

# Shortchanging Ohio's charter students:

An analysis of charter funding in fiscal years 2015–17

Aaron Churchill

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## Frequently used acronyms and terms

**Big Eight:** Ohio's eight high-poverty urban districts, which include Akron, Canton, Cincinnati, Cleveland, Columbus, Dayton, Toledo, and Youngstown. **Big Eight charter schools** refer to brick-and-mortar charters located within these eight districts.

**ED:** Economically disadvantaged. In general, ED students are identified based on eligibility for federal free and reduced-priced lunch, a program for students with household incomes at or below 185 percent of federal poverty levels.

**ELL:** English-language learner.

**ESC:** Educational service centers, which are regional institutions that provide services to districts and charter schools.

**FY:** Fiscal year. District and charter schools' fiscal years run from July 1 to June 30.

**ODE:** Ohio Department of Education.

**ORC:** Ohio Revised Code.

**SWD:** Students with disabilities.

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## Introduction and summary

Ever since the first charter school opened in Minnesota in 1992, the battle for fair funding has raged across the land. Advocates of charters—independently run, nonprofit public schools—have pressed hard to eliminate the massive disparities in the funding that charter students receive when compared with their district-operated peers serving similar children. These discrepancies—about \$3,500 per student less for charters, according to the most recent national study (2014)—arise for no other reason than that children choose to attend a charter rather than a district school. They linger in many places even though charters enjoy growing popularity, with parents now entrusting 3.2 million children to teachers working in 7,000 public charter schools. Evidence from various locales shows that charters significantly boost the achievement of students, particularly poor and minority youngsters residing in urban communities, and increase their odds of success in college and beyond.

Based on these resounding successes, one might be tempted to think that charters would easily win support for equitable funding. But that hasn't happened. In many places, discrepancies have worsened, as moves to equalize funding are stymied by charter opponents. Those opponents, many of them closely tied to entrenched adult interest groups, typically assert that charters, despite being shortchanged on public funding, drain districts of money that they believe is rightfully "theirs." This, of course, reflects a narrow view of public education that sees districts as the only institutions with a proper claim on federal, state, and local tax dollars. It also ignores the notion that public funds ought to flow to the schools responsible for educating students, as well as the fact that districts should enjoy cost savings when they serve fewer students. Many policy makers have nevertheless been swayed by these misguided arguments. It's also true that a few bad actors in the charter sector—whose misdeeds have been amplified by critics and the press—hamper attempts at equitable funding. Finally, as with any publicly funded program, policy makers face budgetary constraints and may be reluctant to fund charters at parity with districts. They may, in fact, view charters as something of a bargain, a place to save money, a low-cost option not warranting fully equitable funding.

All these challenges are real and vivid in Ohio. It's a state with stagnant population growth and with powerful anticharter interests, and it's home to a charter sector that has had a few bad actors and mixed results. Yet underfunding charters, many of which are doing a great job of educating needy youngsters, violates principles of educational equity—the idea that every child, no matter their school of choice, should receive equal resources when they have identical needs. Under this principle, a low-income child attending a Cleveland or Dayton charter should receive funding equivalent to a low-income child attending a district school in those cities.

Regrettably, Ohio has a long history of shortchanging its charter schools, including the best and most effective of them. We at Fordham and others have taken pains through the years to document this injustice. Based on data from 2001–02, we published an analysis in 2004 revealing massive funding gaps in our hometown of Dayton. That analysis found that the city's charters received about \$3,000 per student less than the district. Unfortunately, the situation did not improve. Ten years later, using 2010–11 data, an analysis by funding expert Larry Maloney found that Ohio charters received, on average, \$3,184 per pupil less than their district counterparts, equivalent to a 27 percent revenue gap. This analysis found even larger disparities in Cleveland and Dayton, the two cities in which a more detailed study was performed.<sup>1</sup>

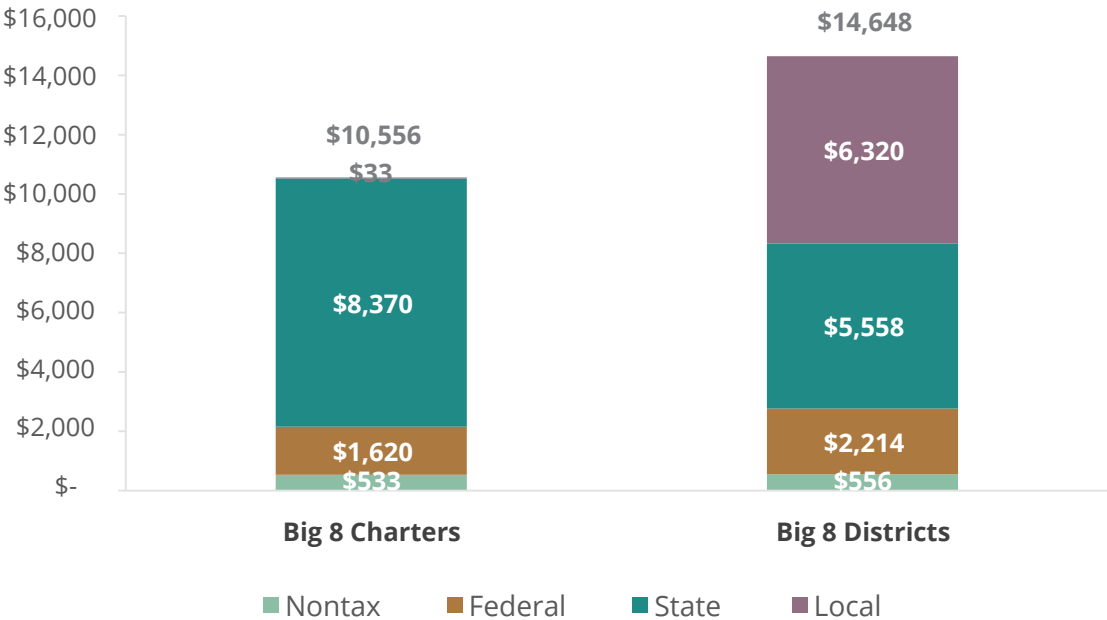
States and cities with high-performing charter sectors typically combine strong oversight with sufficient funding. For many years, Ohio did neither of these very well. However, state lawmakers made much-needed reforms in 2015 that strengthen charter accountability—a critical first step in assuring sector-wide quality. But there have been no detailed analyses since the Maloney report that examine charter funding, another important ingredient for sector performance. His report predates significant policy changes in the realm of school funding. In 2012, newly elected Governor John Kasich scrapped his predecessor's formula—the short-lived "evidence-based model"—in favor of a more student-centered approach that is now used to determine both charter and district allocations from the state. Charters have in recent years benefitted as well from new (but modest) school-facilities programs. Given these changes—and with Governor-elect Mike DeWine taking the helm in January 2019—a fresh look at charter funding equity is needed. Has Ohio cured its long-standing funding disparities? Or are charters still badly underfunded?

To compare charter and district funding, the present analysis examines data produced by ODE from 2014–15 through 2016–17—that is, the three FYs 2015–17. It uses both revenue and expenditure data, including an “expenditure per equivalent pupil” computation developed by ODE that adjusts expenditures for student backgrounds (this method is discussed on page 16). For comparative purposes, we also remove transportation expenses in all calculations, as districts must provide transportation to charter students (note, then, that the amounts cited below underreport district revenue and expenditures by roughly \$600 per pupil—the average statewide amount spent on transportation). Given the complexities of the school funding system and the challenge of accounting for the varying expenses associated with educating different pupils, no single analysis is likely able to perfectly capture the amount of resources available to schools. But the present study offers a robust examination of funding from multiple angles, with results consistent to those found in prior analyses of charter funding in Ohio.

Based on these analyses, we uncover large and continuing funding disparities between Ohio’s charters and districts, with the most significant gaps in the state’s “Big Eight” cities where most brick-and-mortar charters are located.<sup>2</sup> Based on data averaged across the three years, we find these key results.

1. Big Eight charters receive on average \$10,556 per pupil in total revenue versus \$14,648 for the Big Eight districts during FYs 2015–17. These urban charters, then, face funding shortfalls of a staggering \$4,092 per student, equivalent to receiving 28 percent less revenue relative to districts. These figures reflect total revenue from all public sources (federal, state, and local) and nontaxpayer sources, with the vast majority of school revenues being generated through the public sources. Big Eight charters and districts receive nontaxpayer funding of roughly equal amounts (\$533 and \$556 per pupil, respectively); thus, the shortfall in charter revenues can be traced to disparities in public funding amounts, specifically a lack of local funding for charters. Appendix table A2 contains more detailed information about the revenue disparities in the Big Eight.

**Charter versus district revenue per pupil by source, Ohio Big Eight, FYs 2015–17**



2. Revenue inequities are also evident across the four cities where we dive deeper into the data. Cincinnati charters receive \$4,522 per pupil less in total revenue or 32 percent less than the district; Cleveland charters receive \$5,946 less (36 percent); Columbus charters receive \$3,214 less (23 percent); and Dayton charters receive \$3,713 per pupil less (27 percent). Appendix table A3 contains more detailed information about revenue disparities in Cincinnati, Cleveland, Columbus, and Dayton.

3. Due to these revenue disparities, Big Eight charters spend less on average than their district counterparts: \$3,956 less per pupil, which translates to 27 percent less, than the Big Eight districts. Similar disparities appear in Cincinnati (27 percent less), Cleveland (38 percent), Columbus (27 percent), and Dayton (23 percent). The expenditure calculations include both operational and capital spending; more detail on expenditures appears in appendix tables B2 and B3.
4. Significant expenditure gaps remain when using ODE's "equivalent pupil" method, which includes weights based on student characteristics. Under this calculation, Big Eight charters spend 25 percent less than their district counterparts, a shortfall similar to what we found in the unweighted computations (point 3, above). The spending gaps, however, narrow somewhat in Cleveland and Dayton (28 and 16 percent less per equivalent pupil, respectively), due perhaps to the charters in those cities enrolling slightly fewer SWDs than the districts in which they are located. Appendix tables C2 and C3 contain the expenditure per equivalent results.
5. Statewide, all Ohio charters—both online and brick and mortar (including those in the Big Eight)—receive \$9,755 per pupil, while districts on average receive \$11,622 per pupil in total revenue. Ohio charters, then, face funding shortfalls of \$1,867 per student or receive 16 percent less revenue compared to the average district. Using an expenditure per equivalent pupil calculation that accounts for charters' less-advantaged students relative to state averages, the funding disparity between all charters and districts increases to 26 percent. Appendix tables A1 and C1 include the statewide revenue and expenditure per equivalent pupil comparisons.

This study of charter funding reveals continuing inequities in the Buckeye State, the most troubling of which are found in the Big Eight cities where charters are underfunded by 28 percent. To put the result another way, the Big Eight charters are funded at 72 cents on the dollar relative to comparable Big Eight districts. These percentages, however, mask the true impact of these inequities: translated into dollar terms, Ohio shortchanged Big Eight charters of \$253 million per year during FYs 2015–17—tens of millions of dollars that would have supported the needs of children, many of whom come from low-income families or are students of color. To put this deficit into sharper perspective, every Big Eight charter would have had, on average, an additional \$1.01 million in their budgets that could have been used to strengthen educator compensation, improve facilities, or hire much-needed personnel. For instance, at the state's average teacher salary of \$58,680, this amount would have supported seventeen additional educators per Big Eight charter school or would have allowed these charter schools to boost educator salaries—a measly \$34,000 per year, on average, according to one study—to more competitive levels.<sup>3</sup>

Every student deserves equal access to an excellent K–12 education. Yet the quality of their educational opportunities shouldn't hinge on zip codes, family backgrounds, or the type of school they attend. Sadly, due in part to polarizing politics, Ohio has long underresourced its public charter schools, shortchanging hundreds of thousands of needy students in the process and leaving them with uneven opportunities. Moving forward, Ohio lawmakers on both sides of the aisle need to recognize that providing second-class charter funding simply isn't fair to their students. Ohio is long past due in funding charters equitably, and much work remains.



# Charter schools in Ohio

Six years after Minnesota passed the nation’s first charter school law, Ohio lawmakers enacted their own charter legislation. Passed in 1997, House Bill 215 of the 122nd General Assembly permitted a limited number of charters to form in Lucas County, an area that encompasses Toledo and several outlying districts. Months later, lawmakers passed a bill allowing charters to open in the Big Eight urban districts. The first charters in Ohio launched in Fall 1998, with fifteen schools opening their doors to about 2,000 students. Much has happened since those early days, with hundreds of schools opening (and some closing) during the 2000s and with total charter enrollment reaching 120,000 in 2014. Since that high-water mark, charter enrollments have fallen slightly, but Ohio still boasts one of the nation’s largest charter sectors. In terms of academic results, Buckeye charters have a mixed record. There are many fine schools that have delivered an exceptional education, especially for needy children residing in Ohio’s impoverished urban communities. Other schools, however, have struggled and faltered. Responding to evidence indicating uneven performance, state lawmakers enacted significant reforms in 2015 in an effort to promote quality and integrity across the entire sector.<sup>4</sup> Under present law, charters—also known as “community schools”—must be nonprofit, public schools; as such, they are tuition-free, open to all students, and held accountable for results using the same report card as districts. To open and remain in operation, charters must be authorized by a state-approved sponsor tasked with their oversight. About half of Ohio charters contract with management organizations (about half of which are nonprofit) to handle day-to-day operations, while the rest operate as stand-alone schools.

