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The University of Arkansas

was founded in 1871 as the flagship institution of higher education for the state of Arkansas. Established as a land grant university, its mandate was threefold: to teach students, conduct research, and perform service and outreach.



The College of Education and Health Professions established the Department of Education Reform in 2005. The department's mission is to advance education and economic development by focusing on the improvement of academic achievement in elementary and secondary schools. It conducts research and demonstration projects in five primary areas of reform: teacher quality, leadership, policy, accountability, and school choice.

The School Choice Demonstration Project (SCDP), based within the Department of Education Reform, is an education research center devoted to the non-partisan study of the effects of school choice policy and is staffed by leading school choice researchers and scholars. Led by Dr. Patrick J. Wolf, Distinguished Professor of Education Reform and Endowed 21st Century Chair in School Choice, SCDP's national team of researchers, institutional research partners and staff are devoted to the rigorous evaluation of school choice programs and other school improvement efforts across the country. The SCDP is committed to raising and advancing the public's understanding of the strengths and limitations of school choice policies and programs by conducting comprehensive research on what happens to students, families, schools, and communities when more parents are allowed to choose their child's school.

Charter School Funding: Inequity Surges in the Cities

Executive Summary

Public charter schools increasingly are part of both the national conversation about education policy and the local urban scene in America. Previous studies of public charter schools have examined their achievement effects focused on both the state and metropolitan levels, and funding disparities focused on the state levels. This report is the latest update to a series of studies of funding inequities concentrating on revenue disparities between charters and traditional public schools where charters are most common: metropolitan areas across the country. The 18 urban areas that primarily inform our study include Atlanta, Boston, Camden, Chicago, Denver, Detroit, Houston, Indianapolis, Little Rock, Los Angeles, Memphis, New Orleans, New York City, Oakland, Phoenix, San Antonio, Tulsa, and Washington, D.C. Because these locations include fourteen for which we have at least some prior data, we are able to examine funding inequities over time.

Our data regarding the charter school funding gap were carefully collected from official state documents and audited school reports regarding the 2017-18 school year, which is equivalent to the 2018 fiscal year. Because we must wait a few years for revenue data to be complete and reliable, our study is necessarily retrospective. As a result, we describe our findings in the past tense, as they reflect conditions during the 2017-18 school year – the school year with the most recent and reliable data available to date. In the report’s conclusion, we describe recent policy changes in some of the cities that likely have affected their current charter school funding gaps.

We define a public charter school as any school that (1) operates based on a formal charter in place of direct school district management and (2) reports its finances

Did public charter schools and TPS in major metropolitan areas receive equitable per-pupil funding during the 2017-18 school year? If not, what explains the funding disparity?

independently from the school district. We define all other public schools as traditional public schools (TPS).

This study answers two main research questions: Did public charter schools and TPS in major metropolitan areas receive equitable per-pupil funding during the 2017-18 school year? If not, what explains the funding disparity? For the 18 metropolitan areas, we find:

- Public charter schools received an average of \$7,796 less per-pupil than TPS — the largest funding disparity ever discovered by our research

team – which represents a funding gap of 33 percent.

- Across the eight cities with longitudinal data back to 2003, the overall funding gap favoring TPS more than doubled in real terms since 2003 and grew by 28 percent since 2016.
- Across the 14 cities with data back to 2013, the overall funding gap favoring TPS grew 26 percent since 2013 and widened by 28 percent since 2016.
- A dearth of education funding from local sources was most responsible for the charter school funding gap,

as 12 of the areas provided either no or a trivial amount of local funds to their public charter schools.

- Charter schools received about \$1,412 less in charitable contributions and fees per pupil than TPS in 2017-18, a nonpublic funding disparity of 46 percent favoring TPS.
- On average, state revenues increased the charter school funding disparities in half of the cities and decreased them in the other half. Overall, charters received 5 percent more in state revenues per pupil than TPS.
- Federal education revenues, on average, worsened the charter school funding disparities, as charters received 37 percent less in federal dollars per pupil than TPS.
- Sixteen out of 18 metropolitan areas in our study received a C or lower grade for charter school funding equity because students who attended charters received more than 10 percent less in funding than their peers in TPS.
- Shelby County, Tennessee demonstrated the greatest revenue balance between charters and TPS, as charters received 96 percent of the per-pupil funding average of TPS.
- Public charter schools in Camden, New Jersey, were the most underfunded in terms of dollars, receiving an average of \$16,317 less in per-pupil funding than TPS, representing a 46 percent funding inequity.

Public charter schools received an average of \$7,796 less per-pupil than TPS — the largest funding disparity ever discovered by our research team – which represents a funding gap of 33 percent.

- Public charter schools in Little Rock, Arkansas, were the most underfunded in percentage terms, receiving an average of \$11,327 less in per-pupil funding than TPS, representing a 57 percent funding inequity.
- Differences in the rates of enrolling students with special educational needs only explained the charter school funding gap in two of the 18 cities: Boston and Shelby County, which includes Memphis.
- The public charter school funding gap declined from 2003 to 2018 in Houston and Boston, while it grew in Atlanta, Los Angeles, Indianapolis, Denver, Washington, D.C., and New York City; gaps increased from 2016 to 2018 in Atlanta, Camden, Denver, Houston, Indianapolis, Little Rock, Los Angeles, New York City, Tulsa, and Washington, D.C., while they decreased in Boston, Oakland, San Antonio, and Shelby County.

Our research indicates that urban charters tended to receive substantially less revenue on a per-pupil basis to serve their students than did traditional public schools in 2017-18. We find that charter school funding inequities are surging across major U.S. cities.

Acknowledgements

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Introduction

Public charter schools are a growing part of K-12 education. Charter schools are public schools that are granted operational autonomy by their authorizing agency in return for a commitment to achieve performance levels specified in a contract. Like traditional public schools, charter schools are prohibited from charging tuition, must not discriminate in admissions or be religious in their operation or affiliation, and are overseen by a public entity. Unlike traditional public schools, however, most public charter schools are open to all students who wish to apply, regardless of where they live. If a charter school is over-subscribed, random lotteries usually determine which students are admitted. Most charter schools are independent of the traditional public school district in which they operate.¹

Public charter schools have become a major feature of the education landscape. The first public charter school was established in St. Paul, Minnesota, in 1991. In 2017-18, there were over 7,000 public charter schools serving about 3.2 million students in 43 states and the District of Columbia.² That year the number of charter schools grew by about 1 percent and the number

of students they served increased by 5 percent. In New Orleans, Washington, D.C., and Detroit, public charter schools educate over 40 percent of K-12 students. What explains the growing popularity of public charter schools?

Public charter schools have become a major feature of the education landscape.

Evidence

Research indicates that families enjoy the empowerment to opt out of residentially assigned public schools, if needed.³ Further, the autonomy granted to public charter schools allows them to establish a specialized mission and deeply rooted organizational culture.⁴ The additional autonomy that charters enjoy allows them to serve students based on student interests and learning needs, rather than the standardized approach to education commonly mandated in traditional public schools.

The scientific evidence on the effectiveness of public charter schools is abundant, though studies have varied in quality. A meta-analysis of 38 rigorous studies showed that, overall, charter schools have had small positive effects on student achievement, as measured by

1 [What is a charter school?](#) National Charter School Research Center. U.S. Department of Education.

2 [Estimated Public Charter School Enrollment, 2017-2018](#). National Alliance for Public Charter Schools.

3 Barrows, S., Peterson, P. E., & West, M. R. (2017). [What do parents think of their children's schools?](#) *Education Next*, 17(2).
Stewart, T., & Wolf, P. J. (2014). *The school choice journey: School vouchers and the empowerment of urban families* (New York: Palgrave MacMillan, 2014).

4 Fox, R. A., & Buchanan, N. K. (2014). *Proud to be different: Ethnocentric niche charter schools in America* (Lanham, MD: Rowman & Littlefield).

The most recent systematic reviews of the most rigorous evidence suggest that public charter schools have improved high school graduation, college enrollment, and behavioral outcomes.

standardized test scores.⁵ A national study of charter school performance in 26 states and the District of Columbia largely confirmed those results,⁶ though a U.S. Department of Education evaluation limited to charter middle schools reported no statistically significant effects.⁷ More relevant to our study here, an examination of charter school achievement effects in 41 large metropolitan areas across the country showed that urban charters consistently have boosted student achievement and the gains for students from disadvantaged

backgrounds have been large.⁸ The most recent systematic reviews of the most rigorous evidence suggest that public charter schools have improved high school graduation, college enrollment, and behavioral outcomes.⁹

Funding Equity

Findings that public charter schools tend to increase student achievement, but only slightly, have led policymakers to consider the amount of resources available to charters. Do charter schools receive higher per-pupil revenue

allocations than traditional public schools (TPS)? Is funding equal across the two public school sectors? Do public charter schools receive less per-pupil revenue than TPS? Might charters produce even better results if they were better resourced? Members of our research team have provided evidenced-based answers to these questions for over a decade.

In *Charter School Funding: Inequity's Next Frontier*, we compared student funding in public charters versus TPS in 27 districts in 16 states plus Washington, D.C., during school

5 Betts, J. R., & Tang, Y. E. (2019). *The effect of charter schools on student achievement*. New York, NY: Routledge.

6 Cremata, E., Davis, D., Dickey, K., Lawyer, K., Negassi, Y., Raymond, M., & Woodworth, J. L. (2013). *National charter school study*. Stanford, CA: Center for Research on Education Outcomes.

7 Gleason, P., Clark, M., Tuttle, C. C., and Dwoyer, E. (2010). *The evaluation of charter school impacts: Final report* (NCEE 2010-4029). Washington, D.C.: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

8 CREDO (2013). *Urban charter school study*. Stanford, CA: Center for Research on Education Outcomes.

9 Foreman, L. M. (2017). *Educational attainment effects of public and private school choice*. *Journal of School Choice*, 11(4), 642-654; Zimmer, R., Buddin, R., Smith, S. A., & Duffy, D. (2019). *Nearly three decades into the charter school movement, what has research told us about charter schools?* EdWorkingPaper No. 19-156. Annenberg Institute at Brown University; Deming, D. J., Hastings, J. S., Kane, T. J., & Staiger, D. O. (2014). *School choice, school quality, and postsecondary attainment*. *American Economic Review*, 104(3), 991-1013; Sass, T. R., Zimmer, R. W., Gill, B. P., & Booker, T. K. (2016). *Charter high schools' effects on long-term attainment and earnings*. *Journal of Policy Analysis and Management*, 35(3), 683-706; Dobbie, W., & Fryer Jr, R. G. (2015). *The medium-term impacts of high-achieving charter schools*. *Journal of Political Economy*, 123(5), 985-1037.

year 2002-03.¹⁰ We found that public charter school students were funded at levels below TPS students in all but one state, Minnesota, and all but one school district, Albuquerque, New Mexico. On average, charter students in the study received 22 percent less in funding than their TPS peers, with the state-level gaps favoring TPS ranging from 5 percent in New Mexico to 40 percent in South Carolina.

This pioneering research concluded that, when a given student switched from a residentially assigned public school to a public charter school in 2002-03, less than four-fifths of the resources dedicated to the education of that student followed them into their charter school.

One might assume that policymakers moved swiftly to remedy the injustice of charter school funding inequity revealed in the 2005 report. Unfortunately, that was not the case. We re-examined the charter school funding gap using data from 2006-07 and added seven more states to our sample. In *Charter School Funding: Inequity Persists*, we reported that the gap favoring TPS stood at 19 percent nationally, only trivially smaller than the original gap of

22 percent.¹¹ Even more concerning, a third study of 2010-11 revenue data identified the gap across an expansive sample of 30 states plus D.C. to average 28 percent more funding for

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TPS than charters, provoking the report title of *Charter School Funding: Inequity Expands*.¹² All three of these charter school revenue studies have concluded that funding gaps are larger in urban areas, due to more local funding and categorical funding earmarked for districts with disadvantaged students going to TPS than to charter schools, even though public charter schools generally enroll a high proportion of low-income students. Educational resources targeted to disadvantaged students in urban areas often miss their targets when those children are in public charter schools.

Four other public charter school funding inequity studies have been performed at the

10 Batdorff, M., Finn, C. E. Jr., Hassel, B., Maloney, L., Osberg, E., Speakman, S., & Terrell, M. G. (2005). [Charter school funding: Inequity's next frontier](#). Washington, D.C.: Thomas B. Fordham Institute.

11 Batdorff, M., Maloney, L., May, J., Doyle, D., & Hassel, B. (2010). [Charter school funding: Inequity persists](#). Indianapolis, IN: Ball State University.

12 Batdorff, M., Maloney, L., May, J. F., Speakman, S. T., Wolf, P., & Cheng, A. (2014). [Charter school funding: Inequity expands](#). Fayetteville, AR: School Choice Demonstration Project.

city level. The first report examined per-pupil funding discrepancies between TPS and charters across 92 cities in the state of Michigan. The study found that Michigan charter schools received about \$2,782, or 20 percent less funding per pupil than TPS in the 2014-15 school year.¹³ The funding advantage for TPS was statistically significant even after controlling for sector differences in the percent of students that were identified as: special needs, economically disadvantaged, English Language Learners, and minorities. One study using school-level data from the 2017-18 school year found that public charter schools in Texas received around 15 percent less than TPS even after controlling for several school and student characteristics.¹⁴

Our team's first report at the city level, *Charter School Funding: Inequity in the City*, contributed to the school funding policy literature by taking a deep dive into the realities of charter and TPS funding in major urban areas across the country. We examined funding disparity levels from all possible revenue sources in 15 different metropolitan areas for the 2013-14 school year. We selected the locations based on either a high concentration of charters in the metropolitan area or potential for charter school growth there.

Across the 14 cities included in our primary analysis, we found that public charter schools received an average of \$5,721, or about 29 percent, less per-pupil than TPS.¹⁵

All three of these charter school revenue studies have concluded that funding gaps are larger in urban areas, due to more local funding and categorical funding earmarked for districts with disadvantaged students going to TPS than to charter schools.

Our most recent report updated that analysis by drawing upon data from the 15 metropolitan areas for the 2015-16 school year. Across the 14 cities included in our primary analysis, we found that public charter schools received an average of \$5,828, or about 27 percent, less per-pupil than TPS.¹⁶ Our current study provides the latest update on public charter school funding inequities by drawing upon the latest data from the 2017-18 school year. We add three cities to our analyses: Chicago, Detroit, and Phoenix, and include New Orleans in our primary analyses for the first time, now that post-Katrina hurricane aid no longer dominate its school funding. We highlight differences in local, state, and federal public funding, as well as all nonpublic funding

13 DeAngelis, C. A., & DeGrow, B. (2018). [Doing more with less: The charter school advantage in Michigan](#). Mackinac Center for Public Policy.

14 DeAngelis, C. A. (2019). [The cost-effectiveness of public charter schools in Texas](#). Annenberg Institute at Brown University EdWorkingPaper No. 19-133.

15 Wolf, P. J., Maloney, L. D., May, J. F., & DeAngelis, C. A. (2017). [Charter school funding: Inequity in the city](#). Fayetteville, AR: School Choice Demonstration Project.

16 DeAngelis, C. A., Wolf, P. J., Maloney, L. D., & May, J. F. (2018). [Charter school funding: \(More\) inequity in the city](#). Fayetteville, AR: School Choice Demonstration Project.

Across the 14 cities included in our primary analysis, we found that public charter schools received an average of \$5,828, or about 27 percent, less per-pupil than TPS.

for the same locations. This study represents the latest evidence regarding stubbornly persistent public charter school funding inequities where charters are most common: in cities.

Methodology

This is a study of the revenues actually received by public charter schools and TPS. Revenues equal funding. Revenues signal the amount of resources that are being mobilized in support of students in the two different types of public schools. Some critics of these types of analyses argue that our revenue study should, instead, focus on school expenditures and excuse TPS from certain expenditure categories, such as transportation, because TPS are mandated to provide it but many charter schools choose

not to spend scarce educational resources on that item.¹⁷

First, we stand by the practice of using revenues, not expenditures, to inform our revenue study. Second, the discretion to spend money as school leaders see fit is definitional to public charter schools because they are expected by statute to have autonomy to be innovative. We compare the amount of resources that are channeled into a traditional public school system, where many specific expenditures are mandatory, with the amount devoted to public charter schools, where many specific expenditures are discretionary. If we omitted supposedly “mandatory spending” from the TPS side of our comparison, including salaries baked into teacher and administrator collective bargaining agreements, there would be almost no

revenue left to compare.

