



SCHOOL DISTRICTS PERFORMANCE AUDIT REPORT

**K-12 Education: Reviewing Issues Related to
Developing and Retaining Teachers and School Principals**

**A Report to the Legislative Post Audit Committee
By the Legislative Division of Post Audit
State of Kansas
July 2006**

Legislative Post Audit Committee

Legislative Division of Post Audit

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July 5, 2006

To: Members, Legislative Post Audit Committee

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This report contains the findings and conclusions from our completed performance audit, *K-12 Education: Reviewing Issues Related to Developing and Retaining Teachers and School Principals*.

The report also contains appendices showing survey results of Kansas principals on teacher attrition, Kansas teacher migration information, and average teacher salaries and rankings of all 50 States and the District of Columbia.

We would be happy to discuss the findings presented in this report with any legislative committees, individual legislators, or other State officials.

Barbara J. Hinton
Legislative Post Auditor

Get the Big Picture

Read these Sections and Features:

1. **Executive Summary** - an overview of the questions we asked and the answers we found.
2. **Conclusion and Recommendations** - are referenced in the Executive Summary and appear in a box after each question in the report.
3. **Agency Response** - also referenced in the Executive Summary and is the last Appendix.

Helpful Tools for Getting to the Detail 🔍

- In most cases, an “**At a Glance**” description of the agency or department appears within the first few pages of the main report.
- **Side Headings** point out key issues and findings.
- **Charts/Tables** may be found throughout the report, and help provide a picture of what we found.
- **Narrative text boxes** can highlight interesting information, or provide detailed examples of problems we found.
- **Appendices** may include additional supporting documentation, along with the audit **Scope Statement** and **Agency Response(s)**.

EXECUTIVE SUMMARY
LEGISLATIVE DIVISION OF POST AUDIT

**Overview: National Teacher Turnover Rates and Areas With
Teacher Shortages**

About 16% of all teachers change jobs each year. At the *national* level, page 3
*half of all turnover is caused by teachers who move between schools, while
the other half is caused by teachers who leave the profession entirely.
According to the education literature, attrition among younger teachers is
an especially large problem, with one out of every three teachers leaving
the profession within their first three years of teaching.*

**Shortages of qualified teachers exist for certain subjects and in
certain types of schools.** page 4
*Subjects such as vocational education and
math are harder to fill with qualified teachers than others. In addition,
schools with high poverty have greater turnover than schools with low
poverty (20% and 13%, respectively), which means they have a higher
proportion of positions to fill each year.*

**Question 1: To What Extent Does Kansas Have a Teacher Shortage,
And Why?**

**Statewide, almost 6% of all teaching positions are vacant or not filled
by a fully qualified teacher.** page 6
*Since 1999-00, total demand for teachers
has remained steady at about 34,000, but there have been shifts in the
types of teachers needed and in the locations where they're needed.
Kansas' teacher shortage is characterized primarily by teachers who teach
"out-of-field" (5.4% of the total), rather than actual vacancies (0.5%). Out-
of-field teachers are those who don't have a valid teaching license or the
proper teaching endorsement for their assignment.*

**Teacher shortages are worse in certain regions and types of districts,
and for certain subjects.** page 7
*The most severe teacher shortages are in high-
poverty districts, where 8.6% of all teaching positions are vacant or filled by
teachers who are teaching out-of-field. Regionally, southwest Kansas has
the greatest shortages (8.5%). Teacher shortages are worse for certain
subjects, such as special education (17.2%) and foreign language (11.2%).
Finally, teacher shortages are greater for high schools (8.1%) than for
middle schools (4.8%) and elementary schools (4.0%).*

About 16% of all Kansas teachers change jobs each year. page 10
*Almost 9%
of Kansas teachers leave the public school system, while more than 7%
move between schools each year. Teacher attrition is worst among high-
poverty districts, where the attrition rate is nearly 10% compared to other
districts at 8%. Teachers who change districts tend to move from west to
east, and away from rural and high-poverty districts. Other than retirement,
principals most frequently cited non-work-related factors as reasons for
why teachers move or leave.*

The number of teachers who will be eligible for retirement will increase in the near future. page 12
The share of teachers over 50 years of age increased from 27% in 1999-00 to 34% in 2004-05, and almost 24% of all teachers will be eligible to retire in the next five years. Northwest Kansas has the highest share of teachers who are or will be eligible for retirement in the next few years (29%), which is likely to worsen the current teaching shortages in that region.

The number of potential new teachers hasn't increased significantly over the last six years. page 14
The number of students earning bachelor degrees in education has increased slightly over the past six years—from 1,200 to about 1,350—while the number of new teaching licenses the Department of Education issues has remained flat at about 3,000 licenses per year.

*Because of the large amount of data presented in this question, **Figure I-12** on page 16 provides a summary of the major findings concerning teacher shortages, turnover, age, retirement, and supply.*

Question 1 Conclusion page 16

Question 2: How Do Kansas Teacher Salaries Compare With Other States, And What Does the Research Literature Show About the Relationship Between Statewide Salary Levels and Student Outcomes?

In 2004-05, Kansas' teacher salaries ranked 33rd nationally after adjusting for regional cost differences. page 17
Kansas' average teacher salary rank peaked at 23rd in 1998-99 and 1999-00, but fell to 32nd by 2003-04. Kansas' teacher salary ranking may improve in future years because of the significant funding increases passed during the 2005 and 2006 legislative sessions.

Kansas' starting salaries rank 6th nationally, but salaries for experienced teachers rank only about 36th. page 19
This may indicate that the long-term earning potential for Kansas teachers is limited.

Kansas' average teacher salary ranked in the middle of 10 competing states in 2004-05. page 20
Among those competitor states, California ranked first and Texas ranked last. However, select cities from Texas paid much higher teacher salaries than metropolitan areas of Kansas.

Annual salaries for teachers are low compared to similar professions, but hourly pay is comparable. page 21
Nationally, the annual salary for new teaching graduates of \$29,733 is the lowest among 12 types of bachelor degrees. In the Kansas City area, teachers' hourly wages of about \$30 per hour are competitive with professions that have similar education requirements.

Researchers have found a positive relationship between salaries and retention, but not between salaries and student performance. *While increasing teacher salaries appears to increase teacher retention, those findings should be interpreted with caution because researchers also have found that other factors—such as working conditions—may have a stronger effect on retention, and using salaries to reduce attrition may be very costly. Researchers haven’t found a strong association between teacher salaries and student performance, because of the complexity of the relationship and other methodological problems that make it difficult to study.* page 22

Question 2 Conclusion page 25

Question 3: What Are the Best Practices for Attracting, Developing, and Retaining High-Quality Teachers and School Principals In Different Types of School Districts?

To attract teachers, the literature cites the following four best practices:

- *Improve salary and benefits by raising beginning salaries, restructuring salary schedules, paying health insurance, and increasing retirement benefits.* page 27
- *Offer or improve other financial incentives, such as providing signing bonuses, tax credits, on-site day care, and housing aid.*
- *Use innovative recruitment strategies, such as implementing “grow-your-own” teacher programs, partnering with universities, and aggressively marketing the teaching profession.*
- *Reduce barriers to becoming a teacher by streamlining the hiring process and allowing alternative licensing options.*

To improve teacher retention, the literature cites the following three best practices:

- *Create high-quality preparation and transition programs by requiring education students to go through hands-on programs in diverse settings, and by implementing mentoring programs for new teachers.* page 32
- *Improve teacher working conditions by allowing teachers more autonomy within their classroom and by promoting interaction among teachers.*
- *Increase earning potential by increasing maximum salaries and offering longevity bonuses.*

To develop teachers, the literature cites the following three best practices:

- *Commit adequate resources to professional development by earmarking funds for training, paying advanced education training costs, and offering more time for development.* page 35
- *Provide targeted professional development by linking development to assessments and by giving schools greater control over professional development.*

- *Provide a variety of professional development opportunities such as conferences, in-house training, and using technology to facilitate development.*

To attract principals, the literature cites the following three best practices:

- *Use innovative recruitment strategies such as building partnerships with universities, providing field-based internships, or using “grow-your-own” principal strategies.* page 37
- *Provide financial incentives including higher salaries, tax credits, and relocation assistance.*
- *Reduce barriers to becoming a principal by allowing candidates who demonstrate the appropriate skills to become a principal, even if they don’t have any teaching experience.*

To develop principals, the literature cites the following three best practices:

- *Provide practical training, such as training on budgets, case studies, and problem-solving.* page 37
- *Include opportunities for peer support and leadership coaching, such as support groups, training with peer principals, and supervisor walk-throughs.*
- *Offer development through a variety of providers, such as outside agencies, university personnel, or national conferences.*

Question 3 Conclusion page 39

APPENDIX A: Scope Statement page 40

APPENDIX B: Kansas Principal Survey on Teacher Attrition page 41

APPENDIX C: Kansas Teacher Migration Information page 46

APPENDIX D: Comparable Wage Index for All 50 States and the District of Columbia page 47

APPENDIX E: Average Teacher Salary Before and After Regional Cost Adjustments page 48

APPENDIX F: Bibliography of Research About the Relationship Between Teacher Salary and Student Outcomes and Teacher Retention page 49

APPENDIX G: Agency Response page 50

This audit was conducted by Katrin Osterhaus, Allen Bartels, Dan Bryan, and Heidi Zimmerman. Scott Frank was the audit manager. If you need any additional information about the audit’s findings, please contact Ms. Osterhaus at the Division’s offices. Our address is: Legislative Division of Post Audit, 800 SW Jackson Street, Suite 1200, Topeka, Kansas 66612. You also may call us at (785) 296-3792, or contact us via the Internet at LPA@lpa.state.ks.us.

K-12 Education: Reviewing Issues Related to Developing and Retaining Teachers and School Principals

The recently completed Legislative Post Audit education cost study included an examination of how teacher salaries vary in different parts of the State. Because that study didn't assess the overall level of teacher salaries, members of the 2010 Commission expressed an interest at their January 2006 meeting in knowing how Kansas teacher salaries compare with other states, when adjusted for such things as cost of living. Specifically, they expressed concerns that salaries in Kansas may not be sufficient to attract enough quality individuals to the teaching profession or to compete with other states. Members wanted to know what effect increasing salaries might have on the quality of teachers in the State, and ultimately, how that might affect student educational outcomes.

In addition, several members expressed concerns about the adequacy of the State's efforts to assist school districts in developing and retaining quality teachers and school principals. There was a particular emphasis on the adequacy of professional development programs to ensure that teachers and principals develop strong leadership skills, learn about new and innovative teaching methodologies, and are retained within Kansas' teacher workforce.

This school performance audit answers the following questions:

- 1. What factors contribute to the shortage of teachers in Kansas?**
- 2. How do Kansas teacher salaries compare with other states?**
- 3. What does the research literature show about the relationship between Statewide salary levels and student outcomes?**
- 4. What are the best practices for attracting, developing, and retaining high-quality teachers and school principals in different types of school districts?**

To answer the first question, we analyzed six years of data from the Department of Education to calculate the total number of teacher positions and vacancies across the State, as well as by various sub-categories. In the same way, we calculated the proportion of teachers who weren't fully qualified for the classes they taught. We also reviewed the past supply of education graduates from Kansas Regents universities, and the number of new teaching licenses issued in the

State. We determined possible future teacher shortages resulting from upcoming retirements based on teacher age and experience. Finally, we surveyed Kansas principals about their perceptions of teacher shortages.

To answer the next two questions, we reviewed teacher salary tables published by several national associations and analyzed the information after adjusting for differences in regional labor costs. We interviewed education professionals to identify states that compete with Kansas for teachers. We talked to officials in these competitor states to gather demographic teacher data in order to help explain salary variances. Finally, we reviewed current research about the relationship between teacher salaries and retention, as well as teacher salaries and student outcomes.

For the last question, we reviewed the literature (including the Standard & Poor's report on the State's "blue ribbon" schools) on strategies to attract and retain teachers and principals, and what's suggested for these professions in terms of professional development. Finally, we interviewed Department of Education staff, and staff within the Kansas Public Retirement System, to determine whether these strategies are already in place in Kansas.

A copy of the approved scope statement for this audit is included in *Appendix A*. For reporting purposes, we've reworded the first question and reported Question 2 and Question 3 together.

In conducting this audit, we followed all applicable government auditing standards, except that we didn't test the computerized vacancy, licensing, and certification data of certified school district personnel obtained from the Kansas Department of Education. Each district self-reports these data to the Department, and there was no way for us to assess the accuracy of the information in the time available during the audit.

Although there's no way to know how accurate these data are, they are all that's available. Thus, the information presented in this report about teacher shortages should be viewed as an indicator, and not as absolute fact. It is unlikely, however, that it is so grossly or systematically inaccurate as to affect our findings and conclusions.

Our findings begin on page 5, following a brief overview on national teacher turnover rates and teacher shortages.

Overview: National Teacher Turnover Rates and Areas With Teacher Shortages

About 16% of All Teachers Change Jobs Each Year

Teacher turnover includes teachers who move from school to school and teachers who leave the profession. Turnover keeps school administrators searching for replacements, and often can have significant financial and student costs. One Texas-based study estimates that the cost of teacher turnover in that state—including hiring and training new teachers and paying for substitutes—is as much as \$2.1 billion a year. Also, student performance is affected by teacher turnover because new and unprepared teachers generally are less effective than experienced teachers.

While very high levels of teacher turnover affect schools negatively, not all teacher turnover is bad. Some amount of turnover can be helpful if it removes those teachers who are less competent and less effective.

At the national level, half of all turnover is caused by teachers who move between schools, while the other half is caused by teachers who leave the profession entirely. Each year, teachers enter, leave, and move within the K-12 teacher workforce in the United States. Periodically, the National Center for Education Statistics surveys more than 50,000 public and private school teachers on issues including attrition and mobility. According to the latest survey, based on the 1999-00 school year, the national teacher turnover rate is 16%.

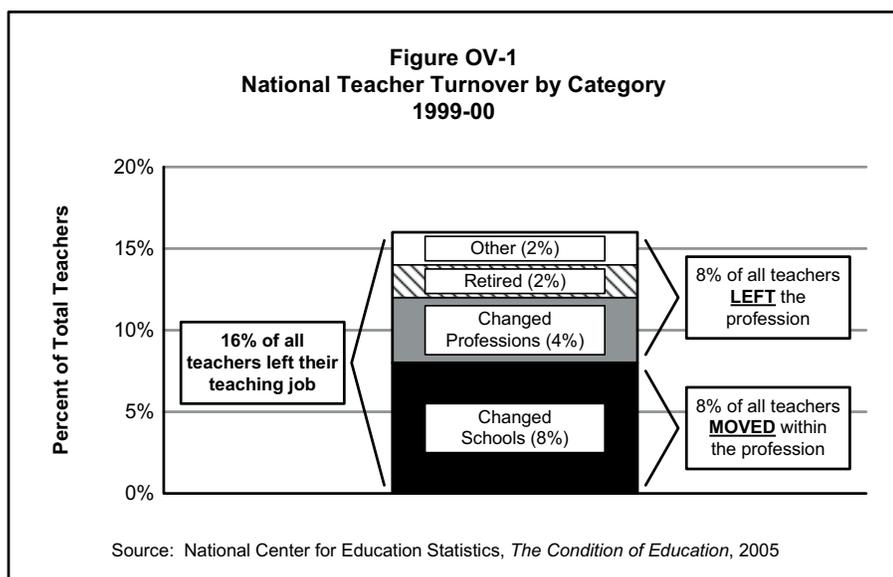


Figure OV-1 shows the percentage of school teachers in 1999-00 that didn't teach in the same school the following year, and the reason they left their school. As the figure shows, 8% of teachers moved to a different school (transferred), while 8% left the teaching profession.

