# THE SCHOOL STAFFING SURGE

## Decades of Employment Growth in America's Public Schools

**PART II**

BENJAMIN **SCAFIDI**, Ph.D.

February 2013

**THE FRIEDMAN FOUNDATION**
FOR EDUCATIONAL CHOICE
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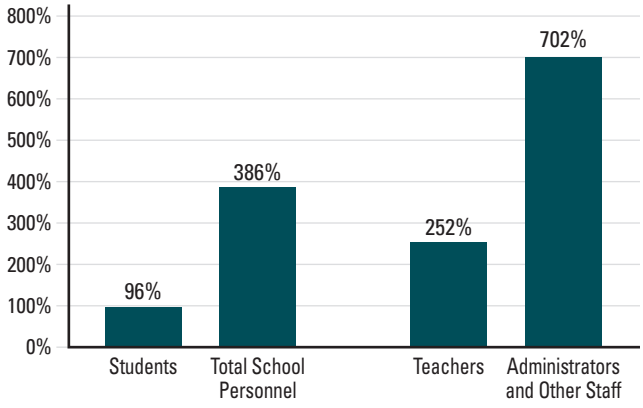
# Executive Summary

America's K-12 public education system has experienced tremendous historical growth in employment, according to the U.S. Department of Education's National Center for Education Statistics. Between fiscal year (FY) 1950 and FY 2009, the number of K-12 public school students in the United States increased by 96 percent, while the number of full-time equivalent (FTE) school employees grew 386 percent. Public schools grew staffing at a rate four times faster than the increase in students over that time period. Of those personnel, teachers' numbers increased 252 percent, while administrators and other non-teaching staff experienced growth of 702 percent, more than seven times the increase in students.

Growth in Students and Public School Personnel, United States, FY 1950 to FY 2009

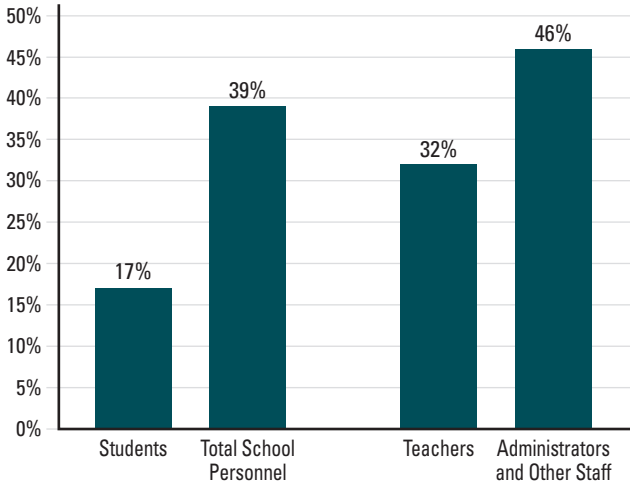



Source: U.S. Department of Education, National Center for Education Statistics, 1991 Digest of Education Statistics, Tables 37 and 77; 2010 Digest of Education Statistics, Tables 36 and 87

That hiring pattern has persisted in more recent years as well. Between FY 1992 and FY 2009, the number of K-12 public school students nationwide grew 17 percent, while the number of FTE school employees increased 39 percent. Among school personnel, teachers' staffing numbers rose 32 percent, while administrators and other non-teaching staff experienced growth of 46 percent, 2.3 times greater than the increase in students over that 18-year period; the growth in the number of teachers was almost twice that of students.

The two aforementioned figures come from "The School Staffing Surge: Decades of Employment Growth in America's Public Schools." This companion report contains more state-specific information about public school staffing. Specifically, this report contains:

Growth in Students and Public School Personnel, United States, FY 1992 to FY 2009




Source: U.S. Department of Education, National Center for Education Statistics, 1994 Digest of Education Statistics, Tables 40 and 85; 2010 Digest of Education Statistics, Tables 36 and 87

- Each state's percentage change among students and administrators and other non-teaching personnel from FY 1992 to FY 2009 (Table 1).
- The actual and "extra" number of administrators and non-teaching staff in each state. "Extra" is defined as the excess non-teaching staff hired beyond the rate of change in each state's student population over the past generation, FY 1992 to FY 2009 (Table 2).
- Each state's cost savings if the increase/decrease in administrators and other non-teaching staff had been the same as the increase/decrease in students from FY 1992 to FY 2009 (Table 3).
- Each state's cost savings per 25 students if the increase/decrease in administrators and other non-teaching staff had been the same as the increase/decrease in students from FY 1992 to FY 2009 (Table 4).
- The increase in teacher salaries that would be possible if the change in employment in non-teaching personnel had not exceeded the change in the student population from FY 1992 to FY 2009 (Table 5).

- Each state's ratio of students to non-teaching staff in FY 2009 (Table 6).

- A comparison of the ratio of students to non-teaching staff and the ratio of students to teachers in each state in FY 2009 (Table 7). The 21 "Top-Heavy States" that employ fewer teachers than other non-teaching personnel are highlighted in Table 7.

- For the 21 "Top-Heavy States," the difference between the number of other staff and teachers in FY 2009 (Table 8).

- The actual ratio of students to all public school employees in FY 2009 (Table 9).

This report also contains a response to criticisms of the 2012 report. It is worth noting that the critics do not dispute that Long-Term Trend scores on the National Assessment of Educational Progress (NAEP) have remained the same or have fallen since 1992 and employment growth has surged in America's public schools.

Highlights of this report's findings include:

- Nationally, states could have saved—and could continue to save—more than $24 billion annually if they had increased/decreased the employment of administrators and other non-teaching staff at the same rate as students between FY 1992 and FY 2009.

- Fully one-fourth of those savings come from Texas, where public schools would have saved almost $6.4 billion if they had not increased the employment of administrators and other non-teaching staff more so than their increase in students. Texas public schools hired 159,228 additional non-teaching personnel, above and beyond its growth in student enrollment during FY 1992 to FY 2009.

- Virginia would have had an extra $29,007 to spend per teacher if it had limited the growth of administrators and other non-teaching staff to its growth in students from FY 1992 to FY 2009. Maine would have had an extra $25,505 per teacher, and the District of Columbia would have had an extra $20,472. Those funds could have been spent on salary increases for teachers or some other worthy purpose.

- There are very large differences in the employment of non-teaching personnel across states. For example, whereas Vermont has only 8.8 students for every administrator or other non-teaching employee and Maine has only 9.4 students per non-teaching employee, Rhode Island has 20 students per every administrator or other non-teaching employee. Wyoming has 9.9 students per every non-teaching employee, whereas Idaho has 22.7 students per non-teaching employee. Those differences are much larger than the differences in the employment of teachers.

- Twenty-one "Top-Heavy States" employ fewer teachers than other non-teaching personnel. Thus, those 21 states have more administrators and other non-teaching staff on the public payroll than teachers. Virginia "leads the way" with 60,737 more administrators and other non-teaching staff than teachers in its public schools.

- There are significant differences in total employment ratios across states. Vermont, Maine, Wyoming, and the District of Columbia each have fewer than six students per public school employee. That compares to more than 10 students per public school employee in Idaho, South Carolina, Arizona, California, Utah, and Nevada.

