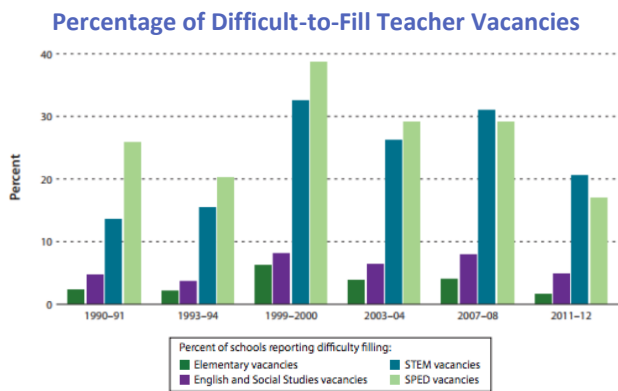




Policy Brief 2018-1: Addressing the Importance and Scale of the U.S. Teacher Shortage

By Andrene Castro¹, Daniel J. Quinn², Edward Fuller³, and Michael Barnes¹

Teacher shortages pose a major challenge for state policy makers, district leaders, and school leaders. Importantly, however, the severity of the shortage differs by the particular dynamics of state -and local- teacher labor markets with some regions and states experiencing more severe shortages than others. Moreover, as shown below, the severity of shortages differ by school level, school location, and especially subject area.



Source: Dee, T. & Goldhaber, D. (2016). [Understanding and Addressing Teacher Shortages in the United States](#).

This brief examines the elements of the shortage of teachers and concludes with recommendations for policymakers at all levels of the education system.

What Do We Know About Teacher Shortages?

Teacher shortages occur in labor markets when the demand for teachers exceeds the supply of teachers and employers are unable to fill the desired number of positions.

Teacher supply indicators include the number of staff retained, the number of transfer candidates, as well as new and prospective entrants to the market. Evidence of a structural shortage in the supply of teachers persists, with a 10% decline in national teacher preparation program enrollment from [2004 to 2012](#). The aggregate enrollment data, though noteworthy, is skewed by disproportionate decreases in certain regions and particular states, [such as California](#), which experienced a

staggering 53% decline in teacher preparation program enrollment from 2008 to 2012.

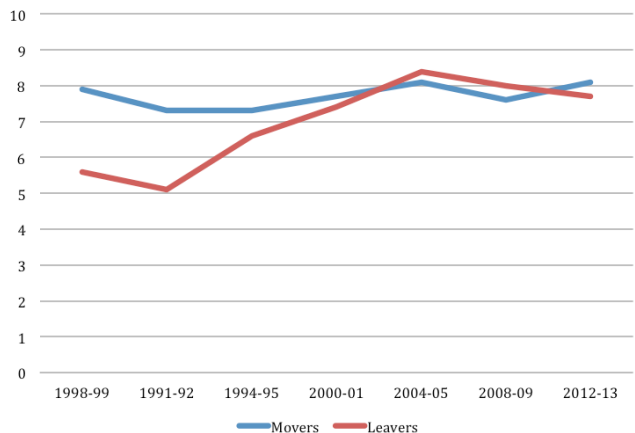
Demand for Teachers is influenced primarily by school-level teacher turnover and attrition. In 2012, about 16% of the teacher workforce, or almost 500,000 teachers, left their school each year, with one-half of those leaving the teaching profession (leavers) and one-half switching schools (movers). [Factors that influence teacher demand include](#): student enrollment, student-teacher ratio, teacher retention rate, as well as employers' perceptions of teacher quality.

Teacher Shortages and Teacher Turnover

Teacher turnover refers to mobility within the workforce. Turnover accounts for when teachers transition between school districts, or worse, out of the profession entirely (i.e. attrition). Key facts on teacher turnover include:

- 90% of the [nationwide annual demand](#) for teachers stems from when teachers leave the profession;
- Between [19% and 30% of teachers](#) leave the profession before their fifth year;
- As many as [16% public school teachers](#) either move schools or leave the profession every year;

Percent of Teachers Moving Schools or Leaving Teaching



Source: [Department of Education Teacher Follow-up Survey](#)

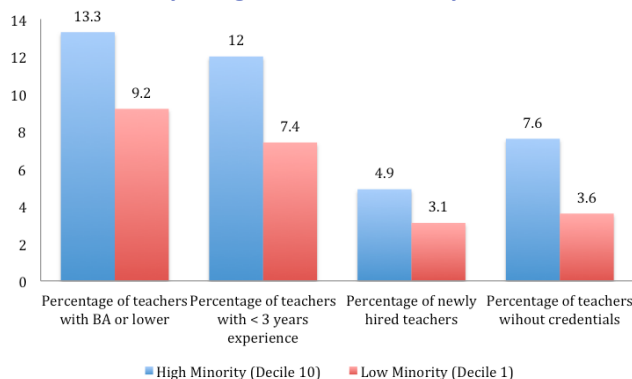
- [Teacher turnover rates](#) are highest in the South (16.7%) and lowest in the Northeast (10.3%);
- [Teachers of color](#) have higher turnover rates than White teachers overall (about 19% versus about 15%); and
- About [51% of teachers](#) reported more manageable workloads and 53% cited better work conditions as primary reasons for their departure.

Teacher Shortages and Teacher Quality

Past policies have expanded the notion of the demand for teachers to include the issue of the *quality* of the teachers needed. For example, the [No Child Left Behind Act](#) and [Equitable Access to Excellent Educators](#) were interventions designed to mitigate disparities in access to teacher quality and, as a result, discussions of teacher shortages now typically include the issues of teacher quality.

