Chapter 2: Teachers

Propositions

- There is no real teacher shortage.
- Across-the-board teacher salary increases may not stand alone as an education reform solution.
- Teacher certification does not necessarily guarantee teacher quality, and for some interested in teaching, it is a deterrent.
- Teachers' education levels have increased; students' achievement has not.
- Some are concerned that children in public schools are receiving less individualized attention; the numbers tell a different story.
- Secondary public school teachers are spending more time performing their teaching duties, yet they are teaching fewer students.

- **Teachers' unions provide more than collective bargaining for teachers.**
- **The nation's largest teachers' unions invest heavily in the political process, yet their contributions do not reflect the political views of a large segment of their membership.**

Highlights

- In 2000, there were approximately 3.3 million teachers in elementary and secondary schools, 2.9 million of them in public schools.[1]
- Of teachers in elementary and secondary public schools, approximately 75 percent are women, and approximately 9 percent are minorities.[2]
- In the mid-1990s, the average age of a public school teacher was 44. The average number of years of teaching experience was 15, up from 8 years in 1966.[3]
- In the mid-1990s, only 2 percent of public school teachers were in their first year of teaching, compared with 9 percent in 1966.[4]
- Nearly 55 percent of public elementary and secondary teachers today have a master's or specialist degree; only 23 percent did in 1966.[5]
- Today only 52 percent of public elementary and secondary instructional staff are teachers, compared with 70 percent in 1950.[6]
- In 2001, the public elementary and secondary student-to-teacher ratio was approximately 15:1; in 1950, it was 27:1.[7]
- In 1961, teachers' salaries were 51 percent of public K–12 education costs; in 2001, they were only 40 percent.[8]
- In 2001, the average teacher salary was $43,250.[9]

- In 1966, 53 percent of teachers said they certainly would be willing to teach again; in 1996, only 32 percent said they would.[10]
- In 2001, an estimated 75 to 80 percent of public school teachers were members of teachers' unions.[11]

Overview

In education, teaching is where the rubber meets the road. Teachers are clearly among the most important players in the field of learning.

However, today teaching and teachers are different than they were in the past. Teachers must address an increasingly diverse student body; the days of homogeneity in the classroom are dwindling. Teachers must master—and convey to their students—a greater body of knowledge, and they are confronted with higher expectations. In addition to teaching, a classroom teacher must act as role model, counselor, disciplinarian, friend, and, some say, babysitter. No one says the job is getting any easier.

While the teaching profession and the student body are changing, the teaching force does not seem to be changing as quickly. Proportionately, there are far more white teachers, for example, than white students, and the gap is widening. In 1971, 88 percent of teachers were white; in 1996, 91 percent of teachers were white. Moreover, in 1961, less than 69 percent of classroom teachers were women; by 1996, contrary to what one might think, that percentage had actually risen to nearly 75 percent. Of course, women's participation in the labor force has grown tremendously during this same time period, explaining some of the increase.

An alarming change is the aging of the teaching force; the average age of today's teacher is 44—fully 7 years older than the average age 30 years ago. More mature, more experienced teachers are an asset to any school district. But, will the next generation of teachers be as effective? And, will we be able to attract the best and the brightest?

Teachers now enter the profession with more education, and many continue their formal education throughout their careers. However, education and preparation are not always the same. As the body of knowledge grows, demand, particularly at the secondary level, is for more specialization in the profession. Yet large numbers of teachers do not have academic degrees in the fields in which they are teaching.

Despite, on the whole, more highly educated teachers, the achievement of students does not appear to be improving. This leads to the vexing problem of connecting pay to performance. Incentive pay structures and merit pay are virtually nonexistent in the profession. The unions, bureaucracy, lack of accountability, and inertia all work against innovative pay schemes—experience, academic degrees, and certification continue to define the pay structure.

In the latter half of the 20th century, the largest agents of change in relationship to teachers' pay and the profession overall had been the teachers' unions, primarily the National Education Association (NEA) and the American Federation of Teachers (AFT). For the most part, labor unions in most industries have become less organized over the past 50 years; American public education (both K–12 and postsecondary) is one of the rare exceptions.

In this chapter, we present data about teachers, their education, and the nature of their job.

Proposition: There is no real teacher shortage.

Teachers are consistently at the center of education discussions—their quality, their pay, their commitment, their preparation, their impact on student performance, and most recently, their shortage. While shortage fears are well-founded, they are often misrepresented. On the whole, there is not a shortage of certified teachers. To be sure, in specific subject areas—math, science, foreign languages, and special education—there is a lack of certified teachers;[12] however, in the aggregate, there are plenty of teachers. Unfortunately, many choose not to teach.

More alarming is that the quality of certified teachers appears to be diminishing. It's no good to solve the teacher shortage problem if well-prepared and effective teachers are not part of the process. Research consistently confirms that a skilled and knowledgeable teacher can make an enormous difference in how well students learn.[13] The real problem—poorly performing students—is not solved simply if the number of teachers increases.

There is a clear discrepancy between the number of prepared teachers and teaching teachers.

- In the 1992–93 school year, American colleges produced 142,000 college graduates prepared to teach, but more than half did not even apply for teaching jobs in the year following graduation. An extreme example is the state of Pennsylvania, which produces approximately 20,000 newly certified teachers annually but hires only about 5,100 per year.[14]
- In 1998, an estimated 200,545 college graduates were prepared to teach. Between 1998 and 1999, approximately 156,000 first-time teachers were added to the total number of elementary and secondary teachers

teaching, a far smaller number than those prepared to teach.[15]

- In the 1998–99 school year, 37 percent of newly hired public school teachers had previous teaching experience, and 63 percent were recent college graduates.[16]
- In addition to newly prepared teachers each year, the teacher "reserve pool" (those who are prepared to teach but are not teaching) in the U.S. is approximately 4 million strong.[17]

It is estimated that 20 percent of first-time teachers leave the field within the first 3 years and one-third leave the field within 5 years. In high-poverty schools, the situation is worse, with one-half leaving within 5 years. This would not necessarily be cause for concern if those who stayed were the most capable and most effective; however, there is mounting evidence that the teachers who leave are in fact the most promising. A recent study of college graduates found that novice teachers who scored in the top quartile on college-entrance exams were almost twice as likely to exit the field as those who scored lower.[18] Moreover, the people who choose teaching today aren't necessarily coming from the top half of the class. Sandra Feldman, president of the AFT, candidly stated, "You have in the schools right now, among … the teachers who are going to be retiring, very smart people," she says. "We're not getting in now the same kinds of people."[19]

Why the discrepancies? While there are probably numerous reasons, three stand out: pay, working conditions, and bureaucracy. Many assume that poor pay is the primary reason for not retaining enough quality teachers. While it is clear that teachers' salaries lag in comparison to those for many other professional careers, this is not the sole source of potential shortages. There is no glaring teacher shortage facing private or charter schools, even though they pay no better and sometimes worse than public schools. For example, in the 1993–94 school year,

the average base salary for public school teachers was $34,153; for a teacher in private school, it was only $21,968.[20]

Moreover, teaching may be the only professional field where you don't get a penny more for being good at what you do. Over the last few decades, teachers have acquired many new responsibilities and assume new tasks that they must perform; however, there has been no reward for their increased responsibilities, nor is there any incentive to excel as a teacher.

In 1961, 49.9 percent of teachers said they "certainly would teach again." In 1996, only 32.1 percent of teachers made this claim. For many, this dissatisfaction is directly linked to an increase in the discipline problems and poor overall school environment. Of the approximately 20 percent of teachers who leave the profession within the first 3 years, teachers dissatisfied with student discipline or school environment quit at twice the rate of those who are not.[21]

The current certification process is bureaucratic and often keeps qualified people from teaching. In response to public concerns regarding the lack of prepared teachers, states are currently in the process of piling on even more regulatory requirements. There is no established link between certification requirements and effective teaching, but there is evidence that bureaucracy is a barrier to entry.[22]

Teachers are important when it comes to a good education. According to a recent study, the strongest predictor of how well a state's students performed on national assessment tests was the percentage of well-qualified teachers.[23] There is clearly no quick solution to the challenge of ensuring high-quality teachers and having enough teachers who are willing to teach. Simply churning out more teachers is not the answer. How can we attract and keep high-performing teachers? A simplified system (less bureaucracy) where teachers are given enough support and autonomy to shape the culture of their classroom (working conditions) and a reward system that compensates teachers for results (pay) are possible starting points.

PROPOSITION: ACROSS-THE-BOARD TEACHER SALARY INCREASES MAY NOT STAND ALONE AS AN EDUCATION REFORM SOLUTION.