State charter policy strongly influences where charters locate. Most Ohio charters are brick-and-mortar “startup” schools that, under state law, must locate in districts deemed “academically challenged.” This designation now includes the Big Eight, Lucas County (Toledo area), and a handful of low-performing districts that meet specific academic conditions. Although e-school charters (“virtual charters”) are usually startups, due to the nature of online schooling, they can draw students from all areas of the state. Meanwhile, any district or regional ESC may create “conversion” charters by transforming extant public schools into charters. This type of charter is mainly found in rural or small-town communities, and they represent a small portion of Ohio charters. As of June 2018, ODE reports that just forty-nine of the state’s 339 charters are conversions, and about a third of them are dropout-recovery schools enrolling fewer than 100 students.<sup>5</sup>

Table 1 displays data on charter locations for FY 2017, showing that 68 percent of Ohio charters are situated in the Big Eight and serve a slight majority of the state’s charter pupils (54 percent). As we’ll see in the following section, the concentration of charters in the high-poverty Big Eight cities results in a more disadvantaged student population than the state as a whole. Meanwhile, non-Big Eight charters represent a smaller share of Ohio charters (26 percent) and students (16 percent). Finally, the table shows that online schools, though few in number, enroll a significant share of Ohio charter pupils (30 percent). In this report, “Big Eight charters” refer to any brick-and-mortar charter school located within those eight districts.<sup>6</sup>

**Table 1: Ohio charter school locations in FY 2017**

	Number of schools	Percent of schools	Number of students	Percent of students
Brick and mortar charters				
Big Eight	246	68%	60,817	54%
Non-Big Eight	94	26%	17,811	16%
Online charters	21	6%	33,421	30%
Totals	361	100%	112,049	100%

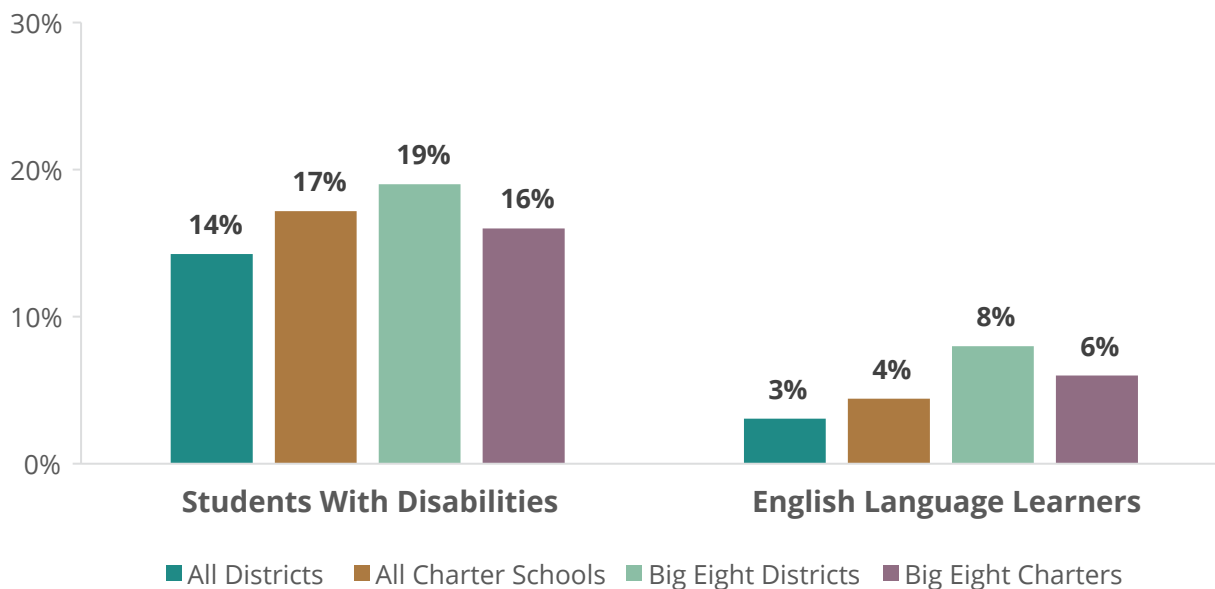


# Characteristics of charter students

The locations of Ohio charters determine to a large extent the characteristics of the children they educate. Here we compare the student populations of Ohio charters to districts, focusing on key subgroups for which the state reports data: SWD, ELLs, ED, and race/ethnicity. It's important to examine demographics in an analysis of school funding, first of all because the state provides additional dollars to districts and charters when they educate children identified as SWD, ELLs, or ED (it does not premise funding on race/ethnicity). These extra resources are designed to cover the added costs associated with children who typically have greater needs. Due to the direct connection between these characteristics and funding amounts, schools serving more special-need students tend to receive more funding.<sup>7</sup> Second, and in similar vein, we seek as best we can to compare funding levels across districts and charters serving comparable students. In the Ohio context, we have already shown that most charters are located in the Big Eight cities, but we should also consider whether charters located in these cities serve populations similar to their local districts.

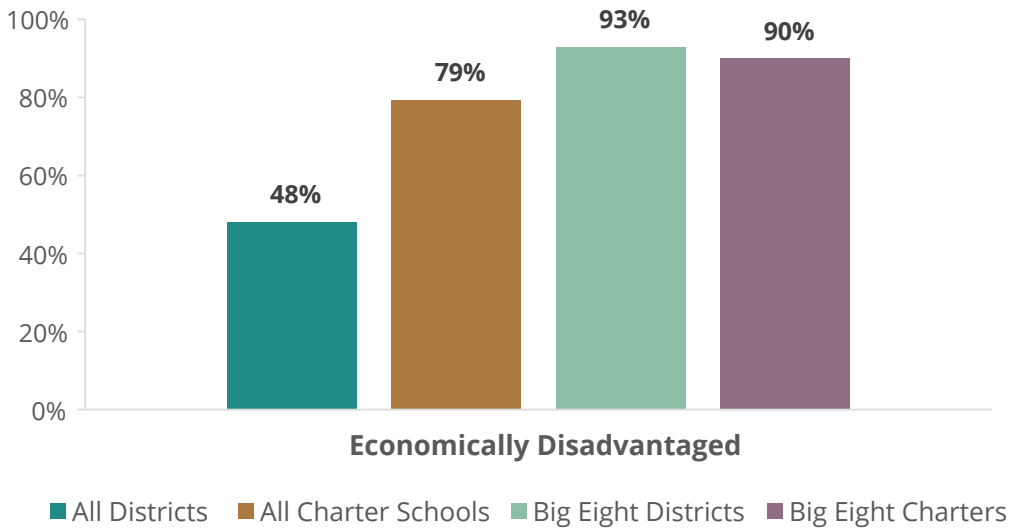
The figures below display enrollment statistics averaged across FYs 2015–17 for four groups: all districts statewide, all charters statewide (both online and brick and mortar), Big Eight districts, and Big Eight charters (all brick and mortar). We begin by considering SWD and ELLs. Figure 1 shows that Ohio charters serve a slightly higher percentage of SWD than the average district statewide (17 to 14 percent), while in the Big Eight they serve a slightly lower percentage than the district average (16 to 19 percent). The other subgroup shown in the figure below is ELLs: Ohio charters serve slightly more ELLs than the statewide average (4 to 3 percent)—though, once again, charters in the Big Eight serve smaller proportions than do the Big Eight districts (6 to 8 percent).

**Figure 1: Percent students with disabilities and English-language learners by district and charter school, FYs 2015–17**



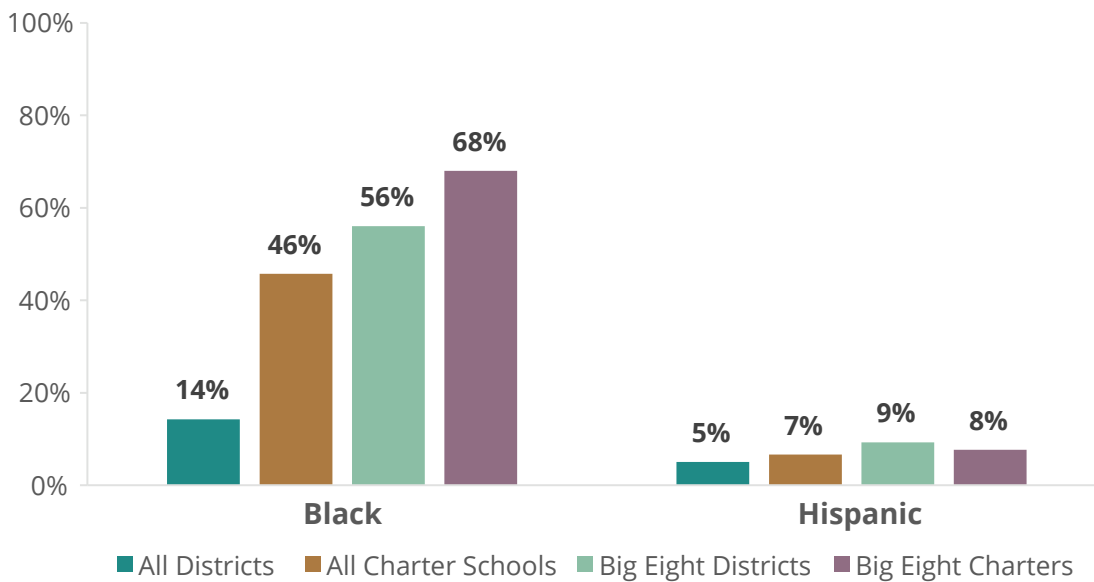
Another key subgroup is ED students, who are generally identified based on their eligibility for the federal free and reduced-priced lunch program, which is open to children from households with incomes at or below 185 percent of the federal poverty line.<sup>8</sup> Figure 2 shows that Ohio charters enroll disproportionate numbers of ED students compared to the statewide district average (79 to 48 percent). When we focus on the Big Eight, both charters and districts serve overwhelming majorities of ED students—90 and 93 percent, respectively. The district average may be slightly overstated, as six of the eight districts participate in the Community Eligibility Program (CEP), which in turn designates 100 percent of students as ED. For instance, Columbus City Schools reported 79 percent ED students in 2013–14 and then reported 100 percent ED the next year, its first year participating in CEP.<sup>9</sup>

**Figure 2: Percent economically disadvantaged students by district and charter school, FYs 2015-17**



Although funding is not tied to race or ethnicity, examining these subgroups provides additional context about the children served by charter and district schools. Historically, data from various sources show wide achievement gaps between black and Hispanic students and their peers. Though multiple factors contribute to these academic disparities, analysts have raised concerns about whether children of color are receiving the supports needed to ensure equal educational opportunities.<sup>10</sup> Figure 3 below shows that Ohio charters educate a noticeably higher proportion of black students when compared to the statewide district average (46 to 14 percent). In the Big Eight, too, charters serve more black students than their district counterparts (68 to 56 percent). When it comes to Hispanic students, charters statewide serve a slightly higher fraction than do districts, but Big Eight charters enroll a lower percentage than their district counterparts (8 to 9 percent).

**Figure 3: Percent black and Hispanic students by district and charter school, FYs 2015-17**



In summary, charters in Ohio tend to serve disproportionate numbers of less advantaged students in comparison to the statewide average. This is driven by state policies that limit charters primarily to the high-poverty districts. Within the Big Eight cities themselves, charters and districts generally serve similar students.

# Funding

We focus here on charter funding within the Big Eight, which are where most brick-and-mortar charter schools are located and the demographics of charters and districts are very comparable. Given those similarities, one might suppose that their revenues and expenditures would be similar. But that turns out not to be true.

To examine funding, we dive into ODE's school-funding data, which include both revenue and expenditures by district and charter.<sup>11</sup> Some analysts choose to focus on revenues, while others use expenditure data—and there is some debate about which side of the ledger is preferable for analytic purposes.<sup>12</sup> Because the data are readily available for both, we examine both. One might expect revenues to mirror expenditures, but it's possible to find discrepancies for reasons related to timing, the exact accounts included in the financial reporting, and even efforts to conserve cash for future use. Based on the analyses that follow, however, we conclude that the results are not overly sensitive to the choice of revenue or expenditures.

