

ASPEN INSTITUTE DATASHEET

THE TEACHING WORKFORCE

Teaching is one of the largest occupations in the U.S., with more than 3 million public school teachers (about 10% of all college-educated workers). An additional 310,000 teachers enter the profession every year.

The profession has changed substantially over the past few decades. In the 1960s and 1970s, teaching was one of the few career options for women and minorities. Many teachers entered the profession as a career for life. Recent college graduates have broader job prospects and many see education as a short-term opportunity – nearly 40% of new teachers quit within the first five years. These improved career opportunities and rapid turnover mean that schools face increasing competition for college graduates. Relatively low salaries and often difficult working conditions make attracting and retaining high quality teachers a challenge, particularly in certain subject areas and schools.

This Datasheet highlights available research about the teacher workforce. It offers basic information on teacher characteristics, retention and turnover, and compensation.¹ It is important to note, however, that teachers and their experiences are diverse, and teacher labor market conditions differ substantially by location and type of school. This aggregate data obscures substantial local variation.

TEACHER CHARACTERISTICS

Overview

The average American teacher is a white, female, elementary school teacher in the urban fringe. The typical teacher enters through a traditional, university-sponsored teacher education program. On average, teachers have lower college entrance exam scores than other college graduates. The supply of teachers is generally sufficient to meet demand, although certain schools and subjects (e.g., special education, mathematics, science) have difficulty finding high quality teachers. This problem is particularly acute in urban districts.

Demographics

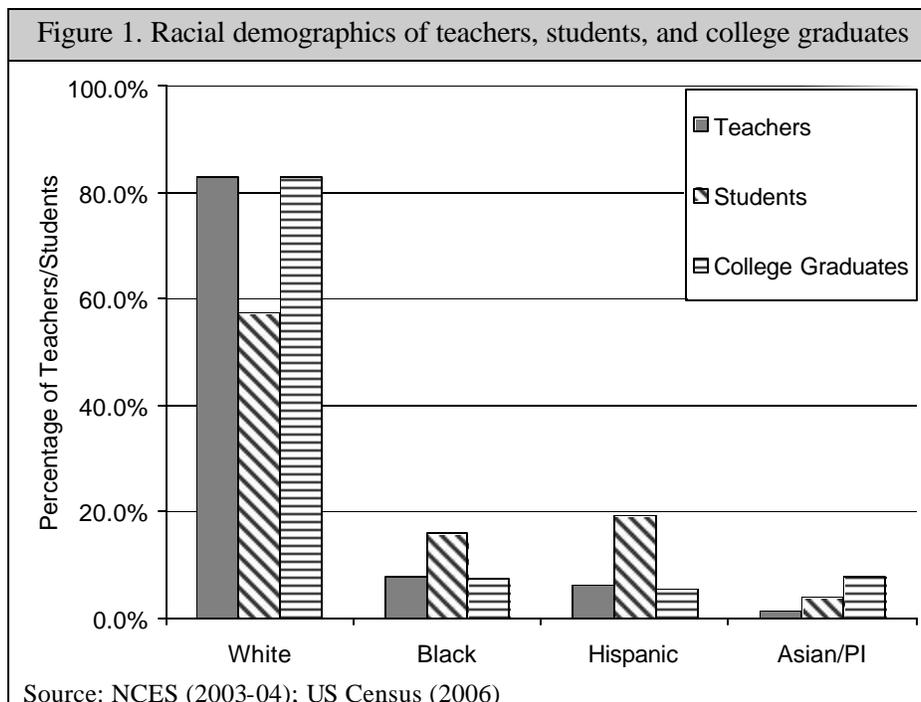
- 75% of teachers – and 84% of elementary school teachers – are women (NCES, 2003-04).
- The average teacher is 43 years old and has 15 years of experience teaching (NCES, 2003-04).
- Teacher age and experience follow a U-shaped distribution, with most teachers at the beginning or end of their careers. More than 1/3 of teachers are over 50 and will be retiring in the next decade.

