THE MOUNTAIN STATE'S K-12 STAFFING TRENDS

Is there a staffing surge in West Virginia's public education system?

CARDINAL INSTITUTE
FOR WEST VIRGINIA POLICY

EXECUTIVE SUMMARY

American public schools have been experiencing a staffing surge for more than six decades. Between FY 1950 and FY 2015, while enrollment doubled, the number of school personnel hired by districts increased 386 percent.[1] Using data reported by the West Virginia Department of Education to the National Center for Education Statistics, this paper examines whether individual public school districts in West Virginia experienced their own staffing surges.

Statewide, West Virginia public schools experienced a general decline in student enrollment and total in staff statewide. Between FY 1987 and FY 2019, enrollment declined by 24 percent while the number of total staff serving in the system declined by 11 percent. The decline in full-time equivalent (FTE) teachers was 18 percent while the decline in administrators plus all other staff was 3 percent. Thus, the decrease in teachers was six times greater than the decrease in administrators plus all other staff.

> **If school districts in West Virginia had kept the change in administrators and all other staff at the same rate as student enrollment over the period studied, school districts could have had $200 million in annually recurring savings.**

West Virginia school districts have experienced a modest "staffing surge" since the mid-1990's, where the change in non-teachers was greater than the change in FTE teachers. The staffing surge varied by district as do the savings they could have had if staff changes had matched changes in student enrollment.

If school districts in West Virginia had kept the change in administrators and all other staff at the same rate as student enrollment over the period studied, school districts could have had $200 million in annually recurring savings. These savings could have been directed at other educational areas, such as increasing teacher salaries by an average of $10,500. These savings could also have been used to provide education savings accounts (ESAs) worth $8,000 to increase educational opportunities for families of about 25,000 students statewide.

An education omnibus bill (HB 206) signed into law June 2019 will provide school districts a significant boost in resources in forthcoming years, and West Virginians will want to keep an eye on how those resources are used. Below are guidelines for policy makers and district officials:

1. **Fund what works.** Increasing educational opportunity via choice programs is a proven way to improve the lives of children and families. Expanding educational opportunity for

all West Virginia families, such as introducing an education savings accounts program and expanding charter schools, is necessary to improving the K-12 education system.

2. **Avoid staffing surges.** Experiences from other states demonstrate a tendency for districts to favor non-teaching personnel over teachers when it comes to personnel decisions. School districts should take extra care to avoid initiating or exacerbating their own staffing surges when their funding increases.

3. **Be transparent about where additional resources go.** Districts should carefully track and report where their new streams of funding are directed.

4. **Avoid blanket funding increases in the future.** Blanket funding increases have led to dramatic staffing surges and stagnant student achievement—for decades.

History shows that indiscriminate increases in funding are not effective for improving student outcomes. If policy makers are going to entertain future funding increases, such as the recent West Virginia initiative, they should ensure that additional resources are specifically targeted at productive uses, such as expanding educational opportunities for West Virginia families.

INTRODUCTION

An omnibus education bill (HB 206) was passed by the West Virginia Legislature and signed into law by the governor last June. This law increases state funding for public K-12 schools by $149 million including education worker pay raises and $30 million for wrap-around support services for students. Some see these increased resources as much-needed for the state's public education system while others believe that the bill fell short by excluding certain provisions, such as the creation of an education savings account program and expansion of charter schools.[2]

The question of how resources devoted to K-12 education are used and whether they are deployed effectively and efficiently is a highly important, and often contentious, issue facing public K-12 education systems. Vigorous debate abounds about whether "money matters" and whether resources are deployed effectively and efficiently.[3] Early work has argued that there is a weak relationship between school inputs and student outcomes.[4] More recent studies have exploited changes in funding through school finance reforms to show that increases in resources targeted at children with disadvantages lead to greater educational attainment in college, higher wages, and reductions in adult poverty for those disadvantaged students.[5] However, the large spending increases covered by the recent studies do not appear to be translating to overall gains in actual student learning.[6] There is no clear pattern of results, however, for indiscriminate increases in school funding. If general funding increases are ineffective, how have districts been spending their increasing resources in recent decades?

Analysis by economist Benjamin Scafidi demonstrates the presence of an ongoing "staffing surge" in many places across the country. Between FY 1950 and FY 2015, while enrollment doubled, the number of school personnel hired by districts increased 386 percent.[7] Was this dramatic hiring pattern beneficial for students?

As discussed in more detail below, public school districts across the United States made personnel decisions that generally did not favor teachers. Rather, they preferred hiring administrators and other non-teaching staff.

For decades, hiring of personnel outpaced enrollment growth in nearly every state. Scafidi breaks down the increase in personnel between teachers and administrators plus all other staff. Over the same sample period of 1950 to 2015, the rate of teacher hires increased by 243 percent while the rate of hires for all other personnel increased by 709 percent.

This period includes periods of significant cultural and institutional flux. During the 1970s and 1980s, public schools finally expanded admission to students with special needs.[8] They were also actively integrating by race (or were actively integrated by government policies). Thus, it is likely the case that non-teaching personnel were needed to cope with these changes—in those decades.

As Scafidi shows, however, these patterns have persisted up to recent years and calls into question whether resources are being used effectively. He argues, "The modern staffing surge, which began in 1992, has been expensive for taxpayers and has posed a tremendous opportunity cost on teachers and parents."[9] He reports that national test scores were flat during this modern, post-1992, staffing surge in American public schools.

What about the case of West Virginia? Have public school districts in the Mountain State experienced staffing surges of their own? If so, have they favored hiring non-teaching personnel over hiring teachers? What lessons should West Virginia learn from other states, especially following the passage of the recent omnibus education bill? What policies can ensure that resources are used as effectively as possible?

The next section discusses research on school funding and examines how school funding matters for student outcomes. Then this paper examines staffing trends nationally and in West Virginia at the state and district levels. Next, the paper discusses opportunity costs associated with personnel decisions. The paper then discusses how the state could expand educational opportunities for West Virginia families and concludes.

MONEY MATTERS

The question of how resources are deployed and whether they are allocated effectively gets at the heart of a long-standing debate about school funding: Does money matter?

At least, this question is the one that makes headlines and even features in the titles of some school finance studies.[10] Of course, money matters in some way. At a basic level, a school cannot exist without money, and it cannot be staffed without money.

But how does money matter? This question is unsettled and represents an area of ongoing research.

