



FUNDING SCHOOL DISTRICTS BASED ON STUDENT ATTENDANCE:

HOW USE OF AVERAGE DAILY ATTENDANCE HARMS SCHOOL FINANCE EQUITY IN TEXAS

Improving student attendance remains a critical objective in K-12 education because attendance is linked to the development of character skills such as motivation and self-discipline.ⁱ These skills, often referred to as non-cognitive or soft skills, are highly demanded in today’s labor market. Greater attendance is also linked to improved cognitive development, lower rates of grade retention and drug use, and greater educational attainment.ⁱⁱ

A number of potential policy levers exist for improving student attendance, such as setting minimum attendance rates as course requirements and including attendance in state accountability plans. One approach states have used to promote higher attendance is to tie school district funding to student attendance rates. While most states distribute funding to school districts based on the number of students enrolled, several states including Texas allocate funding based on the average number of students in attendance, or average daily attendance (ADA), to incentivize school districts to improve student attendance.ⁱⁱⁱ

The purpose of this Center for Education Research and Policy Studies (CERPS) policy brief is to present the results of a study that estimates how much control schools have over student attendance. We draw on data from all K-12 students in Texas to measure the proportion of variation in both student achievement on standardized tests and student attendance that is explained at various level of the education system. In other words, we estimate the extent to which a student’s test scores and attendance rate depends on the school district they attend, the school they

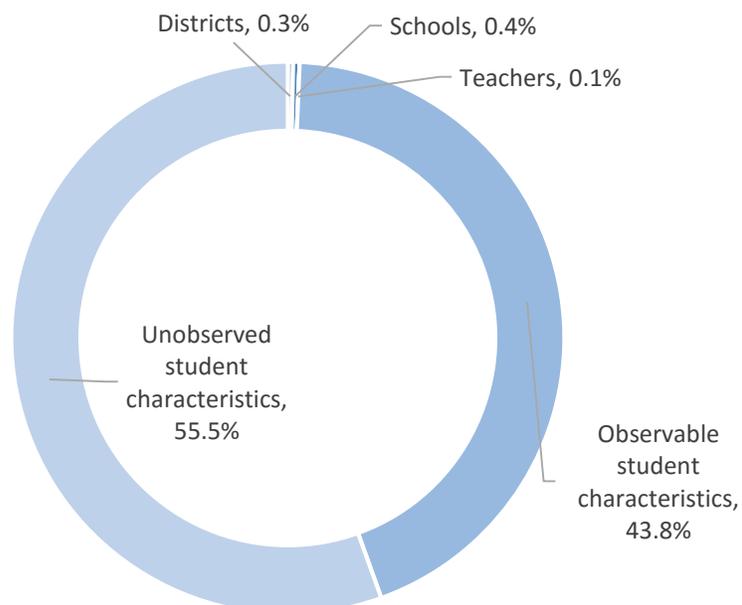
attend within that school district, the teacher to which they are assigned, or their own individual background characteristics. The study sheds light on the potential benefits of incentivizing school districts to increase student attendance.

FINDINGS

We find that districts account for very little – between 0.03% and 1.05% – of the total variation in student attendance, after taking into account student background characteristics. Results for grade four students are shown in Figure 1 below (results for other grades are similar and available in the full study).^{iv}

FIGURE 1

The proportion of student attendance attributable to school districts, schools, teachers, and individual student characteristics