This point underscores the central fallacy of some researchers who compare charter and TPS funding using expenditures. They exclude various categories of expenditures on the TPS side, supposedly to create “apples-to-apples” funding comparisons, but those exclusions are mere artifice of the analysts that bring the numbers further away from the complete and true amounts of resources available to educate a child in each public school sector.

An analysis based on all revenues, in contrast, supports an *innovation view* of equity, consistent with state charter statutes calling for charter schools to be innovative. An analysis based on a subset of expenditures only for the functions that TPS and charter schools share is a *status quo view* of equity, because charters are expected to be funded only for the exact same functions that TPS already performs. A revenue-based analysis is grounded in a concept of *equal funding for equal purpose*, the purpose being public

17 Baker, B. D. (2014). [Review of “Charter school funding: Inequity expands.”](#) Boulder, CO: National Education Policy Center.

education. An adjusted expenditure-based analysis is grounded in a concept of *equal funding for equal work*. We choose a revenue-based analysis because public education is about so much more than merely equal work.

Our methodology generates a full, accurate, and transparent accounting of the per-pupil funding in both the public charter and TPS sectors (see Box 1). It tells us how much money is directed to charter schools, which have much discretion regarding how to spend it, and how much money is directed to traditional public schools, which have less discretion regarding how to spend it. If TPS receive more revenue in part because they have more things on which they are required to spend public resources, then that fact should not be obscured but should remain a part of the comparison. Mandatory spending in TPS is a discretionary policy of decision makers. If it is a cause of inefficiency in TPS operations

We choose a revenue-based analysis because public education is about so much more than merely equal work.

relative to charters, then policymakers, informed by our research, could reduce it.

Special education services provided to students with disabilities complicate our analysis, in part because TPS in some of our cities retain responsibility for delivering services to students with special needs in area public charter schools. We allocate to the charter school side of the ledger the resources that TPS use to serve charter students with disabilities, when that service is documented. Some undocumented aspects of those in-kind services might go undetected. In this report, we use two alternative methods to account for differences in special education responsibilities and funding across the public school sectors (Box 1). We will examine this vital issue in greater depth in our next report.

Box 1: Methodology

The core practices that generate our reliable comparisons are that we:

- Compare per-pupil revenues for all public charter schools to all traditional public schools within the geographic boundary of each city or county;
- Provide a comprehensive accounting of school revenues that accounts for all funds received by all schools in the public charter and TPS sectors from all possible sources;[§]
- Credit all revenues to the school sector upon whose students the

- revenue will be spent, assigning any funding directed to charter school students that passes through TPS to the charter sector and not the TPS sector;
- Apply true weighted averages to all cross-location totals to assure appropriate per-pupil amounts for all data groupings;
- Rely on data of record collected by states, and — when unavailable — approved, audited financial statements as our source materials;
- Conduct a special analysis of the charter school funding gap,

- excluding all special education funding, to demonstrate whether the inequities in charter school funding are explained by higher special education enrollment rates in TPS;
- Conduct a regression analysis to determine if charter school funding gaps persist after adjusting for observable differences in students across the public school sectors.
- See Appendix A for details regarding our research methodology and Appendix B for our list of data sources.

§ The only exception to this rule is any revenue received due to debt restructuring since it is not actually new resources.

2017-2018 Results

Total Revenue Inequalities

Table 1 and Figure 1 below illustrate the total funding disparities between children in traditional public schools (TPS) and charters in the 18 metropolitan areas we include in our main analysis. Only one location — Shelby County, Tennessee — obtained an A for charter school funding equity. Charters in Shelby received only 4 percent less in per-pupil funding than the Shelby TPS. Boston received a B because charters received 7 percent less in per-pupil funding than the Boston TPS. Two locations — Houston and San Antonio — obtained a C because charters received between 10 and 15 percent less in per-pupil funding in each place. Phoenix and New York City received a D because charters received 15 to 25 percent less in per-pupil funding than the TPS in the same location.

Twelve of the 18 cities in the main analysis — nearly two-thirds of the cities examined — received an F because per-pupil funding disparities exceeded 25 percent. Notably, charter students in Camden, New Jersey, obtained \$16,317 less in per-pupil funding in 2017-18, representing a funding gap of 46 percent. The largest disparity percentage was in Little Rock, Arkansas, where charter school students received 57 percent less funding than their traditional public school peers, amounting to \$11,327 less in educational resources per student in 2017-18. In addition to Little Rock and Camden, inequities favoring TPS also exceeded 40 percent in Tulsa, Indianapolis, Chicago, and Atlanta. Other cities also received an F for large funding inequities including Detroit, Oakland, Washington, D.C., Los Angeles, and Denver.

On average, across all locations, a student received \$7,768, or 33 percent less in total annual funding if they chose to attend a charter

Box 2: Guide to Our Tables & Figures

- For each table, we order the locations from the one with the biggest percentage funding disparity favoring charters at the top to the one with the biggest percentage funding gap favoring TPS at the bottom;
- For each figure, we order the locations from left (biggest gap favoring charters) to right (biggest gap favoring TPS);
- Each location is assigned a grade based on the equality of revenues allocated to children in charter schools compared to TPS;
- We highlight funding disparities regardless of the sector that is receiving the short end of the revenue stick;
- A specific location receives an A if per-pupil charter funding is within 5 percent of traditional public school funding, regardless of which sector is receiving more, a B if the funding disparity is between 5 and 10 percent, a C if the gap is 10 to 15 percent, a D if it is 15 to 25 percent, or an F if it is over 25 percent;
- The overall disparity grade appears in the far left column of Table 1 and is consistently displayed in the far left column of all subsequent tables as a point of reference for the reader;
- Summary tables regarding all the revenue disparities for each separate location are provided in Appendix C. Public indeterminate and unspecified indeterminate revenue streams are shown in tables in Appendix D.

On average, across all locations, a student received \$7,796, or 33 percent less in total annual funding if they chose to attend a charter school instead of a TPS.

school instead of a TPS. This funding inequity result favoring TPS is the largest overall gap we have identified to date. It is moderately larger than the gap of 27 percent in our report using 2015-16 data. Students in public charter schools sacrificed around one-third of their educational resources by opting out of their traditional public schools. Put differently, on average, urban parents in our study sample were willing to pay the price of about \$7,796 per year in order to opt into a public

schooling environment that they perceived to be superior to their residentially assigned institution. To operate at the efficiency level of the charter schools in our study, the traditional public schools would have had to trim \$22.3 billion per year in revenue from their budgets.

Urban parents in our study sample were willing to pay the price of at least \$7,796 per year in order to opt into a public schooling environment that they perceived to be superior to their residentially assigned institution.

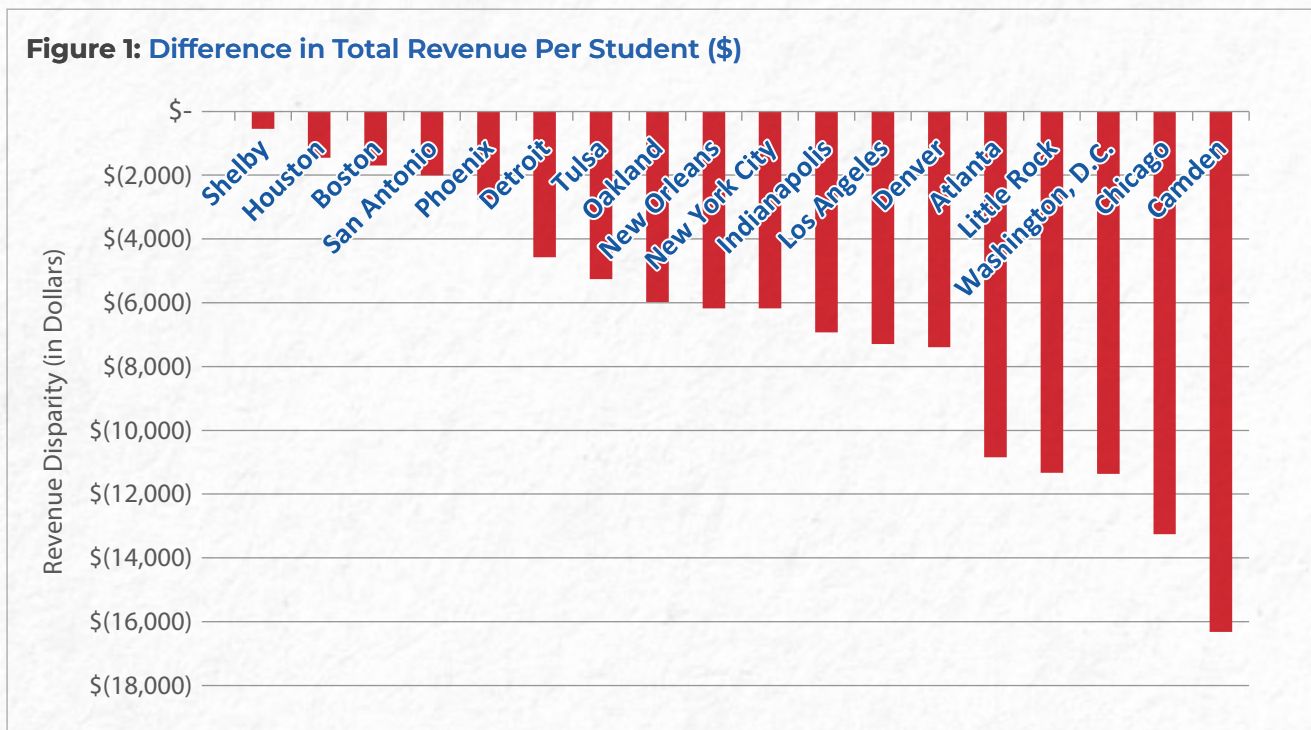


Table 1: Total Revenue Disparity Per Student, 2017-18

Overall Funding Disparity Grade	Ranked Regions	State	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
A	Shelby	TN	\$12,842	\$12,292	(\$550)	-4%
B	Boston	MA	\$25,628	\$23,930	(\$1,698)	-7%
C	Houston	TX	\$13,341	\$11,886	(\$1,455)	-11%
C	San Antonio	TX	\$13,830	\$11,818	(\$2,012)	-15%
D	New York City	NY	\$32,420	\$26,242	(\$6,178)	-19%
D	Phoenix	AZ	\$11,824	\$9,063	(\$2,761)	-23%
F	Detroit	MI	\$15,539	\$10,967	(\$4,572)	-29%
F	Oakland	CA	\$19,108	\$13,130	(\$5,978)	-31%
F	Washington	DC	\$36,266	\$24,896	(\$11,370)	-31%
F	New Orleans	LA	\$18,694	\$12,520	(\$6,174)	-33%
F	Los Angeles	CA	\$20,783	\$13,488	(\$7,295)	-35%
F	Denver	CO	\$20,827	\$13,433	(\$7,395)	-36%
F	Tulsa	OK	\$12,949	\$7,686	(\$5,263)	-41%
F	Indianapolis	IN	\$16,230	\$9,299	(\$6,932)	-43%
F	Camden	NJ	\$35,216	\$18,899	(\$16,317)	-46%
F	Chicago	IL	\$27,859	\$14,600	(\$13,260)	-48%
F	Atlanta	GA	\$20,861	\$10,020	(\$10,841)	-52%
F	Little Rock	AR	\$19,773	\$8,446	(\$11,327)	-57%
Weighted Average			\$23,677	\$15,881	(\$7,796)	-33%

Note: Disparity Per Student (\$) is the Charter Per Student Revenue minus the District Per Student Revenue, so negative values indicate a charter school funding disadvantage. Disparity Per Student (%) is the dollar disparity divided by District Per Student Revenue.

Some school commentators claim that any gap in per-pupil charter funding compared to TPS is because charters enroll significantly fewer students with low-income backgrounds,

English Language Learner (ELL) status, and special needs.¹⁸ In Table 2 we display the enrollment percentages for students with these three features of disadvantage across

the two public school sectors when such data were available. Public charter schools enrolled a 1 percentage point higher proportion of students who qualify for the federal lunch

18 See, for example, Baker, B. D. (2014). [Review of "charter school funding: Inequity expands."](#) Boulder, CO: National Education Policy Center.

program¹⁹ than TPS across the 18 locations. In seven of the metropolitan areas — Houston, Shelby, New York City, Camden, Denver, Detroit, and Chicago — the charter sector enrolled a higher proportion of low-income students who qualify for the federal lunch program than did the TPS sector. In Washington, D.C., the proportion of federal lunch-eligible students in the charter and TPS sectors was equal. In 10 of the areas — Atlanta, Boston, Indianapolis, Los Angeles, Little Rock, Phoenix, Oakland, San Antonio, New Orleans, and Tulsa — the charter sector enrolled a lower percentage of low-income students. The differences across sectors exceeded 15 percentage points, in Atlanta, Camden, and Tulsa.

ELL student enrollment was about 4 percentage points higher in TPS than in public charter schools across the 18 locations. ELL enrollment was higher in public charter schools than TPS in Denver, Houston, and New Orleans. In

Public charter schools enrolled a 1 percentage point higher proportion of students who qualify for the federal lunch program than TPS across the 18 locations.

the remaining 15 metropolitan areas, public charter schools enrolled disproportionately fewer students with ELL designations compared to TPS. Across-sector disparities of ELL students were 5 percentage points or less in 11 locations. The across-sector disparities were 10 percentage points or lower in all areas but Boston, where the gap was 16 percentage points, Denver, where the gap was 15 percentage points, and Tulsa, where the gap was 10 percentage points.

Finally, public charter schools enrolled a 3 percentage point lower proportion of students with special needs than TPS across the 15 metropolitan regions with data. The TPS sector enrolled higher percentages of students with special needs than their local charter schools in all but two locations: Atlanta and

Chicago. In Detroit, district-run TPS listed 16 percent of their students as qualifying for special education services, compared to 10 percent in the city's public charter schools. The charter school special education enrollment gap was 5 percentage points or less in each of the other 14 locations with data. Research from New York City, Denver, and the state of Louisiana suggests that public charter schools enroll fewer students with disabilities than TPS mainly because (1) fewer parents choose such schools for their kindergarten children with disabilities, (2) transfers into charters in non-entry grades tend disproportionately to be general education students, and (3) charter schools declassify students as no longer requiring special education services at higher rates than

19 These students all come from families with incomes at or below 185 percent of the poverty line and therefore are eligible for either free or reduced-price lunches.

TPS.²⁰ More recently, a random assignment study from 2020 found that winning a lottery to attend a public charter school in Boston reduces the likelihood that students retain their special needs classification by 12 percentage points and reduces the likelihood that students retain their English language learner classification by 32 percentage points.²¹

The fact that the traditional public school sectors in our study tended to enroll higher percentages of students with certain disadvantages does not appear, itself, to explain the funding gaps between TPS and public charter schools. The proportion of students eligible for the federal lunch program was as likely to be higher or equal in the charter sectors compared with the TPS sectors in our sample. The TPS sectors more consistently tended to enroll higher proportions of ELL students than the charter sectors, though Houston, Denver, and New Orleans were exceptions. Moreover, differences in the measures of disadvantage of the student populations in TPS and charters in our areas did not align with the overall funding differences described in Table 1.

In many cases, it requires even greater resources to educate students with special needs than

low-income or ELL students. Such students were enrolled at higher rates in TPS in all but two of these metropolitan areas. Does special education funding explain the charter school funding gaps in our study? We examine that question next.

Does special education funding explain the charter school funding gaps in our study?

Special Education (SPED) and the Charter School Funding Gap

Some commentators suggest that unequal funding between public charter schools and TPS is due to differences in the number of students identified as requiring special education services. Since the enrollments of students with disabilities do differ between the charter and TPS sectors in our study (Table 2), we test this ubiquitous claim regarding the charter school funding gap. To do so, we depart from our normal approach of focusing exclusively on revenues and consider special education expenditures by both school sectors.