As was discussed in the original "Staffing Surge" report, the increases in public school employment since 1992 do not appear to have had any positive returns to students as measured by test scores and graduation rates. Some likely will try to cherry-pick an individual state and point out that a particular measure of student achievement increased at the same time that public school employment grew dramatically; however, such an approach is misleading because, across all states, public school employment surged, while student achievement did not measurably increase. If student achievement increased in a certain state, why did it not

increase—or why did it decrease—in other states when public school employment increased? Perhaps there were other reasons student achievement increased in any particular state.[1]

Readers should keep in mind the concept of opportunity cost when making determinations for their individual states. One should ask whether the significant resources used to finance employment increases could have been spent better elsewhere. Would those taxpayer funds have gone further via vouchers or tax-credit scholarships, which enable students to attend schools better suited to their needs? Would raises for teachers have been a wiser investment? Perhaps letting taxpayers keep those funds may have been more effective. Those questions need to be asked and analyzed in every state capitol—inside by lawmakers and outside by parents, education reformers, the business community, and others. The burden of proof is now on those who still want to maintain or even increase the dramatically larger staffing levels in public schools.

# Introduction

This report, a companion to "The School Staffing Surge: Decades of Employment Growth in America's Public Schools," contains more state-specific information on public school staffing.

All data in this report come from various editions of the Digest of Education Statistics, published by the National Center for Education Statistics (NCES) at the U.S. Department of Education. Each figure and table contains a specific citation for the data used. In some cases, it is indicated when data from the Digest of Education Statistics are used to make calculations.

According to the NCES, South Carolina underreported non-teaching personnel for each year during the time period under study; accordingly, South Carolina information cannot be considered in this report. For some years, five other states also reported inaccurate data on public school staffing to the U.S. Department of Education, according to the NCES. For the following five states, accurate data were used for years closest to FY 1992 and FY 2009: Illinois (FY 1992 and FY 2006), Kansas (FY 1992 and FY 2006), Louisiana (FY 1991 and FY 2009), Montana (FY 1993 and FY 2009), and Nevada (FY 1993 and FY 2004). Data on staffing ratios were used for FY 2009 for all states.

The rest of this report consists of nine tables and descriptions of state-specific information on public school staffing, a response to critics of the original "Staffing Surge" report, and concluding remarks.

## The Excess Employment Growth of Administrators and Other Non-Teaching Staff by State

Table 1 shows the percentage change in the number of students and the number of administrators and other non-teaching personnel for each state between FY 1992 and FY 2009. For ease of exposition, the District of Columbia is treated as a state throughout this report.

For 48 of the 50 states with available data, employment changes for non-teaching personnel were in excess of

TABLE 1 Change in the Number of Students and Administrators and Other Non-Teaching Staff, FY 1992 to FY 2009

| State or Jurisdiction | Change in Students | Change in Administrators & Other Non-Teaching Staff |
|---|---|---|
| United States | 17% | 46% |
| Alabama | 3% | 15% |
| Alaska | 10% | 34% |
| Arizona | 66% | 61% |
| Arkansas | 9% | 32% |
| California | 24% | 37% |
| Colorado | 38% | 83% |
| Connecticut | 18% | 68% |
| Delaware | 23% | 33% |
| District of Columbia | -15% | 42% |
| Florida | 36% | 41% |
| Georgia | 41% | 74% |
| Hawaii | 3% | 69% |
| Idaho | 22% | 73% |
| Illinois | 14% | 36% |
| Indiana | 9% | 46% |
| Iowa | -1% | 26% |
| Kansas | 5% | 43% |
| Kentucky | 4% | 43% |
| Louisiana | -13% | 13% |
| Maine | -11% | 76% |
| Maryland | 15% | 60% |
| Massachusetts | 13% | 24% |
| Michigan | 4% | 19% |
| Minnesota | 8% | 68% |
| Mississippi | -2% | 24% |
| Missouri | 9% | 34% |
| Montana | -11% | -3% |
| Nebraska | 5% | 49% |
| Nevada | 73% | 64% |
| New Hampshire | 12% | 80% |
| New Jersey | 24% | 34% |
| New Mexico | 7% | 47% |
| New York | 4% | 26% |
| North Carolina | 36% | 61% |
| North Dakota | -20% | 27% |
| Ohio | 2% | 44% |
| Oklahoma | 10% | 28% |
| Oregon | 15% | 47% |
| Pennsylvania | 5% | 36% |
| Rhode Island | 2% | 27% |
| South Carolina | Data Not Available | Data Not Available |
| South Dakota | -4% | 55% |
| Tennessee | 17% | 49% |
| Texas | 37% | 172% |
| Utah | 23% | 69% |
| Vermont | -4% | 54% |
| Virginia | 22% | 100% |
| Washington | 19% | 43% |
| West Virginia | -12% | 3% |
| Wisconsin | 7% | 30% |
| Wyoming | -15% | 35% |

Source: U.S. Department of Education, National Center for Education Statistics, 1994 Digest of Education Statistics, Tables 40 and 85; 2010 Digest of Education Statistics, Tables 36 and 87; Author's Calculations

the changes in their student populations. That is, for states with growing student populations, employment growth exceeded increases in students. For states that experienced a decline in student populations, their declines in the employment of non-teaching personnel were less than their declines in students.

Maine, for example, experienced an 11 percent decline in its student population between FY 1992 and FY 2009. However, Maine public schools increased employment of administrators and other non-teaching personnel by 76 percent. Only Nevada and Arizona increased non-teaching staff at a slower rate—albeit only slightly—than their increases in students.

Suppose administrators and other non-teaching staff had not increased disproportionately relative to the increases or decreases in students. What if, between FY 1992 and FY 2009, the percent change in employment of non-teaching staff had mirrored the percent change in the student population?

In the first column of Table 2, the actual number of administrators and other non-teaching staff is listed for the United States as a whole and for each state. The second column of Table 2 contains the number of administrators and other non-teaching staff that would have been employed if their employment growth had been the same as the change in their student populations from FY 1992 to FY 2009.

Between FY 1992 and FY 2009, the number of non-teaching personnel in American public schools increased to 3.1 million full-time equivalents (FTEs) from 2.1 million FTEs, a 46 percent increase. If the number of non-teaching personnel had merely matched student growth and increased "only" 17.2 percent, the number of non-teaching personnel nationwide would have been 2.5 million in FY 2009. Thus, the actual number of non-teaching personnel was more than 606,000 FTEs above what would have been if staffing growth had been proportional. Some claim that a large proportion of public school budgets represent "fixed" costs. If that were true, the increase in administration should have been less than the increase in students.[2]

