

RESEARCH MEMORANDUM

GENERALIZATIONS IN TEACHER EDUCATION: SEDUCTIVE AND MISLEADING

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Abstract

In this paper, we argue that the temptation to generalize about issues facing teacher education, and their potential solutions, are often simplified to the point of being misleading. Sensible policy decisions based on research findings require that attention be given to the complex profile of supply and demand and teacher ability that exists. We argue that issues of supply and demand be explored in consideration of local demand and specific content area needs. We also argue that the academic ability of teachers is not adequately characterized by broad generalizations, specifically in light of the fact that teachers who achieve licensure in specific content areas appear have academic profiles that are much stronger than those who achieve elementary, physical, and special education licenses. Finally, the mere act of raising passing standards for teacher licensure tests will not achieve desired effects unless serious attention is given to the recruitment and retention of highly qualified teacher candidates, with particular emphasis on actions necessary to develop a demographically diverse teaching force.

Key words: teacher education, teacher licensure, teacher supply and demand

Generalizations in Teacher Education: Seductive and Misleading

Policy discussions concerning the supply and quality of teaching in the United States have never been more central to the public debate about education. Unfortunately, in the search for simple truths, and even simpler solutions, we see the emergence of a conventional wisdom that ranges from being incomplete to plainly misinformed. In this article, we briefly review research that we have done that attempts to provide data to inform the political debate, and to illustrate the complexity of the issues facing our policymakers and teacher training institutions.

Discussions about the teaching force almost always include the following five questions:

- 1. Is there a sufficient number of teachers in the pipeline?*
- 2. Are teachers academically able?*
- 3. Does licensing improve the academic quality of the pool of potential teachers?*
- 4. Do licensing requirements limit the diversity of the teaching force?*
- 5. Would raising licensing standards improve the quality of potential teachers?*

In this highly charged debate, one can find answers on both sides of each question. But, if we are to make effective policy decisions, simple yes and no positions will not be helpful; we need to understand the layered complexity and unevenness that provide a much more accurate depiction of the current state of affairs.

First, consider whether there will be sufficient numbers of teachers to support the demand over the next decade. While most accept that some two million teachers will need to be hired during the next decade (Bureau of Labor Statistics, 1999), there is serious disagreement about whether a problem in numbers actually exists. Some have argued that

because teacher education institutions will produce only half that number required, the threat of a shortage is real (Darling-Hammond, 1998; Recruiting New Teachers Inc., 1998; Riley, 1998). However, Emily Feistritzer (1999), citing historical data, points out that new hires does not translate into a direct requirement for new teacher graduates; that, in fact, there is a large pool of previously licensed non-working teachers who do return to teaching on a regular basis. Also, she argues, alternative routes to certification also provide a ready supply. She concludes that the shortage alarm is unfounded.

But, it is clear from reading Feistritzer and others that total numbers miss some critical patterns, namely that rural and urban schools face far more difficulty in recruiting new teachers than do suburban schools (Henke, Choy, Chen, & Alt, 1997). Even more important, rural and urban schools have the most difficult time retaining qualified staff. It is also clear that supply, when considered by teaching credential, is quite uneven. Math, science, and special education teachers are in much shorter supply than are elementary teachers (Ingersoll, 1999). So, if we could, by fiat, take all licensed teachers in the country and assign them to any school in need of teachers, then supply might be less of a problem. But because all schools do not have access to this supply, because many of the best teachers will leave those schools very early in their career, and because there are not enough teachers with certain kinds of expertise, the consistent supply of qualified teachers is a problem throughout the country. Despite the observed numbers in the total pool, shortages are very real for many schools and districts, specifically in staffing positions with individuals who are prepared to teach particular subject matter.