Table 1. Selected teacher demographics (NCES, 2003-04)

District Type		School Type		Highest Degree		Years Experience	
Central City	28.6%	Elementary	64.8%	Bachelors	50.8%	Under 9	43.4%
Urban Fringe	52.4%	Secondary	30.0%	Masters	40.9%	10 to 19	26.6%
Rural/Small Town	19.0%	Combined	5.2%	Advanced	7.2%	20+	30.1%

- Teachers are predominantly white, even in schools with large populations of minority students. Teacher racial demographics are similar to the college-educated population.

¹ Where possible, we use the most up-to-date information available and present figures from national sources. We present source information for all data provided here, including the year in which data was collected. More detailed references follow at the end of the document.



Certification and Licensure

Each state controls teacher licensure and certification:

- 33 states require a content-specific bachelors degree for all subjects (US DOE, 2003-04).
- 40 states (plus D.C.) require candidates to pass at least one assessment, usually a basic skills test (US DOE, 2005).

Most teachers have state certification:

- In 2004-05, only 2.5% of teachers were on waivers allowing them to teach without full certification or licensure (down from 3.3% in 2003-04) (US DOE).
- Several urban districts have been making substantial improvements – in Philadelphia, 92% of new teachers were certified in 2006, compared to less than 50% in 2001 (Useem et al.).

Entrance into the Profession

Alternative teacher certification programs have grown tremendously over the past decades, but traditional, university-based preparation programs still train most of the nation’s 310,000+ new teachers:

- In 2003-04, 19% of new teachers came from alternative certification programs (US DOE).
- The number of new teachers certified in such programs has grown 40% since 2000-01 (US DOE).
- 47 states have alternative routes into the classroom (US DOE, 2005).
- The popularity of alternative certification varies substantially across states. The top 10 states relying on alternative certification (with percent of teacher program completers from alternative route) were: Maine (43%); New York (42); Louisiana (39); New Jersey (37); Texas (35); Georgia (29); Oklahoma (24); California (22); Colorado (20); and North Carolina (15) (US DOE, 2003-04).
- Specialty programs like Teach For America and The New Teacher Project prepare relatively few of the nation’s new teachers (less than 1% for each). However, they do provide many teachers to some high profile urban districts – 10% of New York City teachers (and 23% of the city’s math teachers) have come through TNTP’s Teaching Fellows program.
- Nearly 50% of people who train to be teachers never enter the profession (Ingersoll, 2007).

Academic Quality

On average, teachers' academic skills fall below those of other college graduates.

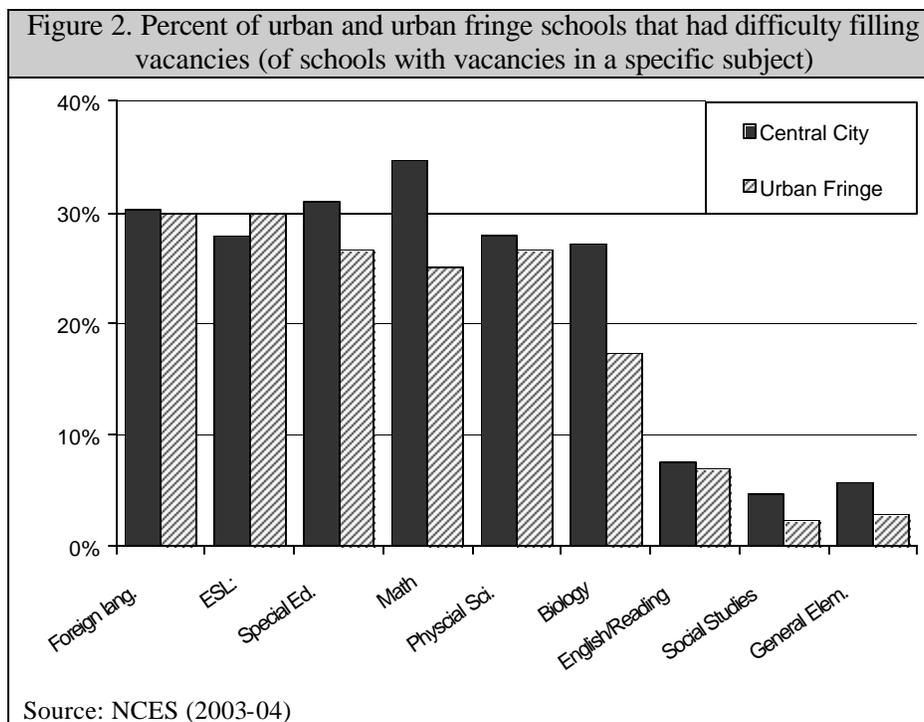
Table 2. College entrance exam performance for teachers and non-teachers			
Measure	Teachers ²	Non-Teachers	Source
College graduates scoring in lowest level on college entrance exam	27%	17%	NCES, 1999-00
Average SAT-Math score (of college graduates)	507	542	ETS, 1997
Average SAT-Verbal score (of college graduates)	522	543	