**TABLE 2** Number of Administrators and Other Non-Teaching Staff Compared to Students from FY 1992 to FY 2009

| State or Jurisdiction | Administrators and Other Non-Teaching Staff, FY 2009 | Administrators and Other Non-Teaching Staff if Increased/ Decreased at the Same Rate as Students | "Extra" Administrators and Other Non-Teaching Staff, FY 2009 |
|---|---|---|---|
| United States | 3,098,937 | 2,492,304 | 606,633 |
| Texas | 321,476 | 162,248 | 159,228 |
| Virginia | 132,152 | 80,364 | 51,788 |
| Ohio | 131,885 | 93,065 | 38,820 |
| New York | 210,195 | 172,501 | 37,694 |
| California | 282,037 | 254,264 | 27,773 |
| Pennsylvania | 122,220 | 94,510 | 27,710 |
| Georgia | 120,300 | 97,169 | 23,131 |
| Minnesota | 56,139 | 36,065 | 20,074 |
| Indiana | 79,311 | 59,290 | 20,021 |
| Illinois | 117,912 | 99,151 | 18,761 |
| Maryland | 57,916 | 41,617 | 16,299 |
| Kentucky | 56,766 | 41,065 | 15,701 |
| North Carolina | 98,225 | 82,741 | 15,484 |
| Michigan | 113,304 | 99,106 | 14,198 |
| Tennessee | 61,915 | 48,333 | 13,582 |
| Connecticut | 44,004 | 30,794 | 13,210 |
| Colorado | 53,874 | 40,712 | 13,162 |
| Missouri | 64,661 | 52,365 | 12,296 |
| Louisiana | 51,496 | 39,898 | 11,598 |
| Maine | 20,547 | 10,401 | 10,146 |
| Kansas | 31,929 | 23,422 | 8,507 |
| Mississippi | 38,692 | 30,339 | 8,353 |
| Wisconsin | 47,196 | 38,848 | 8,348 |
| Washington | 50,189 | 41,880 | 8,309 |
| Iowa | 36,389 | 28,686 | 7,703 |
| Oregon | 34,954 | 27,389 | 7,565 |
| Utah | 25,400 | 18,387 | 7,013 |
| Nebraska | 23,186 | 16,335 | 6,851 |
| New Mexico | 25,025 | 18,200 | 6,825 |
| New Jersey | 90,959 | 84,613 | 6,346 |
| New Hampshire | 16,247 | 10,074 | 6,173 |
| Arkansas | 34,108 | 28,253 | 5,855 |
| Oklahoma | 40,907 | 35,174 | 5,733 |
| Florida | 154,352 | 149,509 | 4,843 |
| Alabama | 47,550 | 42,829 | 4,721 |
| Massachusetts | 53,238 | 48,742 | 4,496 |
| Hawaii | 10,315 | 6,273 | 4,042 |
| Vermont | 10,604 | 6,643 | 3,961 |
| Idaho | 12,113 | 8,525 | 3,588 |
| South Dakota | 9,147 | 5,655 | 3,492 |
| Wyoming | 8,841 | 5,610 | 3,231 |
| North Dakota | 7,455 | 4,690 | 2,765 |
| District of Columbia | 6,810 | 4,087 | 2,723 |
| West Virginia | 18,049 | 15,497 | 2,552 |
| Alaska | 9,233 | 7,568 | 1,665 |
| Rhode Island | 7,282 | 5,872 | 1,410 |
| Montana | 8,745 | 7,972 | 773 |
| Delaware | 6,499 | 6,004 | 495 |
| Nevada | 13,825 | 14,574 | -749 |
| Arizona | 50,852 | 52,202 | -1,350 |
| South Carolina | Data Not Available | Data Not Available | Data Not Available |

Source: U.S. Department of Education, National Center for Education Statistics, 1994 Digest of Education Statistics, Tables 40 and 85; 2010 Digest of Education Statistics, Tables 36 and 87; Author's Calculations

Among the states, Texas experienced the largest excess growth in non-teaching personnel of 159,228 FTE personnel employed. Texas public schools employed 321,476 FTE non-teaching personnel in FY 2009, while only 162,248 would have been employed if employment growth had kept pace with its increase in students.

At the other end, Nevada and Arizona public schools employed 749 and 1,350 fewer administrators and other non-teaching staff, respectively, than this thought experiment would indicate.

## Cost Savings by State

As an extremely cautious assumption, assume the average compensation and employment costs of those non-teaching personnel were only $40,000 per year per employee in FY 2009.[3] If that were the case, what would public schools in the United States have been able to save if they had limited changes in the employment of administrators and other non-teaching personnel to the changes in their student populations? The answer to that question comes from taking the "extra" non-teaching personnel from the third column in Table 2 and multiplying it by the assumed $40,000 in costs per employee. For the United States as a whole, that calculation indicates American public schools would have had an additional $24.3 billion in FY 2009 (606,633 x $40,000 = $24.3 billion). That $24.3 billion would be annual recurring savings in public schools that could be used for other worthy purposes.

The cost savings from that thought experiment for each state—including the very cautious assumption on personnel costs—can be found in Table 3. Texas public schools would have saved the most, $6.4 billion, if they had merely increased non-teaching personnel at the same rate as their increase in students. Virginia public schools would have saved more than $2 billion per year, while Ohio public schools would have saved $1.55 billion per year in annual recurring savings.

Nevada and Arizona public schools, which increased employment of non-teaching personnel at a slower rate than their large increases in students, actually saved

TABLE 3 Annual Cost Savings if Administrators and Other Non-Teaching Staff Had Increased/Decreased at the Same Rate as Students from FY 1992 to FY 2009

| State or Jurisdiction | Total Savings |
|---|---|
| United States | $24,265,335,009 |
| Texas | $6,369,102,085 |
| Virginia | $2,071,517,696 |
| Ohio | $1,552,785,424 |
| New York | $1,507,750,549 |
| California | $1,110,904,789 |
| Pennsylvania | $1,108,384,183 |
| Georgia | $925,229,674 |
| Minnesota | $802,955,675 |
| Indiana | $800,837,646 |
| Illinois | $750,439,903 |
| Maryland | $651,974,549 |
| Kentucky | $628,028,096 |
| North Carolina | $619,362,888 |
| Michigan | $567,918,314 |
| Tennessee | $543,265,346 |
| Connecticut | $528,395,305 |
| Colorado | $526,492,634 |
| Missouri | $491,821,498 |
| Louisiana | $463,914,691 |
| Maine | $405,839,388 |
| Kansas | $340,283,525 |
| Mississippi | $334,128,128 |
| Wisconsin | $333,931,797 |
| Washington | $332,350,191 |
| Iowa | $308,112,537 |
| Oregon | $302,612,947 |
| Utah | $280,536,356 |
| Nebraska | $274,044,263 |
| New Mexico | $272,992,446 |
| New Jersey | $253,831,459 |
| New Hampshire | $246,900,866 |
| Arkansas | $234,205,601 |
| Oklahoma | $229,301,210 |
| Florida | $193,735,813 |
| Alabama | $188,832,097 |
| Massachusetts | $179,821,516 |
| Hawaii | $161,665,421 |
| Vermont | $158,447,244 |
| Idaho | $143,509,411 |
| South Dakota | $139,688,395 |
| Wyoming | $129,235,051 |
| North Dakota | $110,594,131 |
| District of Columbia | $108,931,416 |
| West Virginia | $102,099,562 |
| Alaska | $66,599,883 |
| Rhode Island | $56,391,688 |
| Montana | $30,939,394 |
| Delaware | $19,792,651 |
| Nevada | -$29,974,021 |
| Arizona | -$53,996,140 |
| South Carolina | Data Not Available |

Source: U.S. Department of Education, National Center for Education Statistics, 1994 Digest of Education Statistics, Tables 40 and 85; 2010 Digest of Education Statistics, Tables 36 and 87; Author's Calculations