In addressing the remaining questions, recently we sought to shed some light on teacher supply and the effects of teacher licensure testing by analyzing academic and demographic information taken from nearly 200,000 candidates who had taken at least one

teacher test from ETS's Praxis Series between 1994 and 1997, as well as the SAT or ACT between 1977 and 1995 (Gitomer, Latham, and Ziomek, 1999). Praxis tests currently are used as a licensing requirement in 34 states. In our study, we used candidates' SAT and ACT scores as a proxy for their academic ability. By doing this we do not mean to imply in any way that candidates who perform well on these college admissions tests will automatically make good teachers, nor that candidates who perform poorly cannot excel as teachers. Nonetheless, at least two lines of reasoning support the validity of studying these scores. The first is that if schooling is to be considered an academic enterprise, then it seems only logical that teachers be drawn from among the more academically able; all things being equal, academic ability is clearly a desirable trait in teachers. A second reason to look at SAT and ACT scores comes from growing evidence that verbal ability, as measured in the standardized test scores of teachers, is positively related to students' test scores (Ehrenberg & Brewer, 1995; Ferguson, 1998). So while SAT scores provide an incomplete proxy for academic ability, and while many qualities that are totally unrelated to academic ability go into making an accomplished teacher, "it would be absurd to argue that academic ability is not or should not be at least one measure of teacher quality" (Weaver, 1983, p. 1).

What about the academic quality of teachers? Those concerned about the state of American education often place blame directly on teachers and the institutions that train them. Although concerns about teacher quality stem from manifold sources, they often spiral back to the issue of academic ability. In fact, researchers have expressed concerns about teacher academic ability since at least the 1920s (Haney, Madaus, & Kreitzer, 1987).

We found that characterizing teachers as a homogeneous group really misses the point, since sweeping claims about the academic ability of all teachers do not take into

account the profound differences between groups of individuals seeking different kinds of licenses. For example, we found that the candidates who applied for and passed licensure tests for elementary teachers had substantially lower SAT scores than the average college graduate, whereas candidates who passed the Praxis tests in specific subject areas—such as math, social studies, art and music, science, foreign languages, and English—all had mean SAT scores that were comparable to or higher than those of all college graduates. Given this variability of academic skills within the teaching population, policy decisions should be geared towards particular subgroups within the larger teaching population rather than attempt to cover the more than 3 million practicing teachers in this country.

Because licensure testing results in the selection of a subset of individuals from the entire candidate pool, we can then ask how licensure testing affects the profile of academic ability within the teacher candidate pool. We found that these tests clearly raised the mean academic ability of the prospective teaching population by denying access to disproportionately high percentages of those with lower SAT scores. Without exception, those who passed Praxis I (generally used for admissions to teacher education programs) and II (licensure) tests had substantially higher average SAT scores than those who failed. And the higher the Praxis passing score was set, the higher the average SAT scores were of the passing population. Teacher testing thus appears to be working in the sense that those who pass such tests, on average, appear to be more academically able than those who do not.

But, by their nature, admissions and licensure testing limit the supply of teachers. This is a potential cause for concern, particularly as it affects supply in the areas (geographic and disciplinary) where there is most need. Yet we found that, as currently constituted, testing does not appear to pose a major barrier to most candidates, because of

the relatively high passing rates. More than 3 in 4 candidates seeking entrance to a college of education passed Praxis I, and nearly 9 in 10 seeking their license passed Praxis II.

However, this finding was by no means uniform across the pool. Not only was the supply of minority candidates reduced more drastically than the supply of majority candidates, but some licensure areas were harder hit as well. In considering issues of supply and demand, then, it is important to look at the effects of testing not just for the entire pool, but also across a range of relevant background variables, such as by race/ethnicity and type of license sought. Gross generalizations about supply, demand, and impact of licensure miss the point that there are disparate effects across licensing areas and population groups that require much more complex and strategic analysis in order to support sound policy decisions.

No matter what the role of licensure tests though, the tradition of a largely White, largely female teaching force does not appear likely to change any time in the near future. More than 4 in 5 Praxis candidates are White, and more than 3 in 4 are female. Since, across all racial/ethnic groups, minority candidates tend to pass Praxis at lower rates than majority candidates, testing causes a predominantly White pool of prospective teachers to grow even whiter. Licensure testing does restrict diversity to some extent, but the more telling statistic is the proportionately small number of minorities even choosing to pursue teacher licensure. These data suggest that, without radical changes in the recruitment and adequate training of talented minorities, teachers will continue to be far less diverse than the students they teach. If diversity of the teaching force is a socially desired outcome, and certainly compelling arguments have been made over the years (e.g., Boyer & Baptiste, Jr. 1996), the most pressing need is to increase the pool of qualified individuals through very targeted policy initiatives.