While evidence is not clear about whether indiscriminate increases in funding for schools produce positive effects for students, there is robust evidence indicating that directing more resources to disadvantaged students generates both short-term and long-run benefits for those groups.

A growing body of research has been using school finance reforms, particularly reforms mandated via court orders, to study the effects of changes in school funding on student outcomes.

Kirabo C. Jackson et al. used variation in court-ordered school funding reforms between 1972 and 2010 to study individuals born between 1955 and 1985.[11] They were able to observe these cohorts through 2011. They found that a 10 percent increase in per-pupil spending increased long-term outcomes for children from low-income families including educational attainment, prospects of graduating high school, increased adult wages, and lower incidences of poverty. Estimated effects for children from non-poor families were not statistically significant.

Julien Lafortune et al. studied the effects of court-ordered school funding reforms that occurred during the "Adequacy" era of school finance litigation on student test scores.[12] They studied reforms post-1990. While they found that increased school funding closed achievement gaps between high-income and low-income school districts, they found "no discernable effect of reforms on statewide achievement gaps between high- and low-income students or between minority and white students."[13] This finding suggests that other policies will be needed to close achievement gaps that persist within school districts.

A study by Christopher A. Candelaria and Kenneth A. Shores found that increases in resources via court-ordered funding reform improved high school graduation rates for students in high-poverty districts by 7 to 12 percentage points.[14] They did not detect any significant effects for students in wealthier districts. The authors of this national study noted that: "Although, on average, we observe positive effects in both spending and graduation rates, we also observe states that improved academic outcomes without increases in spending, as well as states that failed to make uses of increased spending to improve academic outcomes."[15]

Eric Brunner, Joshua Hyman, and Andrew Ju studied the strength of teacher unions influenced allocation of additional resources from funding increases induced by school finance reforms.[16] These resources tended to be directed at teacher raises in states with stronger unions while they tended to be directed at hiring new teachers in states with weaker unions. Student test score gains were larger in states with stronger unions.

Although this finding might suggest a link between union strength and student outcomes, other research demonstrates a disconnect between test scores and both educational attainment and non-cognitive outcomes.[17] Lovenheim and Willén (2019) studied how exposure of students to collective bargaining affects earnings and employment.[18] Notably, they also included court-ordered school finance reforms in their statistical models to help isolate effects from collective bargaining. The researchers found:

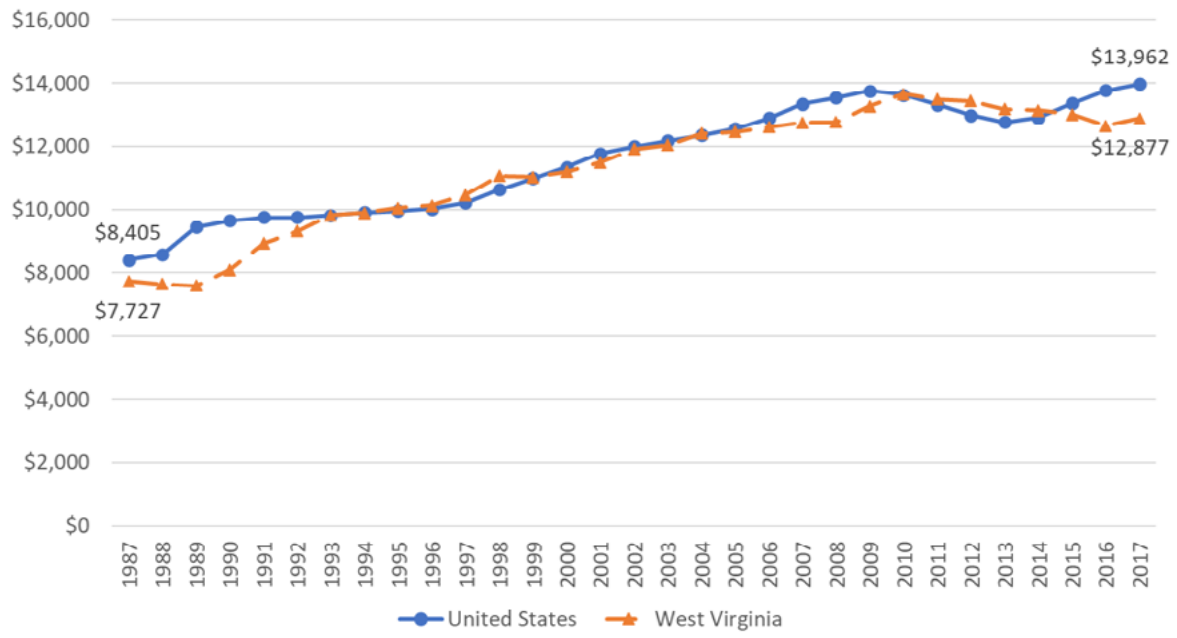
> *"Among men, exposure to a duty-to-bargain law in the first 10 years after passage depresses annual earnings by $2,134 (3.93 percent), decreases weekly hours worked by 0.42, and reduces employment and labor force participation. The earnings estimate implies that current duty-to-bargain laws reduce earnings by $213.8 billion annually. Effects grow with time since law passage, are largest among nonwhites, and are not evident for women. Duty-to-bargain laws reduce male noncognitive skills, supporting the labor market findings" (p. 292).*[19]

Thus, teacher unions seem to have a positive influence on some student outcomes (test scores) as a vehicle for influencing resource allocation but negative effects on longer-term outcomes such as wages and employment.

Since FY 1987, inflation-adjusted per-pupil revenue increased by about 67 percent for both the United States and West Virginia.

Funding for public schools in the U.S. has generally increased for decades. Figure 1 shows that inflation-adjusted per-pupil funding in West Virginia has trended nearly in line with school funding nationally. Since FY 1987, inflation-adjusted per-pupil revenue increased by about 67 percent for both the United States and West Virginia. Thus, students in West Virginia public schools today have dramatically more in spending devoted to their education relative to West Virginia students of 1987. Given the link between teachers and student outcomes, policy makers might want to know if these increased resources have been directed towards teachers.

