

Insights

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Getting Smart About Teacher Pay

Investing in education is viewed as important to ensuring the success of our nation's children. One of the largest dollar investments in education is teacher salaries. In fact, roughly 60 percent of all instructional dollars go to paying teachers. But how well do we pay them, and are their salaries based on what we value in a quality teacher?

SEDL's past research highlighted the importance of resources, such as money and staff, often used to directly impact teaching and learning. We found that high-performing school districts in the southwestern region spent more on instruction and had more teachers than did low-performing districts (Pan et al., 2003).

In our new study on teacher resources in Arkansas, Louisiana, and Texas, we found that teacher pay matters. Specifically, in Texas, schools that paid higher salaries had higher student achievement. All three states continue the long-standing tradition of paying teachers based on years of experience and education. Yet, these two teacher qualities play only a small

role in increasing student achievement. This is especially important because state and federal policies now prioritize teacher quality standards based on content knowledge, skills, certification, and other criteria. Teacher pay policy, however, has been slow to respond to these new priorities.

This issue of *Insights* explores what we learned from our research on teacher

In This Issue

SEDL examined teacher salaries in Arkansas, Louisiana, and Texas to determine whether teacher pay is related to teacher qualifications, school characteristics, and student achievement. This issue of *Insights* presents results from that research and provides guidance for policymakers on paying teachers to support new accountability goals.

resources and our recommendations for ways to think differently about teacher pay policy.



Pay differences in the early 20th century resulted in pay inequities between men and women, Whites and non-Whites, and high school and elementary school teachers.

Education and Experience: Primary Drivers of Pay

Teachers in the United States are commonly paid using a career ladder approach. That is, those with more years on the job and/or with advanced degrees are paid more. This approach, often referred to as a “single salary structure,” has multiple benefits. For one, it ensures relative pay equity among teachers. Also, it offers district administrators a simple and objective way to determine pay.

It became increasingly important for such an approach to be developed and implemented in education. Pay differ-

ences in the early 20th century resulted in pay inequities between men and women, Whites and non-Whites, and high school and elementary school teachers.

In our research on teacher pay and student achievement in Arkansas, Louisiana, and Texas schools, we collected salary, experience, and education data on teachers that would likely have the most impact on learning in core academic areas (see “SEDL Research on Teacher Resources” below). Our research confirmed that the vast majority of these teachers in all three states are paid using a single salary schedule.

More specifically, their years of experience mattered most (see Figure 1). Teachers with more experience made

SEDL Research on Teacher Resources

Our research provides information about the relationship between teacher salary, experience, and education. We used data on “core” teachers collected from state departments of education in Arkansas, Louisiana, and Texas to examine three research questions:

1. To what extent do teacher experience and education relate to salary?
2. Do teacher salary, experience, and education vary for high-need and non-high-need schools?
3. What effects do teacher salary, experience, and education have on student achievement, particularly in high-need schools?

What do we mean by “core” teachers?

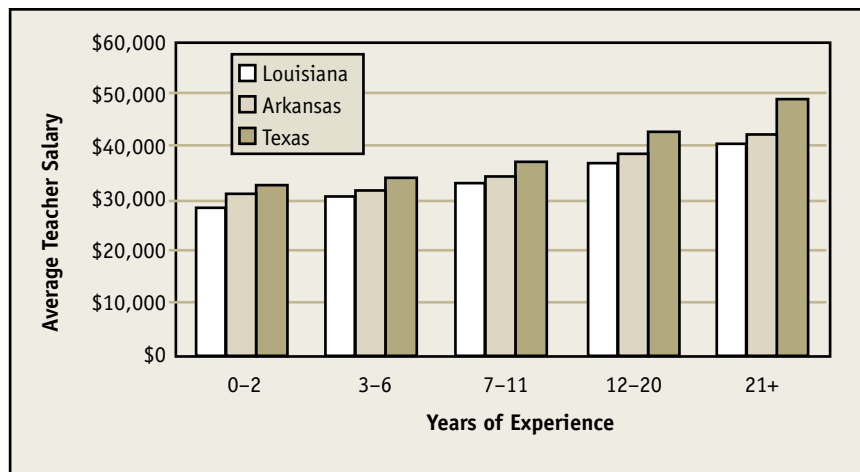
Core teachers in our study met these characteristics:

- Taught in the classroom
- Employed a 75 percent or greater in a full-time equivalent (FTE) position
- Taught at only one school
- Worked only in an instructional role

These teachers also taught courses that were part of a core academic curriculum established by their state education agency during the 2002–2003 school year (2001–2002 in Texas).