This section is organized as follows: First, we conduct an analysis of charter and district revenues for the Big Eight as a whole and in four of the eight cities (Cincinnati, Cleveland, Columbus, and Dayton). We selected these four cities because they're home to a large majority of Big Eight charters (73 percent in FY 2017). Second, we repeat our analysis of the Big Eight—and the same four cities within them—using expenditure data, including both raw expenditures and an adjusted “expenditure per equivalent” measure. Third, we provide an analysis of charter revenues and expenditures in comparison to the statewide district averages. Tables containing more detailed results, including results by year, can be found in the appendix.

## Sidebar: How are Ohio districts and charter schools funded?

Ohio charters and districts generate funding in different ways, with the former relying on state funding for its public support and the latter relying on both state and local revenue sources (both receive some federal funds and may obtain private or other nontax funds, as well). First, the charter funding model: To determine charter allocations, the state provides each school the full “base amount” defined in statute—\$6,000 per pupil in FY 2017—and multiplies that by the number of students enrolled. Additional state dollars are added when schools educate students in grades K–3, ELLs, SWDs, ED pupils, and those in career and technical education. They also receive 25 percent of the per-pupil “targeted assistance” that their students' districts receive; this is a funding stream that provides supplemental aid to lower-wealth districts. Brick-and-mortar charters receive \$200 per student to assist with facility needs and are eligible to receive performance funding based on third-grade reading proficiency and graduation rates.<sup>13</sup> A handful of charters have also received state facility grants through the Community Schools Classroom Facilities Grant, enacted in 2015. Charters' state appropriations are not adjusted to account for local wealth because, unlike districts, charters lack the authority to generate local revenue.<sup>14</sup> In essence, the state assumes that charters have no local tax base and funds them at the full formula amounts prescribed in statute. However, even provided the full state formula amounts, charters still receive less funding, as districts often generate large sums via local taxes (see figure 6 below).

Districts also receive a base amount, additional dollars for the various categories of students listed above, targeted assistance, performance bonuses, and several other revenue streams including property tax rollback payments. However, districts' amounts of state funding are generally adjusted using a complex formula that accounts for their varying capacities to generate local tax revenues. As a result, the state tends to allocate more aid to poorer districts and vice versa. On the local revenue side, districts must assess a minimum 20 mill (or 2 percent) property tax in order to receive state aid. Districts may assess higher property tax rates, but these must be approved via voter referendum. Most districts tax above the 20 mill floor—some significantly above it—and as of tax year 2016, the average effective district property tax rate was 38.44 mills (or 3.844 percent).<sup>15</sup> Districts may also levy local taxes to pay for school facilities, and they have access to state construction programs that match local contributions for capital projects. Lastly, districts may assess a local income tax to fund their schools; as of January 2018, 190 districts (about one in three) did so.<sup>16</sup>

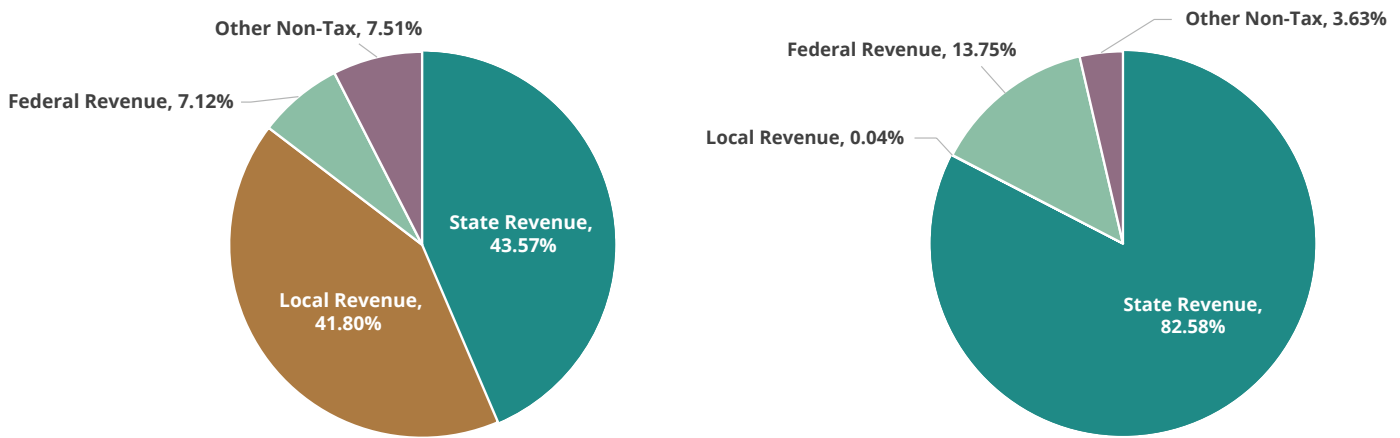
Finally, we note the “pass-through” method by which charters receive state payments. Instead of paying charters directly, Ohio requires their funds to flow through districts in the form of a deduction to their state aid. Though this does not affect charter funding amounts, the interaction of district and charter funding streams lends itself to claims that charters “siphon” district funds,<sup>17</sup> even though these deductions merely ensure that state funds reach a child's school of attendance.<sup>18</sup> To alleviate the problems associated with pass-through funding, Ohio could shift to a direct-funding method for charters, a topic touched upon at the conclusion of this report.<sup>19</sup>

## Revenue analysis

District and charter school revenue is reported using four categories based on the source of funds: federal, state, local, and nontax revenue. Both districts and charters receive federal revenue largely consisting of grants such as Title I assistance for high-poverty schools and IDEA funds for special education. The State of Ohio generates revenue primarily through sales and income taxes and then allocates funds to districts and charters through various funding streams, the largest of which is the State Foundation Program.<sup>20</sup> On a local level, districts (but not charters) have the authority to raise tax revenue on their own. The bulk of this funding is generated through property taxes, a portion of which must be approved by district voters. Finally, both districts and charters may generate nontax revenue, which includes lunch sales, extracurricular or rental fees, investment income, payments in lieu of taxes, and private donations. Ohio's revenue data includes funding used for various operational expenses, but the state excludes revenues designated for capital projects (such as proceeds from a bond).<sup>21</sup>

Figure 4 compares revenues by source for Ohio districts and charters. The pattern is notably different: Districts receive most of their revenue via state and local sources (44 and 42 percent, respectively). Charters, however, receive funds almost exclusively through the state (83 percent)—the result of state laws that prohibit them from independently raising local tax revenue. Rounding out funding for both districts and charters are federal and nontax revenues, which together account for about 15 percent of their total revenues.

**Figure 4: Sources of district (left) and charter (right) revenue, FY 2017**



The pie charts above apportion revenues by source but they don't show the size of the pies. To examine the funding levels across sectors, we compare the per-pupil revenues generated by districts and charters averaged across the three-year period of FYs 2015–17. We make several adjustments to the revenue data published by the state to create closer “apples-to-apples” funding comparisons. Table 2 illustrates the computations for charter and district revenues, including three adjustments, using data from a representative Columbus-based charter, selected to illustrate the calculations, and the Columbus City School District.

**Table 2: An illustration of charter and district per-pupil revenue calculations, FY 2017**

	Columbus charter school	Columbus City Schools
<b>Public revenue</b>		
Federal revenue	\$1,760	\$1,881
State revenue	\$7,741	\$7,566
Adjustment: funding transfers	N/A	(\$3,598)
Adjustment: transportation expenses	(\$25)	(\$1,171)
Local revenue	\$0	\$9,116
Total public revenue	\$9,501	\$14,965
<b>Public revenue, net of adjustment</b>	<b>\$9,476</b>	<b>\$13,795</b>
<b>Nontax revenue, per pupil</b>		
Nontax revenue	\$171	\$573
Adjustment: interdistrict open enrollment	N/A	(\$34)
<b>Nontax revenue, net of adjustment</b>	<b>\$171</b>	<b>\$539</b>
<b>Total revenue (public plus nontax, net of adjustment)</b>	<b>\$9,647</b>	<b>\$14,333</b>
<b>Student enrollment</b>	617	50,063

The illustrative table above incorporates these adjustments.

- Funding transfers:** ODE’s revenue data include several state funding streams that “pass through” school districts and are used to support pupils not educated by their home district.<sup>22</sup> We subtract these funds from district revenues as they are designated for charter and independent STEM schools, private school scholarships, ESCs,<sup>23</sup> other districts serving students via interdistrict open enrollment, and special contracting arrangements.<sup>24</sup> This amount also includes funds that are added when districts enroll inbound open enrollees, which in some cases can lead to a positive transfer amount, net of the deductions.<sup>25</sup> However, most districts—and all Big Eight districts—report negative transfer amounts, including substantial ones such as those shown in table 2 for Columbus City Schools. The funding transfer amounts were collected via ODE’s district funding reports;<sup>26</sup> this adjustment is not necessary for charter schools.
- Transportation:** Because districts are required to provide transportation to charter students, we subtract this expense from both district and charter school revenues. In some cases, charters elect to provide transportation on their own and receive reimbursements from the state. Because transportation expenses are deducted for the purposes of comparison, the funding statistics cited in this report, both revenue and expenditure, slightly understate actual amounts.<sup>27</sup>
- Interdistrict open enrollment:** As discussed above under funding transfers, money received by districts to educate incoming open enrollees is included in that adjustment. Yet these funds are also reported as “tuition payments” and thus classified as nontax revenue. To avoid double counting, we subtract funds associated with open enrollees from each district’s nontax revenue. We derive these amounts by multiplying the number of incoming open enrollees in each district by the base amount of funding for the year (for example, \$6,000 per student in FY 2017); this amount is not applicable to charters.<sup>28</sup>

Using this approach, we then calculate revenue per student for Big Eight charters and districts averaged across FYs 2015–17. Figure 5 shows that Big Eight charters, in the aggregate, receive on average \$10,556 per pupil, while districts receive \$14,648 per pupil—a difference of \$4,092 per pupil. To put the results another way, Big Eight charters receive

28 percent less funding than their district counterparts; or one could also state that these charters are funded at 72 cents on the dollar. The figure below shows that the shortfall in charter revenue is driven by shortfalls in public funding—most notably the absence of local revenues—and is not due to discrepancies in nontax funding.

**Figure 5: Charter versus district revenue per pupil, Ohio Big Eight, FYs 2015–17**

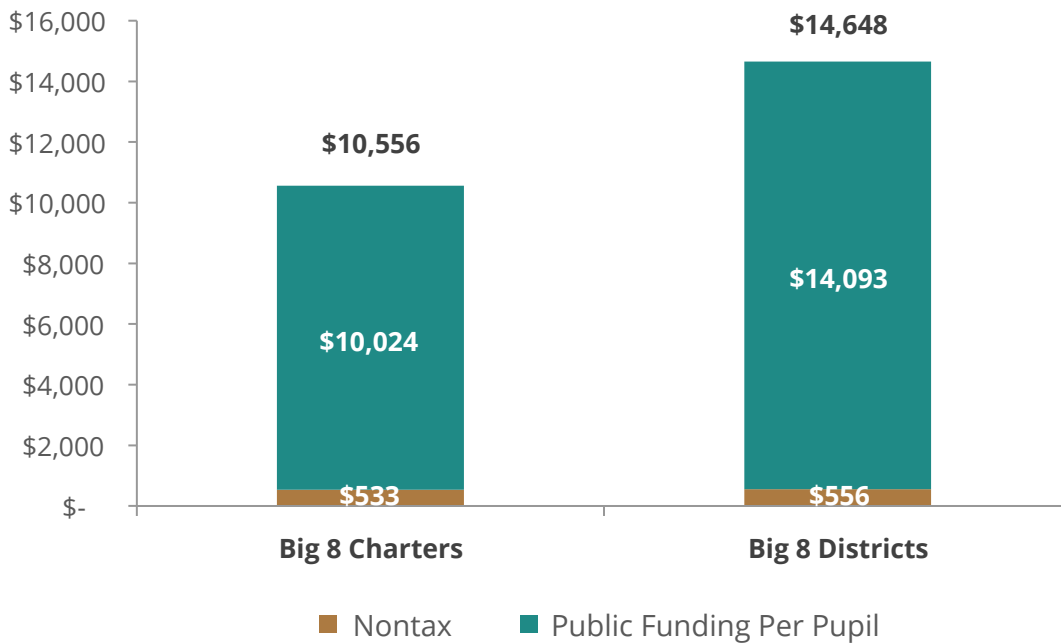
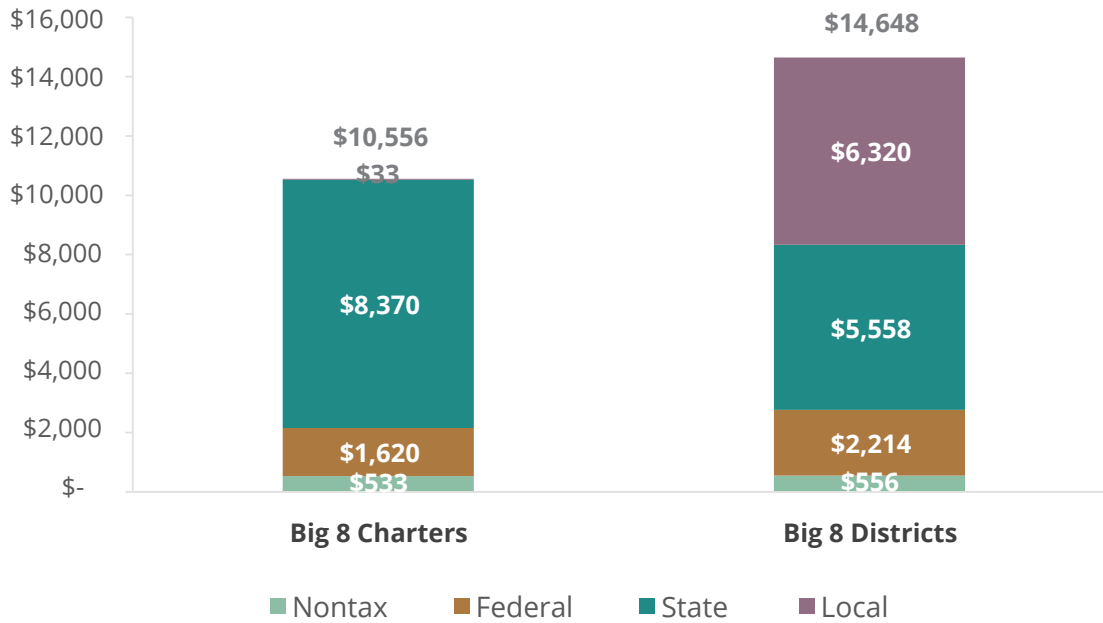


