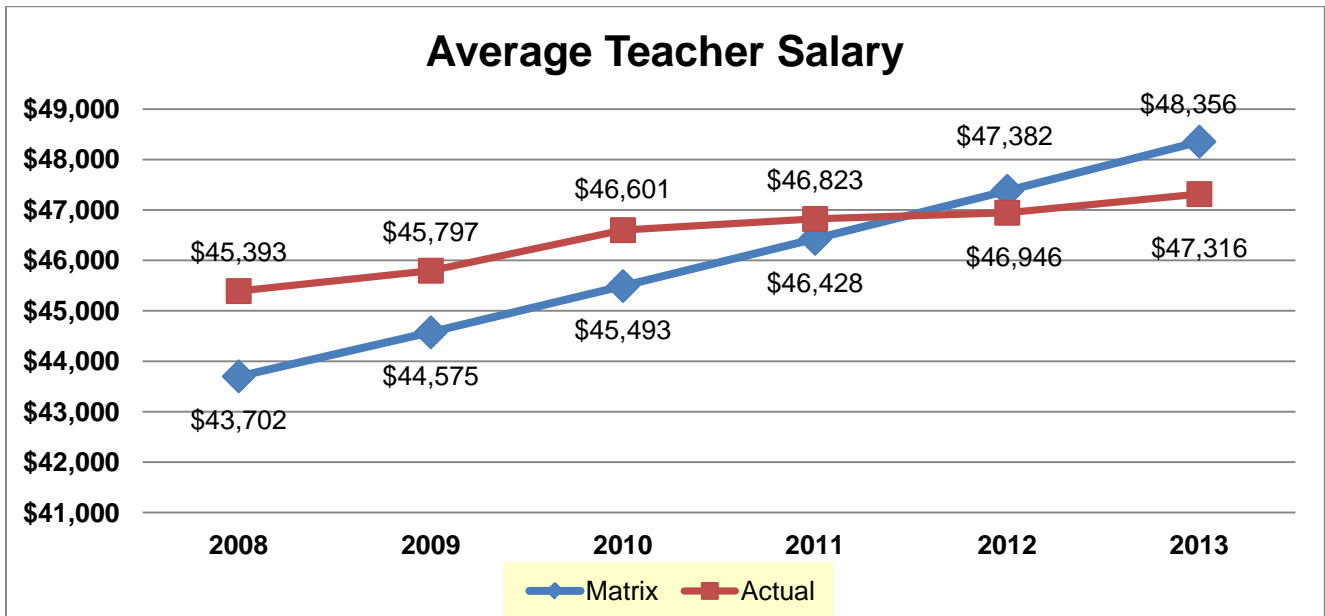
The additional cost of increasing the minimum salary to \$31,000 would be **\$2,354,681** for steps 0 through 15 for non-federal classroom teachers. If this salary schedule had been in place in the 2012-13 school year, it would have required 113 of the 239 districts operating in 2012-13 to increase salaries for teachers.

The required increases would range from a negligible \$31.86 for one district to \$125,856 for another. Of those that had to increase their spending on teacher salaries, the average increase would be \$20,838.

How would this increase affect the matrix?

Because the per-student foundation funding rate has been increased each year since it was established in 2004-05, the teacher salary component of the matrix has increased as well. While districts have been allowed to keep teacher salaries at the same minimum since the 2008-09 school year, districts have received increasing amounts of money to support teacher salaries.

The following chart shows how the average teacher salary in the matrix has increased each year as the per-student foundation funding rate increased, while the actual average teacher salary stagnated over the last four years. In 2013, the actual average teacher salary was more than \$1,000 less than the teacher salary provided by the matrix.



Teacher Salary Calculation in the Matrix

To calculate the 2012-13 per-student foundation funding, the matrix uses a base salary of \$48,356. An additional 22% of that amount is added for fringe benefits (14% for retirement and 8% for Social Security, Medicare, unemployment, and workers’ compensation) and a flat rate of \$1,572 for health insurance (\$131 for 12 months).