Visit SEDL’s Web site to access our full research report:
<http://www.sedl.org/pubs/policyresearch/>

Figure 1:
Average Teacher Salaries by Years of Teaching Experience



Note. From Arkansas Department of Education (2002–2003), Louisiana Department of Education (2002–2003), and Texas Education Agency (2001–2002).

higher salaries and most earned in the upper ranges of salary schedules due to their tenure in the profession. As seen in Figure 2, the majority of teachers had at least 7 years of experience, and a large proportion had 12 or more. In all three states, teachers with more

than 21 years of experience made up 20 percent or more of all core teachers.

Teachers holding advanced degrees also earned higher salaries. On average, these teachers earned 4 to 9 percent more than those with only an undergraduate degree.

Teacher pay was less impacted by the following:

- Certification level
- Student poverty and minority enrollment
- District size
- Rural, urban, or suburban location

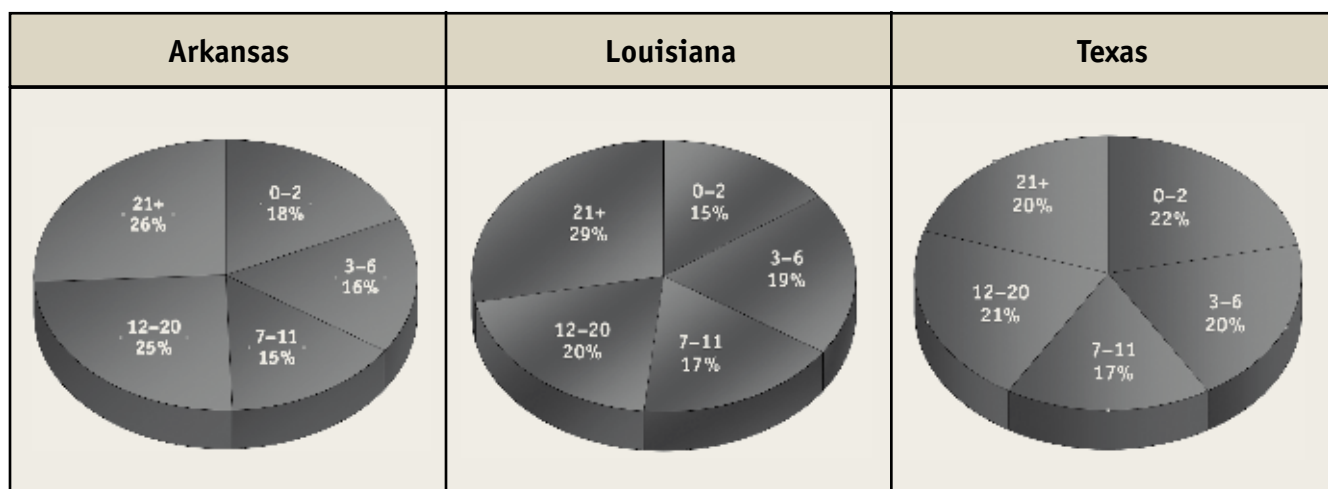
Unfortunately, we found no solid connections between teacher experience and education and student achievement across all of the states.

Revisiting the Teacher Pay Scale

Our findings underscore a critical question in teacher pay policy: Are we paying for the credentials that will help us achieve instructional goals?

So far, research on teacher qualifications, including experience, education, and certification, has yielded no easy answers to what characterizes effective teachers. Dr. Jennifer King Rice, a well-known researcher on teacher quality and school finance, notes that the better we can understand what teachers know and do the more we can really measure the effects of teaching on student learning (Rice, 2003). Improved measures of teacher

Figure 2
Teachers Years of Teaching Experience



Note. From Arkansas Department of Education (2002–2003), Louisiana Department of Education (2002–2003), and Texas Education Agency (2001–2002).