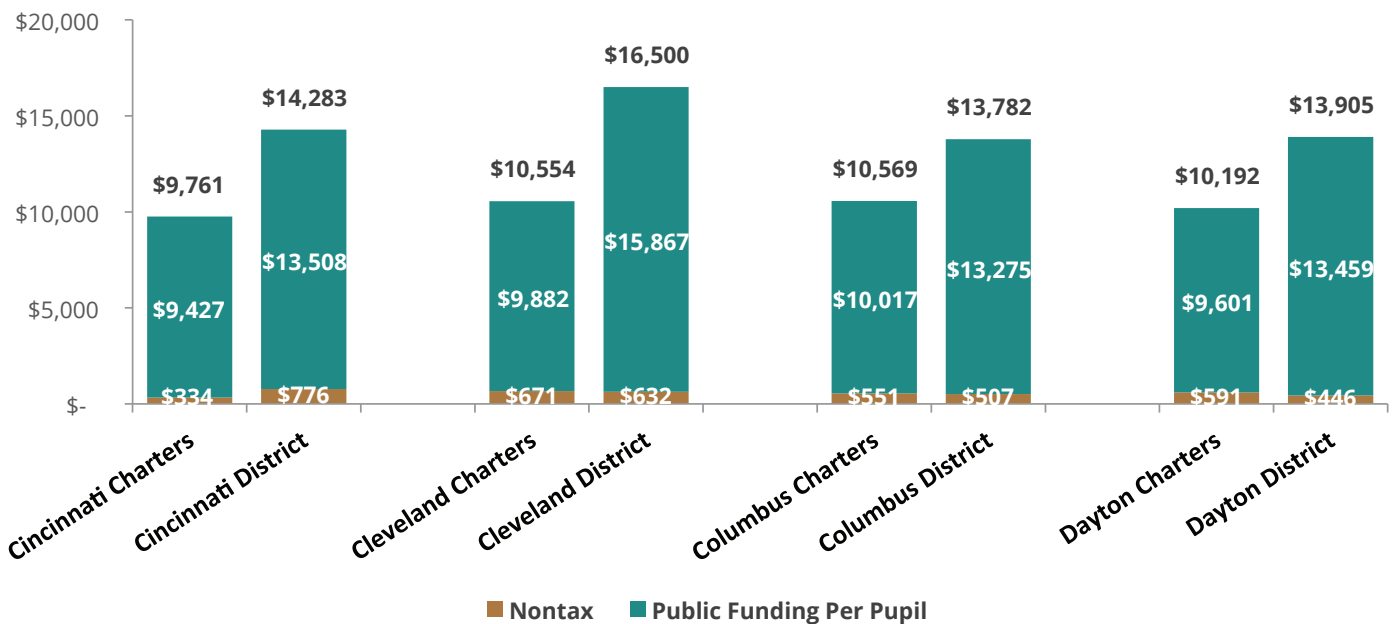
Figure 6 displays a more detailed breakdown of the public revenues received by Big Eight districts and charters. It shows that, although charters receive more state funds than their district counterparts—an average of \$8,370 per pupil versus \$5,558 per pupil across FYs 2015–17—this does not compensate for the tremendous advantage districts have in generating local revenues. During these years, the Big Eight districts raised \$6,320 per pupil in local funding, while charters generated almost nothing via this source (a mere \$33 per student). Districts also have a slight advantage in federal revenues, though that difference pales in comparison to the roughly \$6,300 per student discrepancy in local revenues.

**Figure 6: Charter versus district revenue per pupil by source, Ohio Big Eight, FYs 2015–17**



Disparities also surface across the four Big Eight cities where we undertake a deeper analysis. Akin to the figure above, figure 7 show revenue data averaged across FYs 2015–17. This analysis indicates that Cincinnati charters receive \$4,522 less total revenue than Cincinnati Public Schools (\$9,761 to \$14,283 per pupil)—equivalent to a shortfall of 32 percent. Revenue disparities also exist for charters located in Cleveland (\$5,946 less per pupil or 36 percent less than the district), Columbus (\$3,214 less per pupil or 23 percent less), and Dayton (\$3,713 less per pupil or 27 percent less). Though not displayed in the figure below, the revenue gap across these cities are explained largely by charters’ lack of local funding. Table 3 summarizes these data, and more detailed statistics are available in appendix A.

**Figure 7: Charter versus district revenue per pupil, selected Big Eight cities, FYs 2015–17**





**Table 3: Summary of the Big Eight revenue calculations, FYs 2015–17**

	District revenue per pupil	Charter revenue per pupil	Charter disparity per pupil	Charter disparity per pupil (%)
Big Eight	\$14,648	\$10,556	-\$4,092	-27.9%
Cincinnati	\$14,283	\$9,761	-\$4,522	-31.7%
Cleveland	\$16,500	\$10,554	-\$5,946	-36.0%
Columbus	\$13,782	\$10,568	-\$3,214	-23.3%
Dayton	\$13,905	\$10,192	-\$3,713	-26.7%

**Note:** This table displays total revenue per pupil (public and nontax combined). The charter disparity per pupil (%) is calculated as the following: charter disparity per pupil / district revenue per pupil.<sup>29</sup>

## Expenditure analysis

Next, we turn to the expenditures side of the ledger. Like the revenue section, we use data from FYs 2015-17 and again concentrate on comparisons between brick-and-mortar charters located in the Big Eight and their district counterparts. One might reasonably expect revenue and expenditures analyses to yield similar results, but it's worth investigating whether that's actually so. As discussed in the revenue section, several complications require adjustments such as backing out funds that "pass through" districts to other educational entities. However, such adjustments are not necessary with expenditure data, which offer a clearer picture of the amounts of money that districts and charters spend on students actually attending their schools.<sup>30</sup> Moreover, district revenues may be affected if they reserve cash for later use, something that may occur in the early years of a levy cycle.<sup>31</sup> Lastly, the expenditure data allow us to examine both operational and capital spending. Our focus is primarily on overall expenditures, both capital and operational combined, though some may want to focus on operational spending alone as it reflects money being spent on students currently attending schools, while capital expenditures also represent investments in future students' education.

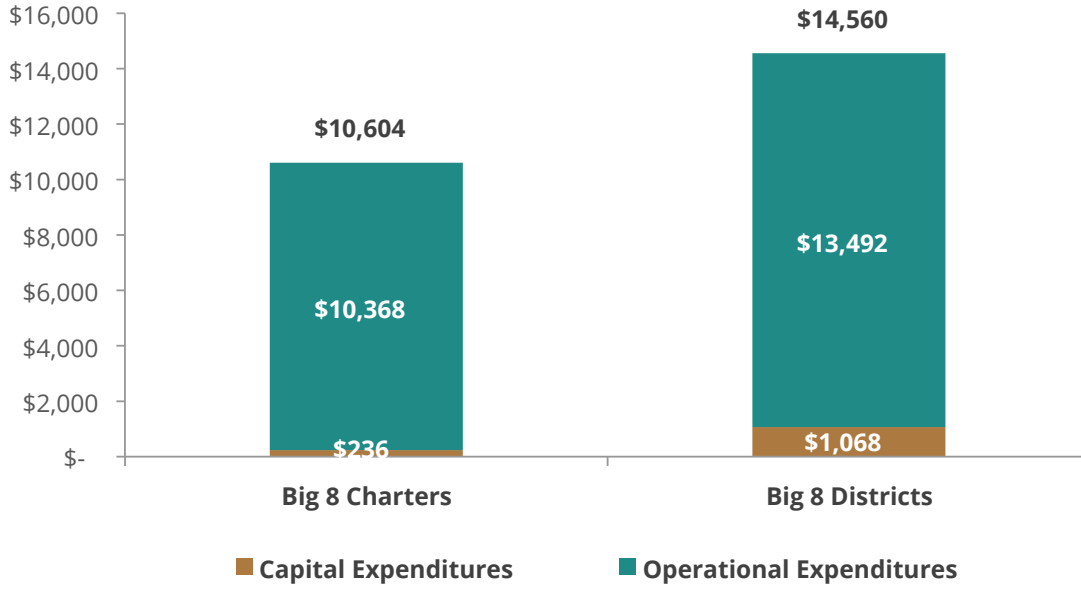
We calculate charter and district expenditures per pupil in a fairly straightforward manner, with only one adjustment being made for transportation expenses to account for districts' provision of such services to most charter schools. Table 4 provides an illustration, using FY 2017 data for a representative Columbus-based charter school—the same one shown in table 2 above—and Columbus City Schools. Operational expenditures include all expenses classified as either classroom instructional or nonclassroom (for example, administration, food services, and maintenance). We also include nonoperating capital expenditures—those classified as construction, land and structures, and interest on debt. Though not shown in the table below, a few minor nonoperating categories are excluded in addition to transportation (for instance, adult education and community services), as current K-12 students are not the primary beneficiaries.

**Table 4: An illustration of charter and district per-pupil expenditure calculations, FY 2017**

	Columbus charter school	Columbus City Schools
<b>Operational expenditure</b>		
Operational expenditure	\$9,307	\$14,776
Adjustment: transportation expense	(\$25)	(\$1,171)
<b>Operational expenditure, net of adjustment</b>	<b>\$9,282</b>	<b>\$13,605</b>
<b>Capital expenditure</b>	<b>\$70</b>	<b>\$691</b>
<b>Total expenditure (operational plus capital)</b>	<b>\$9,352</b>	<b>\$14,297</b>
<b>Student enrollment</b>	617	50,063

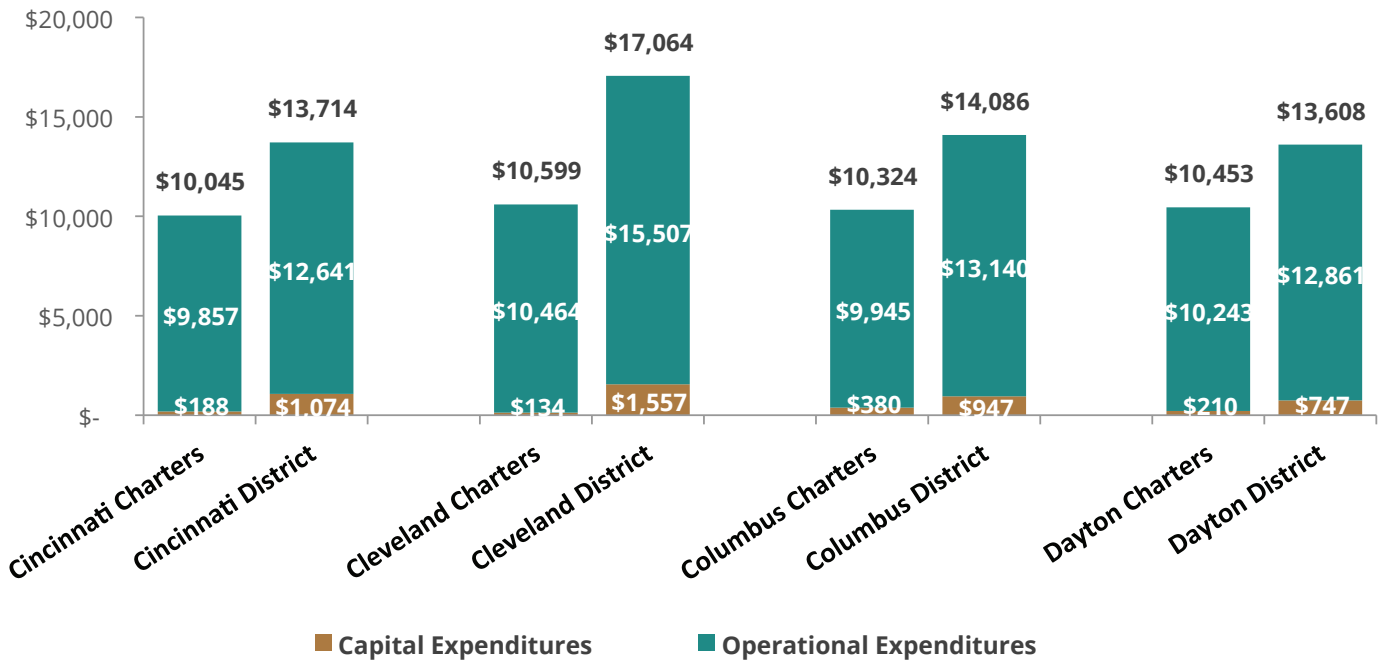
Using this approach, we then calculate expenditures in the Big Eight. Figure 8 displays data averaged over FYs 2015-17 for districts and charters, revealing a sizeable gap in spending. During this period, Big Eight charters spent on average \$10,604 per student, while their district counterparts spent \$14,560. This is a difference of \$3,956 per student or a shortfall in charter spending of 27 percent relative to districts. The figure also indicates that Big Eight charters spent less than districts in both operational and capital expenses: \$3,124 per pupil less in operations and \$832 less in capital. These lower spending levels are, of course, directly related to the lower revenues that charters receive. Big Eight charters receive 28 percent less revenue (table 3 above), and in turn, it's not surprising to see that they spend 27 percent less than their district counterparts.