The Table 3 column labeled “SPED Expenditure Gap Per Student” presents the results from subtracting the amount of dollars spent per

20 Winters, M. A. (2013). *Why the gap? Special education and New York City charter schools*. Bothell, WA: Center for Reinventing Public Education. Winters, M. A. (2014). *Understanding the charter school gap: Evidence from Denver, CO*. Bothell, WA: Center for Reinventing Public Education. Wolf, P.J., & Lasserre-Cortez, S. (2018, January). [*Special education enrollment and classification in Louisiana charter schools and traditional schools*](#) (REL 2018-288). Washington, D.C.: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest.

21 Setren, E. (2020). [*A Charter Boost for Special-Ed Students and English Learners*](#). *Education Next*, 20(2), 42-61.

Table 2: Levels of Student Disadvantage Across Sectors, 2017-18

Overall Disparity Grade	Ranked Regions	State	District Federal Lunch %	Charter Federal Lunch %	Difference	District ELL %	Charter ELL %	Difference	District SPED %	Charter SPED %	Difference
A	Shelby	TN	56%	64%	8%	8%	4%	-4%	12%	10%	-2%
B	Boston	MA	58%	53%	-6%	32%	16%	-16%	20%	18%	-1%
C	Houston	TX	75%	81%	6%	31%	37%	5%	7%	7%	-1%
C	San Antonio	TX	91%	77%	-14%	19%	17%	-2%	10%	8%	-2%
D	New York City	NY	75%	81%	6%	15%	7%	-8%	22%	19%	-3%
D	Phoenix	AZ	58%	48%	-10%	10%	8%	-2%	11%	7%	-4%
F	Detroit	MI	85%	91%	6%	12%	11%	-1%	16%	10%	-7%
F	Oakland	CA	75%	72%	-2%	33%	28%	-5%	NA	NA	NA
F	Washington	DC	44%	44%	0%	14%	8%	-7%	15%	13%	-2%
F	New Orleans	LA	82%	80%	-3%	2%	6%	4%	NA	NA	NA
F	Los Angeles	CA	81%	81%	0%	23%	21%	-2%	NA	NA	NA
F	Denver	CO	61%	63%	3%	35%	50%	15%	11%	10%	-1%
F	Tulsa	OK	80%	65%	-16%	23%	12%	-10%	17%	12%	-5%
F	Indianapolis	IN	73%	72%	-1%	17%	9%	-8%	17%	15%	-2%
F	Camden	NJ	65%	90%	25%	10%	8%	-2%	18%	13%	-5%
F	Chicago	IL	81%	90%	9%	19%	14%	-5%	14%	15%	1%
F	Atlanta	GA	92%	66%	-26%	4%	1%	-3%	11%	11%	0%
F	Little Rock	AR	67%	59%	-9%	13%	5%	-8%	13%	9%	-4%
Weighted Average			74%	75%	1%	18%	14%	-4%	16%	13%	-3%

Note: Difference is the charter percent minus the district percent, so negative numbers mean TPS enroll a higher percentage of such students. Differences may appear to be off by one point due to standard rounding conventions. Special education enrollments were not available for Oakland, Los Angeles, or New Orleans.

student in the charter sector from the amount of dollars spent per student in the TPS sector. Of the cities for which we have reliable expenditure data, 13 out of the 14 totals are positive, indicating that TPS spent more on special education per pupil than public

charters in all locations except New York City. The largest SPED expenditure gap was in Boston, where TPS spent \$4,584 more per student on special education than charters spent. The smallest SPED expenditure gap showing that TPS spent more on special education

services was in Houston, where TPS spent around \$418 more per pupil on special education than charters did.

The “Disparity Net of SPED” column displays the sum after adding the “SPED Expenditure Gap Per Student” to the “Total Revenue Disparity Per

Table 3: SPED Expenditure Gap Per Student, 2017-18

Overall Disparity Grade	Ranked Regions	State	SPED Expenditure Gap Per Student	Total Revenue Disparity Per Student	Disparity Net of SPED	Disparity Explained by SPED (%)
A	Shelby	TN	\$1,293	(\$550)	\$743	235%
B	Boston	MA	\$4,584	(\$1,698)	\$2,886	270%
C	Houston	TX	\$418	(\$1,455)	(\$1,037)	29%
C	San Antonio	TX	\$831	(\$2,012)	(\$1,181)	41%
D	New York City	NY	(\$782)	(\$6,178)	(\$6,960)	13%
D	Phoenix	AZ	\$903	(\$2,761)	(\$1,858)	33%
F	Detroit	MI	\$1,156	(\$4,572)	(\$3,416)	25%
F	Oakland	CA	NA	NA	NA	NA
F	Washington	DC	\$3,602	(\$11,370)	(\$7,768)	32%
F	New Orleans	LA	NA	NA	NA	NA
F	Los Angeles	CA	\$3,067	(\$7,295)	(\$4,228)	42%
F	Denver	CO	\$1,950	(\$7,395)	(\$5,445)	26%
F	Tulsa	OK	\$775	(\$5,263)	(\$4,488)	15%
F	Indianapolis	IN	\$737	(\$6,932)	(\$6,195)	11%
F	Camden	NJ	\$4,047	(\$16,317)	(\$12,270)	25%
F	Chicago	IL	NA	NA	NA	NA
F	Atlanta	GA	NA	NA	NA	NA
F	Little Rock	AR	\$764	(\$11,327)	(\$10,563)	7%
Weighted Average			\$1,104	(\$6,491)	(\$5,387)	17%

Note: SPED Expenditure Gap Per Student is calculated by subtracting average special education expenditures per pupil in the charter sector from average special education expenditures per pupil in the TPS sector. Total Revenue Disparity Per Student is taken from Table 1. Disparity Net of SPED is the SPED Expenditure Gap plus the Total Revenue Disparity, with negative numbers indicating an enduring gap favoring TPS. Disparity Explained by SPED (%) is the absolute value of the SPED Expenditure Gap Per Student divided by the Total Revenue Disparity Per Student. Oakland handles SPED support and reporting for charter schools differently than all other cities in our study. The Oakland Unified School District, the Alameda Office of Education, and Alameda Unified School District, all with charters located within the boundaries of Oakland, imbed financial data for the charters in each district's financial reporting to the California Department of Education, just as Los Angeles Unified does. However, the two cities differ in the level of detail captured in the reporting. Los Angeles provides the same level of detailed reporting for the charter schools as it does for the district, making it possible to determine how much is spent on special education. Oakland Unified, however, does not report charter school financial data with the same level of detail as reported for the school district. Therefore, it is not possible to determine how much has been spent on special education for students attending Oakland charter schools. Weighted averages exclude Atlanta, Chicago, New Orleans and Oakland due to incomplete SPED expenditure data.

Student,” describing how much of the charter school funding gap remained after accounting for the differences in SPED expenditures. If the defenders of the charter school revenue gap were right, every number in the “Disparity Net of SPED” column would be either positive or zero, meaning charters were either overfunded or equitably funded relative to TPS once the extra special education burden in TPS was subtracted from the totals. That is only true for two locations: Boston and Shelby. In Boston, the charter school revenue gap flipped from a \$1,698 per student advantage for TPS to a \$2,886 per pupil advantage for charters after accounting for SPED expenditures. In Shelby, the charter school revenue gap flipped from a \$550 per student advantage for TPS to a \$743 per pupil advantage for charters. For the remaining 12 cities with data, charter schools continued to be underfunded relative to TPS even after factoring in special education expenditures. For Houston, the funding gap favoring TPS shrunk from \$1,455 per student to \$1,037

per pupil after accounting for SPED. The disparity diminished from \$2,012 to \$1,181 in San Antonio after accounting for SPED. The disparity dropped from \$2,761 to \$1,858 in Phoenix after accounting for SPED. In the remaining nine metropolitan areas, the charter school funding gap favoring TPS remained unacceptably large — in excess of \$3,000 per pupil — even after accounting for higher special education spending in TPS than in charters. In seven of the metropolitan areas the charter school funding disparity exceeded \$5,000 per child even after accounting for differences in SPED expenditures between charters and TPS. The non-SPED revenue gap benefiting TPS exceeded \$6,000 in Camden, Indianapolis, Little

Rock, New York City, and Washington, D.C. The proportion of the total revenue gap explained by higher SPED expenditures is presented in the far-right column of Table 3. If the defenders of higher funding for TPS were correct, every figure in the far-right column would be 100 percent or higher. This is only true in Boston and Shelby. In the remaining 12 cities for which we have data, spending by TPS on special education accounts for less than half of the higher per pupil revenue received by TPS compared to public charter schools. Special education expenditures account for 33 percent or less of the funding disparities in 10 of these cities. Notably, differences in SPED expenditures account for only 7 percent of the funding disparity favoring TPS in Little Rock. While TPS tend to enroll higher proportions of students with disabilities than

The additional spending required for students with special needs rarely explains all or even most of the inequalities in the funding of public charter schools.

Rock, New York City, and Washington, D.C. The proportion of the total revenue gap explained by

public charter schools, the additional spending required for students with special needs rarely explains all or

even most of the inequalities in the funding of public charter schools. In fact, only 17 percent of the overall funding disparity is explained by differences in special education expenditures across the 14 cities with data. After carefully accounting for the effect of differential amounts of spending on students with disabilities, in most of our cities, the inequalities in funding students in public charter schools also clearly are inequities.

Using Statistical Regression to Adjust for Differences in All Three Categories of Student Disadvantage

The urban TPS in our study also tend to enroll disproportionate numbers of ELL students compared to their local charter schools. Does factoring in that difference, as well as the effect of students from low-income households or with special needs, explain away and therefore justify the charter school funding gap? Although we cannot specifically account for every dollar spent on students who speak a language other than English at home and students eligible for the federal lunch program, we can use statistical regression to determine the extent to which per-pupil funding levels in the TPS and charter sectors co-vary based on variation in the proportion of students enrolled that qualify for federal lunch assistance, are classified as ELL or have an identified special need. If the TPS in our study receive more revenues than the public charter schools solely because of the belief they educate a more disadvantaged population of students, as some commentators claim, then controlling for enrollment rates in these three areas across the TPS and public charter

sectors should explain away the charter school funding gap.

The results of our regression analysis of levels of student disadvantage and the funding gap appear in Table 4. Our Ordinary Least Squares (OLS) regressions include 36 observations (labeled “N”) to reflect the TPS and public charter sectors in each of our 18 cities. Because OLS weights each observation equally in the analysis, the size of the charter funding gap we estimate here is slightly different from the one we identify through accounting methods because it is not weighted by the relative size of the public school populations in the various cities. The regression coefficient for the public charter school indicator variable estimates a simple average funding gap across the cities instead of a weighted average funding gap based on student population.

Model 1 in Table 4 presents that simple average funding gap as \$6,743 less in funding per pupil in the 18 charter school sectors compared to the 18 TPS sectors. That inequality in average funding across the two types of public school sectors is sufficiently large and consistent that it is flagged as being statistically significant, that is, not the mere product of random factors, with over 99 percent confidence. This unweighted average charter school funding gap is about one thousand dollars less than the enrollment-weighted funding gap of \$7,768 that we identified using accounting methods.

The remaining models in Table 4 display the extent to which the charter school funding gap changes when variables are added that control for differences in enrollment rates for students with disadvantages. Controlling

for the enrollment rates of federal lunch program eligible students across the public school sectors in the various cities has only a trivial effect on the size of the average charter school funding gap, increasing it to \$6,898 (Model 2). That variable measuring the proportion of low-income students in each city-sector itself is not a statistically significant predictor of variation in average per-pupil spending, as indicated by the lack of asterisks attached to its regression coefficient. Adding a control variable for the proportion of students classified as ELL also increases the average charter school funding gap, but only by about \$100 per student (Model 3).

Model 4 is the most comprehensive statistical model in our analysis. Controlling for differential enrollment rates of students with disabilities substantially decreases but comes nowhere near eliminating the charter school funding gap. For each increase of 1 percentage point in the proportion of students with special needs in a public-school sector, the sector

receives an average of \$1,132 in additional per-pupil revenue. Accounting for the systematic difference in enrollment rates of students with special needs across the TPS and charter sectors reduces the “unexplained” charter funding gap by 34 percent, from \$6,743 (the gap estimated in Model 1) to \$4,440. That lower level of per-pupil funding for students in charter schools remains statistically significant with at least 95 percent confidence.

The enrollment rate for students with disabilities is the only variable measuring student disadvantage that significantly explains variation in per-pupil revenue across our

36 city-sectors. It does so with over 99.9 percent confidence that the relationship between enrolling more students with disabilities and receiving more per-pupil revenue is real and not merely random. That finding is comforting given that students with disabilities are supposed to receive additional resources to help address their special needs. The fact remains that nearly two-thirds of the charter school funding gap is unexplained after accounting for differences in funding linked to measures of student disadvantage. The inequality in charter school funding also represents an unjustified inequity in funding.

The fact remains that nearly two-thirds of the charter school funding gap is unexplained after accounting for differences in funding linked to measures of student disadvantage. The inequality in charter school funding also represents an unjustified inequity in funding.

Table 4: Regression-Adjusted Revenue Disparity Per Student, 2017-18 School Year

	(1) Revenue Per Pupil	(2) Revenue Per Pupil	(3) Revenue Per Pupil	(4) Revenue Per Pupil
Charter	-6.743** (0.005)	-6.898** (0.005)	-6.997** (0.005)	-4.440* (0.027)
FRL (%)		-0.104 (0.292)	-0.104 (0.299)	-0.102 (0.232)
ELL (%)			-0.030 (0.651)	0.020 (0.721)
SPED (%)				1.132*** (0.000)
R-Squared	0.2066	0.2416	0.2436	0.5097
N	36	36	36	36

Notes: P-values in parentheses. + p<0.10, * p<0.05, ** p<0.01, *** p<0.001. Average marginal effects are reported for each outcome category. "FRL" is "Free and Reduced Price Lunch Students." "ELL" is "English Language Learner." "SPED" is "Special Education Students." The dependent variable is expressed in thousands of U.S. Dollars. Missing SPED values for Los Angeles, New Orleans, and Oakland were imputed with the mean.

Explaining the Sources of Charter School Funding Inequities

If differing levels of disadvantage in the student populations served by public charter schools and TPS do not explain the charter school funding gap overall or in most of the areas in our sample, what does? In this section we disaggregate public school funding sources into the categories of federal, state, local, public (indeterminate level), nonpublic, and indeterminate. Doing so allows us to specify which funding sources increase and decrease the inequity in public charter school revenue.

If differing levels of disadvantage in the student populations served by public charter schools and TPS do not explain the charter school funding gap overall or in most of the areas in our sample, what does?

Local Public Revenue

Most local public school funding comes through property taxes. Because public charter schools serve students living in households within specific communities, we may expect that local funding will support a community's children in

Table 5: Total Local Public Revenue Disparity Per Student, 2017-18

Overall Funding Disparity Grade	Ranked Regions	State	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
F	Camden	NJ	\$938	\$2,863	\$1,925	205%
F	New Orleans	LA	\$8,599	\$10,449	\$1,849	22%
D	New York City	NY	\$19,268	\$12,477	(\$6,791)	-35%
F	Los Angeles	CA	\$4,079	\$2,386	(\$1,693)	-42%
F	Oakland	CA	\$5,900	\$2,103	(\$3,797)	-64%
F	Detroit	MI	\$1,069	\$30	(\$1,040)	-97%
F	Indianapolis	IN	\$4,133	\$0	(\$4,133)	-100%
D	Phoenix	AZ	\$4,915	\$0	(\$4,915)	-100%
C	San Antonio	TX	\$5,050	\$0	(\$5,050)	-100%
A	Shelby	TN	\$5,696	\$0	(\$5,696)	-100%
F	Tulsa	OK	\$7,006	\$0	(\$7,006)	-100%
F	Little Rock	AR	\$7,361	\$0	(\$7,361)	-100%
C	Houston	TX	\$8,309	\$0	(\$8,309)	-100%
F	Chicago	IL	\$9,775	\$0	(\$9,775)	-100%
F	Atlanta	GA	\$14,729	\$0	(\$14,729)	-100%
F	Denver	CO	\$15,463	\$19	(\$15,445)	-100%
B	Boston	MA	\$18,953	\$0	(\$18,953)	-100%
Weighted Average			\$10,977	\$3,485	\$(7,491)	-68%

Note: Disparity Per Student (\$) is the Charter Per Student Revenue minus the District Per Student Revenue, so negative values indicate a charter school funding disadvantage. Disparity Per Student (%) is the dollar disparity divided by District Per Student Revenue. Washington, D.C. does not have the capability to raise local funds for education and therefore is excluded from this table.

whichever public schools they choose. Does this actually happen?