Figure 1: Per-Pupil Revenue for United States and West Virginia, FY 1987 to FY 2017 ($ adjusted for inflation)



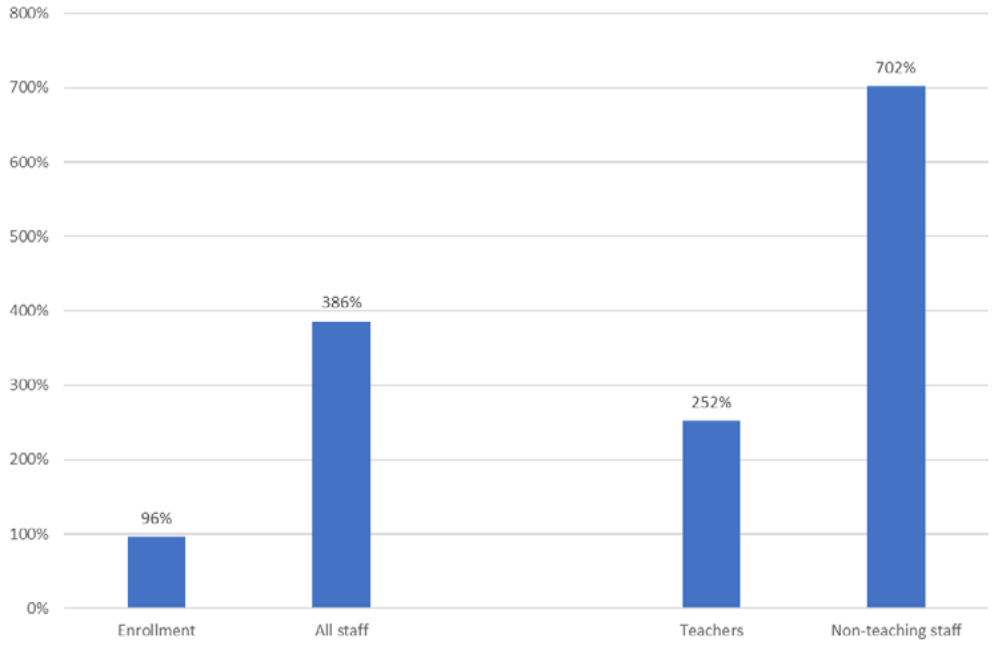
Data Sources: Author's estimates based on data from U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey (State Fiscal)" 1986-87 through 2016-17; "State Nonfiscal Public Elementary/Secondary Education Survey", 2016-17 v.1a; Consumer Price Index for All Urban Consumers, Bureau of Labor Statistics, United States Department of Labor

West Virginia has a lower standard of living relative to the national average, with costs for various goods and services at about 9 percent lower than the national average.[20] Given that most school spending comprises compensation for employees, being below the national average does not mean that West Virginia is devoting less resources to its students.

STAFFING TRENDS FOR UNITED STATES AND WEST VIRGINIA

Scafidi documented the trends in public school staff going back to the 1950's. He compared the change in student enrollment with changes in total staff between 1950 and 2009. While enrollment nearly doubled (96 percent) over this period, the level of all school personnel increased nearly four times as much – almost 386 percent. He then compared the growth in enrollment with teachers and administrators plus all other staff. The number of teachers increased by 252 percent while the increase in administrators and all other staff increased by 702 percent (Figure 2).[21]

Figure 2: Change in students and staff from FY 1950 to FY 2009



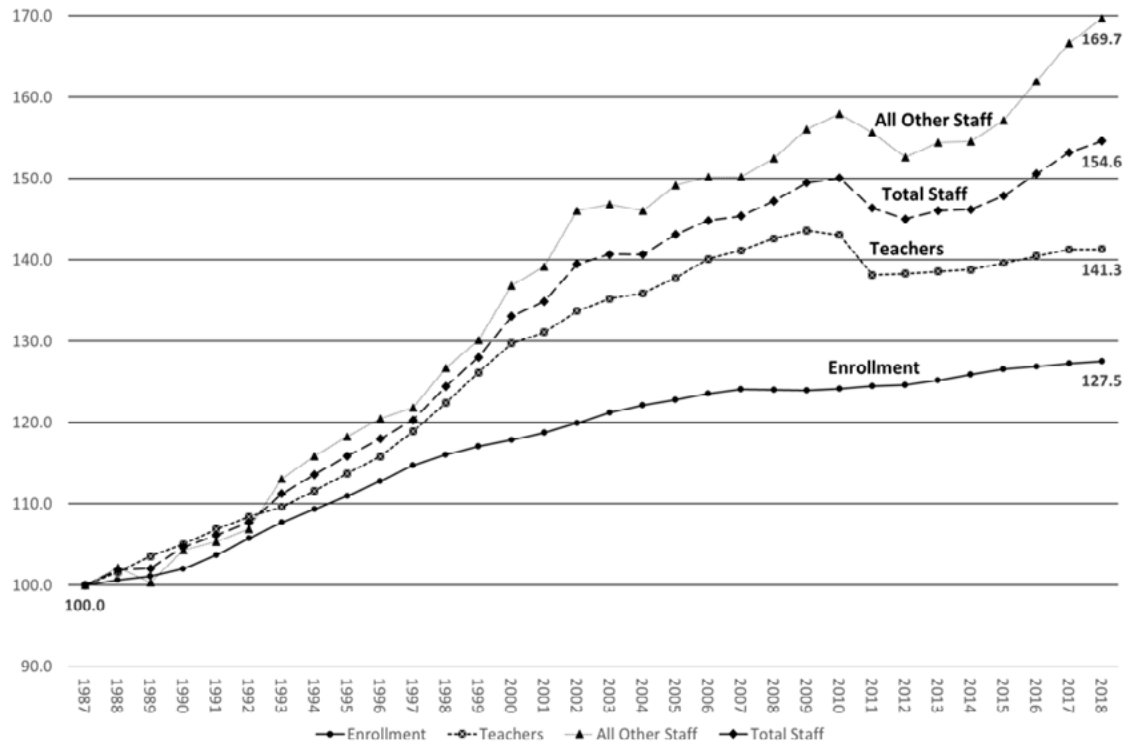
Source: Benjamin Scafidi (2017). Back to the Staffing Surge: The Great Teacher Salary Stagnation and the Decades-Long Employment Growth in American Public Schools, EdChoice. Retrieved from https://www.edchoice.org/wp-content/uploads/2017/06/Back-to-the-Staffing-Surge-by-Ben-Scafidi.pdf

The 1960's and 1970's were marked by school finance litigation aimed at equalizing funding between property-wealthy and property-poor school districts. The federal government also exercised its influence to dictate how much states spent on special education programs. Implementing these different reforms arguably required additional staff and other resources. Yet, if we use the mid-1980s (or any period thereafter for that matter) as a starting point to examine the national trends of staffing relative to enrollment, the same pattern persists.