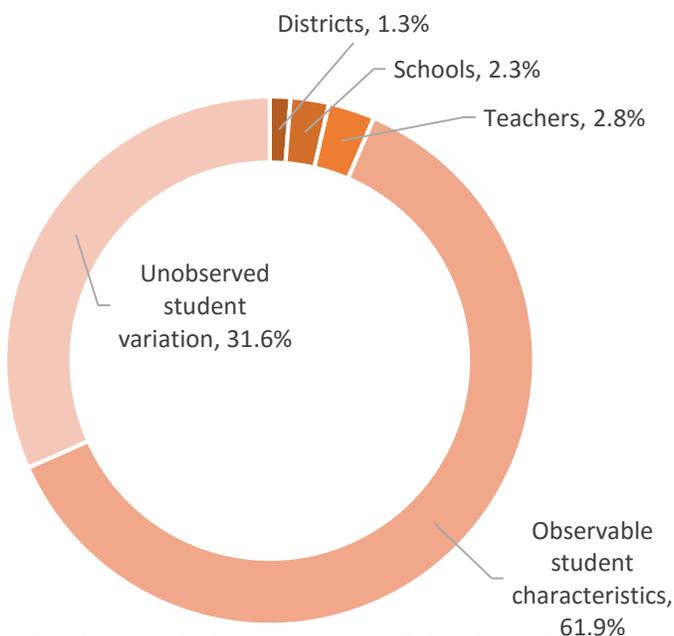


Although all districts promote student attendance through transportation services, attendance policies, and other practices, our results suggest there is very little variation in districts' impacts on student attendance, after taking into account student background characteristics. The vast majority of differences in student attendance relate to differences in student background characteristics. As shown Figure 1, observable student characteristics including students' previous trends in attendance as well as family income level, account for 43.8% of the variation in attendance, while unobservable student characteristics account for another 55.5%. These findings imply that school districts with similar student demographics do not exhibit substantially different rates of student attendance.

As shown Figure 2, districts, schools, and teachers have greater influence on student achievement on standardized exams, compared to attendance. Our results show that districts account for about 1.3% of the total variation in grade four math achievement, after taking into account student

FIGURE 2

The proportion of math achievement attributable to districts, schools, teachers, and individual student characteristics



background characteristics. Schools and teachers account for 2.3% and 2.8% of the variation in

student achievement, respectively. Observable student characteristics account for 61.9% of the variation in grade four student math achievement, whereas only 31.6% of the variation in achievement is unaccounted for by our statistical model (more information about the data and methods is included in our full study report).^v

Results for other grade-levels are similar, whereas districts, schools, and teachers generally have less influence over student achievement in English language arts (family background characteristics explain a larger proportion of variation in English language arts compared to math achievement).

In an alternative methodological approach, we use value added models to estimate the effect on attendance and achievement of each individual district, school, and teacher. We find that a one standard deviation (SD) increase in district effectiveness, as measured by value-added to student attendance, increases student attendance rates by between 0.09 and 0.13 standard deviations (SD), or between 0.64 and 0.88 days, depending on the grade level.^{vi}

These findings should not be interpreted as stating that districts do not contribute to student attendance. Rather, the data show that school districts serving similar student populations – who may use different strategies to promote student attendance, tend to have similar attendance rates. Thus, there are few districts that have identified particularly effective strategies to promote attendance, despite the significant financial incentive to do so.

POLICY IMPLICATIONS

Each school district in Texas receives per-pupil allotment of funding adjusted for local needs. However, that per-pupil funding rate is based on a district's average daily attendance (ADA). Our findings suggest that holding districts accountable for attendance through school finance formulae – without including adjustments for student background – may not be an equitable mechanism for increasing student attendance.

The data show that districts in Texas serving greater proportions of low-income students,

students of color, and lower-performing students have lower attendance rates. As a result, use of ADA in the Texas school finance system disproportionately reduces funding for high-need districts.

Even if districts identified practices to improve attendance, such improvements are not likely to close attendance gaps between districts serving advantaged student populations and those serving historically unserved students. Our results suggest that even if a district moved from the 50th percentile of district effectiveness (measured by value-added to student attendance) to the 90th percentile, district’s overall attendance rate would increase by 0.32 percentage points, or about 0.58 days.

The amount of funding a district loses as a result of ADA-based funding, as opposed to funding based on fall enrollment counts, depends on the district’s ADA and the extent to which the district’s students are weighted for additional funding. The Texas school finance formula provides additional funding through student weights. Weights are assigned to students with

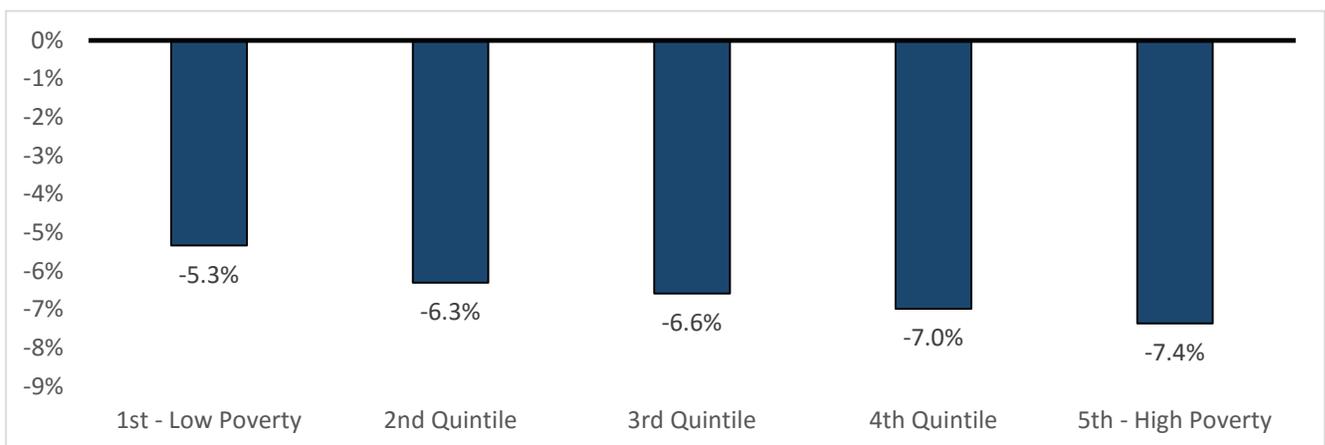
greater need, as measured by the percent of low-income students, English language learners, and other student demographic characteristics. Those weights increase the amount of funding a district receives for each student by increasing the district’s effective enrollment level. Districts are actually funded based on their “weighted average daily attendance” (WADA), which increases the funding for high-need districts. However, the use of weighted student funding also exacerbates the funds lost as a result of basing funding on ADA.