TABLE 4 Cost Savings Per Classroom of 25 Students if Non-Teaching Staff Had Increased/Decreased at the Same Rate as Students from FY 1992 to FY 2009

| State or Jurisdiction | Cost Savings Per Classroom of 25 Students |
|---|---|
| United States | $12,314 |
| Maine | $52,588 |
| Vermont | $42,309 |
| Virginia | $41,907 |
| District of Columbia | $39,651 |
| Wyoming | $37,068 |
| Texas | $33,506 |
| New Hampshire | $31,185 |
| North Dakota | $29,187 |
| South Dakota | $27,622 |
| Minnesota | $24,010 |
| Kentucky | $23,433 |
| Nebraska | $23,415 |
| Connecticut | $23,290 |
| Hawaii | $22,519 |
| Ohio | $21,363 |
| New Mexico | $20,666 |
| Maryland | $19,315 |
| Indiana | $19,138 |
| Kansas | $18,196 |
| Mississippi | $16,979 |
| Louisiana | $16,934 |
| Colorado | $16,082 |
| Iowa | $15,799 |
| Pennsylvania | $15,611 |
| Tennessee | $13,974 |
| Georgia | $13,970 |
| New York | $13,754 |
| Missouri | $13,396 |
| Oregon | $13,148 |
| Idaho | $13,044 |
| Alaska | $12,743 |
| Utah | $12,529 |
| Arkansas | $12,225 |
| North Carolina | $10,401 |
| Rhode Island | $9,700 |
| Wisconsin | $9,555 |
| West Virginia | $9,028 |
| Oklahoma | $8,886 |
| Illinois | $8,884 |
| Michigan | $8,553 |
| Washington | $8,012 |
| Alabama | $6,331 |
| Montana | $5,451 |
| Massachusetts | $4,688 |
| New Jersey | $4,594 |
| California | $4,393 |
| Delaware | $3,945 |
| Florida | $1,841 |
| Arizona | -$1,241 |
| Nevada | -$1,944 |
| South Carolina | Data Not Available |

Source: U.S. Department of Education, National Center for Education Statistics, 1994 Digest of Education Statistics, Tables 40 and 85; 2010 Digest of Education Statistics, Tables 36 and 87; Author's Calculations

$30 million and $54 million per year, respectively, by not increasing their employment as fast as their increases in students.

## Classroom Savings for Students

The cost savings in Table 3 are very large for most states. To put those numbers in context, Table 4 reports the cost savings per classroom of 25 students.

For a classroom of 25 students in the United States, there would have been an extra $12,314, on average, to spend if public schools had not disproportionately hired non-teaching personnel.

There are large differences in classroom savings across states. A classroom of 25 Maine students would have had an additional $52,588 if the state had not increased its non-teaching staff so dramatically. Florida would have saved only $1,841 per classroom if its public schools had not increased its non-teaching force disproportionately.[4]

## Increase in Teacher Salaries by State

Instead of increasing administration and other non-teaching staff, public school systems in the states could have made other, more effective policy choices. One alternative would have been to increase teacher salaries. Table 5 contains the cost savings in Table 3 divided by the total number of teachers in each state in FY 2009. That calculation yields the annual salary increases teachers could have had if public schools had not disproportionately increased administration and other non-teaching staff.

Virginia teachers could have a $29,000 annual salary increase, while teachers in Maine ($25,505) and Washington, D.C., ($20,472) also could have very large salary increases—if public school employment of non-teaching personnel had kept pace with students.

Salary increases for teachers would be significant, but much more modest, in states like Florida, New Jersey, Delaware, and Massachusetts.

## Ratio of Students to Non-Teaching Staff by State, FY 2009

Table 6 (next page) lists the actual ratio of students to non-teaching personnel by state for FY 2009. In the United States, there were 15.9 students for every administrator or other non-teaching staff member. Thus, for a classroom of 32 high school students, there would be a teacher plus two additional public school employees.

Vermont was the most bloated state in FY 2009, with only 8.8 students per non-teaching employee. Virginia, Maine, Wyoming, and the District of Columbia were the next most bloated states. The public education systems that were the least bloated included Nevada, Idaho, California, Utah, and Arizona.

## Comparison of the Staffing of Teachers to the Staffing of Non-Teaching Personnel

The differences in the ratios of students to non-teaching staff are large. Whereas Maine has one non-teaching staffer for every 9.4 students, Nevada has only one of those non-teaching employees for every 27.9 students. Thus, Maine has almost three times the amount of staffing as is present in Nevada.

Ratio differences in pupils to non-teaching staff across states are much larger than the differences in pupil-teacher ratios. In FY 2009, Utah had the highest pupil-teacher ratio (23.7) in the United States. Vermont (10.7) had the lowest. For each state, Table 7 contains a comparison of the ratio of students to non-teaching staff and the ratio of students to teachers.

## "Top-Heavy States"

In the United States, the ratio of students to non-teaching staff is a bit higher than the ratio of students to teachers, 15.9 versus 15.3, respectively. Those data indicate there are more teachers employed in American public schools than there are other non-teaching personnel. However, that difference has been shrinking for at least 60 years. Furthermore, 21 states in FY 2009 employed fewer teachers than administrators and other non-teaching personnel. Those 21 states are starred in Table 7.

TABLE 5 Annual Salary Increases for Teachers if Non-Teaching Staff Had Increased/Decreased at the Same Rate as Students from FY 1992 to FY 2009

| State or Jurisdiction | Salary Increase Per Teacher |
|---|---|
| United States | $7,537 |
| Virginia | $29,007 |
| Maine | $25,505 |
| District of Columbia | $20,472 |
| Texas | $19,424 |
| Wyoming | $18,462 |
| Vermont | $18,075 |
| New Hampshire | $15,765 |
| Minnesota | $15,126 |
| South Dakota | $15,111 |
| Kentucky | $14,454 |
| Hawaii | $14,313 |
| Ohio | $13,760 |
| Nebraska | $13,528 |
| North Dakota | $13,518 |
| Indiana | $12,779 |
| New Mexico | $11,960 |
| Utah | $11,858 |
| Maryland | $11,062 |
| Connecticut | $10,903 |
| Colorado | $10,813 |
| Kansas | $10,125 |
| Oregon | $10,036 |
| Mississippi | $10,016 |
| Idaho | $9,474 |
| Louisiana | $9,395 |
| Iowa | $8,568 |
| Pennsylvania | $8,545 |
| Alaska | $8,402 |
| Tennessee | $8,367 |
| Georgia | $7,786 |
| Missouri | $7,231 |
| New York | $6,918 |
| Arkansas | $6,302 |
| Washington | $6,106 |
| Michigan | $5,994 |
| North Carolina | $5,649 |
| Wisconsin | $5,622 |
| Illinois | $5,606 |
| West Virginia | $5,052 |
| Rhode Island | $4,983 |
| Oklahoma | $4,924 |
| Alabama | $3,949 |
| California | $3,659 |
| Montana | $3,233 |
| Massachusetts | $2,554 |
| Delaware | $2,378 |
| New Jersey | $2,213 |
| Florida | $1,040 |
| Arizona | -$987 |
| Nevada | -$1,481 |
| South Carolina | Data Not Available |

Source: U.S. Department of Education, National Center for Education Statistics, 1994 Digest of Education Statistics, Tables 40 and 85; 2010 Digest of Education Statistics, Tables 36 and 87; Author's Calculations

