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ABSTRACT

Three components of the teacher shortage are the recruitment challenge, the retention problem, and the demand for teacher quality. Although the teacher shortage problem involves many factors, any solution must address salaries. Rural districts face a threefold disadvantage: teachers are not compensated as well as other rural professionals; rural states pay less than more populated states; and within states, rural teachers have lower salaries than their suburban and urban peers. The consequences of teacher shortages include hiring of under-prepared teachers, more out-of-field teaching assignments, larger classes, fewer advanced course options, less coordinated curriculum, less experienced teaching staff, and fragmented professional development. Educational quality and student learning are seriously compromised. Although improving teaching conditions involves more than increasing compensation, this is the one area that policy makers can directly change and may be the "tripping point" that encourages teachers to remain in rural districts. Since the No Child Left Behind Act requires that all children meet high standards and all teachers be highly qualified, then all districts must be able to offer salaries that will attract excellent candidates. Thus, the competitive market for highly qualified teachers will dictate salaries. In deciding the types of cost adjustments and financial incentives to make, policy makers need to realize that it often takes more money to attract and retain qualified teachers in poorer areas. Policy recommendations include providing equitable compensation for all rural teachers; providing additional incentives for hard-to-staff rural districts; increasing federal support of recruitment strategies; combining financial efforts with policies to improve teacher quality and retention; and supporting rural-specific research. (Contains 24 references.) (TD)
POLICY BRIEF

The Competitive Disadvantage:
Teacher Compensation in
Rural America

By Lorna Jimerson, Ed.D.

March 2003
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# Table of Contents

I. Introduction: Good News and Bad News  

II. The National Context of Teacher Shortages  

III. The Rural Context: Teacher Salaries  

IV. The Triple Whammy: The Competitive Disadvantage for Rural Districts  


VI. Consequences of Teacher Shortages for Districts and Students  

VII. Will Increasing Compensation Fix the Problems?  

VIII. Current Efforts to Alleviate Teacher Shortages  

IX. Policy Recommendations  

X. Conclusion  

Endnotes  

References
List of Tables

Table 1  Teacher Salary Schedules FY 2000  9
Table 2  Highest Teachers Salaries: Rural vs. Non-rural Districts  10
Table 3  Teacher Recruitment Strategies: Financial Incentives  16
I. Introduction: Good News and Bad News

A highly qualified teacher in every classroom. Not too much to ask or expect.

While other areas in education are hotly disputed (e.g., high stakes testing, whole language, vouchers, funding formulas, etc.), the need for excellent teachers escapes debate. Bolstered by the latest reauthorization of the Elementary and Secondary Education Act (ESEA), commonly known as “No Child Left Behind” (NCLB), legal decisions, and research evidence, we now have a national consensus—every child deserves an excellent education and “highly qualified” teachers are essential in achieving this goal.

This is the good news.

The bad news, especially for many rural schools, is that there are huge hurdles in implementing this vision.

The biggest obstacle in staffing every classroom with a skilled teacher, is that nationwide, schools are now facing an ever-increasing teacher shortage—especially of “highly qualified” teachers.¹

A proliferation of reports document serious teacher shortages, especially in some subject areas and in specific locales. In addition, researchers predict that this shortage will escalate dramatically over the next decade. Adding to the challenge, the No Child Left Behind Act now places an explicit premium on “highly qualified” teachers. Thus, we anticipate that the demand will increase and further intensify the shortage problem for all hard-to-staff schools.

And though teacher shortages are found in all areas—urban, suburban and rural—there are demographic differences. Available information suggests that rural areas, especially, are finding it increasingly difficult to attract and retain well-qualified new teachers.

The teacher shortage problem itself involves complex economic, social and demographic factors. However, any solution needs to include salaries (and benefits) that are fair and competitive. Unfortunately for rural districts, the latest data indicate that salaries in most rural districts are significantly lower than suburban and urban districts.² Thus, it is not surprising that rural districts around the country report that many highly qualified new teachers are taking jobs in higher paying districts (or states)—leaving rural districts with less choice of whom to hire—or no candidates at all.

The challenge of staffing every rural classroom with a highly qualified teacher is not trivial. More than 31% of all public schools are in rural areas. And most importantly, there are more than eight million students attending schools in rural communities. Those eight million children deserve an excellent and equitable education, with access to well-qualified, professional educators. Geography should not dictate which children obtain an excellent education and which do not.

This issue brief explores the latest data and research relevant to rural teacher compensation and suggests policy directions that can help guarantee that “no rural children are left behind” in the national quest for educational excellence.

II. The National Context of Teacher Shortages

The teacher shortage dilemma actually consists of three overlapping elements. First, is the recruitment challenge of increasing the number of potential new candidates for staff vacancies. Second, is the problem of retention (retaining teachers once they are hired). And lastly, teacher shortages are magnified by recent attention to, and demand for, teacher “quality” and thus the need to recruit “highly qualified” teachers.

Effective solutions to teacher shortages need to address all three elements. All are critical and all demand attention. For example, it is futile to increase recruitment if new teachers leave within a short time.³ Likewise, strategies that fill vacancies with under-prepared teachers may only divert money while under-serving children.
The reports of a burgeoning teacher shortage have increased dramatically over the past five years. Even teaching areas that traditionally have been “over-supplied,” such as elementary education, are witnessing a shortage, at least in some locations (Ingersoll, 2001; North Central Regional Educational Laboratory, 1999).