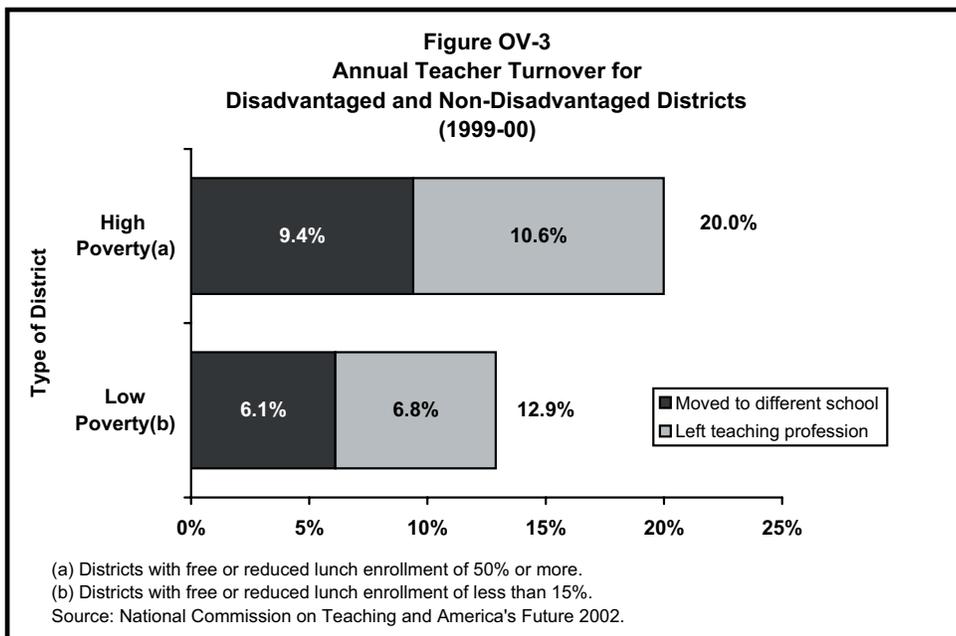
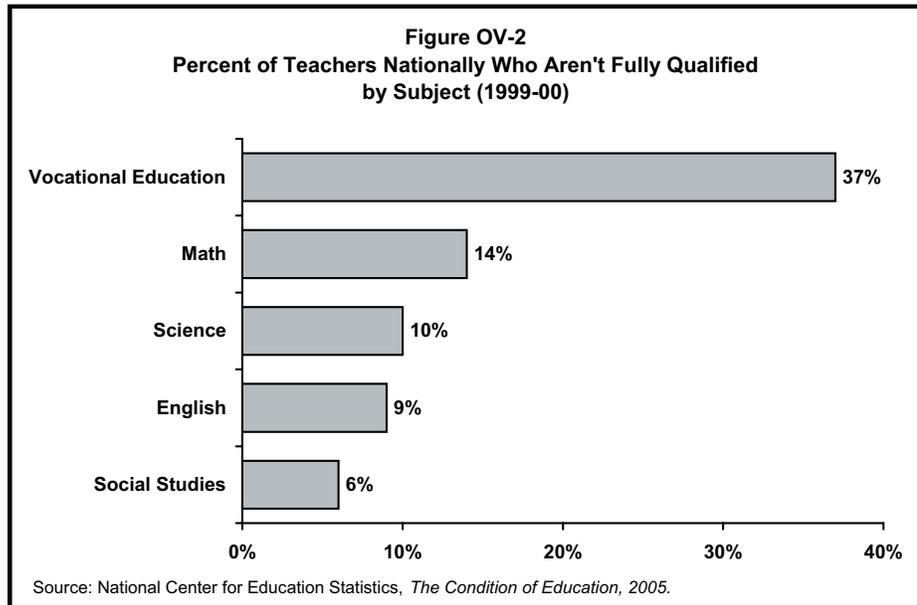
The percent of teachers who retire each year doubled from 1% in 1987-88 to 2% in 1999-00. Retirees now account for about one-fourth of all teacher attrition. *Figure OV-1* also shows that the majority of teachers who leave the profession

do so before retirement. According to the education literature, attrition among younger teachers is an especially large problem, with one out of every three teachers leaving the profession within their first three years of teaching.

Shortages of Qualified Teachers Exist for Certain Subjects and In Certain Types of Schools

Nationally, about 16% of all teachers change jobs each year. However, the rate of turnover, and the teacher shortages it may contribute to, can vary significantly for different subjects and different types of schools.

Subjects such as vocational education and math are harder to fill with qualified teachers than others. At the national level, about 12% of teachers are teaching subjects or grade levels that they aren't fully qualified to teach. For example, a high school teacher who only has a general science certification isn't considered qualified to teach chemistry. As **Figure OV-2** shows, this is especially problematic in certain subjects, such as vocational education and math.



Schools with high poverty have greater turnover, which means they have a higher proportion of positions to fill each year. **Figure OV-3** compares the national turnover rates for high-poverty and low-poverty public schools in 1999-00. As the figure shows, the annual turnover rate for high-poverty schools is 20%, as compared with only 13% in schools with low poverty.

Question 1: To What Extent Does Kansas Have a Teacher Shortage, and Why?

ANSWER IN BRIEF:

Although only .5% of all teaching positions are left vacant each year, 5.4% of all positions aren't filled by a fully qualified teacher. Teacher shortages are more severe in high-poverty and rural districts, and are worst in the western part of the State. There's a significant shortage of special education teachers – more than 17% of the teachers aren't fully qualified to teach that subject. Each year, approximately 9% of Kansas teachers leave the public school system, with many of them leaving within the first three years of their careers. In addition, about 7% of teachers change schools each year, with many moving from west to east and away from rural and high-poverty districts.

Teacher shortages may worsen over the next several years, as the number of teachers who are eligible to retire increases. Over the last six years, the number of potential new teachers hasn't increased significantly. These and related findings are discussed in the sections that follow.

In this question, we've organized our findings related to teacher shortages into three sections:

- Extent of teacher shortages in Kansas
- Characteristics of teacher turnover
- Trends in the availability of teachers

EXTENT OF TEACHER SHORTAGES IN KANSAS

A teacher shortage exists when there aren't enough qualified teachers available to fill all the positions districts are looking to fill. This is a function of two factors:

- How many teachers do districts need? (DEMAND)
- How many teachers with the necessary qualifications do districts have available? (SUPPLY) This is affected by:
 - ▶ the number of teachers from the previous year
 - ▶ minus the number of teachers who leave
 - ▶ plus the number of new teachers

Having numerous vacancies is an obvious sign of a teacher shortage, but it's not the only one. A shortage also exists when a large number of teachers lack the necessary qualifications for the positions they fill.

Statewide, Almost 6% of All Teaching Positions Aren't Filled by a Fully Qualified Teacher

We used teacher certification, assignment, and vacancy data provided by the Department of Education to calculate the total number of teaching positions Kansas school districts tried to fill each year, and the number of those positions that remained vacant or weren't filled by a fully qualified teacher.

Since 1999-00, total demand for teachers has remained steady, but there have been shifts in the types of teachers needed and in the locations where they're needed. As *Figure I-1* shows, from 1999-00 to 2004-05 school districts have tried to fill about 34,000 teaching positions each year. But between those years, the number of teaching positions:

- increased by 27% in vocational education and 4% in special education
- decreased by 12% in foreign language and 5% in science

In addition, there's been a geographic shift in the demand for teachers. Again, between 1999-00 and 2004-05, the number of teaching positions:

- increased by more than 2% in northeast and southeast Kansas
- decreased by more than 15% in northwest Kansas, and almost 3% in southwest Kansas

Kansas' teacher shortage is characterized primarily by teachers who teach "out-of-field," rather than actual vacancies. Teacher shortages include both positions that remain unfilled and those that are filled by someone who isn't fully qualified to teach the subject. *Figure I-1* shows that in 2004-05, about 5.4% of all positions were filled by a teacher that was teaching "out-of-field." Only .5% of all positions were left vacant.

Teachers are considered out-of-field if they don't have a valid teaching license, or if they haven't earned the proper endorsement for the subject and grade level they're assigned to teach (the teacher licensing requirements in Kansas are more fully explained on page 8). There are three categories of out-of-field teachers, which correspond to those used on the Department's annual Licensed Personnel Report:

- **Licensed teachers who are provisionally qualified** – These teachers have a valid teaching license, are pursuing the proper endorsement for the subject they teach, and have been granted a provisional endorsement or waiver by the Department to teach the subject until they earn the endorsement.
- **Licensed teachers who are unqualified** – These teachers have a valid teaching license but are neither endorsed nor pursuing endorsement for the subject and grade level they teach.

- **Teachers without a license** – These teachers don't have a valid teaching license. According to Department officials, many of these are teachers who have accidentally allowed their licenses to expire.

The number of teachers in each category is summarized in *Figure I-1*, by year. As the figure shows, the percent of teaching positions that are left vacant has remained relatively small at about .5% over the past six years, while out-of-field positions have increased from 4.5% in 1999-00 to 5.4% in 2004-05.

Figure I-1 Out-of-Field, Vacant, and Fully Licensed Teaching Positions (FTE) 1999-00 to 2004-05							
Year	Out-of-Field Teaching Positions				Vacant	Fully Licensed	Total Teaching Positions
	Provisional	Unqualified	No License	Total Out-Of-Field			
1999-00	761 2.3%	637 1.9%	110 0.3%	1,508 4.5%	186 0.6%	31,934 95.0%	33,627 100.0%
2000-01	806 2.4%	711 2.1%	163 0.5%	1,680 4.9%	270 0.8%	32,245 94.3%	34,195 100.0%
2001-02	736 2.2%	628 1.8%	148 0.4%	1,513 4.4%	255 0.7%	32,426 94.8%	34,193 100.0%
2002-03	764 2.3%	585 1.7%	144 0.4%	1,493 4.5%	147 0.4%	31,905 95.1%	33,545 100.0%
2003-04	758 2.3%	782 2.3%	169 0.5%	1,708 5.1%	116 0.3%	31,524 94.5%	33,348 100.0%
2004-05	815 2.4%	839 2.5%	174 0.5%	1,828 5.4%	154 0.5%	31,837 94.1%	33,819 100.0%

Source: LPA analysis of teacher data provided by the Kansas Department of Education.

Teacher Shortages Are Worse in Certain Regions And Types of Districts, And for Certain Subjects

To determine whether the shortages of fully qualified teachers are worse in some areas than others, we looked for variations based on different regions of the State, types of districts, and subject areas.

The most severe teacher shortages are in districts with high poverty. Many authors in the education literature contend it's more difficult to attract and retain teachers in districts with high poverty or in isolated rural areas with fewer community amenities. To determine if teacher shortages were more severe for these types of districts in Kansas, we categorized all 300 districts into the following three groups:

- **Poor districts** that reported at least 45% of their students as eligible for the federal free-lunch program in 2005-06. (14 districts)
- **Rural districts** that have been classified as rural and outside a large metropolitan area by the National Center for Educational Statistics. In cases where a district fit both poor and rural definitions, we classified them as a rural district. (164 districts)
- **Other districts** that aren't poor or rural. (122 districts)

Summary of Requirements To Become a Teacher in Kansas

In Kansas, individuals who want to become teachers typically begin with an initial two-year conditional license. To get that license, they must meet the following requirements:

- Hold a bachelor's degree from an accredited college or university
- Complete a Kansas State Board of Education approved teacher preparation program
- Maintain a cumulative GPA of 2.5 on a 4.0 scale
- Pass a content assessment for the subject and grade level they intend to teach (e.g., high school math, elementary education)
- Pass a pedagogy assessment (this tests teaching skills)
- Complete a FBI/KBI background check

When these requirements are met, the teacher receives the two-year conditional license and an endorsement for a particular subject and grade level. If the teacher teaches the subject at the grade level they are endorsed for, that teacher is considered fully qualified.

To continue teaching beyond two years, teachers typically obtain a five-year professional license by completing the Kansas Performance Assessment (a written account of a multiple-week teaching unit in which teachers provide details about their classroom setting, teaching objectives, instructional plan, and assessment plan to demonstrate they can meet State teaching standards). Although it's not required, teachers can choose to earn a 10-year accomplished license, by passing the National Board's advanced performance assessment.

In addition, Kansas allows several other ways to become a teacher, including a restricted license (for mid-career professionals who are completing their education coursework while teaching), a one-year non-renewable license (for individuals who have met all the requirements except the content assessment), a two-year exchange license (for teachers who come from any of eight other states with which Kansas has a reciprocity agreement), and a substitute license (to allow individuals to substitute teach for a limited time period).

Figure I-2
Summary of Vacant and Out-Of-Field Teaching Positions (FTE)
by Type of District (2004-05)

District Type	Vacant Positions		Out-of-Field Positions		Total Shortage	
	# of Positions	% of Total Positions	# of Positions	% of Total Positions	# of Positions	% of Total Positions
High Poverty (n=14)	75	0.9%	638	7.7%	713	8.6%
Rural (n=164)	13	0.2%	338	5.6%	350	5.8%
Other (n=122)	66	0.3%	852	4.4%	918	4.7%
Statewide (n=300)	154	0.5%	1,828	5.4%	1,982	5.9%

Source: LPA analysis of data provided by Kansas Department of Education.

The number of vacant and out-of-field teaching positions for 2004-05 are broken down by type of district in *Figure I-2*. As the figure shows, districts with high poverty experienced significantly greater teacher shortages than other types of districts, with almost 9% of their positions either vacant or filled by an out-of-field teacher.

We surveyed 890 principals about teacher vacancies at

their schools, and their perceptions about the causes of teacher shortages. Principals returned 459 valid surveys, for a response rate of 52%. When asked why their school has trouble filling teaching positions, principals from poor districts were much more likely than rural and other districts to cite more difficult working conditions as a problem.

Figure I-3
Summary of Vacant and Out-Of-Field Teaching Positions (FTE)
by Region (2004-05)

District Type	Vacant Positions		Out-of-Field Positions		Total Shortage	
	# of Positions	% of Total Positions	# of Positions	% of Total Positions	# of Positions	% of Total Positions
Southwest	24	0.7%	265	7.8%	289	8.5%
Northwest	4	0.2%	131	6.4%	135	6.6%
Northeast	72	0.4%	879	5.2%	951	5.7%
Southeast	54	0.5%	553	4.8%	607	5.2%
Statewide	154	0.5%	1,828	5.4%	1,982	5.9%

Source: LPA analysis of data provided by Kansas Department of Education.

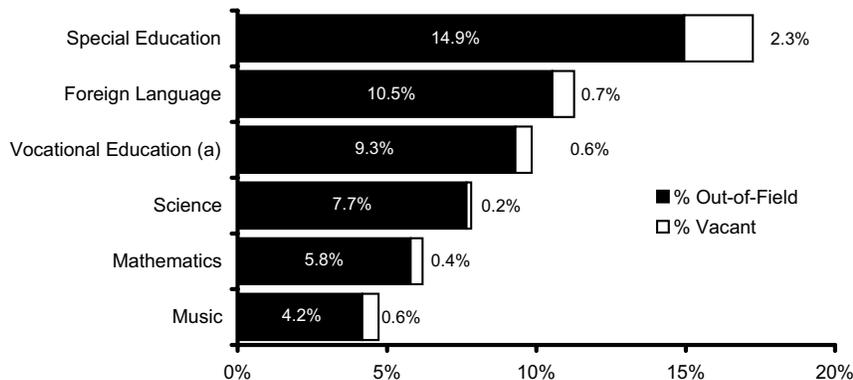
In southwest Kansas, more than 8% of all teaching positions are vacant or filled by teachers who are teaching out-of-field. To determine if the severity of teacher shortages varies in different parts of the State, we grouped all 300 districts into four regions. The results by region are shown in **Figure I-3**. As the figure shows, 8.5% of the teaching positions in the Southwest aren't filled by a fully qualified teacher, compared to the Statewide average of 5.9%.

These results are generally consistent with principals' responses to our survey. Among principals in southwest Kansas, 42% reported leaving at least one position vacant

in the last two years, which was significantly higher than principals in the Northwest (30%), Southeast (25%) and Northeast (23%) regions of the State.

Teacher shortages are worse for certain subjects such as special education and foreign languages, and for high schools. As noted in the overview, national trends indicate that teachers for some subjects are in very high demand. We analyzed teacher data for Kansas to determine which subjects were more difficult to fill than others.

Figure I-4
Summary of Vacant and Out-of-Field Teaching Positions (FTE)
by Subject (2004-05)



(a) This includes teachers assigned to teach family and consumer science, industrial arts, and vocational education.
 Source: LPA analysis of data provided by the Kansas Department of Education.

The results by subject are summarized in **Figure I-4**. The worst shortages were in special education, where more than 17% of all positions were either vacant or filled by a teacher who isn't fully qualified. Foreign language teaching positions were next with more than 11% of the positions vacant or under-filled.