However, within the teaching workforce some groups have higher academic abilities than others.

- Middle and high school teachers with content licenses generally perform as well as or better than other college graduates.
- Math teachers have average SAT math scores 55 points higher than all college graduates.

Demand for Teachers

- Districts (particularly urban schools) have trouble filling teaching positions in certain subjects (e.g., foreign language, special education, math and science).



- Urban schools (especially low-performing and high poverty) struggle with retention and have difficulty finding qualified, experienced teachers:
 - 3.0% of teachers in high poverty schools are not certified, compared to 2.1% in other schools (US DOE, 2004-05).

² For the SAT comparison, “teachers” are individuals who took and passed the Praxis II exam (used for teacher licensure in several states).

- 20% of urban teachers have less than 3 years experience, compared to 18% in urban fringe and 15% in rural areas (NCES, 2003-04).

TEACHER TURNOVER AND RETENTION

Overview

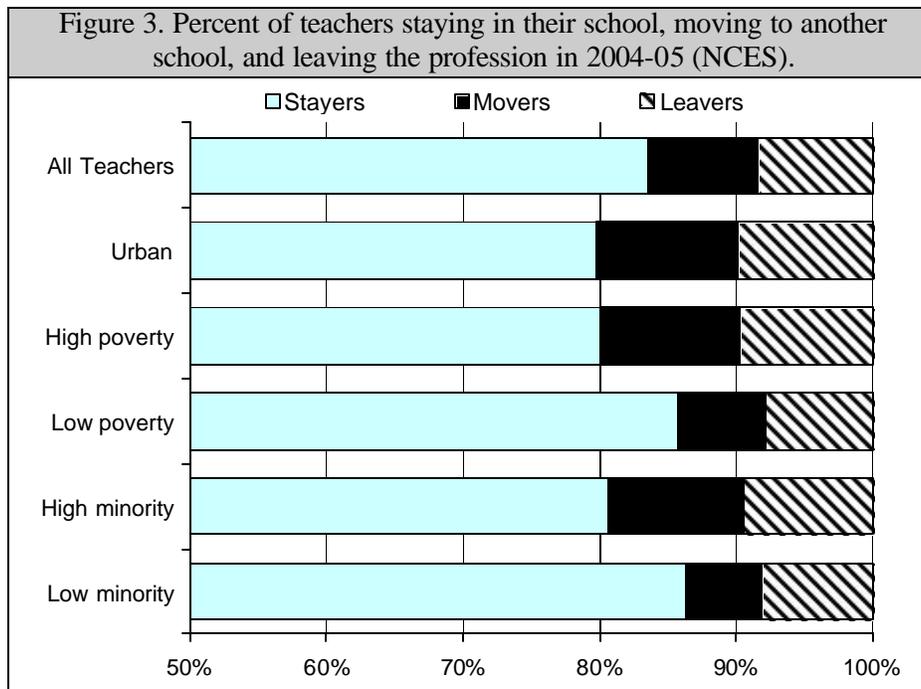
Teacher turnover represents a key challenge for public education, particularly in low-income and urban schools. The best estimates suggest that approximately 40% of new teachers leave the profession in their first five years – and almost 20% leave after their first year. This pattern differs from the career-oriented outlook of new teachers a few decades ago. However, it generally matches turnover in other careers.

Turnover Rates

NCES divides teachers into those who stay in their school, move to another school, and leave the profession.