Figure 3 reports trends, based on data from the U.S. Department of Education, for enrollment and total staff. Using the same method as Scafidi, it decomposes total staff into teachers and administrators plus all other staff during the period 1987-2018. The chart is scaled such that 1987 is marked at 100, and each unit increase or decrease relative to 100 indicates a 1 percentage point increase or decrease relative to 1987. For example, enrollment in FY 2018 was 128, meaning that enrollment increased by 28 percent relative to 1987 enrollment.

During the same period, total staff increased by 55 percent relative to its 1987 level. This increase, however, was disproportionately driven by the increase in administrators and all other staff instead of by hiring full-time teachers. The total number of full-time equivalent (FTE) teachers increased by 41 percent while growth in all other staff was 70 percent.

Figure 3: Growth in Enrollment, Teachers, and All Other Staff in U.S. Public Schools, Fiscal Years 1987-2018 (1987 = 100.0)



Sources: Author's estimates; U.S. Department of Education, National Center for Education Statistics, Statistics of State School Systems, various years; Statistics of Public Elementary and Secondary Schools, various years; and Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," various years.

Staffing trends at the national level depicted in Figure 3 resemble patterns occurring at the district level in many states across the country, though they mask considerable variation across states and across school districts.

We observe different patterns in West Virginia public schools at the state level.

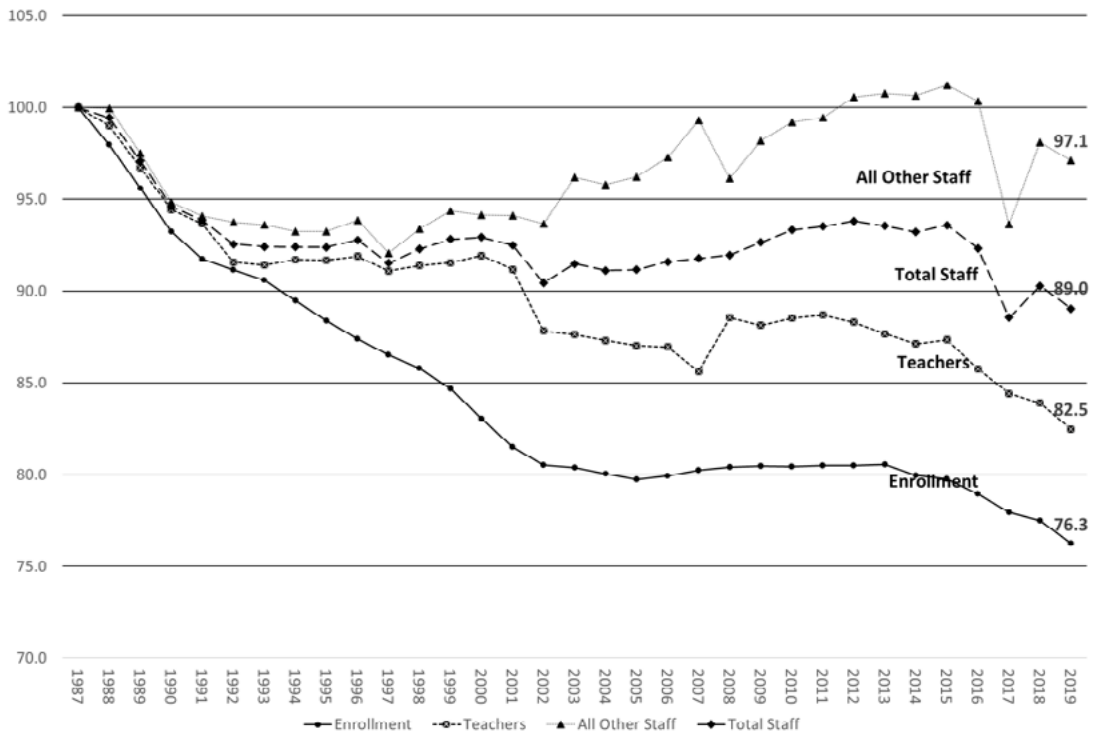
Public schools in West Virginia experienced a general decline in student enrollment and total staff. Figure 4 depicts for West Virginia the same information using the same data sources from Figure 3.[22]

> **Thus, the decrease in FTE teachers was nearly three times greater than the decrease in administrators plus all other staff.**

Between FY 1987 and FY 2017, enrollment declined by 24 percent while the number of total staff serving in the system declined at half this rate, or 11 percent. The decline in FTE teachers was 18 percent while the decline in all other staff was 3 percent. Thus, the decrease in FTE teachers was nearly three times greater than the decrease in administrators plus all other staff.

The discussion so far has been based on staffing data aggregated at the state level. These data certainly mask variation at the district level, where personnel decisions are often made. The next section examines staffing patters at the district level.

Figure 4: Growth in Enrollment, Teachers, and All Other Staff in West Virginia Public Schools, Fiscal Years 1987-2019 (1987 = 100.0)



Sources: Author's estimates; U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency (School District) Universe Survey", various years; "Local Education Agency (School District) Universe Survey Membership Data", various years; "Local Education Agency (School District) Universe Survey Staff Data", various years; "School District Finance Survey (F-33)", various years.

STAFFING TRENDS FOR PUBLIC SCHOOL DISTRICTS IN WEST VIRGINIA

Table 1 reports the change in staffing levels for total staff, FTE teachers, and non-FTE teachers between 1994-95 and 2018-19. As with the previous section, data are reported by the West Virginia Department of Education to the U.S. Department of Education. These disaggregated data are readily available from 1995.