Over time, teachers' responsibilities have increased dramatically; teachers not only educate the children but often act as parents, counselors, social workers, and disciplinarians. Teachers' unions, and those steeped in the tradition of schools of education, feel higher salaries, across-the-board, would compensate for the increased responsibilities, bestow the proper respect on the teaching profession, and attract well-prepared teachers. According to NEA President Bob Chase, "Teaching is an emotionally, physically, and intellectually challenging career that today garners too little respect and low pay relative to comparable professionals." Others, however, are concerned about how to attract "better qualified" teachers and justify salary increases in the face of falling test scores. They recommend that teacher compensation be redirected from an input-driven system to an outcome-based system.[24]

Increasing teacher salaries has long been proposed as one solution to our current education woes. In 1983, the report *A Nation at Risk* highlighted low teacher pay as a major problem in American education. In the early 1980s, teachers earned only 2 to 3 percent more than the average worker. The forceful claim and persuasive message of teachers' unions are that teachers' salaries are not competitive within the job market, and, therefore, the profession has not attracted "the best and the brightest." According to the AFT, teachers' salaries have slipped, and the implementation of an innovative payroll package that might attract highly qualified personnel to teach has been stalled.

Some have made the case, however, that a blanket increase in salary or benefits or both, without a gauge to determine

returns (achievement), defies market principles. If competitive teacher salaries are important, then an accountable and competitive environment should be part of the package. This might include modifying teacher compensation packages in the following ways:

- Superior teachers should earn more than average teachers.
- Poorly performing teachers should be expeditiously removed from the school system.
- Across-the-board pay hikes should be resisted, discontinued, or scaled down.[25]

Data from the AFT 2001 teacher salary survey show that despite annual increases, teachers' relative salaries, although still above the average worker's salary, have declined over the last 10 years.

- In 1990, the teacher's average salary was 20 percent higher than the earnings of the full-time worker's average salary in the U.S. economy. However, during the booming economy of the 1990s, relative to the average worker, teachers lost ground. In the 2000–2001 school year, the teacher advantage had fallen to less than 10 percent. (See table 2.1 and figure 2.1.)
- In 2001, a teacher earned less than 5 percent more than a government employee, clearly less than the approximately 15 percent advantage enjoyed in 1990.
- Although teachers' salaries have steadily increased over the past 40 years, the portion of education expenditures designated for those salaries has decreased. In 1961, 51 percent of K–12 public education expenditures were devoted to teacher salaries, compared to 39 percent in 2001. (See table 2.2 and figure 2.2.)[26]

Table 2.1: **Salary Comparisons**

Teachers, Average U.S. Workers, Government Workers, 1960–2001

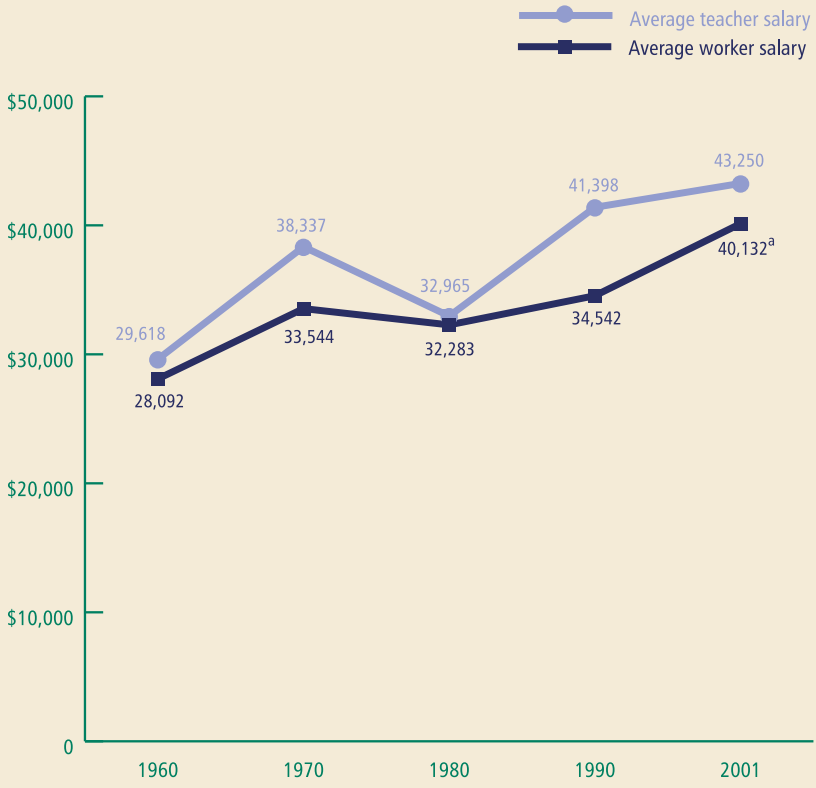
	Average salary		
Year	Teacher	Worker	Government worker
1960	$29,618	$28,092	$27,272
1970	38,337	33,544	34,983
1980	32,965	32,283	32,100
1990	41,398	34,542	36,038
1991	42,234	34,786	36,950
1992	42,247	35,722	37,586
1993	42,423	35,775	37,605
1994	42,214	35,434	38,265
1995	42,295	35,658	38,436
1996	41,851	35,697	38,370
1997	42,031	36,575	38,815
1998	42,408	37,828	39,497
1999	42,495	38,505	40,579
2000	42,459	39,301	40,852
2001	43,250	40,132[a]	41,676[a]

Source: F. Howard Nelson, Rachel Drown, and Jewell C. Gould, *Survey & Analysis of Teacher Salary Trends 2001* (Washington, DC: Research & Information Services Department, American Federation of Teachers, AFL-CIO, 2002), available online at http://www.aft.org/research/salary01salarysurvey2001.pdf.

Notes: All figures in 2001 dollars.

a. Estimate.

Figure 2.1: **Teachers' and U.S. Workers' Salaries 1960–2001**



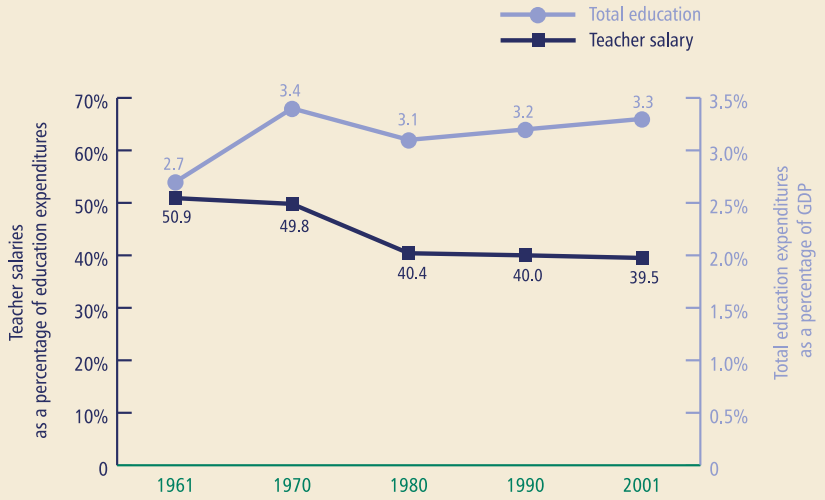
Source: F. Howard Nelson, Rachel Drown, and Jewell C. Gould, *Survey & Analysis of Teacher Salary Trends 2001* (Washington, DC: Research & Information Services Department, American Federation of Teachers, AFL-CIO, 2002), available online at http://www.aft.org/research/salary01salarysurvey2001.pdf.
Notes: All figures in 2001 dollars.
a. Estimate.

Table 2.2: **Teacher Salaries 1961–2001**

Year	Average teacher salary	Total teacher salaries (in billions)	Total public K–12 costs (in billions)	Teacher salaries as a percentage of public K–12 costs	Gross domestic product (in billions)	Total public K–12 costs as a percentage of GDP
1961	$5,275	$7.4	$14.6	50.9%	$545	2.7%
1970	8,635	17.4	34.9	49.8	1,039	3.4
1980	16,100	35.1	87.0	40.4	2,795	3.1
1990	31,347	75.0	187.6	40.0	5,803	3.2
2001	43,250	132.1	334.5	39.5	10,208	3.3

Source: F. Howard Nelson, Rachel Drown, and Jewell C. Gould, *Survey & Analysis of Teacher Salary Trends 2001* (Washington, DC: Research & Information Services Department, American Federation of Teachers, AFL-CIO, 2002), available online at http://www.aft.org/research/salary01salarysurvey2001.pdf.
Note: All figures in 2001 dollars

Figure 2.2: **Public Teacher Salaries, K–12 Public Education Expenditures, and Gross Domestic Product 1961–2001**



Source: F. Howard Nelson, Rachel Drown, and Jewell C. Gould, *Survey & Analysis of Teacher Salary Trends 2001* (Washington, DC: Research & Information Services Department, American Federation of Teachers, AFL-CIO, 2002), available online at http://www.aft.org/research/salary01salarysurvey2001.pdf.

