

School Funding Complete Resource

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Ohio Legislative Service Commission



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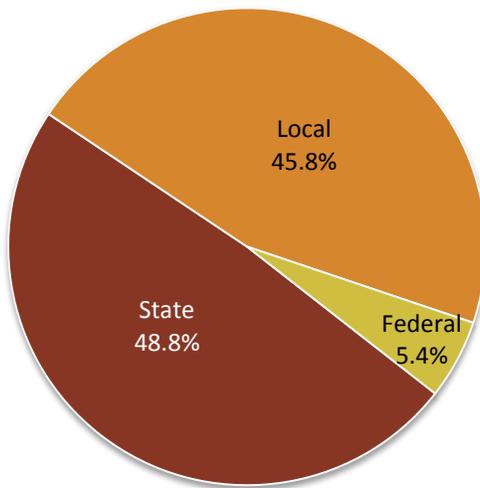
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Introduction

Primary and secondary education make up one of the core components of Ohio's budget, traditionally comprising the largest share of state-source General Revenue Fund (GRF) and lottery spending. In FY 2018, \$10.67 billion (45.7%) of the \$23.36 billion in total state-source GRF and lottery spending went to this program area, most of which was distributed to public schools. The operating costs of public schools in Ohio are funded primarily with these state revenues and local revenues raised at the school district level, while the federal government provides a relatively small share. The state distributes the bulk of its contribution through the foundation aid formula. The main structures of the current formula were first enacted in H.B. 59 of the 130th General Assembly and implemented in FY 2014. The budget acts since then, H.B. 64 of the 131st General Assembly and H.B. 49 of the 132nd General Assembly, largely retained that formula but made various changes for each biennium. This document analyzes the foundation aid formula enacted in H.B. 49 and is primarily meant to assist legislators and legislative staff in understanding the current formula's operation and funding distribution. In addition, this document analyzes other major sources of operating revenue from state, local, and federal sources.

Chart I.1 illustrates, for FY 2018, the composition of public school operating revenues by source. The revenue included in this chart is broken down in Table I.1.¹ As the chart shows, state sources comprise 48.8% of public school operating revenue, followed by local tax sources (45.8%), and federal sources (5.4%). As can be seen from the table, the foundation aid formula comprises 82.7% of state source revenues. Property tax rollbacks and the tangible personal property (TPP) direct reimbursements together comprise 13.5%, while various other sources

Chart I.1: Public School Operating Revenues by Source, FY 2018



¹ This revenue does not include competitive grants. It also does not include fees and donations collected at the local level or federal reimbursements for free and reduced-price meals. This measure of operating revenue differs from that available on the Department of Education's website and should not be compared with it.

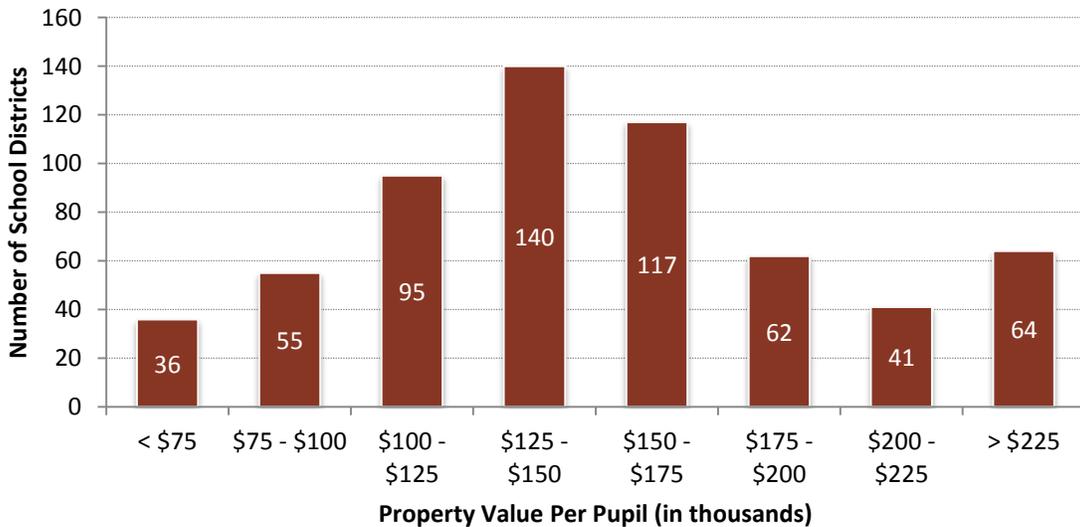
comprise the remaining 3.9% of state source revenues. Local revenues are comprised of property taxes (95.3%) and school district income taxes (4.7%). Federal revenues come mainly through the Elementary and Secondary Education Act's (ESEA) Title I (48.7%) and the Individuals with Disabilities Education Act (IDEA, 38.5%), with various other federal sources comprising the remaining 12.8%.

Table I.1: Public School Operating Revenues by Source, FY 2018		
Source Components	Revenue (in millions)	Percentage of Source
State Sources		
Foundation aid formula	\$8,248.9	82.7%
Property tax rollbacks	\$1,163.2	11.7%
TPP direct reimbursements	\$181.8	1.8%
Preschool special education	\$115.5	1.2%
Casino tax	\$92.0	1.0%
Directly funded scholarships	\$61.2	0.6%
Special education transportation	\$56.3	0.6%
Payments for funding Educational Service Center support services	\$43.8	0.4%
Community school facilities	\$16.6	0.2%
Total state sources	\$9,979.2	100%
Local Sources		
Property taxes	\$8,934.6	95.3%
Income taxes	\$444.1	4.7%
Total local sources	\$9,378.7	100%
Federal Sources		
ESEA Title 1	\$537.5	48.7%
Special education (IDEA)	\$424.5	38.5%
Improving teacher quality	\$71.8	6.5%

Table I.1: Public School Operating Revenues by Source, FY 2018		
Source Components	Revenue (in millions)	Percentage of Source
Career-technical education	\$35.9	3.3%
Preschool special education	\$10.6	1.0%
English language acquisition	\$10.1	0.9%
Student support and academic enrichment	\$7.2	0.7%
Rural education	\$3.3	0.3%
Homeless children education	\$2.1	0.2%
Total federal sources	\$1,102.9	100%
Total all sources	\$20,460.8	

The main driver behind the distribution of state revenue through the foundation aid formula is each public school district's capacity to raise revenues at the local level for the students residing in the district. This capacity varies among the 610 school districts in Ohio as it is largely dependent on the taxable property value per pupil of the district. Chart I.2 shows the distribution of property value per pupil for FY 2018. Taxable value per pupil ranges from less than \$75,000 in 36 districts to more than \$225,000 in 64 districts. The statewide weighted average and median are both around \$145,000 per pupil.

Chart I.2: Distribution of Taxable Property Value Per Pupil, FY 2018

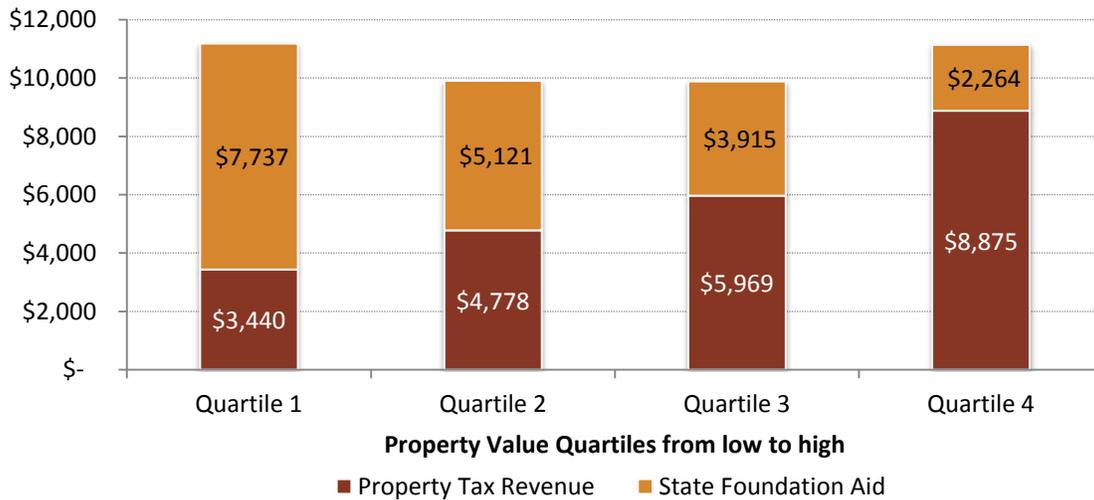


The variation in per-pupil property values affects each individual district's ability to raise local revenue. The same one-mill property tax levy generates \$75 per pupil for a district with a

property value per pupil of \$75,000 and \$225 per pupil for a district with a property value per pupil of \$225,000. As a result, local per pupil operating revenues vary significantly across Ohio school districts.² In Chart I.3, school districts are ranked from lowest to highest property value per pupil and separated into four quartiles with roughly the same number of pupils. Districts in quartile 1 have the lowest taxable property value per pupil, whereas districts in quartile 4 have the highest. The bottom portions of the bars in the chart show average property tax revenue per pupil. As expected, property tax revenue per pupil is lower for districts with lower property value per pupil. It ranges from an average of \$3,440 for districts with the lowest property value per pupil to an average of \$8,875 for districts with the highest.

The foundation aid formula partially offsets the results of these variations by directing more aid to districts with lower property value per pupil. The average state foundation aid for each quartile is represented in the top portions of the bars in the chart, and ranges from an average of \$7,737 for districts with the lowest property value per pupil to an average of \$2,264 for districts with the highest.

Chart I.3 Per Pupil Property Tax and Foundation Aid by Property Value Quartile, FY 2018



The analysis that follows this brief introduction looks at the state, local, and federal sources of public school revenues in more detail, concentrating on the state foundation aid formula.

² The other variable that affects local property tax revenue is the millage rate levied in each district, which is primarily determined by the voters residing in the district.

State Operating Revenue

The following discussion describes the major sources of state revenue for educating public school students at traditional school districts, community schools, educational service centers, and joint vocational school districts as well as students attending chartered nonpublic schools with state scholarships.

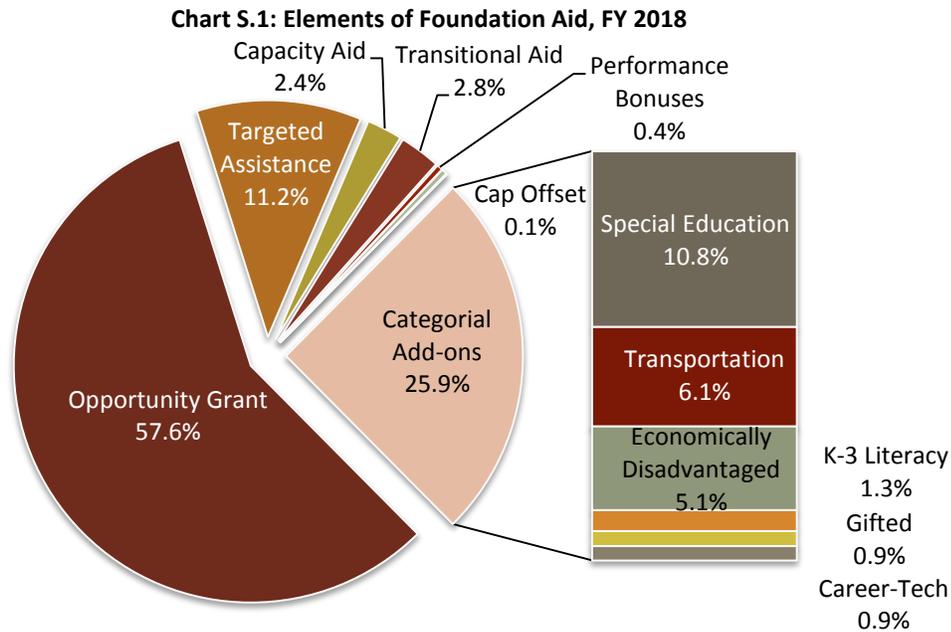
Traditional school district funding

As stated in the introduction, of the major sources of state revenue distributed to public schools in Ohio, the majority (82.5% in FY 2018) comes through the state foundation aid formula. The current foundation aid formulas for traditional and joint vocational school districts (JVSDs) were first established for FY 2014. (The formulas are similar and more is said about the JVSD formula later in the analysis.) This section discusses the formula for traditional districts. The foundation aid formula for traditional districts funds students based on the district in which they reside. Generally, if a student is not educated by the student's resident district, funding for that student is deducted from the resident district's allocation and transferred to the educating school. The foundation aid formula for traditional districts can be broken into five main components:

- **Opportunity grant:** This component is based on a uniform per-pupil formula amount. It makes up the largest portion of state foundation aid.
- **Targeted assistance and capacity aid:** These components provide additional funding to districts with lower capacities to raise local revenues and small districts with relatively low total property value, respectively.
- **Categorical add-ons:** These variable funding components address the needs of "nontypical" students: those receiving special, gifted, or career-technical education services, those who are economically disadvantaged, and those who are limited English proficient. This area also includes K-3 literacy and pupil transportation. Pupil transportation varies greatly among districts partly due to the size and road conditions of each district.
- **Performance bonuses:** The formula incentivizes academic performance through two components based on districts' four-year graduation rates and third grade reading proficiency rates.
- **Additional funding adjustments:** In contrast to the above categories, most of which are funded based on each student's individual characteristics, the formula includes three district-based funding elements that smooth out large fluctuations in state aid: temporary transitional aid, a gain cap, and a cap offset payment.

State foundation aid, after the application of temporary transitional aid and the gain cap, averages \$4,770 per pupil statewide in FY 2018. Of this amount, \$2,746 (57.6%) is for the opportunity grant, which is based on a uniform per-pupil formula amount of \$6,010 in FY 2018.

On average, categorical add-ons totaled \$1,217 per student statewide and comprised 25.5% of state foundation aid. Average targeted assistance and capacity aid amounted to a total of \$652 per pupil statewide, or 13.7% of the statewide total. The performance bonuses totaled to \$19 per pupil, or 0.4% of the total. The remaining components, temporary transitional aid and the cap offset payment, account for \$133 per pupil (2.8%) and \$3 per pupil (0.1%), respectively. The total average state foundation aid per pupil for FY 2018 is separated into its components in Chart S.1.



State foundation aid is based largely on the number of students residing in each district and the capacity of each district to raise revenues locally. These two variables are measured by annualized full-time equivalent (FTE) enrollment and the state share index, respectively, in the formula.

Annualized FTE enrollment

Annualized FTE enrollment is the measure the state uses to determine the number of students residing in each district. Since FY 2015, students are counted based on the portion of the year they are enrolled in public education and residing in the district. For example, a full-time student who moves from one district to another one-quarter of the way through the school year will be counted as 0.25 FTE in the first district and 0.75 FTE in the second district. School districts may provide the Ohio Department of Education (ODE) with updated data as changes occur, but must report data by the last day of October, March, and June. In FY 2014 and prior years, districts counted their students over one week in October then calculated the daily average. Despite the change in methodology, the funding formula still uses the term "average daily membership" or "ADM" to refer to the student count.

Two slightly different student count calculations are used in the funding formula – total ADM and formula ADM. Total ADM is the number of all students who reside in the district even if they attend a nonpublic school under the traditional Educational Choice Scholarship

Program³, the Jon Peterson Special Needs Scholarship Program, or the Autism Scholarship Program; or a public school that is not part of the district, such as a school in a different district under open enrollment, a community school, or a JVSD. Since funding for JVSDs is provided by a separate formula, not a transfer, the second ADM calculation — formula ADM — is calculated by subtracting 80% of the JVSD student count from total ADM. The largest component of state foundation aid, the opportunity grant is distributed using formula ADM. Traditional school districts include 20% of their JVSD student count in their formula ADM in order to cover expenses the resident district may incur for these students. The formula also adds 20% of the number of students residing in each district that are enrolled in another school district under a career-technical education compact. These students are not counted in their resident district's total ADM. Instead, they are counted in their educating districts' total ADM.

The calculation of formula ADM for each district is summarized and illustrated below. Statewide, school district formula ADM totaled 1.67 million students in FY 2018.

Formula ADM	
$\text{Formula ADM} = \text{Total ADM} - (\text{JVS ADM} \times 80\%) + (\text{CTE compact ADM} \times 20\%)$	

Example – Formula ADM. The following is an example of the FY 2018 formula ADM calculation for a hypothetical district, District A.

Formula ADM for Hypothetical District A, FY 2018	
Factor	Count
A. Total ADM	1,000
B. JVS ADM	32
C. CTE compact ADM	8
D. Formula ADM = A – (B x 0.8) + (C x 0.2)	976

State share index

As seen in the introduction, the amount of local revenue a district raises is dependent, largely, on the property value of the district. The formula uses the state share index to account for a district's capacity to raise local revenue when distributing state funds. A district's three-year average property value forms the basis of the state share index.

³ The traditional Educational Choice Scholarship Program differs from the income-based program in that scholarships awarded under the latter are paid directly by the state instead of the deduction and transfer method used for the former. Thus, students awarded a scholarship under the income-based criteria are not counted in their resident district's ADM.

Base average value

Real property values are reappraised every six years in Ohio and updated in the third year following each sexennial reappraisal. As a result, in the reappraisal and update years, school districts generally experience significant changes in real property value. In general, a three-year average is used to smooth these large changes in value. To make the formula even more stable, the state share index generally is calculated once for both years of the biennium. That is, for most districts, the index for FY 2018 and FY 2019 is based on the average property value for TY 2014, TY 2015, and TY 2016 (FY 2016, FY 2017, and FY 2018).⁴

The state share index takes into account a district's property value per pupil and, in some circumstances, income to measure a district's capacity to raise local revenue

Value for certain districts affected by power plant devaluation. However, the base average value used in the calculation of the state share index may take into account only the value for the most recent tax year available for a small number of school districts whose local property tax base has deteriorated from a significant reduction in the public utility tangible personal property (PUTPP) value of local power plants. In FY 2018 and FY 2019, the base average value for districts whose PUTPP values comprised more than 10% of total taxable value in the tax year preceding the most recent year that data is available and whose PUTPP and power plant total taxable values fell by 10% or more from the preceding tax year to the most recent tax year is the lesser of the district's total taxable value for the most recent tax year or the district's three-year average value. For example, an eligible district qualifies for its TY 2016 value to be used in place of its three-year average value for TYs 2014, 2015, and 2016 to compute its state share index for FY 2018. Likewise, an eligible district in FY 2019 would qualify for its TY 2017 value to be used in place of the three-year average value for TYs 2014, 2015, and 2016, meaning that an eligible district's state share index may be recomputed in the second year of the biennium. For districts such as these whose values are declining, using only the most recent year's value makes the district look less wealthy because the three-year average value includes data from higher value years.

The determination of eligible districts is made for each fiscal year. However, if a district is eligible for the value adjustment in FY 2018 but not in FY 2019, the formula specifies that the district's state share index for FY 2019 must be the same as the district's state share index for FY 2018. In FY2018, six districts are eligible for their TY 2016 value to replace their three-year average value. These districts' TY 2016 values are a total of \$86.6 million lower than their three-year average values.

⁴ Tax years are generally from January 1 to December 31, whereas state and school fiscal years are from July 1 to June 30. Most property taxes for a given tax year are paid in the following tax year. Taxes paid for TY 2016, therefore, are mostly received in FY 2018. For purposes of the school funding formula, property values in a given tax year correspond to the fiscal year two years later.

Base Average Value

Three-year average value = Average of taxable property value for TYs 2014, 2015, and 2016

Base average value = three-year average value, unless:

- (a) (PUTPP value / total taxable value for tax year preceding most recent tax year) ≥ 0.1 ,
- (b) [(PUTPP value for most recent tax year / PUTPP value for preceding tax year) - 1] ≤ -0.1 ,
- (c) [(Power plant total taxable value for most recent tax year / power plant total taxable value for preceding tax year) - 1] ≤ -0.1 , and
- (d) Total taxable value for most recent tax year < three-year average value, then

Base average value = total taxable value for the most recent tax year

Adjusted base average value

The formula adjusts base average value for districts that have a relatively large amount of state property exempt from property taxation. If a district's tax-exempt property value (not counting property owned by the federal government) is at least 30% of its potential property value, its value is reduced for the purposes of the formula. The calculation of this adjustment is summarized below. Since adjusted value is lower for these districts, their state share index values and thus the state's share of the formula cost ultimately increase. In FY 2018, 15 districts received this adjustment. These districts' values were reduced by a total of \$2.48 billion. While this adjustment increases the initial calculation of FY 2018 state funding by about \$84.8 million statewide, the subsequent application of the formula's guarantee and gain cap provisions limit the net increase to about \$15.2 million.

Adjusted Base Average Value

Potential value = Base average value + Tax-exempt value

Adjustment = Greater of \$0 or (Tax-exempt value - 0.30 x Potential value)

Adjusted base average value = Base average value - Adjustment

Property value index

Using adjusted values, the formula computes a property value index for each district by dividing a district's adjusted base average value per pupil (using total ADM for FY 2017⁵) by the statewide unadjusted average per pupil, as shown in the table below. Thus, a district with an adjusted three-year average value per pupil the same as the state average will have a property value index of 1.0, property wealthier districts will have an index greater than 1.0, and less

⁵ Using total ADM for the fiscal year preceding a new biennium provides additional stability to a district's funding by preventing its state share index from changing continually throughout the first fiscal year of the biennium as changes occur to district total ADM.

wealthy districts will have an index value less than 1.0. For FY 2018 and FY 2019, the statewide three-year average value per pupil is \$145,559. The property value index ranges from about 0.33 to 5.82, excluding a few outlier districts.

Property Value Index

District value per pupil = Adjusted base average value / Total ADM for FY 2017

State value per pupil =
Sum of all districts' three-year average unadjusted values / Sum of all districts' total ADM

Property value index = District value per pupil / State value per pupil

Income index

The formula also takes into account the ability of a district's residents to pay property taxes by including two measures of income in the determination of the state share index for certain districts: median income and federal adjusted gross income (FAGI). To do so, the formula calculates the median income index for each district by dividing a district's median Ohio adjusted gross income by the statewide median. The statewide median was \$33,782. Next, the formula requires a similar calculation for FAGI, by dividing a district's three-year average FAGI per pupil by the statewide three-year average FAGI per pupil. The statewide three-year average FAGI per pupil was \$184,657. The formula calculates a district's income index by averaging its median income index and the similar FAGI calculation. Income index values range from 0.43 to 4.02, excluding an outlier district.

Income Index

Median income index = District median Ohio adjusted gross income for TY 2015 /
State median Ohio adjusted gross income for TY 2015

District FAGI per pupil = District three-year average FAGI / Formula ADM for FY 2017

District three-year average FAGI = average of FAGI for TYs 2013, 2014, and 2015

State FAGI per pupil = Sum of all districts' three-year average FAGI / Sum of all districts' formula ADM

Income index = (Median income index x 0.5) + [(District FAGI per pupil / State FAGI per pupil) x 0.5]

Wealth index

The formula then compares a district's income index with its property value index in order to determine the district's wealth index. For a district with relatively low income (in general, an income index less than its property value index), the income index is taken into account to make an applicable district look less wealthy to the formula and thus, increases its

state share. However, the formula limits the effect of the income index to districts with median incomes at or below 150% of the statewide median. For qualifying districts, the wealth index is based on 60% of the district's property value index and 40% of the district's income index. For a district not meeting the criteria for the income factor, the wealth index is equal to the property value index. As a result, the use of the income index can never result in a wealth index that is higher than the property value index. In FY 2018 and FY 2019, the income adjustment applies to 301 school districts (49.3%). While this adjustment increases the initial calculation of FY 2018 state funding by about \$134.7 million statewide, the subsequent application of the formula's guarantee and gain cap provisions limit the net increase to about \$6.6 million.

