

Teacher Pay and Teacher Quality

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Chapter 1 - Introduction

Dale Ballou, *University of Massachusetts at Amherst*
Michael Podgursky, *University of Missouri—Columbia*

In 1983, the National Commission on Excellence in Education, a panel of distinguished educators appointed by Secretary of Education Terence Bell, released a report on the condition of American education entitled *A Nation at Risk: The Imperative for Educational Reform*. The provocative message of the report—that if a foreign power had tried to impose on America the mediocre educational performance of our schools, we might well have regarded it as an act of war—set off a debate about the nation’s schools that continues today.

Teacher Quality

Not the least of the commission’s concerns centered on the quality of teaching. Among their claims were the following:

1. Too many teachers had been poor students themselves.
2. Programs of teacher education placed too much emphasis on courses in educational methods, too little on the subjects to be taught.
3. There were severe shortages of qualified teachers in certain subject areas, such as mathematics and science.
4. Too many newly employed teachers were not qualified to teach the subjects they were assigned.

These basic concerns were not new. In 1963 the president of the Council for Basic Education described teacher education in the following terms: “A weak faculty operates a weak program that attracts weak students.” (Koerner 1963). Researchers reported that SAT scores of education majors ranked near the bottom of all college graduates (Weaver 1983). Subsequent developments confirmed these criticisms, as substantial proportions of the workforce and even larger percentages of new teacher trainees were unable to pass teacher examinations that amounted to little more than tests of basic literacy (Toch 1991).

Worse still, there were signs in the early 1980s that the quality of the teaching workforce was deteriorating. The decline in the average SAT scores of high school seniors intending to major in education had out-paced the drop in scores among college-bound students in general. A similar pattern was found in an analysis of IQ scores of college graduates who entered teaching: in 1967, graduates with IQ scores of 100 and 130 were about equally likely to become teachers; by 1980, the ratio was 4:1 (Murnane 1991).

Problems in teacher recruitment were exacerbated by two other trends. One, women were finding new careers open to them and no longer entered education in the same numbers. This was especially true of bright, capable women who had formerly provided public school systems with a low-cost pool of talented teachers. Second, by the early 1980s, the decline in school enrollments that had marked the previous decade was coming to an end; enrollments began to rise again in the lower elementary grades. Thus policy makers foresaw not only a sustained decline in the teacher quality, but an absolute shortage of trained instructors, particularly in critical areas such as mathematics and science (Darling-Hammond 1984).

The Response

By one count, *A Nation at Risk* was followed by more than two hundred reports on American education, each setting out recommendations for educational reform (Wayson 1988). Many proposed to improve teaching effectiveness by raising standards for teacher education and licensing. Such reforms included higher admission standards for teacher education programs; more rigorous course content in teacher education, with increased emphasis on subject matter; and basic skills and subject matter competency testing for teacher certification. These reforms were, however, unlikely to accomplish much alone. In the words of one of the most prominent studies of the teaching workforce: “It will do little good to raise the standards for entry into the profession of teaching and greatly improve the professional preparation of teachers if nothing is done to make teaching a more attractive career” (Carnegie Forum on Education and the Economy 1986).

The leading reports dealing with teachers were unanimous in regard to one recommendation: in order to attract more capable persons into the profession, salaries need to be raised (Boyer 1983; The Holmes Group 1986; Carnegie Forum on Education and the Economy 1986; National Commission on Excellence in Education 1983). Over and over again it was pointed out that teachers’ salaries ranked below those of most occupations requiring a college degree. Moreover, while teaching had never been regarded as a well-paid career, during the 1970s teachers had lost ground. In the ten years that followed the 1971-72 school year, average

teacher salaries fell more than 10 percent in constant dollars (U.S. Department of Education 1993). The fact that this decline paralleled a drop in academic ability among new teachers enhanced the case for high pay.

As state legislatures and local school districts responded to the recommendations of the commissions, a few dissenting voices questioned the accuracy of the diagnosis and efficacy of the cure. It was argued that teachers were not as poorly paid as alleged. Teacher salaries had been understated.¹ In addition, most interoccupational comparisons of salaries omit fringe benefits. Since teachers, like other public sector employees, receive more generous benefits than most private sector workers, this omission led to an understatement of their relative compensation. Finally, teachers also work shorter years than most other Americans; earnings during summer vacations (or the value of leisure) further increase teachers' total income.

More important, there had been no analysis of the teacher labor market to support the recommended salary increases. "[N]o one seems to have any idea of either how much additional teacher talent would be attracted by increases in teacher compensation, or how much students would learn if teachers were paid more" (Lieberman 1986). Indeed, the notion that increasing spending on schools would improve educational outcomes was (and remains) a contentious one, with a substantial body of research failing to detect a strong relationship between per-pupil expenditures and student achievement (Hanushek 1986).

In addition, some doubted that the nation was prepared to spend the sums of money proposed to making teaching competitive with other careers. By one reckoning, the suggestion of the president of the Carnegie Foundation for the Advancement of Teaching to raise teacher salaries by 25 percent after inflation would cost the nation \$9 billion annually, not including the cost of additional pension benefits or the increases for others in the education system (such as administrators and clerical staff) that were likely to ensue (Lieberman 1986).