While reasons for teacher shortages are numerous, a few national trends stand out as playing a significant role in accelerating the need for new teachers.

Some of these trends include the following:

- Legal decisions highlighting a need for adequate and equitable pay to attract qualified teachers
- Making “teacher quality” a high stakes federal mandate with NCLB
- State, local and federal policy that encourages and/or mandates smaller class size, resulting in need for additional teachers
- Rapid student enrollment growth in some geographic areas
- High attrition rates for new teachers
- “Distribution” problem of new teachers, i.e., newly certified teachers avoiding job openings in the most needy districts/areas (Darling-Hammond, 2001)
- Higher salaries available in the private sector for new college graduates, especially for math and science majors
- Development of a national (and international) labor market for teachers
- “Graying” of the present teaching force (i.e., large number of teachers predicted to reach retirement age within the next decade)

For rural districts, the convergence of all these trends has put increased pressure on districts to figure out how to attract and retain well-qualified teachers. The teacher labor market is national. NCLB requires highly qualified teachers in all classrooms. Courts are demanding that state funding formulas enable poor districts to offer competitive salaries. The stakes are high for districts—and for students.

Thus, it is within this context that equity of teacher compensation becomes important. Traditionally, rural teachers earn less than their peers in other locales. If rural districts hope to attract and retain highly qualified teachers, and provide rural students with equal educational opportunities, they must be able to offer competitive wages.

III. The Rural Context: Teacher Salaries

Demographics

By definition, rural communities are characterized by sparse population. However, taken together, rural people encompass a significant proportion of our nation’s citizenry.

- More than 8 million children attend public schools in rural America. This is 21% of all public school students (National Center for Education Statistics [NCES], 2002a).6
- A total of 2.5 million rural children live in poverty (Save the Children, 2002).
- There are 24,143 public schools in rural places or over 31.3% of all schools.
- There are 7,832 rural districts in the United States, or 49.3% of all public school districts.
- More than 400,000 educators teach in rural schools, representing 31% of all public school teachers.

These statistics are noteworthy; rural communities are found in all states and en masse represent a large segment of our nation. In fact, millions of children live in rural places and attend local public schools. Their education is in the hands of more than 400,000 teachers. How we pay these educators matters.

Teacher Compensation

In general, across the country, rural teachers are paid less than teachers in other locales. This is true for beginning salary, average salary, and highest salary on the pay scale. Though there are some exceptions, the trend of offering a lower salary to teachers in rural areas is found in every region of the country.
In 39 out of the 50 states, rural beginning teachers earn less than non-rural beginning teachers.

In 44 out of the 50 states, the average salary for rural teachers is less than the average salary for non-rural teachers.

In 41 out of the 50 states, the highest salary offered rural teachers is less than what is offered non-rural teachers (NCES, 2002b).

Since the national data is presented as averages, the range of rural pay within states is not apparent. And in most states, rural teacher salaries are frequently considerably lower than state averages indicate. The extent to which rural teachers are underpaid becomes especially apparent when examining salaries at the district level.

Salary Differences Within States

Rural districts face the most immediate competitive challenge with other districts within their respective states. In the past few years, the differences for beginning teachers between rural and non-rural districts within states have decreased (Beeson & Strange, 2000). This is probably a direct reflection of efforts in some states to raise minimum salaries (e.g., California and Arkansas).

Unfortunately, even with these well-intentioned efforts, in many states there remain glaring disparities between rural and non-rural districts, especially at the highest salary level. This has implications for the ability of rural districts to retain experienced teachers, who may be offered significantly more money in other (wealthier) areas within the same state.

The following table presents some of the latest data on salary scales within selected states. The highest salary offered in any rural district is compared with the highest salary offered in any non-rural district. Only states with a non-rural-rural differential of over $4,000 are presented. In 29 out of 49 states (Hawaii, with only one statewide district, is not included) experienced teachers can earn $4,000 or more in a non-rural district than their equally experienced counterparts can earn in a rural community (NCES, 2002b).

Unexpectedly high differentials for Connecticut, North Carolina and Kentucky—all of which have a statewide teacher salary scale—are noteworthy. Disparities in these states are the direct result of wealthier districts having the ability to supplement salaries with local taxes. Generally, supplements are generated through local property taxes. In some states, other local taxes can also be set to generate additional educational revenue (e.g., some Vermont towns can levy a local sales tax).
In general, poor rural communities are immediately disadvantaged in their ability to supplement salaries since their tax base (whether property, commercial and/or income) is usually lower than in most non-rural districts.