Wealth Index

If (a) Income index < Property value index and (b) Median income index < 1.5, then:
 Wealth index = (Property value index x 0.6) + (Income index x 0.4), else
 Wealth index = Property value index

Final calculation

Using a district's computed wealth index, the formula then determines a district's state share index according to the calculations shown below. As the table indicates, no district has a state share index greater than 90% or less than 5%.

State Share Index

If Wealth index \leq 0.35:
 State share index = 0.90;

If Wealth index > 0.35 but \leq 0.90:
 State share index = $\{0.40 \times [(0.90 - \text{Wealth index}) / 0.55]\} + 0.50$;

If Wealth index > 0.90 but < 1.8:
 State share index = $\{0.45 \times [(1.8 - \text{Wealth index}) / 0.9]\} + 0.05$;

If Wealth index \geq 1.8:
 State share index = 0.05

This formula may appear complicated, but it merely results in two lines meeting at a wealth index of 0.9 and a state share index of 50%, as illustrated in Chart S.2. The state share index directs more state funds to districts with lower wealth indexes. It is used in the calculation of the opportunity grant and seven other components of the foundation aid formula.

Chart S.2: State Share Index, FY 2018

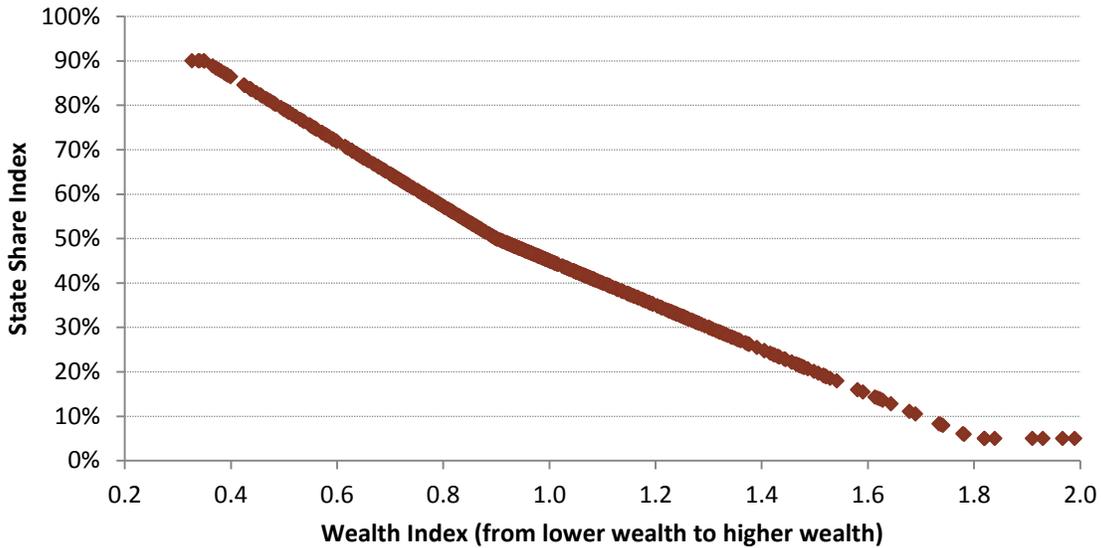
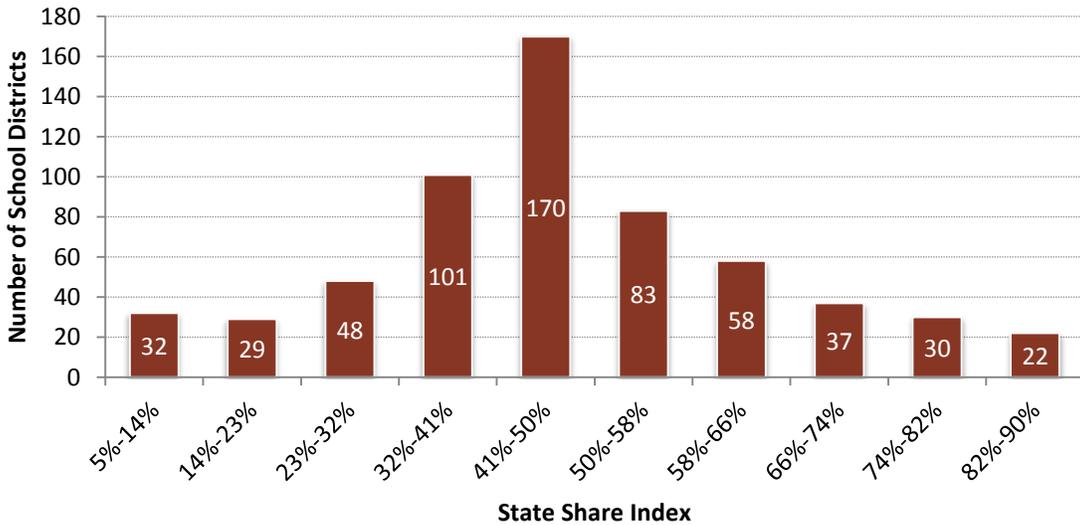


Chart S.3 shows the distribution of the state share index over the 610 school districts. As can be seen from the chart, there is a spike in the middle of the distribution. The state share index lies between 32% and 66% for 412 districts (67.5%). In FY 2018 and FY 2019, 22 high-wealth districts have state share index values of 5%, the index's floor level, while four low-wealth districts are at the ceiling level of 90%.

Chart S.3: Distribution of State Share Index, FY 2018



Example – State Share Index. The following table computes the state share index for the hypothetical District A as well as two other hypothetical districts that have identical total ADM but differing values per pupil, which are indicated in line U below. District A is less wealthy than the statewide average while districts B and C are the least and most wealthy of the three, respectively. District B has a large amount of state tax-exempt property and thus, qualifies for

the value adjustment that makes the district look less wealthy. Also notice that District C lost a large amount of PUTPP value from TY 2015 to TY 2016 and has relative income less than its relative value per pupil. The formula compensates for both situations by replacing the three-year average value with the district's value for TY 2016 and through the inclusion of the income factor in the calculation of the district's wealth index to make the district look less wealthy and thus to provide a greater share of state funding. Had these individual provisions not been in place, District C's state share index would have about 17.2 and 18.5%, respectively.

State Share Index Values for Hypothetical Districts A, B, and C, FY 2018			
Factor	District A	District B	District C
A. Total taxable value, TY 2014	\$120,000,000	\$100,000,000	\$275,000,000
B. Total taxable value, TY 2015	\$130,000,000	\$103,000,000	\$280,000,000
C. Total taxable value, TY 2016	\$131,000,000	\$106,000,000	\$225,000,000
D. 3-year average value = (A + B + C) / 3	\$127,000,000	\$103,000,000	\$260,000,000
E. PUTPP value, TY 2015	\$7,000,000	\$2,000,000	\$128,000,000
F. PUTPP value, TY 2016	\$7,250,000	\$1,900,000	\$75,000,000
G. PUTPP value percentage, TY 2015 = (E / B)	5.4%	1.9%	45.7%
H. PUTPP value % change = (F / E) - 1	3.6%	-5.0%	-41.4%
I. Power plant total taxable value, TY 2015	\$8,000,000	\$2,500,000	\$140,000,000
J. Power plant total taxable value, TY 2016	\$8,250,000	\$2,400,000	\$87,000,000
K. Power plant total taxable value % change = (J / I) - 1	3.1%	-4.0%	-37.9%
L. Eligible district for power plant devaluation provisions = if (G ≥ 10%, H ≤ -10%, and K ≤ -10%), "Yes," else "No"	No	No	Yes
M. Base average value = if (L = "Yes"), lesser of C or D, else D	\$127,000,000	\$103,000,000	\$225,000,000
N. Tax exempt property value	\$13,000,000	\$80,000,000	\$30,000,000
O. U.S. government-owned property value	\$300,000	\$0	\$6,000,000
P. Potential value = M + N - O	139,700,000	\$183,000,000	\$249,000,000

State Share Index Values for Hypothetical Districts A, B, and C, FY 2018			
Factor	District A	District B	District C
Q. 30% of Potential value = $P \times 0.3$	\$41,910,000	\$54,900,000	\$74,700,000
R. Adjustment = Greater of $(N - O - Q)$ or \$0	\$0	\$25,100,000	\$0
S. Adjusted base average Value = $M - R$	\$127,000,000	\$77,900,000	\$225,000,000
T. Total ADM, FY 2017	1,010	1,010	1,010
U. District Value Per Pupil = S / T	\$125,743	\$77,129	\$222,772
V. Statewide Value Per Pupil	\$145,559	\$145,559	\$145,559
W. Value Index = U / V	0.8639	0.5299	1.5305
X. Median Income, TY 2015	\$32,000	\$30,000	\$35,000
Y. Statewide Median, TY 2015	\$33,782	\$33,782	\$33,782
Z. Median Income Index = X / Y	0.9473	0.8880	1.0361
AA. FAGI, TY 2013	\$140,000,000	\$93,000,000	\$250,000,000
AB. FAGI, TY 2014	\$145,000,000	\$98,000,000	\$263,000,000
AC. FAGI, TY 2015	\$153,000,000	\$106,000,000	\$270,000,000
AD. 3-year average FAGI = $(AA + AB + AC) / 3$	\$146,000,000	\$99,000,000	\$261,000,000
AE. Formula ADM, FY 2017	986	986	986
AF. District FAGI Per Pupil = AD / AE	\$148,073	\$100,406	\$264,706
AG. Statewide FAGI Per Pupil	\$184,657	\$184,657	\$184,657
AH. Income Index = $(Z \times 0.5) + ((AF / AG) \times 0.5)$	0.8746	0.7159	1.2348
AI. Wealth Index = if $(AH < W$ and $Z \leq 1.5$), $(W \times 0.6) + (AH \times 0.4)$, else W	0.8639	0.5299	1.4122
AJ. State Share Index	0.5263	0.90	0.2439

The equalization effect of the state share index is evident from this example as the highest wealth district, District C, has the lowest share provided by the state (24.4%) whereas

the lowest wealth district, District B, has the highest share provided by the state (90%). District A is in the middle of the two, at 52.6%

Opportunity grant

As indicated above, the opportunity grant makes up the largest portion of state foundation aid. It is based on a per-pupil formula amount of \$6,010 in FY 2018 and \$6,020 in FY 2019. The formula amount is adjusted by a district's state share index to distribute a higher per-pupil amount to lower wealth districts. Preschool autism scholarship students are included in the formula for calculating a district's opportunity grant in order to credit the district with funding for such students prior to the deduction for their scholarships. The opportunity grant totaled approximately \$5,018.5 million in FY 2018. Note that this and other formula funding data for the components that follow represent the funding calculated by the formula before the application of the gain cap.

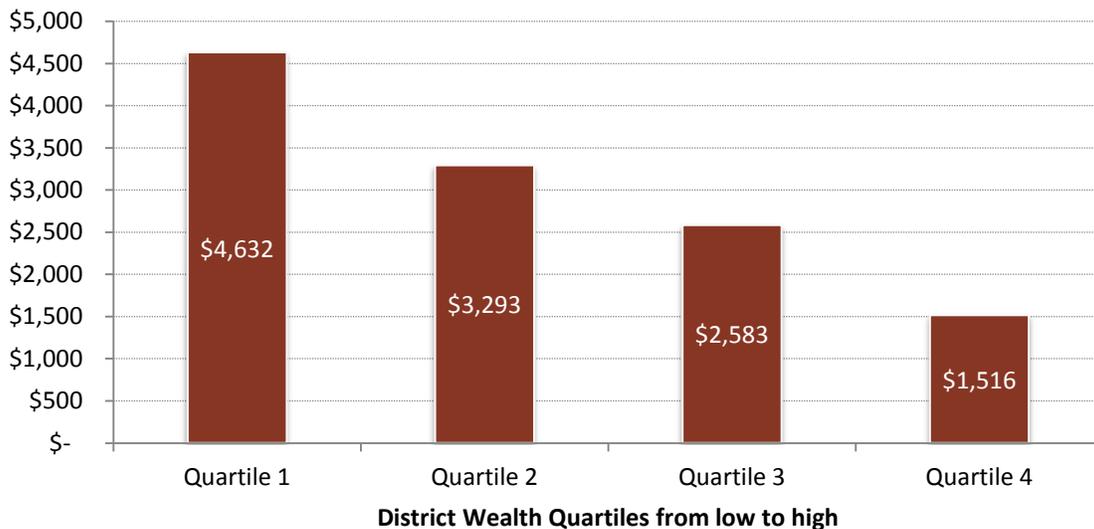
Opportunity Grant

Opportunity grant =
 Formula amount x (Formula ADM + Preschool autism scholarship ADM) x State share index

Formula amount = \$6,010 in FY 2018 and \$6,010 in FY 2019

Chart S.4 shows the average per-pupil funding in FY 2018 calculated under the opportunity grant for districts in each wealth quartile. As the chart shows, the opportunity grant for the lowest wealth districts (quartile 1) calculated to an average of \$4,632 per pupil. The average per-pupil amount for districts in wealthier quartiles is progressively smaller. The statewide average in FY 2018 was \$3,012 per pupil.

Chart S.4: Average Opportunity Grant Per Pupil by Wealth Quartile, FY 2018



Example – Opportunity grant. The following calculates the opportunity grant for the hypothetical Districts A, B, and C, which are assumed to have identical ADM figures. Due to the state share index, the lowest wealth district, District B, receives the largest opportunity grant amount while the highest wealth district, District C, receives the lowest amount

Opportunity Grant for Hypothetical Districts A, B, and C, FY 2018			
Factor	District A	District B	District C
A. Formula ADM	976	976	976
B. Preschool autism scholarship ADM	2	2	2
C. State share index	0.5263	0.90	0.2439
D. Opportunity Grant = \$6,010 x (A + B) x C	\$3,093,380	\$5,290,002	\$1,433,628

Targeted assistance

The targeted assistance component of the formula directs additional funding to districts with lower capacities to raise local revenues. Most of the funding in this component is distributed through a base tier that equalizes a varying amount of millage for districts outside of the top 20% on a measure of per-pupil wealth. In addition, this component contains a supplemental tier for districts with high percentages of agricultural real property. Combined, both tiers of targeted assistance for school districts totaled approximately \$946.9 million in FY 2018.

Base tier

Unlike the opportunity grant, the base tier of targeted assistance does not use the state share index to measure a district's revenue-generating capacity. Rather, the base tier depends on a combination of a district's property value per pupil and income per pupil. Property value is computed as the average of the preceding three years. While this is similar to the measure used for the state share index, there is no adjustment for districts affected by power plant devaluation or tax-exempt property, the measure is recomputed each year,⁶ and current year formula ADM is used as the student count. Income is computed as the three year average of federally adjusted gross income (FAGI). The formula defines a district's wealth per pupil as the average of its property value per pupil and its income per pupil. Similarly, the formula also computes the statewide wealth per pupil using statewide sums of property value, FAGI, and formula ADM. These calculations are summarized below.

⁶ That is, for FY 2018, value per pupil is the average of TYs 2014, 2015, and 2016 and, for FY 2019, it is the average of TYs 2015, 2016, and 2017

Wealth Per Pupil

$$\text{District wealth per pupil} = 0.5 \times (\text{Average of last three years' taxable property value} / \text{Formula ADM}) + 0.5 \times (\text{Average of last three years' FAGI} / \text{Formula ADM})$$

$$\text{State wealth per pupil} = 0.5 \times (\text{Sum of the average of all districts' taxable property value} / \text{Sum of all districts' formula ADM}) + 0.5 \times (\text{Sum of the average of all districts' FAGI} / \text{Sum of all districts' formula ADM})$$

Base targeted assistance is provided to the 489 districts with the lowest wealth per pupil. Millage is equalized to the wealth per pupil of a threshold district, which is the district with the 490th lowest wealth per pupil. In FY 2018, the threshold district's wealth per pupil is \$213,209. The millage equalized by the base tier varies depending on the wealth per pupil of the district. The formula calculates a wealth index for each district that is equal to the statewide wealth per pupil divided by the district's wealth per pupil. So, if a district's wealth per pupil is average (equal to the state's) then the wealth index is 1.0. If a district's wealth per pupil is greater than average, its wealth index will be less than 1.0 and if it is lower than average, its index will be greater than 1.0. In FY 2018, statewide wealth per pupil is \$167,336 and the wealth index values of the 489 districts eligible for base targeted assistance vary from about 0.79 to about 2.72. The wealth index of each district is multiplied by a target millage rate of six mills in each fiscal year. As a result, the millage equalized by the base tier in FY 2018 ranges from about 4.7 mills (6 mills x 0.79) to about 16.3 mills (6 mills x 2.72). The calculation of a district's equalized millage is summarized below.

Millage Equalized by Base Targeted Assistance

$$\text{District wealth index} = \text{State wealth per pupil} / \text{District wealth per pupil}$$

$$\text{District additional millage} = 0.006 \times \text{District wealth index}$$

Although targeted assistance is computed on a per-pupil basis, it is not included in the calculation of the Educational Choice, Autism, and Jon Peterson Special Needs scholarships. It is also not provided to e-schools and provided at only 25% to "brick and mortar" community and STEM schools. Therefore, an adjustment is made to the formula ADM of each district so as to not credit the district with targeted assistance for students educated through these programs. The resulting ADM figure is referred to as "net formula ADM." Base targeted assistance per pupil calculated by the formula for eligible districts ranged from about \$6 to about \$2,471. The calculation of the base tier is given below. Base targeted assistance for school districts totaled approximately \$778.8 million in FY 2018.

Base Targeted Assistance

$$\text{Base targeted assistance per pupil} = (\text{Wealth per pupil of 490th lowest wealth district} - \text{District wealth per pupil}) \times \text{Target millage} \times \text{District wealth index}$$

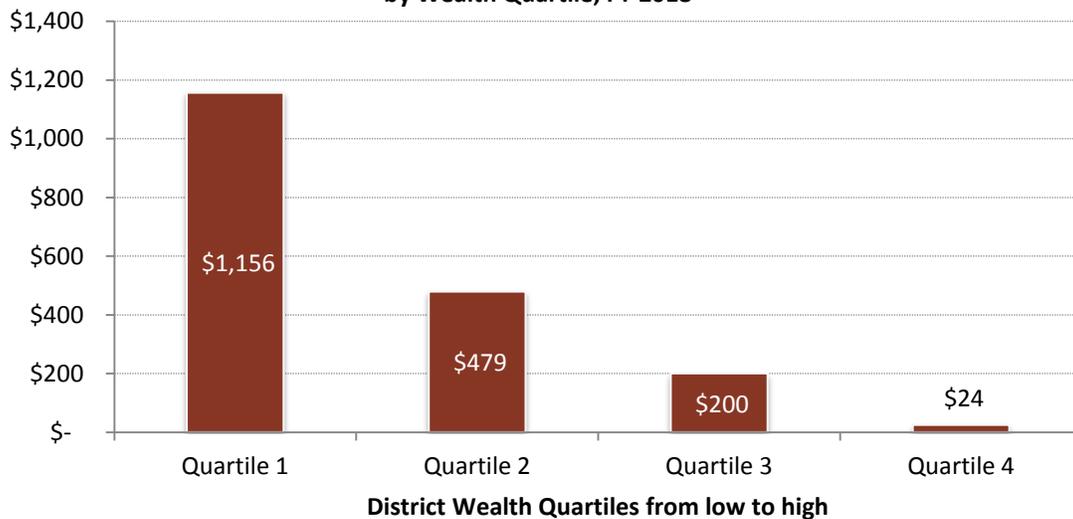
$$\text{Base targeted assistance} = \text{Base targeted assistance per pupil} \times \text{Net formula ADM}$$

$$\text{Target millage} = 0.006$$

$$\text{Net formula ADM} = \text{Formula ADM} - \text{EdChoice Scholarship ADM} - \text{Autism Scholarship ADM} - \text{Jon Peterson Special Needs Scholarship ADM} - \text{e-school ADM} - 75\% \text{ of "brick and mortar" community and STEM school ADM}$$

Chart S.5 illustrates the equalized distribution of these funds by wealth quartile on an average per-pupil basis calculated using the district's formula ADM. As the chart shows, districts in quartile 1 receive an average of \$1,156 per pupil, significantly more than the other quartiles. The chart also illustrates the scaling effect of applying the wealth index to the target millage rate. On average, the districts in quartile 1 have a wealth index of 1.79, while districts in quartiles 2 and 3 have an average wealth index of 1.18 and 0.92, respectively. Thus, the base tier equalizes an average of 10.72 mills (6 mills x 1.79) for the least wealthy districts, close to double the average 5.54 mills equalized in districts comprising quartile 3 (6 mills x 0.92).

Chart S.5: Average Base Targeted Assistance Per Pupil by Wealth Quartile, FY 2018



Supplemental tier

The formula also provides supplemental targeted assistance based on a district's percentage of agricultural property value. This tier is calculated by subtracting 10 percentage points from each district's agricultural percentage and multiplying the difference by 40% of the formula amount (\$2,404 in FY 2018 and \$2,408 in FY 2019) and then by the district's net

formula ADM. Thus, only districts with more than 10% agricultural real property qualify for these funds. In FY 2018, 335 (54.9%) districts met this threshold. The calculation of supplemental targeted assistance is given below. Supplemental targeted assistance for school districts totaled approximately \$168.1 million in FY 2018.

Supplemental Targeted Assistance

$$\text{District agricultural percentage} = \frac{\text{Three-year average value of district agricultural real property}}{\text{Three-year average value of all real property in district}}$$

$$\text{Supplemental targeted assistance} = (\text{District agricultural percentage} - 0.1) \times (0.4 \times \text{Formula amount}) \times \text{Net formula ADM}$$

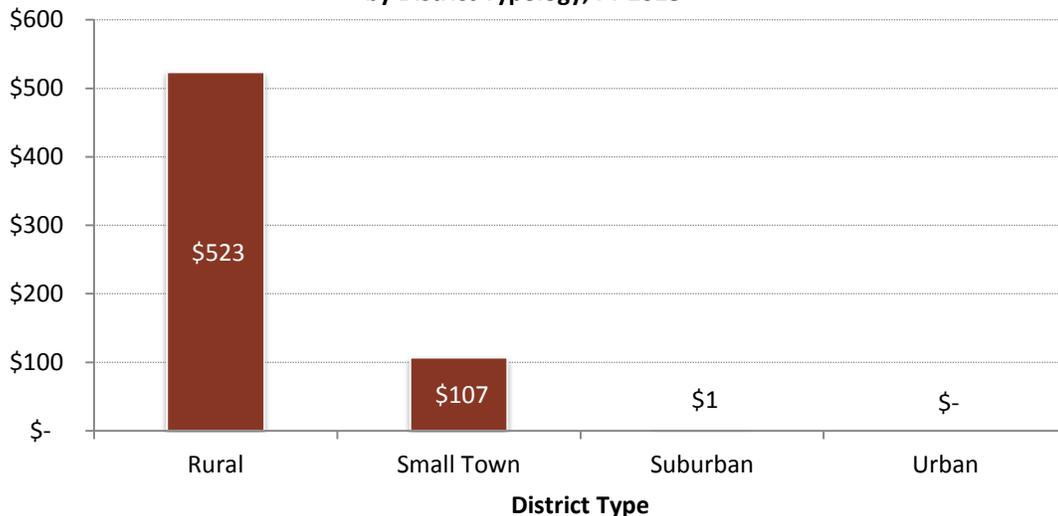
If this calculation results in a negative number, then Supplemental targeted assistance = \$0

$$\text{Three-year average value for FY 2018} = \text{Average value for TYs 2014, 2015, and 2016}$$

$$\text{Three-year average value for FY 2019} = \text{Average value for TYs 2015, 2016, and 2017}$$

Chart S.6 shows average supplemental targeted assistance per formula ADM in FY 2018 by district comparison group (referred to as typology). The chart illustrates that the formula focuses this funding on districts with the most agricultural real property. The average per-pupil amount for rural districts was \$523 in FY 2018, almost five times more than the average of \$107 per pupil received by districts in small town areas. Suburban and urban districts received little or nothing from this component.