These results generally are consistent with the survey responses. Principals cited special education as the most difficult subject to fill, followed

by math, science, vocational education, and foreign language.

Figure I-4 also shows that almost 15% of all special education positions are filled by teachers who aren't fully qualified. That's because a

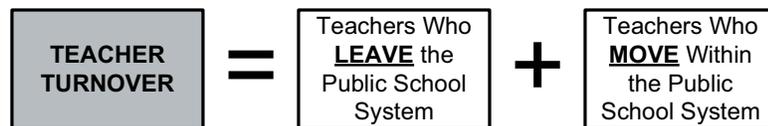
significant number of special education teachers are provisionally qualified to teach under waivers granted by the Department. Waivers allow teachers to teach a particular subject while they're in the process of becoming endorsed for that subject. In 2004-05, about 93% of all teaching waivers in Kansas were for special education teachers.

Department officials told us there are many teachers who are endorsed for special education, but choose not to teach it. This contributes to shortages in this area. To address the unmet need, officials told us many school districts encourage current teachers to become special education teachers. Those districts apply to the Department for a waiver so these teachers can begin teaching special education immediately.

In addition to looking at whether teacher shortages are worse for certain subjects, we also analyzed the data to determine whether they vary by school level. We found that in 2004-05, more than 8% of high school teaching positions are either vacant or filled by a teacher who isn't fully qualified. This is significantly higher than for elementary schools (4%) and middle schools (5%).

CHARACTERISTICS OF TEACHER TURNOVER

One of the primary causes of teacher shortages is teacher turnover, or the share of total teachers who change jobs in any given year. Total teacher turnover can be viewed as follows:



Teachers who leave the State public school system reduce the overall supply of teachers available to districts. Teachers who move within the public school system can contribute to shortages in specific districts if not enough other teachers move into those districts to satisfy the demand.

Each Year, Approximately 9% of Kansas Teachers Leave the Public School System, and Others Move Away From Disadvantaged Districts

We used the teacher assignment data from the Department and beneficiary lists from the Kansas Public Employee Retirement System (KPERs) to track teachers from one year to the next and identify those who changed schools or left the school system entirely.

About 3,000 teachers, or 9% of the total teaching force, leave the Kansas public school system each year. The Statewide turnover data for 1999-00 to 2003-04 are summarized in **Figure I-5**. As the figure shows, almost 9% of all teachers leave Kansas public schools

**Figure I-5
Statewide Teacher Turnover Information
1999-00 to 2003-04**

Year	Teachers Leaving Kansas Public Schools			Teachers Moving Between Schools	Total Turnover(a)
	Non-Retirees	Retirees	Total		
1999-00	2,444 7.3%	590 1.8%	3,034 9.1%	2,434 7.3%	5,468 16.4%
2000-01	2,583 7.6%	673 2.0%	3,257 9.6%	2,857 8.4%	6,114 18.0%
2001-02	2,356 6.9%	649 1.9%	3,005 8.9%	2,312 6.8%	5,318 15.7%
2002-03	2,083 6.2%	638 1.9%	2,721 8.1%	2,350 7.0%	5,071 15.2%
2003-04	2,061 6.2%	744 2.2%	2,806 8.4%	2,574 7.7%	5,380 16.2%
Five-Year Average	2,306 6.9%	659 2.0%	2,965 8.8%	2,506 7.5%	5,470 16.3%

(a) may not add due to rounding.

Source: LPA Analysis of data provided by the Kansas Department of Education and Kansas Public Employees Retirement System.

each year, with about 2% retiring. In addition, 7.5% of all teachers move to a different school each year, for a total annual turnover rate of about 16%, which is almost identical to the national rate discussed in the Overview.

Almost one-third of all Kansas teachers leave the public school system within their first three years of teaching. This is consistent with national trends. On the other hand, Kansas' five-year attrition rate is about 36%—significantly less than the national rate of about 50%.

Teacher attrition is worst among districts with very high poverty. To determine if turnover was worse in high-poverty districts in Kansas, we analyzed turnover data using the three district types (poverty, rural, and other).

**Figure I-6
Teacher Turnover Information
by Type of District (2003-04)**

Type of District	Teachers Leaving Kansas Public Schools			Teachers Moving Between Schools	Total Turnover
	Non-Retirees	Retirees	Total		
High Poverty	561 7.0%	234 2.9%	795 9.9%	983 12.2%	1,777 22.1%
Rural	351 5.8%	136 2.3%	487 8.1%	354 5.9%	842 13.9%
Other	1,149 6.0%	375 2.0%	1,524 8.0%	1,237 6.5%	2,761 14.4%
Overall	2,061 6.2%	744 2.2%	2,806 8.4%	2,574 7.7%	5,380 16.2%

Source: LPA Analysis of data provided by the Kansas Department of Education and Kansas Public Employees Retirement System.

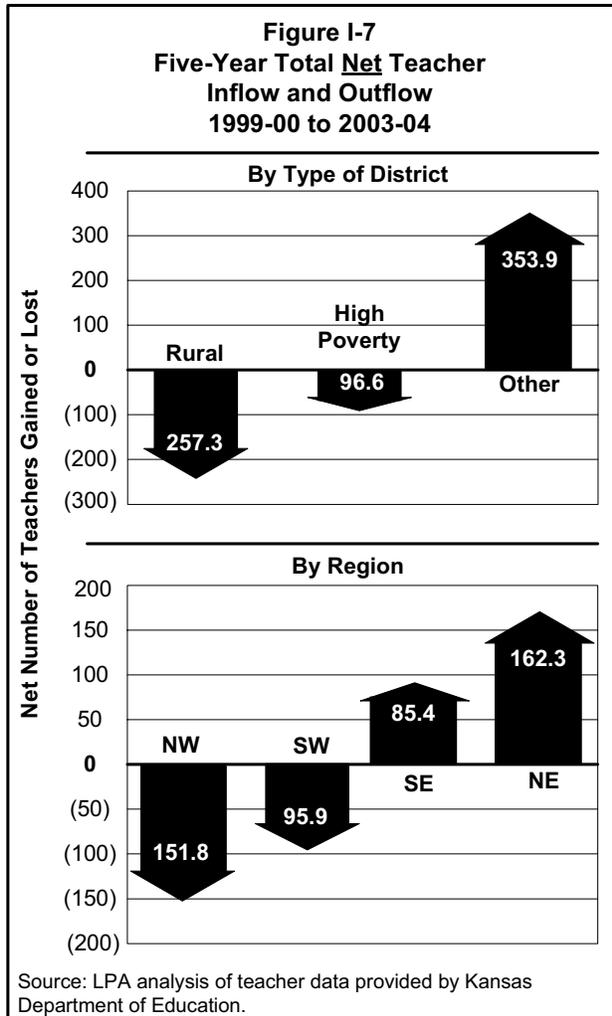
The results are shown in *Figure I-6*. High-poverty districts had the highest percent of teachers leaving the profession – nearly 10%. In addition, high-poverty districts also had the highest percent of teachers moving across schools, more than 12%, for a total turnover rate of more than 22%.

Teachers who change districts tend to move from west to east, and away from rural and high-poverty districts.

Each year about 2,500 teachers change schools. For about 850 of those teachers, this involves a change in school districts.

To better understand where teachers go when they change districts, we tracked teachers from one year to the next. The net migration (teachers moving in minus teachers moving out) of teachers into or out of different types of districts over the last five years is summarized in *Figure I-7* on the next page.

About half of all teachers who change districts move to a similar type of district. But as *Figure I-7* shows, teachers who move to a



different type of district tend to move away from rural and high-poverty districts. From 1999-00 to 2003-04, rural districts had a net loss of 257 teachers, and high-poverty districts lost 97 teachers during the same period.

Most teachers who change districts stay within the same region. However, as the figure shows, when teachers do move to a different region, they tend to move from western Kansas to eastern Kansas. From 1999-00 to 2003-04, the net migration from northwest and southwest Kansas to eastern Kansas was about 250 teachers. Northwest Kansas had the greatest net loss (minus 152 teachers), while northeast Kansas had the greatest net gain (plus 162 teachers).

Other than retirement, principals most frequently cited non-work-related factors as reasons for why teachers move or leave.

We asked principals for their perceptions as to why teachers move to a different school or leave the profession altogether. The most frequently cited reason why teachers leave the profession was retirement. Non-work related issues, such as spousal relocation or a desire to live in a different community ranked

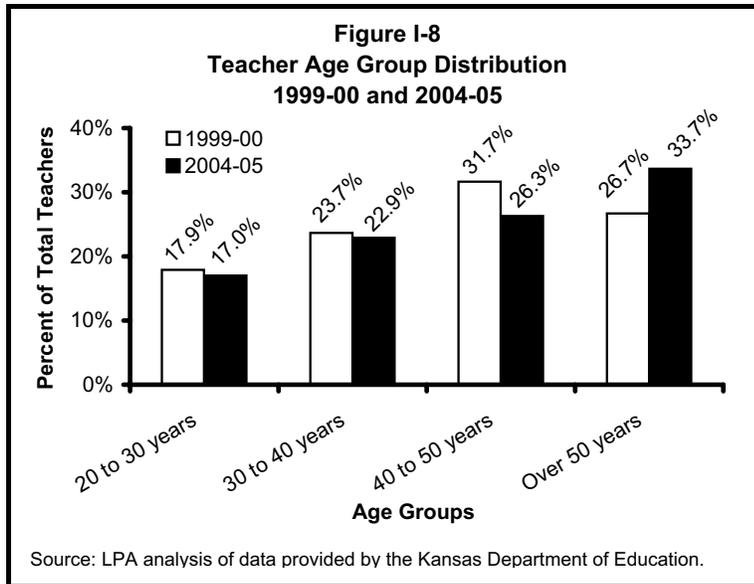
second. Non-work issues were most often cited as the reason why teachers move to a different school.

TRENDS IN THE AVAILABILITY OF TEACHERS

The previous sections discussed the extent to which there are teacher shortages, and the teacher turnover that may contribute to them. This section looks at trends in the number of teachers who will become eligible for retirement and in the number of potential new teachers in Kansas.

The Number of Teachers Who Will Be Eligible for Retirement Will Increase in the Near Future

As is the case with most professions, the teaching force in Kansas is aging as members of the baby boom generation near retirement. We analyzed the teacher data to determine how this new wave of retirements might affect teacher shortages in future years.



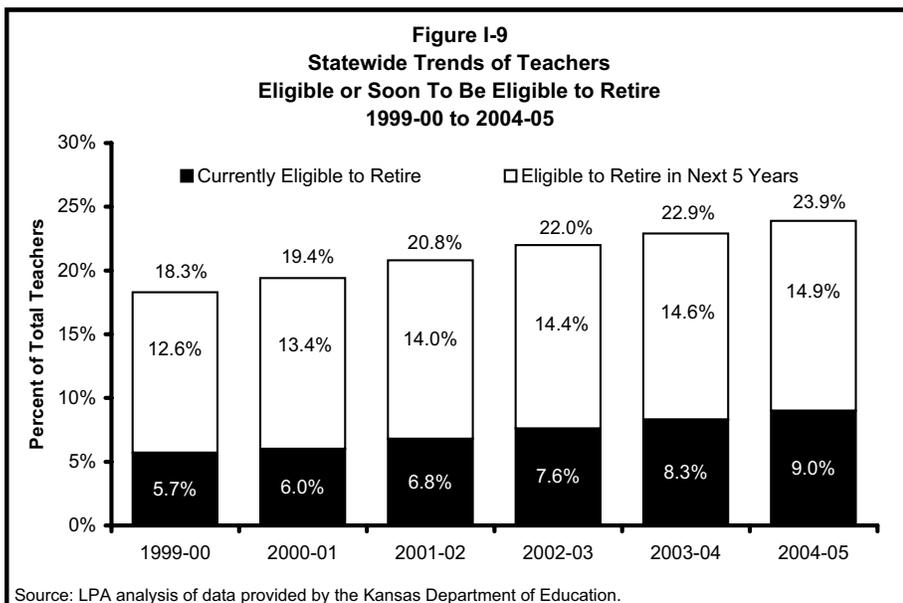
The share of teachers over 50 years of age increased from 27% in 1999-00 to 34% in 2004-05. Using data from the Department of Education, we grouped teachers in Kansas school districts into four separate age groups, and calculated the share of the teaching population that fell into each group. *Figure I-8* compares the age distribution of teachers in 2004-05 to the distribution in 1999-00.

As the figure shows, the share of teachers who are over 50 years of age has grown significantly, while the other age groups declined. In 2004-05, about

one in three teachers was over the age of 50, compared with just one in four in 1999-00.

Almost 24% of all teachers will be eligible to retire in the next five years. Kansas teachers are part of the Kansas Public Employee Retirement System and generally can retire with full benefits when their combined age and years of experience reaches 85 retirement points. Using the teacher data containing age and experience, we calculated the number of retirement points teachers had earned to estimate the future impact of teachers retiring.

The results of this analysis for each of the past six years are summarized in *Figure I-9*. In 2004-05, 9% of all teachers had accumulated 85 or more points and were already eligible to retire.



Almost 15% of all teachers had between 75 and 85 points, and will be eligible to retire within the next five years. These two groups have steadily increased over the past six years from 18% in 1999-00 to 24% in 2004-05.

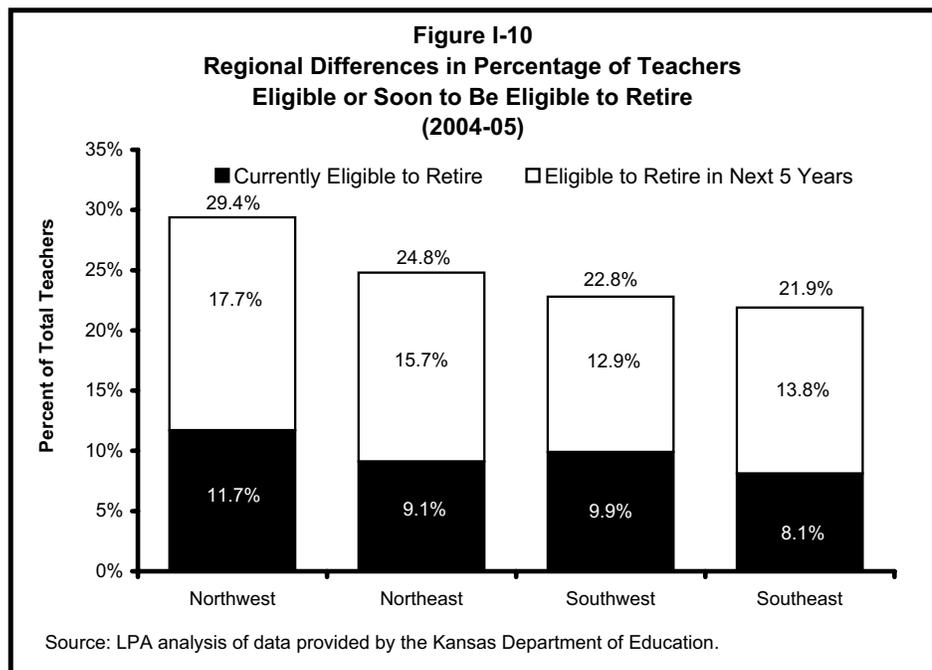
The reader should be aware of some important limitations to this analysis. First, many districts have established early retirement incentive programs to help reduce staffing levels or reward teachers for years of service. We weren't able to factor in how

many teachers might take advantage of these programs and assess the impact on future retirements.

Also, in calculating the number of retirement points a teacher had earned, we had to use the years of teaching experience reported to the Department of Education. If, for example, a teacher worked as a State employee prior to becoming a teacher, only the teaching experience would have been counted in the analysis.

Northwest Kansas has the highest share of teachers who are or will be eligible for retirement in the next few years, which is likely to worsen the current teaching shortages in that region. As described earlier, the severity of teacher shortages varies in different parts of the State. We analyzed whether the number of teachers who will soon be eligible to retire also varies in different parts of the State.

The results are shown in *Figure I-10*. As the figure shows, 29.4% of the teachers in northwest Kansas will be eligible to retire in the next five years—the highest for any region in the State.