Some of the lowest paid teachers were in rural schools with high student poverty rates and low student achievement.

quality such as subject-area knowledge, evaluation results, and hours of professional development should be created and used to help understand teacher quality.

It is important to recognize that a teacher’s effectiveness cannot be predicted based on one or two criteria. Effective teaching is an interaction among the teacher’s knowledge, pedagogical skill, and classroom management, as well as environmental and other factors. Educators, policymakers, and researchers must find ways to assess these important teacher attributes.

Paying teachers based on criteria that make a difference to student achievement is essential. We have to look beyond the traditional measures of teacher experience and education used in current single salary schedules (Odden & Kelly, 2002).

How Well Do We Pay Our Teachers?

Salary schedules reflect state, regional, and local variations in pay. The same teacher experience and education garners different pay levels in different states, districts, and schools.

According to national statistics, states in the southwestern region

all pay their teachers less than the national average. Among the five southwest states in our region, the highest paying state’s average salary (\$40,476) is 15 percent higher than the lowest paying state (\$35,061) (see Figure 3).

Teacher Pay in High-Need Schools

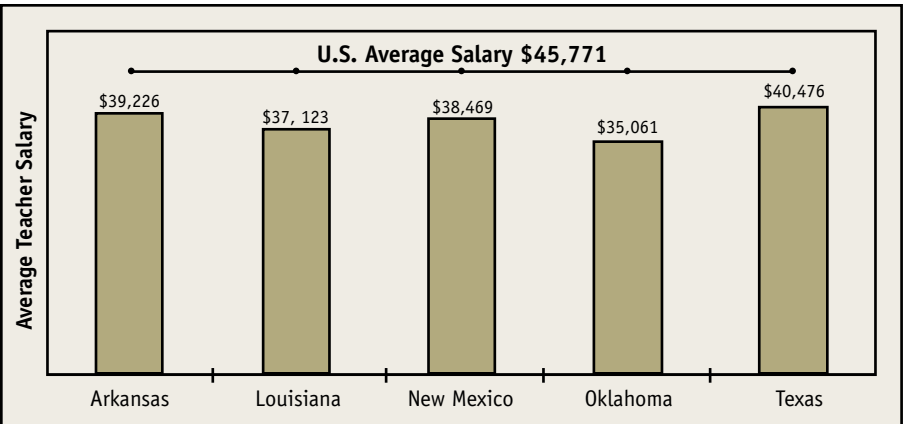
Knowing that teacher pay can vary, we sought to find out more about differences, especially for teachers in high-need schools. We found that not only do teachers need more pay to keep up with the national average, but salaries differ based on locale, student population, and school achievement level.

Some of the lowest paid teachers were in rural schools with high student poverty rates and low student achievement. Teachers in these schools were paid less than teachers in rural schools with wealthier, higher-achieving students.

As we show in Figure 4, the teacher pay gap between rural, suburban, and urban districts is noteworthy. The largest is an 18 percent pay gap between rural and urban districts in Arkansas where nearly 40 percent of all teachers are in rural districts.

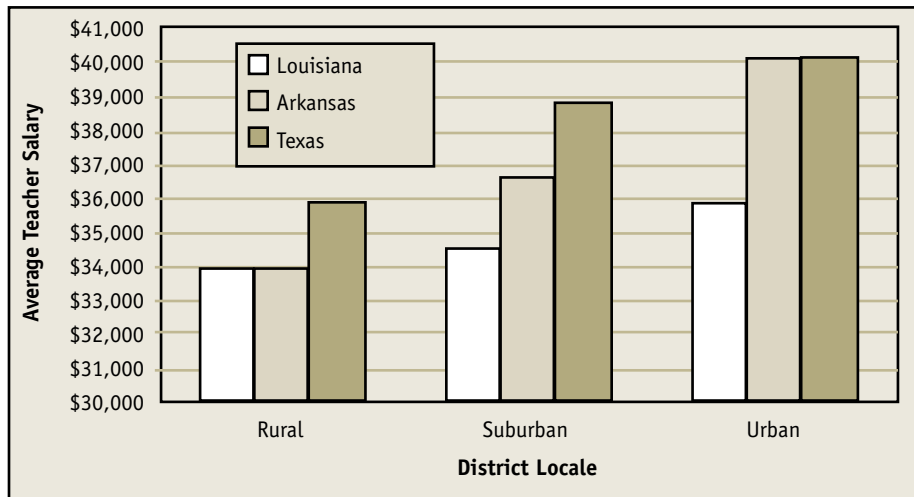
It is important to understand that teachers were paid less in rural locations regardless of their experience. Teachers in rural districts in Arkansas