Chart S.6: Average Supplemental Targeted Assistance Per Pupil by District Typology, FY 2018



Example – Targeted assistance. The following calculates base and supplemental targeted assistance in FY 2018 for the hypothetical districts A, B, and C. Once again, assume that these districts have identical ADM figures. Note that, because of its high wealth rank (564),

District C is ineligible for base tier funds, but receives supplemental tier funds because more than 10% of its real property value is comprised of agricultural property.

Targeted Assistance for Hypothetical Districts A, B, and C, FY 2018			
Factor	District A	District B	District C
A. 3-year average value	\$127,000,000	\$103,000,000	\$260,000,000
B. Formula ADM	976	976	976
C. Value per pupil = A / B	\$130,123	\$105,533	\$266,393
D. 3-year Average FAGI	\$146,000,000	\$99,000,000	\$261,000,000
E. FAGI per pupil = D / B	\$149,590	\$101,434	\$267,418
F. Wealth per pupil = (0.5 x C) + (0.5 x E)	\$139,857	\$103,484	\$266,906
G. Statewide wealth per pupil	\$167,336	\$167,336	\$167,336
H Wealth index = G / F	1.1965	1.6170	0.6269
I. Wealth rank (from lowest to highest)	200	61	564
J. Threshold wealth = 490th rank	\$213,209	\$213,209	\$213,209
K. Base tier per pupil = (J – F) x 0.006 x H	\$527	\$1,065	\$0
L. EdChoice Scholarship students	7	7	7
M. Autism Scholarship students	3	3	3
N. Jon Peterson Special Needs Scholarship students	1	1	1
O. E-school ADM	10	10	10
P. Brick and mortar community school ADM	20	20	20
Q. Net formula ADM = B – L – M – N – O – (0.75 x P)	940	940	940
R. Base targeted assistance = K x Q	\$494,994	\$1,000,700	\$0
S. 3-year average agricultural real property value	\$50,000,000	\$5,000,000	\$45,000,000

Targeted Assistance for Hypothetical Districts A, B, and C, FY 2018			
Factor	District A	District B	District C
T. 3-year average total real property value	\$120,000,000	\$101,000,000	\$150,000,000
U. Agricultural percentage = S / T	0.4167	0.0495	0.30
V. Supplemental targeted assistance = (U – 0.1) x (0.4 x \$6,010) x Q	\$702,493	\$0	\$443,680
W. Total targeted assistance = R + V	\$1,197,488	\$1,000,700	\$443,680

Capacity aid

Beginning in FY 2016, H.B. 64 added a new funding component that targets funding to smaller districts with relatively low total property valuation. This component, capacity aid, is based on the amount a district can raise with one mill (the district's capacity amount) and is provided to districts that raise less than the median amount. In FY 2018, the median capacity amount was \$231,776. The aid is calculated on a sliding scale so that districts further from the median receive a higher amount. This sliding scale is determined by a district's capacity ratio. The capacity ratio is calculated by multiplying each district's three-year average total property valuation by 0.001 to determine its capacity amount and then dividing the statewide median capacity amount by the district's capacity amount. The formula then subtracts a value of one from that quotient so that only districts below the median capacity amount qualify for funding. No district's capacity ratio may exceed a value of 2.5.

Capacity Ratio

District capacity amount = Three-year average value x 0.001

Capacity ratio = The lesser of [(Median capacity amount / District capacity amount) – 1] or 2.5

If this calculation results in a negative number, then Capacity ratio = 0

Three-year average value for FY 2018 = Average value for TYs 2014, 2015, and 2016

Three-year average value for FY 2019 = Average value for TYs 2015, 2016, and 2017

Next, the formula calculates the capacity aid per pupil amount, which is the median capacity amount divided by the average formula ADM of all of the districts with capacity amounts below the median. In FY 2018, the average formula ADM of all districts below the median capacity amount was 1,030, leading to a capacity aid per-pupil amount of about \$225.

Capacity Aid Per-Pupil Amount

Capacity aid per-pupil amount =
 Median capacity amount / Average formula ADM of all districts below the median capacity amount

Finally, capacity aid is calculated by multiplying the capacity aid per-pupil amount by the district's formula ADM by the capacity aid multiplier (value of 4.0 in both FY 2018 and FY 2019) and then by the capacity ratio. Capacity aid for school districts totaled approximately \$196.3 million in FY 2018.

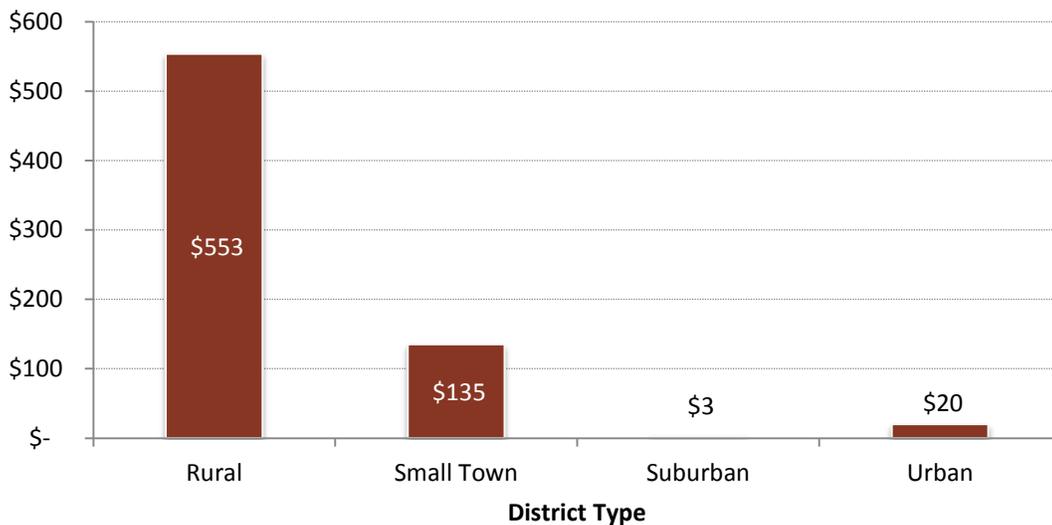
Capacity Aid

Capacity aid = Capacity aid per-pupil amount x Formula ADM x Capacity aid multiplier x Capacity ratio

Capacity aid multiplier = 4.0

Chart S.7 shows average per formula ADM funding in FY 2018 calculated under capacity aid by district typology. Rural districts receive the highest amount of average per-pupil funding from this component at \$553. These districts have, on average, the lowest aggregate valuations among the district types and make up 62.5% of the districts below the median capacity amount. On the other hand, urban districts receive very little from capacity aid, though they tend to have the lowest average valuations per pupil among district types. By their nature, urban districts, particularly the eight major urban districts, have relatively large amounts of aggregate property value. Thus, urban districts tend to raise more than the median capacity amount from one mill. Of the districts that qualify for capacity aid, 11 (3.7%) are smaller urban districts. No major urban districts qualify.

Chart S.7: Average Capacity Aid Per Pupil by District Typology, FY 2018



Example – Capacity Aid. The following calculates capacity aid for the hypothetical Districts A, B, and C. Only District C raises more money with one mill than the median district and thus, does not qualify for funding under this component. Due to its small property tax base, District B has the highest capacity ratio and receives the largest capacity aid amount.

Capacity Aid for Hypothetical Districts A, B, and C, FY 2018			
Factor	District A	District B	District C
A. 3-year average value	\$127,000,000	\$103,000,000	\$260,000,000
B. District capacity amount = $A \times 0.001$	\$127,000	\$103,000	\$260,000
C. Median capacity amount	\$231,776	\$231,776	\$231,776
D. Capacity ratio = the lesser of $(C / B) - 1$ or 2.5	0.8250	1.2503	0.0
E. Average formula ADM of districts below median capacity amount	1,030	1,030	1,030
F. Capacity aid per-pupil = C / E	\$225	\$225	\$225
G. Formula ADM	976	976	976
H. Capacity aid multiplier	4.0	4.0	4.0
I. Capacity aid = $F \times G \times H \times D$	\$724,839	\$1,098,452	\$0

Categorical components

The opportunity grant is the cornerstone of the foundation aid formula. However, funding based on a flat per-pupil amount will not ensure a similar education for every student in every district since students have different needs and districts face different challenges. The current school funding formula includes a series of additional components to account for individual districts' unique characteristics. These components account for students receiving special education and related services, economically disadvantaged students, gifted students, students in grades K-3, students receiving career-technical education services, and limited English proficiency students. Since the size and road conditions of districts vary considerably, this section also discusses the formula for determining transportation aid.

State funding accounts for a district's unique characteristics and corresponding cost differences that are beyond the district's control

Special education additional aid

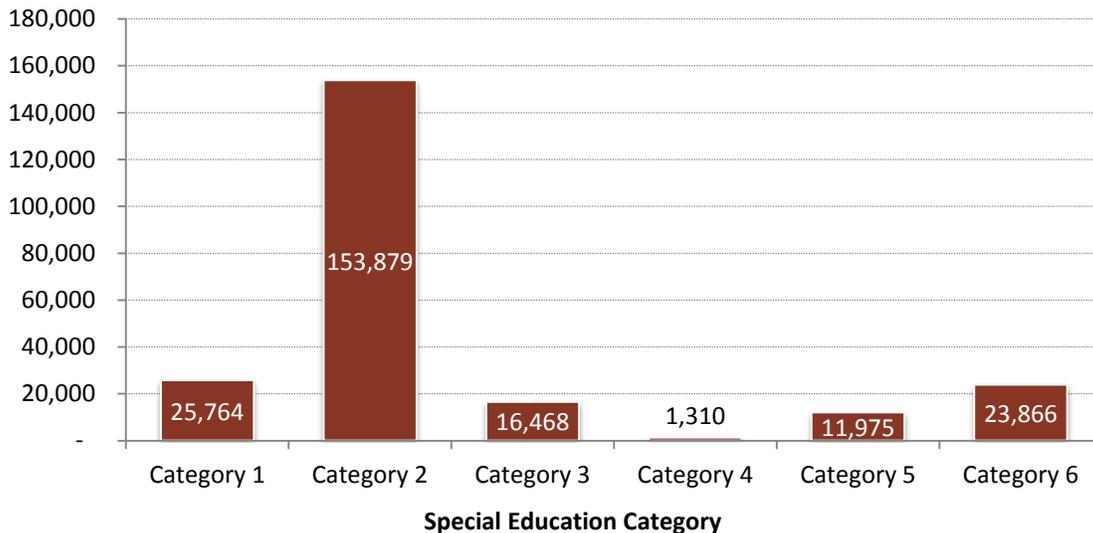
Federal and state law requires children with disabilities ages three to 21 to be provided a free appropriate public education. Accordingly, school districts must develop an individualized education program (IEP) for each child with a disability. Among other items, an IEP contains a

statement of the special education and related services and accommodations the child will be provided. The foundation aid formula groups special education students into six categories based on their disabilities, and assigns an additional per pupil amount for each category. The categories and amounts are listed below.

Special Education Categories	
Category	Amount Per Pupil
1 Speech only	\$1,578
2 Specific learning disabled, developmentally disabled, other health – minor	\$4,005
3 Hearing impaired, severe behavior disabled	\$9,622
4 Vision impaired, other health – major	\$12,841
5 Orthopedically disabled, multi-disabled	\$17,390
6 Autism, traumatic brain injury, both visually and hearing impaired	\$25,637

Each special education student is counted in the district's ADM as one student for the purposes of calculating the district's opportunity grant. These students are also counted in each district's special education ADM, which, as noted above, is broken out by each special education category. Across all six categories, special education ADM amounted to 233,262 in FY 2018. Chart S.8 displays the incidence of each of the six special education categories. As the chart shows, most special education students fall into category two, which represents almost 154,000 (66.0%) of overall special education ADM.

Chart S.8: Special Education ADM by Category, FY 2018



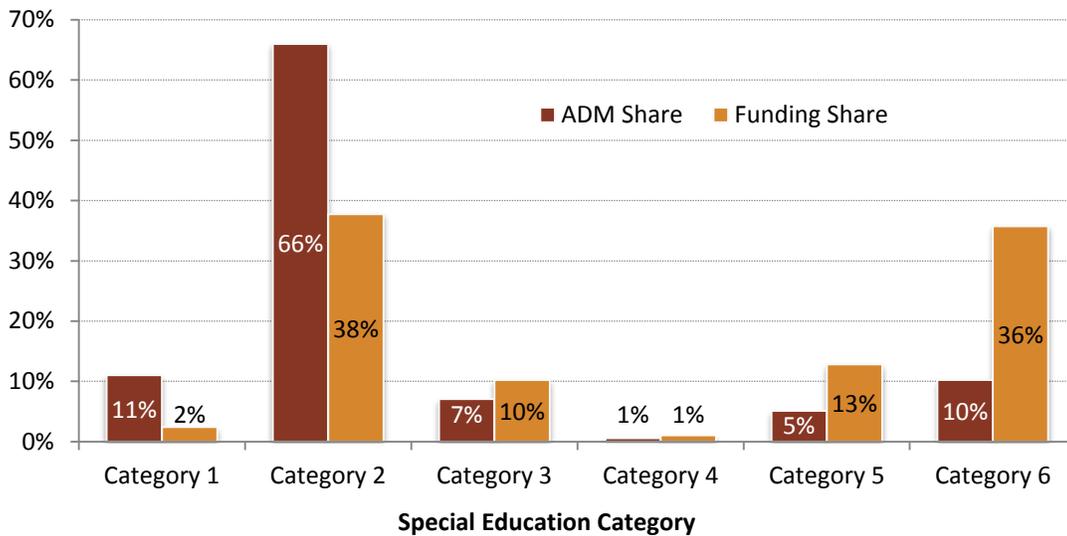
In order to determine special education additional aid, the formula calculates the sum of the amounts obtained by multiplying the special education ADM for each category by the per-pupil amount for that category and, to equalize this funding based on school district capacity to raise local revenues, by the state share index. This calculation is summarized below. The total amount calculated for special education additional aid statewide was \$857.7 million in FY 2018.

Special Education Additional Aid

$$\text{Special education additional aid} = (\text{Category 1 ADM} \times \text{Per-pupil amount} + \text{Category 2 ADM} \times \text{Per-pupil amount} + \text{Category 3 ADM} \times \text{Per-pupil amount} + \text{Category 4 ADM} \times \text{Per-pupil amount} + \text{Category 5 ADM} \times \text{Per-pupil amount} + \text{Category 6 ADM} \times \text{Per-pupil amount}) \times \text{State share index}$$

Chart S.9 compares the shares of special education ADM and funding for FY 2018 for each special education category. As noted above, category two students make up 66% of all special education ADM, but the special education additional aid for those students makes up 38% of the total special education additional aid. Conversely, the students with the most severe disabilities (category six) represent 10% of all special education ADM but drive 36% of the additional aid to school districts.

Chart S.9: Share of Special Education ADM and Funding by Category, FY 2018



Example – Special education additional aid. The following calculations continue the example of the hypothetical District A. The table shows District A's assumed ADM for each of the six special education categories and the calculation of District A's special education additional aid for FY 2018.

Special Education Additional Aid for Hypothetical District A, FY 2018				
Category	A. Special Education ADM	B. Per-Pupil Amount	C. State Share Index	D. Additional Aid = A x B x C
One	15	\$1,578	0.5263	\$12,457
Two	82	\$4,005	0.5263	\$172,837
Three	11	\$9,622	0.5263	\$55,703
Four	0	\$12,841	0.5263	\$0
Five	5	\$17,390	0.5263	\$45,760
Six	12	\$25,637	0.5263	\$161,908
Total	125	--	--	\$448,665

Economically disadvantaged funds

Another categorical cost is that incurred by districts for disadvantaged students, who may not have access to the same resources and opportunities outside of school as other students. In order to provide these students with an education similar to that provided to more advantaged students, schools may need to provide additional resources and opportunities. The foundation aid formula provides additional funding to school districts based on the number and concentration of economically disadvantaged students in a district. The state uses students from low-income families (i.e., families eligible for free and reduced price school lunch) as a proxy for disadvantaged students. In order to provide more funding to districts with higher concentrations of economically disadvantaged students, the formula calculates an economically disadvantaged index. A district's index value is equal to the percentage of students in the district that are economically disadvantaged divided by the percentage of students in the state that are economically disadvantaged, with the result squared to target funding to districts with higher concentrations of poverty. This index ranges from zero to 4.0. Calculation of the index is summarized below.

Economically Disadvantaged Index

$$\% \text{ Economically disadvantaged} = \text{Economically disadvantaged ADM} / \text{Total ADM}$$

$$\text{Economically disadvantaged index} = (\text{District } \% \text{ economically disadvantaged} / \text{State } \% \text{ economically disadvantaged})^2$$

The formula provides a per-pupil amount of \$272, which is multiplied by the district's economically disadvantaged index and then by the number of students in the district's ADM

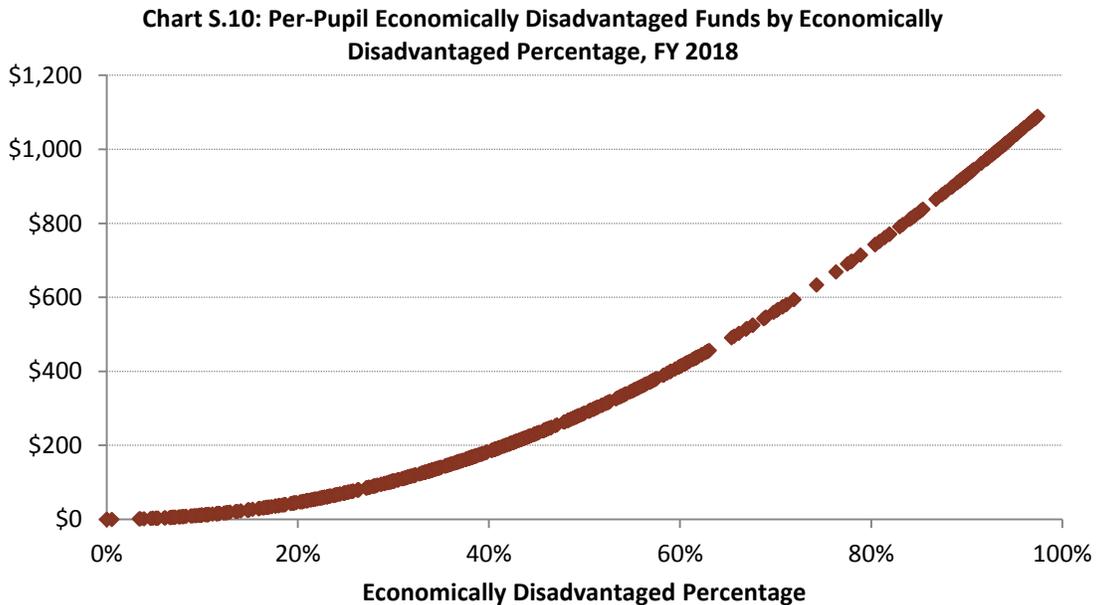
who are identified as economically disadvantaged (except for students attending an e-school, since e-schools are ineligible for this funding component). This calculation is summarized below. The total amount calculated for economically disadvantaged aid statewide was \$448.4 million in FY 2018.

Economically Disadvantaged Funds

$$\text{Economically disadvantaged funds} = \text{Economically disadvantaged per-pupil amount} \times \text{Economically disadvantaged index} \times \text{Economically disadvantaged ADM}$$

Economically disadvantaged per-pupil amount = \$272

Chart S.10 shows the effect of the economically disadvantaged index on the per economically disadvantaged pupil amount in FY 2018. The chart illustrates that the increase in per-pupil funding becomes more rapid as the economically disadvantaged percentage increases. This is due to the inclusion of the square factor in the computation of the index. For example, a district at the state average percentage (48.7% in FY 2018) has an economically disadvantaged index of 1.0, which results in a per-pupil amount of \$272 (\$272 x 1.0), the base amount specified by the formula. In contrast, the economically disadvantaged index for the district with the highest economically disadvantaged percentage (97.4%) in FY 2018 was about 4.0. Thus, that district's per-pupil amount in FY 2018, in effect, was about \$1,089 (\$272 x 4.0).



Example – Economically disadvantaged funds. The following calculations continue the example of the hypothetical District A. The table shows the calculation of District A's economically disadvantaged funds for FY 2018. Since District A's economically disadvantaged percentage is close to the state average, its economically disadvantaged index is close to 1.0.

Economically Disadvantaged Funds for Hypothetical District A, FY 2018	
Factor	Amount
A. Economically disadvantaged ADM	468
B. Resident district e-school economically disadvantaged ADM	2
C. Total ADM	1,000
D. Economically disadvantaged percentage = A / C	0.4680
E. State economically disadvantaged percentage	0.4869
F. Economically disadvantaged index = $(D / E)^2$	0.9239
G. Economically disadvantaged funds = $(A - B) \times \$272 \times F$	\$117,103

Gifted funds

Identification funds

Current law requires school districts to identify gifted students in grades K-12. School districts identify gifted students through the use of certain screening tools and assessments approved by ODE. The foundation aid formula assists districts with the costs of identification. Funds for gifted identification are provided at a rate of \$5.05 per formula ADM. This calculation is summarized below. In FY 2018, the total amount calculated for gifted identification funds statewide was \$8.4 million.

Gifted Identification Funds

Gifted identification funds = Gifted identification per-pupil amount x Formula ADM

Gifted identification per-pupil amount = \$5.05

Unit funds

While school districts are required to identify gifted students, they are not required to offer gifted services. Even so, the formula provides unit funding for gifted education services based upon certain prescribed ratios of gifted coordinators and gifted intervention specialists. The formula allocates one gifted coordinator unit for every 3,300 students in a district's gifted unit ADM, which is calculated as the district's formula ADM minus the ADM of resident students from the district attending a community or STEM school. No district may have fewer than 0.5 or more than eight such units allocated under the formula. One gifted intervention specialist unit is allocated for every 1,100 gifted unit ADM, with a minimum of 0.3 units allocated to each district. There is no cap on the number of gifted intervention specialist units. The total number

of units is then multiplied by the specified unit cost to determine the district's unit funding. The formula specifies that the unit cost for each gifted coordinator and gifted intervention specialist unit is \$37,370. The calculations for gifted units are summarized below. In FY 2018, the statewide number of gifted coordinator and gifted intervention specialist units calculated by the formula was 525 and 1,418, respectively. The total amount calculated for gifted unit funding statewide in FY 2016 was \$72.6 million.

Gifted Unit Funds	
Gifted unit ADM = Formula ADM – Community and STEM school ADM	
Gifted coordinator units = Gifted unit ADM / 3,300 (minimum of 0.5 units and maximum of 8 units)	
Gifted intervention specialist units = Gifted unit ADM / 1,100 (minimum of 0.3 units)	
Gifted unit funds = Gifted unit cost x (Gifted coordinator units + Gifted intervention specialist units)	
Gifted unit cost = \$37,370	

Example – gifted funds. The following calculations continue the example of the hypothetical District A. The table shows the calculation of District A's gifted funds for FY 2018.