In one respect, at any rate, the skeptics were wrong: the nation proved willing after all to commit vast sums to teacher compensation. Although there were large differences across states in the rate of salary growth, on the whole the United States came close to implementing the proposed 25 percent raise. Between 1979 and 1989, teachers' average salaries rose 20 percent after inflation. In some states real increases were extraordinary: 36 percent in New Hampshire, 35 percent in Virginia, 52 percent in Connecticut (U.S. Department of Education 1993).

Increases in salaries for beginning public school teachers substantially restored the competitiveness of teaching vis-a-vis other careers. Between 1979 and 1989, salaries for new teachers rose 13 percent. Average earnings in entry-level

positions for all college graduates increased by only 3.5 percent over the same period.² By 1991 the ratio of teachers' starting salaries to those of other graduates had reached .86, exceeding the 1976 ratio of 83 percent.

Rather surprisingly, there has been little effort to assess the results of this policy. Surveys conducted by the National Center for Education Statistics now provide more detailed information about the teaching workforce than ever before available, yet no analysis of these data attempting to relate changes in teacher recruitment to salary growth has appeared. Previous scholarly work has focused on pieces of the story (e.g., the relationship between salaries and teacher retention). The analysis of the teacher labor market that would provide the foundation for the formulation of effective policy remains to be done.

In the meantime, the debate over teacher salaries has grown more acrimonious. Voters who have witnessed dramatic increases in teacher compensation without seeing commensurate improvements (at least in their view) in the education provided their children have elected school boards that now pressure teacher unions for salary concession; teachers are striking because boards have reneged on earlier agreements. Adding to the clamor are the voices of those who believe that teacher salaries are still too low, that we have not done enough to make the profession attractive, and of their opponents who see no point in providing additional funds to an educational system that has demonstrably failed the nation's children and wonder why many of our school systems must now spend upwards of \$7,000 per pupil when many private schools cost substantially less.

This monograph is an attempt to clarify the facts as well as the underlying issues in this debate. We ask a simple question: have higher salaries improved the quality of newly recruited teachers? Since we find little evidence to support an affirmative response, we ask two more questions. First, what went wrong? Second, Which reforms are likely to meet with more success? To answer these questions, we review data on the characteristics of newly recruited teachers. We also show how important features of the labor market for teachers systematically undermine efforts to improve teacher quality. Finally, we undertake a comparison of personnel policies and staffing patterns in public and private schools, an exercise that sheds light on what can be accomplished by lifting some of the regulatory (and other) constraints now imposed on public school administrators.

Organization of the Book

The remainder of the text is divided into six chapters. In chapter 2, we take up an important preliminary question—how to measure teacher quality. We select several indicators of quality, which are then used in chapter 3 to assess the

evidence on salary growth and teacher recruitment. Chapter 4 offers an analysis of the operation of the teacher labor market that explains our findings, while chapter 5 reviews the implications for teacher recruitment of various other reforms of current interest. Chapter 6 looks at teacher salaries and personnel policies in the private sector to see whether private schools offer a model for reforming education. Our main points are summarized in the final chapter.

Notes

1. As Myron Lieberman (1986) points out, *A Nation at Risk* understated the average teacher salary in 1981-82 by 13 percent.

2. Data on real salary growth are from the Surveys of Recent College Graduates, adjusted for changes in the Consumer Price Index. Salary gains by new teachers exceeded those of nonteaching graduates in the humanities (2.6 percent), in the social sciences (5.7 percent), and in science, mathematics, and computer science (11.5 percent).

Various other data are available on salaries of new college graduates. Some of them offer a different picture of the relative wages of teachers. We have used the data that seem to be most broadly representative of the jobs taken by new graduates. An alternative series prepared by the College Placement Council is based on information provided by placement offices. These data are heavily influenced by the results of on-campus recruitment and are not intended to represent the experience of new graduates generally (College Placement Council 1994). Surveys of entry-level salaries at major corporations are even less representative.

Academic studies have also made varying claims about teachers' relative salaries. While there seems to be no dispute that teachers' pay rose in real terms during the 1980s, different claims have been advanced regarding the salaries of teachers relative to college graduates in other occupations. Examining data from the National Longitudinal Survey and the Current Population Surveys, Flyer and Rosen (1996) conclude that relative salaries, while improving during the 1980s, did not recover to the level of the mid-1960s, controlling for teacher education and experience. Hanushek, Rivkin, and Jamison (1992) analyzed data from the Census of Population and concluded that while relative pay improved for male teachers between 1980 and 1990, it fell for women, again conditioning on education and experience.

Some caution is called for when interpreting these numbers. Census and Current Population Survey data provide only rough measures of workforce experience, generally age minus years of education. This is a notoriously poor proxy for the work experience of female teachers, many of whom spend years away from teaching in order to raise families. In addition, while many teachers hold master's degrees, one may reasonably question whether this investment in advanced training is comparable to the additional education represented by other professional degrees.

We do not pursue this question further, since it has not real importance for the thesis of this book. Whether or not teachers' relative pay recovered to earlier levels during the 1980s for the nation as a whole, there is no doubt that salary growth varied considerably across states, both in real and relative terms. It is this variation we examine in chapter 3 to ascertain whether higher pay led to improvements in teacher recruitment.