Table 2
Highest Teacher Salaries: Rural vs. Non-rural Districts FY 2002

<table>
<thead>
<tr>
<th>State</th>
<th>Rural Highest Salary</th>
<th>Non-rural Highest Salary</th>
<th>Differential (Non-rural-Rural)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illinois</td>
<td>47,623</td>
<td>81,384</td>
<td>33,761</td>
</tr>
<tr>
<td>Missouri</td>
<td>42,360</td>
<td>63,000</td>
<td>20,640</td>
</tr>
<tr>
<td>Virginia</td>
<td>45,702</td>
<td>64,415</td>
<td>18,713</td>
</tr>
<tr>
<td>Florida</td>
<td>40,200</td>
<td>57,000</td>
<td>16,800</td>
</tr>
<tr>
<td>Ohio</td>
<td>49,577</td>
<td>62,533</td>
<td>12,956</td>
</tr>
<tr>
<td>New York</td>
<td>75,409</td>
<td>87,709</td>
<td>12,300</td>
</tr>
<tr>
<td>Arizona</td>
<td>39,170</td>
<td>50,623</td>
<td>11,453</td>
</tr>
<tr>
<td>Idaho</td>
<td>44,130</td>
<td>55,158</td>
<td>11,028</td>
</tr>
<tr>
<td>New Jersey</td>
<td>70,383</td>
<td>81,015</td>
<td>10,632</td>
</tr>
<tr>
<td>Iowa</td>
<td>41,867</td>
<td>51,984</td>
<td>10,117</td>
</tr>
<tr>
<td>Connecticut</td>
<td>61,650</td>
<td>69,688</td>
<td>8,038</td>
</tr>
<tr>
<td>North Carolina</td>
<td>40,860</td>
<td>48,312</td>
<td>7,452</td>
</tr>
<tr>
<td>Michigan</td>
<td>63,779</td>
<td>71,184</td>
<td>7,405</td>
</tr>
<tr>
<td>Tennessee</td>
<td>41,855</td>
<td>48,954</td>
<td>7,099</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>56,654</td>
<td>63,614</td>
<td>6,960</td>
</tr>
<tr>
<td>Arkansas</td>
<td>37,113</td>
<td>43,999</td>
<td>6,886</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>55,384</td>
<td>62,084</td>
<td>6,700</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>70,465</td>
<td>76,844</td>
<td>6,379</td>
</tr>
<tr>
<td>South Carolina</td>
<td>43,725</td>
<td>49,954</td>
<td>6,229</td>
</tr>
<tr>
<td>Delaware</td>
<td>50,647</td>
<td>56,292</td>
<td>5,645</td>
</tr>
<tr>
<td>Texas</td>
<td>46,800</td>
<td>52,427</td>
<td>5,627</td>
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<tr>
<td>Nebraska</td>
<td>40,530</td>
<td>45,974</td>
<td>5,444</td>
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<tr>
<td>Rhode island</td>
<td>55,943</td>
<td>61,350</td>
<td>5,407</td>
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<td>Georgia</td>
<td>50,545</td>
<td>55,920</td>
<td>5,375</td>
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<tr>
<td>Utah</td>
<td>43,743</td>
<td>48,973</td>
<td>5,230</td>
</tr>
<tr>
<td>New Mexico</td>
<td>42,491</td>
<td>47,136</td>
<td>4,645</td>
</tr>
<tr>
<td>Kentucky</td>
<td>51,313</td>
<td>55,513</td>
<td>4,200</td>
</tr>
</tbody>
</table>

IV. The Triple Whammy: The Competitive Disadvantage for Rural Districts

Rural districts need to compete for well-qualified teacher candidates on three fronts. First, in general, teachers are not compensated as well as other professionals. Second, rural states tend to pay less than more populated/industrialized states. And lastly, within most states, rural teachers have lower salaries than their suburban and urban peers as discussed in the previous section.

New teachers in all locations tend to earn less than in other professions requiring similar levels of education (Nelson, Drown, & Gould, 2000). New college graduates can earn over 35% more in sales and marketing, 43% more in business administration and 68% more in engineering. Thus, the ability to recruit college students into the education profession is hampered by lower salaries compared to positions in other professions.

The second competitive hurdle occurs between states. National data shows a wide variation between states in teacher compensation (NCES, 2002b). States ranking lowest in salary are all leading rural states. This list includes: North Dakota, South Dakota, Nebraska, Montana, Oklahoma, Louisiana, Wyoming, Mississippi, Iowa, and Arkansas. Not unexpectedly, the states paying the highest salaries tend to be more densely populated urban states, with Alaska being the one exception. The salary differentials are striking. First ranking New Jersey, for example, has an average salary ($49,872) that is more than twice the average salary in North Dakota ($24,234), the lowest paying state.

The third competitive challenge is within-state variation. Rural districts tend to offer lower salaries than suburban and urban districts within the same state. This is true within both rural states and more urban states. For example, in New York, which ranks fourth highest in the country in average teacher salary, rural teachers still make 16% less than teachers in non-rural areas. In South Dakota, with the lowest average salary in the country, the differential between rural and non-rural educators is 18%. In some ways, this intra-
state competition is the toughest hurdle for rural districts, since they compete more directly for the same pool of potential new teachers, and may be located in close proximity to higher paying suburban schools.

V. Cost-of-Living and Cost-of-Education: What Types of Cost Adjustments Make Sense?

It is tempting to turn to cost-of-living indices when considering teacher pay across various geographic locations. There is ample evidence that the cost of certain goods and services varies significantly between different geographic areas. For example, some common household items cost more in some locations than in others. Housing costs are especially variable across locales. Therefore, some people use cost-of-living adjustments to assert that workers living in high-cost areas need to bring home higher salaries to meet a standard of living equal to that in lower-cost locations.

While certain costs do vary significantly by location, cost adjustment indices do not capture other realities experienced in rural remote settings. For instance, the availability or lack of availability of certain goods may make some cost-of-living adjustments inapplicable. For example, adjustments for housing cost differences only make sense if good housing exists—and in some rural areas, it doesn’t. Also, cost adjustments usually do not account for certain locale-specific needs. For example, poor families in urban areas can meet their needs using public transportation. In remote rural settings, a functional car becomes a necessity. And in some northern rural areas, a 4-wheel drive car is necessary. Because of these factors, comprehensive cost-of-living adjustments designed to calibrate for an equal quality of life also need to account for locale differences in availability of goods and services, and extra basic necessities. In many rural areas, remoteness is a costly reality.