## TABLE 6 Ratio of Students to Non-Teaching Staff, FY 2009

| State or Jurisdiction | Ratio of Students to Non-Teaching Staff |
|---|---|
| United States | 15.9 |
| Vermont | 8.8 |
| Virginia | 9.4 |
| Maine | 9.4 |
| Wyoming | 9.9 |
| District of Columbia | 10.1 |
| Kentucky | 11.8 |
| New Hampshire | 12.2 |
| Nebraska | 12.6 |
| North Dakota | 12.7 |
| Mississippi | 12.7 |
| Connecticut | 12.9 |
| New York | 13.0 |
| Indiana | 13.2 |
| New Mexico | 13.2 |
| Louisiana | 13.3 |
| Iowa | 13.4 |
| Georgia | 13.8 |
| Ohio | 13.8 |
| South Dakota | 13.8 |
| Arkansas | 14.0 |
| Alaska | 14.2 |
| Missouri | 14.2 |
| Pennsylvania | 14.5 |
| Maryland | 14.6 |
| Kansas | 14.6 |
| Michigan | 14.7 |
| Texas | 14.8 |
| Minnesota | 14.9 |
| North Carolina | 15.2 |
| New Jersey | 15.2 |
| Colorado | 15.2 |
| West Virginia | 15.7 |
| Alabama | 15.7 |
| Tennessee | 15.7 |
| Oklahoma | 15.8 |
| Montana | 16.2 |
| Oregon | 16.5 |
| Florida | 17.0 |
| Hawaii | 17.4 |
| Illinois | 17.9 |
| Massachusetts | 18.0 |
| Wisconsin | 18.5 |
| Delaware | 19.3 |
| Rhode Island | 20.0 |
| Washington | 20.7 |
| Arizona | 21.4 |
| Utah | 22.0 |
| California | 22.4 |
| Idaho | 22.7 |
| Nevada | 27.9 |
| South Carolina | Data Not Available |

Source: U.S. Department of Education, National Center for Education Statistics, 2010 Digest of Education Statistics, Tables 36 and 87; Author's Calculations

## TABLE 7 Ratio of Students to Non-Teaching Staff as Compared to Ratio of Students to Teachers, FY 2009

| State or Jurisdiction | Ratio of Students to Non-Teaching Staff | Ratio of Students to Teachers |
|---|---|---|
| United States | 15.9 | 15.3 |
| Alabama | 15.7 | 15.6 |
| Alaska | 14.2 | 16.5*** |
| Arizona | 21.4 | 19.9 |
| Arkansas | 14.0 | 12.9 |
| California | 22.4 | 20.8 |
| Colorado | 15.2 | 16.8*** |
| Connecticut | 12.9 | 11.7 |
| Delaware | 19.3 | 15.1 |
| District of Columbia | 10.1 | 12.9*** |
| Florida | 17.0 | 14.1 |
| Georgia | 13.8 | 13.9*** |
| Hawaii | 17.4 | 15.9 |
| Idaho | 22.7 | 18.2 |
| Illinois | 17.9 | 15.6 |
| Indiana | 13.2 | 16.7*** |
| Iowa | 13.4 | 13.6*** |
| Kansas | 14.6 | 13.1 |
| Kentucky | 11.8 | 15.4*** |
| Louisiana | 13.3 | 16.6*** |
| Maine | 9.4 | 12.1*** |
| Maryland | 14.6 | 14.3 |
| Massachusetts | 18.0 | 13.6 |
| Michigan | 14.7 | 17.5*** |
| Minnesota | 14.9 | 15.7*** |
| Mississippi | 12.7 | 14.7*** |
| Missouri | 14.2 | 13.5 |
| Montana | 16.2 | 14.8 |
| Nebraska | 12.6 | 14.4*** |
| Nevada | 27.9 | 19.7 |
| New Hampshire | 12.2 | 12.6*** |
| New Jersey | 15.2 | 12.0 |
| New Mexico | 13.2 | 14.5*** |
| New York | 13.0 | 12.6 |
| North Carolina | 15.2 | 13.6 |
| North Dakota | 12.7 | 11.6 |
| Ohio | 13.8 | 16.1*** |
| Oklahoma | 15.8 | 13.9 |
| Oregon | 16.5 | 19.1*** |
| Pennsylvania | 14.5 | 13.7 |
| Rhode Island | 20.0 | 12.8 |
| South Carolina | Data Not Available | 14.4 |
| South Dakota | 13.8 | 13.7 |
| Tennessee | 15.7 | 15.0 |
| Texas | 14.8 | 14.5 |
| Utah | 22.0 | 23.7*** |
| Vermont | 8.8 | 10.7*** |
| Virginia | 9.4 | 17.3*** |
| Washington | 20.7 | 19.1 |
| West Virginia | 15.7 | 14.0 |
| Wisconsin | 18.5 | 14.7 |
| Wyoming | 9.9 | 12.5*** |

*** Denotes states with public school systems that employ more administrators and other non-teaching staff than they employ teachers

Source: U.S. Department of Education, National Center for Education Statistics, 2010 Digest of Education Statistics, Tables 36, 70, and 87; Author's Calculations

Table 8 shows the difference between the number of administrators and other non-teaching staff and the number of teachers for the 21 "Top-Heavy States."

Virginia public schools employ 60,737 more non-teaching personnel than teachers, making it the most "Top-Heavy State" nationwide. Ohio, Michigan, Indiana, and Kentucky are the next most "Top-Heavy States," with each employing 13,000 or more non-teaching staff over and above the number of employed teachers.

## Overall Staffing in Public Schools

Between FY 1950 and FY 2009, the number of K-12 public school students in the United States increased by 96 percent, while the number of FTE school employees grew 386 percent. Public schools grew staffing at a rate four times faster than the increase in students over that time period. Of those personnel, teachers' numbers increased 252 percent, while administrators and other non-teaching staff experienced growth of 702 percent, more than seven times the increase in students.

That "staffing surge" has led to a precipitous decline in the number of students per employee in American public schools. In FY 2009, there were only 7.8 students per employee, on average, in American public schools (see Table 9, next page). Still, large differences remain in staffing levels across the states.

Vermont and Maine have the most public school staff members in the United States. Vermont has one public school employee for every 4.8 students, while Maine has one employee for every 5.3 students. Thus, those states have more than double the public school staffing that is present in California, Utah, and Nevada.

## Response to Critics of the Original Report

Among the critics of the original "Staffing Surge" report, none dispute its employment numbers or that Long-Term Trend test scores from the National Assessment of Educational Progress (NAEP) have been flat or have fallen slightly.