The Number of Potential New Teachers Hasn't Increased Significantly Over the Last Six Years

The supply of new teachers comes from four areas:

- New college graduates who major in education
- Mid-career professionals who become teachers
- Current teachers from other states or private schools
- Former teachers who return to the profession

We weren't able to evaluate how many teachers are available from each of these sources. For example, it's difficult to know how many teachers in other states are likely to move to Kansas. However, we were able to assess the number of new education graduates who come from Kansas universities, and indirectly measure the supply of new teachers by looking at the number of new teaching licenses granted by the Department of Education each year.

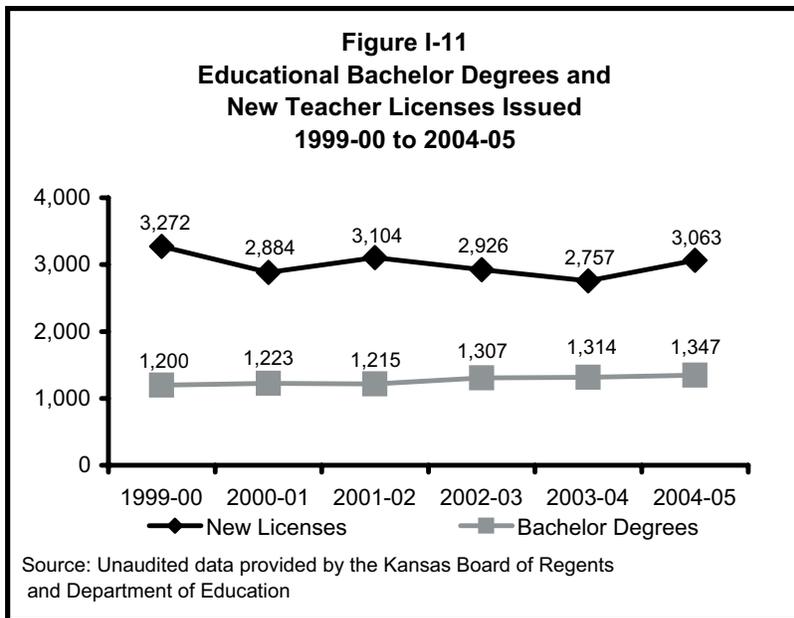
The number of students earning bachelor's degrees in education has increased slightly over the past six years. Data from the Kansas Board of Regents indicates that the number of education bachelor degrees awarded by the six State universities increased from 1,200 to 1,347 over the past six years, as shown in *Figure I-11*. This increase is due in large part to an increase of elementary teacher education majors (from 656 to 792); all other majors remained relatively steady.

Students also earn education degrees from the State's private colleges. According to officials from the Kansas Independent College Association, about 430 students received a bachelor's degree in education from 15 private colleges between July 1, 2004 and June 30, 2005. Information for previous years wasn't available from the Association.

Survey data from four State universities (Kansas University, Kansas State University, Emporia State University, and Wichita

State University) over the past five years shows that about 16% of education graduates leave the State. Education professionals told us that many graduates who leave are originally from another state.

The Department of Education issued about 3,000 new teaching licenses each of the last six years. As *Figure I-11* shows, the new licenses issued varies by year, and shows no significant trend over time.



Because of the large amount of data presented in this question, *Figure I-12* provides a summary of the major findings concerning teacher shortages, turnover, age, retirement, and supply.

Figure I-12 Summary of Kansas Teacher Shortages, Turnover, and Supply (1999-00 and 2004-05)		
	School Year	
	1999-00	2004-05
TEACHER SHORTAGES		
Vacancies	186 0.6%	154 0.5%
Teaching a Class They're Not Fully Qualified to Teach (Out-of-Field)	1,508 4.5%	1,828 5.4%
Fully Licensed	31,934 95.0%	31,837 94.1%
TEACHER TURNOVER (a)		
Teachers Leaving Kansas Schools	3,034 9.1%	2,806 8.4%
Non-Retirees	2,444 7.3%	2,061 6.2%
Retirees	590 1.8%	744 2.2%
Teachers Moving Between Kansas Schools	2,434 7.3%	2,574 7.7%
Total Turnover	5,468 16.4%	5,380 16.2%
TEACHER AGE AND RETIREMENT		
Percent of Teachers Over the Age of 50	26.7%	33.7%
Percent of Teachers Eligible or Soon To Be Eligible To Retire	18.3%	23.9%
TEACHER SUPPLY		
Educational Bachelor Degrees Awarded	1,200	1,347
New Teacher Licenses Issued	3,272	3,063
(a) Data on teacher turnover are from 1999-00 and 2003-04. Source: LPA summary of findings		

CONCLUSION

In Kansas, almost 6% of all teaching positions currently are vacant or filled by an unqualified teacher. This situation has remained relatively stable, because there haven't been significant changes in the number of teaching positions, teacher turnover, or teacher supply over the last six years. That situation is likely to change in the near future, as the teaching force continues to age and the number of teachers who are eligible to retire continues to grow.

Unless the State is better able to attract new teachers or retain current teachers, the pending growth in retirement is likely to exacerbate the current teacher shortage, especially in those regions of the State that already are struggling to fill positions with qualified teachers.

Question 2: How Do Kansas Teacher Salaries Compare With Other States, and What Does the Research Literature Show About the Relationship Between Statewide Salary Levels and Student Outcomes?

ANSWER IN BRIEF:

Once differences in regional costs are taken into account, average salaries for all teachers in Kansas ranked 33rd nationally in 2004-05. Salaries for beginning teachers in Kansas rank 6th nationally, but salaries for experienced teachers in Kansas ranked only about 36th. In 2004-05, Kansas' teacher salaries ranked in the middle of 10 states that were identified by education professionals as our competitors. Compared to similar professions, teachers' annual salaries are very low, but their hourly pay is comparable. Finally, researchers have found a positive relationship between teacher salaries and retention, but generally not between teacher salaries and student performance. These and related findings are discussed in the sections that follow.

In 2004-05, Kansas' Teacher Salaries Ranked 33rd Nationally After Adjusting for Regional Cost Differences

Several national organizations—such as the American Federation of Teachers, the National Center for Education Statistics, and the National Education Association—compile teacher salary information from state education departments and publish national rankings of teacher salaries. Over the last few years, Kansas' average salary for K-12 teachers generally has ranked about 40th in the nation. The National Education Association's 2004-05 rankings—the most recent rankings available—show Kansas at 42nd in the nation, with an average salary of \$39,190.

Because of reliability issues with salary data, these rankings should be interpreted as approximate indicators of how states compare to one another, not as absolute values. Here's why:

- States don't all report teacher salaries the same way. Some states report only base teacher salaries, while others may include additional bonuses or benefits. For example, Kansas includes supplemental pay for additional duties such as coaching and summer school in its salary figures, and Oregon includes the employer's contribution to the teachers' retirement system.
- Teacher salaries may vary within a state. State-to-state comparisons of teacher salaries rely on a single salary figure to represent the entire state. In reality, teacher salaries may vary significantly across different parts of a state, but this variation isn't captured in the state-level salary figures.
- The cost of labor varies significantly across states. For example, because the cost of labor in Connecticut is 26% higher than the cost of labor in Kansas, we would expect Connecticut teachers

to be paid significantly more. Comparing teacher salaries across these two states without making adjustments for the differences in cost of labor almost ensures that Kansas salaries will rank lower than those in Connecticut.

After making adjustments for regional differences in overall wages, Kansas’ average teacher salaries ranked 33rd in the nation in 2004-05. In order to make state-level salary figures more comparable, we adjusted them to account for regional cost differences, using a “comparable wage index” recently published by the National Center for Education Statistics.

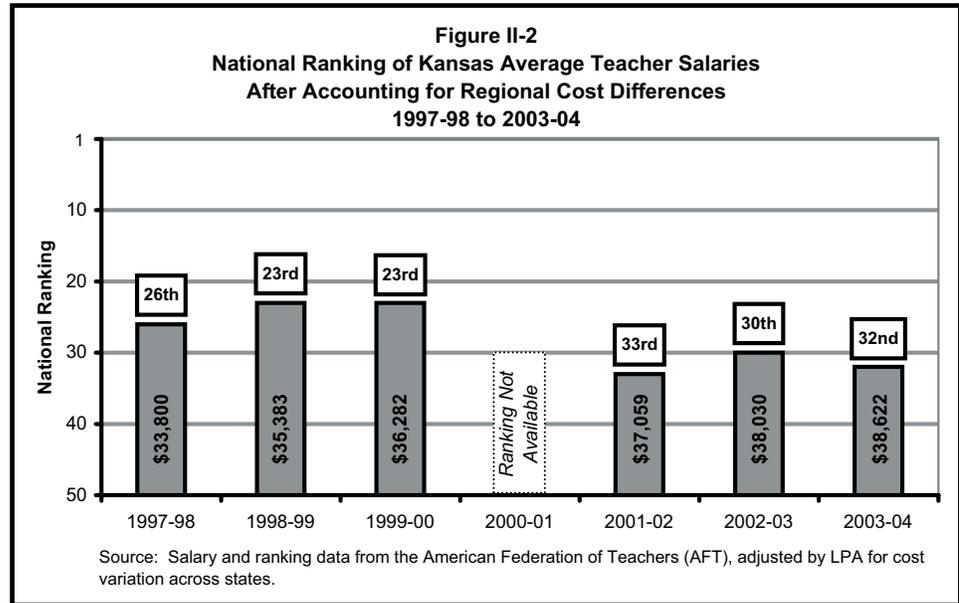
This index was based on seven years of wage data for about 450 different occupations (excluding teaching). It reflects the fact that workers in most occupations earn higher wages if they live in high-cost-of-living areas or in communities with very few amenities. The adjustment factors we used for all 50 states and the District of Columbia are shown in *Appendix D*.

Figure II-1 shows how Kansas’ adjusted salaries compare with other states as compiled by various national organizations. A complete list of the average teacher salaries and national rankings for all states in 2004-05 (before and after adjusting for regional cost differences) is included in *Appendix E*.

Figure II-1 National Ranking of Kansas Average Teacher Salaries After Accounting for Regional Cost Differences			
Year	National Center for Education Statistics (NCES)	National Education Association (NEA)	American Federation of Teachers (AFT)
	Salary (Rank)		
2000-01	\$37,341 (29)	n/a	n/a
2001-02	\$37,910 (32)	\$37,093 (32)	\$37,059 (33)
2002-03	\$38,123 (31)	\$37,795 (35)	\$38,030 (30)
2003-04	n/a	\$38,623 (34)	\$38,622 (32)
2004-05	n/a	\$39,190 (33)	n/a

Source: Salary and rank data from NCES, NEA, and AFT, adjusted by LPA for cost variation across states.
Note: NCES salaries adjusted for inflation, NEA and AFT not adjusted for inflation.

Kansas’ average teacher salary rank peaked at 23rd in 1998-99 and 1999-00, but fell to 32nd by 2003-04. *Figure II-2* shows the changes in Kansas average teacher salary and its national ranking over the last eight years. As the figure shows, Kansas’ ranking has remained stable over the last three years, but a substantial decline occurred by 2001-02.



Kansas' rank declined because its teacher salaries didn't grow as quickly as salaries in other states. The average state increased teacher salaries by 6.5% from 1999-00 to 2001-02; Kansas' average salaries increased by 2.1% during the same timeframe. This may have been due to slow growth in State funding for education, as base funding per student grew by only 2.7% during this time period.

Kansas' teacher salary ranking may improve in future years as a result of the significant funding increases passed by the Legislature during the 2005 and 2006 sessions.

Kansas' Starting Salaries Rank 6th Nationally, But Salaries for Experienced Teachers Rank Only About 36th

Salary is one factor involved in attracting and retaining teachers. Salaries for beginning teachers may reflect the competitiveness of Kansas in attracting new teachers, while salaries for experienced teachers may reflect the State's competitiveness in retaining current teachers.

Figure II-3
Kansas Teacher Salary Ranking For New and Experienced Teachers
(1999-00)

Education & Experience	Salary (Rank)
Teachers with No Experience	
Bachelor's degree	\$25,102 (6)
Master's degree	\$27,307 (6)
Master's degree +30 college credit hours	\$28,828 (10)
Experienced Teachers	
Master's degree w/ 20 years experience	\$36,186 (36)
Highest Step on Salary Schedule	\$41,194 (37)

Source: Salary and ranking data from NCES, adjusted by LPA for cost variation across states.

Figure II-3 shows the average Kansas teacher salary based on education level and experience. As the figure shows, Kansas' average salary for new teachers ranks in the top 10, but falls to about 36th for experienced teachers. This may indicate that the long-term earning potential for teachers is limited.

Kansas' Average Teacher Salary Ranked in the Middle of 10 Competing States in 2004-05

Officials from the Department of Education, State universities, and various education interest groups identified a total of 10 neighboring, large, or rapidly-growing states, to which Kansas is most likely to lose teachers. **Figure II-4** shows that Kansas ranks 6th in average teacher salaries compared to the 10 competing states, after adjusting them for regional cost differences.

Figure II-4 Comparison of Adjusted Average Teacher Salaries Between Kansas and 10 Competitor States (2004-05)	
State	Average Teacher Salary
California	\$45,315
Iowa	\$41,165
Nebraska	\$40,693
Colorado	\$40,383
Arizona	\$39,744
KANSAS	\$39,190
Florida	\$38,556
Nevada	\$37,288
Oklahoma	\$37,098
Missouri	\$37,064
Texas	\$34,511
<small>Source: Salary data from NEA, adjusted by LPA for cost variation across states.</small>	

Because average teacher salaries varied so significantly between these states—even after regional cost adjustments—we looked to see whether demographic differences in the workforce were driving these variations. However, our review of average teacher age, education level, and experience in each of our 10 competing states didn't identify any clear patterns that could help explain the variations.

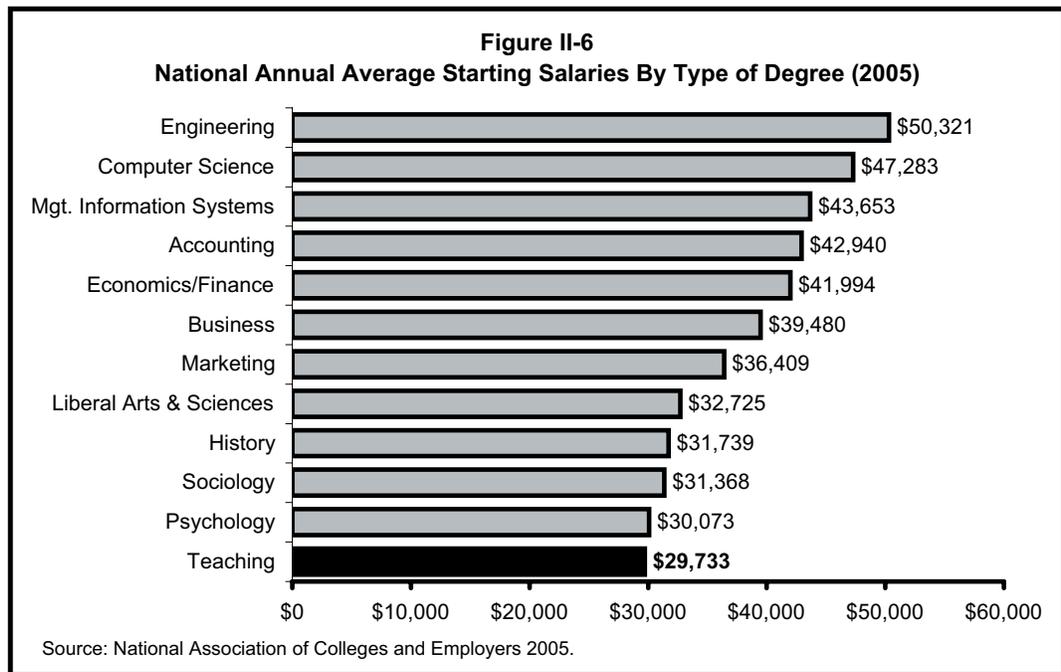
Figure II-5 Comparison of Adjusted Teacher Salaries Between Select Cities in Kansas, Missouri, and Texas (2004)	
City	Average Teacher Salary
Houston	\$50,062
San Antonio	\$47,329
Dallas	\$46,537
St. Louis (MO/IL)	\$44,650
Austin	\$42,436
WICHITA	\$41,215
KANSAS CITY (MO/KS)	\$41,060
<small>Source: U.S. Bureau of Labor Statistics' Metropolitan Area Occupational Employment and Wage Estimates report (2004), adjusted by LPA for regional cost variation.</small>	

Because of the substantial variation in teacher salaries within states, however, these state-level salary rankings should be interpreted with caution. For example, **Figure II-5** shows that teacher salaries in the large metropolitan areas of bottom-ranked Texas and Missouri were significantly higher than salaries in Wichita and Kansas City.