A variety of indices presently are used to make cost adjustments for various purposes. In education, economists have focused on the development of a “cost-of-education” index. Unfortunately, none of the existing models or indices has been able to adequately deal with all the complexities involved in education or differentiate between those factors districts can control and those beyond district control.

One of the most difficult issues in making cost-of-education adjustments has been factoring in educational “quality.” Fowler and Monk (2001), educational economists actively working on these issues, note that “quality differences in education make geographic cost differences difficult to measure” (p. 47). The most promising cost-of-education adjustments are models that focus “on the costs associated with actually realizing gains in [student] performance” (Fowler & Monk, 2001, p. 49). This developing work is hampered, however, by lack of appropriate data, among other obstacles.

The relevant cost-adjustment issue for rural districts is really not a cost-of-living issue, but a “cost-of-educational-staffing” issue. Districts need to determine how much it costs to attract and retain highly qualified teachers. If highly qualified teachers are essential for student academic success, and all children need to meet high standards, then all districts need to be able to offer salaries that will attract excellent candidates. For example, a rural district may find it necessary to offer a significantly higher salary to lure a highly qualified physics teacher into a remote setting. Thus, the competitive market for highly qualified teachers will need to dictate the salary, not the relative price of housing.

Ironically, this type of adjustment will probably work in the opposite direction from traditional cost-of-living indices. That is, studies have shown that it will take more money to attract and retain qualified teachers in poorer areas, which often have a lower cost-of-living (Prince, 2002). So, salaries in these areas may need to be higher—not lower—in order to recruit and retain highly qualified educators.

This complex issue is far from resolved. Economists are actively pursuing better models for indices that produce fair and appropriate cost-adjustments in education. Meanwhile, the advice offered by Fowler and Monk seems particularly
significant. They warn policy-makers to “be particularly wary of flawed [cost-of-living] adjustments that benefit one set of political interests over others” (p. 51) They state, for example, that

The most common use of geographic cost adjustments has been to give school districts in high cost-of-living areas higher state aid. However, this common usage should be reconsidered, since such aid may be disqualizing, that is, it may aid wealthy districts to the detriment of the poor. (Fowler & Monk, 2001, p. 51)

This caution should be taken seriously.

NCLB requirements may now make geographic cost-of-living adjustments unnecessary, inappropriate or worse, actually harmful, as suggested above. First, all children, in every location, need to meet the same rigorous standards. And all teachers need to be “highly qualified” as determined within each state. Lower cost-of-living locations are not exempt from either requirement.

Further complicating the situation is the fact that the labor market for the most qualified teachers has become increasingly competitive—and national. While cost-of-living adjustments may make sense for some occupations, the local labor market (an assumption of geographic cost-of-living adjustments) for teachers is becoming increasingly irrelevant in the national hustle to employ the highest quality teachers.

VI. Consequences of Teacher Shortages for Districts and Students

The above data confirm what rural advocates and educators have noted for years: there is a persistent pattern of low teacher salaries across rural America. The majority of rural teachers earn less than similarly educated and experienced teachers in suburban districts, even within the same state. This creates a basic framework of inequity within and between states, which has continued despite some recent efforts to rectify the problem.

Researchers believe that low pay is fueling the teacher shortages. Some have noted, for example, that New York City has practically eliminated their shortage crisis by raising starting salary to $39,000 per year (Rothstein, 2002). Similarly, the state of Connecticut raised salaries over the past decade and now reportedly has an ample supply of well-qualified teachers (Wilson, Darling-Hammond, & Barnett, 2001).

Many rural districts (and others), however, are still struggling with teacher shortages and the consequences of the teacher shortfall are serious.

In general, teacher shortages are first evident in the decreased number of applicants for a particular opening. Superintendents and principals in geographic shortage areas find that they have few applicants to choose from and as a result, little choice in hiring decisions. In some cases, they have no choice—or no applicants.

The impact of teacher shortages is significant for many rural school districts. Usually administrators must find someone, anyone, to teach the class, especially in elementary grades. Administrators may hire a teacher with less than satisfactory credentials, or hire someone under emergency licensure (such as a full-time substitute). Another option is to consolidate classes, which results in larger class sizes.

In high schools, especially for more specialized subjects, administrators may opt to cancel courses. Thus the more advanced course offerings are especially vulnerable, since they are frequently electives and therefore “dispensable.” Another common response of hard-to-staff districts is to require an existing teacher to teach out-of-field.

High turnover has other more subtle effects on schools. The “revolving door” of teachers makes it nearly impossible for administrators to establish a cohesive, collaborative staff (Ingersoll, 2001). Effective system-wide professional development becomes difficult, since new teachers are continually filtering through the system. Most importantly, students may be denied the benefits of continuity, more experienced teachers, and coordinated, coherent curriculum across grades and subjects.
Hence, the consequences of teacher shortages include hiring under-prepared teachers, more out-of-field teaching assignments, larger classes, fewer advanced course options, less coordinated curriculum, less experienced teaching staff, and fragmented professional development. Regrettably, these trends are exactly opposite from elements that are necessary to improve student learning. Research shows, for example, that students do best with qualified teachers assigned to their field of expertise, in smaller classes, when enrolled in advanced level courses, when curriculum is coordinated and sequential, and when teachers have access to ongoing, system-wide, coordinated professional development.