Finally, there is increasing policy debate concerning the raising of passing standards for teacher licensure tests. Organizations like the Education Trust (1999) have proposed deceptively simple solutions, such as “raising the bar” for teachers by requiring them to meet far more stringent testing guidelines than are currently in place in order to earn a license to practice. This myopic perspective, however, fails to acknowledge the complexity of the issues embedded in teacher reform. While higher passing standards would elevate the academic profile of those who pass by reducing the pool of candidates and selectively removing a group of individuals with lower mean SAT scores, higher passing standards would also limit the supply substantially. If the highest passing scores currently used in any one state were implemented across all states, fewer than half the candidates would pass Praxis I, and fewer than two thirds would pass Praxis II. Without other interventions, the supply of minority candidates would be hit the most severely. For example, only 17% of the African American candidates would pass Praxis I, and just one third would pass Praxis II. The dramatic effects that would be brought about by raising passing standards require very careful policy analysis.

We feel that these data have several implications for reform policies. For the academic teaching fields, it does not appear as if there is an unlimited supply of academically exceptional individuals who pursue, or will pursue, teaching careers. On average, those who qualify for a license in an academic subject have comparable academic skills to other college graduates. Some would argue that this is not good enough, however, and that teachers should only be drawn from among the academically elite. For example, representatives from the Education Trust have asserted that math teachers should be compared with professional mathematicians, not college graduates from other fields (Blair, 1999). This belief is both naïve and illogical. The elite in any subject area are limited in

number, and teaching demands a huge number of the people within a given field.

Certainly, our recruitment of scientists and mathematicians from other countries indicates a short supply of individuals in these fields more generally. And why would all the elite be drawn to a field that might offer high intrinsic rewards, but far fewer extrinsic rewards than other occupations to which they have access? It seems far more realistic, and indeed preferable, to seek a teaching force with reasonable academic skills and help them develop into becoming excellent teachers who can prepare students for more in-depth pursuit in particular disciplines, than it is to simply insist that only the academically elite be admitted into teaching.

Answers to the challenge of improving teaching require far more than simply adjusting licensing requirements. Licensing does not guarantee a job, or even warrant effective practice. It does not even mean that all practicing teachers hold a license. We need to have policies and practices that address uneven attrition rates and hiring practices. The general consensus appears to be that the most academically able teachers tend to leave the field first, that academic ability is not highly valued in the hiring process, and that supply shortages are circumvented by issuing emergency credentials (Murnane & Olsen, 1990). All these factors likely contribute to making the eventual teaching force less academically able than the pool of candidates who earn an initial license. The data in our study suggest that within the academic fields, licensed teachers as a whole have adequate academic skills given, of course, the limitation of only using standardized admissions test scores; the policy focus thus should be on finding ways to hire and retain these teachers in large enough numbers to obviate the need for issuing emergency credentials. And, of course, we must always keep in mind that licensure is only an intermediate step in the quality control process. Ultimately, we must have and make use of better information

about the quality of teaching in the classroom, skills and knowledge that are not assessed directly, for the most part, by current licensing tests.

In contrast to the fields with specific disciplinary content, elementary, special, and physical education appear to be drawing disproportionately high numbers of candidates with lesser academic ability. Some might argue that academic ability is less important in these subjects than others, and that low mean SAT scores should not cause undue concern. This argument does not ring true, however. To the extent that schools should be communities of learning, it is important that teachers working with students of all ages and in all subject areas should have reasonably strong academic backgrounds. Particularly at younger ages, habits of mind are developed that encourage or discourage learning in specific content areas. Teachers who cannot share an appreciation of mathematic, science, or social studies with their students, and who cannot explain to students the importance of what they are study will not be able to inspire excitement and motivation on the part of their students. The data thus suggest that policy efforts should be geared toward increasing the appeal of careers in elementary, special, and physical education for high-caliber students.