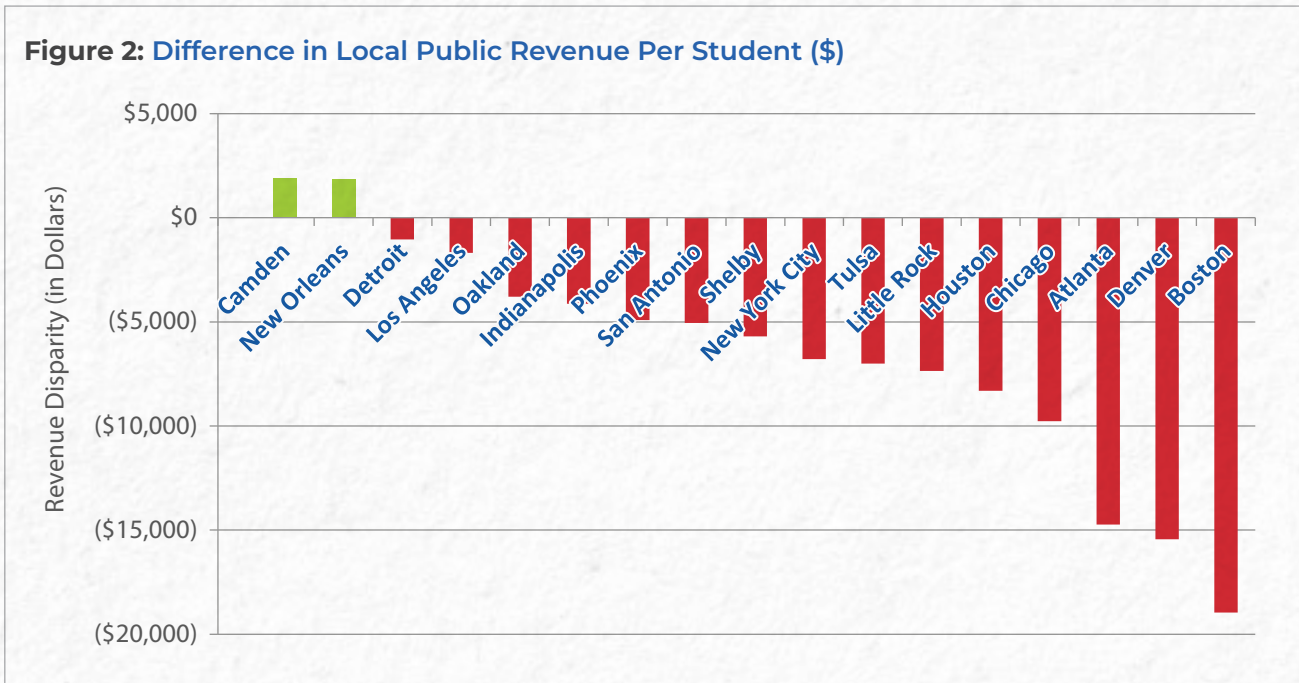
Table 5 and Figure 2 show the 2017-18 disparities in local public revenue for public charter schools and TPS in the 17 locations with local taxes.²²

Only two of the 17 locations, Camden and New Orleans, had local funding disparities favoring

public charter schools. The remaining 15 areas demonstrated extreme disparities in the local funding of public charter schools relative to TPS. In New York City, Los Angeles, and Oakland, charter school students received around one-third to two-thirds of the amount of local public funding provided to those in TPS. In

²² As the seat of the federal government, the District of Columbia lacks local taxing authority.

Figure 2: Difference in Local Public Revenue Per Student (\$)



Students in charter schools obtained around \$7,491 less in local public funding per-pupil than their traditional public school counterparts, a discrepancy of 68 percent.

Detroit and Denver, students in public charter schools received a trivial amount of local per-pupil funding. Charter school students in the 10 remaining locations did not receive a single dollar of local public education funding. On average, students in charter schools obtained around \$7,491 less in local public funding per-pupil than their traditional public school counterparts, a discrepancy of 68 percent. Wide disparities in local funding explain most or the entire charter school funding gap in all of our study's locations except Camden, Detroit, Los Angeles, New Orleans, and Washington, D.C., for which differences in other revenue sources are primarily at fault.

State Public Revenue

State governments typically intervene in the funding of public education in the United States. Local funding is based on property values, which tend to differ substantially across localities. Thus, severe school funding inequities could arise absent state-level intervention. We should expect state funding to close the large revenue gaps between charter and TPS at the local level. As described in Table 6 and Figure 3, state-level revenue streams in 2017-18 tended to reduce funding inequities between the public charter and TPS sectors more than they worsened them. On average, public charters received \$428, or

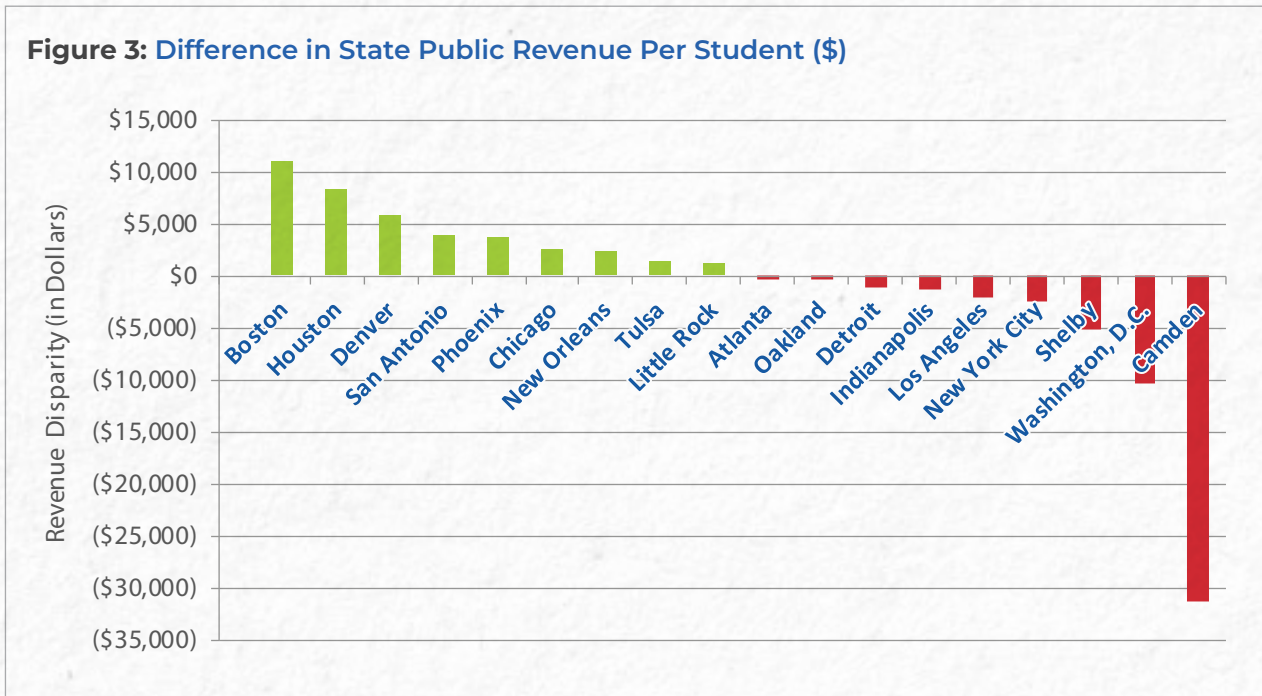
State-level revenue streams in 2017-18 tended to reduce funding inequities between the public charter and TPS sectors more than they worsened them.

Table 6: Total State Public Revenue Disparity Per Student, 2017-18

Overall Funding Disparity Grade	Ranked Regions	State	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
C	Houston	TX	\$1,230	\$9,530	\$8,300	675%
F	Denver	CO	\$2,132	\$7,959	\$5,827	273%
B	Boston	MA	\$4,698	\$15,667	\$10,970	234%
F	New Orleans	LA	\$1,907	\$4,306	\$2,399	126%
D	Phoenix	AZ	\$3,515	\$7,320	\$3,805	108%
C	San Antonio	TX	\$5,200	\$9,152	\$3,951	76%
F	Tulsa	OK	\$3,757	\$5,177	\$1,420	38%
F	Chicago	IL	\$7,004	\$9,627	\$2,623	37%
F	Little Rock	AR	\$5,839	\$7,157	\$1,318	23%
F	Oakland	CA	\$9,308	\$9,012	(\$296)	-3%
F	Atlanta	GA	\$4,057	\$3,839	(\$218)	-5%
F	Detroit	MI	\$9,541	\$8,417	(\$1,124)	-12%
F	Indianapolis	IN	\$8,678	\$7,342	(\$1,336)	-15%
F	Los Angeles	CA	\$10,729	\$8,719	(\$2,010)	-19%
D	New York City	NY	\$10,846	\$8,472	(\$2,375)	-22%
F	Washington	DC	\$31,473	\$21,184	(\$10,289)	-33%
F	Camden	NJ	\$45,014	\$13,831	(\$31,183)	-69%
A	Shelby	TN	\$5,682	\$530	(\$5,152)	-91%
Weighted Average			\$8,414	\$8,842	\$428	5%

Note: Disparity Per Student (\$) is the Charter Per Student Revenue minus the District Per Student Revenue, so negative values indicate a charter school funding disadvantage. Disparity Per Student (%) is the dollar disparity divided by District Per Student Revenue. State funding of charters in Shelby County might be predominantly captured in the “Public Indeterminate” totals in Appendix D, as the revenue documentation for those schools did not always permit us to identify the specific government source of public funds.

Figure 3: Difference in State Public Revenue Per Student (\$)



about 5 percent, more state-level per-pupil funding than TPS in the same location. State-level education funding expanded the charter school funding gap in nine of the 18 cities analyzed in this report. Charter school students were allocated moderately less per-pupil funding than TPS from the state in Oakland, Atlanta, Detroit, Indianapolis, Los Angeles, Washington, D.C., and New York City. Charter school students in Camden, New Jersey, received \$31,183 less per pupil in state funding than TPS students, a difference of 69

The most equitable distribution of state funding was observed in Oakland, where the disparity was only 3 percent in favor of TPS.

percent. The relative state-level funding disparity was especially large in Shelby County, as public charters got 91 percent less per-pupil revenue from the state than TPS.²³ The most equitable distribution of state funding was observed in Oakland, where the disparity was only 3 percent in favor of TPS. Equity in state funding in Oakland failed to remedy large inequities in charter school

funding from other sources, however, as Oakland's overall charter school funding gap of 31 percent is only slightly below the average of 33 percent across all cities in our study. In Little Rock, Chicago, Tulsa, and San Antonio, charters received moderately more per-pupil funding than TPS from state sources, reducing the charter funding gap in those locations somewhat. Funding

23 The absence of identifiable state funding for Shelby County's charter schools, however, is compensated for by higher public indeterminate funding, as we could not determine the source of the category of some public funding for the city's charter schools.

gaps were diminished substantially, but not eliminated, by state funding in Phoenix, New Orleans, Boston, Denver, and Houston, where charters received over twice as much state funding per pupil as TPS.

Federal Public Revenue

Since President Bill Clinton took office in January of 1993, all U.S. presidents have been vocal supporters of public charter schools. Thus,

we might expect that federal revenues shrink whatever charter school funding gaps have been created by combined state and local funding disparities.

Table 7 and Figure 4 show the funding disparities between charters and TPS based solely on federal revenue. On average, students in charter schools received \$654 less per student in federal funds than students in TPS, representing a 37 percent federal public charter

Table 7: Total Federal Public Revenue Disparity Per Student, 2017-18

Overall Funding Disparity Grade	Ranked Regions	State	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
B	Boston	MA	\$1,155	\$1,549	\$394	34%
D	Phoenix	AZ	\$798	\$834	\$36	5%
C	Houston	TX	\$1,672	\$1,491	(\$181)	-11%
F	New Orleans	LA	\$2,337	\$2,048	(\$289)	-12%
F	Tulsa	OK	\$1,215	\$1,014	(\$202)	-17%
F	Los Angeles	CA	\$2,003	\$1,113	(\$890)	-44%
C	San Antonio	TX	\$2,735	\$1,459	(\$1,276)	-47%
F	Camden	NJ	\$3,394	\$1,743	(\$1,652)	-49%
D	New York City	NY	\$1,473	\$738	(\$735)	-50%
F	Indianapolis	IN	\$2,243	\$1,066	(\$1,176)	-52%
F	Oakland	CA	\$1,812	\$816	(\$996)	-55%
F	Chicago	IL	\$2,448	\$999	(\$1,449)	-59%
F	Detroit	MI	\$3,484	\$1,421	(\$2,063)	-59%
F	Little Rock	AR	\$1,838	\$743	(\$1,095)	-60%
F	Denver	CO	\$1,598	\$638	(\$961)	-60%
A	Shelby	TN	\$2,773	\$1,085	(\$1,688)	-61%
F	Atlanta	GA	\$1,808	\$630	(\$1,177)	-65%
F	Washington	DC	\$4,590	\$1,545	(\$3,046)	-66%
Weighted Average			\$1,787	\$1,133	\$(654)	-37%

Note: Disparity Per Student (\$) is the Charter Per Student Revenue minus the District Per Student Revenue, so negative values indicate a charter school funding disadvantage. Disparity Per Student (%) is the dollar disparity divided by District Per Student Revenue.

Students in charter schools received \$654 less per student in federal funds than students in TPS, representing a 37 percent federal public charter school funding gap.

school funding gap. Public charter schools in Boston and Phoenix received more federal funding, on a per-pupil basis, than its TPS. The federal government provided students in public charter schools in the remaining 16 areas with substantially less in federal revenue than it delivered to their TPS counterparts. Public charter school students in 10 locations — New York, Indianapolis, Oakland, Chicago, Detroit, Little Rock, Denver, Shelby County, Atlanta, and Washington, D.C. — received less than half of the federal funding allocated to TPS per pupil. The federal funding inequities were especially large in Atlanta and Washington, D.C., where public charter schools received 65 to 66

percent less in per-pupil funding from the federal government than nearby TPS.