TABLE 8 21 "Top-Heavy States" That Employ Fewer Teachers Than Administrators and Other Non-Teaching Staff, FY 2009

| State or Jurisdiction | Number of Non-Teaching Staff in Excess of the Number of Teachers |
|---|---|
| Virginia | 60,737 |
| Ohio | 19,040 |
| Michigan | 18,550 |
| Indiana | 16,643 |
| Kentucky | 13,315 |
| Mississippi | 5,334 |
| Colorado | 5,182 |
| Oregon | 4,802 |
| Maine | 4,635 |
| Minnesota | 3,056 |
| Nebraska | 2,928 |
| New Mexico | 2,200 |
| Louisiana | 2,119 |
| Wyoming | 1,841 |
| Vermont | 1,838 |
| Utah | 1,743 |
| District of Columbia | 1,489 |
| Georgia | 1,461 |
| Alaska | 1,306 |
| New Hampshire | 586 |
| Iowa | 428 |

Source: U.S. Department of Education, National Center for Education Statistics, 2010 Digest of Education Statistics, Table 87; Author's Calculations

## Criticism #1: Contrary to Evidence in the Original "Staffing Surge" Report, Student Achievement Has Increased

There is convincing evidence that overall student achievement has not increased in public schools in recent decades. Moreover, there is evidence the flat or slight decline in student achievement has not been caused by students becoming "worse" or "harder to teach" over time. Still, there have been three criticisms of that evidence.

First, Mr. Jim Hull of the Center for Public Education wrote that NAEP's Long-Term Trend test scores should not be used. The original "Staffing Surge" report showed how, according to NAEP's Long-Term Trend tests, Reading scores for 17-year-old students declined by four points between 1992 and 2008; NAEP Math scores for those same students remained constant during that same period. Mr. Hull does not dispute that information; however, he prefers to use the Main NAEP test scores, which show outcomes rising over that time period.

TABLE 9 Ratio of Students to Total Public School Staff, FY 2009

| State or Jurisdiction | Ratio of Students to Total Staff |
|---|---|
| United States | 7.8 |
| Vermont | 4.8 |
| Maine | 5.3 |
| Wyoming | 5.5 |
| District of Columbia | 5.7 |
| North Dakota | 6.1 |
| Virginia | 6.1 |
| Connecticut | 6.1 |
| New Hampshire | 6.2 |
| New York | 6.4 |
| Kentucky | 6.7 |
| New Jersey | 6.7 |
| Arkansas | 6.7 |
| Nebraska | 6.7 |
| Iowa | 6.7 |
| Louisiana | 6.8 |
| Mississippi | 6.8 |
| South Dakota | 6.9 |
| New Mexico | 6.9 |
| Missouri | 6.9 |
| Georgia | 6.9 |
| Pennsylvania | 7.0 |
| North Carolina | 7.2 |
| Maryland | 7.2 |
| Texas | 7.3 |
| Indiana | 7.4 |
| Oklahoma | 7.4 |
| West Virginia | 7.4 |
| Ohio | 7.4 |
| Alaska | 7.6 |
| Minnesota | 7.7 |
| Tennessee | 7.7 |
| Florida | 7.7 |
| Montana | 7.7 |
| Massachusetts | 7.8 |
| Rhode Island | 7.8 |
| Alabama | 7.8 |
| Michigan | 8.0 |
| Colorado | 8.0 |
| Wisconsin | 8.2 |
| Hawaii | 8.3 |
| Delaware | 8.5 |
| Kansas | 8.5 |
| Oregon | 8.8 |
| Illinois | 9.6 |
| Washington | 9.9 |
| Idaho | 10.1 |
| South Carolina | 10.3 |
| Arizona | 10.3 |
| California | 10.8 |
| Utah | 11.4 |
| Nevada | 12.9 |

Source: U.S. Department of Education, National Center for Education Statistics, 2010 Digest of Education Statistics, Table 88

The original "Staffing Surge" report provided citation as to why NAEP's Long-Term Trend test scores were used:

> "The NAEP Long-Term Trend Assessment is given every four years to a national sample of nine-, 13-, and 17-year-old students. This exam is better than the Main NAEP Assessment for analyzing national trends over time because the Long-Term Trend Assessment has been 'relatively unchanged' since it was created, whereas the Main NAEP Assessment changes 'about every decade to reflect changes in curriculum.' For a description of the NAEP Long-Term Trend Assessment and how it compares to the Main NAEP Assessment, see http://nces.ed.gov/nationsreportcard/about/ltt_main_diff.asp."[5]

Mr. Joydeep Roy, another critic of "The Staffing Surge" report who writes for the National Education Policy Center (NEPC), seems to agree that Long-Term Trend data are a more appropriate tool for measurement.

Mr. Roy, however, has other concerns with the evidence that student achievement in public schools has been flat or in decline in recent decades. In NEPC's "Review of The School Staffing Surge," Mr. Roy criticizes the claim that student achievement has not increased while public school employment has increased dramatically. But Professor Roy does not dispute that public school employment has risen dramatically in recent decades: "It is true that over the last two decades staff employment has increased faster than student enrollment, and non-teaching personnel have increased at a higher rate than teaching personnel."[6]

Professor Roy's argument that student achievement has not declined is two-fold. "The Staffing Surge" relied on evidence provided in a study by Nobel laureate James Heckman and his colleague Paul LaFontaine that showed public high school graduation rates peaked around 1970. Professor Roy claims the Heckman and LaFontaine study is "unlikely to depict the true picture" because "graduation requirements have been significantly strengthened over time."[7]

However, a flood of news reports have documented

the decrease in standards for high school graduation in the No Child Left Behind era. See, for example Urbina (2010).[8]

More concrete evidence comes from a U.S. Department of Education report on the topic, which found that:

> "For those states that made substantive changes in their assessments between 2005 and 2009, changes in the rigor of states' standards as measured by NAEP were mixed but showed more decreases than increases in the rigor of their standards."[9]

Sam Dillon's (2009) *New York Times* story on that report not only is worth reading, but it contains a link to the report itself.[10] Further, a prominent National Academy of Sciences report contains an assessment of the trends in rigor in America's public schools: "Indications of very recent improvements in some isolated cases are now being questioned as an artifact of changing examination rigor. As but one example, in New York State eighth graders reaching the 'proficiency' standard increased from 59 to 80 percent between 2007 and 2009, while the same group's scores on the national math test remained virtually unchanged. This is a phenomenon which is by no means unique to New York State."[11] There was also evidence of a lowering of standards in public schools even before the No Child Left Behind era (see, for example, Koretz and Barron (1998)).[12]

In addition, Mr. Roy prefers to use evidence on public high school graduation rates that he generated with his colleague, Lawrence Mishel, in 2008. However, Heckman and LaFontaine provide a detailed critique of the methodology used in an earlier version of Roy's and Mishel's work. In a later paper, Roy and Mishel do not address all of the Heckman and LaFontaine critiques of their methods. Those interested in the details should read pages 247-251 of Heckman and LaFontaine (2010) and Roy and Mishel (2008) and make their own conclusions.

Finally, Mr. Roy uses NAEP Long-Term Trend data disaggregated by race and ethnicity to show that within racial and ethnic groups NAEP test scores have increased. However, there is an error in Mr. Roy's analysis in that he uses data on public and private schools to generate that result. "The Staffing Surge" dealt only with public schools. A larger point is that socioeconomic status improved over time, public school staffing increased significantly, but student achievement did not.

The only careful evidence on the topic suggests that students in the late 1990s were more advantaged overall than students from a generation in the past.[13] Thus, on average, students in more recent years had more socioeconomic advantages than students from one generation back. Despite these advantages, student achievement was flat or in decline—high school graduation rates peaked around 1970 and Long-Term Trend NAEP scores have been flat or fallen slightly during the 1992 to 2009 time period.[14] Mr. Roy's argument is not convincing—that public schools have been performing better because individual racial or ethnic groups experienced increases in student achievement over time. Overall socioeconomic status improved, while overall student achievement did not. One cannot interpret that evidence as indicating improved public school performance. It suggests the contrary—public school productivity has declined despite large increases in staffing.