Figure 3
Average Teacher Salaries



Note. From American Federation of Teachers, 2005.

Figure 4
Average Teacher Salaries in Urban, Suburban, and Rural Districts



Note. From Arkansas Department of Education (2002–2003), Louisiana Department of Education (2002–2003), and Texas Education Agency (2001–2002).

and Texas actually had more experience, on average, than urban teachers.

Teacher Pay and Student Achievement

What everyone wants to know is whether teacher pay matters to student achievement.

What we found is teacher salaries are related to student achievement for math and reading in Texas and for reading in Arkansas. However, teacher pay did not impact math scores in Arkansas nor achievement generally in Louisiana.

These findings are inconclusive and point to the difficulty in fully explaining the role of salaries on student achievement. The findings fall short of providing clear guidance for state or local pay policy. We still do not know why salaries seem to matter or on what criteria we should be increasing teacher pay.

For example, a simple comparison of salary averages (see Table 1) tells us that teacher pay levels in high-performing versus low-performing districts are already on par.

Thinking Differently About Teacher Pay

We are challenged to create new pay systems that address policy priorities based on our best information about how teachers are paid. States are asking more from their teachers in terms of content expertise, facility with new

instructional standards, and better results for low-performing students. Parents, educators, and researchers are realizing the importance of good teachers in student learning. National and state education policies are emphasizing teacher skill and knowledge in addition to traditional credentials.

Paying teachers is a complex task that must take into account such factors as differences in local or regional economies, the needs of schools with low-income students, and the competencies and credentials of the teacher pool. These days paying teachers a fair, equitable wage is important but is only part of the bigger picture.

What Do Experts Say About Teacher Pay Systems?

In a recent discussion with key state policymakers in our region, we identified a number of ways they are addressing teacher compensation policy in their states. They described the following:

- Raising overall teacher salaries
- Providing incentives to teachers in small schools and schools with high percentages of low-income children

Table 1
Average Teacher Salary in Highest- and Lowest-Performing Districts

State	Lowest-Performing Districts (8th-grade math)	Highest-Performing Districts (8th-grade math)	Percent Difference
Arkansas	\$36,570	\$36,705	0.4
Louisiana	\$34,340	\$34,992	1.9
Texas	\$38,733	\$38,248	1.3

Note. From Arkansas Department of Education (2002–2003), Louisiana Department of Education (2002–2003), and Texas Education Agency (2001–2002).

“We must see pay strategically and ensure that we think of teacher compensation as a system, i.e., with pay and supports for the whole teacher system.”

- Experimenting with alternative pay systems

How can states and school districts continue to advance their thinking about teacher pay and integrate pay systems into overall school improvement? We asked Dr. Anthony Milanowski, a well-known researcher in the field of teacher compensation, this question. He explained that “we must see pay strategically and ensure that we think of teacher compensation as a system, i.e., with pay and supports for the whole teacher system.”

Additionally, Milanowski emphasized that teacher compensation programs should be aimed at need. A systematic process for identifying needs is essential. States and schools must find ways to assess teacher recruitment and retention, teacher skill levels, and alignment between educational goals and what is expected of teachers.

Designing teacher pay systems is not simple and, unfortunately, not much information can be found to get states and districts started. Limited guidance from existing research is available to demonstrate what financial incentives work to improve the quality of teachers.