Gifted Funds for Hypothetical District A, FY 2018	
Factor	Amount
A. Formula ADM	976
B. Gifted identification funds = A x \$5.05	\$4,929
C. Resident district community and STEM school ADM	30
D. Gifted unit ADM = A – C	946
E. Gifted coordinator units = D / 3,300 (min. of 0.5; max. of 8)	0.5
F. Gifted intervention specialist units = D / 1,100 (min. of 0.3)	0.86
G. Gifted unit funds = \$37,370 x (E + F)	\$50,823
H. Total gifted funds = B + G	\$55,752

K-3 literacy funds

Under a policy in current law known as the third grade reading guarantee, each district and community school must annually assess the reading skills of each student in grades K-3 to identify students reading below grade level. The district or school must provide intervention services to identified students to help them improve their reading skills. Once the policy is fully phased-in, school districts and community schools generally will be prohibited from promoting to fourth grade a student that is not reading at grade level by the end of the third grade. The foundation aid formula provides additional funding to school districts in support of the third grade reading guarantee. This funding is based on a district's K-3 ADM, with the exception of such resident students attending an e-school (e-schools are ineligible for this component of funding), through two tiers, one equalized and the other unequalized. The equalized portion of a school district's K-3 literacy funds, which depends on the district's state share index, uses a per-pupil amount of \$193 while the unequalized portion is calculated using a per-pupil amount of \$127. The calculation of this funding is summarized below. The total amount calculated for K-3 literacy funds statewide in FY 2018 was \$112.7 million.

K-3 Literacy Funds

$$\text{K-3 literacy funds} = (\text{K-3 ADM} \times \text{Equalized per-pupil amount} \times \text{State share index}) + (\text{K-3 ADM} \times \text{Unequalized per-pupil amount})$$

$$\text{Equalized per-pupil amount} = \$193$$

$$\text{Unequalized per-pupil amount} = \$127$$

Example – K-3 literacy funds. The following calculations continue the example of the hypothetical District A. The table shows District's A's assumed K-3 ADM and the calculation of District A's K-3 literacy funds for FY 2018.

K-3 Literacy Funds for Hypothetical District A, FY 2018	
Factor	Amount
A. K-3 ADM	315
B. K-3 E-school ADM	5
C. State share index	0.5263
D. Equalized K-3 literacy funds = (A – B) x 193 x C	\$31,488
E. Unequalized K-3 literacy funds = (A – B) x \$127	\$39,370
F. Total K-3 literacy funds = D + E	\$70,858

Career-technical education funds

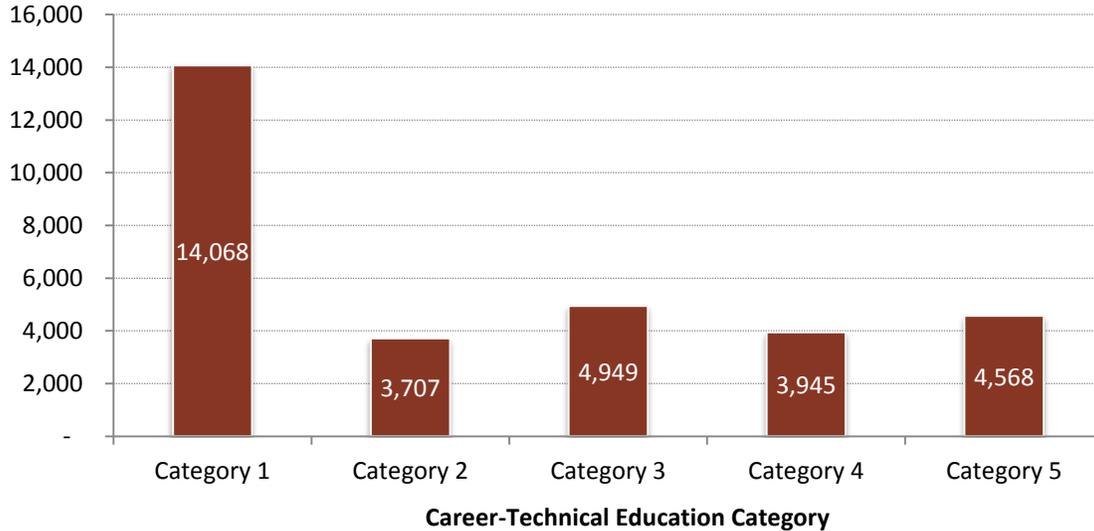
Current law generally requires school districts to provide students in grades 7-12 with the opportunity of career-technical education (CTE) that adequately prepares them for an occupation.⁷ School districts can meet this requirement by establishing their own State Board of Education-approved CTE programs, being a member of a joint vocational school district (JVSD), or by contracting with a JVSD or another school district for CTE services. The formula provides additional funding to school districts to cover the higher costs of CTE services. The formula for calculating this funding separates career-technical FTEs into five categories and funds a per FTE amount for each category. The five categories and the amounts are given in the table below. The same CTE amounts apply to students enrolled in JVSDs, which are funded through a separate but comparable formula that is discussed at the end of this section.

Career-Technical Education Categories	
Category	Amount Per Pupil
1 Workforce development programs in agricultural and environmental systems, construction technologies, engineering and science technologies, finance, health science, information technology, and manufacturing technologies	\$5,192
2 Workforce development programs in business and administration, hospitality and tourism, human services, law and public safety, arts and communications, and transportation systems	\$4,921
3 Career-based intervention programs	\$1,795
4 Workforce development programs in education and training, marketing, workforce development academics, public administration, and career development	\$1,525
5 Family and consumer science programs	\$1,308

Across all five categories, career-technical FTEs amounted to 31,237 in FY 2018. Chart S.11 displays statewide FTE by CTE category. As the chart shows, category one contains the largest number of FTEs, representing 45% of the total.

⁷ School districts may opt to not provide career-technical education to students in grades seven and eight by annually adopting a resolution and submitting it to the Ohio Department of Education.

Chart S.11: Career-Technical Education FTE by Category, FY 2018



The formula multiplies the FTE in each category by the dollar amounts in the table above and by the state share index. The amounts for each category are then summed. This calculation is summarized below. Statewide, CTE additional funds amounted to \$61.2 million in FY 2018.

Career-Technical Education Additional Funds

$$\text{Career-technical education additional funds} = (\text{Category 1 FTE} \times \text{Per-pupil amount} + \text{Category 2 FTE} \times \text{Per-pupil amount} + \text{Category 3 FTE} \times \text{Per-pupil amount} + \text{Category 4 FTE} \times \text{Per-pupil amount} + \text{Category 5 FTE} \times \text{Per-pupil amount}) \times \text{State share index}$$

The formula also provides CTE associated services funds based on the sum of a district's career-technical FTE in categories one through five and a per-pupil amount of \$245, as detailed in the table below. Like CTE additional funds, associated services funding is equalized based on a district's state share index. The amount calculated for CTE associated services funds statewide was \$4.2 million in FY 2018.

Career-Technical Education Associated Services Funds

$$\text{Career-technical education associated services funds} = (\text{Category 1 FTE} + \text{Category 2 FTE} + \text{Category 3 FTE} + \text{Category 4 FTE} + \text{Category 5 FTE}) \times \text{Associated services per-pupil amount} \times \text{State share index}$$

$$\text{Associated services per-pupil amount} = \$245$$

Ultimately, funding for associated services is deducted and transferred to the lead district of the career-technical planning district (CTPD) with which the school district is affiliated. The lead district of a CTPD provides primary CTE leadership for the districts comprising the CTPD and is responsible for reviewing and approving or disapproving each member school district's CTE program. Under current law, a district or school's CTE program must be approved by the lead district, or by ODE if initially disapproved by the lead district, before it receives CTE funds.

CTE additional funds and CTE associated services funds are provided outside the formula's main guarantee provisions. However, the formula separately guarantees that a district will receive, in both FY 2018 and FY 2019, at least 100% of the funding it received from those sources for FY 2017. The total amount calculated for temporary transitional CTE aid statewide in FY 2018 was \$5.0 million for 360 school districts.

Temporary Transitional Career-Technical Education Aid

FY 2018 Temporary transitional career-technical education aid =
 FY 2017 total career-technical education funds - FY 2018 total career-technical education funds
 If calculation results in negative number, temporary transitional career-technical education aid = \$0

FY 2019 Temporary transitional career-technical education aid =
 FY 2017 total career-technical education funds - FY 2019 total career-technical education funds
 If calculation results in negative number, temporary transitional career-technical education aid = \$0

Total career-technical education funds =
 Career-technical education additional funds + Career-technical education associated services funds

Example – CTE funds. The following calculations continue the example of the hypothetical District A. The first table below shows District A's assumed FTE for each of the five CTE categories and the calculation of District A's CTE funds for FY 2018.

Total Career-Technical Education Funds for Hypothetical District A, FY 2018				
Category	A. Career-Technical FTE	B. Per-Pupil Amount	C. State Share Index	D. Additional Aid = A x B x C
One	30	\$5,192	0.5263	\$81,974
Two	15	\$4,921	0.5263	\$38,848
Three	10	\$1,795	0.5263	\$9,447
Four	5	\$1,525	0.5263	\$4,013

Total Career-Technical Education Funds for Hypothetical District A, FY 2018				
Category	A. Career-Technical FTE	B. Per-Pupil Amount	C. State Share Index	D. Additional Aid = A x B x C
Five	20	\$1,308	0.5263	\$13,768
Subtotal additional funds	80	--	--	\$148,049
Associated services funds	80	\$245	0.5263	\$10,315
Total CTE formula funds	--	--	--	\$158,364

The following table shows the calculation of District A's temporary transitional CTE aid for FY 2018.

Temporary Transitional Career-Technical Education Aid for Hypothetical District A, FY 2018	
Factor	Amount
A. Career-technical education additional funds, FY 2017	\$165,000
B. Career-technical education associated services funds, FY 2017	\$12,000
C. Total career-technical education funds, FY 2017 = A + B	\$177,000
D. Total career-technical education formula funds, FY 2018	\$158,364
E. Temporary transitional career-technical education aid, FY 2018 = if (D < C), C – D, else \$0	\$18,636
F. Total CTE Funds (D+E), FY 2018	\$177,000

Limited English proficiency funds

Limited English proficient (LEP) students are, in general, those who were not born in the United States or whose native language is a language other than English, whose difficulties in communicating in or understanding the English language make it difficult for the student to achieve academically or fully participate in society. To assist school districts in providing additional educational services to these students, the foundation aid formula provides additional funding based on the ADM of LEP students in a manner similar to the funding provided for special and career-technical education students.

LEP ADM is divided into three categories based on the amount of time the student has been enrolled in schools in the United States. The following table describes the three categories as well as the additional cost applied under the formula. In FY 2018, LEP ADM totaled 53,269

statewide. Almost 71% of these students (37,775) fell under category two, which represents students in U.S. schools more than 180 school days or previously exempted from either of the spring reading or writing English language arts assessments.

Limited English Proficiency Categories	
Category	Amount Per Pupil
1 LEP students in U.S. schools for no more than 180 school days and not previously exempted from spring English assessments	\$1,515
2 LEP students in U.S. schools more than 180 school days or previously exempted from spring English assessments	\$1,136
3 LEP students in a Trial-Mainstream period	\$758

The formula multiplies the ADM in each category by the applicable dollar amount. Each result is equalized based on the state share index and then summed to calculate a district's funding. The calculation of LEP funds is summarized below. In FY 2018, the amount calculated for LEP funds statewide was \$35.0 million.

Limited English Proficiency Funds

$$\text{Limited English proficiency funds} = (\text{Category 1 ADM} \times \text{Per-pupil amount} + \text{Category 2 ADM} \times \text{Per-pupil amount} + \text{Category 3 ADM} \times \text{Per-pupil amount}) \times \text{State share index}$$

Example – LEP funds. The following calculations continue the example of the hypothetical District A. The table shows District A's assumed ADM for each of the three LEP categories and the calculation of District A's LEP funds for FY 2018.

Limited English Proficiency Funds for Hypothetical District A, FY 2018				
Category	A. LEP ADM	B. Per-Pupil Amount	C. State Share Index	D. Additional Aid = A x B x C
One	2	\$1,515	0.5263	\$1,595
Two	7	\$1,136	0.5263	\$4,185
Three	1	\$758	0.5263	\$399
Total	10	--	--	\$6,179

Transportation aid

Current law requires school districts to provide transportation to the district's students as well as to certain community school students and nonpublic students who reside in the district. While these state transportation requirements only apply to students in grades K-8 who live more than two miles from the school, the state also funds transportation service for high school students and for students who live between one and two miles from the school. The transportation formula supports the transportation of all regular education pupils in buses owned by the district or operated through a contract. All other types of pupil transportation to and from school are reimbursed through a method determined separately through rules adopted by the State Board. The transportation formula is based on transportation costs as reported by school districts for the prior fiscal year and current year ridership and mileage counts. Additionally, a supplemental transportation payment is provided to districts with low density. Details of these calculations are given below.

Base transportation aid

The transportation formula looks at two statewide cost measures from the previous year: the average cost per pupil transported and the average cost per mile driven. These state averages are computed after removing the ten districts with the highest and lowest costs per pupil and costs per mile, respectively. These average costs are then applied to the number of pupils transported and the number of miles driven in the current year for each district. To calculate the base payment for each district, the greater of these two amounts is then multiplied by the greater of the district's state share index or the minimum transportation state share, which is 37.5% in FY 2018 and 25% in FY 2019. The base amount calculated by the formula totaled \$840.5 million in FY 2018. Once the applicable state share was applied, the amount calculated for the base payment statewide was \$413.8 million in FY 2018.

The payment amounts for other types of transportation are added to the base payment to determine each district's total base transportation allocation. The amount calculated for payments for these other types was \$13.3 million for 76 districts in FY 2018. In addition, community schools may provide transportation services to the students they educate and receive payment for doing so through deductions of the resident district's state foundation aid. Current law requires the resident school districts to be partially credited for the amounts deducted. These payments, which amounted to \$3.1 million for 50 districts in FY 2018, are also added to the district's base transportation payment. The calculation of the total base transportation allocation for each school district is summarized below. The amount calculated for the total base transportation allocation statewide in FY 2018 was \$430.1 million.

Total Base Transportation Funds

District's per-rider subsidy =
 State average cost per rider in previous year x Number of pupils transported in current year

District's per-mile subsidy =
 State average cost per mile in previous year x Number of miles driven in current year

Total Base Transportation Funds

If the district's per-pupil subsidy is greater than its per-mile subsidy:
 Base payment = District's per-rider subsidy x Greater of minimum state share or state share index

If the district's per-mile subsidy is greater than its per-pupil subsidy:
 Base payment = District's per-mile subsidy x Greater of minimum state share or state share index

Total base transportation funds =
 Base payment + Payment for other types of school transportation +
 Payment for students transported by community schools

Minimum state share = 37.5% in FY 2018 and 25% in FY 2019

Transportation supplement

In addition to the base and other transportation payments, the formula provides a transportation supplement targeted to districts with low density to aid these districts with transportation operating costs. To calculate the supplement, the formula first determines each district's transportation supplement percentage, which is based on district rider density (defined as total ADM per square mile). The percentage is equal to a rider density threshold of 50 minus the district's rider density, the result of which is then divided by 100. Thus, lower density districts have a higher transportation supplement percentage, up to a theoretical maximum of 50%. Districts above the density threshold in each fiscal year do not receive funding from this component.

Each district's supplement is calculated by multiplying the transportation supplement percentage by the district's calculated mile base from the main pupil transportation formula and then by a fixed value of 0.55. The calculation of the transportation supplement is summarized in the table below. The transportation supplement amounted to \$55.3 million for 369 districts in FY 2018.

Transportation Supplement

Transportation supplement percentage = (Density threshold – District rider density) / 100

Density threshold = 50

District rider density = District total ADM / District square miles

Transportation supplement = Transportation supplement percentage x district mile base x 0.55

If this calculation results in a negative number, then Transportation supplement = \$0

District mile base = Statewide cost per mile x district annual miles driven

Example – Transportation aid. The following calculations continue the example of the hypothetical District A. Assume the district has 500 qualifying riders and 125,000 annual miles driven, the district covers 150 square miles, and none of the district's students are transported by community schools. The table shows the calculation of District A's transportation aid for FY 2018.

Transportation Aid for Hypothetical District A, FY 2018	
Factor	Amount
A. State average cost per pupil, FY 2017	\$964.82
B. State average cost per mile, FY 2017	\$4.68
C. Qualifying riders, FY 2018	500
D. Annual miles driven, FY 2018	125,000
E. Per pupil subsidy = A x C	\$482,410
F. Per mile subsidy = B x D	\$584,494
G. Base cost = Greater of E or F	\$584,494
H. State share index	0.5263
I. Base payment = G x (Greater of 37.5% or H)	\$307,610
J. Payment amount for other types of transportation	\$10,000
K. Community school transportation payment	\$0
L. Total base transportation allocation = I + J + K	\$317,610
M. District square miles	150
N. Total ADM – FY 2017	1,010
O. Rider density = N / M	6.7
P. Supplement density threshold	50
Q. Transportation supplement percentage = (P – O) / 100	0.4327
R. Transportation supplement = Q x F x 0.55	\$139,090
S. Total transportation aid = L + R	\$456,700

Special education transportation

In addition to funding a portion of regular pupil transportation costs as described above, the state provides funds outside of the main foundation aid formula to school districts and county boards of developmental disabilities to assist them in providing required transportation services to students with disabilities whom it is impossible or impractical to transport by regular school bus. Such transportation costs are reimbursed through a method determined separately through rules adopted by the State Board. Under these rules, the state calculates a base amount of \$6 per rider per instructional day plus one half of the actual cost in excess of \$6 per rider per day. However, the base amount is limited to the actual reported cost of transportation or 200% of the statewide average cost of transportation per child, whichever is less. The resulting amount is then multiplied by the greater of 60% or the district's state share index. In FY 2018, these payments totaled \$60.5 million, of which \$55.6 million went to school districts.

Performance bonuses

In an effort to incentivize performance, the formula includes two components based on school district four-year graduation rates and third grade reading proficiency rates. Each bonus payment is discussed in more detail below.

Graduation bonus

The formula's graduation bonus payment is calculated by multiplying a district's graduation rate on its most recent report card by a per-pupil amount equal to 7.5% of the formula amount (\$451 in FY 2018 and \$452 in FY 2019). Each district's per pupil amount is then multiplied by the number of the district's graduates and then by the district's state share index. This calculation is summarized below. The total amount calculated for graduation bonus statewide was \$20.4 million in FY 2018.

Graduation Bonus

Graduation bonus = Graduate count x 0.075 x Formula amount x Graduation rate x State share index

Graduate count = Number of graduates reported to ODE for the same school year for which the most recent report card is issued

Graduation rate = Four-year adjusted cohort graduation rate on most recent report card

Third grade reading bonus

The formula's third grade reading bonus payment is calculated by multiplying a district's third grade reading proficiency percentage by 7.5% of the formula amount (same as the graduation bonus). Each district's per-pupil amount is then multiplied by the number of the district's third graders who score proficient or higher in reading and then by the district's state share index. This calculation is summarized below. The total amount calculated for third grade reading bonuses statewide was \$11.2 million in FY 2018.

Third Grade Reading Bonus

$$\text{Third grade reading bonus} = \text{Third grade reading proficiency percentage} \times 0.075 \times \text{Formula amount} \times \text{Number of proficient or higher readers in third grade} \times \text{State share index}$$

Third grade reading proficiency percentage = The percentage of a district's students scoring at a proficient or higher level of skill on the third grade English language arts assessment for the immediately preceding school year as reported on the district's report card

Example – Performance bonuses. The following calculations continue the example of the hypothetical District A. The table shows District's A's assumed graduate count, graduation rate, number of proficient third grade readers, and third grade reading proficiency percentage and the calculation of District A's performance bonuses for FY 2018.

Performance Bonuses for Hypothetical District A, FY 2018	
Factor	Amount
A State share index	0.5263
B. Graduate count	80
C. Graduation rate	0.93
D. Graduation bonus = $B \times 0.075 \times \$6,010 \times C \times A$	\$17,649
E. Number of proficient third grade readers	60
F. Third grade reading proficiency percentage	0.83
G. Third grade reading bonus = $E \times 0.075 \times \$6,010 \times F \times A$	\$11,814
H. Total performance bonuses = $D + G$	\$29,463

Additional funding adjustments

In general, the final allocation for each district may be adjusted further by either guaranteeing districts receive no less than a certain percentage of their state foundation aid in FY 2017 or by limiting the increases in funding through application of a funding cap. These adjustments are described in more detail below.

Temporary transitional aid

In general, temporary transitional aid is provided to districts in FY 2018 and FY 2019 to guarantee 100% of their FY 2017 state aid, except for certain districts that lost enrollment in recent years. If, between FY 2014 and FY 2016, a district's total ADM decreased by 10% or

more, the district is guaranteed 95% of the district's FY 2017 foundation aid (less exempt components) in both FY 2018 and FY 2019. If a district's total ADM decreased between 5% and 10%, the district is guaranteed a scaled amount between 95% and 100% of the district's FY 2017 foundation aid. Seven (1.1%) districts were guaranteed 95% of their FY 2017 foundation aid because they lost 10% or more in enrollment while 93 (15.2%) were guaranteed a scaled amount between 95% and 100%.

CTE additional funds and CTE associated services funds are provided outside of temporary transitional aid but are separately guaranteed, as described above. The calculation of temporary transitional aid is summarized below. In FY 2018, temporary transitional aid totaling \$221.4 million was paid to 328 (53.8%) districts.

Temporary Transitional Aid

$$\text{Temporary transitional aid} = (\text{Transitional aid guarantee base} \times \text{Transitional aid guarantee base percentage}) - \text{Foundation funding for the guarantee}$$

If this calculation results in a negative number, then Temporary transitional aid = \$0

$$\text{Transitional aid guarantee base in FY 2018 and FY 2019} =$$

The following FY 2017 amount after any reductions to comply with the gain cap: Opportunity grant + Targeted assistance + Special education additional aid + K-3 literacy funds + Economically disadvantaged funds + Limited English proficiency funds + Gifted funds + Capacity aid + Graduation bonus + Third grade reading bonus + Total base transportation funds + Transportation supplement + Temporary transitional aid

$$\text{Foundation funding for the guarantee} =$$

Opportunity grant + Targeted assistance + Special education additional aid + K-3 literacy funds + Economically disadvantaged funds + Limited English proficiency funds + Gifted funds + Capacity aid + Graduation bonus + Third grade reading bonus + Total base transportation funds + Transportation supplement

$$\text{Total ADM percentage change} = (\text{Total ADM for FY 2016} / \text{Total ADM for FY 2014}) - 1$$

If Total ADM percentage change \leq -10%:

Transitional aid guarantee base percentage = 95%

If Total ADM percentage change $>$ -10% and $<$ -5%:

Transitional aid guarantee base percentage = Total ADM percentage change + 105%

If Total ADM percentage change \geq -5%:

Transitional aid guarantee base percentage = 100%

Example – Temporary transitional aid. The following calculations continue the example of the hypothetical District A. Assume District A's FY 2018 transitional aid guarantee base (i.e., the district's FY 2017 foundation aid from components included in the guarantee calculations) is \$6.4 million. The table shows the calculation of District A's temporary transitional aid for

FY 2018. As the table shows, the district is guaranteed less than 100% of its transitional aid guarantee base due to the district's loss in enrollment.

Temporary Transitional Aid for Hypothetical District A, FY 2018	
Factor	Amount
A. Transitional aid guarantee base (FY 2017 foundation aid less exempt components)	\$6,400,000
B. Total ADM – FY 2014	1,090
C. Total ADM – FY 2016	1,025
D. Total ADM percentage change = $(C / B) - 1$	-6.0%
E. Transitional aid guarantee base percentage = if $D \leq -10\%$, 95%, else if $D > -10\%$ and $< -5\%$, $D + 105\%$, else 100%	99%
F. Transitional aid guarantee amount = $A \times E$	\$6,338,349
G. Foundation funding for the guarantee	\$6,200,425
H. Temporary transitional aid = if $G < F$, $F - G$, else \$0	\$137,923

Gain cap

General gain cap. The foundation aid formula generally caps a district's annual funding increase to 3.0% of prior year funding, except for certain districts whose enrollment grew in recent years. The gain cap is increased to up to 5.5% in FY 2018 and to up to 6.0% in FY 2019 for a district whose total ADM grew by more than 3.0% between FY 2014 and FY 2016. The gain cap for such a district is directly related to its percentage change in total ADM. For example, the funding increase for a district whose total ADM increased by 4.0% is capped at 4.0% in both years while the funding increase for a district whose total ADM increased by 7.0% is capped at 5.5% in FY 2018 and 6.0% in FY 2019. The maximum possible increases of 5.5% in FY 2018 and 6.0% in FY 2019 apply to 21 (3.4%) and 14 (2.3%) districts, respectively. An additional 26 (4.3%) and 33 (5.4%) districts were eligible for increases greater than 3% but less than the maximums in FY 2018 and FY 2019, respectively. The formula calls for a district's opportunity grant, targeted assistance, capacity aid, economically disadvantaged funds, gifted funds, K-3 literacy funds, and LEP funds to be reduced proportionately to comply with the gain cap.