Table 1: Change in student enrollment and staffing levels from 1994-95 to 2018-19 for public school districts in West Virginia

District	% chg enrollment 1995 to 2019	% chg total staff 1995 to 2019	% chg FTE teachers 1995 to 2019	% chg non-FTE teachers 1995 to 2019	Diff-in-diff (chg total staff - chg enroll)	Diff-in-diff (chg FTE teachers - chg enroll)	Diff-in-diff (chg non-FTE teachers - chg enroll)
BARBOUR	-16%	-10%	-17%	-3%	6%	-1%	13%
BERKELEY	72%	92%	78%	107%	20%	6%	35%
BOONE	-24%	-19%	-25%	-12%	5%	-1%	12%
BRAXTON	-25%	-22%	-28%	-14%	3%	-3%	11%
BROOKE	-30%	-17%	-31%	1%	13%	-1%	31%
CABELL	-12%	-8%	-16%	3%	4%	-4%	15%
CALHOUN	-41%	-23%	-31%	-13%	18%	10%	28%
CLAY	-13%	-12%	-13%	-11%	1%	0%	2%
DODDRIDGE	-20%	15%	5%	25%	35%	25%	45%
FAYETTE	-29%	-20%	-23%	-16%	9%	6%	13%
GILMER	-36%	-15%	-22%	-9%	21%	14%	27%
GRANT	-13%	-9%	-12%	-7%	4%	1%	6%
GREENBRIER	-25%	5%	-5%	15%	30%	20%	40%
HAMPSHIRE	-9%	9%	8%	11%	18%	17%	20%
HANCOCK	-19%	-8%	-14%	0%	11%	5%	19%
HARDY	20%	30%	18%	46%	10%	-2%	26%
HARRISON	-12%	0%	-2%	3%	12%	10%	15%
JACKSON	-10%	0%	-5%	6%	10%	5%	16%
JEFFERSON	38%	71%	48%	97%	33%	10%	59%
KANAWHA	-22%	-10%	-17%	-1%	12%	5%	21%
LEWIS	-12%	-7%	-17%	5%	5%	-5%	17%
LINCOLN	-22%	-17%	-22%	-11%	5%	0%	11%
LOGAN	-28%	-22%	-28%	-16%	6%	0%	12%
MARION	-12%	0%	-9%	11%	12%	3%	23%
MARSHALL	-22%	1%	-9%	14%	23%	13%	36%
MASON	-12%	0%	-17%	23%	12%	-5%	35%
MCDOWELL	-53%	-53%	-52%	-54%	0%	1%	-1%
MERCER	-14%	-6%	-10%	-2%	8%	4%	12%
MINERAL	-13%	-1%	-8%	7%	12%	5%	20%

MINGO	-38%	-39%	-45%	-32%	-1%	-7%	6%
MONONGALIA	15%	33%	24%	45%	18%	9%	30%
MONROE	-11%	-1%	-4%	2%	10%	7%	13%
MORGAN	7%	21%	11%	34%	14%	4%	27%
NICHOLAS	-26%	-19%	-23%	-13%	7%	3%	13%
OHIO	-16%	-5%	-7%	-2%	11%	9%	14%
PENDLETON	-35%	-10%	-17%	-1%	25%	18%	34%
PLEASANTS	-24%	-7%	-13%	1%	17%	11%	25%
POCAHONTAS	-34%	-9%	-15%	-1%	25%	19%	33%
PRESTON	-18%	-15%	-19%	-9%	3%	-1%	9%
PUTNAM	11%	29%	20%	41%	18%	9%	30%
RALEIGH	-15%	-9%	-7%	-12%	6%	8%	3%
RANDOLPH	-21%	-11%	-16%	-4%	10%	5%	17%
RITCHIE	-27%	-8%	-17%	6%	19%	10%	33%
ROANE	-32%	-25%	-29%	-20%	7%	3%	12%
SUMMERS	-22%	-19%	-15%	-24%	3%	7%	-2%
TAYLOR	-11%	-5%	-10%	2%	6%	1%	13%
TUCKER	-27%	-14%	-14%	-14%	13%	13%	13%
TYLER	-27%	-6%	-13%	2%	21%	14%	29%
UPSHUR	-12%	-6%	-8%	-3%	6%	4%	9%
WAYNE	-15%	-4%	-6%	-2%	11%	9%	13%
WEBSTER	-36%	-32%	-31%	-32%	4%	5%	4%
WETZEL	-34%	3%	-13%	26%	37%	21%	60%
WIRT	-15%	9%	3%	17%	24%	18%	32%
WOOD	-17%	-5%	-13%	6%	12%	4%	23%
WYOMING	-31%	-27%	-33%	-19%	4%	-2%	12%
Totals:	**-14%**	**-4%**	**-10%**	**4%**	**10%**	**4%**	**18%**

Source: Author's estimates based on data from U.S. Department of Education, National Center for Education Statistics, Common Core of Data.

In Kanawha County Schools, student enrollment decreased by 22 percent over the time period. The number of total staff during the same period decreased by about half the student rate of decline, or 10 percent. When we separate staff into FTE-teacher and non-FTE teacher subgroups, we observe that the rate at which FTE teachers were hired during the period more closely mirrors student growth, about a 17 percent decline. The district kept the number of non-FTE teachers level – this group decreased by 1 percent over the period.

The final three columns report the difference between growth rates in staff and student enrollment. Continuing with Kanawha County School District, growth in total staff was 12 percentage points greater than growth for student enrollment. Growth in FTE teachers was just five percentage points greater than enrollment growth, whereas growth in administrators plus all other staff was 21 percentage points greater than enrollment growth.

Most West Virginia school districts have experienced declines in enrollment between 1995 and 2019. Berkeley County Schools is one of the few school districts that experienced enrollment growth during the period. While student enrollment increased by 72 percent, total staff increased by 92 percent, or 20 percentage points higher than the rate of enrollment growth. The number of FTE teachers grew by 78 percent while the number of non-FTE teachers more than doubled.

Growth in the number of non-FTE teachers exceeded enrollment growth by 35 percentage points.

Other districts with comparable staffing surges include Greenbrier County Schools, Jefferson County Schools, Pendleton County Schools, and Wetzel County Schools. In each of these school districts, and others, the increase in the number of non-FTE teachers outpaced growth in student enrollment by more than 30 percentage points while differences between student growth and FTE-teacher growth were less than 30 percentage points.

Just two districts, McDowell County Schools and Summers County Schools, kept the growth in all other staff at below student enrollment growth.

Today, there is one fewer student for every staff member in the public system compared to the beginning of the time period.

Overall, data indicate that West Virginia school districts experienced a modest "staffing surge" since the mid-1990's, where the rate of growth of non-FTE teachers was greater than the rate of growth of FTE teachers.

Do these patterns mean that students had access to more or fewer resources in terms of school staff? Table 2 reports pupil-staff ratios based on total staff, FTE-teachers, and non-FTE teachers. On a statewide basis, the number of students for each staff member, FTE-teacher, and non-FTE teacher decreased between 1995 and 2019. Today, there is one fewer student for every staff member in the public system compared to the beginning of the time period.