Nonpublic Revenue

Charter school critics often justify the presence of significant charter school funding gaps from public revenue sources, arguing that public charter schools more than make up the difference with charitable donations.²⁴ Both charter and traditional

Nearly two-thirds of public charter schools in that study received no revenue at all from nonpublic sources.

public schools are able to gain revenue through nonpublic sources such as food service fees, voluntary individual

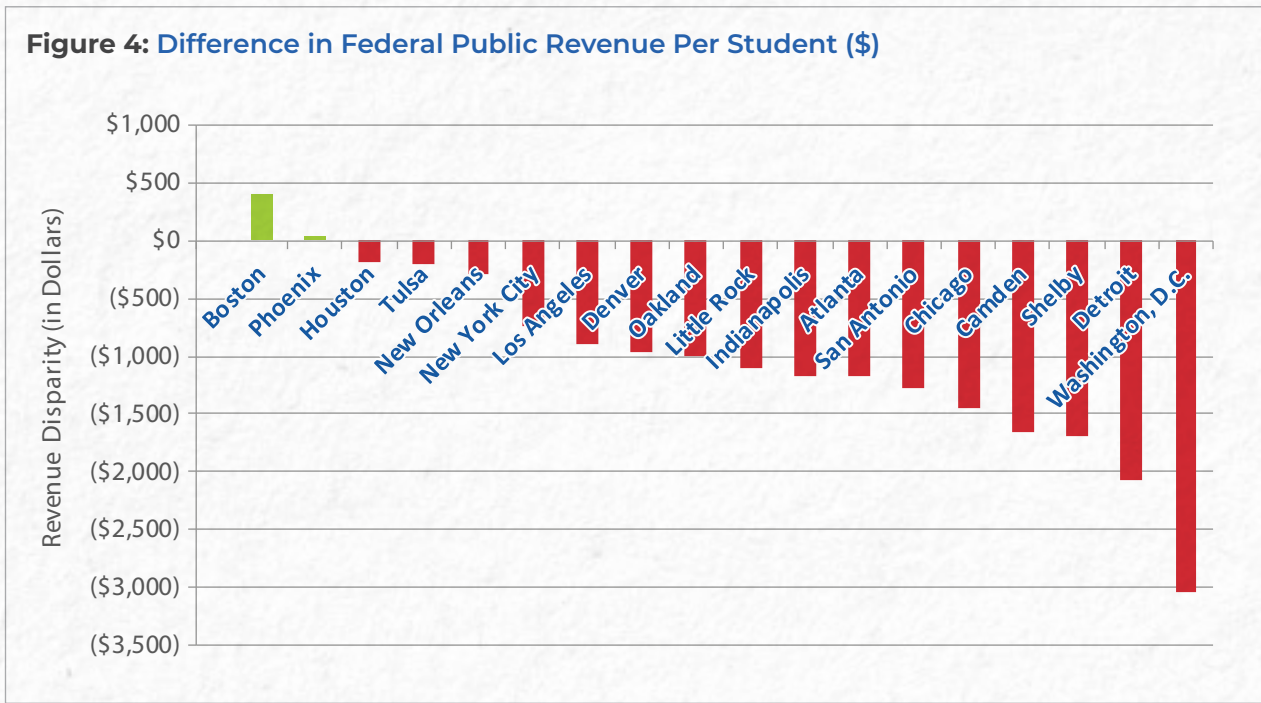
donations, and grants from charitable organizations. In our prior research on charter school funding equity, we determined that per-pupil revenue from nonpublic sources was nearly equal for students in the charter and TPS sectors, with TPS holding a slight advantage.²⁵ What was striking, however, was the fact that nonpublic revenue in the charter sector was highly skewed towards a small number of favored operators. Nearly two-thirds of public charter schools in that study received no revenue at all from nonpublic sources. What is the story regarding nonpublic revenue in the 18 locations in this study?

Our previous analysis of 14 of these locations found that public charter schools received

24 See for example Miron, G., Mathis, W., & Welner, K. (2015). Review of *separating fact and fiction*. Boulder, CO: National Education Policy Center.

25 Batdorff, M., Cheng, A., Maloney, L., May, J. F., & Wolf, P. J. (2015). [*Buckets of water into the ocean: Non-public revenue in public charter and traditional public schools*](#). Fayetteville, AR: School Choice Demonstration Project.

Figure 4: Difference in Federal Public Revenue Per Student (\$)



\$655 more in nonpublic funds per pupil than TPS in the 2015-16 school year, an advantage of 49 percent when comparing the charter average of \$1,982 against the TPS average of \$1,327.²⁶ Nonpublic revenues for the TPS in our study have surged since then, while such funding for charter schools has barely increased.

As shown in Table 8 and Figure 5, charter schools received about \$1,412 less in nonpublic funding per pupil than TPS in 2017-18, a nonpublic funding gap of 46 percent favoring TPS.

The charter average of \$1,679 in nonpublic funding per pupil was swamped by the TPS

Charter schools received about \$1,412 less in nonpublic funding per pupil than TPS in 2017-18, a nonpublic funding gap of 46 percent favoring TPS.

average of \$3,091. Eleven of the 18 locations had nonpublic revenue disparities favoring TPS. In seven of these locations — Houston, Phoenix, Camden, Chicago, Los Angeles, Little

Rock, and New Orleans — public charter schools secured less than half of the amount of

nonpublic revenues per pupil in TPS. In Chicago, TPS secured \$5,780 more in nonpublic funding per pupil than public charter schools. Where charters display a nonpublic funding

²⁶ DeAngelis, C. A., Wolf, P. J., Maloney, L. D., May, J. F. (2018, November). *Charter school funding: (More) inequity in the city*. School Choice Demonstration Project, University of Arkansas, Fayetteville, AR, Table 7, p. 25.

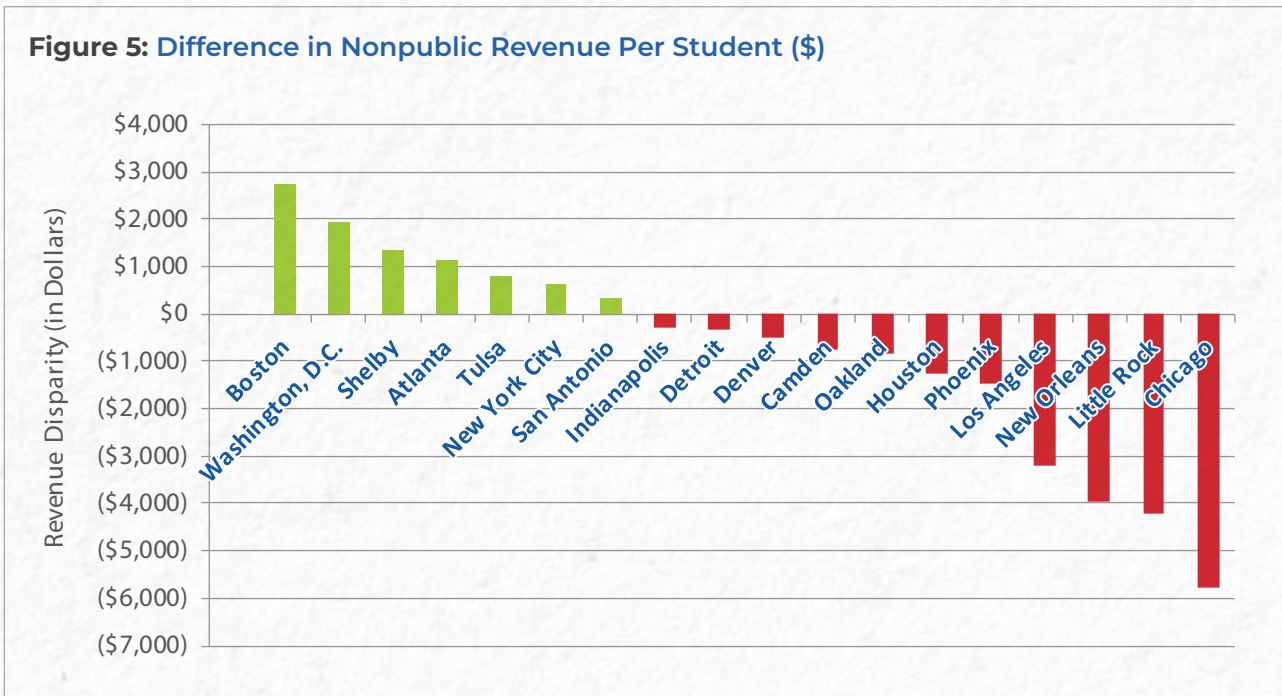
advantage, these funds merely reduced the overall charter school funding gap slightly because nonpublic funding composed only 13 percent of all revenues in our sample of cities. The two locations with the largest public charter school nonpublic funding advantage in percentage terms were Washington, D.C., where TPS received \$1,929 less per pupil, and Shelby County, where TPS secured \$1,376 less per pupil.

Table 8: Total Nonpublic Revenue Disparity Per Student, 2017-18

Overall Funding Disparity Grade	Ranked Regions	State	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
F	Washington	DC	\$203	\$2,132	\$1,929	951%
A	Shelby	TN	\$240	\$1,616	\$1,376	574%
B	Boston	MA	\$821	\$3,554	\$2,733	333%
F	Atlanta	GA	\$367	\$1,519	\$1,152	314%
F	Tulsa	OK	\$672	\$1,495	\$823	123%
C	San Antonio	TX	\$844	\$1,207	\$363	43%
D	New York City	NY	\$2,762	\$3,391	\$629	23%
F	Detroit	MI	\$1,445	\$1,100	(\$346)	-24%
F	Indianapolis	IN	\$1,177	\$891	(\$286)	-24%
F	Denver	CO	\$1,765	\$1,245	(\$520)	-29%
F	Oakland	CA	\$2,055	\$1,199	(\$856)	-42%
C	Houston	TX	\$2,130	\$865	(\$1,265)	-59%
D	Phoenix	AZ	\$2,370	\$909	(\$1,461)	-62%
F	Camden	NJ	\$1,109	\$363	(\$746)	-67%
F	New Orleans	LA	\$5,851	\$1,894	(\$3,957)	-68%
F	Chicago	IL	\$7,461	\$1,681	(\$5,780)	-77%
F	Los Angeles	CA	\$3,995	\$777	(\$3,218)	-81%
F	Little Rock	AR	\$4,734	\$531	(\$4,203)	-89%
Weighted Average			\$3,091	\$1,679	(\$1,412)	-46%

Note: Disparity Per Student (\$) is the Charter Per Student Revenue minus the District Per Student Revenue, so negative values indicate a charter school funding disadvantage. Disparity Per Student (%) is the dollar disparity divided by District Per Student Revenue.

Figure 5: Difference in Nonpublic Revenue Per Student (\$)



Revenues from Indeterminate Sources

We are not always able to identify a revenue item's specific source. If we know that the revenue is from government, but we cannot establish conclusively which level of government provided it, we classify it as "Public Indeterminate" funding. If we cannot confirm whether the revenue came from public or nonpublic sources, we classify it as "Indeterminate." All revenue received by the schools in a school sector is factored into the totals we presented in Table 1, including Public Indeterminate and Indeterminate funds. Because those categories of funds are unpredictable and nonspecific, we do not present tables of those totals in the text but, instead, display them in Appendix D by revenue type and as separate line items in the individual area profiles in Appendix C. Only 0.02 percent of the total revenues used in our analysis are "Indeterminate."

Longitudinal Results: 8 Cities

Is the condition of the charter school funding gap in 2017-18 similar to past gaps? To explore that question, we provide a longitudinal analysis for eight locations in our study for which we have data from FY2003 to FY2018. They are Atlanta, Boston, Denver, Houston, Indianapolis, Los Angeles, New York City, and Washington, D.C. Figure 6 provides the weighted average of the charter school funding gap for these eight cities across the 15 years from FY03 to FY18. The charter school funding gap more than doubled, in real inflation-adjusted dollars, over that 15-year period.

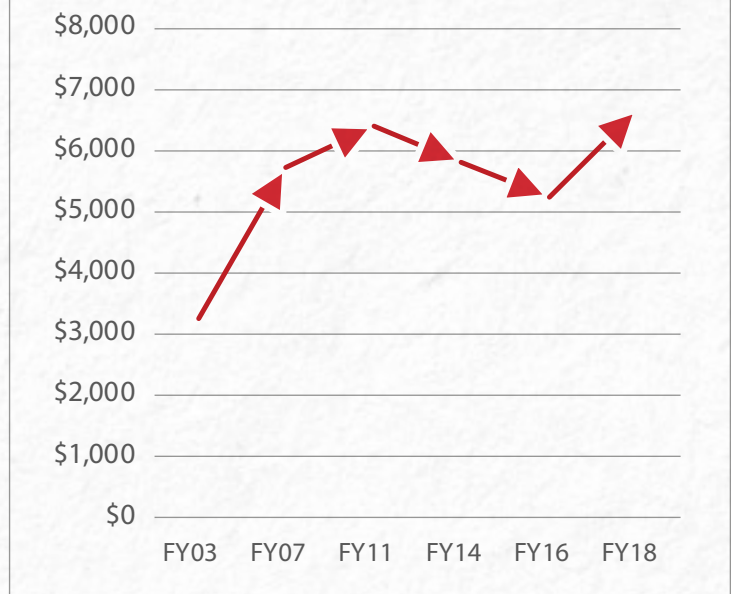
Public charter schools in these eight locations received an average of \$3,266 less in inflation-adjusted

dollars per pupil than TPS in 2003. That funding gap grew to an average of \$5,738 in 2007 and \$6,409 in 2011. Between 2011 and 2014, the funding disparity favoring TPS declined by \$595 per student. Between 2014 and 2016, the funding disparity shrunk again by \$570 per student, a 10 percent reduction in funding inequity. Between 2016 and 2018, the funding disparity grew by 28 percent. Fifteen years after we first revealed that public charter schools receive less revenue than their TPS in these eight cities, the already large charter school funding gap has more than doubled in real terms.

As described in Figure 7, specifically, since 2003, the charter school funding gap declined in Boston and Houston, but grew in Atlanta, Denver, Indianapolis, Los Angeles, New York City, and Washington, D.C. Inflation-adjusted funding disparities favoring TPS grew by over \$3,000 per student between 2003 and 2018 in five of these six locations. In Washington, D.C., the inflation-adjusted per pupil funding disparity favoring TPS increased by about \$5,300 while the disparity grew by about \$4,700 per pupil in Denver.

Much of the increase in charter school funding gaps is of recent vintage. From 2016 to 2018,

Figure 6: Aggregate Inflation-Adjusted Per Pupil Funding Gap for 8 Cities, FY03 to FY18



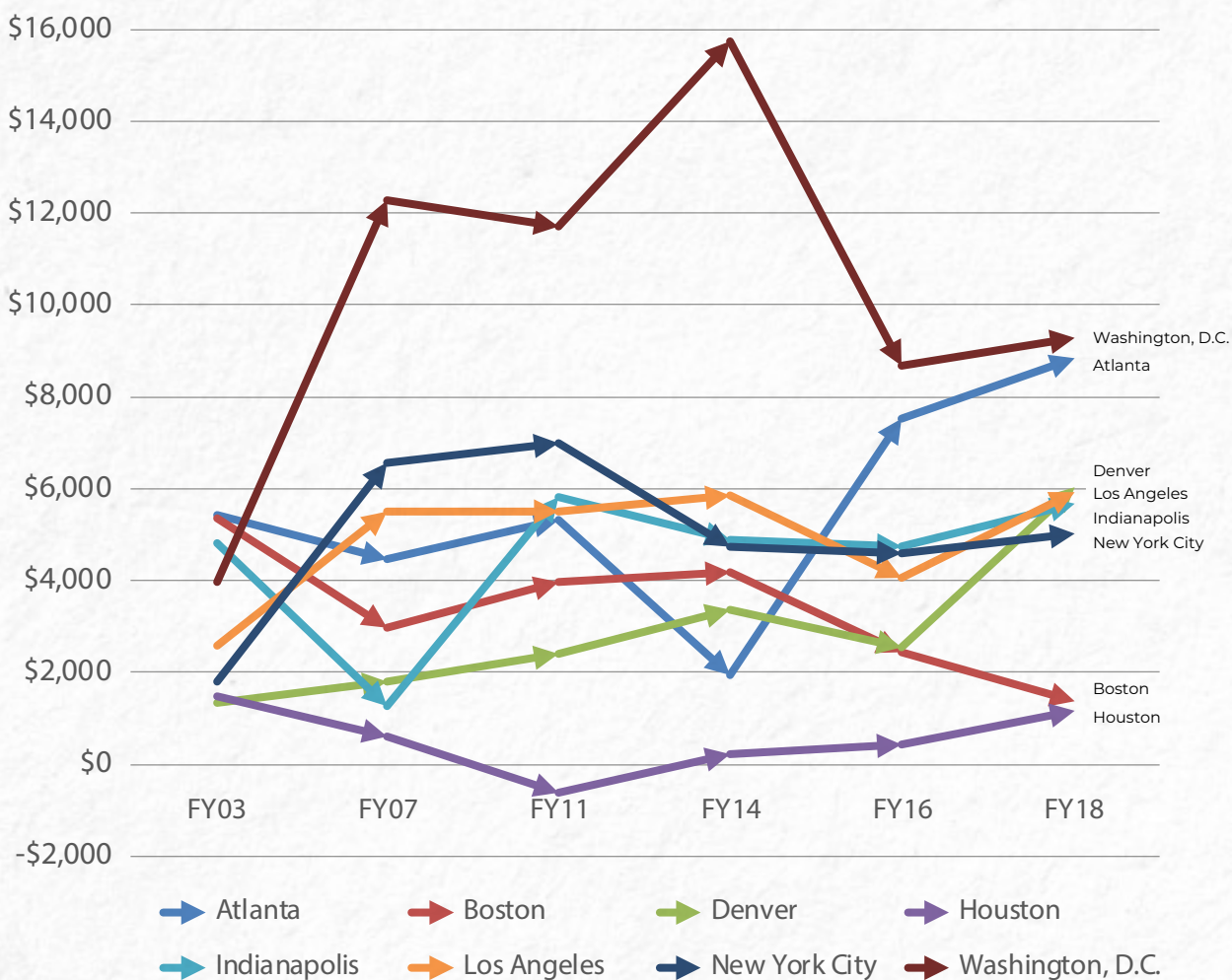
Note: Weighted average of the per-pupil revenue gap in Atlanta, Boston, Washington D.C., Denver, Houston, Indianapolis, Los Angeles, and New York City. Each per-pupil revenue gap is expressed in FY2007 Dollars.

inflation-adjusted funding gaps increased by 171 percent in Houston, 139 percent in Denver, 47 percent in Los Angeles, 19 percent in Indianapolis, 18 percent in Atlanta, 9 percent in New York City, and 7 percent in Washington, D.C. In contrast, the charter school funding gap decreased during that period by 43 percent in Boston. In per-pupil dollars, the funding gap closed in Boston by \$1,042 during that period but expanded by \$3,519 in Denver and \$1,898 in Los Angeles.