Gain cap for eligible power plant districts. The formula modifies the gain cap calculations for the "eligible school districts" that are adversely affected by power plant devaluation described above. Essentially, the gain cap for an "eligible district" is the lesser of (1) the district's foundation aid each fiscal year before the cap is applied and (2) the district's prior year funding plus the difference in the district's taxes charged and payable for the tax year

three years preceding the tax year in which the current fiscal year ends and those taxes for the tax year two years preceding the tax year in which the current fiscal year ends (i.e., for FY 2018, the loss in local property taxes from TY 2015 to TY 2016 and, for FY 2019, the loss in local property taxes from TY 2016 to TY 2017). In no circumstance can an eligible district's funding be limited by more than the general limitation that applies to all other school districts. The modification to the gain cap for eligible districts permits them to more fully take advantage of their increased state share index values by lifting the gain cap up to the loss in local property tax revenue from year to year.

The calculations for the general gain cap and the gain cap for eligible power plant districts are summarized below. In FY 2018, the gain cap reduced funding to 198 (32.3%) districts by a total of \$562.7 million.

Exempt components. Components exempt from the cap are the graduation bonus, the third grade reading bonus, CTE additional funds, CTE associated services funds, and temporary transitional CTE aid. Thus, each district will receive the full calculated amounts for these exempt components, whether or not the district is subject to the gain cap. Special education additional funds and pupil transportation funds, while included in the cap calculations, are exempt from the gain cap unless the calculated amounts for the other components are insufficient to fully comply with the cap limitation. In that case, ODE may proportionately reduce a district's calculated amount of those funds. In FY 2018, it was not necessary to apply the gain cap to those components.

Gain Cap

Gain cap (general) = Limitation base x Limitation base multiplier

Limitation base for FY 2018 =

The following FY 2017 amount after any reductions to comply with the gain cap: Opportunity grant + Targeted assistance + Special education additional funds + K-3 literacy funds + Economically disadvantaged funds + Limited English proficiency funds + Gifted funds + Capacity aid + Total base transportation funds + Transportation supplement + Temporary transitional aid

Limitation base for FY 2019 =

The following FY 2018 amount after any reductions to comply with the gain cap: Opportunity grant + Targeted assistance + Special education additional funds + K-3 literacy funds + Economically disadvantaged funds + Limited English proficiency funds + Gifted funds + Capacity aid + Total base transportation funds + Temporary transitional aid + Cap offset payment + S.B. 8 supplemental TPP payment⁸

⁸ See the "Tax Loss Reimbursements" section of this document for additional information on the S.B. 8 supplemental TPP payment.

Gain Cap

If Total ADM percentage change \geq 5.5% in FY 2018 or \geq 6.0% in FY 2019:
Limitation base multiplier = 1.055 in FY 2018 or 1.06 in FY 2019

If Total ADM percentage change $>$ 3% and ($<$ 5.5% in FY 2018 or $<$ 6.0% in FY 2019):
Limitation base multiplier = Total ADM percentage change + 1

If Total ADM percentage change \leq 3.0%:
Limitation base multiplier = 1.03

Gain cap ("eligible school districts") = the greater of:

1. The lesser of:
 - a. Foundation funding subject to the gain cap (i.e., funding before the cap is applied) and
 - b. Limitation base + (Taxes charged and payable for tax year three years preceding the tax year in which the current fiscal year ends – the taxes charged and payable for the tax year two years preceding the tax year in which the current fiscal year ends)
2. The general gain cap

Cap offset payment

By nature, the state foundation aid of a capped district grows from the prior year. However, due to the phase-out of fixed rate operating TPP replacement payments described later, a capped district's combined amount from these sources ("combined state aid") in FY 2018 may be less than what it was in FY 2017. In response, the foundation aid formula provides a payment in FY 2018 that, in practice, guarantees a capped district receives at least the same amount of combined state aid in FY 2017 as it did in FY 2018 unless the district's cap reduction is less than its net loss. In that case, the payment is limited to the cap reduction. The payment is calculated as an amount equal to the lesser of (1) the district's cap reduction in FY 2018 and (2) the district's net loss in combined state aid between FY 2017 and FY 2018. While this payment is calculated only for FY 2018, the amount of a district's FY 2018 cap offset payment is included in the district's FY 2019 limitation base to allow the district greater growth in foundation aid in the second year of the biennium. The total amount calculated for the cap offset payment statewide was \$4.9 million for 26 (4.3%) districts in FY 2018.

Cap Offset Payment

Cap offset payment for eligible school district = the lesser of:
1. FY 2017 Combined state aid – FY 2018 Combined state aid
2. FY 2018 cap reduction

FY 2017 Combined state aid =
Foundation funding + Fixed rate operating direct reimbursements for TPP tax losses

Cap Offset Payment

FY 2018 Combined state aid =
Foundation funding before cap offset payment +
Fixed rate operating direct reimbursements for TPP tax losses + S.B. 8 supplemental TPP payment

FY 2017 Foundation funding =
The following FY 2017 amount after any reductions to comply with the gain cap: Opportunity grant +
Targeted assistance + Special education additional funds + K-3 literacy funds +
Economically disadvantaged funds + Limited English proficiency funds + Gifted funds +
Career-technical education additional funds + Career-technical education associated services funds +
Capacity Aid + Total base transportation funds + Transportation Supplement +
Temporary transitional aid

FY 2018 Foundation funding before cap offset payment =
The following FY 2018 amount after any reductions to comply with the gain cap: Opportunity grant +
Targeted assistance + Special education additional funds + K-3 literacy funds +
Economically disadvantaged funds + Limited English proficiency funds + Gifted funds +
Career-technical education additional funds + Career-technical education associated services funds +
Capacity Aid + Total base transportation funds + Transportation Supplement +
Temporary transitional aid + Temporary transitional career-technical education aid

FY 2018 cap reduction =
Absolute value of (FY 2018 Gain cap – FY 2018 Foundation funding subject to the gain cap)

Eligible school district =
FY 2018 cap reduction > \$0 and
(FY 2017 combined state aid – FY 2018 Combined state aid) > \$0

Final foundation funding

A district's final foundation funding each fiscal year is the lesser of its foundation funding subject to the gain cap or its gain cap plus the amounts computed for the district for the components exempt from the gain cap, the cap offset payment, and temporary transitional CTE aid. The calculation of final foundation funding for each school district is summarized below. In FY 2018, a total of \$7.95 billion was allocated to the 610 school districts in Ohio.

Final Foundation Funding

Final foundation funding for FY 2018 =
(The lesser of Foundation funding subject to the gain cap or the gain cap) +
Career-technical education additional funds + Career-technical education associated services funds +
Graduation bonus + Third grade reading bonus +
Temporary transitional career-technical education aid + Cap offset payment

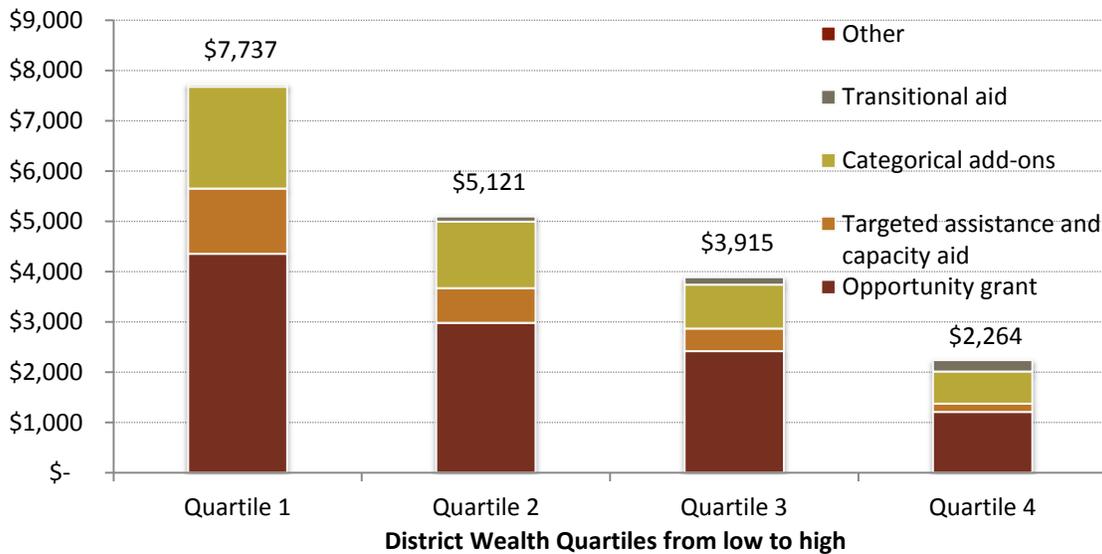
Final Foundation Funding

Final foundation funding for FY 2019 =
 (The lesser of Foundation funding subject to the gain cap or the gain cap) +
 Career-technical education additional funds + Career-technical education associated services funds +
 Graduation bonus + Third grade reading bonus +
 Temporary transitional career-technical education aid

Foundation funding subject to the gain cap =
 Opportunity grant + Targeted assistance + Special education additional funds + K-3 literacy funds +
 Economically disadvantaged funds + Limited English proficiency funds + Gifted funds + Capacity aid +
 Total base transportation funds + Transportation supplement + Temporary transitional aid

As noted above, overall, the statewide average final foundation funding per pupil in FY 2018 was \$4,770. Chart S.12 displays final foundation funding per pupil by formula component and wealth quartile.

Chart S.12: Per-Pupil Final Foundation Funding by Wealth Quartile, FY 2018



Example – Gain cap and foundation funding before the cap offset payment. The following calculations continue the example of the hypothetical District A as well as the two other hypothetical districts from earlier in this section, districts B and C. The table shows the calculation of the gain cap and foundation funding before the cap offset payment for each district for FY 2018. As the table shows, District A is not subject to the cap while district B is. District C, being eligible for the formula's power plant devaluation provisions, receives the full amount of funding calculated by the formula for FY 2018 when it would otherwise be subject to the cap.

Gain Cap and Foundation Funding Before Cap Offset for Hypothetical Districts A, B, and C, FY 2018			
Factor	District A	District B	District C
A. Limitation base (FY 2017 foundation aid less exempt components)	\$6,350,000	\$8,500,000	\$2,250,000
B. Total ADM, FY 2014	1,090	1,090	1,090
C. Total ADM, FY 2016	1,025	1,025	1,025
D. Total ADM percent change = $(C / B) - 1$	-6.0%	-6.0%	-6.0%
E. Limitation base multiplier = if $D \geq 5.5\%$, 1.055, else if $D > 3.0\%$ and $< 5.5\%$, $D + 1$, else 1.03	1.03	1.03	1.03
F. Foundation aid subject to the gain cap, FY 2018	\$6,308,886	\$9,100,000	\$2,700,000
G. Property taxes charged, TY 2015	\$3,950,000	\$2,400,000	\$9,000,000
H. Property taxes charged , TY 2016	\$4,000,000	\$2,425,000	\$7,500,000
I. Eligible district for power plant devaluation provisions	No	No	Yes
J. Gain cap = if (I = "No"), $A \times E$, else the greater of: (a) $A \times E$ and (b) the lesser of F or $(A + (G - H))$	\$6,540,500	\$8,755,000	\$2,700,000
K. Gain cap reduction = lesser of $J - F$ or \$0	\$0	-\$353,191	\$0
L. Foundation funding before cap offset payment = $F + K +$ Components exempt from cap	\$6,515,349	\$9,125,000	\$2,800,000

Example – Cap offset payment and final foundation funding. The following calculations continue the example of the hypothetical District A. The table shows the calculation of District A's cap offset payment. The calculations assume the district does not qualify for the S.B. 8 supplemental TPP payment. While the district's combined state aid declined from FY 2017 to FY 2018, the district was not subject to the gain cap and, thus, does not qualify for the cap offset payment.

Cap Offset Payment and Final Foundation Funding for Hypothetical District A, FY 2018	
Factor	Amount
A. Final foundation funding, FY 2017	\$6,500,000
B. Fixed rate operating TPP replacement payment, FY 2017	\$230,000
C. Combined state aid, FY 2017 = A + B	\$6,730,000
D. Foundation funding before cap offset payment, FY 2018	\$6,515,349
E. Fixed rate operating TPP replacement payment, FY 2018	\$150,000
F. S.B. 8 supplemental TPP Payment, FY 2018	\$0
G. Combined state aid, FY 2018 = D + E + F	\$6,665,349
H. Absolute value of gain cap reduction	\$0
I. Cap offset payment = if $(C - G) > \$0$ and $H > \$0$, the greater of $(C - G)$ and H , else $\$0$	\$0
J. Final foundation funding, FY 2018 = D + I	\$6,515,349

State funding transfers

As mentioned previously, the ADM for each district is based on a count of students who reside in the district. The district is legally required to provide an education for these students. After each school district's state aid is calculated as explained above, ODE performs a number of deductions and transfers for various services provided to the students counted in the districts' ADMs. For example, school districts whose students receive services from a regional educational service center (ESC) have an amount deducted and transferred to the ESC to pay for these services. Some students choose to obtain all of their education at schools that are not part of their resident districts. For example, some students attend community schools and some students attend other districts through open enrollment. In general, the funding these students generate in the formula for the district in which they reside is deducted from the state aid allocated to that district and transferred to the district or community school where the students are actually educated. In addition, state programs such as the Cleveland Scholarship Program, the Autism Scholarship Program, the Jon Peterson Special Needs Scholarship Program, and the traditional Educational Choice Scholarship Program provide for deductions of state aid from school districts to support the provision of vouchers to district residents to be used in alternative educational programs. Finally, College Credit Plus, formally known as the Post-Secondary Enrollment Options (PSEO) Program, allows students to attend post-secondary

Students are counted where they live and funding follows the students to where they are educated

institutions for both high school and college credit. The tuition for most of these students is paid from a deduction from the educating district or school. This section describes how funding for these programs typically works.

Community and STEM schools

Community schools are public schools that are exempt from certain state requirements. These schools are not part of any school district and do not have taxing authority. Community schools were first established in Ohio in FY 1999. They have grown from 15 schools educating 2,245 FTE students (0.1% of public school enrollment) in FY 1999 to 341 schools educating 104,433 FTE students (6.1% of public school enrollment) in FY 2018. Community schools include e-schools, which provide educational services electronically instead of in a traditional classroom setting, and the more traditional brick-and-mortar schools. Funding for these two types of community schools is a bit different. Science, technology, engineering, and mathematics (STEM) schools were first authorized by law in June 2007. These public schools are similar to community schools in many respects but must operate in collaboration with higher education institutions and business organizations. In addition, H.B. 49 of the 132nd General Assembly authorized science, technology, engineering, arts, and mathematics (STEAM) schools as a type of STEM school. These schools must integrate arts and design into the study of STEM and operate in collaboration with a partnership that includes an arts organization, among other requirements. Currently, there are eight STEM schools that are governed independently from any school district.⁹ In FY 2018, STEM schools educated a total of 3,105 FTE students.

As stated previously, all students are counted in the school district in which they reside for funding purposes, including those who are educated outside of their home district, such as community and STEM school students. Funding for these schools is provided as a per-pupil transfer from each community and STEM school student's district of residence. The state share for community and STEM schools is, in effect, 100% since they do not have taxing authority. The formula for the transfers for community and STEM schools follows the formula for traditional districts with some modifications. Community and STEM school ADM is based on a monthly count during the current fiscal year.

Opportunity grant

Community and STEM schools are provided opportunity grant funding, which is based on the per-pupil formula amount. Since these schools do not have authority to levy taxes, the full formula amount is used to calculate their funding (i.e., the state index is not applied). A school's per-pupil opportunity grant is, therefore, equal to the formula amounts of \$6,010 in FY 2018 and \$6,020 in FY 2019, the same amounts used for traditional school districts. The total amount transferred for the opportunity grant statewide was \$646.5 million in FY 2018.

⁹ STEM schools may also be governed by a traditional or joint vocational school district board of education. In this case, the school is considered one of the schools of the district and the formula for deductions discussed in this section does not apply.

Targeted assistance

Brick-and-mortar community and STEM schools are provided targeted assistance for each student that is equal to the per-pupil base targeted assistance amount for the student's resident district multiplied by 0.25. E-schools do not receive targeted assistance. The total amount transferred for targeted assistance statewide was \$20.8 million in FY 2018.

Special education additional aid, career-technical education funds, and LEP funds

Brick-and-mortar community and STEM schools are provided additional aid for students receiving special education or career-technical education services or those who are classified as limited English proficient. E-schools receive special education and career-technical education additional funds, but do not receive LEP funding. For these components, a community or STEM school receives the full per-pupil amount for the school's FTE student count in each applicable category. That is, the calculations are the same as those for traditional districts except no state share index is applied. The total amounts transferred for special education additional aid, career-technical education funds, and LEP funds statewide in FY 2018 were \$124.5 million, \$12.2 million, and \$6.7 million, respectively.

Economically disadvantaged funds

In addition to the above funding, brick-and-mortar community and STEM schools receive economically disadvantaged funds for each student identified as economically disadvantaged equal to \$272 multiplied by the economically disadvantaged index of the student's resident district. E-schools do not receive this funding. The total amount transferred for economically disadvantaged funds statewide was \$57.5 million in FY 2018.

K-3 literacy funds

For each student in grades K-3, a brick-and-mortar community school and STEM school receives \$320 per pupil, which equals the sum of the equalized and unequalized portions of the K-3 literacy component for traditional school districts. E-schools do not receive this funding. The total amount deducted for K-3 literacy funds statewide was \$9.9 million in FY 2018.

Transportation funds

Generally, a district must provide transportation for students in grades K-8 who live more than two miles from school, whether they attend district schools, community schools, or chartered nonpublic schools. However, community schools may transport their own students and receive a payment for doing so, either through an agreement with the students' resident school district or by unilaterally assuming the district's transportation responsibility. In the case of a bilateral agreement, ODE makes payments to the community school according to the terms of the agreement. In the case of a unilateral assumption of transportation responsibility, the payment for each student the school transports will be the amount that would have been calculated for the district under the transportation formula for the transportation mode the district would have used. Nevertheless, the community school is not required to use that same mode of transportation. In either case, ODE transfers the payment amount from the state aid of

the student's resident district. In FY 2018, a total amount of \$3.1 million was transferred to 35 community schools.

Summary of state aid transfers for community and STEM schools

The total amount of state aid for community and STEM schools is calculated by adding together the different types of aid. State aid for community and STEM schools is not subject to a guarantee or a gain cap. The calculation is summarized below. The total amount transferred for community and STEM schools statewide was \$881.1 million in FY 2018.

State Aid Transfer for Community and STEM Schools

State aid transfer for brick-and-mortar community and STEM schools =
Opportunity grant + Targeted assistance + Special education additional aid +
Career-technical education funds + LEP funds + Economically disadvantaged funds +
K-3 literacy funds + Transportation funds

State aid transfer for e-schools =
Opportunity grant + Special education additional aid + Career-technical education funds

Facilities funding

In addition to the funding received through transfers of state aid from a student's school district of residence, each brick-and-mortar community and STEM school receives a per-pupil amount of \$200 to assist with facilities costs. E-schools receive a per-pupil amount of \$25. Facilities funding is paid directly by the state using lottery profits. In FY 2018, school facilities funding for community and STEM schools statewide was \$16.6 million.

Performance bonuses

Finally, community and STEM schools receive funding based on third grade reading proficiency rates and four-year graduation rates in an effort to incentivize performance. The payments are calculated in the same manner as those for traditional school districts except that the state share index is not applied. The total amounts calculated for the graduation and third grade reading bonuses for community and STEM schools statewide were approximately \$1.3 million and \$890,000, respectively, in FY 2018, for a total of \$2.2 million. Both performance bonus payments are funded directly by the state using GRF funds.

Open enrollment

Each school district in Ohio can choose to accept students from other districts under an open enrollment policy. Districts may offer open enrollment to students from adjacent districts or from any Ohio district. While districts are not required to permit enrollment of students from other districts, they may not prohibit students from leaving their district through open enrollment. If a student chooses to attend a district other than the one in which the student resides under open enrollment, the formula amount of \$6,010 in FY 2018 and \$6,020 in FY 2019 and any career-technical education per-pupil amount applicable to the student are deducted from the resident district's state aid and transferred to the educating district. These amounts

are calculated in the same way as they are calculated for community schools (see above). If the student receives special education, the costs of this education above the formula amount are billed from the educating district to the resident district.

About 75% of school districts (including joint vocational school districts) allow statewide open enrollment, 8% of school districts allow adjacent district open enrollment only, and the remaining 17% of school districts do not accept open enrollment students. In FY 2018, 80,924 (4.9%) FTE students attended schools other than their resident district schools through the open enrollment option and \$485.6 million in state foundation aid was transferred on behalf of those students.

Educational Choice Scholarship Program

The Educational Choice Scholarship Program ("EdChoice") provides up to 60,000 scholarships each year to students, other than those residing in the Cleveland Municipal School District, who attend or who would otherwise be entitled to attend a school that meets one of a number of conditions indicative of poor academic performance. Students use the scholarships to attend participating nonpublic schools. The amount awarded under the program is the lesser of the actual tuition charges of the school or the maximum scholarship award. The maximum scholarship award is \$4,650 for students in grades K-8 and \$6,000 for students in grades 9-12. Scholarship students are counted in the resident district's ADM in order to calculate state aid. In FY 2018, a total of \$108.3 million was deducted statewide for about 22,300 scholarship students in 41 school districts.

Since FY 2014, income-based EdChoice scholarships have been phased-in for students whose family income is at or below 200% of the federal poverty guidelines (FPG), regardless of the academic rating of the school they would otherwise attend. Unlike the traditional program, students qualifying for EdChoice under the income-based program are not counted in their resident district's ADM for funding purposes and, accordingly, deductions are not taken from school districts to fund the scholarships. Instead, the scholarships are paid directly by the state. In FY 2018, \$38.2 million was spent by the state to fund these scholarships, which covered approximately 10,000 students in grades K-4. Under current law, this program is being phased in over time by adding a new grade level each year. In FY 2019, eligible students in grades K-5 may be awarded scholarships.

Cleveland Scholarship Program

The Cleveland Scholarship Program allows students who are residents of the Cleveland Municipal School District to obtain scholarships to attend participating nonpublic schools. The scholarships are the lesser of the tuition charged by the alternative provider or the maximum scholarship award. The maximum scholarship award is \$4,650 for students in grades K-8 and \$6,000 for students in grades 9-12. In general, scholarship students are not counted in Cleveland's ADM for funding purposes. A portion of Cleveland's state aid has been earmarked in the state operating budget to be used to help fund this program. The rest of the funding for the program comes from the state GRF without any deduction from Cleveland. In FY 2018, \$15.4 million was deducted from Cleveland's state aid to fund this program for total program spending of about \$37.4 million. This amount was used to provide about 8,400 students with scholarships under the program.