- After their first year, only 63% of new teachers remained in the same school and 20% left the profession entirely (NCES, 2004-05). Estimates suggest that 40 to 50% of new teachers leave the profession in their first 5 years (Ingersoll, 2007).
- In Boston, 19% of first year teachers left the district after one year. The four-year retention rate is 53% (BPS, 2004-05).
- In Philadelphia before 2003, 27% of new teachers left the district after one year; since 2003, 10% leave (Useem et al.).
- In Washington, 27% of new teachers left teaching in the state after 5 years; only 46% remained in their same school (CSTP, 2004-05).

Among all teachers, nearly 84% remained in their same school in 2004-05. Teachers in urban, high poverty, and high percent minority schools were more likely to leave the profession or change schools.



These turnover rates compare favorably to other professions. The Bureau of Labor Statistics reports that, in 2006, 24% of workers in educational services left their job, compared to 41% in all professions, 57% in business, 30% in health care, and 16% in state and local government positions.

Costs of Turnover

The costs of teacher turnover – recruiting, administrative expenses, training, costs to student learning, etc. – remain difficult to quantify. Several recent studies that have attempted to examine these costs to school districts found wide variation from locale to locale.

- In Milwaukee and Chicago, more than \$15,000 per teacher who left (NCTAF, 2003-04).
- In a small rural district, just over \$4,000 per teacher who left (NCTAF, 2003-04).
- In Boston, \$17,000 per teacher who left (BPS, 2004-05).

Reasons for Leaving the Profession

Of all teachers who left the classroom, most retired or left for personal reasons. For other teachers, substantial numbers were dissatisfied with teaching, their assignment, or their salary.

Table 4. Percent of teachers who left the profession who cited the following reasons as very or extremely important in their decision (NCES, 2004-05).	
Reason	Percent
Retirement	31.4%
To pursue a position other than K-12 teacher	25.3%
Other family or personal reasons	20.4%
Pregnancy or child rearing	18.7%
Dissatisfied with previous school/assignment	16.0%
Lay-off/School closing/Etc.	14.6%
Dissatisfied with teaching as a career	14.6%
Better salary or benefits	14.2%
Health	11.8%
Changed residence	11.2%
To take courses for career in education	8.9%
To take courses for career outside education	5.3%

TEACHER COMPENSATION

Overview

The U.S. spent nearly \$425 billion on current public elementary and secondary education in fiscal year 2005. Of this, nearly 59% went to instruction-related employee compensation – 45% went to salaries and 14% to benefits. Teacher salaries and benefits represent more than 4 of every 5 dollars spent on instruction. Benefits have been growing as a share of compensation cost (NCES, 2004-05). Nearly all school districts (93%) have a standardized salary scale where a teacher's pay is determined by years of experience (steps) and education (lanes) (NCES, 2003-04). Recently, however, more and more districts have begun offering some forms of alternative compensation.

Salary

- Median earnings for K-12 teachers: \$45,151 (BLS, 2006).
- Potential salary growth is limited: the average maximum salary is just 1.85 times the entry-level salary.

Years of Service	Education Level	Average Salary
0	BA	\$29,100
10	BA	\$37,500
0	MA	\$31,900
10	MA	\$41,600
Max	Max	\$53,900

- Many districts have begun to offer pay incentives for student performance, for teaching in hard-to-staff subjects or schools with high teacher turnover, for taking on additional roles within the school (e.g., instructional coach or peer reviewer), or for demonstrated knowledge and skills.
- 14% of teachers received such supplements. The average bonus was \$1,900 (NCES, 2003-04).

Type of Incentive	% of Districts
National Board certification	18.4%
Shortage subject area	11.9%
Difficult location	4.6%
Reward “excellence in teaching”	7.9%

- Despite using some incentives, very few districts have substantially reformed the single salary scale. A few notable examples are Denver and schools using the Teacher Advancement Program (which operates in over 130 schools and 12 states) – these experiments combine several approaches to move away from a salary schedule based purely on years of experience and education.

Comparisons to Other Professions

Teachers earnings fall below occupations with similar education requirements, such as accountants (median earnings \$52,749), registered nurses (\$55,390), and others (BLS, 2006). However, such comparisons are difficult because of differences in the work year and challenges estimating the number of hours teachers work beyond the contractual school day. More instructive comparisons show that teacher salaries have fallen relative to other professions over time:

- In 1940, 50% of college educated men and 2/3 of college educated women earned less than the average teacher. In 2000, only 1/3 of men and 45% of women earned less (Hanushek & Rivkin, 2007).
- Since 1979, teacher wages have fallen 13% compared to other workers with similar education and experience (Allegretto, Corcoran, & Mishel, 2004).