Although vast amounts of information are disseminated to the public regarding the low level of teacher salaries, some contend that teachers earn more per day than other professionals. The 2000–2001 public school teacher's average salary of $43,250, for example, was earned over a period of 185 days, in contrast to the 235 days worked by a typical wage earner. Moreover, teacher salary growth has still outpaced the price level over the last decade, increasing 31 percent, compared to 28 percent. (See table 2.3.)[27]

Table 2.3: **Salary Comparisons**
Teacher Salary, Consumer Price Index, Per Capita GDP, 1960–2001

Year	*Average teacher salary*	*Consumer price index*	*Percentage change for teacher salary*	*Average teacher salary (2001 dollars)*	*Per capita GDP (2001 dollars)*	*Ratio of teacher salary to per capita GDP*
1960	$4,995	29.8	2.7%	$29,618	$2,918	1.78
1970	8,635	39.8	2.9	38,337	5,069	1.70
1980	16,100	86.3	-4.4	32,965	12,276	1.31
1990	31,347	133.8	-0.3	41,398	23,215	1.35
1991	32,960	137.9	2.0	42,234	23,630	1.39
1992	33,927	141.9	0.0	42,247	24,618	1.38
1993	35,004	145.8	0.4	42,423	25,544	1.37
1994	35,764	149.7	-0.5	42,214	26,799	1.33
1995	36,766	153.6	0.2	42,295	27,784	1.32
1996	37,564	158.6	-1.1	41,851	28,993	1.30
1997	38,415	161.5	0.4	42,031	30,497	1.26
1998	39,360	164.0	0.9	42,408	31,822	1.24
1999	40,475	168.3	0.2	42,495	33,204	1.22
2000	41,810	174.0	-0.1	42,459	34,950	1.20
2001	43,250[a]	176.7	1.9	43,250	35,704[a]	1.21

Source: F. Howard Nelson, Rachel Drown, and Jewell C. Gould, *Survey & Analysis of Teacher Salary Trends 2001* (Washington, DC: Research & Information Services Department, American Federation of Teachers, AFL-CIO, 2002), available online at http://www.aft.org/research/salary01salarysurvey2001.pdf.
Note: a. Estimate.

The average teacher contract requires 7.3 hours of work a day, and teachers reported working an average of 2.5 additional hours a day (for a total of 9.8 hours of work a day).

Although many teachers work beyond the traditional school day, other professionals do also; thus, it is difficult to make direct comparisons based on daily or weekly hour totals. Furthermore, previously unpublished data from the NCES reveals that many teachers earn income in addition to their compensation as full-time teachers. In the 1993–94 school year, for example, more than one-third of teachers earned supplemental income.[28] Incorporating these factors into the analysis indicates that teachers' salaries per day of work are far greater than those of most U.S. workers.

Considering their abbreviated work year and the declining performance of their students on standardized tests and in international comparisons, some argue that teachers are overpaid. (See table 2.4.)[29] After conducting several years of detailed empirical analyses of teachers in both the public and the private sectors, the Upjohn Institute issued a report concluding that "dramatic increases in teacher salaries over the past twenty years have done nothing to improve the quality of American public school teachers." Furthermore, numerous reports on teacher compensation have concluded that attempts to recruit better teachers with global pay raises, irrespective of merit, make no discernible impact on new teacher recruitment.[30]

Table 2.4: **Teacher Duties**

Duty	Full-time teachers performing task	
	Number	Percentage
Classroom duties	2,340,443	100.0%
Extra duties	815,827	34.9
Summer school	401,516	17.2
Tutoring	118,601	5.1
Other education work	80,104	3.4
Other non-education work	237,177	10.1

Sources: John C. Bowman, *Teacher Compensation in Texas: Emerging Trends for Texas* (San Antonio: Texas Public Policy Foundation, July 2000), available online at http://www.tppf.org/education/report/report.html; Mike Antonucci, "Teacher Salaries and Benefits," in *One Yard Below* (Sacramento, CA: Education Intelligence Agency), available online at http://www.calnews.com/Archives/1YB_II_sal.htm.
Notes: Figures based on 1993–94 teacher survey.
Individual teachers may be performing more than one additional duty.

Teachers' unions assert that blanket increases in teacher salaries are one key to an improved education system, yet others challenge this assertion. If the primary goal is to increase the supply of teachers (and in the short run this may be the case for those experiencing extreme teacher shortages), blanket increases in teacher salaries might be one solution. The evidence, however, seems clear: When salaries go up, schools run the risk of paying more for the teachers they already have or of increasing the quantity of teachers but not the quality.[31] Most Americans understand this concept. The majority of the general public believes that teachers are underpaid (62%), but most also say teachers' salaries should be very closely tied or somewhat closely tied to student achievement (60%).[32]

Proposition: Teacher certification does not necessarily guarantee teacher quality, and for some interested in teaching, it is a deterrent.

While some policymakers and parents view "certified" teachers as synonymous with qualified teachers, being certified generally means little more than having completed state-approved training at a school of education. There is little evidence that certification leads to effective teaching, and many indications that it works against professionalism.[33] In 1997, over 63 percent of education professors admitted that their programs often failed to prepare teachers for the challenge of real-world teaching.[34]

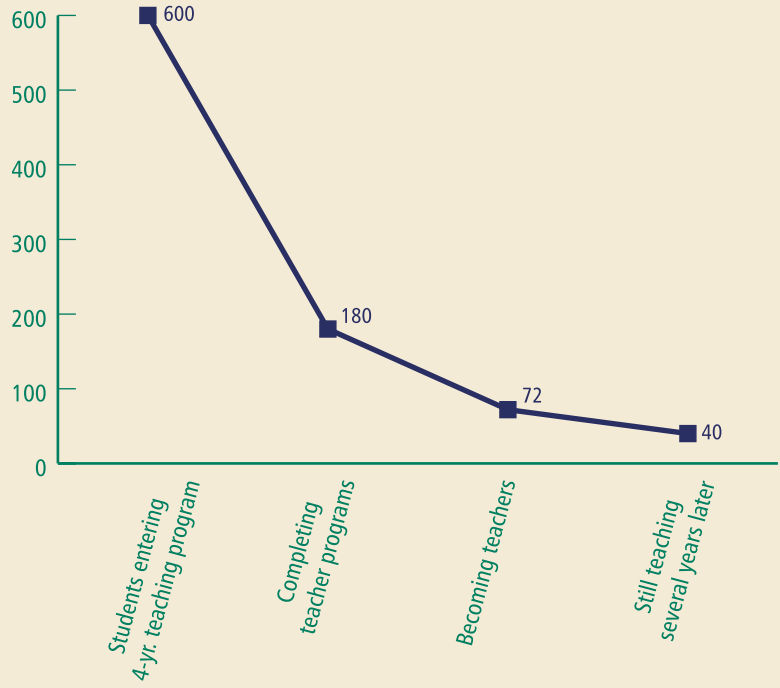
The late Albert Shanker, president of the American Federation of Teachers, stated, "Many of the attributes that characterize a profession are not hallmarks of today's teaching profession." He continued, "To be considered a true profession, an occupation must have a distinct body of knowledge—acknowledged by practitioner and consumer alike—that undergirds the profession and forms the basis of delivering high-quality services to clients."[35]

Many certification advocates feel that certification would be more effective if programs were lengthened or if all certification programs were required to be accredited. However, there is no evidence to support these claims. Few differences have been found between graduates of accredited and nonaccredited programs. Furthermore, graduates of 5-year teacher training programs are not more effective than those of 4-year programs.[36]

One of the primary problems with traditional certification programs is their focus on inputs rather than results: Courses taken, requirements met, time spent, tests passed, credentials acquired, and activities engaged in are more important than

actual evidence of classroom effectiveness. Research has consistently shown that there is little association between teachers' initial "qualifications" and their eventual effectiveness.[37] Moreover, critics charge that the current credentialing process, with its low standards and bureaucratic requirements, actually discourages the best and the brightest from becoming teachers.[38] Out of every 600 students entering 4-year teaching programs, only 180 complete them, only 72 become teachers, and only about 40 are still teaching several years later. (See figure 2.3.)[39]

Figure 2.3: **Teacher Attrition**



Source: Vartan Gregorian, "How to Train—and Retain—Teachers," *New York Times* (6 July 2001).