## Criticism #2: Administration Didn't Increase; the Increase Occurred Among Support Personnel Who Provide Instruction

Mr. Hull of the Center for Public Education reports that the bulk of the increase in non-teaching staff has been in instructional staff who are not teachers. Thus, there has been no increase in administration.

As mentioned in the original "Staffing Surge" report, public school defenders Berliner and Biddle thought that many school districts had too much administration in the early 1990s. However, there have been large increases in certain job categories as Mr. Hull suggests. But Mr. Hall fails to mention that the increase in employees who work for school district central offices has increased by 47 percent from 1992 to 2009. That increase is one percentage point greater than the overall increase of 46 percent among non-teaching personnel.

Mr. Hull also mischaracterizes "The Staffing Surge," which does not classify all non-teachers as "administrators." They are referred to as "administrators and other non-teaching staff" or "non-teaching personnel."

Regardless of the semantics, the point remains that public schools have increased employment at a much higher rate than their increases in students—and Mr. Hull does not dispute that. Moreover, student achievement has not increased. If those added employees were so valuable in the classroom, an increase in student outcomes should have been detected.

## Criticism #3: Before the Individuals with Disabilities Education Act, Students with Special Needs Were Treated Unfairly, Which Required a "Staffing Surge"

The National Coalition for Personnel Shortages in Special Education & Related Services was another group that took issue with "The Staffing Surge." They claimed the report did not recognize the Individual with Disabilities Education Act's requirement that schools increase staffing to support students with special needs. However, in the introduction to "The Staffing Surge," it was stated: "Although dramatic increases in staffing in K-12 schools perhaps were warranted in 1950, does that necessarily imply public school staffing should increase forever?" Moreover, the endnote to that question offered the following:

> "A good argument can be made that staffing in American public schools needed to increase from what was present decades ago. Prior to the racial integration of public schools, many African American children had little or no taxpayer funds spent in their segregated schools. Second, students in less wealthy school districts often had much less spent on their educations than students in more affluent areas. Third, students with special needs often had relatively few resources devoted to their educations and needs. However, court cases and changes in federal and state policy led to dramatic increases in public school staffing in the 1950s, 1960s, 1970s, and 1980s. Are these large surges in public school staffing—especially in non-teaching personnel—still warranted today?"[15]

What then is the rationale for dramatic staffing increases post-1992? Nationwide, the number of school administrators and non-teaching staff increased 46 percent since 1992, compared with 17 percent growth among students and 32 percent increases for teachers. Regardless of the cause of that increase, its defense certainly can't be found in the results: From 1992-2008, NAEP Reading scores on the Long-Term Trend dropped four points, while Math scores stayed the same.

## Criticism #4: Why is School Choice Offered as an Alternative to Continuing the Increase in Public School Employment?

The original "Staffing Surge" report lists several alternatives to increasing employment in public schools:

- raising every public school teacher's salary
- increasing taxpayer funding for early childhood education
- providing property tax relief
- lessening fiscal stress on state and local governments
- giving cash to families of each child in poverty
- giving each child in poverty a voucher to attend the private school of his or her parents' choice
- universal school choice to empower every parent to hold schools directly accountable for the educational opportunities given to their children
- a combination of the above or some other worthy purpose

Although some are more promising than others, one can find intellectual support for each one of those alternatives, whereas increasing public school staffing does not appear to have increased student achievement.

As Roy (2012) notes, "there is no consensus in the research literature as to the proper balance between instructional expenditures and administrative expenditures." Thus, given that a public school advocate, such as Mr. Roy, admits there is no consensus on how to best spend taxpayer resources,

schools should be allowed to try different approaches to see what works. Market processes, such as school choice, allow for that. And, as Mr. Roy suggests, what "works" is likely different in different situations and for different students. For both of those reasons, school choice should be an option for all families.

### Criticism #5: "The Staffing Surge" Implicitly Assumes Instructional Expenditures are Always More Productive Than Hiring More Administrators and Other Non-Teaching Staff

Mr. Roy writes in his critique: "The unstated rationale behind the report is that instructional expenditures are more effective in terms of raising student achievement and the trend of higher growth in non-teaching personnel over the last two decades is indicative of bureaucratization and 'non-productive' spending. As discussed below, this maintained hypothesis of spending on teachers being always more effective is unlikely to hold irrespective of context. That is, it is likely true in some contexts but untrue in others."[16] He continues: "As yet there is no consensus in the research literature as to the proper balance between instructional expenditures and administrative expenditures."[17]

"The Staffing Surge" does not imply classroom expenditures are better or worse; it merely points out there have been dramatic increases in the employment of teachers and even more dramatic increases in the employment of administrators and other non-teaching personnel in public schools over the past few decades. And, those massive increases in staffing have not been accompanied by increases in measurable outcomes for students.

## Conclusion

"The Staffing Surge" report found that public school employment has increased rather dramatically in recent decades, while at the same time student achievement has been flat or even in decline. This companion report provides, among other findings, data on the dramatic differences in public school staffing across states. For example, Vermont has one public school employee for every 4.8 students, while Maine has one employee for every 5.3 students. Those two states have more than double the public school staffing present in California, Utah, and Nevada.

States could save millions or even billions of dollars per year if they returned to staffing ratios present in FY 1992 for administration and other non-teaching staff. In fact, in the early 1990s, staunch public school advocates David C. Berliner and Bruce Biddle worried about the increasing "bureaucratization" of public education in America. Since that time, American public schools have increased the teaching force by 32 percent and the number of administrators and other non-teaching staff by 46 percent, while the student population increased by only 17 percent.

Still, there are public school advocates today, such as the Broader, Bolder Approach to Education, that want to double down and significantly increase non-teaching personnel going forward.

American public schools devote more of their budgets to administration and other non-teaching staff relative to other nations, and there is no evidence that No Child Left Behind was the cause of the increased staffing among administrators and other non-teaching personnel.[18]

As was noted in the original "Staffing Surge" report, more public school staff is not always better. First, there is an inherent tradeoff between quantity and quality. Hiring more personnel requires public schools to hire less effective personnel. Second, there is a significant opportunity cost when hiring more personnel. Given that the "experiment" of perpetually increasing staffing has not led to improved student achievement, it is time to try something new.

The original "Staffing Surge" report listed several alternatives to increasing employment in public schools:

- raising every public school teacher's salary
- increasing taxpayer funding for early childhood education
- providing property tax relief
- lessening fiscal stress on state and local governments
- giving cash to families of each child in poverty
- giving each child in poverty a voucher to attend the private school of his or her parents' choice
- universal school choice to empower every parent to hold schools directly accountable for the educational opportunities given to their children
- a combination of the above or some other worthy purpose

Although some are more promising than others, one can find intellectual support for each one of those alternatives. The policy of increasing public school staffing does not appear to improve student achievement—despite its massive and on-going cost to taxpayers.