**Figure 8: Charter versus district expenditure per pupil, Ohio Big Eight, FYs 2015–17**



A closer analysis of selected Big Eight cities reveals similar disparities. Figure 9 indicates that Cincinnati charters spend \$3,669 less per student less than the local district (a disparity of 27 percent). In Cleveland, charters spend \$6,466 less per pupil, a 38 percent discrepancy; Columbus charters spend \$3,762 less per student, or 27 percent less; and Dayton charters spend \$3,154 less per pupil than Dayton Public Schools (23 percent less). Table 5 displays a summary of total expenditures for the Big Eight charters and districts; more detailed statistics are provided in appendix B.

**Figure 9: Charter versus district expenditure per pupil, selected cities, FYs 2015–17**



**Table 5: Summary of the Big Eight expenditure calculations, FYs 2015–17**

	District expenditure per pupil	Charter expenditure per pupil	Charter disparity per pupil	Charter disparity per pupil (%)
Big Eight	\$14,560	\$10,604	-\$3,956	-27.2%
Cincinnati	\$13,714	\$10,045	-\$3,669	-26.8%
Cleveland	\$17,064	\$10,599	-\$6,466	-37.9%
Columbus	\$14,086	\$10,324	-\$3,762	-26.7%
Dayton	\$13,608	\$10,453	-\$3,154	-23.2%

**Note:** This table displays total expenditure per pupil (operational and capital combined). The charter disparity per pupil (%) is calculated as the following: charter disparity per pupil / district expenditure per pupil.

**Sidebar: Do student characteristics explain disparities?**

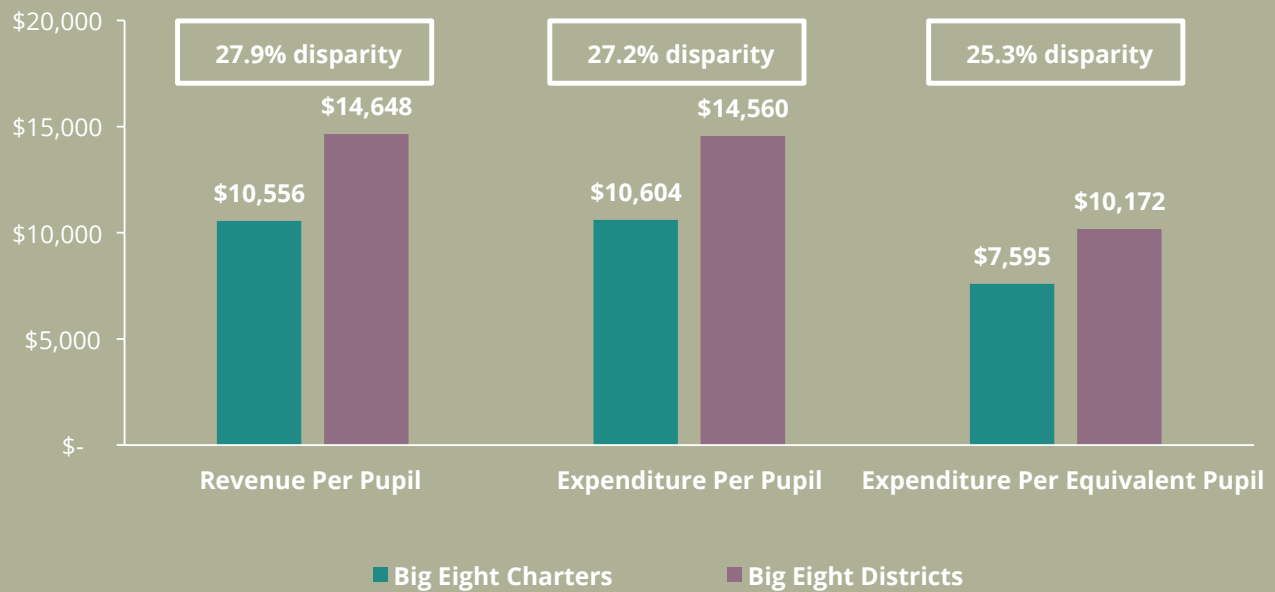
Funding comparisons may be affected if charters or districts enroll disproportionate numbers of special-needs children. Although we’ve seen that Big Eight charters and districts serve students from comparable backgrounds, it merits a closer look to determine whether the results change when an alternative calculation is used. To account for varying student characteristics, ODE has developed an “expenditure per equivalent pupil” measure that weights ELL, SWD, and ED students in the per-pupil funding computations.<sup>32</sup> For instance, under ODE’s methodology, an ELL would be counted not as a single student in the denominator but rather as 1.29 students. Table 6 illustrates how the weights work, using data from FY 2017 for Columbus City Schools—a district serving relatively high numbers of special-needs students. As the table shows, Columbus’s actual enrollment is weighted (multiplied by 1.44) to account for its more disadvantaged population; the enrollment of districts with fewer special-need pupils are multiplied by lesser amounts. The drawback of the equivalent calculations is that it “deflates” actual expenditures rather noticeably, perhaps leading the public to underestimate true levels of spending.<sup>33</sup> A weighted analysis can be undertaken using both revenue or expenditure data, but as the results are not likely to be affected by this choice, we use expenditure data only.

**Table 6: An illustration of weighted enrollments, FY 2017**

	Total expenditure	Actual enrollment	Equivalent enrollment	Expenditure per pupil	Expenditure per equivalent pupil
Columbus City Schools	\$715,728,309	50,063	72,170	\$14,297	\$9,917

Figure 10 reflects the same expenditure calculations illustrated in Table 4 above but uses the equivalent enrollments as the denominator. It indicates that the charter funding disparities in the Big Eight are similar when using this alternative calculation. The left side of the chart displays the charter revenue disparity using actual enrollments (a 28 percent revenue shortfall), the middle bars show the expenditure disparity also using actual enrollments (a 27 percent expenditure shortfall), and the right side shows the expenditure discrepancy using equivalent enrollments (a 25 percent shortfall). The minor difference is perhaps due to the slightly fewer number of special-needs students enrolled in Big Eight charters relative to their districts (see figure 1).

Figure 10: Comparison of Big Eight charter disparities by method, FYs 2015–17



We also calculate expenditures per equivalent pupil within Cincinnati, Cleveland, Columbus, and Dayton. Although the differences are not substantial in Cincinnati and Columbus, the charter disparity narrows in Cleveland and Dayton. In Cleveland, we find that charters spend 38 percent less than the district when using actual enrollment data; however, under the equivalent method, the gap reduces to 28 percent. In Dayton, the expenditure disparity declines from 23 to 16 percent under the equivalent approach (see appendix table C3). These differences are likely explained by minor divergences in enrollment; for instance, the Cleveland district served 22 percent SWD versus 14 percent in charters over FYs 2015–17. Overall, however, it appears that student characteristics play a minor role in explaining the differences in Big Eight charter and district expenditures.

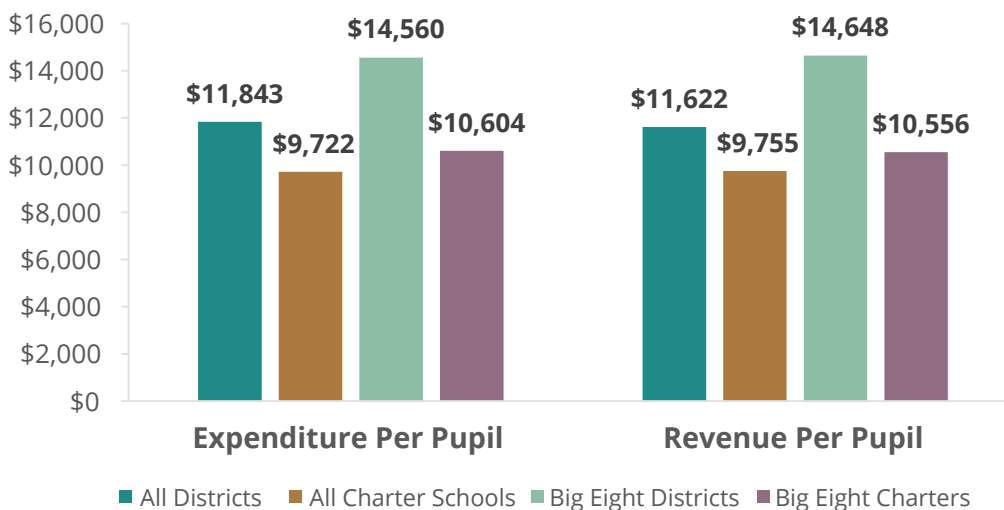
## Statewide analysis

So far this paper has focused on Big Eight comparisons. But how does charter funding compare to statewide averages? Given the significantly higher percentages of disadvantaged students attending Big Eight charters (and all charters statewide), it would be troubling if they received lower levels of funding than the average Ohio district that enrolls more advantaged children. The figure below displays the total expenditure and revenue data for districts and charters, averaging data across FYs 2015–17. Four groupings of schools are displayed: all Ohio districts; all Ohio charters (including e-schools); Big Eight charters; and Big Eight districts.

Figure 11 indicates that charters receive less funding than the statewide district average, whether we consider all charters statewide or Big Eight charters only. Starting with the expenditure side, we see that all charters spend, on average, \$9,722 per pupil and the Big Eight charters spend \$10,604 per pupil. Both amounts are lower than what the average district spends (\$11,843 per pupil). Expressed in percentage terms, all Ohio charters spend 18 percent less than the all-district average, while Big Eight charters spend 10 percent less than the statewide district average. Similar shortfalls appear on the revenue side. Compared to the district average, all charters receive 16 percent less funding, while Big Eight charters receive 9 percent less. When using the student-weighted expenditure per equivalent pupil methodology, the charter disparities widen in comparison to the statewide district average. Under this method, all charters receive 26 percent less funding and Big Eight charters receive 20 percent less; the wider gaps are influenced by the higher proportion of disadvantaged students attending charters compared to the average district. For more detailed statewide results, see the appendix tables.

In sum, this analysis finds that Ohio charters receive and spend less than the statewide district average, even though they educate higher fractions of high-need students than the typical district. This is not true for the high-poverty Big Eight districts, which receive more revenue per pupil than the average Ohio district. Education analysts stress that higher-need students should receive *more* funding, as they typically require additional supports.<sup>34</sup> In terms of meeting this equity goal,<sup>35</sup> Ohio’s overall funding system appears to be doing a reasonable job of ensuring that students in the Big Eight districts receive above-average funding. But it does not do the same for public charter schools, either in the Big Eight cities or elsewhere.

**Figure 11: Comparison of charter expenditure and revenue to districts statewide, FYs 2015–17**



**Note:** This chart displays total expenditures, both operational and capital, and total revenue, both public and nontax.

## Conclusion and policy recommendations

This study concludes that Ohio's charter schools remain egregiously underfunded. Ohio charters do not receive the same level of support due to a lack of public funding caused by their inability to access local revenues and inadequate state funding to compensate for this loss. Yes, Ohio has taken baby steps toward greater equity, including appropriating small but still insufficient amounts for facilities. And it now permits local tax-sharing agreements, though only nineteen Cleveland charters receive modest sums based on the state's only local agreement. To put it simply, Ohio's school-funding policies still treat charters as second-class public schools, an injustice to their students as well as the educators working in these schools.