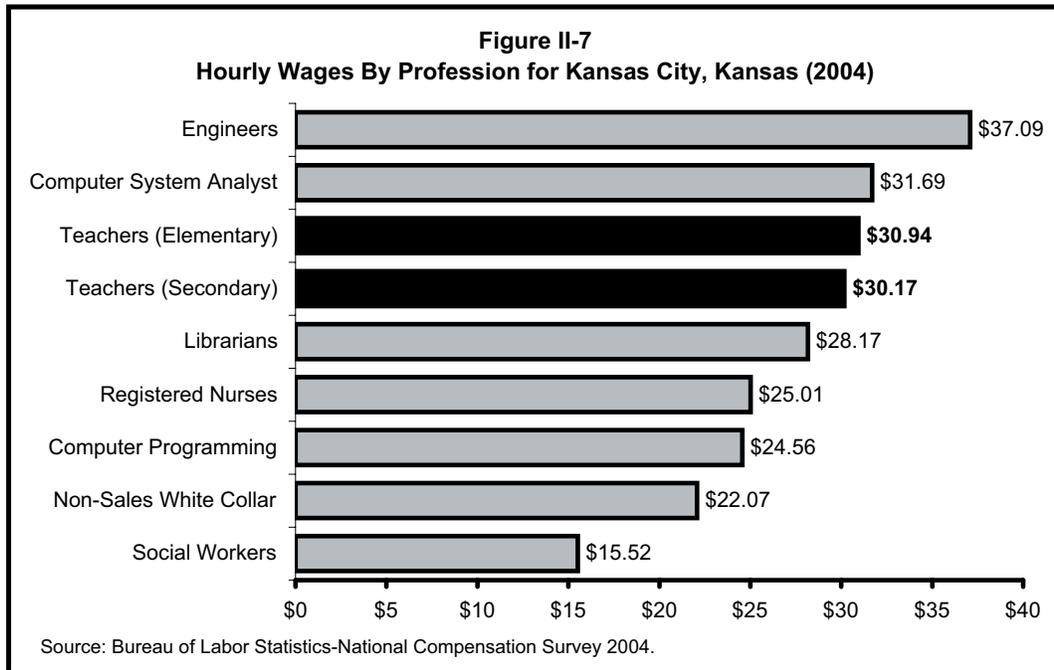
Annual Salaries for Teachers Are Low Compared to Similar Professions, but Their Hourly Pay Is Comparable

Making meaningful comparisons between teacher salaries and salaries in other professions can be difficult. On the one hand, comparing annual earnings understates teachers' compensation because it doesn't take into account that most teachers work about 9-10 months each year. On the other hand, comparing hourly earnings can be deceiving because it may imply that teachers are earning income at this rate throughout the entire year (even when school is out of session). The following comparisons should be viewed in light of these limitations.

Nationally, the annual salary for new teaching graduates is the lowest among 12 types of bachelor degrees. This information is summarized in *Figure II-6*. When comparing salaries among professions, Department of Education officials told us it's important to keep in mind that teachers work many extra hours to do such things as grade tests, hold parent-teacher conferences, and help with extracurricular activities. That may be true, but we think a similar argument can be made for individuals in most professional careers.



In the Kansas City area, teachers' hourly wages are competitive with professions that have similar education requirements. We considered professions to be similar to teaching if they required a four- to five-year bachelors degree, as teaching does. *Figure II-7* on the next page shows the Bureau of Labor Statistics' hourly wage rate for nine similar professions. As the figure shows, teachers earn about \$30 an hour, a respectable wage among similar professions.



Researchers Have Found a Positive Relationship Between Salaries and Retention, But Not Between Salaries and Student Performance

One reason for studying teacher salary levels is to ensure that they are sufficient to attract and retain enough quality teachers to meet the State’s education needs. In addition, because of the increasing importance placed on student outcomes, many are interested in knowing whether teacher salaries affect those outcomes.

Researchers have found a positive relationship between teacher salaries and teacher retention. Salary levels presumably affect retention because individuals will stay in a particular job if they’re paid enough. We reviewed one research summary and two additional studies dealing with the relationship between salaries and retention or attrition to determine if there’s empirical support for this assumption. The research summary, as well as one of the studies, found that salaries have an influence on teacher retention, while one study found no relationship. These findings are summarized in **Figure II-8**.

This research shows a generally positive relationship between salaries and retention. However, the authors acknowledge that their overall findings should be interpreted with caution. Here’s why:

- Allen’s research summary found strong support for a relationship between salary and retention, but also found moderate evidence that working conditions are more important than salary in retaining teachers.
- Imazeki’s study found that higher salaries reduce the overall number of teachers that leave teaching (attrition), but it could take wage increases of more than 15-20% to reduce attrition in urban districts to levels of average districts.

Figure II-8 Relationship Between Salaries and Teacher Retention			
Study	Description	Relationship	Conclusion
Research Summary			
Allen (2005)	Review of 28 studies examining the relationship between teacher salaries and recruitment and retention.	Positive	Strong support for the conclusion that compensation plays a role in the recruitment and retention of teachers. Moderate support for the notion that relative salary between districts is more important than absolute salary.
Studies			
Imazeki (2005)	Examines the relationship between teacher salaries and teacher attrition, both exits and transfers.	Positive	Higher salaries for more experienced teachers reduces attrition. Increasing salary levels reduces the number of teachers <u>leaving</u> the profession, but not the number of teachers <u>moving between</u> school districts.
Scafidi, Sjoquist, and Stinebrickner (2003)	Georgia-based study of the relationship between teacher salaries and attrition because of higher salaries in other occupations.	No Relationship	No evidence of an important relationship between teacher pay and attrition. Few teachers took a non-education job in Georgia that paid more than the state's minimum teaching salary.
Source: LPA summary of research. See Appendix F for complete bibliography.			

- While Scafidi's study between salaries and retention found no relationship, the authors state that across-the-board pay raises may not be an effective method of retaining teachers.

Researchers haven't found a positive relationship between teacher salaries and student performance. The emphasis placed on student outcomes by the State's accreditation standards and the federal No Child Left Behind Act makes any potential relationship between teacher salaries and student performance even more important. However, the relationship between teacher salaries and student performance isn't a simple one, and it's unlikely that raising salaries will directly improve performance.

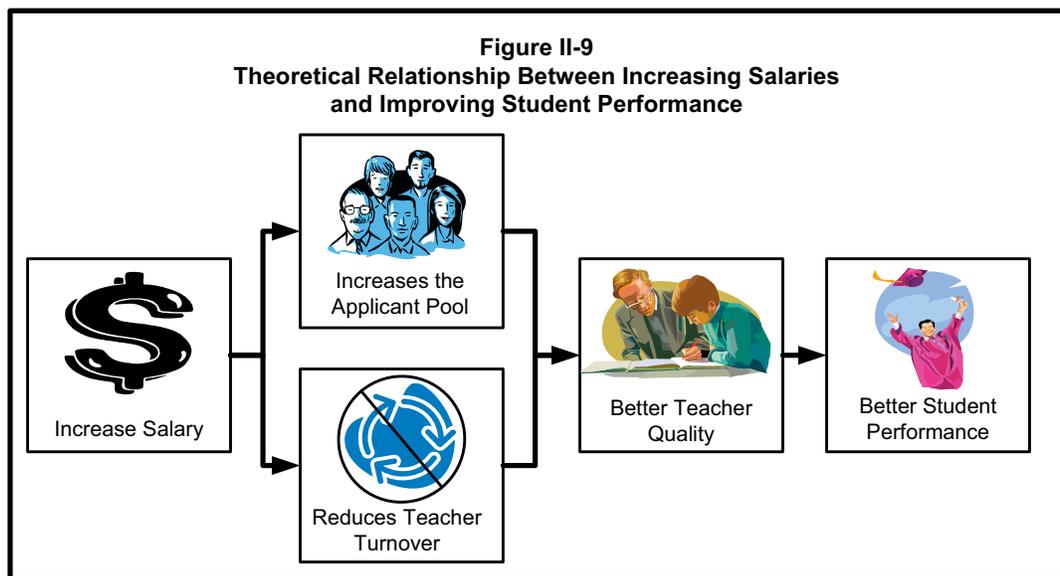
Rather, some researchers think increasing teacher salaries may indirectly improve performance by helping schools attract and retain better teachers. This relationship is summarized in *Figure II-9* on the next page.

In addition to the complexity of the basic relationship between teacher salaries and student performance, researchers have identified other problems that make this a difficult relationship to study:

- It's difficult to measure the quality of a teacher. To study the hypothesis that higher salaries increase teacher quality, which in turn affects student performance, it's essential to be able to identify high-quality teachers. However, teaching assessment scores and college

grades— often used as measures of teacher quality— are indirect and generally poor indicators of a teacher’s ability.

- Most schools don’t pay teachers based upon ability. Because most teacher pay scales are based on education and experience instead of teacher effectiveness, it’s difficult for researchers to detect a relationship between teacher pay and teacher quality.
- Schools don’t always hire the best teachers at the most efficient salaries. Because of tenure arrangements, the teacher labor market isn’t as fluid as other professional markets and may not respond as quickly to salary changes.
- Teaching bonuses and other compensation for difficult working conditions cloud the data. In some instances, teachers are paid more to work in “hard-to-fill” schools, which makes it difficult to separate the increase in salary to fill the position from increases to attract better quality teachers.



We reviewed three research summaries and two additional studies that examined the relationship between teacher salaries and either student performance or teacher quality. Only one of the studies (Page and Loeb, 2000) found a strong relationship between increasing teacher salaries and improving student outcomes, while the research summaries and the other study found a weak or no relationship. These findings are summarized in *Figure II-10*.

In assessing the relationship between teacher salaries and teacher quality, one researcher pointed out that across-the-board salary increases would encourage both good and bad teachers to remain in the profession. Additionally, researchers in two of the studies concluded that targeted salary increases might be a more effective policy decision rather than across-the-board salary increases.

Figure II-10 Relationship Between Teacher Salaries and Student Performance			
Study	Description	Relationship	Conclusion
Research Summaries			
Greenwald, Hedges, and Laine (1994)	Statistical analysis of the results of 38 studies that examined the relationship between teacher salaries and student performance.	Weak Positive	The effects of teacher salary on student performance are generally positive, but their magnitude is too small to be of practical importance.
Hanushek (2003)	Review of 89 publications that contain 118 estimates of the relationship of teacher salary and student performance.	No Relationship	Of the 118 estimates studied, 73 were statistically insignificant, while 20 had a statistically significant positive relationship, and 7 had a statistically significant negative relationship between teacher salaries and student performance.
Allen (2005)	Review of seven studies examining the relationship between teacher compensation and quality of teachers.	Inconclusive	Research is inconclusive regarding whether financial incentives have any impact on teacher quality.
Studies			
Page and Loeb (2000)	Longitudinal study on 30 years of state-based census data examining the relationship between teacher salaries and student dropout rates.	Positive	Raising teacher wages by 10% would reduce drop out rates by 3%-6%.
Hanushek, Kain and Rivkin (1999)	Study of how changes in teacher salary schedules affect the make-up of the teacher workforce, and how salaries impact teacher mobility and student performance.	No Relationship	Research found no consistent relationships between salaries and student outcomes.
Source: LPA summary of research. See Appendix F for complete bibliography.			

CONCLUSION

Kansas ranks very low in national comparisons of teacher salaries. Even after adjusting for regional differences in labor costs, Kansas teacher salaries still rank in the bottom half of all states. For many people, the State's low ranking may raise concerns that teacher salaries in Kansas aren't adequate to attract and retain enough quality teachers, and in the end this may hurt student performance. It's reasonable to think that salary levels play a key role in attracting and retaining teachers, and there's fairly strong evidence that increasing teacher salaries will improve teacher retention. However, because there's no clear evidence linking teacher salaries to student achievement, across-the-board salary increases are unlikely to be an efficient means of improving performance.

Question 3: What Are the Best Practices for Attracting, Developing, and Retaining High-Quality Teachers and School Principals In Different Types of School Districts?

ANSWER IN BRIEF:

According to the education literature, best practices for attracting teachers include improving compensation, increasing recruitment efforts, and reducing barriers to becoming a teacher. For teacher retention, establishing mentoring programs was the most often discussed strategy. Other best practices for retaining teachers include developing teacher preparation and transition programs, improving working conditions, and increasing pay for some teachers. To develop teachers, best practices include dedicating adequate resources to training that is specifically targeted to teachers' needs.

To attract principals, a variety of recruitment strategies and financial incentives, as well as developing alternative paths to principalship, can be used. Finally, to develop principals, best practices suggest providing practical training that incorporates current research and offers opportunities for peer support and coaching. These and related findings are discussed in the sections that follow.

To determine best practices for attracting, retaining, and developing teachers and principals, we reviewed a large body of literature and compiled specific strategies for each area. This review included the Standard & Poor's report on the State's "blue ribbon" schools. These strategies are useful for all districts; however, we've identified strategies that are particularly useful for isolated rural or high-poverty urban districts.

Each strategy is categorized as best implemented at the State level or at the district level. To find out whether Kansas already has implemented any of the State-level strategies, we interviewed officials at the Kansas Department of Education and Kansas Public Employees Retirement System. We didn't try to identify whether school districts had implemented district-level strategies. Throughout this question, the information is laid out in several figures.

Typically, best practices are defined as those things already determined to be effective. However, few of the strategies discussed in the literature had empirical evidence supporting them. Most are based on what states and districts currently are doing, though a few ideas have data or anecdotal evidence indicating the strategy appears to be successful. Lastly, it should be noted that several strategies were mentioned as useful in several areas. For example, a strategy that is useful for attracting teachers may also be useful for retaining teachers. Therefore, there may be some overlap in the figures presented here.

***To Attract Teachers,
Best Practices
Include Improving
Compensation,
Increasing Recruitment
Efforts, and Reducing
Barriers Into the
Profession***

Four overarching best practices for attracting teachers emerged from our review as follows:

- Improve salary and benefits by raising beginning salaries and restructuring salary schedules to include merit-, market-, or education-based pay components. Other strategies include paying for health insurance and increasing retirement benefits.
- Offer or improve other financial incentives, such as providing signing bonuses, tax credits, on-site day care, or housing aid.
- Use innovative recruitment strategies, such as implementing “grow-your-own” teacher programs, partnering with universities, and aggressively marketing the teaching profession. The box below describes grow-your-own programs in more detail.
- Reduce barriers to becoming a teacher by streamlining the hiring process and allowing alternative licensing options.

Figure III-1, starting on the next page, provides more details within these four areas.

In addition to these four main best practices, another best practice for attracting teachers involves improving working conditions. However, because this practice also helps with teacher retention, it’s discussed in the next section.

“Grow-Your-Own” Programs Help Attract Teachers Close To Home

School districts that are located in high-poverty and rural areas often have difficulties finding teachers. Such districts often spend scarce resources training new teachers, only to lose them to a more attractive district.

Research shows that teachers prefer to teach close to where they grew up, prompting many districts to implement “grow-your-own” teacher programs. These programs encourage high school students, community members, and non-teaching school personnel from the area to pursue a teaching career. As part of the program, the school district may offer prospective teachers financial assistance if they commit to teaching a certain number of years in the district.

One example is the Paraprofessional Teacher Training program in California. In 1995, California established a “grow-your-own” program to help paraprofessionals in hard-to-fill schools become teachers. California expanded the program in 1999, and allocated about \$6.6 million in recent school years to provide grants for districts or consortia to pay for tuition, fees, and books on behalf of prospective teachers. More than 1,000 program participants have graduated since the program’s inception in 1995.

Some districts also have used “grow-your-own” programs to attract administrators as well. For example, through a program in Portland, Oregon, district officials identify potential principals among the district’s teaching staff. These prospective administrators are trained in the district’s operations, priorities, and culture, and participate in internships and a mentoring program. Within three years of the program’s inception, 21 teachers had moved into administrative positions, or were in the process of doing so.