Fifteen years after we first revealed that public charter schools receive less revenue than their TPS in these eight cities, the already large charter school funding gap has more than doubled in real terms.

From 2016 to 2018, inflation-adjusted funding gaps increased by 171 percent in Houston, 139 percent in Denver, 47 percent in Los Angeles, 19 percent in Indianapolis, 18 percent in Atlanta, 9 percent in New York City, and 7 percent in Washington, D.C.

Figure 7: Inflation-Adjusted Per Pupil Funding Gap Favoring TPS in 8 Cities, 2002-03 to 2017-18



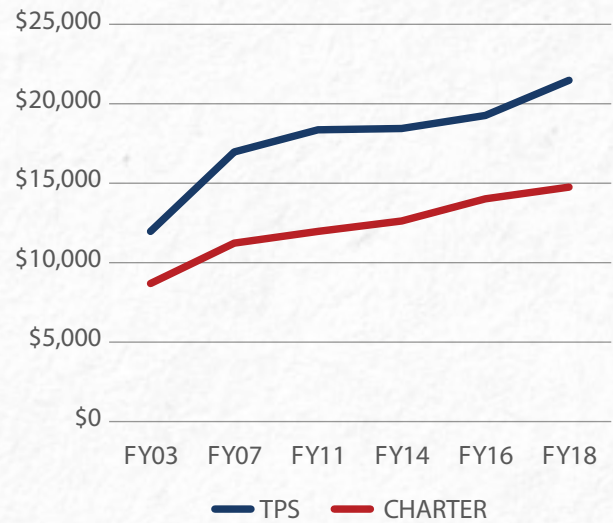
Note: For the longitudinal analysis shown in Figures 6 and 7 adjustments were made to the current analysis data to conform to the methodology in our prior revenue studies, from which the 2003, 2007, 2011, 2014, and 2016 data are drawn. For these figures only, Adult Education and Pre-K revenues and enrollments were removed from FY2014, FY2016, and FY2018 data to enhance the comparability of the numbers. Also removed for these figures only were bond and loan proceeds and any identified “in-kind” revenues.

Funding inequity worsened dramatically in Denver from 2016 to 2018 because the local revenue gap favoring TPS dramatically increased from \$8,911 in 2016 to \$15,445 in 2018 while the state revenue gap favoring charters only slightly increased from \$4,540 in 2016 to \$5,827 in 2018. The Denver TPS received a flood of new dollars from local government sources recently that were not shared proportionally with Denver public charter schools.

In Los Angeles, nonpublic revenues increased sharply (by \$2,035) for TPS but remained about the same in charters. This development fully explains the recent growth in charter school funding inequity in that city.²⁷

Two reasons could explain the recent growth in the charter school funding gap in these eight cities: Charter school funding has gone down or it has increased at a slower rate than funding for TPS. Our data show that the latter is the case. As displayed in Figure 8, inflation-adjusted per-pupil revenues across the eight cities has surged for TPS since 2016. Meanwhile, real per-pupil funding has increased at a much slower rate for the public charter sectors over that same period. The charter school funding gap is surging for the eight cities we have followed since 2003 not because charter funding is being cut but because charters are not sharing in all of the funding gains experienced by their local TPS.

Figure 8: Inflation-Adjusted Per Pupil Funding by Sector Across 8 Cities, FY03 to FY18



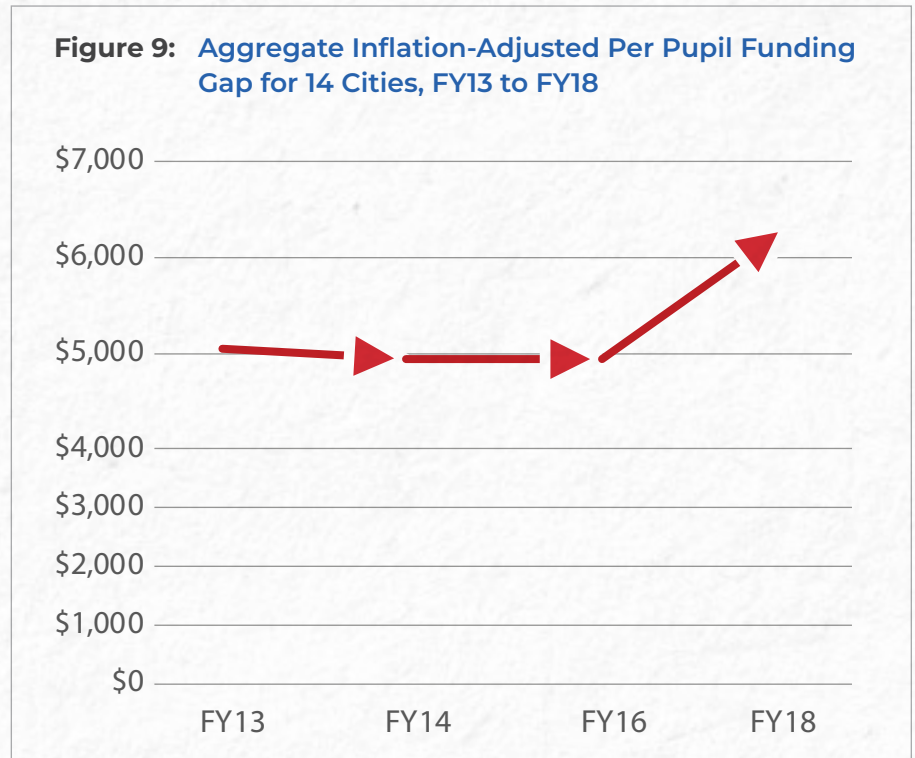
The charter school funding gap is surging for the eight cities we have followed since 2003 not because charter funding is being cut but because charters are not sharing in all of the funding gains experienced by their local TPS.

²⁷ Each of the funding amounts cited in this paragraph are expressed in current dollars.

Longitudinal Results: 14 Cities

We now have sufficient data to perform a longitudinal analysis for 14 of the cities from our main evaluation. We have funding data for these locations from four periods: 2013, 2014, 2016, and 2018. As shown in Figure 9 below, inflation-adjusted funding gaps have increased across the 14 cities by 26 percent since 2013. The funding gaps have widened across the 14 locations by 28 percent in real terms since 2016.

As shown in Figure 10 below, inflation-adjusted funding gaps favoring TPS widened between 2016 and 2018 in ten cities and shrunk in only four. Funding gaps grew in Atlanta, Camden, Denver, Houston, Indianapolis, Little Rock, Los Angeles, New York City, Tulsa, and Washington, D.C. Gaps shrunk in Boston, Oakland, San Antonio, and Shelby County. Funding gaps have also grown in more cities (8) than they have shrunk (6) since 2013. Funding gaps have grown since that time in Atlanta, Camden, Indianapolis, Los Angeles, New York City, San Antonio, Little Rock, and Tulsa, while they have shrunk in Boston, Denver,



Note: Weighted average of the per-pupil revenue gap in Atlanta, Boston, Camden, Washington D.C., Denver, Houston, Indianapolis, Los Angeles, Oakland, Shelby, Tulsa, San Antonio, Little Rock, and New York City. Each per pupil revenue gap is expressed in FY2007 Dollars.

The funding gaps have widened across the 14 locations by 28 percent in real terms since 2016.

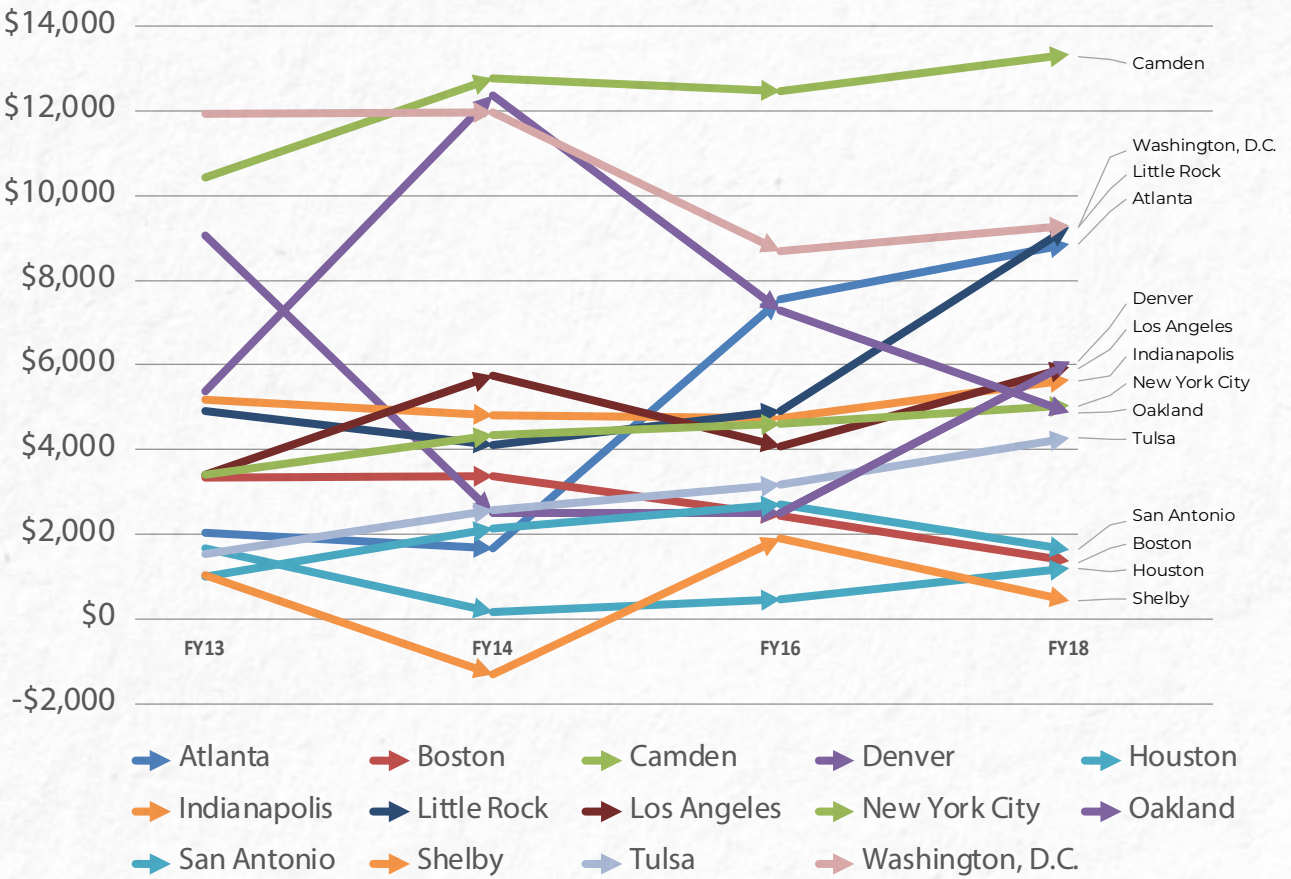
Houston, Oakland, Shelby County, and Washington, D.C.

Clearly, the impression we all get about the size and trend in public charter school funding gaps depends heavily on where and when we examine them.

The differences in per-pupil funding levels between charters and their local TPS change frequently as some jurisdictions

enact new school funding policies that reduce charter school funding inequities while other jurisdictions implement policies that increase the inequities. Unfortunately, lately, in most of the cities in our studies, the latter has happened. Charter school funding inequity has surged in those cities.

Figure 10: Inflation-Adjusted Per Pupil Funding Gap Favoring TPS in 14 Cities, FY13 to FY18



Conclusion

Public charter schools increasingly are part of both the national conversation about education policy and the local urban scene in America. Previous studies of charter schools have examined their funding disparities focused on the state level. This is our third study of funding inequities to concentrate on revenue

disparities between charters and traditional public schools where charters are most common: metropolitan areas. Our data regarding the charter school funding gap were painstakingly collected from state financial databases and audited reports regarding the 2018 fiscal year. Because 14 of our primary locations include

four periods of data, we include a longitudinal component to our study.

Sixteen out of 18 metropolitan areas in our study received a C or lower grade for charter school funding equity. Shelby County, which comprises the Memphis metropolitan area, demonstrated the greatest revenue balance between

charters and traditional public schools (TPS), as charter schools on average received 96 percent of the per-pupil funding average of TPS. Boston public charter schools were underfunded relative

Sixteen out of 18 metropolitan areas in our study received a C or lower grade for charter school funding equity.

to their TPS by 7 percent. The story got worse for charters from there. Public charter schools in Camden, New Jersey, received an average of \$16,317, or 46 percent, less in per-pupil funding than TPS. In Chicago, public charter schools received \$13,260, or 48 percent, less in per pupil funding than TPS. The per pupil funding disparity favoring TPS was 52 percent in Atlanta. Public charter schools in Little Rock received an average of \$11,327 less in per-pupil funding than TPS in that city, representing a 57 percent funding gap.

Differences in the rates of enrolling students with special educational needs fully explained the charter school funding gap in only two locations: Boston and Shelby County. For the other 12 cities in our study for which we have detailed special education expenditure data, accounting for differential funding for students with special educational needs still leaves unexplained sizable revenue gaps that favor TPS. When we control for differences across the two public school sectors in our 18 cities in enrollment rates of students with disabilities, English Language Learners, and students eligible for the federal lunch program, nearly two-thirds of the charter school funding gap remains unexplained. The inequalities

in the funding of students in public charter schools compared to traditional public schools are mostly unjustified based on the levels of disadvantage in their respective student populations. These funding inequalities are funding inequities.

A dearth of local education funding contributes mightily to the charter school funding gap in all locations studied here except four. State funding streams shrink the charter school funding gap in eight cities and widen it in nine locations, with the District of Columbia a special case with no local education funding for any school. There is a charter school funding advantage of 5 percent

These funding inequalities are funding inequities.

in state revenues. Federal education revenues, on average, generate a charter school funding discrepancy of 37 percent. Nonpublic sources of funding, composed primarily of student fees, fundraisers, and philanthropic donations, go disproportionately to TPS, producing a 46 percent charter school funding inequity in nonpublic revenue.

The gaps in the amounts of revenue dedicated to students in the charter and TPS sectors have increased over time in most of our cities. A sharp increase in the charter funding gap occurred recently, between the 2015-16 and the 2017-18 school years. The fact that TPS received 46 percent more in nonpublic revenue than charters in 2017-18 was a major contributor to

the widening of the gap. The average funding disparity of 33 percent for students attending public charter schools is the largest we have uncovered across six studies of the subject over 15 years. Charter school funding inequity is surging in our cities.