	2012-13
Teacher Salary in Matrix	\$48,356
Retirement	\$6,770
Social Security, Medicare, Unemployment, Workers’ Compensation	\$3,868
Health Insurance	\$1,572
Total = Salary + Fringe	\$60,566

This total compensation amount of \$60,566 is multiplied by the 33.665 school-level employees needed for a 500-student school. These 33.665 employees include guidance counselors, nurses, librarians, instructional facilitators, special education teachers, in addition to 24.94 regular classroom teachers. Funding for all of these employees is based on the teacher salary included in the matrix. On a per-student basis [calculated as $(\$60,566 \times 33.665) / 500$], teacher compensation makes up \$4,078, or 65% of the total \$6,267 foundation funding amount. The 24.94 classroom teachers alone are funded at \$3,021 per student.

The increase provided under Proposal #1 would raise the average teacher salary to \$47,749. Because this amount is less than the \$48,356 provided by the matrix, it could be argued that districts already receive sufficient foundation funding to pay for this minimum salary increase. Additionally, the matrix provided \$4,078 per student in 2012-13, but districts collectively spent just \$3,708 per student on teachers. (This number includes special education teachers, instructional facilitators, librarians, guidance counselors and nurses. It also includes expenditures for teachers’ benefits, such as health insurance.) When classroom teachers alone are examined, districts spent just \$2,841 of the \$3,021 they received in per-student foundation funding for classroom teachers.

Despite the fact that districts have received adequate funding to support increasing teacher salaries, raising the minimum salary would require some districts to pay teachers more than they pay now. The BLR examined the additional money the 113 districts would be required to spend under Proposal #1 to see how much of that cost would likely be paid using foundation funding. Among these districts, the teacher salary increase would cause these districts to spend on average \$33.13 per student more than they actually spent in 2012-13. However, individual districts would not be affected to the same degree.

Districts' added per-student cost would range from \$0.03 per student for one district to \$203.62 per student for another. Not all of those expenditures would be expected to be made using foundation funding. The BLR calculated that just under \$2 million of the increase would be expected to come from foundation funding, based on districts' spending patterns in 2012-13. The remaining funding would be expected to come from other sources of funds, such as categorical funding.

How would this increase affect disparities among districts?

Disparities in Minimum Salaries

Proposal #1 would be expected to increase the minimum salary for teachers with a bachelor's degree in 77 districts and the minimum salary for teachers with a master's degree in 118 districts. The gap between the district with the lowest starting salary and the highest starting salary for teachers with a bachelor's degree would decrease by about \$1,750, from \$15,326 to \$13,570. The gap between the district with the lowest and highest starting salary for teachers with a master's degree would decrease by about \$2,000 from \$13,464 to \$11,444.

	Low-BA	High-BA	Difference	Low-MA	High-MA	Difference
Current	\$29,244	\$44,570	\$15,326	\$33,630	\$47,094	\$13,464
Under Proposal #1	\$31,000	\$44,570	\$13,570	\$35,650	\$47,094	\$11,444

Disparities in Average Salaries

The increase would have a minimal impact on the state's average teacher salary, increasing it from a calculated \$47,678 to \$47,749, using the BLR methodology.

The disparity in average teacher salaries would be less affected by an increase in the minimum salary schedule than the disparity in minimum teacher salaries. This is primarily due to the fact that other types of income (bonuses, stipends for supervising extracurricular activities, etc.) are included in the average teacher salary calculation but those other income sources would be unaffected by an increase to the minimum salary schedule. For example, a first-year teacher in a high priority district currently earns the minimum \$29,244 and a \$5,000 bonus. If the minimum salary were increased to \$31,000, the teacher's base salary would increase by \$1,756, or 6%, but the bonus would remain the same. The teacher's total salary would increase to \$36,000 (\$31,000 + \$5,000 bonus), or a total of 5%.