Autism Scholarship Program

The Autism Scholarship Program provides scholarships to autistic students whose parents choose to enroll the student in an approved special education program other than the one offered by the student's school district. The scholarships are the lesser of the total fees charged by the alternative provider or \$27,000. Scholarship students are counted in their resident district's ADMs for purposes of the state funding formula. The amount of the scholarship is then deducted from the resident district's state aid and paid to the alternate provider. In FY 2018, \$84.5 million was transferred for the scholarships for about 3,400 students in 452 districts.

Jon Peterson Special Needs Scholarship Program

The Jon Peterson Special Needs Scholarship Program, which began operations in FY 2013, is similar to the Autism Scholarship Program except that it is available to all disabled students with IEPs established by their resident school districts. Funding for the program is provided in the same way as that of the Autism Scholarship Program, through a transfer of state aid from the resident district to the alternate provider. Likewise, scholarship students are also counted in their district's ADM for the purposes of the foundation aid formula. Under current law, the amount of the scholarship cannot exceed \$27,000 and is the lesser of the tuition charged by the alternate provider or the special education funding calculated for the student, which is the formula amount plus the applicable special education amount used to calculate funding for the student under the formula for traditional school districts. In FY 2018, \$55.8 million was transferred for the scholarships for 5,260 students in 451 districts.

College Credit Plus Program

The College Credit Plus Program (CCP) allows both public and nonpublic high school students to attend classes at post-secondary education institutions and earn both high school and college credits at state expense. CCP replaced the similar Post-Secondary Enrollment Options Program beginning in the 2015–2016 school year. Public high school students are counted in their resident districts' ADMs for funding purposes. If the student participating in CCP attends a public school outside of the resident district, the funding for the student follows the student to where they are educated, as described above. The tuition amounts for the college classes the student attends are deducted from the educating districts' state aid to pay for the program.

In general, the formula for CCP payments calculates per credit hour "default ceiling" and "default floor" amounts in each fiscal year that correspond to certain methods of course delivery and instruction. The calculations of these amounts depend on the per-pupil formula amount, as shown in the table below. In FY2018, the payment rates range from about \$42 (default floor) to \$166 (default ceiling) per credit hour. A school district and college may enter into an alternative payment structure, but the negotiated rate cannot be higher than the default ceiling amount per credit hour or the college's standard rate, whichever is less, or lower than the default floor amount per credit hour unless a lower amount is approved by the Chancellor of Higher Education

College Credit Plus Default Payment Rates		
Method of Course Delivery and Instruction	Payment Rate	Per Credit Hour Rate Formula
Course taken at the college (including online)	Default ceiling	Formula amount x 0.83 / 30
Course taken at the high school with college professor	50% of default ceiling	50% of default ceiling
Course taken at the high school with high school teacher	Default floor	25% of default ceiling

For FY 2018, about \$48.6 million has been paid to colleges under the program. For nonpublic high school students, the costs of taking college classes under CCP are paid by an earmark of GRF line item 200511, Auxiliary Services. In FY 2018 and FY 2019, \$2.6 million per year is set aside from the GRF for the payments. Additionally, a portion of the funds in the Auxiliary Services Reimbursement Fund (Fund 5980) may be used to make CCP payments for nonpublic students. Payments for home-instructed students are funded through an earmark of \$1.5 million per year in FY 2018 and FY 2019 from GRF line item 200550, Foundation Funding.

Educational service centers (ESCs)

Educational service centers (ESCs) are regional entities that offer a broad spectrum of services, including curriculum development, professional development, purchasing, publishing, human resources, special education services, and counseling services, to school districts and community schools in their regions. By law, every city, local, and exempted village school district with a student count of 16,000 or less must enter into an agreement for services with an ESC. Practically, this requirement applies to all but the seven largest districts in Ohio. The districts with a greater student count may also enter into such agreements. Districts that have established agreements with ESCs are termed "client districts."

ESC services are supported through a variety of funding mechanisms. State law requires client districts to pay a per-pupil amount for the general expenses of the ESC. Generally, this per-pupil amount is \$6.50. ODE deducts this payment from the state funding provided to the districts and transfers it to the appropriate ESC. In FY 2018, the statewide cost of the per-pupil amount was \$11.5 million.

In addition to the per-pupil amount, if an ESC is providing preschool special education services through an agreement with a school district, that district may authorize ODE to transfer funds computed under the pupil-based preschool special education formula to the ESC. In FY 2018, the statewide amount computed under the preschool special education formula and transferred to ESCs for the services was \$8.6 million. In other circumstances, the ESC and district may agree to a different amount than what is provided through the preschool special education formula and have that amount deducted and transferred pursuant to a contract for additional services.

ESCs receive over 77% of their funding distributed through the state from additional services contracts with school districts, the cost of which is also deducted from the school

districts' state aid allocations and transferred to the ESCs. In FY 2018, the cost of these contracts totaled \$218.6 million. In sum, therefore, a total of \$238.7 million was deducted from school district state aid and transferred to ESCs in FY 2018.

ESCs also receive funding directly from the state. This funding includes a per-pupil amount, gifted funding, and special education transportation funding. In FY 2018, direct state funding for ESCs totaled \$44.4 million.

Joint vocational school district funding

Currently, there are 49 joint vocational school districts (JVSDs) in Ohio. JVSDs partner with associate school districts that may send students to their schools. Statewide, JVSDs educated a total of 39,649 FTE students in FY 2018, about 2.3% of total public school students. Like a traditional school district, a JVSD has taxing authority. Levies must be approved by taxpayers in all associate districts and the same JVSD millage rate applies to all associate

JVSDs receive state operating funding through a separate formula similar to that used for traditional school districts

districts within a JVSD. Also like a school district, a JVSD's ability to raise local revenues is partly dependent on its property value. JVSDs receive state operating funding through a separate formula similar to that used to fund traditional school districts. Under the current formula, JVSDs receive an opportunity grant, CTE funds, additional special education aid, economically disadvantaged funds, LEP funds, and the graduation bonus. There are two main differences between the formulas for traditional school districts and JVSDs: the calculation of the opportunity grant and the calculation of the percentage used to distribute the state's share of funding for CTE funds, special education additional aid, LEP funds, and the graduation bonus. Each component of the JVSD formula is described in more detail below.

Opportunity grant

JVSDs combine the territory of more than one traditional school district and typically educate students for the last two years of their high school careers. Since JVSDs are larger and they educate fewer students than traditional districts, their values per pupil are much higher and their average property tax rates are much lower than those of traditional districts. The formula uses a base cost approach to calculate each JVSD's opportunity grant. This approach establishes a base cost by multiplying the same per-pupil formula amount used for traditional school districts by the JVSD's formula ADM. The local share of this cost is calculated by multiplying a uniform charge-off rate of $\frac{1}{2}$ mill by the JVSD's three-year average taxable property value. The state share of the opportunity grant is the base cost minus the local share. However, the formula specifies that no JVSD's opportunity grant may be less than 5% times the formula amount times the district's student count. In effect, this provision sets a floor of 5% for the state share percentage. In FY2018, three JVSDs had state share percentages at the 5% floor. The calculation of the opportunity grant for JVSDs is summarized below. Statewide, the opportunity grant for JVSDs totaled approximately \$158.9 million in FY 2018.

JVSD Opportunity Grant

$$\text{Base cost} = \text{Formula amount} \times \text{Formula ADM}$$

$$\text{Local share} = \text{Three-year average value} \times \text{Charge-off rate}$$

If $(\text{Base cost} - \text{Local share}) \geq \text{Base cost} \times 0.05$:

Opportunity grant = Base cost – Local share

If $(\text{Base cost} - \text{Local share}) < \text{Base cost} \times 0.05$:

Opportunity grant = Base cost x 0.05

$$\text{Charge-off rate} = 0.0005$$

State share percentage

In order to determine the state's share of the cost for career-technical education funds, special education additional aid, LEP funds, and the graduation bonus for JVSDs, the formula calculates a state share percentage for each JVSD by dividing the district's opportunity grant by its base cost. The resulting figure is multiplied by the calculated cost for each of the above components. The state share percentage is recalculated each year of the biennium. JVSD state share percentages in FY 2018 ranged from 5% to 91.4% with a statewide average of 68.2% and a median of 68.2%. The calculation of the state share percentage is summarized below.

JVSD State Share Percentage

$$\text{State share percentage} = \text{Opportunity grant} / \text{Base cost}$$

Categorical components

Like traditional school districts, the current JVSD funding formula includes categorical add-ons that address the needs of "nontypical" students, such as those receiving special education or career-technical education services, those who are economically disadvantaged, or those who are limited English proficient. The amount for these add-ons is determined for JVSDs similarly to the way it is determined for traditional school districts. For example, the same per-pupil amounts are used for each component. However, each JVSD's state share percentage (rather than the state share index) is used to equalize its state funding for career-technical education funds, special education additional aid, LEP funds, and the graduation bonus. Economically disadvantaged funds are not subject to the state share percentage. The calculations of these add-ons are summarized below.

Career-technical education funds

Across all five CTE categories, career-technical FTEs at JVSDs statewide amounted to about 32,494 in FY 2018. CTE funds for JVSDs totaled \$79.7 million in FY 2018.

JVSD Career-Technical Education Additional Funds

$$\text{Career-technical education additional funds} = (\text{Category 1 FTE} \times \text{Per-pupil amount} + \text{Category 2 FTE} \times \text{Per-pupil amount} + \text{Category 3 FTE} \times \text{Per-pupil amount} + \text{Category 4 FTE} \times \text{Per-pupil amount} + \text{Category 5 FTE} \times \text{Per-pupil amount}) \times \text{State share percentage}$$

Like traditional school districts, the formula also provides CTE associated services funds based on the sum of a district's career-technical education FTE in categories one through five and a specified per-pupil amount, as summarized in the table below. CTE associated services funding is equalized based on a district's state share percentage. The amount calculated for CTE associated services funds for JVSD students was \$5.3 million in FY 2018.

JVSD Career-Technical Education Associated Services Funds

$$\text{Career-technical education associated services funds} = (\text{Category 1 FTE} + \text{Category 2 FTE} + \text{Category 3 FTE} + \text{Category 4 FTE} + \text{Category 5 FTE}) \times \text{Associated services per-pupil amount} \times \text{State share percentage}$$

Special education additional aid

Across all six special education categories, special education ADM at JVSDs statewide amounted to 8,909 in FY 2018. Special education additional aid for JVSDs totaled \$36.8 million.

JVSD Special Education Additional Aid

$$\text{Special education additional aid} = (\text{Category 1 ADM} \times \text{Per-pupil amount} + \text{Category 2 ADM} \times \text{Per-pupil amount} + \text{Category 3 ADM} \times \text{Per-pupil amount} + \text{Category 4 ADM} \times \text{Per-pupil amount} + \text{Category 5 ADM} \times \text{Per-pupil amount} + \text{Category 6 ADM} \times \text{Per-pupil amount}) \times \text{State share percentage}$$

Economically disadvantaged funds

In FY 2018, JVSDs educated 15,035 students identified as economically disadvantaged. The economically disadvantaged percentage for JVSDs ranged from 7.6% to 94.0%, with the statewide average being 37.9%. The resulting economically disadvantaged index ranged from a low of just above zero to a high of about 6.15. Thus, the amount per economically disadvantaged pupil, in effect, ranged from \$11 (\$272 x 0.04) to \$1,672 (\$272 x 6.15). JVSD economically disadvantaged funds statewide totaled \$6.5 million in FY 2018.

JVSD Economically Disadvantaged Funds

Economically disadvantaged funds =
Economically disadvantaged aid per-pupil amount x Economically disadvantaged index x
Economically disadvantaged ADM

Limited English proficiency funds

Across all three LEP categories, JVSDs educated about 129 LEP students statewide in FY 2018. LEP funds for JVSDs totaled \$86,811 in FY 2018.

JVSD Limited English Proficiency Funds

Limited English proficiency funds =
(Category 1 ADM x Per-pupil amount + Category 2 ADM x Per-pupil amount + Category 3 ADM x
Per-pupil amount) x State share percentage

Graduation bonus

JVSDs receive the formula's graduation bonus. The bonus is calculated by multiplying the JVSD's graduation rate by a per-pupil amount equal to 7.5% of the formula amount (\$451 in FY 2018 and \$452 in FY2019). The district's per-pupil amount is then multiplied by the number of the district's students that received high school diplomas and then by the district's state share percentage. Graduation bonus funds for JVSDs totaled \$4.4 million in FY 2018.

JVSD Graduation Bonus

Graduation bonus =
Graduation rate reported on most recent report card x 0.075 x Formula amount x Graduate count x
State share percentage

Graduate count = Number of the district's students who received high school diplomas as reported by
the district to the Ohio Department of Education

JVSD additional funding adjustments

Temporary transitional aid

JVSDs are provided temporary transitional aid like traditional school districts. In FY 2018 and FY 2019, these funds generally guarantee a JVSD receives at least 100% of their FY 2017 state aid. However, this base is reduced for JVSDs with a 5% or higher decline in formula ADM between FY 2014 and FY 2016. The reduction is capped at 5% for districts whose formula ADM decreased 10% or higher. Nine (18.4%) JVSDs were guaranteed 95% of their FY 2017 state foundation aid because they lost 10% or more in enrollment while six (12.2%) were guaranteed a scaled amount between 95% and 100%.

The calculation for temporary transitional aid is summarized below. CTE funds and CTE associated services funds are exempt from the guarantee. Unlike traditional districts, JVSD CTE funding is not separately guaranteed. In FY 2018, temporary transitional aid totaling \$19.9 million was paid to 26 JVSDs.

JVSD Temporary Transitional Aid

Temporary transitional aid =
 (Transitional aid guarantee base x transitional aid guarantee base percentage) –
 Foundation funding for the guarantee

If this calculation results in a negative number, then Temporary transitional aid = \$0

Transitional aid guarantee base =
 The following FY 2017 amount after any reductions to comply with the gain cap: Opportunity grant +
 Special education additional aid + Economically disadvantaged funds +
 Limited English proficiency funds + Graduation bonus + Temporary transitional aid

Foundation funding for the guarantee =
 Opportunity grant + Special education additional aid + Economically disadvantaged funds +
 Limited English proficiency funds + Graduation bonus

Formula ADM percentage change = (Formula ADM for FY 2016 / Formula ADM for FY 2014) – 1

If Formula ADM percentage change ≤ -10%:
 Transitional aid guarantee base percentage = 95%

If Formula ADM percentage change > -10% and < -5%:
 Transitional aid guarantee base percentage = Formula ADM percentage change + 105%

If Formula ADM percentage change ≥ -5%:
 Transitional aid guarantee base percentage = 100%

Gain cap

Like traditional school districts, JVSD foundation funding is generally subject to a gain cap of 3.0% in FY 2018 and FY 2019 compared to the previous year's funding. However, the cap is gradually increased to 5.5% in FY 2018 and 6.0% in FY 2019 for JVSDs whose formula ADM increased by more than 3.0% between FY 2014 and FY 2016. The maximum increases of 5.5% in FY 2018 and 6.0% in FY 2019 apply to ten (20.4%) JVSDs. An additional six (12.2%) JVSDs were eligible for increases greater than 3.0% but less than the maximums in FY 2018 and FY 2019, respectively.

CTE additional funds, CTE associated services funds, and the graduation bonus are exempt from the cap. Special education additional aid, while included in the cap calculations, is exempt from the cap unless the calculated amounts for the other components are insufficient to fully comply with the cap limitation. In FY 2018, it was not necessary to apply the gain cap to

that component. The calculation of the gain cap is summarized below. In FY 2018, the gain cap reduced funding to 16 (32.7%) JVSDs by a total of \$8.8 million.

JVSD Gain Cap

Gain cap = Limitation base x Limitation base multiplier

Limitation base for FY 2018 =

The following FY 2017 amount after any reductions to comply with the gain cap: Opportunity grant +
Special education additional funds + Economically disadvantaged funds +
Limited English proficiency funds + Temporary transitional aid

Limitation base for FY 2019 =

The following FY 2018 amount after any reductions to comply with the gain cap: Opportunity grant +
Special education additional funds + Economically disadvantaged funds +
Limited English proficiency funds + Temporary transitional aid

If Formula ADM percentage change $\geq 5.5\%$ in FY 2018 or $\geq 6.0\%$ in FY 2019:

Limitation base multiplier = 1.055 in FY 2018 or 1.06 in FY 2019

If Formula ADM percentage change $> 3\%$ and $(< 5.5\%$ in FY 2018 or $< 6.0\%$ in FY 2019):

Limitation base multiplier = Formula ADM percentage change + 1

If Formula ADM percentage change $\leq 3.0\%$:

Limitation base multiplier = 1.03

JVSD final foundation funding

A JVSD's final foundation funding in each fiscal year is the lesser of the district's foundation funding subject to the gain cap or its gain cap plus the amounts computed for the district for the components exempt from the gain cap. The calculation of final foundation funding for each school district is summarized below. In FY 2018, final foundation funding for JVSDs totaled \$301.4 million.

JVSD Final Foundation Funding

Final foundation funding =

(The lesser of Foundation funding subject to the gain cap or the gain cap) +
Career-technical education additional funds + Career-technical education associated services funds +
Graduation bonus

Foundation funding subject to the gain cap =

Opportunity grant + Special education additional funds + Economically disadvantaged funds +
Limited English proficiency funds + Temporary transitional aid

Preschool special education

Outside of the main funding formula, the state provides funding to school districts and some state institutions for the special education and related services they provide to preschool-aged (ages three through five) children with disabilities. Districts are mandated under federal law to provide a free appropriate public education to these students. Under the formula for distributing these funds, funding is equal to \$4,000 per preschool special education student plus additional special education aid based on the applicable special education amount for each student and the resident district's state share index. Special education aid is then multiplied by 0.5. The special education categories and amounts are the same as those used for primary and secondary students. The state share index for a state institution is the index for the student's resident district. This calculation is summarized in the following table. Ultimately, ESCs and county boards of developmental disabilities also receive a portion of this funding through transfers from the amounts allocated to the school districts with which those entities have service agreements. School districts may also opt to pay an ESC directly for preschool special education services. In FY 2018, preschool special education payments totaled \$115.5 million.

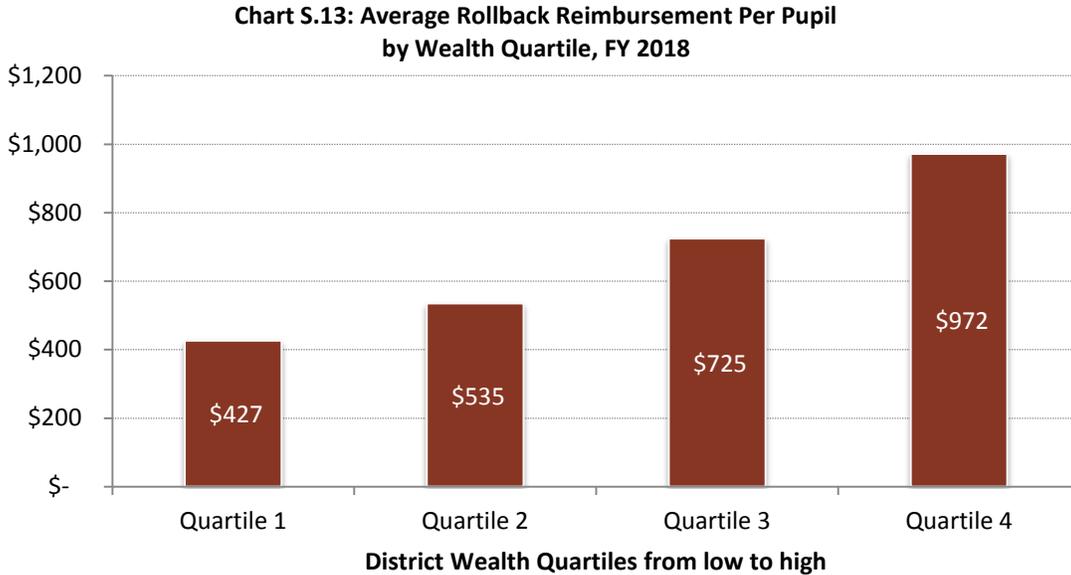
Preschool Special Education Funding

$$\begin{aligned} &\text{Preschool special education funding} = \\ &\$4,000 \times \text{preschool special education ADM} + (\text{Category 1 ADM} \times \text{Per pupil amount} + \text{Category 2 ADM} \times \\ &\quad \text{Per pupil amount} + \text{Category 3 ADM} \times \text{Per pupil amount} + \text{Category 4 ADM} \times \text{Per pupil amount} + \\ &\quad \text{Category 5 ADM} \times \text{Per pupil amount} + \text{Category 6 ADM} \times \text{Per pupil amount}) \times \text{State share index} \times 0.5 \end{aligned}$$

Property tax reimbursements

Rollbacks and homestead exemption

As part of its tax policy, the state reduces property taxes on residential and agricultural real property by 10.0% and the property taxes on owner-occupied homes by an additional 2.5% for all levies initially approved in August 2013 or before. These two reductions in real property taxes provided by the state are often called property tax rollbacks. The state also provides a reduction in property taxes for certain senior citizens and disabled persons. This policy is called the homestead exemption. The state reimburses school districts and JVsDs (and other local governments) for these reductions in real property taxes. In FY 2018, school districts received \$1,109.8 million and JVsDs received \$42.7 million statewide in property tax rollback and homestead exemption reimbursements, for a total of \$1.15 billion. These reimbursements are directly related to the amount of property tax revenue paid in each district, so unlike state education aid, property tax rollback reimbursements tend to be higher in higher wealth districts. Chart S.13 shows the average rollback reimbursement per pupil in the four wealth quartiles for FY 2018. Although state spending on property tax rollbacks has increased steadily since they were instituted in the 1970s, this spending should stabilize in future years as the rollbacks no longer apply to new levies.



Tangible personal property (TPP) tax replacement

Base payment

The state also provides partial reimbursements for tax losses incurred by school districts due to the elimination of the tax on general business tangible personal property (TPP) and the deregulation of electric and natural gas utilities. Since FY 2012, the tax loss replacement payments have been gradually phased-out using a number of different mechanisms. Formerly, the phase-out mechanisms targeted replacement payments for fixed rate operating levies to districts for which TPP tax revenues represented a significant portion of the districts' total resources. Beginning in FY 2018, base fixed-rate operating levy replacement payments are reduced from the prior year's base payment by an amount equal to $\frac{5}{8}$ of one mill (0.000625) of the average total taxable value of the district for tax years 2014, 2015, and 2016 ("three-year average value"). Replacement payments based on emergency levies are phased out over five years, while payments for permanent improvement levies ended after FY 2016. For FY 2018, the base replacement payments for operating levies totaled \$177.5 million for 223 (36.6%) traditional districts. Base replacement payments for JVSs were completely phased-out starting in FY 2018 under the new methodology. TPP replacement payments are currently supported by 13% of receipts from the commercial activities tax, deposited into the School District Tangible Property Tax Replacement Fund (Fund 7047).

Base TPP Replacement Payment for Fixed Rate Operating Levies

Base TPP replacement payment =
 Prior year base TPP replacement payment – (Three-year average value x 0.000625)
 If this calculation results in a negative number, then base TPP replacement payment = \$0

Three-year average value = Average total taxable value for TYs 2014, 2015, and 2016

S.B. 8 supplemental replacement payment

S.B. 8 of the 132nd General Assembly provides supplemental replacement payments to certain school districts for their fixed-rate operating TPP tax losses in FY 2018 and FY 2019. For traditional school districts in FY 2018, and for JVSDs in FY 2018 and FY 2019, if the base TPP replacement payment for each year is less than the amount the district received in the previous fiscal year (including the TPP supplement payment for FY 2017 authorized in S.B. 208 of the 131st General Assembly for traditional districts) minus 3.5% of the district's state and local resources, then a district receives a supplemental replacement payment equal to the difference between those two amounts. Likewise, a traditional district receives a supplemental replacement payment in FY 2019 equal to the difference between (1) the total of a district's base and supplemental replacement payments in FY 2018 less the $\frac{5}{8}$ of one mill phase-down, and (2) the district's FY 2019 base TPP replacement payment. The supplemental replacement payments do not affect the base TPP replacement payments in FY 2020 and thereafter. Those payments will be equal to the base amount a district received in the preceding fiscal year, excluding any supplemental replacement payment, less $\frac{5}{8}$ of one mill of three-year average value. Overall, the supplemental replacement payments increased FY 2018 funding to 17 (2.8%) traditional districts by \$3.8 million and three (6.1%) JVSDs by \$475,375.