Table 2: Pupil-staffing ratios for West Virginia School Districts for 1994-95 and 2016-17

District	Pupils per staff, FY 1995	Pupils per staff, FY 2019		Pupils per FTE teacher, FY 1995	Pupils per FTE teacher, FY 2019		Pupils per non-FTE teacher, FY 1995	Pupils per non-FTE teacher, FY 2019	
BARBOUR	8.0	7.6	↓	14.4	14.6	↑	18.2	15.7	↓
BERKELEY	8.2	7.4	↓	15.6	15.1	↓	17.5	14.6	↓
BOONE	7.7	7.3	↓	13.7	13.9	↑	17.6	15.3	↓
BRAXTON	7.7	7.5	↓	13.9	14.6	↑	17.5	15.3	↓
BROOKE	8.2	6.9	↓	14.4	14.6	↑	18.8	12.9	↓
CABELL	8.0	7.5	↓	14.1	14.7	↑	18.2	15.5	↓
CALHOUN	7.5	5.8	↓	13.4	11.6	↓	17.2	11.7	↓
CLAY	7.2	7.1	↓	13.3	13.3	↑	15.5	15.3	↓
DODDRIDGE	7.6	5.3	↓	15.3	11.7	↓	15.0	9.6	↓
FAYETTE	8.3	7.3	↓	14.8	13.7	↓	18.8	15.8	↓
GILMER	8.0	6.0	↓	16.1	13.1	↓	16.0	11.2	↓
GRANT	7.7	7.3	↓	14.2	14.0	↓	16.6	15.4	↓
GREENBRIER	9.3	6.6	↓	17.7	14.0	↓	19.4	12.6	↓

HAMPSHIRE	8.7	7.2	↓	16.6	14.0	↓	18.3	15.0	↓
HANCOCK	8.3	7.3	↓	15.0	14.1	↓	18.8	15.3	↓
HARDY	8.7	8.0	↓	15.4	15.7	↑	19.8	16.2	↓
HARRISON	8.3	7.3	↓	15.4	13.9	↓	17.9	15.4	↓
JACKSON	8.0	7.1	↓	14.8	14.0	↓	17.4	14.6	↓
JEFFERSON	9.1	7.3	↓	16.5	15.3	↓	20.2	14.1	↓
KANAWHA	8.4	7.3	↓	15.1	14.3	↓	19.0	15.0	↓
LEWIS	7.5	7.1	↓	13.6	14.5	↑	16.5	13.8	↓
LINCOLN	7.4	7.0	↓	13.7	13.7	↑	16.1	14.1	↓
LOGAN	7.8	7.2	↓	14.2	14.1	↓	17.1	14.5	↓
MARION	8.1	7.1	↓	15.0	14.4	↓	17.6	14.0	↓
MARSHALL	8.3	6.3	↓	15.0	12.8	↓	18.6	12.6	↓
MASON	7.8	6.9	↓	13.5	14.3	↑	18.6	13.3	↓
MCDOWELL	7.1	7.1	↓	14.1	13.8	↓	14.3	14.5	↑
MERCER	8.2	7.6	↓	15.1	14.5	↓	18.0	15.7	↓
MINERAL	8.2	7.2	↓	15.1	14.2	↓	17.8	14.5	↓
MINGO	7.1	7.3	↑	12.6	14.3	↑	16.5	15.0	↓
MONONGALIA	8.7	7.5	↓	16.1	15.0	↓	18.8	14.9	↓
MONROE	7.7	7.0	↓	14.4	13.5	↓	16.3	14.3	↓
MORGAN	8.3	7.3	↓	15.1	14.6	↓	18.3	14.7	↓
NICHOLAS	7.9	7.1	↓	14.2	13.6	↓	17.6	14.9	↓
OHIO	8.2	7.2	↓	15.4	13.8	↓	17.5	14.9	↓
PENDLETON	7.9	5.7	↓	14.4	11.2	↓	17.7	11.5	↓
PLEASANTS	7.1	5.8	↓	13.4	11.6	↓	15.2	11.4	↓
POCAHONTAS	7.7	5.6	↓	14.1	11.0	↓	16.8	11.2	↓
PRESTON	8.0	7.7	↓	14.8	15.0	↑	17.6	15.9	↓
PUTNAM	8.8	7.6	↓	15.2	14.2	↓	20.9	16.5	↓
RALEIGH	8.1	7.6	↓	15.7	14.4	↓	16.8	16.2	↓
RANDOLPH	8.3	7.4	↓	14.6	13.8	↓	19.0	15.8	↓
RITCHIE	8.4	6.6	↓	14.6	12.9	↓	19.7	13.6	↓
ROANE	8.1	7.4	↓	14.4	13.9	↓	18.2	15.6	↓
SUMMERS	7.5	7.2	↓	14.9	13.7	↓	15.0	15.3	↑
TAYLOR	8.1	7.5	↓	15.1	15.0	↓	17.3	15.1	↓
TUCKER	7.9	6.7	↓	14.9	12.6	↓	16.8	14.3	↓
TYLER	7.9	6.2	↓	14.5	12.2	↓	17.4	12.6	↓
UPSHUR	8.3	7.7	↓	15.0	14.3	↓	18.3	16.5	↓
WAYNE	8.1	7.2	↓	15.4	14.0	↓	17.0	14.8	↓
WEBSTER	7.5	7.1	↓	14.1	13.2	↓	16.1	15.2	↓
WETZEL	8.5	5.5	↓	14.6	11.2	↓	20.4	10.7	↓
WIRT	8.6	6.7	↓	16.0	13.3	↓	18.8	13.6	↓
WOOD	8.4	7.4	↓	14.9	14.3	↓	19.2	15.1	↓
WYOMING	7.9	7.4	↓	13.9	14.2	↑	18.1	15.3	↓
Totals:	**8.1**	**7.2**	↓	**14.8**	**14.2**	↓	**17.8**	**14.7**	↓

Source: Estimates based on data from the U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency (School District) Universe Survey", 1994-95 v.1a, 2016-17 v.1a; "Local Education Agency (School District) Universe Survey Membership Data", 2015-16 v.1a; "Local Education Agency (School District) Universe Survey Staff Data", 2015-16 v.1a; "School District Finance Survey (F-33)", 1994-95 (FY 1995) v.1d, 2015-16 (FY 2016) v.1a.

In 1995, the pupil-teacher ratio was 14.8 while the ratio of pupils to all other staff was 17.8. Since then, this gap shrunk by 80 percent, where the pupil-teacher ratio is 14.2 and the ratio of pupils to all other staff is 14.7.