The data also confirm that more effort needs to be placed on the recruitment and retention of academically skilled male and minority teacher candidates. Certainly, improved recruitment and retention strategies across all demographic groups are desirable. This is true as early as entrance into a college of education, and also upon application for a teaching license. Moreover, disparate passing rates on the Praxis tests suggest that minority candidates are not receiving adequate support, access to learning opportunities, and mentoring during their teacher preparation. The goal should not just be to recruit a more diverse group of academically talented candidates, but also to commit sufficient

resources to ensuring that these individuals have an equitable opportunity to enter the profession. Without this type of commitment, there appears to be little hope of erasing a growing racial/ethnic mismatch between students and the adults who teach them.

Moreover, blindly raising testing standards may well do more harm than good. Where will all these talented individuals come from and why haven't they shown up already? If, as a country we are going to be more discriminating about who enters the teaching force, we must also increase the supply of quality applicants or be faced with intense shortages. One way to increase the supply of strong teacher candidates is to create pay and working conditions similar to competing professional employment opportunities. Raising standards is a wonderful idea, but it cannot be done in isolation. Unless high standards are coupled with aggressive steps to entice and retain top quality candidates, the result will be a small, but insufficient, pool of highly qualified teacher candidates.

What happens if the pool of qualified candidates is too small to meet the demand? Past history suggests that rather than take a proactive approach in recruiting more able candidates and training them better, the profession would react by circumventing licensure requirements and plugging vacancies with non-credentialled or out-of-field teachers. The issue is thus more than the quality of the individuals who are licensed; it is the quality of the individuals who are teaching our children, regardless of their licensure status. Having extremely qualified licensed teachers is hardly a win if the tradeoff is to increase the number of unlicensed teachers. And of course, we know that unlicensed teachers will not be distributed evenly across our schools. It is the children most in need of high-quality teachers who will most likely have teachers who have not met any teaching requirements. Raising passing standards on admissions and licensure tests will not reduce the number of

teachers who are assigned to teach subjects in which they have little or no preparation, and certainly, no license.

This point is not in any way intended to suggest that testing standards should not be raised. Indeed, the data in our study provide compelling evidence that high standards will lead to a teacher population with higher mean academic ability. Teacher testing, especially when implemented with high passing scores, has a major payoff in terms of the mean academic skill of the prospective teacher pool. However, looming supply problems in some subject areas, coupled with bleak passing rates and disparities among racial/ethnic groups, suggest that any moves to adopt higher standards must be accompanied by aggressive efforts to support and enhance all candidates' knowledge and abilities so that they stand a better chance of meeting those high standards.

If high standards are the wave of the future, and passing scores on Praxis and other teacher tests are to rise, effective ways to increase both the overall supply of teachers and the relative percentages of minority teachers must be found, particularly in specific content areas. Many reforms have been suggested in this vein, such as higher teacher salaries, targeted recruitment and training as early as middle school, rigorous but flexible alternate route programs to lure mid-career professionals into teaching, and supportive induction programs to lower attrition rates of novice teachers (Darling-Hammond, 1997). While all these ideas sound promising, it remains to be seen whether they can be funded and implemented on a large scale. Until they are, policymakers must walk a tightrope with respect to teacher testing. Our data suggest that the mere act of raising passing standards will not be a silver bullet solution for improving teacher quality. Rather, while testing with higher standards holds great promise for ensuring that teachers are academically able, if

not used judiciously, such testing can also exacerbate already daunting problems with the supply and diversity of potential teachers.

The right to a free, quality education for all students is one of the most cherished tenets of American society. Thus, it is not surprising that debates over teacher quality, supply, and diversity have become so prominent. Nor is it surprising that the debate has often grown contentious: The stakes are high, the problems exceedingly complex, and measures that redress one problem often exacerbate another. There will be no quick fixes or easy solutions.

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