The ultimate result of teacher shortages is obvious: educational quality suffers and student learning is seriously compromised. To the extent that rural districts are experiencing high rates of shortages, whether from recruitment challenges and/or high staff turnover, students in these areas have a high probability of being denied the fundamental resources necessary for a quality education.

VII. Will Increasing Compensation Fix the Problems?

It is reasonable to ask tough questions about the potential impact of raising salaries. Common sense suggests that pay is important, and that inequitable and inadequate pay leads to a second-class education. But will it really provide high quality new teachers, alleviate the retention problem, and improve equity? Below are the questions and a summary of what is known.

1. To what extent will increased salary provide districts with more “highly qualified” teachers?

Increased salary will greatly assist rural districts in attracting and retaining highly qualified new teachers.

Though most of the research linking teacher quality and salary is indirect, available data suggests that salary levels influence higher ability college students, especially when considering other career options. For example, Goldhaber points out “expressed interest in teaching as a career tends to track closely with fluctuations in relative teacher salary” (Goldhaber, 2001, p. 15). That is, during the 1970s to the mid-1980s salaries for teaching declined relative to other professions. This was accompanied by a decrease in interest in education as a profession by college students. When teacher salaries began to rise, more college students indicated that teaching was a potential career. Analyses suggest that individuals are influenced by long-term labor market incentives when making career choices. All else being equal, as teachers’ salary and benefits rise relative to those in other professions, teaching becomes a more attractive field and higher ability individuals will enter the profession. (Goldhaber, 2001, p. 15)

This same relationship occurs within the teaching profession. Research indicates that the most qualified teachers tend to teach in districts with more economically advantaged students (Ingersoll, 1999) and receive higher salaries (Ballou, 1996). Figlio, who found that both between and within selected metropolitan areas, higher salaries have been instrumental in attracting more teachers “with higher qualifications,” further confirmed this association (Figlio, 1997, p. 271).

This has implications for rural (and urban) areas that are competing for teachers with high paying suburban areas in close proximity. Districts experiencing shortages do not merely want to fill their staff vacancies, but want to fill vacancies with highly qualified educators. The fact that higher salaries entice well-qualified candidates indicates that raising salaries may, indeed, be effective in luring extremely competent educators into rural schools.

2. Will increasing pay improve teacher retention?

Yes. Researchers believe that higher compensation is a necessary, if not sufficient, element in turning around the attrition of new teachers.
Data on teacher retention (usually measured by turnover rates) is alarming. In general, about 30% of teachers leave the profession of teaching within the first three years on the job. In comparison, an average attrition rate in other professions is about 11% (Ingersoll, 2001). Teacher turnover actually is the prime factor causing teacher shortages, even more than the so-called "graying" (reaching retirement age) of the present teaching staff, or increasing student enrollment (Ingersoll, 2001).

Why do teachers leave? Surveys indicate that job dissatisfaction accounts for over one-quarter of the turnover. Factors contributing to dissatisfaction include the need for more administrative support, more input into decision-making, problems of student discipline, and low pay. Of all the reasons cited, low pay was the most common explanation given by teachers for leaving districts (Ingersoll, 2001).

Researchers have studied the role of pay in job satisfaction extensively. For example, educational economists Chambers and Fowler (1995) note that job satisfaction involves both monetary and non-monetary rewards. That is, work conditions and financial remuneration influence employment decisions. They suggest that when work conditions are more difficult, monetary rewards become more important and vice versa. When work conditions are very appealing, then monetary rewards diminish in significance. Similarly, Prince (2002) notes that financial incentives frequently function as the "tipping point" or the deciding element in job satisfaction.

Thus, in sites where school and environmental factors are particularly challenging, increased financial rewards will be even more consequential. This may be the case for teachers in poor rural districts—especially those districts with less resources, requiring multiple teaching assignments, providing fewer support personnel and located in more remote and isolated settings. Though improving work conditions involves more than increasing compensation, it is the one area that policy-makers can directly change and, indeed, may be the "tipping point" that encourages teachers to remain in rural districts.

3. Will rural/non-rural inequities be improved with financial incentives?

Financial incentives will make a big difference if implemented in response to the real needs and circumstances of rural schools. Policies to increase salaries "across the board" (for all districts) will not eliminate inequities already existing between rural and non-rural districts. Rural salaries will still lag behind the wealthier suburban districts, thereby maintaining the trend of losing the best teachers to wealthy suburban districts.

However, increased salary coupled with targeted incentives (increases) for "hard-to-staff" districts will be effective, since the poorest districts will benefit the most. Still, the policy details matter, and the amount of the financial incentives counts.

Obviously, the definitions of the categories that determine the targeted population will decide which districts are eligible for financial assistance. Different states and different policies apply a variety of labels such as "hard-to-staff," "high needs," or "critical shortage areas." In many cases, poverty and/or minority criteria are used. Again, minor details are important. Mississippi, for example, has several programs designed to encourage teachers to work in geographic areas where there is a critical shortage of certified teachers. State definitions of what constitutes a "critical shortage" however, are more stringent for districts with smaller enrollment than for larger districts. This exposes a potential discriminatory policy that may disadvantage very small rural districts.

Probably the most focused attempts to establish between-district equity are policies that enact statewide teacher salaries. Presumably, each district offers exactly the same salary to teachers of similar experience and education, no matter where that district is located, or how wealthy or poor the district is. Fifteen states currently have mandated minimum teacher salary scales.

Again, details matter.

