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The problems posed by recurrent and resistant salary problems in education will require fundamental reconsideration of school organizational, operational and administrative strategies.

Teacher Salary Differentials and Out-of-Field Teaching

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The quality of public education has been criticized widely in the last five years, and the recent spate of national studies[1] has echoed and magnified such criticism to a deafening roar. Unfortunately there have been few sustained and systematic efforts to determine the validity of the charges against public schools or the subsequent matter of explaining decline. The tendency has been to accept the allegation of decline as fact and develop an armchair hypothesis about the causes. Hence, one must wonder on what basis the proposed cures are founded.

Though there are many explanations for this peculiar set of circumstances, one important reason concerns the difficulty of defining, measuring, and relating variables that connect the quality of education with the quality of teaching. The relationships between these concepts are ambiguous and undergirded by assumptions that are often unexamined. For example, accepting decline on the basis of falling test scores for students and teachers assumes that a given standardized test does in fact measure things that truly reflect the quality of education.

The case for linking the quality of education with inadequate salaries is even more tenuous, and the absence of a tidy methodology makes the rationalization of no action or postponed action more defensible than it might otherwise be. However, it is possible to examine the quality-salary issue in another light. This research brief provides the rationale for doing so as well as some preliminary evidence on the matter, and implications for administrators and educational policymakers.

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Background Considerations on Quality and Salary

To date the evidence of a relationship between the quality of education and teacher salaries rests on propositions derived from economic theory, descriptive studies based on these propositions, and reports of declining test scores among students and teachers. Economic theory postulates that unsatisfactory social and economic benefits within a profession will lead to a decline in the supply of specialized labor for the profession. It also postulates that as the supply of specialized labor dwindles, those remaining in the labor pool of the profession will have a different set of characteristics than those who leave the profession.[2]

As reported earlier, declining test scores for students and teachers have been interpreted as evidence that the quality of public education is suffering and that the quality of teachers is declining also. Though this rests on an assumed relationship between test score and quality, the fact is that standardized test scores for students and potential teachers have fallen coincidentally with the purchasing power of teachers.[3] It also has been demonstrated that the mean test scores of teachers who remain in the profession are lower than the mean test scores of teachers who leave the profession.[4] Further, numerous surveys of classroom teachers and potential teachers report intolerably low salaries as a key reason for malcontent within the profession, a primary motivating factor for leaving the profession, and sufficient cause not to enter the profession.[5]

Despite the evidence regarding the changing composition of the remaining and potential labor pool of teachers and widespread reports of inadequate salaries as the reason for teacher flight,[6] national reports fail to make a strong recommendation about raising teacher salaries or the recommendation is buried near the end of the list. No doubt political expediency in the face of tight fiscal conditions explains part of the behavior, as do ideological propositions that salary is inconsequential to teachers. But, reluctance to address the issue forcefully also may be based on an unwillingness to accept the assumed relationship between quality of education and quality of teaching as reflected in test scores.

Given this possibility, another line of inquiry about the relationship between educational quality and teacher salaries can be undertaken. It, too, is rooted in economic theory, and it assumes that proper certification in a discipline contributes to the quality of teaching, and subsequently to the quality of education. jthe rationale and sample employed in this preliminary investigation follow.

Rationale and Sample

Assuming that some minimal knowledge in a discipline, represented by certification, is necessary to teach effectively, this study sought to determine the statistical relationship, if any, between the highest and lowest paying school districts in one state and the proportion of teachers assigned to classes outside of their certification. We reasoned that given a sufficient salary differential, the supply of appropriately certified teachers would be significantly different in high- and low-paying school districts. Further, we believed that salary would explain a large portion of the variation in out-of-field teaching among school districts.

To test these predictions, two groups of school districts in North Carolina were identified as subjects. Group one included all school districts (N = 44) that did not pay a

salary supplement beyond the minimum salary mandated by the statewide schedule in 1981. These districts comprised 31 percent of all districts in the state. The second group contained all districts that paid at least $500 above the minimum specified by the state salary schedule, and it comprised 15 percent of the total districts in the state (N = 22).

Method and Findings

A linear regression model, using the general linear model of the statistical analysis, was constructed using percent of out-of-field teachers in eight disciplines as the dependent variable. Classification as a high- or low-paying district was the independent variable. The results of the model were significant ($p < .0001$) and salary classification explained 52 percent of the variation in out-of-field teaching between the two groups of districts. The mean percent of teachers out-of-field in low-paying districts was significantly greater than the mean percentage of out-of-field teachers in the high-paying districts. The percentage of unexplained variation may be due to error and factors that can be controlled by policy and administrators. Those variables need to be identified and included in the model as next steps to this preliminary study.

These findings are consistent with economic propositions that posit a relationship between the supply of specialized labor and the level of economic benefits available to the labor pool relative to those available in alternative labor pools. They corroborate reports of teachers and potential teachers who either leave the field or do not enter it, and they suggest new descriptive evidence relating the quality of education and low teacher salaries. The credibility of the relationship rests on an assumed link between proper certification, quality of teaching, and quality of education.

In the absence of casual studies, judgments about the efficacy of test scores and certification in explaining quality must rely on a preponderance of evidence and transportable theories. Further, the generalizability of these findings beyond one state remains to be demonstrated. However, the approach does provide a unique view of the salary-supply-quality issue, and it does have some important implications for administrators and policy makers.

Implications and Recommendations

Negative newspaper coverage about the quality of education, conditions of fiscal stringency, and political resistance to the redistribution of existing resources make it unlikely that legislatures will opt for across-the-board salary increments that will make teaching a competitive labor market. Outside of agitating for rational consideration of the quality issue and the systematic effort to examine the issue, what can administrators and policymakers do to mitigate the threat of insufficient qualified labor?

Timeworn practices of assigning teachers to subject areas and grade levels for which they are unprepared seems professionally unacceptable. Adopting policies providing for provisional endorsement seems equally flimsy. Both have the effect of hiding the problem as opposed to treating the problem, and it is difficult to believe that such actions are based on assessments of what is best for children.

Effecting differentiated staffing patterns with different salary **ranges** has some appeal as a means of enhancing instruction provided by improperly certified personnel. Master teachers or team leaders might be employed to teach, supervise, and otherwise assist and monitor the teachers and curriculum-in-use. Their additional responsibilities and expertise in diagnosis, supervision, and organizing are legitimate reasons for differentiating salaries. The use of nontraditional instructional design and delivery systems which capitalize on the high technology information represent another category of interventions worth exploring.

Clearly, the problems posed by recurrent and resistant salary problems in education will require fundamental reconsideration of school organizational, operational, and administrative strategies. They, in fact, have been needed for some time, but the time and climate seem most appropriate now. Truly, the challenge for public education in the 1980s and beyond lies within the profession.

References

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