School Funding Complete Resource

Legislative Service Commission
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INTRODUCTION

Primary and secondary education is one of the primary focuses of the state budget process in Ohio. This area has traditionally comprised the largest share of state-source General Revenue Fund (GRF) and lottery spending in the state budget. In FY 2016, of total state-source GRF and lottery spending of $22.94 billion, 44.3%, or $10.16 billion, went to this program area, and most of this was distributed to public schools. The operating costs of public schools in Ohio are funded primarily with these state revenues and revenues raised at the school district level. A smaller amount is provided by the federal government. The state uses a foundation funding formula to distribute the bulk of its contribution. A new foundation funding formula was enacted in H.B. 59 of the 130th General Assembly and began to be used in FY 2014. H.B. 64 of the 131st General Assembly largely retained that formula but made various changes for FY 2016 and FY 2017. This document presents an analysis of the foundation formula enacted in H.B. 64 and is primarily meant to assist legislators in understanding it. In addition, this document analyzes other major sources of operating revenue from state, local, and federal government sources.

Chart I.1 illustrates, for FY 2016, 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 48.9% of public school operating revenue, followed by local tax sources (45.5%), and federal sources (5.6%). As can be seen from

Chart I.1: Public School Operating Revenues by Source, FY 2016

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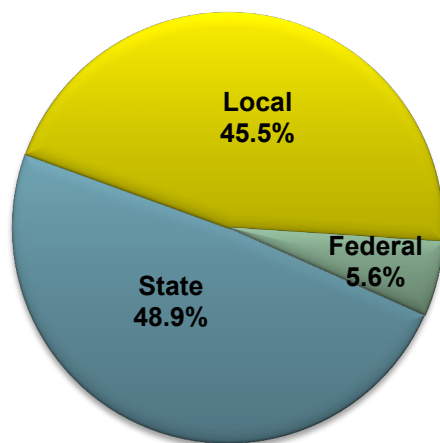
[1] This revenue does not include competitive grants, such as the state's Straight A Fund. It also does not include fees and donations collected at the local level or federal reimbursements for free and reduced-price meals. This measure of operating revenue differs from that available on the Department of Education's website, which has previously been reported by LSC, and should not be compared with it.

the table, the foundation formula comprises 80.9% of state source revenues; property tax rollbacks, tangible personal property (TPP) direct reimbursements, and the TPP supplement, together, comprise 16.3%; and all other sources comprise the remaining 2.8%. Local revenues are comprised of property taxes (94.4%), school district income taxes (4.6%), and the gross casino revenue tax (1.0%). Federal revenues come mainly through the Elementary and Secondary Education Act's (ESEA) Title I (51.0%) and the Individuals with Disabilities Education Act (IDEA, 36.3%); with all other sources comprising the remaining 12.8%.

Table I.1: Public School Operating Revenues by Source, FY 2016		
Source Components	**Revenue (in millions)**	**Percentage of Source**
State Sources		
Foundation Formula	$7,752.5	80.9%
Property Tax Rollbacks	$1,153.9	12.0%
TPP Direct Reimbursements	$357.7	3.7%
Preschool Special Education	$108.8	1.1%
Special Education Transportation	$55.1	0.6%
TPP Supplement	$47.0	0.5%
Directly Funded Scholarships	$45.6	0.5%
Educational Service Centers	$45.4	0.5%
Community School Facilities	$13.1	0.1%
Total State Sources	**$9,579.2**	**100.0%**
Local Sources		
Property Taxes	$8,420.2	94.4%
Income Taxes	$410.4	4.6%
Casino Tax	$90.8	1.0%
Total Local Sources	**$8,921.5**	**100.0%**
Federal Sources		
ESEA Title I	$562.7	51.0%
Special Education (IDEA)	$400.1	36.3%
Improving Teacher Quality	$78.6	7.1%
Career and Technical Education	$37.3	3.4%
Special Education Preschool	$10.3	0.9%
English Language Acquisition	$9.4	0.8%
Rural Education	$2.9	0.3%
Homeless Children Education	$2.4	0.2%
Total Federal Sources	**$1,103.6**	**100.0%**
Total All Sources	**$19,604.3**	

The main driver behind the distribution of state revenue through the foundation 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 in tax year (TY) 2014. Taxable value per pupil ranges from less than $75,000 in 38 districts to more than $225,000 in 55 districts. The statewide weighted average is $142,000 and the statewide median is $140,000.