Most state statutes include provisions that allow inequities to flourish by permitting local communities to raise additional taxes to supplement the salary scale.
Since local taxing capacity is a function of local wealth, local supplements are bound to increase inequities. For example, in North Carolina in 2002, average supplements ranged from $100 to $5,481 per teacher, with seven districts offering no supplements (North Carolina Department of Public Instruction, 2002). All seven counties without supplements are rural, and the five counties with the lowest supplements are also all rural. Not surprisingly, all five counties that offer the most (from $3,264-$5,481) are urban or urban fringe (suburban) districts. The resulting inequities are notable. The latest SASS data for North Carolina indicates the highest salary offered in a non-rural district is more than $7,400 above the highest salary offered in a rural area.

VIII. Current Efforts to Alleviate Teacher Shortages

Most states are actively pursuing an assortment of strategies to alleviate teacher shortages. The majority of statewide efforts (though not all) concentrate on the recruitment challenges. Strategies include both financial and non-financial efforts. Some financial incentives are ongoing, or long-term (e.g., increased salaries), while others are short-term (e.g., sign-on bonuses).

Non-financial initiatives are primarily used to expand the availability and attractiveness of the teaching profession to a wider audience. These approaches include policies such as establishing alternative routes to certification, changing employment restrictions for retired teachers, and increasing reciprocity of certification between states. Though the non-financial strategies are beyond the scope of this report, they do represent substantial statewide efforts to increase the potential teaching force.

The table on the next page presents a summary of the kinds of financial incentives currently in use.

Rural-specific Strategies

Only a few states have made rural districts a conspicuous priority by including rural-specific language in their policies. Several teacher recruitment initiatives in Mississippi are primarily directed towards rural districts. Georgia expanded its Pathways to Teaching Program into rural counties with a Title II grant. Missouri has several rural-specific programs, including forgivable college tuition loans for teachers in poor rural (and urban) areas. And recently proposed federal legislation would provide rural teachers with a $1,000 federal income tax credit.

In general, however, most recruitment strategies target "hard-to-staff districts." Though definitions of these districts vary by state and by policy, many do include rural districts. Usually the definitions of hard-to-staff districts depend on meeting certain poverty criteria. Given the prevalence of rural poverty, rural districts often are included in targeted incentive programs.

IX. Policy Recommendations

Policy recommendations included here are designed to improve conditions in rural districts, especially poor rural schools, though many certainly will be beneficial for poor urban districts also. The underlying goal of all these suggestions is to provide excellent and equitable educational opportunities for all rural students by ensuring the placement of highly qualified teachers in all rural schools.

1. Increase financial investment for rural teachers
   - Provide equitable salaries and benefits for all rural teachers
   At the very minimum, rural teachers should earn salaries and benefits comparable to teachers in suburban and urban areas. The ability of rural districts to hire and retain highly qualified teachers will depend on their being able to provide equitable and competitive compensation. Anything less places rural students in jeopardy of receiving an inferior education, especially as competition for highly qualified teachers escalates.
### Table 3

**Teacher Recruitment Strategies: Financial Incentives**

<table>
<thead>
<tr>
<th>Financial Incentive</th>
<th>Description</th>
<th>Examples of participating states</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Competitive Salaries and Benefits</td>
<td>State policy usually involves one of three strategies: 1. Require districts to raise salaries and benefits 2. Increase salaries through statewide teacher salary scale or 3. Increase salaries by establishing minimum beginner's salary</td>
<td>23 states have minimum teacher salaries legislation: AL, AR, CA, DE, GA, IA, KY, LA, ME, MA, MS, MO, NJ, NM, NC, OH, OK, PA, SC, TN, TX, WA, WV</td>
</tr>
<tr>
<td>2. Signing Bonuses</td>
<td>Most programs offered at the state level, though some are sponsored by cities or local districts. Some programs target certain recruitment populations, or &quot;critical-needs&quot; subject areas, or geographic high-needs areas.</td>
<td>MA ($20,000—targets mid-career, and math, science, foreign language majors) NY ($3,400 bonus if accept position in critical shortage area) Baltimore City schools</td>
</tr>
<tr>
<td>3. College scholarships and/or tuition assistance</td>
<td>As above, many programs target specific populations—most commonly directed at increasing the number of minority teachers. Other programs are aimed at encouraging non-traditional students to seek certification and advanced degrees. Usually sponsored by states. For example, the NC Teaching Fellows Program offers 400 scholarships to 4-year colleges in exchange for 4 years of teaching.</td>
<td>CT FL GA (target paraprofessionals) IL (target minorities) KY MA MS NC SC MN (for Native Americans) VA WA</td>
</tr>
<tr>
<td>4. Loans and loan forgiveness</td>
<td>Some private nonprofit sponsors (e.g., DeWitt Wallace—Pathways to Teaching Careers provides tuition assistance and support to returning Peace Corps volunteers, substitutes, para-educators etc.) Others include Teach for America and Ford Foundation programs.</td>
<td>CA FL MN (for Native Americans) MN (for minorities) MS (for rural areas) PA VA WI</td>
</tr>
<tr>
<td>5. Moving expenses and/or relocation reimbursement</td>
<td>As with the scholarships, many programs are aimed at increasing the numbers of minorities in the teaching profession.</td>
<td>MS ($1,000 + computer etc.) Baltimore ($1,200)</td>
</tr>
<tr>
<td>6. Housing incentives</td>
<td>Often part of sign-on bonus package. Policy options include low interest loans, real estate help, and in some rural areas, “house-ages.”</td>
<td>MS MD Baltimore ($5,000 for home loan)</td>
</tr>
</tbody>
</table>
Though many of the short-term incentives (such as sign-on bonuses, moving expenses etc.) have potential for decreasing initial recruitment problems, we believe that increasing compensation is the preferred route. First, it is unclear whether short-term incentives solve retention problems. They appear to be useful recruitment tools, but it is unknown to what extent they will reduce attrition. Second, short-term incentives may be more vulnerable to budget cuts when states (and districts) are experiencing financial hardships. Many states have experienced recent shortfalls in revenue, causing budget reexaminations. Some state legislatures responded by repealing or reducing previously promised short-term recruitment incentives. Legislatures will be less tempted to decrease salaries and benefits; this type of incentive will therefore be the most resistant to the capriciousness of the economy.