In most states, traditional certification programs enjoy monopoly control over classroom entry. Some states, however, are beginning to deregulate the process. Comparing teachers who were trained and licensed through traditional programs to teachers who bypassed these programs provides potent evidence. Alternative certification programs streamline the classroom entry process. Often the programs require a bachelor's degree, passing a competency test, and compressed intensive training, with specialized preparation that is usually completed on the job. Schools of education, however, require a narrow curriculum and student teaching. To date, studies show that students taught by teachers prepared via alternative certification programs have performed at least as well as students taught by teachers prepared by the conventional teacher certification process. Alternative routes of certification are gaining in momentum.[40] For example, Teach for America (TFA)—a program that recruits high-achieving students from prominent universities, offers them specialized training, funnels them through alternative certification routes, and then places them in some of the toughest U.S. public schools—has been quite successful. A recent evaluation of TFA teachers in the Houston Independent School District, the seventh largest district in the U.S., concluded that "on average, the impact of having a TFA teacher was always positive."[41]

Research shows that teachers who are prepared via alternative certification routes are more likely to have degrees with majors in subjects other than education, particularly in math and science. Both these fields have chronic shortages of teachers, and many teachers in these fields do not have academic degrees in these subjects. Furthermore, they are more apt to be men, members of minority groups, and older (characteristics that distinguish them from the typical teacher), and they have lower attrition rates. For example, after 6 years, 87 percent of the graduates of California's alternative certification programs are still teaching—83 percent in the schools where they

began.[42] In contrast, of all new teachers in the United States, only two-thirds are still in the education field after 5 years, and only one-half in high-poverty schools.[43] Alternative certification teachers are also more likely to have work experience in occupations other than education, and they are more likely to teach where job demand is greatest—in inner cities and in outlying rural areas—and in high-demand subject areas.[44]

- The fiscal year 2001 budget for the U.S. Department of Education included $31 million specifically for the development of alternative teacher certification programs.[45]
- In 2001, 45 states and the District of Columbia reported having some type of alternative route for certifying teachers; in 1983, only 8 states reported alternative routes.[46]
- About 18 percent of new teacher hires in California come through alternative routes; in Texas, 16 percent; and in New Jersey, 22 percent.[47]

The degree of professionalism and esteem for teachers is further undermined by their standardized test results. The 1997 average SAT scores of high school seniors who intended to major in education were lower than the average scores of all test-takers. The average verbal score of all SAT candidates was 505, and the average math score was 511; those planning to major in education averaged 485 and 479, respectively. A closer evaluation of these data provide some encouragement. Test scores of students seeking teaching licenses in mathematics, for example, are comparable to math majors in general. Those seeking an elementary education license, the largest cohort of teacher licenses, however, have SAT and ACT scores that are substantially lower than the scores of those seeking licensure in specific content areas. (See table 2.5.)[48]

Table 2.5: **SAT Scores**
By Intended College Major, 2000–01

Intended major	Average SAT verbal score	Average SAT math score	Combined verbal and math score
Education	483	481	964
Business	489	511	1000
Social sciences and history	531	512	1043
Biological sciences	545	549	1094
Engineering	523	572	1095
Language and literature	606	549	1155
Physical sciences	568	588	1156
Mathematics	549	625	1174

Source: Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 136, p. 154.

There is no evidence supporting the notion that the current teacher credentialing process has been successful. The notable increase in alternative certification routes is evidence of the problem. A good process would produce tangible results, that is, better teachers who produce well-educated students. For too long, policymakers have tried to enhance the credentialing process by increasing requirements. These measures have acted as a deterrent to many who might otherwise teach. Today's training system has created a quality and quantity crisis.

Proposition: Teachers' education levels have increased; students' achievement has not.

Debate surrounds the preparation and qualifications that characterize high-quality teachers. Compared to other fields, disputes and ambiguities regarding the knowledge base and competency level that should be required of teaching professionals are particularly striking. Many agree that teachers should possess strong basic knowledge of the subjects they teach, but does that knowledge translate into effective teaching? Over time, teachers' education levels have increased; however, the anticipated increase in students' achievement rankings has not followed.

The type of academic degree held is one measure used to determine teacher qualifications. Through the 1960s, the percentage of teachers with advanced degrees began to increase. The majority of public school teachers (56.2 percent in 1996) now have advanced degrees. Furthermore, heightened awareness regarding teacher education levels has been accompanied by an emphasis for teachers, particularly those in secondary schools, to have an academic major such as English, math, or history rather than a major in education.

Although dramatic change can be seen in the percentage of teachers with advanced degrees, in most fields, teachers do not hold their degrees in the fields in which they teach. (See table 2.6 and figure 2.4.)[49] Considering all primary subjects, in 1999, nearly 34 percent of public school teachers in grades 7 through 12 were teaching without a major or a minor in the academic field in which they were teaching. Contrasting the U.S. experience to other countries, 71 percent of 8th-grade math students from selected countries (those countries whose students participated in the TIMSS-Repeat) learned math from teachers who majored in mathematics in college, compared

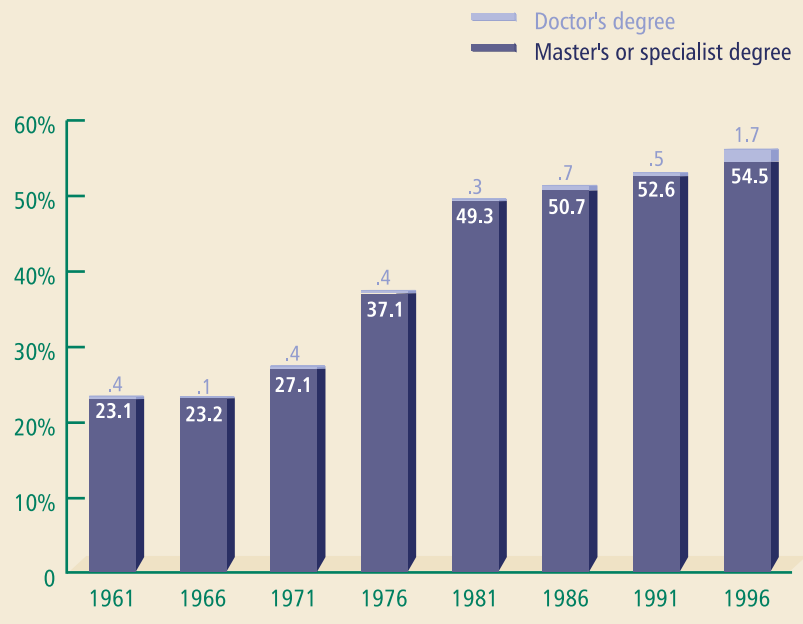
with only 41 percent of American 8th-grade math students. Moreover, it appears the more technical the subject, the less likely it is for the teacher to have advanced preparation in the subject.[50]

Table 2.6: **Teacher Educational Attainment 1961–96**

Year	Education level			
	Less than a bachelor's degree	Bachelor's degree	Master's or specialist degree	Doctor's degree
1961	14.6%	61.9%	23.1%	0.4%
1966	7.0	69.9	23.2	0.1
1971	2.9	69.6	27.1	0.4
1976	0.9	61.6	37.1	0.4
1981	0.4	50.1	49.3	0.3
1986	0.3	48.3	50.7	0.7
1991	0.6	46.3	52.6	0.5
1996	0.3	43.6	54.5	1.7

Source: Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 70, p. 81.
Notes: Data are based on sample surveys of public schoolteachers.
Data differ from figures appearing in other tables because of varying processing procedures and time period coverage.
Because of rounding, percentages may not add to 100.

Figure 2.4: **Teacher Educational Attainment 1961–96**



Source: Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 70, p. 81.
Note: Data are based upon sample surveys of public schoolteachers.
Data differ from figures appearing in other tables because of varying processing procedures and time period coverages.
Education specialists are defined as individuals who have had six years of college.

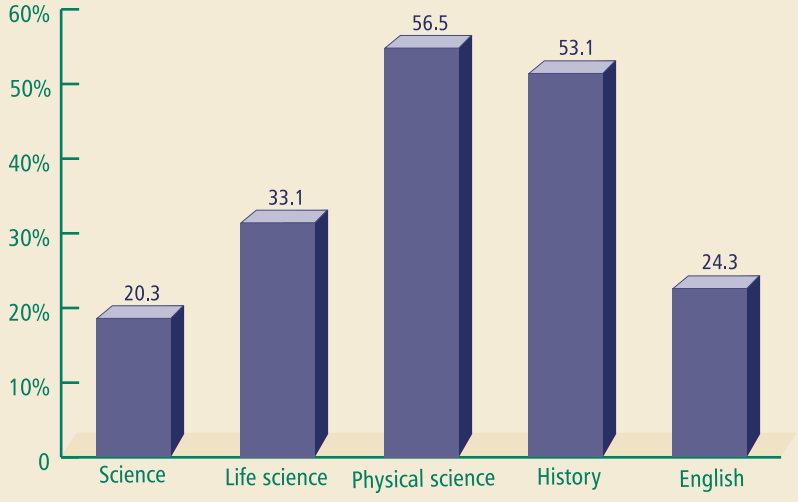
According to Richard Ingersoll's 1999 report in *Educational Researcher:*

- One-fifth of all public school students in English classes in grades 7–12 were taught by teachers who did not have even a minor in English, literature, communications, speech, journalism, English education, or reading education.
- About one-quarter of all public school students in mathematics classes in grades 7–12 were taught by teachers

without a major or minor in mathematics or mathematics education.

- Nearly two-fifths of all public school students in life science or biology classes in grades 7–12 were taught by teachers without a minor in biology or life science.
- In addition, over half of all public school students in history or world civilization classes in grades 7–12 were taught by teachers who did not have a minor in history.
- More than half (56.5 percent) of all public school students in physical science classes in grades 7–12 were taught by teachers without at least a minor in physics, chemistry, geology, or earth science. (See figure 2.5.)[51]

Figure 2.5: **Teachers without College Major or Minor in Their Teaching Field**
Grades 7–12, 1999



Source: Richard M. Ingersoll, "The Problem of Underqualified Teachers in American Schools," *Educational Researcher* 28, no. 2 (March 1999), available online at http://www.aera.net/pubs/er/arts/28-02/ingsoll01.htm.