Of course, if the use of ADA-based funding reduces funding rates equally for all districts in the state, then the lower funding rate associated with ADA-based funding is of less concern because state legislators likely take this adjustment into account when making appropriations decisions. We conducted a policy simulation to determine the amount of funding lost in each district as a result of basing funding on average daily attendance.

The results of this policy simulation are shown in Figure 3. The highest-poverty districts in the state lose 7.4% of their state and local funding because

FIGURE 3

Percent of state and local funding lost as a result of counting students by average daily attendance, rather than enrollment, by poverty quintile, Texas school districts, 2014-15



of ADA-based funding, compared to 5.3% for low-poverty districts. Results for specific school districts help show how the differential effects of

ADA-based funding play out in reality. El Paso Independent School District (EPISD) receives \$8,358 in state and local funding for each of its

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60,852 students (based on 2014-15 data). The district has a 96% attendance rate and a ratio of WADA to ADA ratio of 1.36 (implying that the average student is weighted at 1.36 students). The district loses \$452 per student (5.4%) or about \$27.5 million as a result of the state's use of ADA-funding.

In some cases, there are large disparities in the effect of ADA-based funding even within the same geographic region. Edgewood ISD receives \$9,328 for each of its 11,000 students, has an attendance rate of 92.2%, and a WADA to ADA ratio of 1.42. The district loses \$1,025 per student as a result of the state's use of ADA-based funding, about 11% of its total annual state and local funding. Alamo Heights ISD, a low-poverty district in the same county with a 96.0% attendance rate loses 4.7% of funding as a result of ADA-based (instead of enrollment-based) funding.

At the close of the last legislative session, House Bill 21 established the Texas Commission on Public School Finance. The purpose of this commission is to make recommendations for improvements to the Texas school finance system. By December 2018, the Commission is expected to deliver a report to the governor and legislature that summarizes the findings of the group's study of the school finance system in Texas. The three primary focus areas of the Commission are (a) the purpose of the Texas school finance system; (b) the appropriate overall level of funding for the K-12 system; and (c) Texas school finance policies that adjust for each district's student demographics and geographic context.^{vii} One often-overlooked feature of state school finance system is the way in which students are counted in each district.

The results of our research suggest that districts,

schools, and teachers have little influence over their students' attendance rate. Incentivizing districts to improve attendance through ADA-based funding – and reducing funding for districts with low attendance rates – is therefore unlikely to improve student attendance in the state. More importantly, the policy disproportionately harms high-poverty districts.

We argue that to improve the overall equity in the Texas school finance system, the Texas Commission on Public School Finance should consider reforming the state's use of ADA to determine funding for Texas school district.

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Endnotes

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^{iv} The study described in this policy brief is available from the corresponding author, David Knight (dsknight@utep.edu) and on the CERPS website (<http://www.utep.edu/education/cerps>). It should be cited as follows: Knight, D. S. & Olofson, M. W. (2018). How large are district effects on student attendance? Implications for school funding based on average daily attendance. (CERPS Working Paper 2018-3). El Paso, TX: University of Texas at El Paso.

^v Available on the CERPS website (<http://www.utep.edu/education/cerps>).

^{vi} Other results show that district effects on math and English language arts (ELA) achievement are larger than effects on attendance, whereas schools and teachers have larger impacts on both achievement and attendance than school districts

^{vii} More information about the Texas Commission on Public School Finance is available on the Texas Education Agency website (<https://tea.texas.gov/schoolfinancecommission/>).

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