Our next report, scheduled for release in early 2021, will provide additional contextual details regarding our main findings here. That report will include an extensive discussion of how special education is funded and delivered to students in public charter schools, an analysis of spending patterns in public charter and traditional public schools, and breakouts of the components of nonpublic funding for charters and TPS as well as charter school funding gaps in our cities based on characteristics such as charter school organizational structure, type of charter authorizer, access to facilities or facilities funding, and levels of student disadvantage in a charter sector's population. In the spring of 2021, we will release a report on the comparative return-on-investment for charters and TPS. We urge interested readers to use those follow-up reports to complete the picture of public charter school funding inequities that occurred in fiscal year 2018.

Our careful analysis of funding for public charter schools and TPS in 18 metropolitan areas has revealed much about school funding inequities in the city. Public policies in all but one location we examined, Shelby County, Tennessee, resulted in the inequitable funding of students in public charter schools in 2017-18. These

inequities occur, in part, because few states have public school funding formulas that (1) include revenues from all public sources and (2) are consistent between the charter and traditional public school sectors. As our data clearly show, charter schools receive different amounts of per-pupil revenue from various funding sources, compared to traditional public schools. Charters in most cities receive little or no local education dollars even though they overwhelmingly educate students in the local community. These realities about charter school funding inequities underscore our main policy recommendation that all public funds should be combined into a single student funding formula, be matched to every K-12 child based on their educational needs and be portable so that it follows children to whichever public school they choose to attend. Charter school funding gaps need not and should not be a permanent part of the funding of public schools.

In sum, our studies of the ebbs and flows of the charter school funding gap in the U.S. continue to point towards a single conclusion. Only with a system of total student-centered funding of public education can we be confident that children will not be valued less simply because they are being educated in a public charter school.

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Appendix A

Methodology

Location Selection

The team selected 18 metropolitan areas for analysis, based on one of two criteria: the concentration of charter schools within an area or the potential for charter school growth there. Locations represent selected cities or counties used as an analysis domain for aggregating district data and geographically and demographically similar charter school data for comparative purposes. The objective of our location selection is to match district students with charter students by educational setting and student need.

Locations are used as a proxy for urban/metropolitan settings. They can include a single district or multiple districts and include geographically related multiple charter schools. The study provides district and charter revenue totals and funding disparity amounts for each location.

Fiscal Year

We gathered publicly available revenue data for the 2017-18 *fiscal year* (FY18). Because states differ in the fiscal year used for their public schools, we attempted to select the fiscal year that most closely matched the 2017-18 school year. We refer to that year throughout this report as “FY18.”

Data Gathering

Source records were acquired directly from official state department of education records, and from independently audited financial statements when a state does not collect financial data. For New York City, we used detailed expenditure data from the New York City Education Department due to the greater level of detail available. We use the most reliable, most detailed, official records available. The same data and analysis standards for the past three revenue studies were applied for each location in the study.

Revenues and expenditures were collected from many sources, from state and federal agencies where these data are kept, as well as from audits. After the FY18 school year concluded, the team waited 18 months to begin researching this project to allow state departments of education and charter schools time to produce and submit all of their official financial records, Annual Financial Reports, independent audits, enrollment statistics, and other data. The methodology matches a state’s Department of Education’s (DOE) records of school district revenues to the same fiscal year of data drawn from independent audits for the charter schools. Because all data analyzed for districts and charter schools are as of the same

date, FY18, all data are properly matched based on reporting time period.

The analytic team did not rely upon finance data or demographic data collected by federal agencies, except in very rare cases where the data are not available from state and local sources. Data sourced from Federal agencies have gone through extensive aggregation and reporting processes that tend to be aggregated to the point where there is insufficient specificity to be useful for our analysis, and where we have seen reporting errors when checked against state sources. Due to lack of enrollment data for Title I and students qualifying for Free & Reduced Price Meals from some states, Federal NCES data were used for these special enrollment statistics for Table 2 in the study.

Data from Various Unique State Sources, Analyzed into Comparative Datasets

In each state, we encountered a maze of websites, reports, audits, and other information that, while extremely challenging to piece together, ultimately provided the best sources of primary data for understanding and analysis of funding levels and comparisons. By using each state’s individual accounting system,

we were able to isolate revenue streams for inclusion/exclusion to accommodate our consistent methodology and to make valid comparisons across locations.

We began our research on state websites, searching for financial data reported by local, state, federal, and other revenue categories. Though many states provided some form of revenue data, often the data existed only for school districts (not charters), or the data did not conform to the classifications used in other states. In those cases, we used additional data sources to develop conforming revenue figures. In instances where the state did not collect charter school revenue data, we used independent audits of financial data and sometimes federal Form 990.

We gathered enrollment data from state education department websites. We also obtained funding formula guidelines for both districts and charters for FY18.

Analysis of Revenues, Expenditures, Inclusions and Exclusions, Demographic Context

We studied revenues and special education expenditures for this report. Our mission was to examine how charter schools are treated in state public finance systems, so we focused on how much money schools receive and, secondarily, how much of their revenue they spent on special education services. We looked for the following data and supporting detail:

- **Revenues:** We included all revenues received by districts and public charter schools, including the value of administrative services provided to charters by entities such as Charter Management Organizations and Education Management Organizations. Our goal was to determine the total amount of revenue received to run all facets of a school system, regardless of source. For charter schools, we included one-time revenues associated with starting the school, such as the federal Public Charter School Program and, in some cases, state and private grants. Fund transfers are not considered revenue items and are not included in the analysis.

Arguably, one-time revenues could have been excluded since they are not part of a charter school's recurring revenues. However, they are a notable part of the funding story for the charter sector; when considering how much money is provided to run charter schools, these revenues cannot be and were not ignored. Furthermore, we also included onetime grants of various kinds to districts.

- Funds initially received by traditional public schools that were passed along to charters usually were flagged as pass-through funds in the documentation we used to determine charter school revenue. In some cases we were able to identify additional

cases of TPS providing services to charter students, usually involving special education, through examining expenditure data. In all cases where we were able to determine that TPS funds either passed through to charters or were spent on charter school students we counted that as charter school revenue and not TPS revenue. For example, the New York City school district made \$423.5 million in in-kind expenditures supporting the charter schools in the city in FY18. We reduced the district's revenue by \$423.5 million and increased the charter sector total by the same amount, as that revenue supported charter students.

- **Enrollment:** Where more than one form of enrollment data were available, we used the figures related to the official fall count day. Depending on a state's particular method of reporting enrollment, the official count could be either Average Daily Attendance (ADA) or Average Daily Membership (ADM).
- **Comparable Longitudinal Data:** This analysis includes revenues and enrollments related to Adult Education and Pre-K. Also included are charter school contributions for the purpose of building schools (or other capital items), and similarly charter (if any) and district bond and loan proceeds for the purpose of building schools, excluding proceeds resulting from restructuring of debt.

Our previous Revenue Study methodology for FY03, FY07, and FY11 excluded bond and loan proceeds and Adult Education and Pre-K to enhance entire state-to-state comparability in an environment with varied educational settings. We changed our methodology for FY14, FY16, and FY18, making it more inclusive of all revenues, because it is common for all schools in urban educational settings to provide these auxiliary services and to take on debt for building construction, renovation, and maintenance. For the longitudinal analysis shown in FIG. 6 adjustments were made to the current analysis data to conform to the Revenue Study methodology. For FIG. 6 only, Adult Education and Pre-K revenues and enrollments were removed from FY14, FY16, and FY18 data. Also removed, for FIG. 6 only, were bond and loan proceeds and any identified “in-kind” revenues.

- **Exclusion of Revenue:** The only revenue item we excluded from our analysis was funds resulting from the restructuring of debt, as those are not “new revenues” but merely a re-packaging of existing assets and obligations.
- **Selection of Schools:** All charter schools in each locality were included in this study with the exception of schools for which we could not obtain valid revenue and enrollment data. If we could not obtain revenue data, the enrollments for those schools

were excluded from the analysis. If we could not obtain enrollment data, the revenues for that school were excluded from the analysis.

- **Demographic Data:** To better understand the funding gaps in each location, we collected data on students eligible for free or reduced price lunch programs, students that were English Language Learners, and where available, special education programs. These data appear in Table 2. Because some schools choose not to participate in the free and reduced price lunch program even though they enroll significant numbers of low-income children, these data exclude district and charter schools that reported zero free and reduced price lunch students.

Revenue Source Classifications

The revenue analysis classifies revenues by source. The six source classifications – which apply to both districts and charter schools -- include the following:

- **Federal** – Revenues whose origins are federal taxation and public usage fees. These revenues may include federal impact aid, Title I, mineral rights and access payments, federal charter school startup revenues, ARRA funds, and federal “State Fiscal Stabilization Fund” grants, and any other obviously federal revenue.
- **State** – Revenues whose origins are state taxation and public

licensing and usage fees. These revenues may originate from sales taxes, property taxes, licensing fees, auto registrations, lotteries, or any other state origins.

- **Local** – Revenues whose origins are local taxation and public per capita and usage fees. The most common local source is local property taxes and may also include piggy-back sales taxes, per capital taxes, local capital bonds, and any other allowed local revenue sources.
- **Other** – Revenues from non-tax, nonpublic sources. These revenues include gate receipts, meal sales, philanthropy, fundraising, interest on bank accounts and investments, and any other non-tax revenues.
- **Public-Indeterminate** – A revenue item is classified as Public-Indeterminate if it can be determined that the item is from public taxation but due to lack of the state’s accounting record specificity it cannot be determined if it is from a Federal, State, or Local source. In some cases, districts in our study will show a negative value for Public-Indeterminate. When financial files indicate that the district has received funds on behalf of charter schools, and it is unclear whether those funds originated from Local, State or Federal sources, we record the pass-through of those funds to the charter schools as Public-Indeterminate revenue for the district. If the district does

not have any revenue already classified in this category, it results in a negative value.

- **Indeterminate** – If the State’s financial detail lacks sufficient specificity to classify a revenue item into any of the other five source classifications, then that revenue item is classified as “Indeterminate.”

Negative Revenue Amounts

If an analyst backs out revenue amounts for items that are exclusions based on the revenue study methodology, the actual line item amounts are removed, flagged to be excluded in totals, or a negative revenue item is added to the file. The method used is dependent upon the specificity of the data record available to the analyst and based on the nature of the adjustment and data structure. When any adjustment amount is added to the file it is added to the most appropriate source category and is specific to districts versus charter schools.

Negative revenue amounts can occur when one side of an accounting entry is classified into one source category and the other side of the accounting entry is classified into a different source category. Negative revenue amounts occur naturally in most financial systems for a variety of reasons. They have a small net effect on the categorical totals for Federal, State, Local, and Other revenues used in this study.

Expenditures

For the purpose of this study, we included all expenditures made by a district or a public charter school with the exceptions below:

- **Identifying Special Education Expenditures:** All financial accounts were evaluated to determine if the fund, program, or source identified the expenditure as supporting special education programming. In the case of some charter schools where the state does not collect detailed financial data, we used the school’s program designation.
- **Intra-agency Transfers:** Transfer payments between accounts could lead to double counting of expenditures and therefore were excluded from the analysis.
- **In-Kind Payments:** Where noted, we excluded any non-cash services provided by the district that supported public charter schools. Our intention is to determine how much funding supports students in each type of education setting. When the district documentation indicated In-Kind services were provided to public charter schools but the charters did not record those services on their balance sheets, we included those in-Kind services as part of the costs of operating the public charter schools.

Inflation Adjustments

Inflation-adjustments were used in the revenue study for the comparative longitudinal metrics and discussions. All inflation adjustments are made to 2007 dollars. Therefore, FY03 dollar amounts were adjusted by a factor of 1.1130 to 2007 dollars, FY07 metrics remained at face amount, FY11 amounts were adjusted by a factor of 0.9227, FY14 funds by 0.8641, FY16 funds by 0.8485, and FY18 funds by 0.8181. The source for these inflation adjustment factors is the Bureau of Labor Statistics – their CPI Inflation Calculator at: <http://data.bls.gov/cgi-bin/cpicalc.pl>.

Rounding

Dollar values are rounded to the nearest dollar for each chart, so some totals may be off by \$1 compared to the sum of the visible values on a chart. Similarly, some values may differ by \$1 for the same metric depending on the analysis source for that metric. Percentages also are rounded to the nearest whole number, which may cause apparent differences by a percentage.

Tables and Charts

If no citation accompanies a table or chart, the information therein was compiled by the research team according to the process outlined above. When we relied on the data or publications of other organizations, we provide the relevant citation.

Weighted Average Calculations

The totals presented in each table are weighted averages based on enrollments in each city. We generate them by taking the revenue totals for each metropolitan area in the table, adding them up, then dividing that aggregate by the total combined student enrollment for those metropolitan areas. We do this separately for the TPS and charter sectors. The average funding gap, then, is the total charter average minus the total TPS average. This straightforward method automatically generates a per-pupil average that is a “true” mean for the aggregated set of cities, given their different enrollments. The relative contribution of each metropolitan area to our 17-city averages is presented in Table A1.

Table A1: Percent of Students from Study Locations, 2017-18

Overall Funding Disparity Grade	Ranked Regions	State	Percent of Total (Districts)	Percent of Total (Charters)
F	Los Angeles	CA	17.83%	18.10%
D	New York City	NY	33.66%	17.51%
F	Chicago	IL	10.98%	9.27%
F	New Orleans	LA	0.10%	7.41%
F	Washington	DC	1.69%	6.76%
C	Houston	TX	7.50%	5.68%
F	Detroit	MI	1.78%	5.55%
D	Phoenix	AZ	11.02%	5.01%
F	Indianapolis	IN	0.97%	4.30%
F	Atlanta	GA	1.51%	4.23%
A	Shelby	TN	3.17%	3.68%
F	Denver	CO	2.52%	3.25%
F	Oakland	CA	1.30%	2.55%
B	Boston	MA	1.84%	2.19%
C	San Antonio	TX	1.77%	1.60%
F	Camden	NJ	0.28%	1.35%
F	Little Rock	AR	0.78%	0.98%
F	Tulsa	OK	1.31%	0.59%

Appendix B

Information Sources

Arizona

- Arizona Department of Education's Annual Financial Report Excel templates for each charter school and school district

Arkansas

- Arkansas Department of Education

California

- California Department of Education, the California Longitudinal Pupil Achievement Data System (CALPADS)

Colorado

- Colorado Department of Education, the School Finance Unit

District of Columbia

- District of Columbia Public Charter School Board
- District of Columbia Department of Revenue

Georgia

- Georgia Department of Education, Office of Finance and Business Operations and Charter Schools Office
- Georgia Charter Schools Association
- Fulton County Schools Finance and Business
- Atlanta Public Schools Financial Services and Charter Schools Office

Illinois

- Annual Financial Reports (independent audits) provided by the Illinois Department of Education

Indiana

- Indiana Department of Education, School Finance

Louisiana

- Louisiana Department of Education, School Finance

Massachusetts

- Massachusetts Department of Elementary and Secondary Education, School Finance
- Massachusetts Department of Elementary and Secondary Education, Charter Schools Office
- NCES
- Massachusetts Department of Revenue, Division of Local Services

Michigan

- Michigan Department of Education (MDE), Center for Educational Performance & Information (CEPI)

New Jersey

- New Jersey Department of Education, School Finance

New York

- New York State Education Department
- Audited Annual Financial Reports from school districts

Oklahoma

- Oklahoma Department of Education

Tennessee

- Tennessee Charter School Center
- Tennessee Comptroller of the Treasury
- Tennessee Department of Education

Texas

- Texas Education Agency's (TEA) Public Education Information System (PEIMS) Access database

Nationwide

- The National Alliance for Public Charter Schools
- The National Institute for Early Education Research at Rutgers Graduate School of Education

Appendix C

Summary Tables for Each Location

Below are tables which summarize the data presented in the report for each location. They are ordered from the metropolitan area with the revenue disparity most favorable to charters to the area with the disparity most favorable to traditional public schools.