**Figure III-1
Best Practices for Attracting Teachers**

Category	Best Implemented at What Level?	Specific Strategies	Especially Useful For?	
			Rural	High-Poverty
IMPROVE SALARY AND BENEFITS				
Restructure Salary Schedules (See box on page 31)	District	A. Create a <i>merit-based</i> pay component that rewards teachers whose students perform better.		
	District	B. Create a <i>skills-based</i> pay component that rewards teachers for attaining knowledge and skills that are shown to contribute to student learning. This could include bonuses for attending additional professional development, receiving National Board Certification, or attaining an advanced degree.		
	District	C. Increase beginning salaries to be more competitive with other professions.		
	State	D. Create a <i>market-based</i> pay component to pay higher salaries for teachers who teach in <u>hard-to-fill districts</u> or <u>difficult-to-staff subjects</u> . Note: The difficult-to-staff subject bonuses are best implemented at the district level <i>Is the State doing this?</i> NO	X	X
Improve Benefits	District	E. Pay for health insurance.		
	State	F. Make retirement benefits more attractive by: <ol style="list-style-type: none"> 1. Offering employer-matched contributions to retirement accounts similar to a 401(k). 2. Lifting restrictions on retirement earnings to entice retired teachers back into the classroom. 3. Providing retirement credits for years taught. 4. Converting sick leave into retirement credits. <i>Is the State doing this?</i> <ol style="list-style-type: none"> 1. NO 2. YES - Teachers can teach and collect retirement if they teach at a different district than they retired from. However, starting July 1, 2006, school districts that employ retirees from another district must pay 13.75% of the employee's salary to KPERS. Teachers going back to the district they retired from are restricted to \$20,000 in annual earnings before retirement benefits are reduced. 3. YES - Teachers are part of KPERS, and collect retirement points based on age and years of service. Unlike State employees, teachers become members immediately (State employees wait a year). 4. NO - Only teachers who were employed before July 1, 1993, can use sick leave as part of their salary computation in determining benefits. 		

**Figure III-1
Best Practices for Attracting Teachers**

Category	Best Implemented at What Level?	Specific Strategies	Especially Useful For?	
			Rural	High-Poverty
PROVIDE OTHER FINANCIAL INCENTIVES				
Bonuses <small>(See box on page 32)</small>	District	G. Provide signing and/or annual bonuses to entice teachers to hard-to-fill districts or difficult-to-staff subjects.	X	X
Education Incentives	State	H. Create scholarships or loan forgiveness programs to attract more students into the teaching profession or to attract teachers into a particular district or subject. <i>Is the State doing this? YES</i> - Recipients of the <i>Kansas Teacher Service Scholarship</i> are awarded a \$5,000 scholarship for every year they agree to teach a difficult-to-fill subject area or in a hard-to-fill geographic area. In 2004-05, 89 students received this scholarship. Recipients of the <i>Math & Science Teacher Service Scholarship</i> are awarded \$5,000 for every two years they agree to teach math or science. Recipients of the <i>Kansas Special Education Teacher Service Scholarship</i> are awarded \$3,000 per semester for a one-year program that leads to a special education endorsement. In exchange, they must agree to teach special education in a Kansas public or accredited private school for three years. In addition, education students can apply for federal scholarships or loan programs that are in place for teaching in a low-income or subject matter shortage area.	X	X
Other Financial Perks	District	I. Provide housing aid such as moving costs, down payments, or free rent.	X	X
	District	J. Provide on-site or subsidized day care.		
	State	K. Provide income tax credits to encourage teachers to teach in hard-to-fill districts. <i>Is the State doing this? NO</i>	X	X

**Figure III-1
Best Practices for Attracting Teachers**

Category	Best Implemented at What Level?	Specific Strategies	Especially Useful For?	
			Rural	High-Poverty
USE INNOVATIVE RECRUITMENT STRATEGIES				
Marketing	District	L. Create special recruitment staff or teams within the district to recruit teachers.		
	District	M. Attend college job fairs.		
	State	N. Provide State grants for low-performing districts to improve recruitment efforts. <i>Is the State doing this? NO</i>		X
	State	O. Create a recruitment team at the <u>State</u> level to assist districts with recruitment issues and to encourage students to enter the teaching profession. <i>Is the State doing this? NO</i> - Department of Education officials haven't formally asked for such staff but indicated it was needed.	X	X
Partnering with Universities	District	P. Establish a partnership with a university to: 1. Encourage district students to become education majors at the university and allow allow university students to student-teach in the district. 2. Provide grants for teacher trainees to work in the classroom while they earn their teacher credentials. 3. Encourage the university to offer course work that emphasizes rural or urban issues.	X	X
"Grow-Your-Own" Programs (See box on page 27)	District	Q. Provide financial and other support to non-teaching staff or individuals within the community to become teachers, or to train current teachers in additional subjects.	X	X

**Figure III-1
Best Practices for Attracting Teachers**

Category	Best Implemented at What Level?	Specific Strategies	Especially Useful For?	
			Rural	High-Poverty
REDUCE BARRIERS TO ENTRY				
Speed Up Hiring Process	District	R. Streamline hiring procedures, using technology for faster determination such as online applications, telephone interviews, etc.		
	State	S. Ensure budget is known early enough to allow timely hiring. <i>Is the State doing this? NOT UNTIL RECENTLY</i> - Under the new three-year school finance plan districts should be able to better anticipate how much funding they will have, which will aid hiring decisions.		
Reduce Barriers for Non-Traditional Entries and Entries from Other States	State	T. Allow or expand alternative licensing options. <i>Is the State doing this? YES</i> - The State provides a restricted license as an alternate path to teaching. Kansas also manages the federal "Transition to Teaching" grants, which pay for online classes for individuals teaching in hard-to-fill districts and working toward full licensure.		
	State	U. Enter into reciprocity agreements with other states to allow teachers from those states to more easily teach in Kansas. <i>Is the State doing this? YES</i> - Kansas has a reciprocity agreement with eight other states. Also, Kansas has teacher exchange agreements with China and Spain.		

Source: LPA summary of literature review and interviews with officials from the Kansas Department of Education and the Kansas Public Employees Retirement System.

An Alternative Pay Schedule Model

For the past five years, the Teacher Advancement Program has been used, primarily in Arizona and South Carolina, as an alternative method of evaluating and compensating teachers. More than 60 schools—mostly elementary and middle schools—use this program to attract, retain, and develop high-quality teachers.

Merit-based pay systems often face concerns about bias and subjectivity in measuring teacher effectiveness. Under the Program, schools try to avoid these concerns by rewarding teachers for student performance, use of sound teaching methods, and taking on additional responsibilities such as mentoring or sitting on committees.

As part of the Program, teachers' performance is reviewed by multiple evaluators. One typical measure of teacher effectiveness—average student performance—has been replaced with a measurement of how much each student's performance improved during the year. In addition, the Program fosters cooperation among teachers by making school-wide performance one of the factors determining individual compensation.

A survey of teachers' attitudes toward the Program shows that collegiality and teachers' satisfaction have remained strong. Also, after three years of results in Arizona and two years from South Carolina, 68% of schools using the Program have outperformed schools not using the program.

**A New Bonus Program Implemented in Wichita
Created a Dispute With the Teachers' Union**

For the 2005-06 school year, the Wichita school district (USD 259) implemented a bonus program designed to attract and retain teachers in schools with especially high poverty. Under the program, full-time teachers in schools with at least 64% of the students on free or reduced-price lunch received a \$1,500 bonus.

The Unified Teachers of Wichita (the teachers' union) has filed a complaint with the Kansas Department of Labor, contending the bonus program is subject to collective bargaining because it benefits a large number of district employees. The union also claims the district ended negotiations quickly and implemented the program on its own. According to district officials, the district initially attempted to negotiate with the teachers' union, but district officials claim the union rejected the program and declined to negotiate any further. After the union rejected the program, the district proceeded with the plan, contending that K.S.A. 72-8246(2)(b) gives it the authority to implement bonuses without the union's approval.

The Department of Labor has scheduled a hearing for the union's complaint for June 2006. A ruling is anticipated in July 2006.

To Improve Teacher Retention, Best Practices Include Developing Preparation and Transition Programs, Improving Working Conditions, and Increasing Pay

As described in Question 1, 30% of all teachers in Kansas leave the profession within their first three years of teaching. This makes strategies that focus on teacher retention essential.

Three overarching best practices emerge for teacher retention, as follows:

- Create high-quality preparation and transition programs by requiring education students to go through programs that offer hands-on experience in diverse settings, and by implementing mentoring programs for new teachers.
- Improve teacher working conditions by allowing teachers more autonomy within their classroom and by promoting interaction among teachers.
- Increase earning potential by increasing maximum salaries and offering longevity bonuses.

Figure III-2, starting on the next page, provides more details within these three areas.

Although we didn't attempt to determine which of these strategies are most effective, establishing mentoring programs was the most often discussed strategy to aid retention. The box on page 35 provides more details on mentoring programs.

**Figure III-2
Best Practices to Aid in Retention of Teachers**

Category	Best Implemented at What Level?	Specific Strategies	Especially Useful For?	
			Rural	High-Poverty
CREATE HIGH-QUALITY PREPARATION AND TRANSITION PROGRAMS				
Preparation	State	<p>A. Have education students go through a well-designed 4-5 year program, as opposed to less stringent alternative licensing programs. Teachers graduating from regular education programs may stay in teaching longer than those who gain teaching licenses through alternative pathways.</p> <p><i>Note: This strategy is inconsistent with the best practice to offer alternative licensing programs as a means to reduce barriers to enter the teaching profession later in life. (Figure III-1, Strategy T)</i></p> <p><i>Is the State doing this? YES</i> - As described in the profile box on page 8, Kansas requires the completion of an approved teacher preparation program. While the State also offers alternative routes, these routes are designed to allow individuals to start teaching for a limited time while finishing regular licensing requirements.</p>		
	State	<p>B. Provide more hands-on experience during college by offering observation and student-teaching opportunities in diverse settings.</p> <p><i>Is the State doing this? YES</i> - At a minimum, education students must complete 15 hours of early field experience and 12 weeks of student teaching. Some universities, such as Kansas State and Emporia, use a model that provides extensive hands-on experience. Because of the expense, many universities don't use this model.</p> <p>As part of the accreditation process, universities must demonstrate they offer training in diverse settings.</p>		
Transition to Classroom	State	<p>C. Implement a <u>mandatory</u> orientation or mentoring program.</p> <p><i>Is the State doing this? NO</i> - In 2000-01, the Department of Education implemented a mentoring program available to all Kansas districts. However, the one-year program is voluntary and only one-fourth of the districts participate.</p>		
	State	<p>D. Provide extra pay to teachers who serve as mentors.</p> <p><i>Is the State doing this? YES</i> - For those districts that participate in the State program, the State pays \$1,000 to teachers who serve as mentors.</p>		
	District	<p>E. Make new teachers feel welcome by providing opportunities for them to meet community members and to get involved in community activities.</p>	X	
	District	<p>F. Recruit from rural or high-poverty areas to teach in rural or high-poverty districts.</p>	X	X
	District	<p>G. Provide training to new teachers to become more sensitized to issues of poverty and rural districts.</p>	X	X
	District	<p>H. Use technology to help teachers stay connected to friends, family and colleagues by offering free or reduced-cost Internet, e-mail service, or cell phones.</p>	X	
	District	<p>I. Assign newest teachers to less challenging schools.</p>		X

**Figure III-2
Best Practices to Aid in Retention of Teachers**

Category	Best Implemented at What Level?	Specific Strategies	Especially Useful For?	
			Rural	High-Poverty
IMPROVE TEACHER WORKING CONDITIONS				
Within the Classroom	District	J. Restructure schools and classrooms to create smaller learning communities in order to foster collegiality among teachers.		X
	District	K. Hire teaching assistants to help teachers with classroom activities.		
	District	L. Allow teachers more autonomy to make decisions regarding curriculum content and discipline issues.		
	District	M. Make the classroom environment more attractive by keeping the classroom in good repair.		X
Within the School	District	N. Provide strong administrative support to teachers by having open door policies and providing adequate classroom supplies.		
	District	O. Address safety and discipline issues by strictly enforcing rules and taking adequate security measures.		X
	District	P. Allow more time for teachers to collaborate and build relationships between colleagues.		
INCREASE EARNING POTENTIAL (SALARY ISSUES <i>UNIQUE</i> TO RETENTION)				
Salaries	District	Q. Increase maximum salary to encourage teachers with experience to continue teaching.		
Other Financial Perks	District	R. Provide annual bonuses to teachers who teach for a certain length of time.		
	State	S. Provide income tax credits to teachers who teach for a certain amount of time. <i>Is the State doing this?</i> NO		

Source: LPA summary of literature review and interviews with officials from the Kansas Department of Education.

Mentoring Programs Help Improve Teacher Retention

Developing a quality mentoring program is one of the most often-cited strategies in education literature for helping retain new teachers. Many new teachers enter their first classroom with very little “real life” exposure to the challenges they will face. Isolated from their colleagues, they often are left to cope with the pressure on their own, and many burn out and leave teaching within a few years.

Through mentoring programs, new teachers are paired with experienced teachers to receive guidance, feedback, and support as they adjust to teaching. The components of a successful mentoring program include:

- having trained mentors who work with the new teacher for at least one year
- earmarking funds to support the program and provide additional pay to teachers who become mentors
- monitoring the progress of new teachers, and evaluating the program's effectiveness

According to the education literature, schools that have used mentoring programs have reduced turnover among new teachers. Some of the most successful programs are shown below:

Successful Mentoring Programs		
Program Name	Location	Retention Rate
Pathways to Teaching Careers	Savannah, Georgia	100% over 5 years
Framework for Inducting, Retaining, and Supporting Teachers	Thibodaux Parish, Louisiana	88% over 3 years
Teacher Induction Program	Corpus Christi, Texas	100% over 5 years
New Teacher Project	Santa Cruz, California	95% over 12 years
Source: "Teacher Isolation: How Mentoring Can Help" by K.L. Heider		

To Develop Teachers, Best Practices Include Dedicating Adequate Resources to Training That Is Targeted to Teachers' Needs

Three overarching best practices emerge for teacher professional development, as follows:

- Commit adequate resources to professional development by earmarking funds for training, paying advanced education training costs, and offering more time for professional development.
- Provide targeted professional development by linking development to assessments and by giving schools greater control over professional development.
- Provide a variety of professional development opportunities such as conferences, in-house training, and using technology to facilitate development.

Figure III-3, on the next page, provides more details within these three areas.

**Figure III-3
Best Practices for Teacher Professional Development**

Category	Best Implemented at What Level?	Specific Strategies	Especially Useful For?	
			Rural	High-Poverty
COMMIT ADEQUATE RESOURCES FOR PROFESSIONAL DEVELOPMENT				
Commit Adequate Financial Resources	State	A. Earmark State funding for professional development by establishing a separate source of State funds or requiring districts to spend a certain amount on professional development. <i>Is the State doing this? YES - K.S.A. 72-9601 et seq. created a program for State funding of professional development. The Legislature appropriated \$1.75 million for 2006-07, but this is short of the \$7-8 million the Department of Education calculated it would take to fully fund the program.</i>		
	District	B. Provide scholarships or loan forgiveness for advanced education degrees.		
	District	C. Pay National Board Certification fees to encourage teachers to obtain advanced educational skills.		
Commit Adequate Time Resources	District	D. Extend contract year to allow for more training time.		
	District	E. Offer development opportunities during the summer.		
	District	F. Provide time off from classroom for training, studying, or taking tests.		
PROVIDE TARGETED PROFESSIONAL DEVELOPMENT				
School Level Training	District	G. Give schools greater control over professional development so they can provide targeted training based on the specific needs of the school.		
	District	H. Conduct a district-wide needs assessment in order to identify potential training topics.		
	District	I. Review teacher evaluations to assess the areas in which teachers need training.		
PROVIDE A VARIETY OF PROFESSIONAL DEVELOPMENT SOURCES				
In-House Training	District	J. Provide in-house training using district staff.		
	District	K. Provide time for new teachers to visit other classrooms so they can see other techniques and ideas.		
	District	L. Conduct principal tours of classrooms to identify deficiencies and provide feedback.		
Training From Outside Sources	District	M. Regularly send teachers to conferences or other off-site training to expose them to new ideas.		
	District	N. Provide technology such as online courses and video conferencing to enhance professional development opportunities for teachers in more isolated rural areas.	X	X
Source: LPA summary of literature review and interviews with officials from the Kansas Department of Education.				