S.B. 8 Supplemental Replacement Payment

FY 2018 S.B. 8 Supplemental replacement payment (traditional districts) =
 $[(\text{FY 2017 Base TPP replacement payment} + \text{FY 2017 TPP Supplement}) - (\text{Total resources} \times 0.035)] -$
 FY 2018 Base TPP replacement payment

If this calculation results in a negative number, then S.B. 8 Supplemental replacement payment = \$0

FY 2019 S.B. 8 Supplemental replacement payment (traditional districts) =
 $[(\text{FY 2018 Base TPP replacement payment} + \text{FY 2018 S.B. 8 Supplemental TPP payment}) -$
 $(\text{Three-year average value} \times 0.000625)] - \text{FY 2019 Base TPP replacement payment}$

If this calculation results in a negative number, then S.B. 8 Supplemental replacement payment = \$0

FY 2018 S.B. 8 Supplemental replacement payment (JVSDs) =
 $[\text{FY 2017 Base TPP replacement payment} - (\text{Total Resources} \times 0.035)] -$
 FY 2018 Base TPP replacement payment

If this calculation results in a negative number, then S.B. 8 Supplemental replacement payment = \$0

FY 2019 S.B. 8 Supplemental replacement payment (JVSDs) =
 $[(\text{FY 2018 Base TPP replacement payment} + \text{FY 2018 S.B. 8 Supplemental replacement payment}) -$
 $(\text{Total Resources} \times 0.035)] - \text{FY 2019 Base TPP replacement payment}$

If this calculation results in a negative number, then S.B. 8 Supplemental replacement payment = \$0

S.B. 8 Supplemental Replacement Payment

Total resources (traditional districts) =
FY 2017 Foundation aid + FY 2017 Fixed rate operating and fixed sum operating TPP replacement payments + TY 2016 property taxes for current expenses + CY 2016 school district income taxes + CY 2016 shared municipal income taxes + FY 2017 gross casino revenue taxes

Total resources (JVSDs) =
FY 2017 Foundation aid + FY 2017 Fixed rate operating TPP replacement payments + TY 2016 property taxes for current expenses + FY 2017 gross casino revenue taxes

Three-year average value = Average total taxable value for TYs 2014, 2015, and 2016

Gross casino revenue tax

In 2009, Ohio voters approved a constitutional amendment that authorizes four casinos in the state and requires a 33% tax on gross casino revenue. The County Student Fund receives 34% of the revenue from this tax. These funds are distributed to schools based on the number of students at each school. In FY 2018, a total of \$92.0 million was distributed to schools, consisting of \$81.7 million (88.8%) to traditional school districts, \$4.3 million (4.7%) to JVSDs, and \$6.0 million (6.5%) to community and STEM schools.

Local Operating Revenue

The primary local funding source for schools is locally voted property taxes, which account for approximately 95% of local operating revenue, excluding the portion of property taxes paid by the state (property tax rollbacks and homestead exemption). The other 5% comes from school district income taxes. In TY 2016, school districts levied a total of \$9.59 billion in property tax for operating purposes. An additional \$1.36 billion was levied for permanent improvements and debt service. In TY 2016, joint vocational school districts levied a total of \$360.8 million in property tax for operating purposes and an additional \$30.7 million for permanent improvements and debt service. As stated in the section on state operating revenue, \$1.15 billion of locally levied property tax was paid by the state through property tax rollbacks and reimbursements for the homestead exemption. School district income taxes totaled \$444.1 million in FY 2018. Local operating revenue is discussed in more detail in this section.

Property taxes

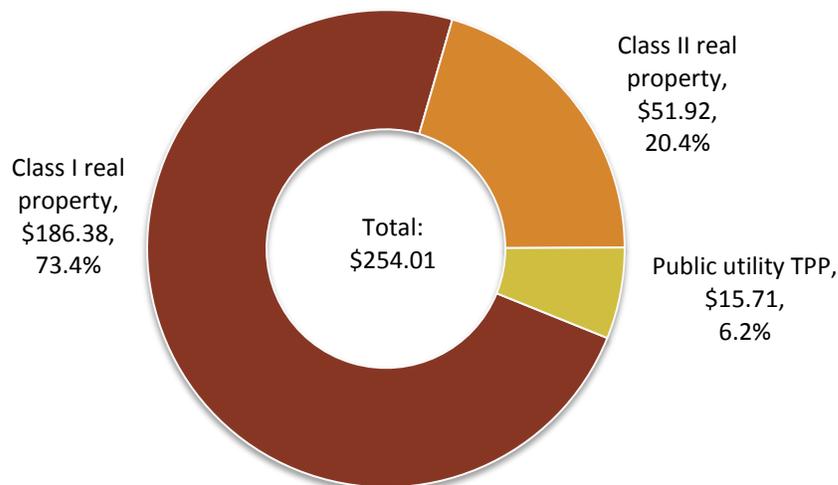
Assessed or taxable property value

Property taxes are calculated on the assessed or taxable property value, which is a percentage of fair market value. This percentage is called the assessment rate. Property value in Ohio is divided into three major categories with different assessment rates:

- Class I real property (residential and agricultural);
- Class II real property (commercial, industrial, and mineral); and
- Public utility tangible personal property.

Real property is generally assessed at 35% of true value, which is determined by the county auditor. This means that if the auditor appraises a home's true value as \$100,000, for

Chart L.1: Taxable Property Value (\$ in billions), TY 2016



example, that home's taxable property value would be \$35,000 (\$100,000 x 0.35). Public utility tangible personal property (TPP) is assessed at rates ranging from 24% to 88% of true value, which is self-reported by businesses based on certain approved methods. Chart L.1 shows the statewide total taxable property value composition based on the three property categories for TY 2016. It can be seen from the chart that class I real property makes up the bulk of total taxable property value, followed by class II real property, and then public utility tangible personal property.

Over 73% of state taxable property value is residential and agricultural real property.

School district taxable property value composition

Chart L.1 gives the taxable property value composition in TY 2016 for the state. However, the composition for each individual district varies widely across the state. Table L.1 shows the minimum, median, and maximum ranges for each category.

Category	Minimum	Median	Maximum
Class I real property	20.1%	79.6%	97.0%
Class II real property	0.6%	13.4%	70.0%
Public utility TPP	0.5%	4.8%	70.3%

A change in the taxable value of a particular category of property through changes in the economy or changes in tax policy generally has an uneven impact on districts due to the variation in property composition across districts.

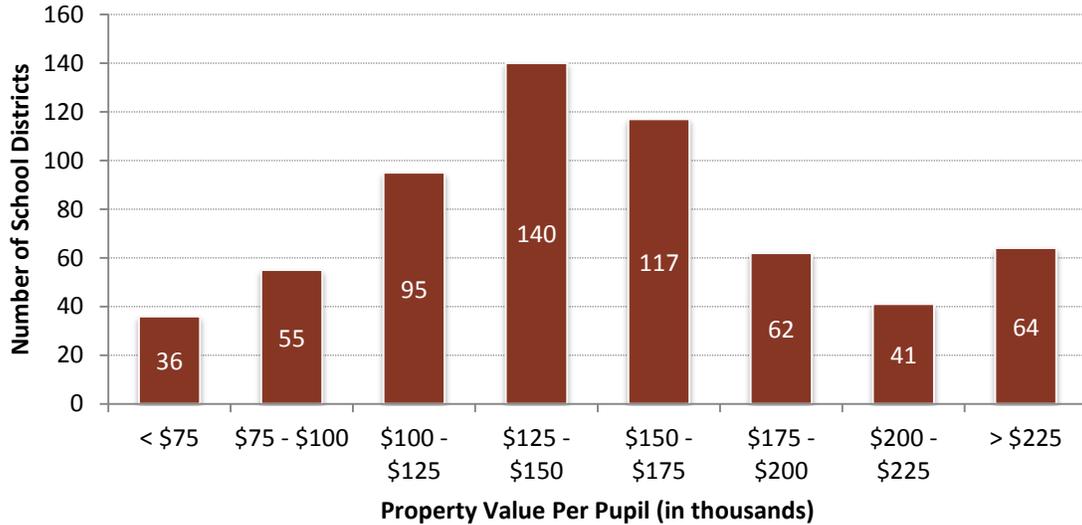
School district value per pupil

Value per pupil is the most important indicator of each district's ability to raise local revenues. Due to the uneven distribution of taxable property, value per pupil varies widely across school districts. Chart I.2 from the introduction is reproduced below. It shows the distribution of values per pupil. It can be seen that values per pupil range from less than \$75,000 in 36 districts to more than \$225,000 in 64 other districts. The statewide weighted average and the statewide median are both about \$145,000 per pupil. The weighted average represents a per-pupil based ranking, which takes into account the size of school districts. The median represents a district ranking, which is represented by the middle district (the 305th district out of 610). Values per pupil for about two-thirds (414 or 67.9%) of school districts range from \$100,000 to \$200,000.

For the same tax effort, a high wealth district raises more local revenue

The variation in per-pupil value impacts each individual district's ability to raise local revenue. The same one-mill property tax levy generates \$75 per pupil for a district with a value per pupil of \$75,000 and \$225 per pupil for a district with a value per pupil of \$225,000.

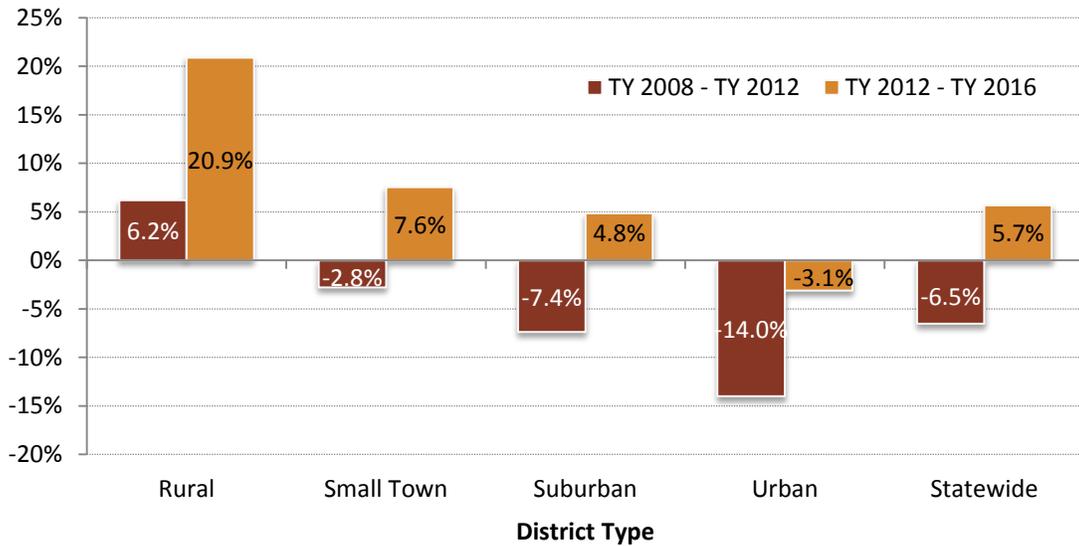
Chart I.2: Distribution of Taxable Property Value Per Pupil, FY 2018



Changes in taxable real property value

As of TY 2016, aggregate real property values were approaching their pre-recession levels. From TY 2012 to TY 2016, statewide real property value increased by 5.7% after declining 6.5% from TY 2008 to TY 2012, as shown in Chart L.2. Over the last four years, all school district types except for urban districts gained aggregate real property value.

Chart L.2: Percent Change in Real Property by District Type



Rural districts experienced the largest increase in real property value over the past nine years. Their values grew 6.2% from TY 2008 to TY 2012 and 20.9% from TY 2012 to TY 2016 due to steady increases in statewide agricultural real property value—27.6% from TY 2008 to TY 2012 and 49.2% from TY 2012 to TY 2016. Agricultural real property value comprises a much

larger share of total real property value for rural districts (33.9% in TY 2016) than for all districts as a whole (8.2%).

From TY 2012 to TY 2016, real property value increased 7.6% for small town school districts and 4.8% for suburban districts. From TY 2008 to TY 2012, these districts lost 2.8% and 7.4% of their value, respectively. Urban district values continued to decline (-3.1% from TY 2012 to TY 2016), but at a slower rate than the 14.0% loss from TY 2008 to TY 2012.

Residential real property accounted for 70.0% of total statewide real property value in TY 2016. From TY 2012 to TY 2016, this value increased by \$4.92 billion (3.0%) statewide. However, the change varied from a gain of 5.2% in rural districts to a loss of 3.6% in urban districts. From TY 2008 to TY 2012, residential real property valuation decreased \$15.55 billion (8.8%) statewide

The remaining 21.8% of real property valuation in TY 2016 was made up of commercial, industrial, mineral, and railroad real property. From TY 2012 to TY 2016, this property valuation increased 2.9% statewide following a decrease of 5.6% from TY 2008 to TY 2012. In TY 2016, real property valuation was \$238.3 billion, representing 93.8% of the total property valuation statewide.

Local property tax levy rates and H.B. 920 tax reduction factors

Generally, school districts have the option to use five different types of levies: inside mills, current expense levies, emergency levies, permanent improvement levies, and bond levies. Inside mills can be used for any purposes designated by local school boards of education. The vast majority of school districts use inside mills for current (operating) expenses. Current expense and emergency levies are used for operating expenses. The revenue from permanent improvement levies and bond levies is used for permanent improvements and debt service. Current expense and permanent improvement levies are fixed-rate levies – voters vote for a certain millage rate that is applied to the taxable property value to calculate the tax each year (subject to tax reduction factors, which are discussed below). Emergency and bond levies are fixed-sum levies – voters vote for a certain amount of tax revenue to be collected each year regardless of taxable property value.

Inside mills and voted (outside) mills

The Ohio Constitution prohibits governmental units from levying property taxes that in the aggregate exceed 1% of the true value of the property in their district unless the voters approve them. This is known as the ten-mill limitation and these unvoted ten mills are called inside mills. The ten inside mills are shared by three levels of government: counties, school districts, and cities or townships. Inside mills for school districts range from less than three mills in some districts to more than six mills in some others. On average, school districts have approximately 4.4 inside mills. All levies other than inside mills need to be approved by the voters and are referred to as voted or outside mills. While voted current expense mills are subject to H.B. 920 tax reduction factors, inside mills are not (see below).

H.B. 920 tax reduction factors

H.B. 920 is a tax policy that was enacted in 1976. It limits changes in revenue from property taxes on existing real property (real property that has previously been taxed). The

effect of this policy, in general, is to require taxing jurisdictions, including school districts and JVSs, to periodically ask the voters for approval of new levies if they want to collect revenue beyond the H.B. 920 limitations. Without the H.B. 920 limitations, a 10% increase or decrease in a district's real property value would result in a 10% increase or decrease in real property tax revenue for the district even without new levies. With the H.B. 920 limitations, however, a 10% increase or decrease in real property generally leads to a much smaller change in real property tax revenue for the district unless voters approve new levies. In the long run, real property values generally experience inflationary increases, although, as discussed above, real property values have been subject to decreases at times.

H.B. 920 tax reduction factors were put into the Ohio Constitution in 1980 through a constitutional amendment that also created the two separate classes of real property. Separate tax reduction factors are applied to each class of real property. However, not all property value and not all tax levies are subject to H.B. 920 tax reduction factors. New construction (real property that did not exist in the prior year) and tangible property are not affected by the tax reduction factors; taxes on these two types of property will grow at the same rate as property values grow. Since emergency levies and bond levies are fixed-sum levies, (they are designed to raise the same amount of tax revenue every year) there is no reason to apply tax reduction factors to them. As indicated earlier, inside mills are not affected by the tax reduction factors either. So, H.B. 920 tax reduction factors apply only to current expense and permanent improvement levies on existing real property. After tax reduction factors are applied, the millage rate actually charged on each class of real property falls below the voted millage rate. This lower millage rate is commonly called the effective millage rate. It can be calculated by dividing the actual taxes charged by the taxable property value for each class of real property. In times of falling real property values, effective mills may increase, but they will never go above the voted millage rate.

Inside mills are not subject to voter approval or to H.B. 920 tax reduction factors.

H.B. 920 20-Mill floor

While H.B. 920 limits the tax revenue growth on existing real property, it does not allow a school district's combined real property millage (from current expense levies and inside mills for operating expenses) to fall below 20 effective mills. This provision of H.B. 920 is referred to as the 20-mill floor. Under H.B. 920, if a school district's combined real property millage falls to 20 effective mills, tax reduction factors no longer apply. Real property taxes based on these 20 mills will grow at the same rate as real property values grow. School district income tax levies are not included in the 20-mill floor determination and neither are emergency levies, although these levies are generally used for operating expenses. The 20-mill floor determination includes only inside mills used for operating expenses and current expense levies.

A total of 239 districts (39.2%) were at the H.B. 920 20-mill floor in at least one class of real property in TY 2016. These 239 floor districts tend to be smaller than average and represent only 18.1% of statewide total ADM. The number of floor districts decreased from 329 in TY 2008 to 120 in TY 2012 due to the fall in real property values. As property values have rebounded, the number of floor districts has increased. Of the 239 floor districts in TY 2016, 48 districts were at the floor in both class I and class II real property, 185 districts were in class I only, and the other six districts were in class II only.

Table L.2 shows the number and percentage of school districts at the H.B. 920 floor by district type. These types were developed by ODE based on districts' demographic characteristics. It can be seen from the table that the H.B. 920 floor district percentages for rural districts (types 1 and 2) tend to be higher than the others, at 64.2% and 77.4%, respectively. In fact, 161 (67.4%) of the floor districts in TY 2016 are rural districts.

Table L.2: Number and Percentage of H.B. 920 Floor Districts by District Type, TY 2016				
District Type	Description	Total Districts	Floor Districts	% Districts on Floor
Type 1	Rural – High poverty & small student population	123	79	64.2%
Type 2	Rural – Average poverty & very small student population	106	82	77.4%
Type 3	Small town – Low poverty & small student population	111	51	45.9%
Type 4	Small town – High poverty & average student population	89	18	20.2%
Type 5	Suburban – Low poverty & average student population	77	4	5.2%
Type 6	Suburban – Very low poverty & large student population	46	1	2.2%
Type 7	Urban – High poverty & average student population	47	1	2.1%
Type 8	Urban – Very high poverty & very large student population	8	0	0.0%
Type 0	Outliers – Island districts	3	3	100.0%
	Total	610	239	39.2%

Since tax reduction factors do not apply to a district at the 20-mill floor, once a district reaches the floor it begins to receive greater increases in revenue when real property values increase due to reappraisals and updates without having to ask voters to approve additional levies. Most districts, however, do not choose to limit local operating revenue to 20 mills; districts on the floor tend to supplement their current expense millage and inside millage with emergency levies and school district income tax levies, which are not included in the floor calculation. In fact, of the 239 floor districts in TY 2016, 181 districts (75.7%) had either emergency or substitute levies or school district income taxes. Table L.3 shows that 34.1% of districts with emergency or substitute levies and 63.8% of districts with school district income taxes are floor districts. Floor districts tend to have lower operating tax rates even when taking all taxes into account. The average effective operating tax rate (including both property taxes and school district income taxes) for the 239 floor districts was 29.0 mills in TY 2016, compared to an average of 42.0 mills for non-floor districts and an average of 39.5 mills for all districts.

Table L.3: H.B. 920 Floor District Supplemental Levies, TY 2016			
Type of Levy	Total Districts	Floor Districts	% Districts on Floor
Emergency or Substitute Levies	267	91	34.1%
School District Income Tax (FY 2018)	196	125	63.8%

Summary of local tax levies and H.B. 920

Table L.4 summarizes the above discussion on which levies and which properties are subject to H.B. 920 reduction factors as well as which levies are included in the 20-mill floor determination.

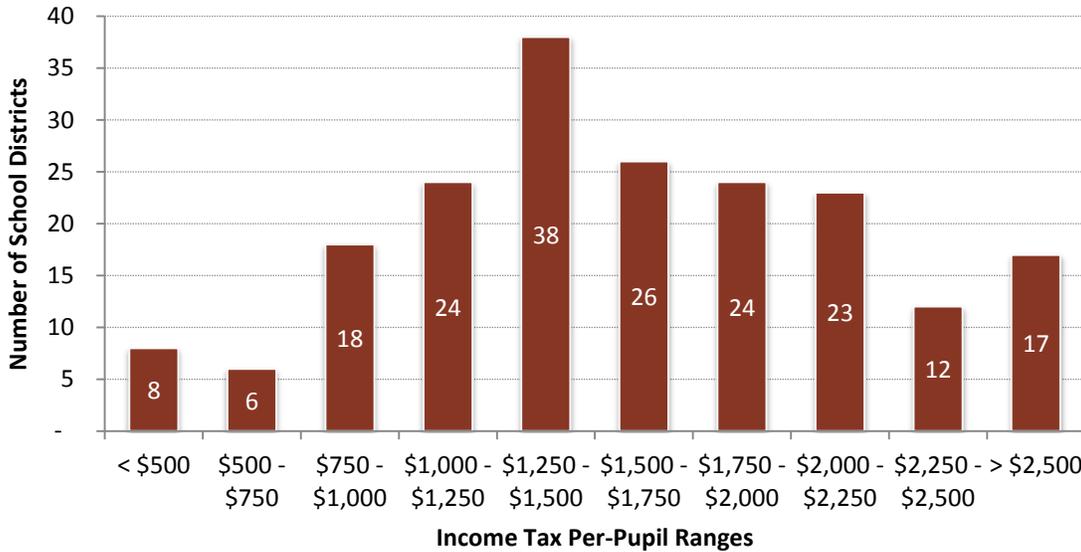
Table L.4: Summary of Local Tax Levies and H.B. 920 Tax Reduction Factors			
Type of Levy	Purpose of Levy	Subject to H.B. 920 Tax Reduction Factors?	Included in H.B. 920 20-Mill Floor Determination?
Inside Mills	Designated by school boards – generally operating	No	Yes – if designated as operating
Current Expenses	Operating	Yes	Yes
Emergency	Operating	No	No
Income Tax	Operating	No	No
Permanent Improvement	Permanent improvements or items with at least five years of useful life	Yes	No
Bond	Debt service	No	No
Type of Property		Subject to H.B. 920 Tax Reduction Factors?	
Existing Real Property	--	Yes	--
New Construction – Real Property	--	No	--
Tangible Personal Property	--	No	--

School district income tax

The school district income tax is paid by residents of the school district regardless of where they work. Nonresidents working in the district and corporations are not taxed. A total of \$444.1 million in school district income taxes was collected by 196 school districts (32.1%) in FY 2018. As shown in Table L.3, 63.8% of these are H.B. 920 20-mill floor districts. These 196 districts tend to be smaller than average and represent approximately 17.6% of statewide total ADM. These districts have an average ADM of approximately 1,530 students compared to an average ADM of approximately 3,400 students for the other 414 districts.