Though some charters have produced exceptional results on shoestring budgets, such glaring inequities have consequences. Most troubling is that they rob children, many from low-income and minority families, of the educational opportunities they deserve. With less funding, charter students may not receive the one-on-one or small-group tutoring they need; they might have fewer opportunities to take art or music classes; and they may have less access to advanced or specialized coursework. Children attending public charter schools might have fewer opportunities for extracurricular activities that allow them to develop important intangible skills, and these funding shortfalls could make important health and social services out of reach for at-risk children.

Moreover, underfunding Ohio charters has systemic consequences, as well. For instance, charters often resort to paying teachers lower wages, leaving great instructors vulnerable to being lured away by districts that can offer more lucrative pay. One charter leader lamented, "Over the years, we have lost many very effective teachers to the larger district because we could not compete with the salaries they offered."<sup>36</sup> Ohio charters also lack access to capital resources that enable them to build quality school facilities. In fact, Ohio charters often dip into their already thin operational budgets just to cover rental payments.<sup>37</sup> Ohio's inequitable funding system also yields an inhospitable location for charters to take root and serve more children in need of quality educational opportunities.

Recognizing both the moral imperative and practical need to fund charters fairly, several states have moved to strengthen charter funding. Just last year, Colorado and Florida passed legislation that now allow their charters to receive a portion of local tax revenue. Amid a major school-funding overhaul, Illinois also approved revisions ensuring that its charters will now receive the same operational funding as nearby districts.<sup>38</sup>

All this makes sense. The locales with strong, high-performing charter sectors have long had two characteristics in common: strong oversight and ample funding. Ohio, sadly, has had neither for most of its twenty-year charter history. Though the charter reforms of 2015 brought greatly improved oversight, that's only half the battle. The sector will continue to struggle until we fix the funding problem, too.

Ohio lawmakers should follow in leading states' footsteps. We acknowledge that achieving this goal is fraught with politics. But it's important to keep in mind a few things. First and foremost, it is unjust to deny equitable funding to tens of thousands of low-income children of color, who receive the short end of the funding stick, simply because they choose to attend public schools their parents believe better meet their needs. Second, we must make careful distinctions between brick-and-mortar and online charters. Site-based charters ought to be funded at parity with their nearest districts. E-schools are a completely different educational model, and legislators should consider alternative arrangements such as competency-based funding. Third, we must not forget that Ohio recently enacted strict charter-accountability reforms that now ensure taxpayer dollars are being used responsibly to meet the needs of children and families. In fact, given the serious penalties for poor results, it's fair to say that Ohio's school-accountability policies are now tougher for charters than for districts. Within the past three years, more than fifty charters have closed—and more may shutter as the state's automatic charter closure law goes back into effect after a period of safe harbor.

It will take courageous policy makers, of both political parties, to remedy charter funding inequities in Ohio. For state leaders who wish to act, we offer three concrete steps that would move Ohio toward fairer charter funding.



**Shift Ohio to a direct-funding approach for charter schools.** The pass-through mechanism by which the state currently transfers charter funds through districts is unnecessarily complex and leaves charters exposed to criticism by creating the false appearance that districts fund charters. So long as the state funds charters, Ohio should pay them directly out of the foundation appropriation in the state budget. Though this proposal would not resolve the funding gap, it would clear up confusion and create conditions that are more favorable to strengthening charter funding.

**Improve the support for facilities.** On average, Ohio charters spend very little on capital investments that can help them serve future generations of students. And most charters continue to scrape by in rented space, typically paid out of their operational budgets. To improve facility support, state legislators should pursue two initiatives: First, they should boost the modest \$200 per pupil facilities reimbursement to an amount more in line with such costs. Second, they should appropriate new money to the Community School Classroom Grant that provides aid to cover charters' renovation and construction costs. In so doing, they should also broaden program eligibility so that more charters can apply for funding.<sup>39</sup>

**Ensure that brick-and-mortar charters receive operational funding on par with their nearest districts.** Here, state lawmakers face two choices: either pony up more money from the state budget or require local school boards to share locally generated revenue with the charter schools in their boundaries, having all public funds truly "follow students."<sup>40</sup> On the first option—more state aid—legislators either could tie charter funding amounts to their nearest districts' state *and* local revenues or they might introduce a multiplier—a "charter school weight"—that is added to the state's base per-pupil amount of funding. For example, charters might receive 1.3 times a base amount of \$6,010 per pupil, yielding a modified base of \$7,813 per student. Alternatively, though likely to face political headwinds, lawmakers could simply require locally generated funds to follow children to charters—public schools serving students whose families also pay taxes to that district. Though very limited, there is precedent in Ohio for local tax-sharing agreements—one established in Cleveland—and state lawmakers could require, or at least encourage, these types of arrangements.

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"Bricks without enough straw" has been the regrettable mantra ever since Ohio's first charters opened twenty years ago. Various exceptional charters have successfully labored under Ohio's cut-rate funding policy. But this approach is no longer tenable or defensible: it does violence to principles of funding equity, denying too many needy children of their right to equal educational opportunities. It also hampers charters, as a part of the public school community, from reaching their potential as quality options. Had Ohio's Big Eight charters been equitably funded in 2017, each school would have had, on average, an additional \$1.01 million in their budgets. This is real, missing money. It is true that funding alone won't make all charters great—maintaining strict accountability for outcomes and protecting their key autonomies also matter immensely. But moving Ohio charters toward equitable funding arrangements will ensure that their students have more equal opportunities for success in school—and in life.

## Appendices

The following tables offer more detailed reporting of the revenue, expenditure, and expenditure per equivalent pupil results. Within each of these categories, the tables are organized in the following way: First, statewide data are shown for all Ohio districts and all charters (including both brick-and-mortar and online schools) across the three-year period of FYs 2015–17 and then broken out by each year. Second, the Big Eight district and charter data are displayed across the three-year period of FYs 2015–17 and then by year. Third, the data for districts and charters in the Big Eight cities of Cincinnati, Cleveland, Columbus, and Dayton are displayed but only for the three-year period of FYs 2015–17. This reporting structure is used to report revenue (appendix A), expenditure (appendix B), and expenditure per equivalent pupil data (appendix C). Please note that some of the charter enrollment and school counts differ across revenues and expenditures due to data availability. For instance, appendix table A1 reports 361 charter schools with revenue data in FY 2017, while appendix table B2 reports just 328 schools with expenditure data in that year. The difference is due to a lack of expenditure data for thirty-five charter schools, while just two charters had no revenue data (thus, there were a total of 363 charters in FY 2017). More detailed data are available by request to the author.

# Appendix A: Revenue Tables

Table A1: Revenue for all districts and charters statewide, FYs 2015–17

	Public revenue (state, local, federal)	Nontax revenue	Public revenue per pupil	Nontax revenue per pupil	Total revenue per pupil	N pupils	N districts or charters
Three-year totals and averages (FYs 2015–17)							
District	\$51,192,945,209	\$3,255,123,603	\$10,927	\$695	\$11,622	4,685,033	1,822
Charter	\$3,248,328,005	\$137,287,599	\$9,360	\$396	\$9,755	347,058	1,099
Disparity per pupil			(\$1,567)	(\$299)	(\$1,867)		
Disparity (%)			-14.3%	-43.1%	-16.1%		
FY 2017							
District	\$17,542,559,765	\$1,149,611,924	\$11,243	\$737	\$11,980	1,560,285	608
Charter	\$1,102,129,834	\$41,834,839	\$9,836	\$373	\$10,210	112,049	361
Disparity per pupil			(\$1,407)	(\$363)	(\$1,770)		
Disparity (%)			-12.5%	-49.3%	-14.8%		
FY 2016							
District	\$17,033,906,281	\$1,070,724,844	\$10,909	\$686	\$11,595	1,561,469	607
Charter	\$1,076,707,183	\$52,559,610	\$9,346	\$456	\$9,802	115,211	365
Disparity per pupil			(\$1,563)	(\$230)	(\$1,793)		
Disparity (%)			-14.3%	-33.5%	-15.5%		
FY 2015							
District	\$16,616,479,163	\$1,034,786,835	\$10,629	\$662	\$11,291	1,563,279	607
Charter	\$1,069,490,988	\$42,893,150	\$8,927	\$358	\$9,285	119,798	373
Disparity per pupil			(\$1,702)	(\$304)	(\$2,006)		
Disparity (%)			-16.0%	-45.9%	-17.8%		

**Note:** This table includes all Ohio charter schools, including both brick-and-mortar and online schools, and all school districts. For both districts and charters, public funding includes federal, state, and local revenues minus transportation expenditures. On the district side, revenues designated for charter and STEM schools, private school scholarships, ESCs, and other districts via open enrollment or contracted services are excluded from their revenue. Nontax revenue includes earnings on investments, private contributions, payments in lieu of taxes, and fees; it excludes revenue generated via interdistrict open enrollment. The state's revenue data exclude proceeds designated for capital projects. Per-pupil revenue calculations use actual enrollments of students attending district and charter schools. Differences in district-charter funding are displayed as deficits for charter schools—for instance, during FYs 2015–17, charters statewide received \$1,867 less per pupil, or 16 percent less, in total revenue relative to the district average.

**Table A2: Revenue for Big Eight districts and charters, FYs 2015–17**

	Public revenue (state, local, federal)	Nontax revenue	Public revenue per pupil	Nontax revenue per pupil	Total revenue per pupil	N pupils	N districts or charters
<b>Three-year totals and averages (FYs 2015–17)</b>							
District	\$8,205,396,500	\$323,679,553	\$14,093	\$556	\$14,648	582,252	24
Charter	\$1,861,252,852	\$98,954,156	\$10,024	\$533	\$10,556	185,688	753
Disparity per pupil			(\$4,069)	(\$23)	(\$4,092)		
Disparity (%)			-28.9%	-4.1%	-27.9%		
<b>FY 2017</b>							
District	\$2,850,437,984	\$124,101,472	\$14,632	\$637	\$15,269	194,810	8
Charter	\$631,492,575	\$32,242,607	\$10,383	\$530	\$10,914	60,817	246
Disparity per pupil			(\$4,248)	(\$107)	(\$4,355)		
Disparity (%)			-29.0%	-16.8%	-28.5%		
<b>FY 2016</b>							
District	\$2,713,652,270	\$106,986,382	\$13,980	\$551	\$14,531	194,107	8
Charter	\$620,029,316	\$34,430,796	\$10,029	\$557	\$10,586	61,826	250
Disparity per pupil			(\$3,952)	\$6	(\$3,946)		
Disparity (%)			-28.3%	1.0%	-27.2%		
<b>FY 2015</b>							
District	\$2,641,306,246	\$92,591,699	\$13,662	\$479	\$14,141	193,335	8
Charter	\$609,730,961	\$32,280,753	\$9,671	\$512	\$10,183	63,045	257
Disparity per pupil			(\$3,990)	\$33	(\$3,957)		
Disparity (%)			-29.2%	6.9%	-28.0%		

**Note:** This table includes the Big Eight districts (Akron, Canton, Cincinnati, Cleveland, Columbus, Dayton, Toledo, and Youngstown) and all brick-and-mortar charter schools located these districts. Charter school locations were determined based on ODE’s [directory](#) of charter schools dated June 2018; for charters not included on that list (for example, schools that closed), locations were determined through ODE’s [Ohio Educational Directory System](#). For more detail on the calculations of public and nontax funding, see table A1. Differences in district-charter funding are displayed as deficits for charter schools; for example, during FYs 2015–17, Big Eight charters received \$4,092 less per pupil, or 28 percent less, in total revenue relative to the Big Eight district average.

**Table A3: Revenue for districts and charters in selected Big Eight cities, average over FYs 2015–17**

	Public revenue (state, local, federal)	Nontax revenue	Public revenue per pupil	Nontax revenue per pupil	Total revenue per pupil	N pupils	N districts or charters
<b>Cincinnati</b>							
District	\$1,377,110,561	\$79,077,146	\$13,508	\$776	\$14,283	101,950	3
Charter	\$195,327,960	\$6,923,247	\$9,427	\$334	\$9,761	20,721	71
Disparity per pupil			(\$4,081)	(\$442)	(\$4,522)		
Disparity (%)			-30.2%	-57.0%	-31.7%		
<b>Cleveland</b>							
District	\$1,850,574,398	\$73,749,089	\$15,867	\$632	\$16,500	116,629	3
Charter	\$480,656,963	\$32,652,237	\$9,882	\$671	\$10,554	48,638	197
Disparity per pupil			(\$5,985)	\$39	(\$5,946)		
Disparity (%)			-37.7%	6.2%	-36.0%		
<b>Columbus</b>							
District	\$1,985,845,623	\$75,890,854	\$13,275	\$507	\$13,782	149,595	3
Charter	\$531,746,331	\$29,252,840	\$10,017	\$551	\$10,568	53,082	205
Disparity per pupil			(\$3,258)	\$44	(\$3,214)		
Disparity (%)			-24.5%	8.6%	-23.3%		
<b>Dayton</b>							
District	\$557,140,616	\$18,469,237	\$13,459	\$446	\$13,905	41,395	3
Charter	\$186,984,714	\$11,513,202	\$9,601	\$591	\$10,192	19,475	78
Disparity per pupil			(\$3,858)	\$145	(\$3,713)		
Disparity (%)			-28.7%	32.5%	-26.7%		

**Notes:** This table displays data averaged across FYs 2015–17 for selected Big Eight districts and the brick-and-mortar charter schools located in each respective district. For more on how charter school locations were determined, please see notes to table A2; for notes about the funding calculations, see table A1.

