
CONCLUSIONS AND POLICY IMPLICATIONS

Taken together, the evidence presented above regarding student enrollment, the increase in numbers of students at risk of educational failure, the Texas teaching force, and the entering cohorts of new teachers provides a useful and important picture of the future demand for and supply of minority teachers. Although the lessons learned from Texas may not apply generally, they should prove useful to states or school districts that face a growing minority student population and a small or declining population of minority teachers.

One objective of the State Board of Education is to have a teacher workforce that reflects the racial/ethnic composition of the state (Texas Education Agency, 1994, p. 4). Texas still has a long way to go to reach its goal. Currently, 76 percent of all full-time teachers are non-Hispanic white, 15 percent are Hispanic, 8 percent are black, and somewhat fewer than 1 percent other minority. Compare this to the student body, where currently minorities account for 54 percent of all students—37 percent are Hispanic, 14 percent are black, and 3 percent are other minority. Texas has done very well in attracting minorities to teaching using a variety of sources: In recent years, minorities have accounted for 26 percent of new teacher cohorts. Alternative Certification Programs, designed for those with bachelor's degrees in fields other than teaching, are a particularly rich source of supply. Almost half of ACP interns tend to be minority. However, as we pointed out above, there is considerable controversy over AC programs and the quality of their teacher graduates. There is clearly a need to understand this source of supply better to see how effective and committed AC teachers are.

Future supply looks less promising. There is a decreasing number of teachers in the pipeline and the mandated teacher entry and certification tests, the TASP and the ExCET, both appear to be a bigger hurdle for minorities than for white teacher candidates.

Consider the future: Enrollment projections show that by 2025, minorities will make up two-thirds of the student body. We have also seen that minorities tend to be disproportionately economically disadvantaged and, therefore, disproportionately at risk of educational failure. Thus, on top of the increase that Texas has already experienced in the early 1990s, Texas is likely to be faced with a further substantial increase in the proportion of at-risk children. In addition, attrition (especially among black teachers) will rise over the next several years because of retirements, increasing future demand. This suggests that unless Texas is successful in attracting larger numbers of black teachers, the already low representation of black teachers in the force will decline still further as these teachers retire. Nor does it seem likely, given the enormous increase in Hispanic and other minority children and attendant increase in demand for minority teachers, that Texas will be able to hire minority teachers in sufficient numbers to make measurable progress toward its objective.

There are some disturbing implications of a potential shortage of minority teachers, particularly in districts with large proportions of educationally disadvantaged students. First, if minorities are underrepresented in the new teacher graduate pool, and minorities, as we have seen, tend to teach in high-minority or high-risk districts, turnover in these districts will increase as new, inexperienced, non-Hispanic white teachers are hired, who tend to leave at much higher rates. Further, there is evidence to show that teachers make large gains in effectiveness in their first years in the classroom (Murnane and Phillips, 1981a, 1981b; Hanushek et al., 1998). Thus, turnover will likely have adverse effects on the quality of teaching.

Second, there will be increasing competition for minority teachers from other school districts within a state, from other states, and from other professions. Therefore, it will become more difficult to recruit and retain minority teachers in specific districts.

Third, with increasing numbers of unfilled vacancies, the districts may have to resort to a number of actions to compensate for these shortages. National data from the Schools and Staffing Surveys suggest that administrators in urban schools with high minority enrollments tended to use substitute teachers or assigned teachers from other fields more frequently than administrators of suburban schools—actions that are not likely to improve the quality or continuity of teaching (Choy et al., 1992). The data we have presented show that the high-risk districts in Texas tend to have higher numbers of teachers who are not fully certified or teachers with no degrees. Reinforcing this, data released by the State Board for Educator Certification (SBEC) show that in 1996–97, the proportion of noncertified teachers was much higher in urban and rural school districts than in suburban districts.¹ For example, 31 percent of rural secondary mathematics teachers and 23 percent of urban mathematics teachers were not certified compared with only 17 percent of suburban mathematics teachers. Similar differences were found among teachers of other subjects as well, including English, science, and social studies.

The one largely unanswered question—apart from the few indications above—relates to the quality of the majority of teachers in these districts. It is important that the students most in need of help be taught by teachers who are fully trained, prepared to teach, dedicated, and of high quality. If the minorities who enter teaching and stay in high-risk districts are of lower quality than those who teach in low-risk districts, in terms of test scores, academic achievement, certification status, or preparation—and *these characteristics have an adverse effect on student achievement*—then merely ensuring a supply of minority teachers to staff high-risk districts is not enough. For example, Ferguson (1998) suggests that the minority gap in student achievement in at-risk districts may be due predominantly to the lower quality of minority teachers in these districts. Overall, the literature is mixed with respect to the relationship between teacher characteristics and student performance. The issue of teacher quality is not an issue we address here.

¹Teachers at grades 7–12 designated as “noncertified” include all persons assigned to or teaching outside their field of certification, persons who do not hold any type of certificate, and persons who are teaching under emergency certificates (SBEC, 1998).

Our findings suggest that minority teachers tend to display a greater sensitivity to pay and working conditions, especially in high-risk districts. Calculating rough measures of elasticity for each of these variables allows us to examine the tradeoffs among these variables in terms of their effect on attrition. The elasticity for pay ranges from 0.7 in the overall model to 1.2–1.4 in the minority models; that is, a 10 percent change in pay (\$2,400, given a beginning salary of approximately \$24,000) would decrease attrition by 7 percent for all teachers and by 12–14 percent for minority teachers. Elasticities for student/teacher ratios are 0.5–1.1; for instructional expenditures, 0.2–0.3; for percentage administrative staff, 0.2; and for percentage support staff, 0.1–0.5. Given these numbers, it appears that teachers are very responsive to pay and student/teacher ratios, especially minority teachers. Lowering student/teacher ratios can be very expensive and difficult to push through the bureaucracy. Such a move can often lead to unintended consequences—witness the big increase in number of uncertified teachers in California following a mandated class-size reduction, as districts scrambled to hire more teachers to comply with the mandate. However, these kinds of tradeoffs are best studied in a resource allocation framework that could provide credible estimates of relative costs of alternative policies.

Increasing teacher pay seems to hold the most promise in reducing teacher attrition, at least in terms of these results. This suggests that raising beginning teacher salaries in high-risk districts by offering signing bonuses to fully certified teachers and starting teachers who agree to teach in these districts on a higher step of the salary scale may well have an important payoff in both recruiting and retention of minority teachers. Indeed, some jurisdictions have adopted similar policies usually aimed at specific subjects. Presumably, these policies would not only increase teacher supply in general but may well increase the supply of high-quality teachers, who are likely to have greater nonteaching labor market opportunities and thus are likely to be even more sensitive to working conditions and pay.