Under Proposal #1, the gap between the district with the highest average teacher salary and the district with the lowest average teacher salary would decrease by about \$1,000.

	Low Average	High Average	Difference
Current	\$36,817	\$57,425	\$20,608
Under Proposal #1	\$37,781	\$57,425	\$19,644

What would it cost to expand the salary schedule from 15 steps to 20 under Proposal #1?

The minimum salary schedule established in statute specifies the minimum salary for 16 steps, for teachers with zero years of experience to those with 15 years of experience. With each step, teachers receive a higher salary. However, once a teacher reaches 16 years of experience, a district is not required to raise the teacher's income. In practice, some districts do in fact continue to provide step increases for some number of years after the last step, but the practice is not uniform.

The BLR examined the cost of increasing the salary schedule under Proposal #1 to 20 steps. Collectively, 86 districts would be required to pay an additional \$909,474 if the salary schedule were expanded to include 20 steps under Proposal #1.

	Step 16	Step 17 and 18	Step 19 and 20	Total
Total Cost of Step Increase	\$168,394	\$254,975	\$486,105	\$909,474
# of Districts Affected	54	68	58	86
Average Cost to Districts Affected	\$3,118	\$3,750	\$8,381	\$10,575

PROPOSAL #2: INCREASE THE SALARY SCHEDULE BY 1%.

Proposal #2 would increase each step of the salary schedule by 1%. Under this proposal, each step of the schedule would provide an additional \$455 for teachers with bachelor’s degrees and \$505 for teachers with master’s degrees.

Current Schedule		
Years of Exp.	BA	MA
0	\$29,244	\$33,630
1	\$29,694	\$34,130
2	\$30,144	\$34,630
3	\$30,594	\$35,130
4	\$31,044	\$35,630
5	\$31,494	\$36,130
6	\$31,944	\$36,630
7	\$32,394	\$37,130
8	\$32,844	\$37,630
9	\$33,294	\$38,130
10	\$33,744	\$38,630
11	\$34,194	\$39,130
12	\$34,644	\$39,630
13	\$35,094	\$40,130
14	\$35,544	\$40,630
15	\$35,994	\$41,130

Proposal #2		
Years of Exp.	BA	MA
0	\$29,536	\$33,966
1	\$29,991	\$34,471
2	\$30,445	\$34,976
3	\$30,900	\$35,481
4	\$31,354	\$35,986
5	\$31,809	\$36,491
6	\$32,263	\$36,996
7	\$32,718	\$37,501
8	\$33,172	\$38,006
9	\$33,627	\$38,511
10	\$34,081	\$39,016
11	\$34,536	\$39,521
12	\$34,990	\$40,026
13	\$35,445	\$40,531
14	\$35,899	\$41,036
15	\$36,354	\$41,541

How much would it cost?

The additional cost of increasing the minimum salary by 1% would be **\$120,999** for steps 0 through 15 for non-federal classroom teachers. If this salary schedule had been in place in the 2012-13 school year, it would have required 22 of the 239 districts to increase salaries for teachers. The required additional district cost would range from a negligible \$105 for one district to \$18,858 for another. Of those that had to increase their spending on teacher salaries, the average increase would be \$5,500.

How would this increase affect the matrix?

Due to the small cost of increasing the minimum teacher salary by 1%, there would be minimal impact on foundation funding.

How would this increases affect disparities among districts?

Disparities in Minimum Salaries

Proposal #2 would be expected to increase the minimum salary for teachers with a bachelor’s degree in 14 districts and the minimum salary for teachers with a master’s degree in 19 districts. The gap between the district with the lowest starting salary and the highest starting salary for teachers with a bachelor’s degree would decrease by \$292 from \$15,326 to \$15,034. The gap between the district with the lowest and highest starting salary for teachers with a master’s degree would decrease by \$336, from \$13,464 to \$13,128.