## Appendix B: Expenditure Tables

Table B1: Expenditure for all districts and charters statewide, FYs 2015–17

	Operational expenditure	Capital expenditure	Operational expenditure per pupil	Capital expenditure per pupil	Total expenditure per pupil	N pupils	N districts or charters
Three-year totals and averages (FYs 2015–17)							
District	\$49,756,389,009	\$5,732,941,985	\$10,619	\$1,224	\$11,843	4,685,387	1,823
Charter	\$3,213,849,500	\$60,552,914	\$9,542	\$180	\$9,722	336,806	1,006
Disparity per pupil			(\$1,077)	(\$1,044)	(\$2,121)		
Disparity (%)			-10.1%	-85.3%	-17.9%		
FY 2017							
District	\$17,074,832,066	\$1,963,152,328	\$10,943	\$1,258	\$12,202	1,560,285	608
Charter	\$1,085,111,786	\$19,642,991	\$10,039	\$182	\$10,220	108,095	328
Disparity per pupil			(\$904)	(\$1,076)	(\$1,982)		
Disparity (%)			-8.3%	-85.5%	-16.2%		
FY 2016							
District	\$16,470,682,668	\$1,824,245,928	\$10,548	\$1,168	\$11,716	1,561,469	607
Charter	\$1,072,993,958	\$23,231,737	\$9,422	\$204	\$9,626	113,887	338
Disparity per pupil			(\$1,126)	(\$964)	(\$2,090)		
Disparity (%)			-10.7%	-82.5%	-17.8%		
FY 2015							
District	\$16,210,874,275	\$1,945,543,729	\$10,367	\$1,244	\$11,611	1,563,633	608
Charter	\$1,055,743,756	\$17,678,186	\$9,194	\$154	\$9,348	114,824	340
Disparity per pupil			(\$1,173)	(\$1,090)	(\$2,263)		
Disparity (%)			-11.3%	-87.6%	-19.5%		

**Notes:** This table includes all Ohio charter schools, including both brick-and-mortar and online schools; all school districts are included. Operational expenditures include both classroom instructional and nonclassroom expenses (for example, administrative, maintenance, and food services). The only nonclassroom expense excluded is transportation for both districts and charters. Capital expenditures include the following nonoperating categories: construction, interest on debt, and land and structures; all other nonoperating expenses are excluded (for example, adult education). Per-pupil spending calculations use actual enrollments of students attending district and charter schools. Differences in district-charter spending are displayed as deficits for charter schools; for example, for FYs 2015–17, charters spent \$2,121 less per student, or 18 percent less, in total expenditure relative to the statewide district average.

**Table B2: Expenditure for Big Eight districts and charters, FYs 2015–17**

	Operational expenditure	Capital expenditure	Operational expenditure per pupil	Capital expenditure per pupil	Total expenditure per pupil	N pupils	N districts or charters
<b>Three-year totals and averages (FYs 2015–17)</b>							
District	\$7,855,687,610	\$621,775,754	\$13,492	\$1,068	\$14,560	582,252	24
Charter	\$1,870,760,795	\$42,631,840	\$10,368	\$236	\$10,604	180,440	717
Disparity per pupil			(\$3,124)	(\$832)	(\$3,956)		
Disparity (%)			-23.2%	-77.9%	-27.2%		
<b>FY 2017</b>							
District	\$2,703,768,243	\$180,793,632	\$13,879	\$928	\$14,807	194,810	8
Charter	\$631,354,631	\$15,389,744	\$10,667	\$260	\$10,927	59,189	235
Disparity per pupil			(\$3,212)	(\$668)	(\$3,880)		
Disparity (%)			-23.1%	-72.0%	-26.2%		
<b>FY 2016</b>							
District	\$2,596,039,821	\$210,850,075	\$13,374	\$1,086	\$14,461	194,107	8
Charter	\$623,313,213	\$14,257,031	\$10,363	\$237	\$10,600	60,148	239
Disparity per pupil			(\$3,011)	(\$849)	(\$3,861)		
Disparity (%)			-22.5%	-78.2%	-26.7%		
<b>FY 2015</b>							
District	\$2,555,879,546	\$230,132,047	\$13,220	\$1,190	\$14,410	193,335	8
Charter	\$616,092,951	\$12,985,065	\$10,083	\$213	\$10,295	61,103	243
Disparity per pupil			(\$3,137)	(\$977)	(\$4,115)		
Disparity (%)			-23.7%	-82.1%	-28.6%		

**Notes:** This table includes the Big Eight districts (Akron, Canton, Cincinnati, Cleveland, Columbus, Dayton, Toledo, and Youngstown) and all brick-and-mortar charter schools located these districts. Charter school locations were determined based on ODE’s [directory](#) of charter schools dated June 2018; for charters not included on that list (for example, schools that closed), locations were determined through ODE’s [Ohio Educational Directory System](#). For more detail on the calculations of operational and capital expenditures, see table B1. Differences in district-charter spending are displayed as deficits for charter schools; for example, during FYs 2015–17, Big Eight charters spent \$3,956 less per pupil, or 27 percent less, in total expenditure relative to the Big Eight district average.



**Table B3: Expenditure for districts and charters in selected Big Eight cities, average over FYs 2015–17**

	Operational expenditure	Capital expenditure	Operational expenditure per pupil	Capital expenditure per pupil	Total expenditure per pupil	N pupils	N districts or charters
<b>Cincinnati</b>							
District	\$1,288,710,212	\$109,454,029	\$12,641	\$1,074	\$13,714	101,950	3
Charter	\$204,246,895	\$3,902,396	\$9,857	\$188	\$10,045	20,721	71
Disparity per pupil			(\$2,784)	(\$886)	(\$3,669)		
Disparity (%)			-22.0%	-82.5%	-26.8%		
<b>Cleveland</b>							
District	\$1,808,598,736	\$181,579,658	\$15,507	\$1,557	\$17,064	116,629	3
Charter	\$504,938,735	\$6,471,287	\$10,464	\$134	\$10,599	48,253	195
Disparity per pupil			(\$5,043)	(\$1,423)	(\$6,466)		
Disparity (%)			-32.5%	-91.4%	-37.9%		
<b>Columbus</b>							
District	\$1,965,638,034	\$141,601,509	\$13,140	\$947	\$14,086	149,595	3
Charter	\$498,403,071	\$19,028,391	\$9,945	\$380	\$10,324	50,118	189
Disparity per pupil			(\$3,195)	(\$567)	(\$3,762)		
Disparity (%)			-24.3%	-59.9%	-26.7%		
<b>Dayton</b>							
District	\$532,359,768	\$30,929,263	\$12,861	\$747	\$13,608	41,395	3
Charter	\$195,343,635	\$4,014,283	\$10,243	\$210	\$10,453	19,071	75
Disparity per pupil			(\$2,618)	(\$537)	(\$3,154)		
Disparity (%)			-20.4%	-71.8%	-23.2%		

**Notes:** This table displays data averaged over FYs 2015–17 for selected Big Eight districts and the brick-and-mortar charter schools located in each respective district. For more detail on the calculations of operational and capital expenditures, see table B1; for more on how charters' locations were determined, see table B2.

## Appendix C: Equivalent Expenditure Tables

Table C1: Expenditure per equivalent pupil for all districts and charters statewide, FYs 2015–17

	Operational expenditure	Capital expenditure	Operational expenditure per equiv. pupil	Capital expenditure per equiv. pupil	Total expenditure per equiv. pupil	N equivalent pupils	N districts or charters
Three-year totals and averages (FYs 2015–17)							
District	\$49,756,389,009	\$5,732,941,985	\$8,558	\$986	\$9,544	5,813,809	1,823
Charter	\$3,213,849,500	\$60,552,914	\$6,983	\$132	\$7,114	460,250	1,006
Disparity per pupil			(\$1,575)	(\$855)	(\$2,430)		
Disparity (%)			-18.4%	-86.7%	-25.5%		
FY 2017							
District	\$17,074,832,066	\$1,963,152,328	\$8,781	\$1,010	\$9,791	1,944,466	608
Charter	\$1,085,111,786	\$19,642,991	\$7,296	\$132	\$7,428	148,731	328
Disparity per pupil			(\$1,485)	(\$878)	(\$2,363)		
Disparity (%)			-16.9%	-86.9%	-24.1%		
FY 2016							
District	\$16,470,682,668	\$1,824,245,928	\$8,505	\$942	\$9,446	1,936,691	607
Charter	\$1,072,993,958	\$23,231,737	\$6,902	\$149	\$7,051	155,461	338
Disparity per pupil			(\$1,603)	(\$793)	(\$2,395)		
Disparity (%)			-18.8%	-84.1%	-25.4%		
FY 2015							
District	\$16,210,874,275	\$1,945,543,729	\$8,388	\$1,007	\$9,395	1,932,652	608
Charter	\$1,055,743,756	\$17,678,186	\$6,765	\$113	\$6,878	156,058	340
Disparity per pupil			(\$1,623)	(\$893)	(\$2,516)		
Disparity (%)			-19.3%	-88.7%	-26.8%		

**Notes:** This table includes all Ohio charter schools, including both brick-and-mortar and online schools; all school districts are included. For more on what is included/excluded in the expenditure calculations, see table B1. Per-pupil expenditure calculations use weighted, or “equivalent-pupil,” enrollments for district and charter schools. For more on this weighting system, see ODE, [Expenditure Rankings and Expenditure Per Pupil Calculations for School Year 2017-18](#). Differences in district-charter spending are displayed as deficits for charter schools; for example, for FYs 2015–17, Ohio charters spent \$2,430 less per equivalent student, or 26 percent less, in total expenditure relative to the statewide district average.

**Table C2: Expenditure per equivalent pupil for Big Eight districts and charters, FYs 2015–17**

	Operational expenditure	Capital expenditure	Operational expenditure per equiv. pupil	Capital expenditure per equiv. pupil	Total expenditure per equiv. pupil	N equivalent pupils	N districts or charters
<b>Three-year totals and averages (FYs 2015–17)</b>							
District	\$7,855,687,610	\$621,775,754	\$9,425	\$746	\$10,171	833,452	24
Charter	\$1,870,760,795	\$42,631,840	\$7,425	\$169	\$7,594	251,940	717
Disparity per pupil			(\$2,000)	(\$577)	(\$2,577)		
Disparity (%)			-21.2%	-77.3%	-25.3%		
<b>FY 2017</b>							
District	\$2,703,768,243	\$180,793,632	\$9,670	\$647	\$10,316	279,612	8
Charter	\$631,354,631	\$15,389,744	\$7,619	\$186	\$7,805	82,867	235
Disparity per pupil			(\$2,051)	(\$461)	(\$2,512)		
Disparity (%)			-21.2%	-71.3%	-24.3%		
<b>FY 2016</b>							
District	\$2,596,039,821	\$210,850,075	\$9,339	\$758	\$10,097	277,983	8
Charter	\$623,313,213	\$14,257,031	\$7,417	\$170	\$7,587	84,034	239
Disparity per pupil			(\$1,922)	(\$588)	(\$2,510)		
Disparity (%)			-20.6%	-77.6%	-24.9%		
<b>FY 2015</b>							
District	\$2,555,879,546	\$230,132,047	\$9,265	\$834	\$10,099	275,857	8
Charter	\$616,092,951	\$12,985,065	\$7,245	\$153	\$7,398	85,039	243
Disparity per pupil			(\$2,020)	(\$681)	(\$2,701)		
Disparity (%)			-21.8%	-81.7%	-26.7%		

**Notes:** This table includes the Big Eight districts (Akron, Canton, Cincinnati, Cleveland, Columbus, Dayton, Toledo, and Youngstown) and all brick-and-mortar charter schools located these districts. For more detail on the calculations of operational and capital expenditures, see table B1; for more on how charters' locations were determined, see table B2. More on the equivalent pupil methodology is available at table C1. Differences in district-charter spending are displayed as deficits for charter schools; for example, during FYs 2015–17, Big Eight charters spent \$2,577 less per equivalent pupil, or 25 percent less, in total expenditure relative to the Big Eight district average.