This is especially true for schools enrolling greater percentages of students of color and students living in poverty. Indeed, such schools are 3 to 10 times more likely to have teachers who are uncertified, not fully prepared, or teaching outside their field of preparation than students in predominantly White and more affluent schools (see [here](#) and [here](#) for examples).

Teacher Quality in High- and Low-Minority Districts in California



Source: Source: Adamson, F., & Darling-Hammond, L. (2012). [Funding disparities and the inequitable distribution of teachers: Evaluating sources and solutions](#).

When defining teacher quality as teacher effectiveness measured by changes in student achievement, the gaps in access to well-qualified teachers is smaller, but still exists.

Types of Shortages

Policies should acknowledge that schools' staffing needs are embedded in their local labor markets that can

influence the types of shortages experienced by schools and districts. Research on teacher labor shortages (see [here](#), [here](#), and [here](#)); identify three commonly cited teacher shortage gaps:

- (1) a shortage of well-qualified, well-prepared teachers, especially in schools serving mostly students of color and students living in poverty;
- (2) a shortage of well-qualified, well-prepared teachers in specific content or subject areas; and
- (3) a shortage of teachers of color to reflect the racial/ethnic diversity of the student population.

Tailoring policy interventions to address specific types of shortages can increase the likelihood that policy interventions will create a stable and diverse workforce.

Thus, developing policies that address the shortage of teachers must also address the issue of teacher quality. Unfortunately, a number of states are addressing teacher shortages by [simply lowering standards for becoming a teacher](#).

While such efforts may appear to reduce the shortage of teachers by ensuring there is an adult in each classroom, such efforts ultimately lower the quality and effectiveness of teachers.

Most importantly, history has shown that lowering the standards for entry into teaching disproportionately affects students of color and students living in poverty—the very students most in need of access to well-qualified and effective teachers.

The Impact of Shortages

Achievement. Schools experiencing a shortage of teachers—especially a shortage of well-prepared, experienced, and effective teachers—have lower levels of student achievement and less positive student outcomes overall.

Further, teacher turnover and attrition—indicators of a teacher shortage—negatively affects students, schools, and communities. Teacher turnover has been associated with [harming student achievement](#).

The negative impact of teacher turnover on student achievement was most impactful on schools with larger populations of low-performing and Black students.

School Climate. Researchers also believe that turnover had broader harmful effects on students and schools, specifically with regard to collegiality and relational trust among faculty. In addition to student achievement, there is little empirical work examining the impact of teacher shortages on the school-community context. If research suggests,

“repeated turnover thwarts the kind of continuity needed to build sustained, trustful relationships among teachers, students, and families.”

then curbing teacher shortages to ensure strong school and community partnerships is critical.

Cost. Until recently, few studies examined the fiscal costs associated with teacher shortages. National analysis of teacher shortage estimates that attrition costs **\$2.2 billion per year** and approximately **\$4.9 billion per year** for replacing teachers who transfer schools (see [here](#), [here](#), and [here](#)).

The added costs to states and districts stem from continually recruiting, hiring, and developing new teachers to fill the void left by teachers’ mobility and attrition. Barnes, Crowe, and Schaefer (2007) estimate an average cost of \$4,366 per teacher leaver in a small rural district and \$17,872 per teacher leaver in a very large district like Chicago. They developed [The Teacher Turnover Cost Calculator](#) that allows individuals to estimate the cost of teacher turnover in their own locale.

Recommendations

To curb teacher shortages, state and local policymakers should consider a range of policy levers to increase recruitment and retention, including:

1. **Dedicated state level funding**, such as that being provided in Virginia, to better support the recruitment, retention, and development of teachers and principals in the most challenged schools. Teacher and principal retention efforts will be vital to addressing teacher shortages in every state.
2. **Establishing data systems** that can better track and project supply and demand for teachers and principals. These systems should include various data such as: teacher enrollment in preparation programs; preparation program information; teacher mobility indicators; the reasons why teachers leave teaching; and identifying shortages by subject area and school. Importantly, a first step in fixing the feedback loop is to ask principals to provide their perceptions of the supply and demand of well-qualified teachers for their schools.
3. **Designing stronger leadership systems** that allow principals to play a more active role in driving district strategy around teacher sourcing, recruitment, and retention. These include, strong principal preparation programs, effective hiring strategies and selection methods for teacher-job fit, eliminating negative and stressful work conditions, and providing effective, culturally responsive instructional leadership and support.
4. **Leadership preparation programs** can address teacher shortages by incorporating training and coursework on human resource management systems, the organizational and institutional impacts of teachers’ working conditions, and ways to develop supportive environments for professional learning. Leadership programs can also partner with local schools facing high rates of attrition by recruiting, training, or mentoring talented and qualified school leaders to further preempt teacher shortages.
5. **Creating sustainable teacher career pathways** that support teacher leadership and create a career continuum that allows for teachers to take on additional duties, develops new skills, and prepare for leadership opportunities that do not require teachers to leave the classroom.
6. **Grow-Your-Own (GYO) programs in high need schools.** GYO initiatives are community-centered programs of teacher education whose mission is to improve teaching and learning in high need schools by recruiting and preparing community-based teachers and returning them to their local schools. This collaborative method of recruiting, training, and employing teachers builds local and community capacity by working with community based organizations, institutions of higher education, and local schools.

7. [Ongoing professional development and mentoring](#) for principals that focuses on improving school working conditions to reduce teacher burnout and turnover. Research demonstrates that administrative support, strong instructional leadership, and equitable leadership practices can positively influence teachers' perceptions of school working conditions, which can increase retention and improve teaching quality.

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