Harvard social scientist Christopher Jencks, a former New Republic editorial board member and current member of the American Prospect's editorial board, grew impatient with public schools *in 1966*. Jencks lamented how public schools were failing many children, especially minority children in low-income neighborhoods. In an article titled "Is the public school obsolete?" Jencks discussed several alternatives to the public education system, writing:

> "All these alternatives aim at a radical decentralization of both power and responsibility. All would liberate the schools from the dead hand of central administration, from minute accountability to the public for every penny, every minute, and every word. They all recognize that so far as the slum child is concerned, the present system of 'socialized education' has failed, and that some kind of new departure, either 'capitalist' or 'syndicalist,' is needed."[19]

If it was time to consider alternatives to the public education system in 1966, what about in 2013, when the same system is still intact and more heavily funded and staffed? Given the lack of evidence that large increases in public school staffing—and taxpayer funding—for public schools has increased student achievement, it is time to try something dramatically different.

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# Notes

1. In the original "Staffing Surge" report, I noted the research that found students do not seem to have become "worse" over time, as public school advocates routinely suggest. Please see pages 8-9 in the original "Staffing Surge" report for the full explanation and links to the evidence.

2. For a discussion of the issue of fixed and variable costs in public education see: Benjamin Scafidi. "The Fiscal Effects of School Choice Programs on Public School Districts." Indianapolis: Friedman Foundation for Educational Choice, 2012.

3. Data on the employment costs of non-teaching and non-administrative personnel in public schools are not readily available. However, there is some information available for the state of Georgia. Public school employees in Georgia who are not employed as teachers and hold a valid teaching certificate (e.g., superintendents, assistant superintendents, principals, assistant principals, librarians, curriculum directors, etc.) are paid on average 1.38 times more in salary than the average Georgia teacher. Source: author's calculations from http://reportcard2009.gaosa.org/(S(eqwgssn1o2c3z0bbu4bum255))/k12/persfiscal.aspx?TestType=pers&ID=ALL:ALL). However, it is likely the public school employees who do not hold valid teaching certificates are paid less, on average, than teachers. In FY 2009, public school teachers in the United States were paid on average $54,319, according to the 2011 Digest of Education Statistics (Table 83). An average of $40,000 per employee in salary, benefit, and employment costs seems to be a large underestimate of the true costs per non-teaching employee in American public schools considering that a sizeable fraction of non-teaching personnel are paid well above teachers and that the $54,319 figure does not include benefits and other employment costs.

4. I am not suggesting that all public school classrooms have 25 students in them, or that public school classrooms ought to have 25 students in them. I chose 25 students as a round number for the purposes of showing the magnitude of cost savings that would have resulted if public schools had not increased disproportionately their non-teaching personnel.

5. See: Benjamin Scafidi. "The School Staffing Surge: Decades of Employment Growth in America's Public Schools." Indianapolis: Friedman Foundation for Educational Choice, 2012: p. 24.

6. See: Joydeep Roy. "Review of The School Staffing Surge." National Education Policy Center, 2012: p. 9. http://nepc.colorado.edu/thinktank/review-school-staffing

7. See: Joydeep Roy. "Review of The School Staffing Surge." National Education Policy Center, 2012: p. 5. http://nepc.colorado.edu/thinktank/review-school-staffing

8. Ian Urbina. "As School Exit Tests Prove Tough, States Ease Standards." *The New York Times*, January 22, 2010: pp. A1.

9. V. Bandeira de Mello. "Mapping State Proficiency Standards Onto the NAEP Scales: Variation and Change in State Standards for Reading and Mathematics, 2005–2009" (NCES 2011-458). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, Washington, DC: Government Printing Office, 2011: pp. 2.

10. Sam Dillon. "Federal Researchers Find Lower Standards in Schools." *The New York Times*, October 30, 2009: p. A22.

11. Norman R. Augustine, et al. "Rising Above The Gathering Storm, Revisited: Rapidly Approaching Category 5." Washington, D.C.: National Academy of Sciences, The National Academies Press: p. 52. The authors of this report also agree with one of the main points made in the original "Staffing Surge" report—that student achievement in public schools has not improved in recent decades despite a significant increase in taxpayer resources devoted to public education. On pages 51-52, they write: "In international standardized tests involving students from 30 nations, United States fourteen-year-olds rank 25th in mathematics and 21st in science. In tests within the United States, little improvement has been observed over the past 40 years. This is in spite of a sevenfold increase in inflation-adjusted spending per student since World War II. More recently, in 1971 per-student K-12 spending was $4,489; in 2007 the corresponding figure, adjusted for inflation, was $10,041. In 1973 the average score on one standardized test (the National Assessment of Education Progress) in mathematics among 17-year-olds was 304 out of 500. A third of a century later it was 306. In reading, the corresponding gain in the scores was from 285 to 286. In the most recent test, three jurisdictions out of 51 (50 states plus the District of Columbia) showed significant improvement in fourth grade reading, while 44 showed essentially no gain and four showed marked declines. Among high school seniors average scores in the National Assessment of Educational Progress have actually declined during the most recent decade for which data are available in science." Footnotes contained in the preceding quote have been omitted here.

12. Daniel M. Koretz and Shelia I. Barron. "The Validity of Gains in Scores on the Kentucky Instructional Results Information System (KIRIS)." Santa Monica: Rand Corporation MR-1014-EDU, 2012.

13. As stated previously, in the original "Staffing Surge" report, I noted the research that found students do not seem to have become "worse" over time, as public school advocates routinely suggest. Please see pages 8-9 in the original "Staffing Surge" report for the full explanation and links to the evidence.

14. For a discussion of this evidence, please see pages 6-8 in the original "Staffing Surge" report.

15. See: Benjamin Scafidi. "The School Staffing Surge: Decades of Employment Growth in America's Public Schools." Indianapolis: Friedman Foundation for Educational Choice, 2012: p. 24.

16. See: Joydeep Roy. "Review of The School Staffing Surge." National Education Policy Center, 2012: p. 3. http://nepc.colorado.edu/thinktank/review-school-staffing

17. See: Joydeep Roy. "Review of The School Staffing Surge" National Education Policy Center, 2012: p. 5. http://nepc.colorado.edu/thinktank/review-school-staffing

18. See: Benjamin Scafidi. "The School Staffing Surge: Decades of Employment Growth in America's Public Schools." Indianapolis: Friedman Foundation for Educational Choice, 2012: p. 24.

19. See: Christopher Jencks. "Is the public school obsolete?" The Public Interest, Issue Number 2, Winter 1966: p. 27.

## About the Author

Ben Scafidi is a professor of economics and director of the Economics of Education Policy Center at Georgia College & State University. He is also a fellow with the Friedman Foundation for Educational Choice and the director of education policy for the Georgia Community Foundation, Inc. His research has focused on education and urban policy. Previously, he served as chair of the state of Georgia's Charter Schools Commission, the education policy advisor to Gov. Sonny Perdue, on the staff of both of Gov. Roy Barnes' Education Reform Study Commissions, and as an expert witness for the state of Georgia in school funding litigation. He received his Ph.D. in economics from the University of Virginia and his B.A. in economics from the University of Notre Dame. Ben and Lori Scafidi and their four children—Anna, Ming, Claire, and Jack—reside in Milledgeville, Georgia.

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The author welcomes any and all questions related to methods and findings.

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