Research conducted by Hanushek, Kain, and Rivkin (2001) in Texas indicates that financial incentives need to be significant to change staffing patterns. Yet, it is still unclear exactly how much is enough in order to change current practices.

Models of new compensation programs do exist, such as the Teacher Advancement Program, New Mexico’s Three-Tiered Licensure System, and Denver’s ProComp (see “Examples of

Teacher Compensation Programs”). These programs provide excellent examples of the rationale, implementation strategies, and evaluation that must be part of new pay systems.

Making New Pay Systems a Reality

New teacher pay programs generally mean finding new sources of funds for salary increases or targeted incentive pay. The amount of funds can be substantial, especially with regard to across-the-board pay raises. It will be important for states to find new monies or reallocate existing dollars. Fortunately, many compensation programs can be phased in across a number of years, spreading the financial burden over time.

Cost-benefit studies should be included as part of any new pay system to track whether the strategies are effective in improving teaching and learning. Also, it is important to remember that money alone can’t increase student achievement. Although teacher pay can motivate teachers in certain ways, other supports must also be available: professional development, evaluation, mentoring, leadership, and a suitable work environment.

The hard work of examining current pay policies and practices and experimenting with new ones will require the involvement of a broad range of stakeholders. Teachers, state policymakers, district administrators, school boards, and parents all have a responsibility for improving the success of our children and investing our salary dollars wisely.



Examples of Teacher Compensation Programs

	Teacher Advancement Program (TAP)	New Mexico Three-Tiered Licensure System	Denver ProComp
GOAL	To increase student learning through quality teaching	To link teachers' licensure levels and salaries to the work teachers accomplish in the classroom	To link teacher pay to instruction to improve student achievement
IMPLEMENTATION	100 U.S. schools in 11 states	All New Mexico public schools	All Denver public schools
ELEMENTS	<ol style="list-style-type: none"> Multiple career paths Instructionally-focused accountability Ongoing, applied professional growth Performance-based compensation 	<ol style="list-style-type: none"> Multiple licensure levels Evidence-based teacher evaluation system Ongoing professional development in nine teaching competency areas Classroom performance 	<ol style="list-style-type: none"> Professional evaluation Ongoing knowledge and skills growth Student growth
WEB SITE	http://www.tapschools.org	http://www.teachnm.org	http://denverprocomp.org

References

- American Federation of Teachers. (2005) *Survey and analysis of teacher salary trends 2004*. Washington, DC: Author.
- Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (2001, November). *Why public schools lose teachers*. Political Economy Working Paper 12/01. http://www.utdallas.edu/dept/socsci/working_papers/
- Odden, A., & Kelley, C. (2002). *Paying teachers for what they know and do: New and smarter compensation strategies to improve schools*. Thousand Oaks, CA: Corwin Press.
- Pan, D., Rudo, Z. H., Schneider, C. L., & Smith-Hansen, L. (2003, April). *Examination of resource allocation in education: Connecting spending to student performance*. Austin, TX: Southwest Educational Development Laboratory.
- Rice, J. K. (2003). *Teacher quality: Understanding the effectiveness of teacher attributes*. Washington, DC: Economic Policy Institute.

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AT A GLANCE

INSIGHTS

SEDL's New Study Teacher Resources in Arkansas, Louisiana, and Texas Tells Us That Teacher Pay Matters

Education and Experience: Primary Drivers of Pay

- The vast majority of teachers in all three states are paid based on experience and education.
- Teacher experience and education has little impact on student achievement.
- A teacher's effectiveness cannot be predicted based on one or two criteria.

Teacher Pay and Student Achievement

- The lowest paid teachers were in rural schools with high student poverty rates and low student achievement.
- In Arkansas and Texas, there was a connection between teacher salary and student achievement, while in Louisiana there were no differences.

Thinking Differently About Teacher Pay

- Teacher pay must take into account such factors as differences in local or regional economies, the needs of schools with low-income students, and the competencies and credentials of the teacher pool.
- Models of new compensation programs provide excellent examples of the rationale, implementation strategies, and evaluation of new pay systems.



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