	Low-BA	High-BA	Difference	Low-MA	High-MA	Difference
Current	\$29,244	\$44,570	\$15,326	\$33,630	\$47,094	13,464
Under Proposal #2	\$29,536	\$44,570	\$15,034	\$33,966	\$47,094	13,128

Disparities in Average Salaries

The increase under Proposal #2 would have a minimal impact on the state's average teacher salary, increasing it from a calculated \$47,678 to \$47,682. The gap between the district with the highest average teacher salary and district with the lowest average teacher salary would decrease by about \$115 under Proposal #2.

	Low Average	High Average	Difference
Current	\$36,817	\$57,425	\$20,608
Under Proposal #2	\$36,932	\$57,425	\$20,493

What would it cost to expand the salary schedule from 15 steps to 20 under Proposal #2?

The BLR examined the cost of increasing the salary schedule under Proposal #2 to 20 steps. Collectively, 26 districts would be required to pay an additional \$127,741 if the salary schedule were expanded to include 20 steps under Proposal #2.

	Step 16	Step 17 and 18	Step 19 and 20	All Steps
Total Cost of Step Increase	\$12,184	\$31,685	\$83,872	\$127,741
# of Districts Affected	11	15	20	26
Average Cost to Districts Affected	\$1,108	\$2,112	\$4,194	\$4,913

PROPOSAL #3: INCREASE THE SALARY SCHEDULE BY 2%.

Proposal #3 would increase each step of the salary schedule by 2%. Under this proposal, each step of the schedule would provide an additional \$459 for teachers with bachelor’s degrees and \$510 for teachers with master’s degrees.

Current Schedule		
Years of Exp.	BA	MA
0	\$29,244	\$33,630
1	\$29,694	\$34,130
2	\$30,144	\$34,630
3	\$30,594	\$35,130
4	\$31,044	\$35,630
5	\$31,494	\$36,130
6	\$31,944	\$36,630
7	\$32,394	\$37,130
8	\$32,844	\$37,630
9	\$33,294	\$38,130
10	\$33,744	\$38,630
11	\$34,194	\$39,130
12	\$34,644	\$39,630
13	\$35,094	\$40,130
14	\$35,544	\$40,630
15	\$35,994	\$41,130

Proposal #3		
Years of Exp.	BA	MA
0	\$29,829	\$34,303
1	\$30,288	\$34,813
2	\$30,747	\$35,323
3	\$31,206	\$35,833
4	\$31,665	\$36,343
5	\$32,124	\$36,853
6	\$32,583	\$37,363
7	\$33,042	\$37,873
8	\$33,501	\$38,383
9	\$33,960	\$38,893
10	\$34,419	\$39,403
11	\$34,878	\$39,913
12	\$35,337	\$40,423
13	\$35,796	\$40,933
14	\$36,255	\$41,443
15	\$36,714	\$41,953

How much would it cost?

The additional cost of increasing the minimum salary by 2% would be **\$333,285** for steps 0 through 15 for non-federal classroom teachers. If this salary schedule had been in place in the 2012-13 school year, it would have required 38 of the 239 districts to increase salaries for teachers. The required additional cost would range from a negligible \$62 for one district to \$37,720 for another. Of those that would have to increase their spending on teacher salaries, the average increase would be a little more than \$9,000.

How would this increase affect the matrix?

Due to the small cost of increasing the minimum teacher salary by 2%, there would be minimal impact on foundation funding.

How would this increase affect disparities among districts?

Disparities in Minimum Salaries

Proposal #3 would be expected to increase the minimum salary for teachers with a bachelor’s degree in 22 districts and the minimum salary for teachers with a master’s degree in 38 districts. The gap between the district with the lowest starting salary and the highest starting salary for teachers with a bachelor’s degree would decrease by \$585 from \$15,326 to \$14,741. The gap between the district with the lowest and highest starting salary for teachers with a master’s degree would decrease by \$673 from \$13,464 to \$12,791.