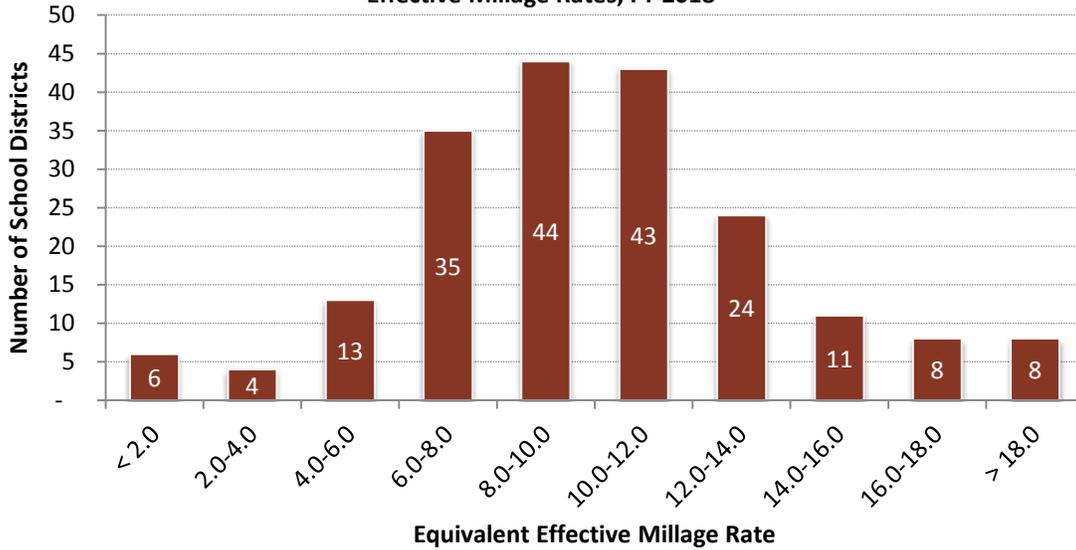
Chart L.3 shows the distribution of income tax revenues per pupil for the 196 districts with such revenues in FY 2018. Per-pupil school district income tax collections range from less than \$100 to over \$4,700 with an average of \$1,480 per pupil for these 196 districts. Per-pupil amounts of less than \$100 often indicate the beginning or ending of a tax levy.

Chart L.3: Distribution of Income Tax Per Pupil, FY 2018



By dividing income tax revenue into total property value, the equivalent effective millage rate is calculated. Chart L.4 shows the distribution of income tax equivalent effective millage rates for the 196 districts with income tax revenues in FY 2018. Effective millage rates range from less than one mill to 25.7 mills with an average of 9.9 mills for these 196 districts. In general, school districts with income tax levies tend to have relatively low business property wealth. Farming communities predominate on the list of school districts with income tax levies.

Chart L.4: Distribution of School District Income Tax Equivalent Effective Millage Rates, FY 2018



Summary of school district effective operating tax rates

By combining revenues received from all operating tax levies, including the school district income tax, it is possible to calculate overall effective operating tax rates. In TY 2016, these range from about 20 mills or less in the bottom ten districts to more than 60 mills in the top ten districts. The Shaker Heights City SD (Cuyahoga County), the Ottawa Hills Local SD (Lucas County), and the Cleveland Heights-University Heights City SD (Cuyahoga County) have the highest overall effective operating tax rates of 96.1, 81.2, and 80.6 mills, respectively. The statewide average is 39.5 mills and the statewide median is 32.7 mills. Chart L.5 shows the distribution of overall effective operating tax rates. It can be seen from the chart that the equivalent overall effective rates for 358 school districts (58.7%) range from 25.0 to 40.0 mills.

Chart L.5: Distribution of Overall Effective Operating Tax Rates, TY 2016

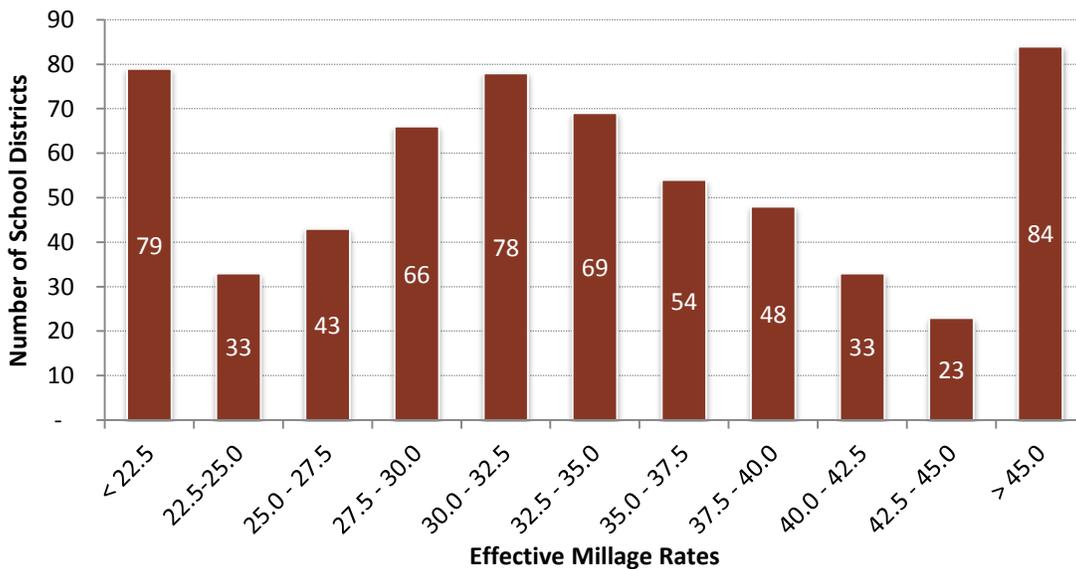


Chart L.6 illustrates shows the average equivalent millage rate on non-business property and school district income taxes for operating purposes for groups of districts categorized by value per pupil in TY 2016. The state average non-business equivalent millage rate was 37.4 mills. Lower wealth districts tend to levy more than the state average. The average rates for higher wealth districts tend to increase as the value per pupil increases, with the exception of the districts with the highest values per pupil.

Chart L.6: Average Non-Business Equivalent Operating Tax Rates by Value Per Pupil, TY 2016

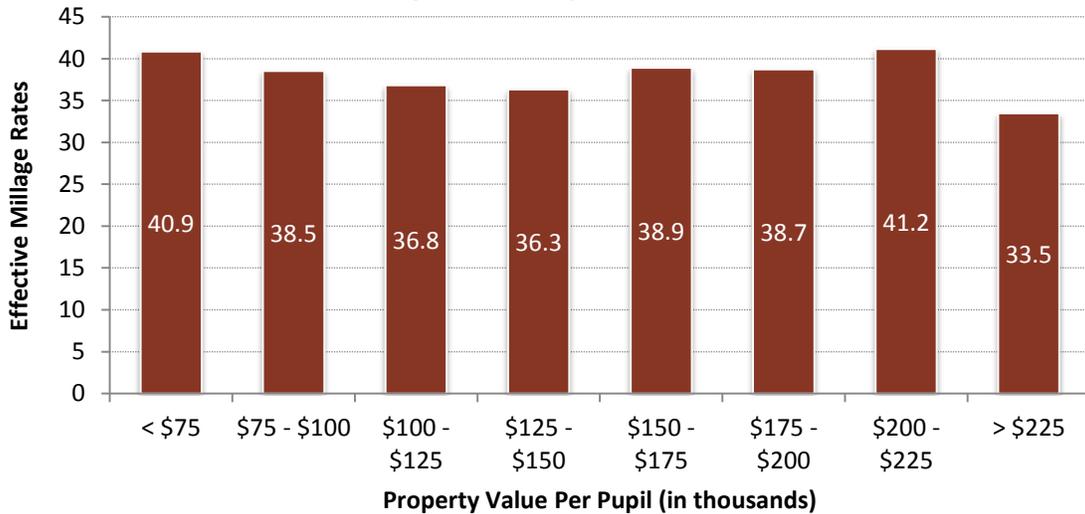
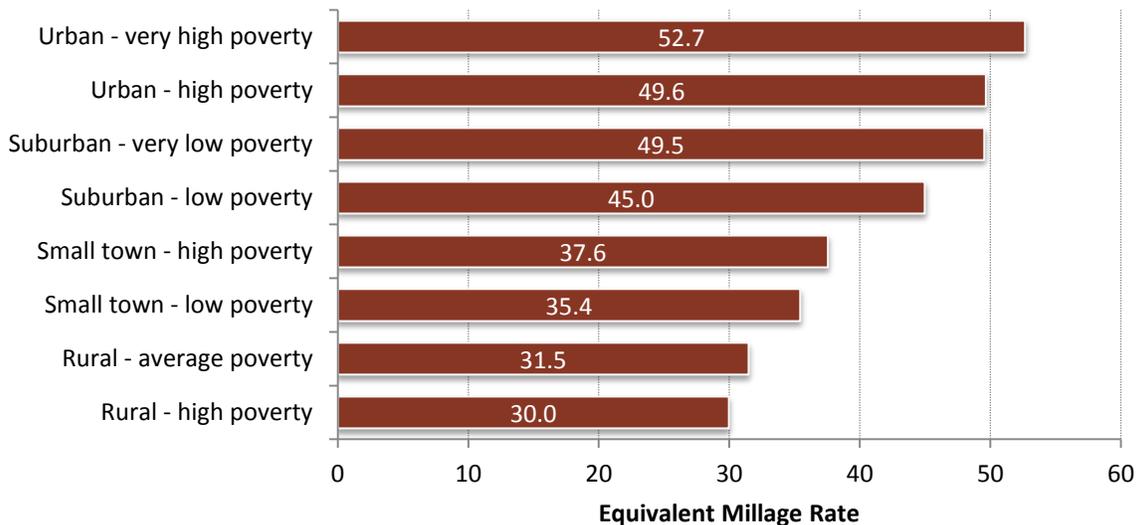


Chart L.7 is similar to Chart L.6 but shows average equivalent non-business property and school district income tax millage rates for both operating and non-operating purposes by the district types described in Table L.2. This chart shows that urban and suburban districts tend to have higher rates than rural and small town districts. This coincides with rural districts being more likely to be on the H.B. 920 floor.

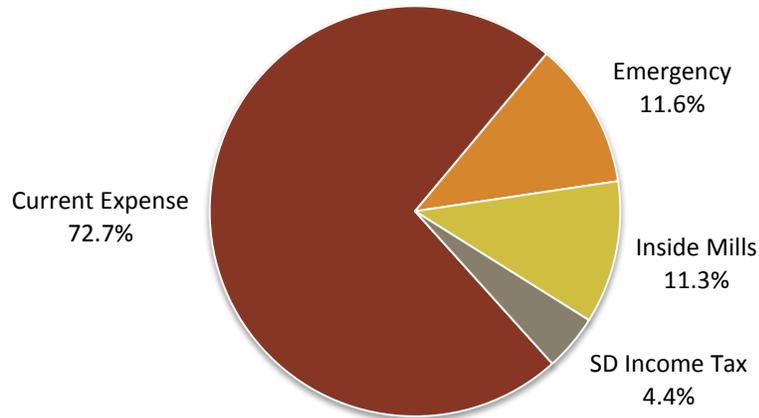
Chart L.7: Average Non-Business Operating and Nonoperating Effective Millage Rates by District Type, FY 2018



School district operating tax revenue by levy type

School districts collected a total of \$10.04 billion in operating taxes in TY 2016, including the portion paid by the state through property tax rollbacks and the homestead exemption. Chart L.8 shows school district operating tax revenues by levy type. Current expense levies, representing 72.7% of total operating tax revenues, were the largest component. Emergency levies generated 11.6%, inside millage 11.3%, and school district income tax levies 4.4%.

Chart L.8: School District Operating Tax Revenue by Levy Type, TY 2016



Summary of joint vocational school district tax revenue

As stated in the state operating revenue section, there are 49 joint vocational school districts (JVSD). Like a regular school district, each JVSD has its own taxing authority. In TY 2016, the 49 JVSDs levied a total of \$361.8 million in local operating revenue and an additional \$31.1 million in non-operating local revenue, for a total of \$391.9 million. Levies need to be approved by taxpayers in all associate districts and the same JVSD millage rate applies to all associate districts within a JVSD. Since a JVSD may include several traditional school districts, its tax base is generally much larger. In TY 2016, average value per pupil for all JVSDs is approximately \$4.2 million.

JVSDs do not have inside mills and they do not levy emergency levies or income tax levies. For operating revenues, therefore, JVSDs are restricted to voted current expense levies. As with regular school districts, JVSDs current expense and permanent improvement levies are subject to H.B. 920 tax reduction factors. The floor on effective current expense millage for JVSDs is 2.0 mills, although several JVSDs are below this millage rate because they have not had levies approved by voters for more than this amount.

Federal Operating Revenue

Federal dollars accounted for 5.4% of public school revenue in FY 2018. The federal revenue counted for purposes of this analysis includes the main formula-based funding that flows to schools through the state budget. It does not include competitive grants that either flow through the state budget or that flow directly to grant recipients. In FY 2018, this federal revenue totaled \$1.10 billion. It is mainly directed toward economically disadvantaged and special education students. Spending of federal revenue is generally restricted to purposes allowed by each grant.

The federal government's main program for economically disadvantaged students is authorized by Title I of the Elementary and Secondary Education Act (ESEA) and is generally referred to simply as "Title I." In FY 2018, \$537.5 million in Title I funds were distributed to local education agencies (LEAs) in Ohio. Table F.1 shows the distribution of federal Title I funding by district typology. As can be seen from the table, federal funding through Title I is concentrated in districts with high percentages of student poverty. Average Title I funding per pupil in FY 2018 ranges from a high of \$826 for urban districts with very high poverty to a low of \$75 for suburban districts with very low poverty.

Table F.1: Title I and IDEA Funding Per Pupil by District Type, FY 2018

Comparison Group – Description		Number of Districts	Student Poverty %	Title I Per Pupil	% Special Education	IDEA Per Pupil
Rural	High poverty, small population	123	54.0%	\$289	15.6%	\$222
Rural	Average poverty, very small population	106	40.9%	\$207	14.0%	\$190
Small town	Low poverty, small population	111	32.7%	\$154	12.9%	\$205
Small town	High poverty, average population	89	58.5%	\$307	15.3%	\$235
Suburban	Low poverty, average population	77	31.4%	\$153	13.4%	\$219
Suburban	Very low poverty, large population	46	14.8%	\$75	12.1%	\$186
Urban	High poverty, average population	47	73.2%	\$455	17.9%	\$246

Table F.1: Title I and IDEA Funding Per Pupil by District Type, FY 2018						
Comparison Group – Description		Number of Districts	Student Poverty %	Title I Per Pupil	% Special Education	IDEA Per Pupil
Urban	Very high poverty, very large population	8	95.2%	\$826	19.5%	\$342
		Average	48.3%	\$299	14.9%	\$232

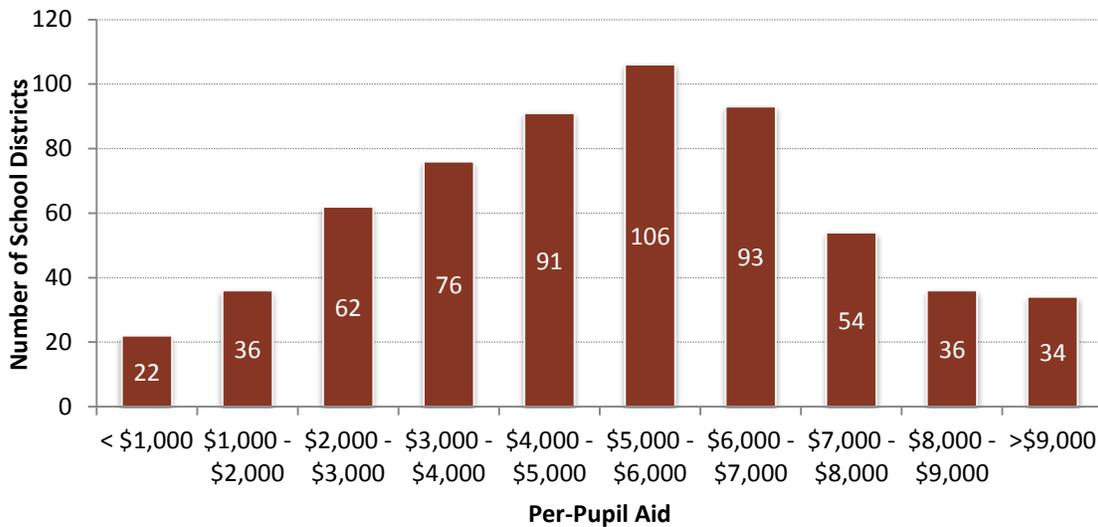
The second largest source of federal operating revenues for school districts is authorized by the Individuals with Disabilities Education Act (IDEA). This funding is directed toward students with disabilities to assist districts in complying with federal requirements to serve these students. In FY 2018, \$424.5 million in IDEA funds were distributed to LEAs in Ohio. Table F.1 shows the distribution of federal IDEA funding by district typology. Although special education students are more evenly distributed among districts than economically disadvantaged students, they are more heavily concentrated in urban districts. Average IDEA funding per pupil in FY 2018 ranges from a high of \$342 for very large urban districts, which have an average of 19.5% of enrollment receiving special education, to a low of \$186 for large suburban districts, which have an average of 12.1% of enrollment receiving special education.

Summary

As stated in the introduction, this analysis of operating funding for public schools in Ohio is meant to assist legislators and legislative staff in understanding the current school funding system. This analysis has discussed the respective roles played by state, local, and federal revenues in funding school operations in Ohio.

In summary, the largest part of state revenues flow to schools through the foundation aid formula. The foundation aid formula helps to equalize school district tax revenues by providing a greater share of state aid to districts with lower capacities to raise local revenue through the state share index, targeted assistance, and capacity aid. However, this funding is adjusted in FY 2018 and FY 2019, through temporary transitional aid and the gain cap, to smooth any large fluctuations in state foundation aid for individual school districts. Chart X.1 shows the distribution of per-pupil foundation aid in FY 2018. As can be seen from the chart, per-pupil aid amounts ranged from less than \$1,000 in 22 districts to over \$9,000 in 34 districts. Most districts (366, 60.0%) received per-pupil foundation aid from \$3,000 to \$7,000.

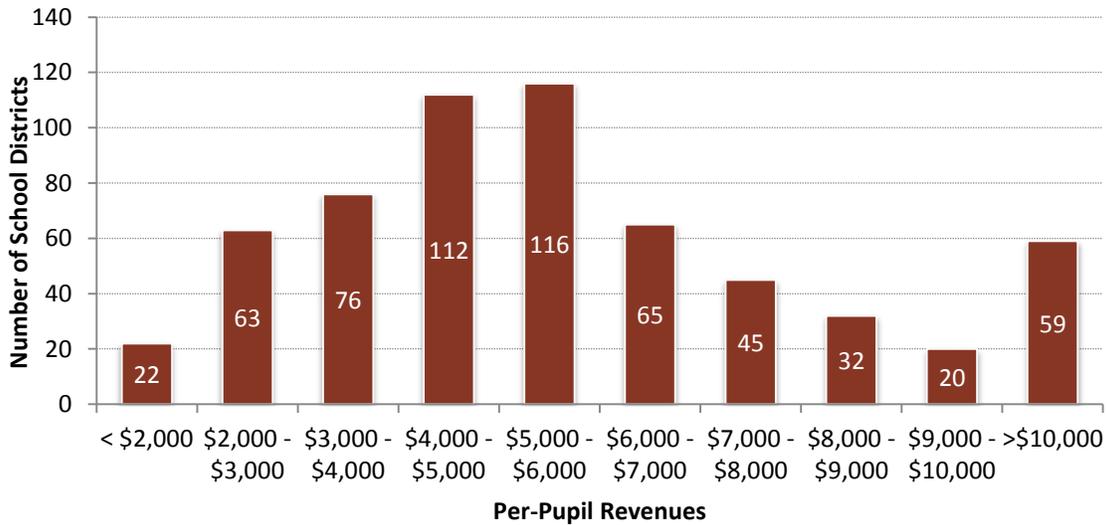
Chart X.1: Distribution of Per-Pupil State Foundation Aid, FY 2018



Tax revenues are primarily determined by a district’s taxable property value and effective property tax rates. These effective tax rates are determined through periodic tax levies that are either approved or rejected by the voters residing in the district. The rates for certain types of levies are reduced by H.B. 920 when a district’s taxable real property value increases due to inflation. A small percentage of tax revenues are determined by the incomes of district residents and the school district income tax rate approved by voters in certain districts. Chart X.2 shows the distribution of per-pupil tax revenues for operating purposes for FY 2018. In the chart, tax revenue includes locally-paid school district property and income taxes and state-paid property tax rollbacks, homestead exemption reimbursements, and TPP tax replacement payments. As can be seen from the chart, per-pupil tax revenues in FY 2018 ranged from less than \$2,000 in 22 districts to more than \$10,000 in 59 districts. About half of

districts (304, 49.8%) received per-pupil operating tax revenues from \$3,000 to \$6,000. Note that state foundation aid is largely equalized based on each district's wealth as measured by property value per pupil and not directly based on each district's local tax revenue per pupil. School districts have no control over their wealth levels, but they do have some control over their revenues. Two districts with the same value per pupil will have different local revenues per pupil if they have different tax rates.

Chart X.2: Distribution of Per-Pupil Operating Tax Revenues, FY 2018



Federal revenues mainly are targeted to special education and economically disadvantaged students. Chart X.3 shows the distribution of per-pupil federal formula revenues in FY 2018. As can be seen from the chart, per-pupil federal revenues in FY 2018 ranged from less than \$200 in 26 districts to more than \$1,000 in 17 districts. The majority of districts (354, 58.0%) received per-pupil federal revenues from \$300 to \$600.

Chart X.3: Distribution of Per-Pupil Federal Formula Revenues, FY 2018

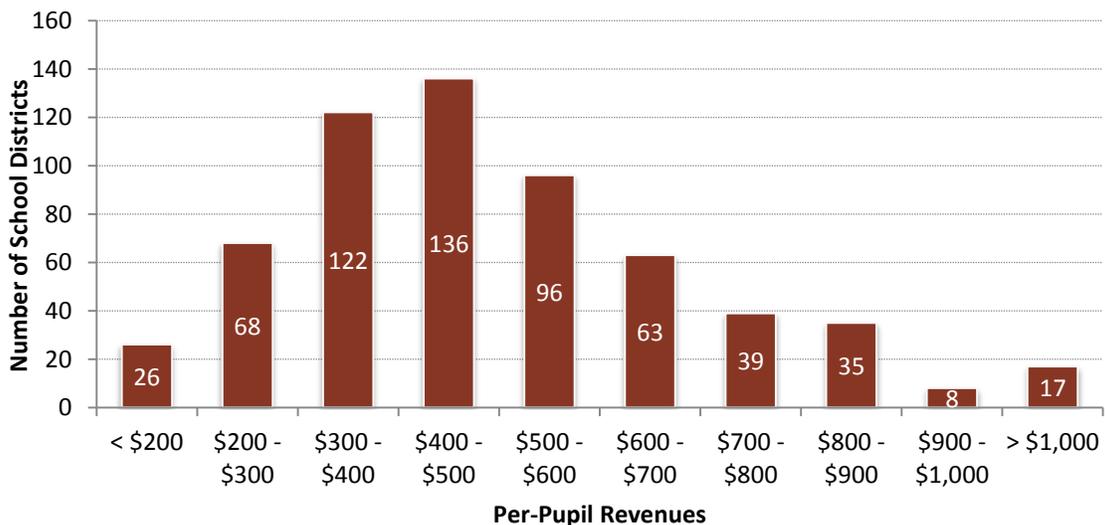


Chart X.4 presents per-pupil operating revenues in FY 2018 from all three of the above sources by district wealth quartile. In FY 2018, average per-pupil revenues were \$12,080 in quartile 1, \$10,946 in quartile 2, \$10,806 in quartile 3, and \$11,981 in quartile 4. As can be seen from the chart, state and federal revenues help to counteract the relatively high local revenues collected by high wealth districts, resulting in a more even revenue distribution than if funding came solely from local sources.

Chart X.4: Operating Revenues Per Pupil, FY 2018