Benefits

Benefits have been increasing as a share of school district costs:

- In 2005, 14% of current educational expenditures went to benefits, compared to 11% in 1990 (NCES).
- Benefits represent nearly 30% of the employer costs for all public school employees. This figure is similar for workers in private industry (BLS, 2007).
- However, for teachers, insurance (11.7%) and retirement (6.6%) benefits represent a greater share of employer costs than for private industry employees (8.4% and 4.2%, respectively) (BLS, 2007).

LIST OF REFERENCES

- Barnes, G., Crowe, E., & Schaefer, B. (2007). *The cost of teacher turnover in five school districts: A pilot study*. Washington, D.C.: National Commission on Teaching and America's Future.
- Birkeland, S.E. & Curtis, R. (2006). *Ensuring the support and development of new teachers in the Boston Public Schools: A proposal to improve teacher quality and retention*. Boston: Boston Public Schools.
- Bureau of Labor Statistics, U.S. Department of Labor. (2007). *National Compensation Survey: Occupational wages in the United States, June 2006*. Summary 07-03. Washington, D.C.: U.S. Department of Labor.
- Bureau of Labor Statistics, U.S. Department of Labor. (2007). *News: Employer costs for employee compensation – March 2007*. USDL 07-0877. Washington, D.C.: U.S. Department of Labor.
- Bureau of Labor Statistics, U.S. Department of Labor. (2007). *Job openings and labor turnover survey*. Washington, D.C.: U.S. Department of Labor. Available online at <http://www.bls.gov/jlt/>.
- Gitomer, D.H., Latham, A.S., & Ziomek, R. (1999). *The academic quality of prospective teachers: The impact of admissions and licensure testing*. Princeton, NJ: Educational Testing Service.
- Henke, R.R., Peter, K., Li, X., and Geis, S. (2005). *Elementary/secondary school teaching among recent college graduates: 1994 and 2001*. NCES 2005-161. Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Ingersoll, R.M. (2007). *CPRE Policy Briefs: Misdiagnosing the teacher quality problem*. Philadelphia: Consortium on Policy Research in Education.
- Marvel, J., Lyter, D.M., Peltola, P., Strizek, G.A., and Morton, B.A. (2006). *Teacher attrition and mobility: Results from the 2004-05 Teacher Follow-up Survey*. NCES 2007-307. Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Plecki, M.L., Elfers, A.M., & Knapp, M.S. (2007). *Who's teaching Washington's children? A 2006 update*. Silverdale, WA: Center for Strengthening the Teaching Profession.
- Provasnik, S. & Dorfman, S. (2005). *Mobility in the teacher workforce*. NCES 2005-114. Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Strizek, G.A., Pittsonberger, J.L., Riordan, K.E., Lyter, D.M., and Orlofsky, G.F. (2006). *Characteristics of schools, districts, teachers, principals, and school libraries in the United States: 2003-04 Schools and Staffing Survey*. NCES 2006-313 Revised. Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- U.S. Census Bureau. (2007). *Current Population Survey*. Washington, D.C.: U.S. Census Bureau. Available online at <http://www.census.gov/cps/>.
- U.S. Department of Education, National Center for Education Statistics. (2007). *The condition of education 2007*. NCES 2007-064. Washington, DC: U.S. Department of Education.

U.S. Department of Education, Office of Postsecondary Education. (2006). *The Secretary's fifth annual report on teacher quality: A highly qualified teacher in every classroom*. Washington, D.C.: U.S. Department of Education.

Useem, E., Offenber, R., & Farley, E. (2007). *Closing the teacher quality gap in Philadelphia: New hope and old hurdles*. Philadelphia: Research for Action.

Zhou, L., Honegger, S., and Gaviola, N. (2007). *Revenues and expenditures for public elementary and secondary education: School year 2004–05 (fiscal year 2005)*. NCES 2007-356. Washington, DC: National Center for Education Statistics, U.S. Department of Education.