	Low-BA	High-BA	Difference	Low-MA	High-MA	Difference
Current	\$29,244	\$44,570	\$15,326	\$33,630	\$47,094	\$13,464
Under Proposal #3	\$29,829	\$44,570	\$14,741	\$34,303	\$47,094	\$12,791

Disparities in Average Salaries

The increase would have a minimal impact on the state’s average teacher salary, increasing it from a calculated \$47,678 to \$47,688. Under Proposal #3, the gap between the district with the highest average teacher salary and the district with the lowest average teacher salary would decrease by about \$290.

	Low Average	High Average	Difference
Current	\$36,817	\$57,425	\$20,608
Under Proposal #3	\$37,108	\$57,425	\$20,318

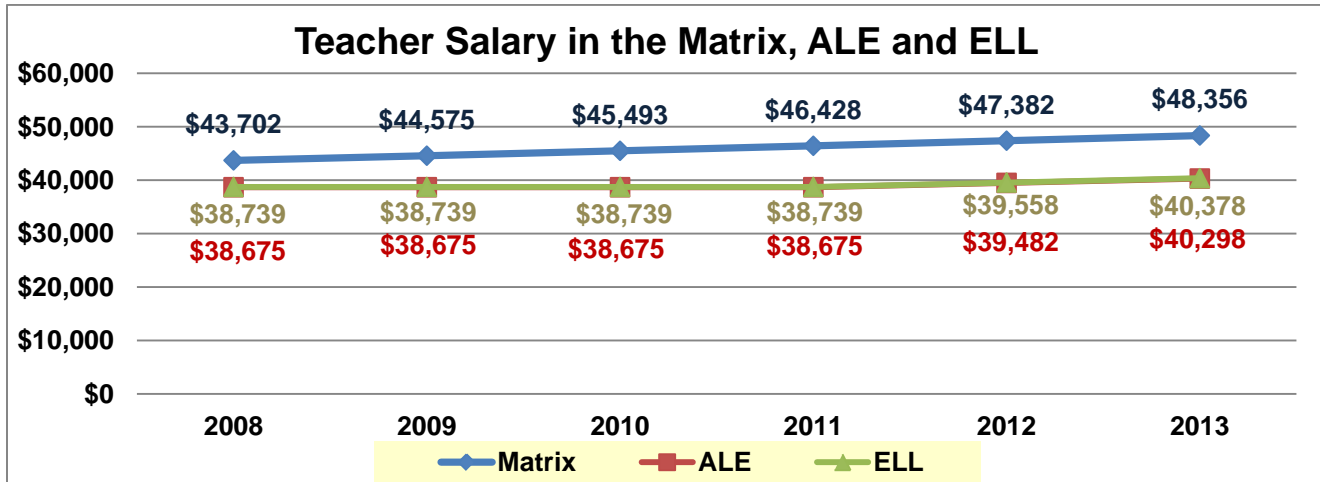
What would it cost to expand the salary schedule from 15 steps to 20 under Proposal #3?

The BLR examined the cost of increasing the salary schedule under Proposal #3 to 20 steps. Collectively, 38 districts would be required to pay an additional \$268,063 if the salary schedule were expanded to include 20 steps under Proposal #3.

	Step 16	Step 17 and 18	Step 19 and 20	All Steps
Total Cost of Step Increase	\$64,021	\$60,877	\$143,165	\$268,063
# of Districts Affected	16	25	28	38
Average Cost to Districts Affected	\$4,001	\$2,435	\$5,113	\$7,054

TEACHER SALARY IN TWO CATEGORICAL FUNDS

Most funding programs that are tied to educational adequacy are based on the foundation funding rate. When the foundation funding rate increases, these other funding streams (e.g., student growth) increase as well. As a result, any time the foundation funding rate is increased, districts receive an increase in funding for salaries that are supported by these funds. Two exceptions include alternative learning environment (ALE) and English language learner (ELL) categorical funding. Because these two funding programs do not use the foundation funding rate in their calculation and because in some years they did not receive a cost of living adjustment, the funding rates no longer support the teacher salary that is embedded in the matrix. The chart below shows how, over time, the teacher salaries within the ALE and ELL funding rates have increasingly fallen short of the teacher salary in the matrix.