Teacher education, as we know it, is not the sole solution to an improved education system. Whereas teachers' formal education levels have increased over the past 30 years, student achievement during that period has remained flat on a national level and has fallen in international comparisons.[52] Placing an even greater emphasis on teachers obtaining an academic major rather than a major in education might be a good starting point for increasing student performance in the technical fields.

Proposition: Some are concerned that children in public schools are receiving less individualized attention; the numbers tell a different story.

Despite increasing enrollment, the public school system has become more consolidated, as shown by the decreasing numbers of schools and districts. Expected efficiencies, which would lead to a smaller administrative staff, however, have not followed. The educational staff has actually grown, with more instructional,[53] support,[54] and administrative[55] staff, presumably providing more individualized attention for students.

Elementary and secondary public education staff increased more than fourfold between 1950 and 1999, with the greatest increase occurring between 1950 and 1980. Yet, between 1950 and 1999, enrollment less than doubled. When considering the three categories of educational staff, each one has increased dramatically in contrast to enrollment. (See table 2.7 and figure 2.6.)[56]

- The student–educational staff ratio decreased from 19 to 1 in 1950 to 8 to 1 in 1999.
- The student–instructional staff ratio decreased from 26 to 1 in 1950 to 12 to 1 in 1999.
- Between 1950 and 1999, support staff increased more than fivefold. The ratio decreased from 83 to 1 to 27 to 1.
- Administrative staff nearly tripled; the ratio decreased from 746 to 1 to 499 to 1.[57]

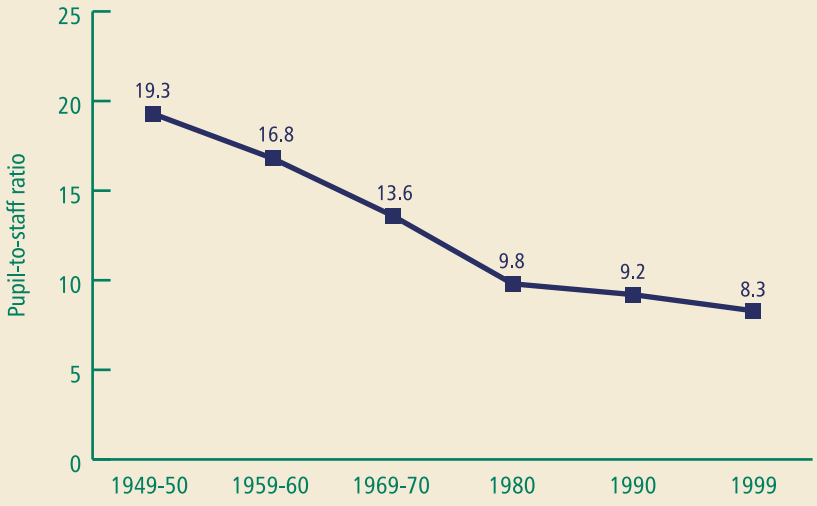
Table 2.7: **Public School Staff**
By Functional Area, 1949–50—1999

	Number of educational staff							
	Total educational staff		District administrative staff		Instructional staff		Support staff	
School year	Number	Pupils per staff member	Number	Pupils per staff member	Number	Pupils per staff member	Number	Pupils per staff member
1949–50	1,300,031	19.3	33,642	746.4	963,110	26.1	303,280	82.8
1959–60	2,089,283	16.8	42,423	829.3	1,457,329	24.1	589,531	59.7
1969–70	3,360,763	13.6	65,282	697.7	2,285,568	19.9	1,009,913	45.1
Fall 1980	4,168,286	9.8	78,784	518.9	2,859,573	14.3	1,229,929	33.2
Fall 1990	4,494,076	9.2	75,868	543.3	3,051,404	13.5	1,366,804	30.2
Fall 1999	5,617,397	8.3	93,916	498.9	3,810,308	12.3	1,713,173	27.4

	Percent of educational staff			
	Total educational staff	District administrative staff	Instructional staff	Support staff
School year	Number	Percent of all staff	Percent of all staff	Percent of all staff
1949–50	1,300,031	2.6%	74.1%	23.3%
1959–60	2,089,283	2.0	69.8	28.2
1969–70	3,360,763	1.9	68.0	30.1
Fall 1980	4,168,286	1.9	68.6	29.5
Fall 1990	4,494,076	1.7	67.9	30.4
Fall 1999	5,617,397	1.7	67.8	30.5

Source: Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 82, p. 91.
Note: According to *Digest of Education Statistics, 2001,* data in the "Total" column from 1985 to the present are not comparable to figures for years prior. In addition, some data have been revised from previously published figures. Because of variations in data collection instruments, some categories are only roughly comparable over time.

Figure 2.6: **Ratio of Pupils to Total Educational Staff**
Public Schools, 1949–50—1999



Source: Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 82, p. 91.
Note: Some data have been revised from previously published figures.
Because of variations in data collection instruments, category is only roughly comparable over time.

Not only has the size of the educational staff increased; its configuration has changed as well. Administrative and instructional staff have decreased as a percentage of total educational staff, while support staff has increased. The composition of instructional staff—those who have the most direct impact on students—has also changed; there are more instructional aides, librarians, and guidance counselors. It is difficult to compare changes in staff composition over time, due to changes in how jobs are classified; however, from the magnitude of the numbers, it is apparent there are more staff per pupil than ever.[58]

- In 1950, instructional staff made up 74 percent of total educational staff; in 1999, they made up 68 percent.

- In 1950, 70 percent of educational staff were teachers; in 1999, only 52 percent of public elementary and secondary educational staff were teachers.
- In 1950, the student-to-teacher ratio was 28 to 1; in 1999, it was 16 to 1.
- In 1970, less than 2 percent of educational staff were instructional aides.[59] In 1999, 16.4 percent were aides, an increase of more than 600 percent.
- The student–instructional aide ratio was 793 to 1 in 1970; in 1999, it was 75 to 1, a change by a factor of 10. (See table 2.8 and figures 2.7 & 2.8.)[60]

Table 2.8: **Public School Instructional Staff By Job Description, 1949–50—1999**

Number of instructional staff

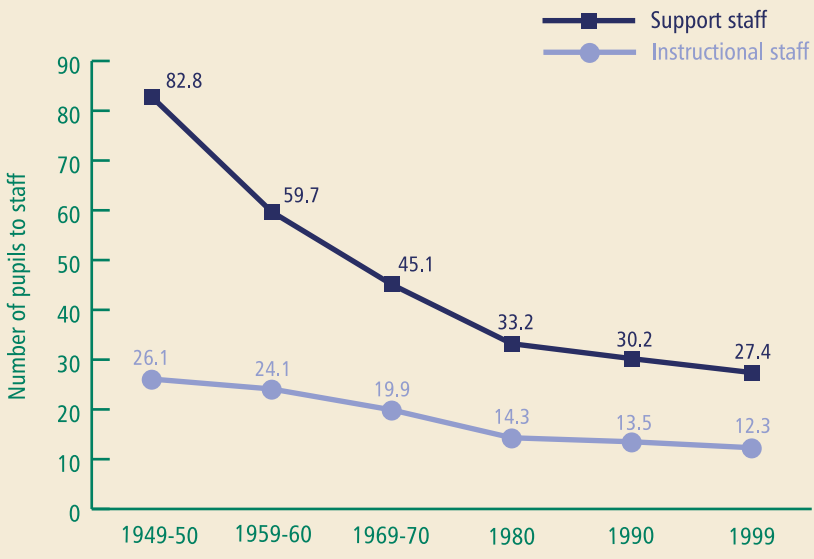
Year	*Total instructional staff*	*Principals and assistant principals*	*Teachers*	*Instructional aides*	*Librarians*	*Guidance counselors*	*Psychological personnel*	*Other instructional staff*
1949–50	963,110	43,137	913,671	a	a	a	a	6,302
1959–60	1,457,329	63,554	1,353,372	a	17,363	14,643	2,121	6,277
1969–70	2,285,568	90,593	2,016,244	57,418	42,689	48,763	6,168	23,693
Fall 1980	2,859,573	107,061	2,184,216	325,755	48,018	63,973	14,033	116,517
Fall 1990	3,051,404	127,417	2,398,169	395,959	49,909	79,950	b	b
Fall 1999	3,810,308	133,011	2,906,554	621,385	53,661	95,697	b	b

Instructional staff relative to total staff

1949–50	74.1%	3.3%	70.3%	a	a	a	a	0.5%
1959–60	69.8	3.0	64.8	a	0.8%	0.7%	0.1%	0.3
1969–70	68.0	2.7	60.0	1.7%	1.3	1.5	0.1	0.7
Fall 1980	68.6	2.6	52.4	7.8	1.2	1.5	0.3	2.8
Fall 1990	67.9	2.8	53.4	8.8	1.1	1.8	b	b
Fall 1999	67.8	2.4	51.7	11.1	1.0	a	b	b