Over the study period, the ratio of pupils to staff decreased in 54 districts and increased in just one district. Thus, in all but one school district, West Virginia students had more access to staff in 2019 relative to West Virginia students in 1995.

OPPORTUNITY COSTS

School funding is inherently about tradeoffs. There has been a strong proclivity for public school districts to direct funding disproportionately towards administrators and all other staff at the expense of directing funds towards hiring new full-time teachers, raising teacher wages, or other education-related endeavors. Table 3 displays opportunity cost estimates for each school district.

Table 3: Opportunity Costs of School Districts

District	Number of all other staff, FY 2019	Number of non-teaching staff had growth been kept at same rate as student enrollment growth	Number of other staff above (below) FY 1995 to FY 2019 enrollment growth	Savings recurring annually (savings at $60,000 per FTE)	Increase in teacher compensation	Number of $8,000 ESAs
BARBOUR	150	129	21	$1,260,000	$7,826	158
BERKELEY	1,342	1,114	228	$13,680,000	$10,547	1,710
BOONE	250	217	33	$1,980,000	$7,162	248
BRAXTON	131	114	17	$1,020,000	$7,401	128
BROOKE	220	152	68	$4,080,000	$21,031	510
CABELL	807	690	117	$7,020,000	$8,225	878
CALHOUN	83	56	27	$1,620,000	$19,286	203
CLAY	123	121	2	$120,000	$849	15
DODDRIDGE	117	75	42	$2,520,000	$26,182	315
FAYETTE	396	334	62	$3,720,000	$8,140	465
GILMER	73	51	22	$1,320,000	$21,290	165
GRANT	107	100	7	$420,000	$3,559	53
GREENBRIER	386	251	135	$8,100,000	$23,216	1,013
HAMPSHIRE	201	166	35	$2,100,000	$9,689	263
HANCOCK	265	214	51	$3,060,000	$10,699	383
HARDY	146	120	26	$1,560,000	$10,331	195
HARRISON	702	602	100	$6,000,000	$7,732	750
JACKSON	314	265	49	$2,940,000	$8,950	368
JEFFERSON	644	450	194	$11,640,000	$19,695	1,455
KANAWHA	1,721	1,356	365	$21,900,000	$12,141	2,738
LEWIS	187	156	31	$1,860,000	$10,479	233
LINCOLN	242	212	30	$1,800,000	$7,229	225
LOGAN	389	332	57	$3,420,000	$8,550	428
MARION	570	452	118	$7,080,000	$12,849	885
MARSHALL	369	252	117	$7,020,000	$19,286	878
MASON	307	219	88	$5,280,000	$18,526	660
MCDOWELL	212	216	(4)	($240,000)	($1,081)	-30
MERCER	572	500	72	$4,320,000	$6,962	540
MINERAL	287	234	53	$3,180,000	$10,853	398
MINGO	281	254	27	$1,620,000	$5,492	203
MONONGALIA	782	622	160	$9,600,000	$12,292	1,200
MONROE	123	107	16	$960,000	$7,356	120
MORGAN	158	127	31	$1,860,000	$11,629	233
NICHOLAS	250	213	37	$2,220,000	$8,073	278
OHIO	355	302	53	$3,180,000	$8,336	398

PENDLETON	81	53	28	$1,680,000	$20,241	210
PLEASANTS	97	73	24	$1,440,000	$15,158	180
POCAHONTAS	91	60	31	$1,860,000	$20,217	233
PRESTON	277	251	26	$1,560,000	$0	0
PUTNAM	577	455	122	$7,320,000	$10,877	915
RALEIGH	721	695	26	$1,560,000	$1,919	195
RANDOLPH	251	207	44	$2,640,000	$9,199	330
RITCHIE	100	69	31	$1,860,000	$17,639	233
ROANE	134	114	20	$1,200,000	$7,987	150
SUMMERS	99	101	(2)	($120,000)	$0	0
TAYLOR	162	142	20	$1,200,000	$7,385	150
TUCKER	71	60	11	$660,000	$8,199	83
TYLER	101	73	28	$1,680,000	$16,154	210
UPSHUR	231	209	22	$1,320,000	$4,972	165
WAYNE	458	397	61	$3,660,000	$7,554	458
WEBSTER	87	82	5	$300,000	$3,006	38
WETZEL	234	123	111	$6,660,000	$29,600	833
WIRT	74	54	20	$1,200,000	$15,789	150
WOOD	823	646	177	$10,620,000	$12,242	1,328
WYOMING	258	219	39	$2,340,000	$8,448	293
Totals:	**18,189**	**14,858**	**3,321**	**$199,260,000**	**$10,536**	**24,908**

Source: Author's calculations based on data from U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency (School District) Universe Survey", 1994-95 v.1a, 2018-19 v.1a; "Local Education Agency (School District) Universe Survey Membership Data", 2018-19 v.1a; "Local Education Agency (School District) Universe Survey Staff Data", 2018-19 v.1a; "School District Finance Survey (F-33)", 1994-95 (FY 1995) v.1d, 2018-19 (FY 2019) v.1a.

In two districts, McDowell County Schools and Summers County Schools, the change in all other staff was less than the change in student enrollment. Thus, McDowell County Schools and Summers County Schools would increase its costs by hiring all other staff at the same rate as student enrollment. These districts are the exceptions, however. Every other district in West Virginia increased all other staff at rates that exceeded their change in student enrollment.

These savings could have been directed at other educational areas such as increasing teacher salaries by an average of more than $10,000.

If school districts in West Virginia had kept the change in administrators and all other staff at the same rate as student enrollment over the period studied, school districts could have had $200 million in annually recurring savings. These savings could have been directed at other educational areas such as increasing teacher salaries by an average of more than $10,000.

These savings could also be used to provide education savings accounts (ESAs) worth $8,000 to increase educational opportunities for families of about 25,000 students. ESAs allow parents to receive a deposit of public funds into government authorized savings accounts with restricted,

but multiple, uses. For instance, these funds could cover private school tuition and fees, online learning programs, private tutoring, community college costs, higher education expenses and other approved customized services and materials. ESA programs today are operating in Arizona, Florida, Mississippi, North Carolina, and Tennessee. Some ESAs, but not all, allow students to use their funds to pay for a combination of public school courses and private services.

Savings from excess staff could also be used for other educational initiatives that could benefit students.