ALE funding was originally based on the amount of funding needed to support one additional teacher for every 12 ALE FTE students. The ALE funding for the 2012-13 school year of \$4,228 provides a total of \$50,736 for every 12 ALE students. When health insurance, retirement and other benefits are separated out, ALE funding appears to support a base teacher salary of \$40,298, well below the average teacher salary of \$48,975 in the matrix. That said, in 2012-13, districts actually paid teachers an average of \$48,527 using ALE funding.

Similarly, ELL funding was originally based on providing 60% of a teacher for every 100 ELL students. The 2012-13 funding amount of \$305 per ELL student supports a teacher salary of \$50,833 ($\$305 \times 100 / 0.6$). When benefits are separated out, the base teacher salary supported by ELL funding is \$40,378. In practice, however, districts provide teachers with an average salary of \$51,945 from ELL funds.

2012-13	Salary Used as Basis for Funding	Actual Average
Matrix Teacher Salary	\$48,356	\$47,316
ALE Teacher Salary	\$40,298	\$48,975
ELL Teacher Salary	\$40,378	\$51,945

It is important to note that in 2012-13, districts collectively transferred from their National School Lunch funding (NSL) \$16.4 million to cover ALE expenses and \$3.8 million to cover ELL expenses. While districts are, on average, paying ALE and ELL salaries that have kept up with or exceeded the teacher salary in the matrix, districts appear to have accomplished this, in part, by transferring funds from NSL.

Had the state applied funding rates that kept pace with the teacher salary in the matrix, the state would have had to provide \$5,047 per ALE student and \$363.40 per ELL student in 2013. This rate of funding would have cost the state an additional \$4.4 million for ALE and \$2 million for ELL.

CONCLUSION

Arkansas Code §6-17-2403 set the minimum salary schedule for teachers with a bachelor's degree at \$29,244 and the minimum salary for teachers with a master's degree at \$33,630. The General Assembly last updated the statute during the 2007 legislative session.

This memo examined the implications of increasing the minimum salary under three proposals: increasing the minimum salary to \$31,000, increasing the salary schedule by 1% and increasing the salary schedule by 2%. The most expensive proposal, increasing the minimum to \$31,000, would have required 113 districts to pay collectively about \$2.4 million more than they would have paid in 2012-13. The other proposals would have cost 22 districts an additional \$121,000 (Proposal #2) and 38 districts an additional \$333,000 (Proposal #3).

Increasing the minimum salary to \$31,000 would decrease the disparity between the district with the lowest minimum salary and the district with the highest minimum salary by about \$2,000. It would reduce the disparity between the highest district average salary and lowest district average salary by about \$1,000. Proposals #2 and #3 would reduce these disparities by between \$100 and \$700.

It is difficult to determine precisely how the three proposals would affect the state's rank in average teacher salary. That's because the National Education Association, which ranks state teacher salaries, uses a methodology to calculate the state's average that is different from that used by the Arkansas Department of Education or this analysis. (In 2012-13, the NEA calculated average salary for Arkansas was \$46,631, while ADE's calculated average was \$47,316.) However, it's clear that Arkansas would move up in the state rankings in minimum teacher salary if the minimum salary were increased. If the state's minimum salary had been \$31,000 in 2012-13, Arkansas would have moved from ranking 4th among surrounding states to 2nd, and the state would have moved from 12th among SREB states to 8th.

Finally, this memo examined the salaries of teachers paid from ALE and ELL funding. The analysis found that in some years, these funding programs have not received the same cost of living adjustment as foundation funding. As a result, the average teacher salaries on which they were originally based have not kept up with the teacher salary in the matrix. However, the actual average teacher salaries paid from these funds exceed the salary in the matrix.