Many states have already made efforts to implement this goal either by establishing statewide salary schedules or setting minimum salaries. However, the ability of local districts to supplement salaries has reversed gains in establishing equity between wealthy and poor districts. Though we believe wealthy communities should be able to supplement salaries if they wish, we also believe that poor communities should be able to do the same. This will require either direct subsidies or provisions in funding formulas that equalize resources according to district need and wealth.

- Provide additional incentives for hard-to-staff rural districts.

Many rural districts are especially "hard-to-staff" and require additional financial incentives to attract highly qualified educators. Researchers have found that in the most challenging schools, additional financial incentives are necessary to attract and retain qualified teachers (Prince, p.15). That is, we believe that all rural schools need to offer comparable salaries, and that certain categories of rural schools ("hard-to-staff" rural schools) will need additional incentives, over and above competitive salaries.

Criteria for eligibility need to be carefully developed, however, to ensure that rural districts that experience hiring difficulties and high turnover are included in policy definitions. Since a variety of factors contribute to shortages, parameters should be broad. Guidelines for rural districts could include, for example, student poverty indices, teacher turnover rate, unfilled vacancies, declining population, unemployment, underemployment and/or remoteness.

- Encourage increased federal support of recruitment strategies.

Substantial increases of salaries and benefits will be costly and economically strapped rural districts will not be able to afford this. In rough economic times, state governments also struggle to provide incentives. Therefore, the federal government must play a substantial role.

Raising the average rural teachers' salary up to the average for non-rural teachers would involve a national investment of approximately $1.6 billion,
using the 1999-2000 data. Though this may initially appear prohibitively expensive, it in fact would cost an average of $201 per rural student.\textsuperscript{17} Given the high stakes and the current discrepancies in per pupil expenditures, this may be a very effective and efficient strategy in improving rural education.

We are cautiously encouraged by some of the provisions in NCLB that allocate money for teacher recruitment efforts. However, NCLB is an extremely complex act containing many provisions that may influence how it is implemented. Though the money could be used to raise rural teacher salaries, it is up to individual states to decide how to apply the funds. And there are strings attached.\textsuperscript{18} Since this picture is just unfolding, it is uncertain whether, and to what extent, the legislation will be effective and whether hard-to-staff rural districts will experience any substantial relief.

- Combine financial efforts with policies to improve teacher quality and retention.

Improving rural teacher pay is an absolute necessity, but should not occur in a vacuum. For rural districts, ensuring teacher quality and improving teacher recruitment and retention require additional strategies. A thorough discussion of these tactics is beyond the scope of this report; however, the following list highlights some of the accompanying areas that are critical in meeting this goal.

1. Encourage and support rural people to become rural teachers.
   - Expanding “grow-your-own” programs (e.g., loan repayments, scholarships, high school clubs)
   - Encouraging higher education institutions to actively recruit students from rural communities

2. Strengthen rural components of teacher development programs.
   - Encouraging a rigorous curriculum that includes coursework and experiences that focus on the uniqueness of rural places and prepare teachers for working in small rural schools

- Encouraging the placement of student teachers (interns) in rural schools
- Supporting high quality induction and ongoing professional development that is accessible and relevant for rural schools and communities
- Exploring the use of technology in improving access to professional development for rural teachers


Research issues include the following:
- Evaluating the effectiveness of incentives for recruiting and retaining rural teachers
- Developing models to estimate how much additional compensation is needed to attract and retain teachers in rural areas
- Identifying state finance policies that provide the most equitable conditions for rural/poor districts
- Evaluating definitions used in state policies to determine how effectively they reach the targeted population (e.g. what are the most appropriate definitions of “hard-to-staff” districts?)
- Evaluating the strengths and weaknesses of state certification requirements for meeting the needs of rural schools (e.g. To what degree do testing requirements present obstacles for potential rural teachers?)
- Evaluating the effectiveness of alternative certification routes in training highly qualified teachers for work in rural settings
- Identifying factors influencing job satisfaction and thereby retention for rural teachers

X. Conclusion

Competition for the best teachers is not new. For decades, wealthy districts have offered higher salaries in the hopes of attracting the most effective teachers and they have been successful. Research indicates that the classrooms with the most advantaged students are staffed by the most qualified teachers (Darling-Hammond, 2001; Ingersoll, 1999).
What is new is the convergence of several national trends. Teacher shortages are common. Courts are mandating equity of educational opportunity. States are passing policies to increase recruitment of new educators. Furthermore, the federal government has now made teacher quality a high stakes requirement. These factors have all combined to create a national teacher labor market that demands higher pay in districts that traditionally have offered low compensation. For many rural districts, the pressure is on.