**Table C3: Expenditure per equivalent pupil for districts and charters in selected Big Eight cities, average over FYs 2015–17**

	Operational expenditure	Capital expenditure	Operational expenditure per equiv. pupil	Capital expenditure per equiv. pupil	Total expenditure per equiv. pupil	N equivalent pupils	N districts or charters
<b>Cincinnati</b>							
District	\$1,288,710,212	\$109,454,029	\$9,244	\$785	\$10,029	139,414	3
Charter	\$204,246,895	\$3,902,396	\$7,324	\$140	\$7,464	27,886	71
Disparity per pupil			(\$1,919)	(\$645)	(\$2,564)		
Disparity (%)			-20.8%	-82.2%	-25.6%		
<b>Cleveland</b>							
District	\$1,808,598,736	\$181,579,658	\$10,222	\$1,026	\$11,249	176,927	3
Charter	\$504,938,735	\$6,471,287	\$8,000	\$103	\$8,103	63,116	195
Disparity per pupil			(\$2,222)	(\$924)	(\$3,146)		
Disparity (%)			-21.7%	-90.0%	-28.0%		
<b>Columbus</b>							
District	\$1,965,638,034	\$141,601,509	\$9,122	\$657	\$9,779	215,482	3
Charter	\$498,403,071	\$19,028,391	\$6,952	\$265	\$7,218	71,690	189
Disparity per pupil			(\$2,170)	(\$392)	(\$2,562)		
Disparity (%)			-23.8%	-59.6%	-26.2%		
<b>Dayton</b>							
District	\$532,359,768	\$30,929,263	\$8,882	\$516	\$9,398	59,939	3
Charter	\$195,343,635	\$4,014,283	\$7,717	\$159	\$7,875	25,314	75
Disparity per pupil			(\$1,165)	(\$357)	(\$1,522)		
Disparity (%)			-13.1%	-69.3%	-16.2%		

**Notes:** This table displays data averaged over FYs 2015–17 for selected Big Eight districts and the brick-and-mortar charter schools located in each respective district. For more detail on the calculations of operational and capital expenditures, see table B1; for more on how charters’ locations were determined, see table B2. More on the equivalent pupil methodology is available at table C1.

## Endnotes

- 1 For previous Ohio charter funding analyses, see Bryan C. Hassel and Michelle Godard Terrell, [School Finance in Dayton: A Comparison of the Revenues of the School District and Community Schools](#) (Washington, D.C.: Thomas B. Fordham Institute, 2004); Meagan Batdorff, et al., [Charter School Funding: Inequity's Next Frontier](#) (Washington, D.C.: Thomas B. Fordham Institute, 2005); Larry Maloney, "Ohio Profile," in [Charter School Funding: Inequity Persists](#), ed. Meagan Batdorff, et al. (Muncie, IN: Ball State University, 2010), 168–174; and Larry Maloney, "Ohio," in [Charter School Funding: Inequity Expands](#), ed. Meagan Batdorff, et al. (Fayetteville, AK: University of Arkansas, 2014).
- 2 The Big Eight refers to the state's eight high-poverty, urban districts: Akron, Canton, Cincinnati, Cleveland, Columbus, Dayton, Toledo, and Youngstown.
- 3 Jay Zagorsky, et al., [Teacher Supply and Demand in Ohio](#) (Columbus, OH: Ohio Education Research Center, 2013), 15.
- 4 For a review of the evolution of charter policy in Ohio, see Ohio Department of Education, [Community School Legislative History](#) (Columbus, OH: Ohio Department of Education, 2017), and Chester E. Finn, Jr., Terry Ryan, and Mike Lafferty, [Ohio's Education Reform Challenges: Lessons from the Frontlines](#) (Basingstoke, United Kingdom: Palgrave Macmillan, 2010); for more detail on the state's recent charter reforms, see Aaron Churchill, Jamie Davies O'Leary, and Chad L. Aldis, [On the Right Track: Ohio's charter reforms one year into implementation](#) (Columbus, OH: Fordham Institute, 2017).
- 5 "[Directory of Community Schools, Sponsors and Operators](#)," Ohio Department of Education, last modified June 2018.
- 6 Charter school locations were determined based on ODE's [directory of charter schools](#), dated June 2018; for charters not included on that list (for example, schools that closed), locations were determined through ODE's [Ohio Educational Directory System](#).
- 7 For more on the state's funding formula, including the incremental funding allocated to serve special-needs students, see Ohio Legislative Service Commission, [School Funding Complete Resource](#) (Columbus, OH: Ohio Legislative Service Commission, 2017), and Jennifer O'Neal Schiess, Max Marchitello, and Juliet Squire, [A Formula That Works: Five Ways to Strengthen School Funding in Ohio](#) (Washington, D.C.: Bellwether Education Partners/Fordham Institute, 2017).
- 8 This threshold was equivalent to an annual income of \$44,955 for a family of four in FY 2017. Under a federal policy known as the [Community Eligibility Provision](#) (CEP), high-poverty districts can provide meals at no cost to all students, regardless of their household income. This results in a number of Ohio districts reporting 100 percent ED students, including all Big Eight districts, save for Cincinnati and Toledo in FY 2017.
- 9 For more on Columbus' transition to CEP, see Bill Bush, "[All Columbus students to get free lunches](#)," *Columbus Dispatch*, June 19, 2014.
- 10 See, for example, Ivy Morgan and Ary Amerikaner, [Funding Gaps: An Analysis of School Funding Equity Across the U.S. and Within Each State](#) (Washington, D.C.: The Education Trust, 2018).
- 11 Data were collected primarily via ODE's [Advanced Reports](#) database in August 2018. No detailed financial information is available at an individual school level within districts, so we do not attempt a school-level analysis.
- 12 See, for example, the comments in Patrick J. Wolf, et al., [Charter School Funding: Inequity in the City](#), 9.
- 13 A few modifications apply to online charters. For instance, they are not eligible to receive targeted assistance, facility, or transportation funds. For more on charter funding, see "[Community School Funding](#)," Ohio Department of Education, accessed August 2018.
- 14 Charters may access local revenue through a revenue-sharing agreement with a district, but the only such agreement in Ohio is in Cleveland, where nineteen of the city's forty-eight charters receive a portion of local funding. For more, see "[CMSD/Charter School Collaboration](#)," Cleveland Metropolitan School District, accessed August 2018.
- 15 Ohio Department of Taxation, "[Real and Public Utility Tangible Personal Property Taxes, By School District](#)" (Columbus, OH: Ohio Department of Taxation, 2017).
- 16 None of the Big Eight districts assessed a local income tax. For more on this tax, see "[School District Income Tax](#)," Ohio Department of Taxation, accessed December 2018.
- 17 See, for example, Christine Fisher, "[Voters Make Strong Schools a Reality](#)," *Cincinnati Enquirer*, August 13, 2018.
- 18 See, for example, comments from Ohio Representative Andrew Brenner in Jim Siegel, "[Liberal Group Says ECOT Diverted \\$591M from Public Schools in Six Years](#)," *Columbus Dispatch*, June 6, 2018.

- 19 For further discussion on charter and district funding, including the pass-through payment method, see Schiess, et al., [A Formula That Works](#).
- 20 The foundation program is detailed in ORC 3317.
- 21 The funds excluded from the revenue data are listed in Ohio Department of Education, [Expenditure Rankings and Expenditure Per Pupil Calculations for School Year 2017–18](#) (Columbus, OH: Ohio Department of Education, 2018), 11.
- 22 See, for example, notes about revenue data at [“FY 2017: District Profile Report,”](#) Ohio Department of Education, accessed August 2018.
- 23 A portion of the ESC deduction benefits students attending their home districts via ESC-provided services such as professional development; other portions are used by ESCs to provide direct services to students under contracts. Because it is difficult to distinguish the amounts being used for professional versus direct-student services, this analysis deducts the entire ESC amount from districts’ revenues, slightly understating their revenues. The average ESC deduction in FY 2017 was \$145 per pupil. For more on Ohio’s ESCs, see Ohio Educational Service Center Association, [100 Years of Service: Ohio’s Educational Service Centers](#) (Columbus, OH: Ohio Educational Service Center Association, February 2015), and for a review of their funding, see Ohio Legislative Service Commission, [School Funding Complete Resource](#) (Columbus, OH: Ohio Legislative Service Commission, February 2017), 50.
- 24 This refers to students receiving services under career-and-technical-education or special-education contracts. For a description, see Ohio Department of Education, [FY 17 School Finance Payment Report: Line by Line Explanation](#) (Columbus, OH: Ohio Department of Education, 2017), 22.
- 25 In FY 2017, 104 out of 608 districts reported a positive transfer adjustment.
- 26 These data are available via Excel files under the column titled “Total Transfers & Adjustments.” Data from the final payment file for each year are used in these calculations (FY 2017 Final #3 Payment, FY 2016 Final #4 Payment, and FY 2015 Final #5 Payment). The spreadsheets and more detail of these funding adjustments are available at [“Foundation Funding Report,”](#) Ohio Department of Education, accessed August 2018.
- 27 In FY 2017, charters spent an average of \$87 per pupil on transportation, while districts spent \$636 per district pupil, including expenditures to transport students not educated by the district, including charter and nonpublic school students. State law on student transportation is at ORC 3327.
- 28 Open enrollees are generally funded at the base amount, though districts educating open enrollees with disabilities can receive additional funds; those funds, likely relatively small amounts, are not included in this adjustment. More detail on interdistrict open-enrollment policy is available at Ohio Department of Education, [Open Enrollment: Overview and Explanation](#) (Columbus, OH: Ohio Department of Education, 2015). Revenues for incoming open enrollees are reported under receipt code 1227, which are included in nontax revenue; see Ohio Department of Education, [Expenditure Rankings and Expenditure Per Pupil Calculations for 2017–18](#).
- 29 This calculation follows Patrick Wolf, et al. [Charter School Funding: Inequity in the City](#).
- 30 One exception is when conversion charters are sponsored by districts; in this case, charter expenditures are included with the district. As of Summer 2018, just eighteen charter schools met these conditions (only one of which was located in the Big Eight). Considering the small number of cases and minimal impact, no attempt was made to remove these expenditures from their respective districts’ data. For more, see the notes under the expenditure section in [“FY 2017: District Profile Reports,”](#) Ohio Department of Education, accessed August 2018.
- 31 Because most levies do not rise with inflation, districts might reserve cash knowing that expenses will likely increase with inflation. For more on districts’ cash balances, see [“Five Year Forecasts—Traditional Districts,”](#) Ohio Department of Education, accessed August 2018.
- 32 Ohio Department of Education, [Expenditure Rankings and Expenditure Per Pupil Calculations for School Year 2017–18](#).
- 33 Expenditures per equivalent pupil are displayed on districts’ report cards. For evidence about the public’s underestimation of school spending, see [Education Next/Program on Education Policy and Governance’s 2018 survey](#).
- 34 See, for example, Matthew Chingos, [How progressive is school funding in the United States?](#) (Washington, D.C.: Brookings Institution, 2017), and Bruce Baker, Danielle Farrie, and David Sciarra, [Is School Funding Fair? A National Report Card](#) (New Brunswick, NJ: Education Law Center, February 2018).
- 35 This refers to the concept of “vertical equity,” which suggests that higher-need children should be funded at higher levels than children with less costly needs. This is different from “horizontal equity,” which suggests that students with the same needs should be funded at the same levels—and is the concern that drives the equity analysis within the Big Eight. For more on this distinction in equity terminology, see, for example, Ross Rubenstein, [“The School Finance Perspective on Equity,”](#) *AdvancEd* (2016).

- 36 FDR Group, [\*Quality in Adversity: Lessons from Ohio's Best Charter Schools\*](#) (Columbus, OH: Thomas B. Fordham Institute, 2016), 19.
- 37 For more on the facility challenges facing Ohio charters, see a joint organizational report titled [\*An Analysis of the Landscape of School Facility Landscape in Ohio\*](#) published in 2016 by the U.S. Department of Education.
- 38 These policy developments are discussed in Parker Baxter, Todd L. Ely, and Paul Teske, "[A Bigger Slice of the Money Pie](#)," *Education Next* (2018), and Andrew Broy, "[Illinois Funding Reform: Transformative Policy in an Unlikely State](#)," *Flypaper* (2017).
- 39 In the first two rounds of CSCFG grants, only a handful of charters were eligible to apply. For more information, see "[Community Schools Classroom Facilities Grants 2](#)," Ohio Facilities Construction Commission, accessed August 2018.
- 40 For more on the principles of student-centered funding systems, including the notion that funds ought to follow students to the schools they attend, see Thomas B. Fordham Institute, [\*Fund the Child: Tackling Inequity & Antiquity in School Finance\*](#) (Washington, D.C.: Thomas B. Fordham Institute, 2006).





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