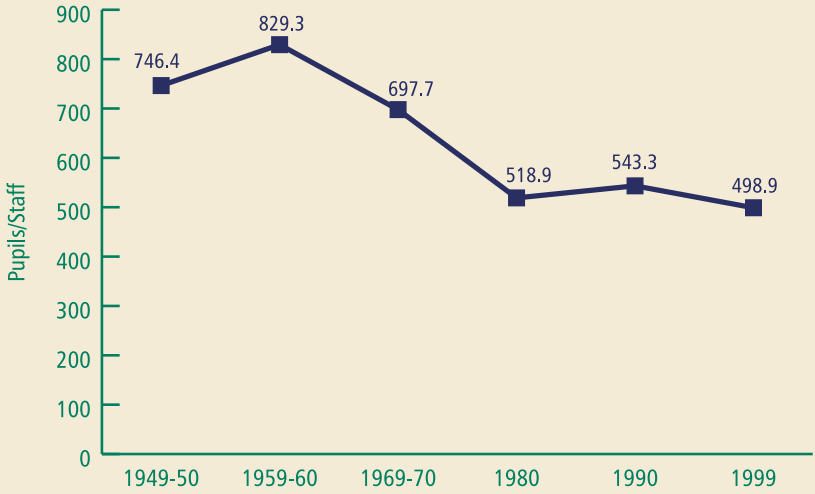
Source: Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 82, p. 91.
Notes: According to *Digest of Education Statistics, 2001,* data in the "Total" column from 1985 to the present are not comparable to figures for years prior. In addition, some data have been revised from previously published figures. Because of variations in data collection instruments, some categories are only roughly comparable over time.
a. Data included in column entitled "Teachers."
b. Data included in "Support staff" totals, Table 2.7.

Figure 2.7: **Ratio of Pupils to Support and Instructional Staff Public Schools, 1949–50—1999**



Source: Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 82, p. 91.
Note: Some data have been revised from previously published figures. Because of variations in data collection instruments, some categories are only roughly comparable over time. Because of rounding, details may not add to totals. *Instructional staff* includes principals, assistant principals, teachers, instructional aides, librarians, guidance counselors, psychological personnel, and other instructional staff. *Support staff* includes secretarial and clerical, transportation, food service, plant operation and maintenance, health, recreational, and other staff.

Figure 2.8: **Ratio of Pupils to Administrative Staff Public Schools, 1949–50—1999**



Source: Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 82, p. 91.
Note: Some data have been revised from previously published figures.
Because of variations in data collection instruments, some categories are only roughly comparable over time. *Administrative staff* includes intermediate district staff, school district superintendents, officials and administrators, and instruction coordinators.

Looking at the current crisis in education, it seems apparent that more people providing more individualized attention does not necessarily guarantee a better outcome. Recent education reform advocates have recommended returning to instruction in the basics; perhaps this recommendation applies to staff, as well.

Proposition: Secondary public school teachers are spending more time performing their teaching duties, yet they are teaching fewer students.

The public school teacher has not escaped the myriad of educational reform discussions. Many recommendations have been proposed to enhance the teaching profession and to better equip teachers in the classroom. Some believe that the public school teacher is ill-prepared, others are convinced that teachers are not paid enough, and another contingent contends that they simply do not have enough authority in the classroom to maintain order, let alone teach. Perhaps what has changed sheds some light on possible improvements, but it should be noted that many aspects of a teacher's job have remained constant over time.

- The average number of hours in a required school day has changed minimally. In 1961, the average was 7.4. In 1996, the average was 7.3.
- The average number of school days in a school year has hardly changed. Between 1966 and 1996, the number of days has decreased from 181 to 180.
- The average number of nonteaching days in a school year has not changed dramatically, increasing from 5 to 6.
- The average number of hours in a required school week was the same in 1996 as it was in 1966, 36.5 hours. (See table 2.9.)[61]

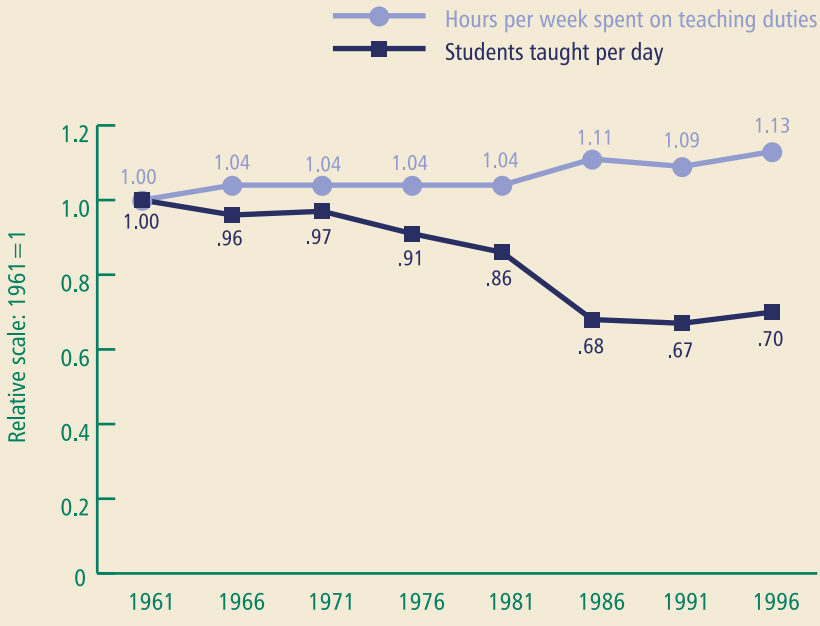
Table 2.9: **Average Workweek of Public School Teachers 1961–96**

Date	Average hours in required school week	Average hours per week spent on all teaching duties			Average days in school year	
		All teachers	Elementary teachers	Secondary teachers	Classroom teaching	Non-teaching
1961	37.0	47	49	46	na	na
1966	36.5	47	47	48	181	5
1971	36.5	47	46	48	181	4
1976	36.5	46	44	48	180	5
1981	36.5	46	44	48	180	6
1986	36.5	49	47	51	180	5
1991	36.0	47	44	50	180	5
1996	36.5	49	47	52	180	6

Source: Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 70, p. 81
Note: Data are based upon sample surveys of public school teachers.
Data differ from figures appearing in other tables because of varying processing procedures and time period coverages.

While the quantitative metrics have changed little, not all aspects of the teacher's job have remained as stable. At the secondary school level, for example, the decrease in the number of students taught per day is notable. In 1961, the average number of students a teacher taught per day was 138; in 1996, the average was 97, a decline of nearly one-third. During the same time period, the average number of pupils per class increased from 28 to 31. Furthermore, there was an increase in the number of reported hours per week spent on teaching duties by secondary school teachers, from 46 hours to 52 hours. (See figure 2.9.)[62]

Figure 2.9: **Teacher Workload**
Public Secondary School Teachers, 1961–96



Source: Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 70, p. 81.
Note: Data are based upon sample surveys of public school teachers.
Data differ from figures appearing in other tables because of varying processing procedures and time period coverages.

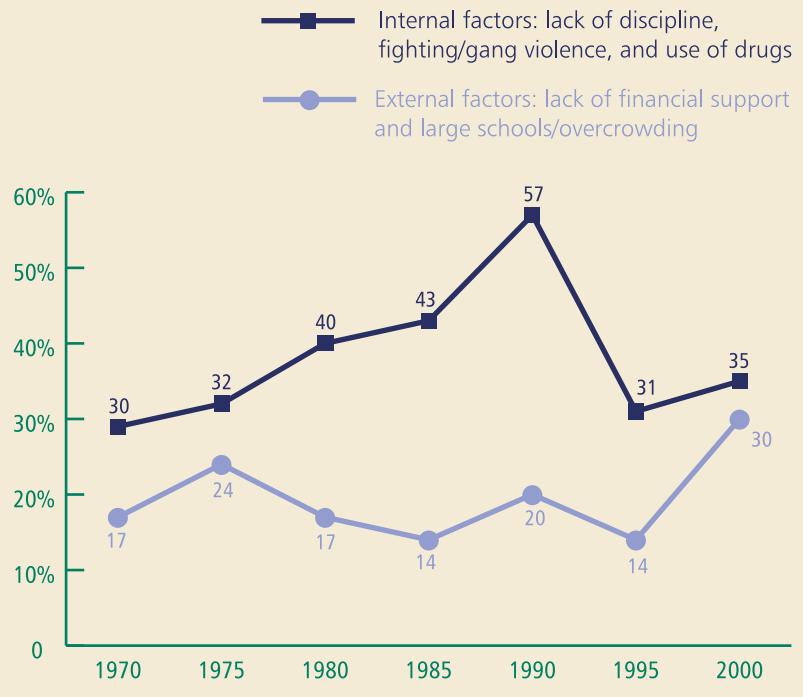
Combining these three facts—the increase in the number of students per class, the increase in the amount of time spent on teaching duties per week, and the decrease in the number of students taught per teacher—poses a conundrum: If there are more students per class and teachers are spending more time teaching, why are they not teaching more students per week? There are two possible explanations: Teachers may be spending more time on "teaching duties," but much of that time is spent performing nonclassroom activities—counseling, preparing, maintaining order, administrative functions, and so on; and

there are far more teachers now, so the absolute student-teacher ratio has fallen.[63]

More teachers are spending more hours on teaching duties while teaching fewer students, yet student achievement at the secondary level has remained flat or declined over the last 30 years. This is contradictory to what one might expect, particularly when many of the aspects that might influence these changes have remained constant.