Savings would be distributed unevenly across school districts. If Kanawha County and Berkeley County school districts had matched the change in administrators and all other staff with the change in student enrollment over time, the districts would have experienced savings of $22 million and $14 million, respectively. These resources could have been used to provide permanent annual compensation increases worth at least $10,000 for their full-time teachers. Jefferson County Schools and Wood County Schools also would have experienced savings worth at least $10 million. Had these resources been freed up, districts could have provided teachers with annual compensation increases worth about $12,000 in Wood County and almost $20,000 in Jefferson County.

Nine other school districts (Cabell County Schools, Greenbrier County Schools, Harrison County Schools, Marion County Schools, Marshall County Schools, Mason County Schools, Monongalia County Schools, Putnam County Schools, and Wetzel County Schools) could have freed up at least $5 million if changes in all other staff had matched changes in student enrollment over time. These additional resources could have been used to provide teachers in these districts with annual compensation increases worth between $7,000 and $30,000. These resources could have also been used to provide about 600 to 1,200 students from each district with education savings accounts (ESAs) worth $8,000 each.

DISCUSSION

If a state increases resources devoted to educating K-12 students, how should those new education dollars be deployed? Should they be used to give teachers raises? What about enhancing retirement benefits or paying down pension debt? Should new dollars be used to hire new teachers? How about to create new buildings or improve infrastructure? Or could they be used to expand educational options for West Virginia families?

As Jackson et al. note, "to be most effective it is likely that spending increases should be coupled with systems that help ensure spending is allocated toward the most productive inputs" (2016, p. 214).[23]

Fund What Works: Expand Educational Opportunity

One area in education that has proven to be highly productive is educational choice, and there is a substantial body of evidence about the effectiveness of private school choice programs, such as vouchers, tax-credit scholarship programs, and education savings accounts.[24]

The evidentiary record of private school choice programs suggests that expanding educational opportunity yields benefits for students, their families, and communities. They often improve the test scores of students who participate in the programs. At the same time, students exposed to these programs who remain in their public schools tend to experience positive gains on test scores.[25]

But the school choice research doesn't stop at test scores.

School safety is a big concern for parents, and studies suggest that private schools overall, private schools that participate in school choice programs, and public charters schools are generally associated with higher levels of safety as reported by students, parents, and school principals.[26] Studies also show that students participating in these programs experience an increased likelihood of graduating from high school as well as enrolling and persisting in college. These programs also improve racial and ethnic diversity in schools and boost civics outcomes for students. Additionally, they have achieved these outcomes at costs significantly lower than the costs of district schooling, thereby generating fiscal benefits for state and local taxpayers.[27]

Taken together, these results suggest that enhancing educational opportunity improves matching between children and their schools – but the policy needs to be done right.

Educational choice policy design matters

Not all studies detect benefits, and a few studies even detect negative effects. Among 17 random assignment studies on private school choice programs, 11 studies found that programs had a positive effect on test scores, four studies did not detect any effect, and three studies found negative effects.[28,29]

These negative findings are confined to a few programs where regulations are more constraining than most other programs, suggesting that policy design is critical to the success of these programs.[30]

Students in Louisiana's voucher program experienced negative effects on test scores.[31] The program was also regulated in such a way that only one-third of the private schools in Louisiana chose to participate in the program.[32] Notably, these schools were also experiencing significant enrollment declines relative to private schools that chose not to participate in the program.[33]

Louisiana seems to be the exception rather than the rule. Overall, and in stark contrast to the claims, criticisms, and concerns about school choice, the body of the highest quality research—in terms of the highest quality data and methods—is positive and demonstrates benefits for children, families, and communities.

CONCLUSION

Given increased attention to substantial staffing surges occurring in various regions across the country, state policy makers want to know: Has West Virginia experienced a staffing surge in its K-12 education system comparable to those reported for other areas in the U.S.?

While data indicate that West Virginia districts have hired non-teaching personnel at rates that exceed both student enrollment and the rate of teacher growth, the magnitude of these "surges" is moderate relative to most other states.

The significant staffing surges experienced in other states, however, offer a cautionary tale for the public school system in the Mountain State. The state's legislature last year enacted a significant increase in funding for districts worth $149 million in total. Decades of history show that during times of funding growth school districts favor directing new resources towards hiring non-teaching staff rather than directing them to hiring new teachers or enhancing teachers' salaries.

With the increase in resources, West Virginians will want to keep an eye on how those resources are used. Below are recommendations for policy makers and district officials:

1. **Fund what works.** Increasing educational opportunity via choice programs is a proven way to improve the lives of children and families. Expanding educational opportunity for all West Virginia families, such as introducing an education savings accounts program and expanding charter schools, is necessary to improving the K-12 education system.

2. **Avoid staffing surges.** Experiences from other states demonstrates a tendency for districts to favor non-teaching personnel over teachers when it comes to personnel decisions. School districts should take extra care to avoid initiating or exacerbating their own staffing surges when their funding increases.

3. **Be transparent about where additional resources go.** Districts should carefully track and report where their new streams of funding are directed.

4. **Avoid blanket funding increases in the future.** Blanket funding increases have led to dramatic staffing surges and stagnant student achievement—for decades.

History also shows that indiscriminate increases in funding are an ineffective way to improve student outcomes. If policy makers are going to entertain future funding increases, such as the recent West Virginia initiative, they should ensure that additional resources are specifically targeted at productive uses, such as increasing educational opportunities for West Virginia families.

ENDNOTES

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29 A random assignment study is considered the gold standard in social science. They allow researchers to make apples-to-apples comparisons between groups that are, on average, very similar. The only difference between the two groups is whether they received the treatment—treatment in this case being the use of an ESA, voucher or scholarship. Researchers can then confidently say that the private school choice program under study caused the results we observe in student outcomes.

30 Some studies of private school choice programs employed matching methods, where measured outcomes of students receiving vouchers were compared to measured outcomes of public school students matched on observed and measurable characteristics. Matching studies of voucher programs in Indiana and Ohio also estimated negative effects of these programs on the test scores of student participants while studies of a voucher program in Milwaukee found null and positive effects on student test scores. A significant limitation of these studies is that students may not be matched on important unobserved characteristics, such as student motivation, parental involvement, or bullying.
Studies based on random assignment methods are superior because the only difference between the comparison groups is that one group receives the treatment and one group does not. These studies

afford "apples-to-apples" comparisons. When random assignment studies are available, their results should receive greater weight than studies using other methods.
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