Table C1: Revenue Disparities for Shelby, FY18 (Grade of A)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$12,842	\$12,292	(\$550)	-4%
Total without SPED	\$11,469	\$12,211	\$742	6%
Local Public	\$5,696	\$0	(\$5,696)	-100%
State Public	\$5,682	\$530	(\$5,152)	-91%
Federal Public	\$2,773	\$1,085	(\$1,688)	-61%
Nonpublic	\$240	\$1,616	\$1,376	574%
Public Indeterminate	(\$1,548)	\$9,061	\$10,609	~
Indeterminate	\$0	\$86	\$86	~

Table C2: Revenue Disparities for Boston, FY18 (Grade of B)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$25,628	\$23,930	(\$1,698)	-7%
Total without SPED	\$19,371	\$22,257	\$2,886	15%
Local Public	\$18,953	\$0	(\$18,953)	-100%
State Public	\$4,698	\$15,667	\$10,970	234%
Federal Public	\$1,155	\$1,549	\$394	34%
Nonpublic	\$821	\$3,554	\$2,733	333%
Public Indeterminate	\$0	\$0	\$0	~
Indeterminate	\$0	\$0	\$0	~

Table C3: Revenue Disparities for Houston, FY18 (Grade of C)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$13,341	\$11,886	(\$1,455)	-11%
Total without SPED	\$12,336	\$11,299	(\$1,037)	-8%
Local Public	\$8,309	\$0	(\$8,309)	-100%
State Public	\$1,230	\$9,530	\$8,300	675%
Federal Public	\$1,672	\$1,491	(\$181)	-11%
Nonpublic	\$2,130	\$865	(\$1,265)	-59%
Public Indeterminate	\$0	\$0	\$0	~
Indeterminate	\$0	\$0	\$0	~

Table C4: Revenue Disparities for San Antonio, FY18 (Grade of C)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$13,830	\$11,818	(\$2,012)	-15%
Total without SPED	\$12,245	\$11,064	(\$1,181)	-10%
Local Public	\$5,050	\$0	(\$5,050)	-100%
State Public	\$5,200	\$9,152	\$3,951	76%
Federal Public	\$2,735	\$1,459	(\$1,276)	-47%
Nonpublic	\$844	\$1,207	\$363	43%
Public Indeterminate	\$0	\$0	\$0	~
Indeterminate	\$0	\$0	\$0	~

Table C5: Revenue Disparities for New York City, FY18 (Grade of D)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$32,420	\$26,242	(\$6,178)	-19%
Total without SPED	\$30,164	\$23,204	(\$6,960)	-23%
Local Public	\$19,268	\$12,477	(\$6,791)	-35%
State Public	\$10,846	\$8,472	(\$2,375)	-22%
Federal Public	\$1,473	\$738	(\$735)	-50%
Nonpublic	\$2,762	\$3,391	\$629	23%
Public Indeterminate	(\$1,930)	\$1,164	\$3,094	~
Indeterminate	(\$288)	\$2,499	\$2,787	~

Table C6: Revenue Disparities for Phoenix, FY18 (Grade of D)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$11,824	\$9,063	(\$2,761)	-23%
Total without SPED	\$10,375	\$8,517	(\$1,858)	-18%
Local Public	\$4,915	\$0	(\$4,915)	-100%
State Public	\$3,515	\$7,320	\$3,805	108%
Federal Public	\$798	\$834	\$36	5%
Nonpublic	\$2,370	\$909	(\$1,461)	-62%
Public Indeterminate	\$227	\$0	(\$227)	-100%
Indeterminate	\$0	\$0	\$0	~

Table C7: Revenue Disparities for Detroit, FY18 (Grade of F)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$15,539	\$10,967	(\$4,572)	-29%
Total without SPED	\$13,915	\$10,500	(\$3,415)	-25%
Local Public	\$1,069	\$30	(\$1,040)	-97%
State Public	\$9,541	\$8,417	(\$1,124)	-12%
Federal Public	\$3,484	\$1,421	(\$2,063)	-59%
Nonpublic	\$1,445	\$1,100	(\$346)	-24%
Public Indeterminate	\$0	\$0	\$0	~
Indeterminate	\$0	\$0	\$0	~

Table C8: Revenue Disparities for Oakland, FY18 (Grade of F)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$19,108	\$13,130	(\$5,978)	-31%
Total without SPED	NA	NA	NA	NA
Local Public	\$5,900	\$2,103	(\$3,797)	-64%
State Public	\$9,308	\$9,012	(\$296)	-3%
Federal Public	\$1,812	\$816	(\$996)	-55%
Nonpublic	\$2,055	\$1,199	(\$856)	-42%
Public Indeterminate	\$33	\$0	(\$33)	-100%
Indeterminate	\$628	\$0	(\$628)	-100%

Oakland handles SPED support and reporting for charter schools differently than all other cities in our study. The Oakland Unified School District, the Alameda Office of Education, and Alameda Unified School District, all with charters located within the boundaries of Oakland, imbed financial data for the charters in each district's financial reporting to the California Department of Education, just as Los Angeles Unified does. However, the two cities differ in the level of detail captured in the reporting. Los Angeles provides the same level of detailed reporting for the charter schools as it does for the district, making it possible to determine how much is spent on special education. Oakland Unified, however, does not report charter school financial data with the same level of detail as reported for the school district. Therefore, it is not possible to determine how much has been spent on special education for students attending Oakland charter schools.

Table C9: Revenue Disparities for Washington, D.C., FY18 (Grade of F)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$36,266	\$24,896	(\$11,370)	-31%
Total without SPED	\$30,231	\$22,462	(\$7,769)	-26%
Local Public	~	~	~	~
State Public	\$31,473	\$21,184	(\$10,289)	-33%
Federal Public	\$4,590	\$1,545	(\$3,046)	-66%
Nonpublic	\$203	\$2,132	\$1,929	951%
Public Indeterminate	\$0	\$35	\$35	~
Indeterminate	\$0	\$17	\$17	~

Table C10: Revenue Disparities for New Orleans, FY18 (Grade of F)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$18,694	\$12,520	(\$6,174)	-33%
Total without SPED	NA	NA	NA	NA
Local Public	\$8,599	\$10,449	\$1,849	22%
State Public	\$1,907	\$4,306	\$2,399	126%
Federal Public	\$2,337	\$2,048	(\$289)	-12%
Nonpublic	\$5,851	\$1,894	(\$3,957)	-68%
Public Indeterminate	\$0	-\$6,176	(\$6,176)	~
Indeterminate	\$1,309	\$639	(\$670)	-51%

Table C11: Revenue Disparities for Los Angeles, FY18 (Grade of F)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$20,783	\$13,488	(\$7,295)	-35%
Total without SPED	\$17,542	\$13,314	(\$4,228)	-24%
Local Public	\$4,079	\$2,386	(\$1,693)	-42%
State Public	\$10,729	\$8,719	(\$2,010)	-19%
Federal Public	\$2,003	\$1,113	(\$890)	-44%
Nonpublic	\$3,995	\$777	(\$3,218)	-81%
Public Indeterminate	(\$23)	\$493	\$515	~
Indeterminate	\$3,035	\$0	(\$3,035)	-100%

Table C12: Revenue Disparities for Denver, FY18 (Grade of F)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$20,827	\$13,433	(\$7,395)	-36%
Total without SPED	\$17,780	\$12,337	(\$5,443)	-31%
Local Public	\$15,463	\$19	(\$15,445)	-100%
State Public	\$2,132	\$7,959	\$5,827	273%
Federal Public	\$1,598	\$638	(\$961)	-60%
Nonpublic	\$1,765	\$1,245	(\$520)	-29%
Public Indeterminate	(\$132)	\$3,572	\$3,704	~
Indeterminate	\$0	\$19	\$19	~

Table C13: Revenue Disparities for Tulsa, FY18 (Grade of F)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$12,949	\$7,686	(\$5,263)	-41%
Total without SPED	\$11,768	\$7,280	(\$4,488)	-38%
Local Public	\$7,006	\$0	(\$7,006)	-100%
State Public	\$3,757	\$5,177	\$1,420	38%
Federal Public	\$1,215	\$1,014	(\$202)	-17%
Nonpublic	\$672	\$1,495	\$823	123%
Public Indeterminate	\$299	\$0	(\$299)	-100%
Indeterminate	\$1	\$433	\$432	43200%

Table C14: Revenue Disparities for Indianapolis, FY18 (Grade of F)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$16,230	\$9,299	(\$6,932)	-43%
Total without SPED	\$14,891	\$8,697	(\$6,194)	-42%
Local Public	\$4,133	\$0	(\$4,133)	-100%
State Public	\$8,678	\$7,342	(\$1,336)	-15%
Federal Public	\$2,243	\$1,066	(\$1,176)	-52%
Nonpublic	\$1,177	\$891	(\$286)	-24%
Public Indeterminate	\$0	\$0	\$0	~
Indeterminate	\$0	\$0	\$0	~

Table C15: Revenue Disparities for Camden, FY18 (Grade of F)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$35,216	\$18,899	(\$16,317)	-46%
Total without SPED	\$30,168	\$17,898	(\$12,270)	-41%
Local Public	\$938	\$2,863	\$1,925	205%
State Public	\$45,014	\$13,831	(\$31,183)	-69%
Federal Public	\$3,394	\$1,743	(\$1,652)	-49%
Nonpublic	\$1,109	\$363	(\$746)	-67%
Public Indeterminate	(\$15,239)	\$99	\$15,338	~
Indeterminate	\$0	\$12	\$12	~

Table C16: Revenue Disparities for Chicago, FY18 (Grade of F)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$27,859	\$14,600	(\$13,260)	-48%
Total without SPED	NA	NA	NA	NA
Local Public	\$9,775	\$0	(\$9,775)	-100%
State Public	\$7,004	\$9,627	\$2,623	37%
Federal Public	\$2,448	\$999	(\$1,449)	-59%
Nonpublic	\$7,461	\$1,681	(\$5,780)	-77%
Public Indeterminate	\$1,172	\$2,293	\$1,122	96%
Indeterminate	\$0	\$0	\$0	~

Table C17: Revenue Disparities for Atlanta, FY18 (Grade of F)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$20,861	\$10,020	(\$10,841)	-52%
Total without SPED	NA	NA	NA	NA
Local Public	\$14,729	\$0	(\$14,729)	-100%
State Public	\$4,057	\$3,839	(\$218)	-5%
Federal Public	\$1,808	\$630	(\$1,177)	-65%
Nonpublic	\$367	\$1,519	\$1,519	314%
Public Indeterminate	(\$99)	\$4,032	\$4,131	~
Indeterminate	\$112	\$981	\$870	777%

Table C18: Revenue Disparities for Little Rock, FY18 (Grade of F)

Type	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)	Disparity Per Student (%)
Total	\$19,773	\$8,446	(\$11,327)	-57%
Total without SPED	\$18,250	\$7,688	(\$10,562)	-58%
Local Public	\$7,361	\$0	(\$7,361)	-100%
State Public	\$5,839	\$7,157	\$1,318	23%
Federal Public	\$1,838	\$743	(\$1,095)	-60%
Nonpublic	\$4,734	\$531	(\$4,203)	-89%
Public Indeterminate	\$1	\$15	\$14	1400%
Indeterminate	\$0	\$0	\$0	~

Appendix D

Indeterminate Revenue Streams

Some sources of revenue for public charter and traditional public schools are documented too vaguely for us to clearly assign them to our primary categories of Federal, State, Local, and Nonpublic funds. If it is clear that the revenue is from a public source, but we cannot determine conclusively which level of government provided it, we classify it as “Public Indeterminate.” If all we can tell is that it is revenue, and cannot discern the source of the revenue, we classify it as “Indeterminate.” Public Indeterminate and Indeterminate funds are included in our calculations of total per-pupil revenues by sector presented in Table 1, consistent with our approach of accounting for all revenue from all sources. We present them in an appendix here, instead of in the main text, because they are unpredictable and idiosyncratic.

Table D1: Public Indeterminate Revenue Disparity Per Student, 2017-18

Overall Funding Disparity Grade	Ranked Regions	State	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)
A	Shelby	TN	(\$1,548)	\$9,061	\$10,609
B	Boston	MA	\$0	\$3,159	\$3,159
C	Houston	TX	\$0	\$0	\$0
C	San Antonio	TX	\$0	\$0	\$0
D	New York City	NY	(\$1,930)	\$1,164	\$3,094
D	Phoenix	AZ	\$227	\$0	(\$227)
F	Detroit	MI	\$0	\$0	\$0
F	Oakland	CA	\$33	\$0	(\$33)
F	Washington	DC	\$0	\$35	\$35
F	New Orleans	LA	\$0	(\$6,176)	~
F	Los Angeles	CA	(\$23)	\$493	\$515
F	Denver	CO	(\$132)	\$3,572	\$3,704
F	Tulsa	OK	\$299	\$0	(\$299)
F	Indianapolis	IN	\$0	\$0	\$0
F	Camden	NJ	(\$15,239)	\$99	\$15,338
F	Chicago	IL	\$1,172	\$2,293	\$1,122
F	Atlanta	GA	(\$99)	\$4,032	\$4,131
F	Little Rock	AR	\$1	\$15	\$14
Weighted Average			(\$592)	\$742	\$1,333

Table D2: Non-Specified Indeterminate Revenue Disparity Per Student, 2017-18

Overall Funding Disparity Grade	Ranked Regions	State	District Per Student Revenue	Charter Per Student Revenue	Disparity Per Student (\$)
A	Shelby	TN	\$0	\$86	\$86
B	Boston	MA	\$0	\$0	\$0
C	Houston	TX	\$0	\$0	\$0
C	San Antonio	TX	\$0	\$0	\$0
D	New York City	NY	(\$288)	\$2,499	\$2,787
D	Phoenix	AZ	\$0	\$0	\$0
F	Detroit	MI	\$0	\$0	\$0
F	Oakland	CA	\$628	\$0	(\$628)
F	Washington	DC	\$0	\$17	\$17
F	New Orleans	LA	\$1,309	\$639	(\$670)
F	Los Angeles	CA	\$3,035	\$0	(\$3,035)
F	Denver	CO	\$0	\$19	\$19
F	Tulsa	OK	\$1	\$433	\$432
F	Indianapolis	IN	\$0	\$0	\$0
F	Camden	NJ	\$0	\$12	\$12
F	Chicago	IL	\$0	\$0	\$0
F	Atlanta	GA	\$112	\$981	\$870
F	Little Rock	AR	\$0	\$0	\$0
Weighted Average			\$455	\$534	\$79

Authors



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Larry Maloney

Mr. Maloney is president of Aspire Consulting and has investigated expenditure patterns of the nation's public schools on behalf of states and individual school districts since 1992. Mr. Maloney participated in the research team for the Fordham Institute revenue study in 2005, the Ball State University revenue study in 2010, and the University of Arkansas study in 2014. Recent projects include evaluations of revenues and expenditure patterns of eleven major metropolitan school districts and the charter schools located within their boundaries. Mr. Maloney co-authored a series of reports for the Fordham Institute on future retirement costs for three school districts, as well as conducting a school-by-school expenditure analysis for the Washington, D.C. region. He served as the evaluator for a U.S. Department of Education program designed to enhance the level of products and services provided by state charter associations. Additionally, he provided the financial analysis for the U.S. Government Accountability Office study of Title 1 expenditures and the U.S. Department of Education National Charter School Finance Study.



Jay F. May

Mr. May is founder of, and senior consultant for, EduAnalytics, LLC, a consulting practice focused on hands-on data-based initiatives to improve student performance. Mr. May's client work includes developing technology infrastructure for various aspects of student performance management – student information systems, instructional data management systems, assessment results delivery and analysis frameworks. Mr. May, a CPA, has expertise in K-12 education finances and provides research, consulting, and analysis for various aspects of funding equity and allocation. He is a co-inventor of In\$ite®- the Finance Analysis Model for Education ® - a patented software tool for school-level and district-level expenditure analysis.