Students, however, might have changed, as well. Teachers and the general public have expressed consistent concern over the lack of discipline in the classroom. In a variety of surveys conducted between 1966 and 1996, after their heavy workload, discipline and negative attitudes were among the factors teachers most frequently mentioned as hindering them.[64] The general public agrees; lack of discipline was ranked first among "major problem(s) facing local public schools" over an extended period of time. (See figure 2.10.)[65]

Figure 2.10: **General Public Perception of Problems Facing Public Schools**
1970–2000



Source: Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 23, p. 29.

In addition to the fact that many certified teachers are not choosing to enter or stay in the profession, it appears teachers are actually spending less time in the classroom actually teaching and have less direct student contact. When considering education reform and the role teachers might play in it, the solution does not appear to be in the cumulative amount of time teachers spend on teaching duties but possibly in the use of their time.

Proposition: Teachers' unions provide more than collective bargaining for teachers.

At first glance, one would assume teachers' unions play a limited role in public education, fighting for better pay and working conditions for their members but having little influence beyond teacher needs. This, however, is not the case. Teachers' unions may have more impact on the public school system than any other group in American society.[66]

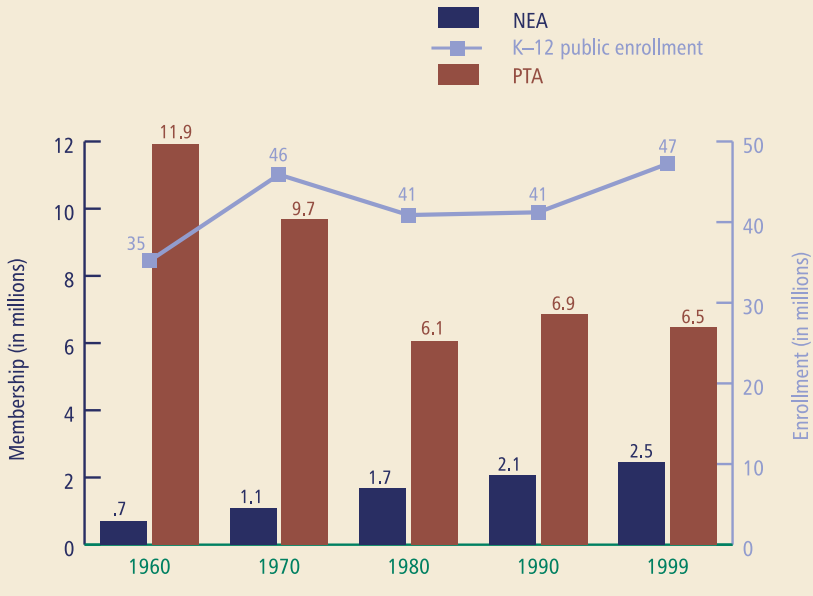
When it comes to influence, their impact is wielded via two mechanisms and in two directions: They shape from the bottom up through collective bargaining, and they shape from the top down through political activities. The combination of bottom-up and top-down strategies creates a powerful and far-reaching arm of influence that leaves few aspects of America's public schools untouched.[67]

A fundamental aspect of teachers' unions' power comes from their consistent growth in membership and hence funding. Nearly all K–12 public school teachers are a member of a local affiliate of either the AFT or the NEA. Through the late 1950s the AFT was the strongest teachers' union; however, only 5 percent of teachers were members.[68] In 1993, 80 percent of public school teachers were unionized, and 66.5 percent were covered by collective bargaining.[69]

When comparing teachers' unions and another major school-related organization, the National Parent-Teacher Association (PTA), union membership growth stands out. National PTA membership has decreased at nearly the same rate as teacher union membership has increased. In 1963, National PTA membership was at its peak, with 12,131,318 members nationwide; in 1999, its membership totaled 6,467,442, a decrease of nearly 47 percent.[70] Public school elementary and secondary enrollment increased from

approximately 41,025,000 to 47,244,000 during the same time period, an increase of 15 percent. In 1961, the NEA and AFT claimed a joint membership total of 836,821; in the year 2000, joint membership was approximately 3.5 million, about 2.5 million of whom were K–12 teachers, a more than 300 percent increase. (See figure 2.11.)[71]

Figure 2.11: **NEA and PTA Membership and Public School Enrollment**
1960–99



Sources: National Parent Teacher Association, available online at http://www.pta.org; National Education Association, available online at http://www.nea.org; Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 3, p. 12.

Contrary to the trend in other industries and professions, where unions lost power and influence, the NEA and AFT are still forces to be reckoned with. In the 20 years following the

pivotal 1961 representation election, which gave the AFT the right to represent teachers in New York City, not only did teacher union membership skyrocket, as both the AFT and the NEA raced to recruit new members but collective bargaining became the norm.[72]

Teachers' unions make things happen through the collective bargaining process. Like most unions, the NEA and AFT seek to ensure job security and to base pay and promotion primarily on seniority. Restrictive contracts not only make it difficult to dismiss poorly performing teachers but make it impossible to reward teachers who are teaching well or to create incentives to attract teachers to teach in fields that have shortages.

Moreover, with substantial funds, the unions are also active and effective in local, state, and national politics. At the local level, teachers' unions greatly influence who sits on the school board and, therefore, whom they will be bargaining with.[73] At the state and national levels, teachers' unions spend tremendous amounts of money on political campaigns and lobbying. They regularly rank among the top spenders among interest groups at both the state and national levels, and in many states they are ranked number one.

In addition to their spending, the unions have millions of organized members working towards their stated objectives. A recent academic study of interest group politics at the state level asked experts to rank interest groups according to their influence on public policy. Teachers' unions were top on the list. They outranked general business organizations, trial lawyers, doctors, insurance companies, utilities, bankers, environmentalists, even the state AFL-CIO affiliates.[74] The NEA was among the top 20 PAC contributors to federal candidates in the 2001–2002 election year. Moreover, when the contributions of the NEA and the AFT were combined, they ranked second, at $2,023,140. (See table 2.10.)[75]

Table 2.10: **Top 20 PAC Contributors to Federal Candidates 2001–02 Contributions**

Association of Trial Lawyers of America	$2,136,253
Combined National Education Association and American Federation of Teachers	**2,023,140**
Machinists/Aerospace Workers Union	1,842,750
Laborers Union	1,815,500
International Brotherhood of Electrical Workers	1,758,450
American Federation of State, County, and Municipal Employees	1,723,000
National Auto Dealers Association	1,657,750
Carpenters & Joiners Union	1,625,000
National Association of Realtors	1,610,425
Teamsters Union	1,600,971
United Auto Workers	1,423,750
National Association of Home Builders	1,338,100
Service Employees International Union	1,321,499
Credit Union National Association	1,278,103
United Parcel Service	1,233,891
National Beer Wholesalers Association	1,197,750
SBC Communications	1,193,931
American Medical Association	1,130,666
Communications Workers of America	1,118,250
BellSouth Corporation	1,103,359
National Education Association	**1,092,500**

Source: The Center for Responsive Politics, *Top 20 PAC Contributors to Federal Candidates, 2001–2002* (Washington, DC: Center for Responsive Politics), available online at http://www.opensecrets.org/pacs/topacs.asp.

Surveying the last 50 years, the basic structure of the education system has not changed dramatically; however, one predominant change has been the impact and influence of teachers' unions. Their growth and political clout at all levels—local, state, and national—are a testament to this change.

The unions' impact prompted a *U.S. News and World Report* columnist to state, "The NEA, the giant dinosaur of educational policy, is the largest single reason why the public-school system seems almost impervious to real reform. Its clear goal is power over a monopolistic system."[76] If unions continue to shape public schools in their own image, it will be increasingly difficult to change how we educate our children. It may be time to include teachers' unions in discussions regarding education reform.

PROPOSITION: THE NATION'S LARGEST TEACHERS' UNIONS INVEST HEAVILY IN THE POLITICAL PROCESS, YET THEIR CONTRIBUTIONS DO NOT REFLECT THE POLITICAL VIEWS OF A LARGE SEGMENT OF THEIR MEMBERSHIP.