***To Attract Principals,
Best Practices
Include a Variety of
Recruitment Strategies,
Financial Incentives, and
Alternative Paths to
Principalship***

In reviewing the literature, we found much less information on what attracts individuals to become principals. None of the strategies we found were State-level strategies, and very few were identified as being especially advantageous in high-poverty or rural school districts.

Three overarching best practices emerge for attracting principals, as follows:

- Use innovative recruitment strategies such as building partnerships with universities, providing field-based internships, or using “grow-your-own” principals strategies.
- Provide financial incentives including increased salaries, tax credits, and relocation assistance.
- Reduce barriers to becoming a principal by allowing candidates who demonstrate the appropriate skills to become a principal, even if they don’t have any teaching experience.

Figure III-4, on the next page, provides more details within these three areas.

According to the literature we reviewed, the necessary skill set to be an effective principal has dramatically changed for today’s schools. Not only do principals have to have outstanding leadership abilities, but they also must be able to effectively deal with a variety of personnel, budget, and technological issues.

Because of the emphasis in leadership and management skills, some have suggested eliminating requirements that principals have experience as teachers. They suggest this could broaden the number of potential principals and ultimately lead to better quality principals.

The literature cites very few strategies for retaining principals. Some strategies, such as mentoring and co-principalships, were cited as ways to aid retention, but will be covered under professional development in the following section.

***To Develop Principals,
Best Practices Include
Providing Practical
Training That
Incorporates Current
Research and Offers
Opportunities For Peer
Support and Coaching***

Three overarching best practices emerge for principal professional development, as follows:

- Provide practical training, such as training on budgets, cases studies, and problem-solving.
- Include opportunities for peer support and leadership coaching, such as support groups, training with peer principals, and supervisor walk throughs.
- Offer development through a variety of providers, such as outside agencies, university personnel, or national conferences.

**Figure III-4
Best Practices for Attracting Principals**

Category	Best Implemented at What Level?	Specific Strategies	Especially Useful For?	
			Rural	High-Poverty
CREATE INNOVATIVE RECRUITMENT STRATEGIES				
Recruitment Strategies	District	A. Partner with a university to help identify students graduating from administrative programs.		
	District	B. Provide field-based internships to give prospective principals experience in the school.		
	District	C. Develop "Grow-Your-Own" programs that identify school staff that have leadership potential, and provide them opportunities to develop administrative and leadership skills. (See box on page 27)		
	District	D. Use assessment centers, profiling instruments, and scouts to identify prospective principals.		
PROVIDE FINANCIAL INCENTIVES				
Salary	District	E. Increase principal salaries.		
Other Financial Incentives	State	F. Offer income tax credits for principals. <i>Is the State doing this? NO</i>		
	District	G. Provide housing aid such as moving costs, down payments, or free rent.	X	X
REDUCE BARRIERS TO ENTRY				
Establish Criteria for Principals	State	H. Allow non-teachers to become principals. (Increasingly, principals need strong management skills so broadening the pool of applicants to include all candidates who possess these skills may increase the quality of principals.) <i>Is the State doing this? NO</i> - Potential principals currently are required to have at least three years of experience as "licensed school staff." In addition to teachers, licensed school staff can include school psychologists, social workers, and librarians, but Department officials told us those staff rarely become principals.		
	District	I. Require candidates to be able to demonstrate necessary temperament and skills, such as preparing budgets, managing personnel, and having technological knowledge.		

Source: LPA summary of literature review and interviews with the Kansas Department of Education

Figure III-5 provides more details within these three areas.

Figure III-5 Best Practices for <u>Developing Principals</u>		
Category	Best Implemented at What Level?	Specific Strategies
PROFESSIONAL DEVELOPMENT SHOULD INCLUDE PRACTICAL TRAINING		
Types of Training	District	A. Principal development should include practical training such as: <ol style="list-style-type: none"> 1. visits to other schools to expose them to new ideas. 2. budget training. 3. exercises, case studies, and role playing.
Content	District	B. Content should be tied to specific goals and reflect current research in school leadership.
PRINCIPAL DEVELOPMENT SHOULD INCLUDE OPPORTUNITIES FOR PEER SUPPORT AND LEADERSHIP		
Group and One-on-One Development Opportunities	District	C. Train principals in cohorts so that they learn and gain new ideas from each other.
	District	D. Help principals develop support groups so they can discuss and solve problems together.
	District	E. Superintendents should tour schools to identify and address principals' weaknesses.
	District	F. Require leadership coaching to refine skills.
PRINCIPAL DEVELOPMENT SHOULD INCLUDE A VARIETY OF PROVIDERS TO INCORPORATE NEW IDEAS		
Types of Providers	District	G. Use outside agencies to provide training such as: <ol style="list-style-type: none"> 1. National experts 2. University personnel 3. National or regional conferences
Source: LPA summary of literature review and interviews with officials the Kansas Department of Education.		

CONCLUSION

As discussed in Question 1, Kansas currently is facing a shortage of qualified teachers, and the pending retirements of the baby boom generation are likely to make the situation worse. To address future shortages, Kansas would benefit from a comprehensive plan that includes both State- and district-level strategies to attract, retain, and develop teachers.

The best practices we've compiled in this question provide policymakers with a list of ideas suggested by education experts or implemented in other states. Unfortunately, while there are lots of ideas, few of them have been demonstrated to be effective through sound empirical research. Evaluating the long-term effectiveness of any strategies will be an important component as the State moves to address teacher shortages.

APPENDIX A Scope Statement

This appendix contains the scope statement approved by the 2010 Commission for this audit on February 24, 2006.

K-12 Education: Reviewing Issues Related to Developing and Retaining Teachers and School Principals

The recently completed Legislative Post Audit education cost study included an examination of how teacher salaries vary in different parts of the State. Because that study didn't assess the overall level of teacher salaries, members of the 2010 Commission expressed an interest at their January 2006 meeting in knowing how Kansas teacher salaries compare with other states, when adjusted for such things as cost of living. Specifically, they expressed concerns that salaries in Kansas may not be sufficient to attract enough quality individuals to the teaching profession or to compete with other states. Members wanted to know what effect increasing salaries might have on the quality of teachers in the State, and ultimately, how that might affect student educational outcomes.

In addition, several members expressed concerns about the adequacy of the State's efforts to assist school districts in developing and retaining quality teachers and school principals. There was a particular emphasis on the adequacy of professional development programs to ensure teachers and principals develop strong leadership skills, learn about new and innovative teaching methodologies, and are retained within Kansas' teacher workforce.

This performance audit would address the following questions:

1. What factors contribute to the shortage of teachers in Kansas? To answer this question, we would consult with Department of Education staff and analyze Department data to identify trends in teacher turnover and staffing positions in the State. We'd also look at trends in the number of "under-filled" positions (positions filled by teachers that aren't endorsed to fill those positions). We would survey school districts that are experiencing staffing shortages to find out what factors contribute to those shortages, including identifying the states to which Kansas is most likely to lose teachers.

2. How do Kansas teacher salaries compare with other states? To answer this question, we would review the latest NCES data on teacher salaries for Kansas and other states, taking into account such factors as differences in cost of living. We would survey a sample of other states for additional information regarding possible reasons for variations in the salaries, such as differences in unionization rates, the average education and experience of teachers, teacher certification processes, and the way salaries are set in each state.

3. What does the research literature show about the relationship between Statewide salary levels and student outcomes? We would gather and review any studies available on the effect of raising the overall level of teacher salaries on attracting and retaining teachers, as well as the relationship between Statewide salary levels and student outcomes.

4. What are the best practices for attracting, developing, and retaining high-quality teachers and school principals in different types of school districts? We would gather and review literature, surveys, and studies, as well as consult with Department of Education staff, to identify best practices for attracting, developing, and retaining teachers and school principals. We would review the Standard & Poor's report on the State's "blue ribbon" schools to determine what they do to attract and develop staff. We'd also contact officials in other states to find out what they do to help districts build and retain a quality teaching staff.

Estimated completion time: 10-12 weeks

APPENDIX B

Kansas Principal Survey on Teacher Attrition

This appendix contains the results of a survey of public school principals. We e-mailed surveys to 890 principals across the State of Kansas based on an e-mail list received from the Department of Education. Overall, we received 459 completed surveys, for a response rate of 52%. The survey was designed to obtain principals' perceptions about the nature and cause of teacher shortages and the reasons teachers leave a particular school or leave the profession altogether.

Question 1: For what grade level are you the principal?

School	#	%
Elementary	162	35.3%
Middle	101	22.0%
High	196	42.7%

Question 2: What is your school's average annual teacher turnover rate?

Turnover Rate	#	%
3% or less	174	39.1%
4-6%	107	24.0%
7-9%	84	18.9%
10-12%	54	12.1%
13% +	26	5.8%

Question 3: Where do teachers go when they leave your school?

Answer	Average ^(a)
Stay in Teaching	67.6%
Quit Teaching	32.4%

^(a) Respondents had to respond to both answers (with their response totaling 100%). The results shown represent the overall average for each response.

Question 4: Where do teachers go when they leave your school but stay in teaching?

Answer	Never		Rarely		Sometimes		Frequently		Always	
	#	%	#	%	#	%	#	%	#	%
Another school within your district	167	37.4%	132	29.5%	102	22.8%	41	9.2%	5	1.1%
Another district within Kansas	8	1.8%	31	6.9%	138	30.8%	233	52.0%	38	8.5%
Private school within Kansas	213	51.1%	177	42.4%	27	6.5%	0	0.0%	0	0.0%
Another state	59	13.8%	189	44.3%	153	35.8%	26	6.1%	0	0.0%
Return to college for advanced degree (intend to remain in teaching)	124	29.3%	198	46.8%	95	22.5%	6	1.4%	0	0.0%

Question 5: Why do teachers leave your school but teach somewhere else?

Answer	Strongly Disagree		Disagree		Neither		Agree		Strongly Agree	
	#	%	#	%	#	%	#	%	#	%
Better base salary	56	12.9%	85	19.6%	92	21.2%	124	28.6%	77	17.7%
Better fringe benefits (e.g. bonuses, extra duty pay)	56	13.1%	98	22.8%	95	22.1%	126	29.4%	54	12.6%
Better work environment (e.g. parental support, less demanding students)	100	23.1%	173	40.0%	83	19.2%	56	13.0%	20	4.6%
Better work conditions (e.g. curriculum freedom, smaller class size, less paperwork)	94	21.8%	192	44.4%	94	21.8%	36	8.3%	16	3.7%
Non-work related reasons (e.g. spouse relocated, desire bigger/smaller community)	8	1.8%	8	1.8%	38	8.7%	214	48.7%	171	39.0%

Question 6: Why do teachers leave your school and stop teaching?

Answer	Strongly Disagree		Disagree		Neither		Agree		Strongly Agree	
	#	%	#	%	#	%	#	%	#	%
Better salary and benefits	61	14.4%	76	18.0%	79	18.7%	123	29.1%	84	19.9%
Better working environment (e.g. better hours, less stress)	67	15.8%	101	23.9%	93	22.0%	106	25.1%	56	13.2%
Frustration with teaching environment (e.g. student violence/ discipline, poor perception of profession)	70	16.5%	112	26.4%	86	20.2%	103	24.2%	54	12.7%
Frustration with teaching conditions (e.g. increasing non-teaching duties, increasing paperwork)	51	12.1%	91	21.5%	86	20.3%	123	29.1%	72	17.0%
Non-work related reasons (e.g. spouse relocated, desire bigger/smaller community)	22	5.2%	37	8.8%	98	23.2%	200	47.4%	65	15.4%
Retirement	11	2.5%	12	2.7%	30	6.8%	154	35.1%	232	52.8%

Question 7: Are the reasons teachers cite for leaving your school different today than they were 10 years ago?

Answer	#	%
Yes	112	38.1%
No	182	61.9%

Question 8: Over the past two years, did your school have to leave one or more teaching positions vacant?

Answer	#	%
Yes	123	26.9%
No	334	73.1%

Question 9: How have teacher's reasons for leaving changed over the last 10 years? (open-ended)

Reasons Given	#
NCLB as it relates to increases in paperwork, non-teaching duties, testing requirements	94
Salary/benefit changes	43
No parental support or too many expectations from parents	25
Student discipline, attitude and demographic changes	22
Other including issues related to curriculum, retirement, funding, certification, and technology	53

Question 10: Over the past two years, what has been the cause of the teacher vacancies in your school?

Causes Given	#	%
Enrollment growth	15	8.7%
Class-size reduction efforts	14	8.1%
State or district policy changes (increase in graduation requirements that require different/more classes)	15	8.7%
Teachers leaving (includes retiring)	95	55.2%
Other (please specify)	33	19.2%

Question 11: Why does your school have difficulties filling vacant teaching positions?

Answer	Strongly Disagree		Disagree		Neither		Agree		Strongly Agree	
	#	%	#	%	#	%	#	%	#	%
Not enough qualified applicants (qualified means teachers endorsed in fields needed)	0	0.0%	7	5.7%	1	0.8%	41	33.3%	74	60.2%
Screening, interviews, and hiring decisions take too long (applicant goes elsewhere)	25	20.5%	56	45.9%	22	18.0%	16	13.1%	3	2.5%
Not competitive with salaries and benefits	9	7.4%	29	24.0%	23	19.0%	34	28.1%	26	21.5%
More difficult working conditions (e.g. desirable facilities, high number of poor and/or bilingual students)	20	16.4%	50	41.0%	18	14.8%	24	19.7%	10	8.2%
Located in a less desirable community (e.g. fewer social amenities, shopping)	18	14.8%	24	19.7%	14	11.5%	36	29.5%	30	24.6%

Question 12: What approaches has your school taken to address these teacher vacancies?

Answer	Never		Rarely		Sometimes		Frequently		Always	
	#	%	#	%	#	%	#	%	#	%
Changed class schedules (e.g. cut classes, combined classes)	24	20.3%	12	10.2%	47	39.8%	24	20.3%	11	9.3%
Used teachers not endorsed in the field they teach	26	21.8%	28	23.5%	36	30.3%	23	19.3%	6	5.0%
Used/hired staff not (yet) licensed to teach	50	42.7%	19	16.2%	27	23.1%	15	12.8%	6	5.1%
Used/hired substitutes to teach	35	29.2%	20	16.7%	37	30.8%	25	20.8%	3	2.5%
Used school administrators to teach	75	62.5%	28	23.3%	15	12.5%	2	1.7%	0	0.0%

Question 13: Over the past two years, what teaching positions has your school had difficulties filling?

Subject	Never		Rarely		Sometimes		Frequently		Always	
	#	%	#	%	#	%	#	%	#	%
Art	43	50.6%	23	27.1%	13	15.3%	3	3.5%	3	3.5%
Business	38	47.5%	15	18.8%	16	20.0%	7	8.8%	4	5.0%
Computer Technology/ Programming	33	37.1%	19	21.3%	13	14.6%	14	15.7%	10	11.2%
ESL (English as a Second Language)	26	40.6%	7	10.9%	11	17.2%	12	18.8%	8	12.5%
Foreign Language	21	23.3%	9	10.0%	16	17.8%	16	17.8%	28	31.1%
Health/Physical Education	59	68.6%	16	18.6%	10	11.6%	1	1.2%	0	0.0%
Math	13	13.3%	9	9.2%	17	17.3%	25	25.5%	34	34.7%
Music	21	21.4%	14	14.3%	30	30.6%	16	16.3%	17	17.3%
Science	16	15.8%	9	8.9%	21	20.8%	21	20.8%	34	33.7%
Social Sciences/ Language Arts	27	27.0%	28	28.0%	27	27.0%	10	10.0%	8	8.0%
Special Education	13	13.4%	5	5.2%	10	10.3%	27	27.8%	42	43.3%
Vocational/ Technology Education	19	23.5%	7	8.6%	15	18.5%	16	19.8%	24	29.6%
Other	19	40.4%	3	6.4%	10	21.3%	9	19.1%	6	12.8%

Question 14: Over the past two years, have other states tried or succeeded in recruiting teachers away from your school?