For rural children, this is probably very good news. Ultimately, they will be exposed to more highly qualified teachers—but only if the playing field on which their school districts compete for highly qualified teachers is level. For rural districts, this competition and its financial implications are daunting and require significant investment from state and federal sources. Poor rural districts will not be able to meet the competitive challenges without financial help.

If it is indeed a national expectation that “no rural child will be left behind,” then the resources must be allocated to make this a reality—anything less than that is a sham. And helping rural districts attract and retain highly qualified excellent teachers is absolutely essential in assuring that rural children receive the quality education they deserve.
Endnotes

1. The label “highly qualified” is used in the latest reauthorization of ESEA, the No Child Left Behind Act of 2001 (NCLB). After the beginning of the fiscal 2003 school year, all newly hired Title I teachers must be “highly qualified.” Teachers in all core subjects need to meet quality standards by the end of the 2005-2006 school year. Though NCLB leaves the precise definition of “highly qualified” to states, it requires that teachers be state certified (including alternative routes to certification), hold at least a bachelor’s degree, or pass state exams on subject knowledge and teaching skills. Since state requirements for certification and testing vary significantly, assuring teaching quality will mainly depend on policy decisions at the state level.

2. The national data on teachers’ salary used in this report comes from the School and Staffing Survey, 1999-2000, compiled by the U.S. Department of Education’s National Center for Education Statistics (NCES). “Rural” districts are defined here as those in categories seven and eight, using the NCES Locale codes (often called Johnson codes). More information about urban/rural classification systems can be found at http://nces.gov/surveys/ruraled/Definitions.asp.

3. For a thorough review of the problem of teacher turnover, see Ingersoll, 2002.

4. Court decisions have identified inequities related to educational funding and disparities in teacher pay as violating the education rights of students under state constitutions. For example, the decision by the Tennessee Supreme Court (October 8, 2002) requires the legislature to make significant changes in the current financing system. The court found that the present system of state aid for teacher compensation creates severe disparities in pay that make it difficult for poor rural schools to recruit and retain qualified educators.

5. California’s experience with their class-size reduction program is a classic example (Stecher et al., 2001).

6. Demographic data is from the Common Core of Data, compiled by the NCES.

7. The ten states with the highest average salaries are New Jersey, Connecticut, New York, Pennsylvania, Rhode Island, Michigan, California, Alaska, Massachusetts and Maryland.

8. For example, the Consumer Price Index (CPI) is frequently used to track inflation. Other cost-of-living indices are used to make geographic adjustments in salary such as Net Services Index (NCI) or Goldhaber’s General Wage Index (GWI). Other indices exist specifically for education (frequently referred to as “cost-of-education” indices) such as the Average Teacher Salary Index, Teacher Cost Index, and Inflationary Cost-of-Education Index (Fowler & Monk, 2001; Goldhaber, 2001).

9. Numerous research reports link student achievement to these and other factors. For example, see Darling-Hammond (2000) for teacher qualification, Finn & Achilles (1999) for class size and National Commission on Teaching & America’s Future (1996) for importance of high quality professional development.

10. Figlio defined “higher-qualification” teachers as those who graduated from a selective undergraduate institution and had subject matter expertise as indicated by their college major.

11. In Mississippi, geographic shortage areas are “districts with 60 or more teaching positions having 10% or more of their teaching staff not appropriately licensed.” For districts with fewer than 60 positions,
the criteria to be eligible for shortage area incentives is that 15% or more of the teaching staff is not appropriately licensed (Mississippi State Board Policy, 1998).

12. According to National Education Association, the following states have mandated minimum salaries: Alabama, Delaware, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Texas, West Virginia and Hawaii. Washington has mandated bachelor’s and master’s degree minimums only (NEA, 1995).

13. Tax credits, mortgage subsidies, loan forgiveness plans also may be considered long-term incentives.

14. The Mississippi Critical Teacher Shortage Act of 1998 established a series of scholarships, loans, moving and housing incentives designed to increase recruitment of new teachers into “critical shortage areas” (CSA). CSA are primarily in the Delta and are districts with a high percent of uncertified teachers. Information can be obtained at http://www.mde.k12.ms.us/mtc/teach.htm.

15. Georgia’s Pathway to Teaching program, funded by the DeWitt Wallace-Readers’ Digest Foundation, is a “grow-your-own” program, designed to help uncertified employees of Chatham County, Georgia, to become fully certified teachers. It offers 80% tuition scholarships, mentorships, and other supports to selected non-certified teachers, paraprofessionals, substitute teachers and others who wish to teach. Graduates need to commit to teach at least three years in Chatham County schools, a high-needs urban area. This year, the program has expanded to include rural districts. Information can be obtained on the web at http://www.education.armstrong.edu/pathways/Home.htm.

16. Unfortunately, this year’s financial woes have caused many states to cut back on previous promises of financial incentives. For example, in 2002, Arkansas was unable to supplement salaries as originally slated. Massachusetts had to severely cut the number of state-sponsored sign-on bonuses. Virginia reduced bonuses for National Board certified teachers.

17. Calculation based on the 1999-2000 SASS data of number of teachers and salary schedules in each state.

18. This year, funding of Title II (NCLB) includes $3.1 billion for state grants to improve teacher quality that can be used for teacher recruitment efforts, including financial incentives. It will be up to states to decide how to distribute the funds. All recruitment efforts funded by Title II monies must be linked to measurable improvement in student academic assessment.
References


Mississippi State Board Policy. (1998). Revised criteria for geographic “critical shortage areas.” Jackson, MS: Mississippi Department of Education.


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