The NEA and the AFT, the nation's largest teachers unions, are influential institutions not just in education but in politics, as well. Labor unions give more than 90 percent of their political contributions to Democratic candidates. The two teachers' unions are no different. Although the NEA consistently refers to its bipartisanship and has membership data to prove it, both NEA and AFT political contributions lean heavily toward the Democratic Party. In fact, of their 1999–2000 PAC contributions to federal candidates, nearly 97 percent went to Democrats, according to Federal Election Commission data.[77] Furthermore, in 1999, NEA and AFT soft-money contributions ranked sixth and seventh among the Democratic Party's 5,000 donors. (See table 2.11.)[78]

Table 2.11: **Contributions to Political Parties and Candidates**
NEA and AFT Combined, 1977–2000

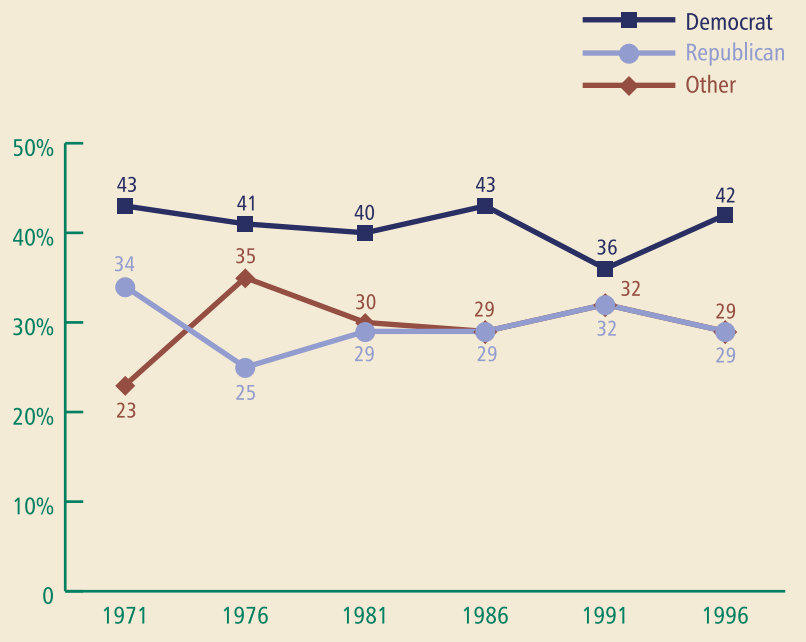
Years[a]	Democrat	Republican	Other
1977–78	$428,780	$43,950	$0
1979–80	428,780	69,250	0
1981–82	1,824,975	77,708	0
1983–84	2,697,325	107,982	0
1985–86	2,828,526	141,226	0
1987–88	3,167,095	174,960	1,000
1989–90	3,305,847	106,025	29,000
1991–92	3,508,740	36,800	6,000
1993–94	3,894,446	31,600	15,617
1995–96	1,732,095	37,000	5,500
1997–98	3,145,540	120,750	9,500
1999–2000	3,057,405	93,150	5,000

Source: Common Cause, *The Soft Money Laundromat—Top Donors* (Washington, DC: Common Cause), available online at http://www.commoncause.org/soft-track/topdonors99_new.htm.
Note: a. Each double year reflects a 24-month congressional term, not a school year.

The political contributions, however, of both the NEA and the AFT are in sharp contrast to the voting records of their members. Talking about political affiliations in a National Public Radio interview, Bob Chase, president of the NEA, stated that his members are "not majority Democratic. Our membership breaks down very similar to the general public as far as percentage being Democratic, Republican, and independent."[79]

This is particularly relevant since at least 75 percent of public school teachers are members of the NEA or the AFT.[80] The data bear out Chase's claim; from 1971 to 1996, teachers' political affiliations have been relatively constant in their distribution among Democrats (about 40 percent), Republicans (about 30 percent), and "no affiliation/other" (the remaining 30 percent), according to NEA data. (See figure 2.12.)[81]

Figure 2.12: **Teacher Political Affiliation 1971–96**



Source: National Education Association, *Status of the American Public School Teacher 1995–96* (Washington, DC: National Education Association, 1997), available online at http://www.nea.org.

Teachers' voting patterns are consistent with their voter registrations and show that they are in the American mainstream. The CBS/*New York Times* exit polls of the 1980 presidential elections revealed that 46 percent of teachers voted for Ronald Reagan, 41 percent for Jimmy Carter, and 10 percent for John Anderson. By comparison, 51 percent of nonteachers voted for Reagan, 40 percent for Carter, and 6 percent for Anderson—trivial differences between the two groups. The 1984 exit polls produced similar numbers.[82]

Teachers' voter registration data and voting patterns and the unions' political agenda are not consistent. The political record of the leadership may not represent that of the rank and file. It is instructive to note that when teachers are given a choice, they do not prefer to spend resources on politics, much less partisan politics. Between 1992 and 1997 in Washington state, where unions were required to obtain annual permission before collecting or using any portion of workers' salaries for political purposes, the number of teachers contributing to the education union's PAC declined by 82 percent. (See tables 2.12 & 2.13 and figure 2.13.)[83]

Table 2.12: **NEA Political Contributions 1977–2000**

	Democratic		Republican		Other	
Year[a]	Dollars	% of total	Dollars	% of total	Dollars	% of total
1977–78	$324,687	95.8%	$13,300	3.9%	$1,000	0.30%
1979–80	258,385	91.1	25,200	8.9	0	0.00
1985–86	1,969,276	95.6	90,157	4.4	0	0.00
1989–90	2,167,745	93.5	149,910	6.5	1,000	0.04
1995–96	2,303,980	99.0	11,850	0.5	11,000	0.50
1999–2000	1,583,125	95.2	76,250	4.6	4,000	0.20

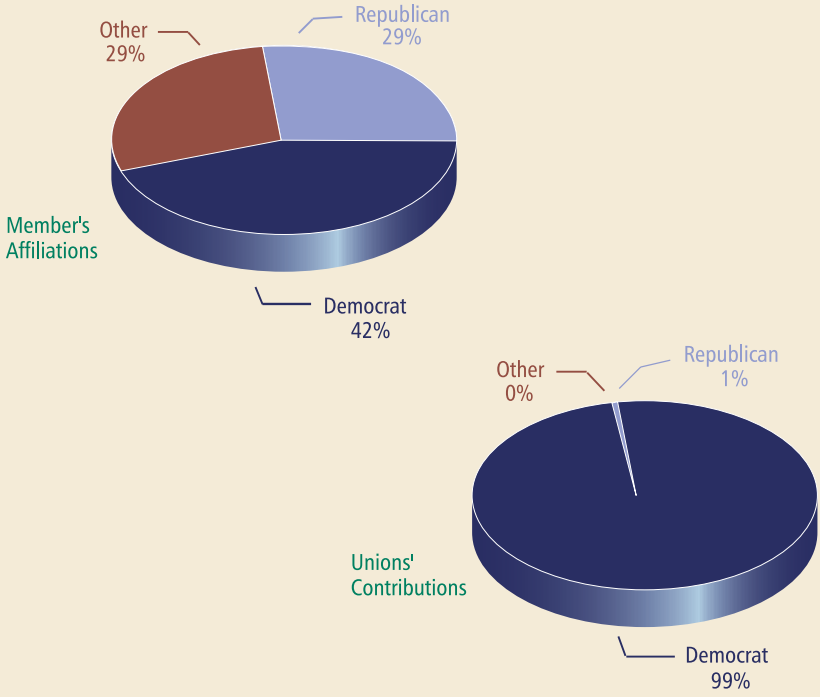
Source: Common Cause, *The Soft Money Laundromat—Top Donors* (Washington, DC: Common Cause), available online at http://www.commoncause.org/soft-track/topdonors99_new.htm.
Note: a. Each double year reflects a 24-month congressional term, not a school year.

Table 2.13: **AFT (Teacher) Political Contributions 1977–2000**

	Democratic		Republican		Other	
Year[a]	Dollars	% of total	Dollars	% of total	Dollars	% of total
1977–78	$105,651	93.2%	$7,700	6.8%	$0	0.00%
1979–80	170,395	90.1	18,750	9.9	0	0.00
1985–86	728,049	97.6	17,925	2.4	0	0.00
1989–90	999,350	97.6	25,050	2.4	0	0.00
1995–96	1,590,466	98.5	19,750	1.2	4,617	0.29
1999–2000	1,471,580	98.8	16,900	1.1	1,000	0.07

Source: Education Policy Institute PAC Data available online at http://www.educationpolicy.org/data.htm and the Federal Election Commission.
Note: a. Each double year reflects a 24-month congressional term, not a school year.

Figure 2.13: **Teacher Political Affiliation and Union Political Contributions**
1995–96



Sources: National Education Association, *Status of the American Public School Teacher 1995–96* (Washington, DC: National Education Association, 1997), available online at http://www.nea.org; Education Policy Institute, *PAC Data* (Washington, DC: Education Policy Institute), available online at http://www.educationpolicy.org/data.htm.

Chapter Notes

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24. John C. Bowman, *Teacher Compensation in Texas: Emerging Trends for Texas* (San Antonio: Texas Public Policy Foundation, July 2000), available online at http://www.tppf.org/education/report/report.html.
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54. Support staff includes secretarial and clerical, transportation, food service, plant operation and maintenance, health, recreational, and other staff.
55. Administrative staff includes intermediate district staff, school district superintendents, officials and administrators, and instruction coordinators.
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59. Before 1970, instructional aides were included in teacher tabulations.
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61. Ibid., table 70, p. 81.
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