Answer	#	%
Yes	75	16.5%
No	379	83.5%

Question 15: What methods did other states employ to recruit your teachers?

Answer	#	%
Other state SCHOOL contacted my teacher directly (e.g. phone, mail, email)	29	26.4%
Other state AGENCY contacted my teacher directly (e.g. phone, mail, email)	7	6.4%
Other state attended/held a job fair in my geographic area	33	30.0%
Other state advertised on TV/billboards/ internet/etc	36	32.7%
Other (please specify)	5	4.5%

APPENDIX C
Kansas Teacher Migration Information

This appendix summarizes teacher migration patterns between different types of districts and different parts of the State from 2000 to 2004. Each year we counted the number of teachers that changed district types (e.g., from a high-poverty district to a rural district) or moved across regions. The number of teachers who move into a district from a different type of district are counted as “inflow.” The number of teachers who move out of a district to a different type of district are counted as “outflow.” Net migration is number of teachers gained or lost as a result of migration (inflow minus outflow).

There are two summary tables (by region and by district type) that show the migration patterns for all five years combined. There are also individual tables that show the migration patterns for each individual year.

Kansas Teacher Migration Data

Total 2000-04 by Region

Total	Inflow	Outflow	Net
NE	504.1	(341.8)	162.3
SE	490.5	(405.1)	85.4
SW	232.8	(328.8)	(95.9)
NW	127.8	(279.6)	(151.8)
Total	1355.2	(1355.2)	0.0

Total 2000-04 by District Type

Total	Inflow	Outflow	Net
Poverty	564.4	(661.0)	(96.6)
Rural	462.3	(719.6)	(257.3)
Other	1065.0	(711.1)	353.9
Total	2091.7	(2091.7)	0.0

By Region

2000	Inflow	Outflow	Net
NE	133.5	(78.0)	55.5
SE	122.0	(86.0)	36.0
SW	45.5	(87.3)	(41.8)
NW	30.3	(80.0)	(49.6)
Total	331.2	(331.2)	0.0

By District Type

2000	Inflow	Outflow	Net
Poverty	113.3	(170.7)	(57.4)
Rural	101.2	(180.3)	(79.0)
Other	282.8	(146.3)	136.4
Total	497.3	(497.3)	0.0

2001

2001	Inflow	Outflow	Net
NE	129.1	(82.7)	46.4
SE	117.1	(109.3)	7.8
SW	65.2	(74.0)	(8.8)
NW	28.5	(74.0)	(45.5)
Total	339.9	(339.9)	0.0

2001

2001	Inflow	Outflow	Net
Poverty	134.6	(149.9)	(15.3)
Rural	93.6	(168.7)	(75.1)
Other	247.2	(156.8)	90.4
Total	475.4	(475.4)	0.0

2002

2002	Inflow	Outflow	Net
NE	95.2	(56.0)	39.2
SE	78.0	(82.5)	(4.5)
SW	48.0	(57.5)	(9.5)
NW	26.5	(51.7)	(25.2)
Total	247.7	(247.7)	0.0

2002

2002	Inflow	Outflow	Net
Poverty	103.0	(108.5)	(5.5)
Rural	86.5	(133.0)	(46.5)
Other	185.5	(133.5)	52.0
Total	375.0	(375.0)	0.0

2003

2003	Inflow	Outflow	Net
NE	69.3	(52.7)	16.7
SE	73.0	(66.3)	6.7
SW	36.6	(47.5)	(10.8)
NW	24.0	(36.5)	(12.5)
Total	202.9	(202.9)	0.0

2003

2003	Inflow	Outflow	Net
Poverty	92.0	(93.6)	(1.6)
Rural	71.7	(116.1)	(44.5)
Other	162.0	(116.0)	46.1
Total	325.7	(325.7)	0.0

2004

2004	Inflow	Outflow	Net
NE	77.0	(72.5)	4.5
SE	100.5	(61.0)	39.5
SW	37.5	(62.5)	(25.0)
NW	18.5	(37.5)	(19.0)
Total	233.4	(233.4)	0.0

2004

2004	Inflow	Outflow	Net
Poverty	121.5	(138.3)	(16.8)
Rural	109.3	(121.5)	(12.2)
Other	187.5	(158.5)	29.0
Total	418.3	(418.3)	0.0

APPENDIX D
Comparable Wage Index for All 50 States and the District of Columbia

This appendix contains the adjustment factor we used to account for differences in regional costs. In developing the index, researchers studied several years of wage data for numerous occupations to see how wages vary regionally. The U.S. factor of "1.000" represents the baseline with which to compare each state. The adjustment factor for each state is determined by calculating the value needed to raise or lower the state's cost of living to match the U.S. average.

NCES Comparable Wage Index			
State	Adjustment Factor	State	Adjustment Factor
United States 1.000			
District of Columbia	1.154	Utah	0.932
New Jersey	1.153	Arizona	0.923
New York	1.122	South Carolina	0.919
California	1.092	Florida	0.911
Connecticut	1.080	New Hampshire	0.907
Massachusetts	1.057	Louisiana	0.900
Maryland	1.044	Missouri	0.899
Virginia	1.033	Kentucky	0.898
Illinois	1.031	Indiana	0.895
Texas	1.016	Alabama	0.887
Washington	1.014	New Mexico	0.877
Delaware	1.002	Mississippi	0.868
Nevada	0.995	Oklahoma	0.856
Michigan	0.994	Kansas	0.855
Georgia	0.992	West Virginia	0.849
Rhode Island	0.988	Idaho	0.840
Alaska	0.979	Arkansas	0.838
Pennsylvania	0.970	Iowa	0.838
Hawaii	0.968	Vermont	0.832
Minnesota	0.966	Nebraska	0.829
Ohio	0.962	Maine	0.822
North Carolina	0.956	Wyoming	0.804
Oregon	0.944	North Dakota	0.786
Tennessee	0.939	South Dakota	0.781
Wisconsin	0.939	Montana	0.748
Colorado	0.935		

Source: Taylor, L.L., and Fowler, W.J., Jr. (2006). A Comparable Wage Approach to Geographic Cost Adjustment.

APPENDIX E

Average Teacher Salary Before and After Regional Cost Adjustment

This appendix contains both unadjusted and adjusted average teacher salaries for the 50 states and District of Columbia. Salaries labeled “Reported Salary” are those reported by the National Education Association. Salaries labeled “Adjusted Salary” have been adjusted by LPA using the Comparable Wage Index so that all salaries are reported in Kansas dollars.

Average Salary of Public School Teachers (2004-05)				
State	Reported Salary	Rank	Adjusted Salary (in Kansas \$)	Rank
Michigan	\$55,693	6	\$47,905	1
Connecticut	\$58,688	1	\$46,461	2
Pennsylvania	\$52,700	10	\$46,452	3
Rhode Island	\$53,473	9	\$46,275	4
Illinois	\$55,629	7	\$46,133	5
Oregon	\$50,790	14	\$46,002	6
Alaska	\$52,424	11	\$45,784	7
Vermont	\$44,535	21	\$45,766	8
California	\$57,876	3	\$45,315	9
Indiana	\$46,851	17	\$44,757	10
Massachusetts	\$54,596	8	\$44,162	11
Montana	\$38,485	46	\$43,990	12
Delaware	\$50,869	13	\$43,406	13
District of Columbia	\$58,456	2	\$43,310	14
Ohio	\$48,692	15	\$43,276	15
Wyoming	\$40,392	37	\$42,954	16
Idaho	\$42,122	30	\$42,874	17
Maryland	\$52,331	12	\$42,857	18
New York	\$56,200	5	\$42,826	19
Maine	\$40,940	35	\$42,584	20
New Jersey	\$56,600	4	\$41,971	21
Minnesota	\$46,906	16	\$41,516	22
New Hampshire	\$43,941	24	\$41,422	23
Arkansas	\$40,495	36	\$41,316	24
Iowa	\$40,347	38	\$41,165	25
Nebraska	\$39,456	40	\$40,693	26
Colorado	\$44,161	23	\$40,383	27
Georgia	\$46,526	18	\$40,101	28
Arizona	\$42,905	28	\$39,744	29
North Dakota	\$36,449	50	\$39,649	30
Wisconsin	\$43,466	25	\$39,578	31
South Carolina	\$42,207	29	\$39,268	32
KANSAS	\$39,190	42	\$39,190	33
Hawaii	\$44,273	22	\$39,105	34
Kentucky	\$41,002	34	\$39,039	35
North Carolina	\$43,313	27	\$38,737	36
West Virginia	\$38,360	47	\$38,631	37
Florida	\$41,081	32	\$38,556	38
Washington	\$45,712	19	\$38,544	39
New Mexico	\$39,328	41	\$38,341	40
Tennessee	\$41,527	31	\$37,812	41
Alabama	\$38,863	45	\$37,461	42
Nevada	\$43,394	26	\$37,288	43
South Dakota	\$34,040	51	\$37,265	44
Oklahoma	\$37,141	48	\$37,098	45
Missouri	\$38,971	43	\$37,064	46
Virginia	\$44,763	20	\$37,050	47
Louisiana	\$38,880	44	\$36,936	48
Utah	\$39,965	39	\$36,663	49
Mississippi	\$36,590	49	\$36,042	50
Texas	\$41,009	33	\$34,511	51

Source: Salary and rank data from NEA, adjusted by LPA for cost variation across states.

APPENDIX F

Bibliography of Research About the Relationship Between Teacher Salary and Student Outcomes and Teacher Retention

This appendix lists the three research summaries and four individual studies we reviewed that examined the relationships between teacher salaries and teacher retention and student outcomes. To identify the studies for our review, we spoke with officials from the Kansas Department of Education, education professors from several universities, and searched the internet.

Research summaries:

1. Allen, M. B., 2005. Eight Questions on Teacher Recruitment and Retention: What Does the Research Say? Education Commission of the States.
2. Greenwald, R., Hedges, L., & Laine, R., 1994. When Reinventing the Wheel Is Not Necessary. *Journal of Education Finance*, 20, 1-20.
3. Hanushek, E., 2003. The Failure of Input-Based Schooling Policies. *The Economic Journal*, 113, F64-F98

Other Studies

4. Hanushek, E., Kain, J., & Rivkin, S., 1999. Do Higher Salaries Buy Better Teachers? University of Rochester and National Bureau of Economic Research, Paper presented during the annual meeting of the American Economic Association, New York, January 3-5, 1999.
5. Imazeki, J. 2005. Teacher Salaries and Teacher Attrition. *Economics of Education Review*, 431-449.
6. Page, M. & Loeb, S., 2000. Examining the Link between Teacher Wages and Student Outcomes: The Importance of Alternative Labor Market Opportunities and Non-Pecuniary Variations. *The Review of Economics and Statistics*, 82(3): 393-408.
7. Scafidi, Sjoquist, D., & Skinebrickner, T., 2003. Do Teachers Really Leave for Higher Paying Jobs in Alternative Occupations? University of Western Ontario, London, Ontario Canada N6A 5C2.

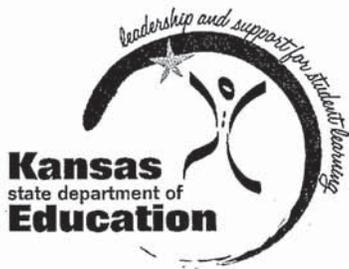
APPENDIX G

Agency Response

On June 12, 2006, we provided copies of the draft audit report to the Department of Education. Its response is included as this Appendix.

Department officials pointed out a number of minor concerns they had related to our discussions of education graduates and special education teachers, as well as other terminology we used in the draft report. Based on the Department's concerns, we've incorporated several changes in the final report:

- **Education Graduates From Private Colleges** – We contacted officials from the Kansas Independent College Association and have incorporated additional information on page 15 of the report.
- **Special Education Teachers** – We revised language on page 10 of the report to note that Department officials think one reason for the shortage of special education teachers is that many teachers who are endorsed in this area choose not to teach it.
- **Salary Comparisons Within Kansas** – Because Question 2 of the scope statement for this audit only addressed comparisons of teacher salaries across states, no changes were made. The approved scope statement is included as Appendix A of this report.
- Terminology Concerns
 - ▶ **“Out-of-Field” Teachers**: We've classified teachers with a provisional license or who have been granted a teaching waiver as “out-of-field.” Although these teachers have a plan in place to obtain the proper endorsements for the subjects they teach, they aren't yet fully licensed. Our way of categorizing teachers is consistent with the categories the Department uses in its annual Licensed Personnel Report, and similar to the federal No Child Left Behind Act, which designates only fully licensed teachers as “highly qualified.”
 - ▶ **Alternate Routes to Getting a Teaching License**: We revised our discussion of requirements to become a teacher on page 8 so it's consistent with the Department's terminology.
 - ▶ **Vocational Education Teachers**: We added a footnote to Figure I-4 on page 9 to clarify that this subject includes teachers assigned to teach family and consumer science, industrial arts, as well as vocational education.

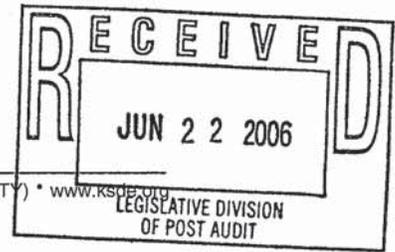


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June 22, 2006



Barbara J. Hinton
Legislative Post Auditor
Legislative Division of Post Audit
Legislature of Kansas Department of Education
800 Southwest Jackson Street, Suite 1200
Topeka, Kansas 66612-2212

Dear Auditor Hinton:

Thank you for the opportunity to respond to your recently completed performance audit, *K-12 Education: Reviewing Issues Related to Developing and Retaining Teachers and School Principals*.

We believe the report is well-written and should be of interest to many groups interested in education in Kansas. There are only a few items for which we have concerns:

- Data from private colleges has been omitted from this report and yet the private colleges supply about 1/3 of the new teachers each year; Dr. Doug Penner, Director of the Kansas Independent Colleges would have that information.
- Data on special education teachers in your report is misleading in that Kansas currently has 7,366 teachers who hold some kind of special education endorsement to fill 4,503 possible assignments. We believe many teachers are unwilling to be employed as special education teachers or they are unwilling to complete the requirements for the waiver or provisional when a general education position comes open and they can move into that setting.
- It is difficult for us to understand why salary comparisons did not include a comparison among teachers in the four quadrants of Kansas and make some kind of adjustment for cost-of-living in those regions. A national comparison is one type of comparison, to be sure, but an in-state comparison would also yield useful data.
- Finally, we have some concerns with the use of terminology in the report. We understand that we have some acronyms that are difficult but we would be happy to explain. That which we have the most concerns relate to the following terms:
 - out-of-field*—you have considered anyone on a provisional or waiver to be an out-of-field teacher. For NCLB purposes, the teachers would be teachers having a plan to become highly qualified; each teacher on a provisional or waiver has submitted a plan that allows them to gain the full endorsement.
 - Alternate route* – we don't consider a two-year exchange, a one year temporary nonrenewable or a substitute license to be an alternate route to license. Some of these are types of licenses that provide access to practice while completing a couple of requirements; while the latter one never requires the individual to

complete a program. Our one alternative route to licensure in Kansas is the restricted license which allows an individual with a degree in a field to gain immediate access to practice while completing a minimum of 18 hours of professional education coursework. Some applicants for this license have received funding from the federal government through a Transition to Teaching grant. A substitute license or the exchange or the temporary license would not be considered alternative routes except by your staff.

Vocational Education- we believe this term is not clearly defined in your report. Are you referencing individuals who have gone to college to complete a vocational education endorsement on a license or are you referencing individuals who have received a vocational certificate based on their expertise in a given field and who train young people in a particular trade? There are two distinct fields that serve vocational needs.

If we can assist you further in the final draft of your report, please do not hesitate to contact me. Again, thank you for the opportunity to address particular issues in the report.

Sincerely,

A handwritten signature in black ink, appearing to read "Bob Corkins", with a long horizontal flourish extending to the right.

Bob Corkins,
Commissioner of Education

Cc: Tom Foster, Deputy Commissioner
Martha S. Gage, Director, TEAL
Susan Helbert, Ass't. Director, TEAL