Chart I.2: Distribution of Taxable Property Value Per Pupil, TY 2014
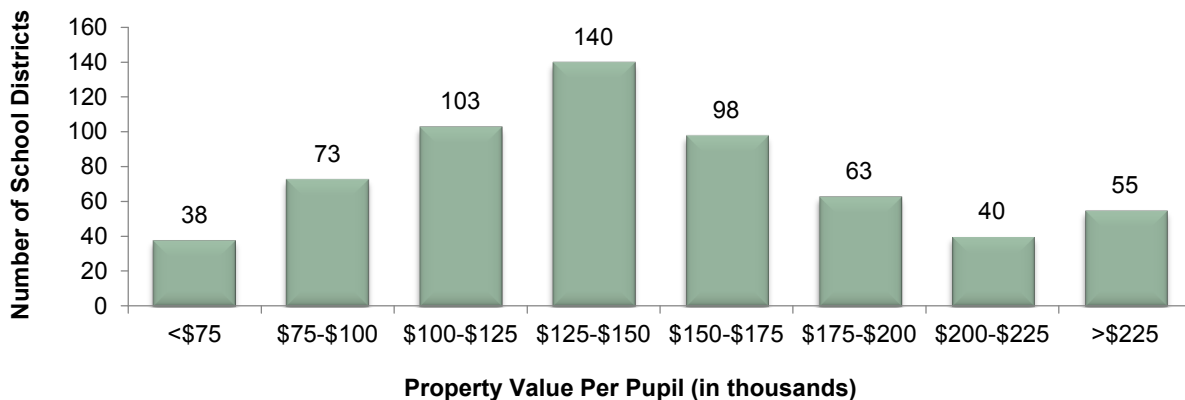
The variation in per pupil property values impacts each individual district's ability to raise local revenue. The same one-mill property tax levy generates $75 per pupil for a district with a property value per pupil of $75,000 and $225 per pupil for a district with a property value per pupil of $225,000. As a result, local per pupil operating revenues vary significantly across school districts in Ohio.[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 $3,148 for districts with the lowest property value per pupil to an average of $8,636 for districts with the highest.

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

**Chart I.3: Per Pupil Property Tax and Foundation Aid
by Property Value Quartile, FY 2016**
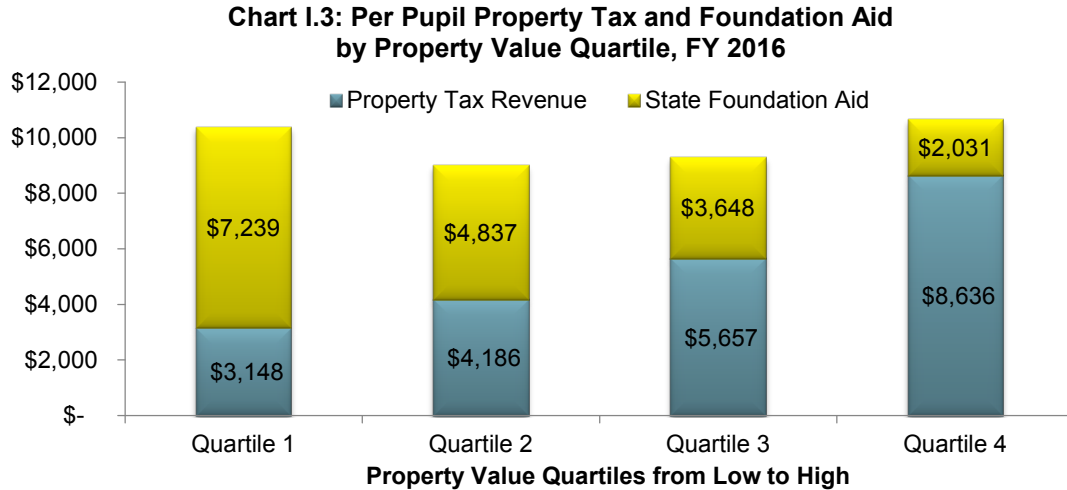
The foundation formula partially offsets the results of variations in per pupil property values. The top portions of the bars in the chart show average state foundation aid per pupil for each of the district quartiles. Per pupil foundation aid is higher for districts with lower property value per pupil. It ranges from an average of $7,239 for districts with the lowest property value per pupil to an average of $2,031 for districts with the highest. The following analysis looks at the three sources of public school revenues in more detail, concentrating on the state foundation funding formula.

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 (80.9% in FY 2016) comes through the state foundation formula. In FY 2014, Ohio began using new foundation formulas for traditional and joint vocational school districts (JVSDs). The formulas are similar and more is said about the JVSD formula below. This section discusses the formula for traditional districts. The foundation 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 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 two district-based funding elements, temporary transitional aid and a gain cap, that smooth out large fluctuations in state aid.

State foundation aid, after the application of temporary transitional aid and the gain cap, averages $4,439 per pupil statewide in FY 2016. Of this amount, $2,641 (59.5%) is for the opportunity grant, which is based on a uniform per-pupil formula amount of $5,900 in FY 2016. On average, categorical add-ons totaled $1,153 per student statewide

and comprised 25.9% of state foundation aid. Average targeted assistance and capacity aid amounted to a total of $551 per pupil statewide, or 12.4% of the statewide total. The performance bonuses totaled to $21 per pupil, or 0.5% of the total. The remaining component, temporary transitional aid, accounts for $73 per pupil, or 1.6%. The total average state foundation aid per pupil for FY 2016 is separated into its components in Chart S.1.

Chart S.1: Elements of State Foundation Aid, FY 2016
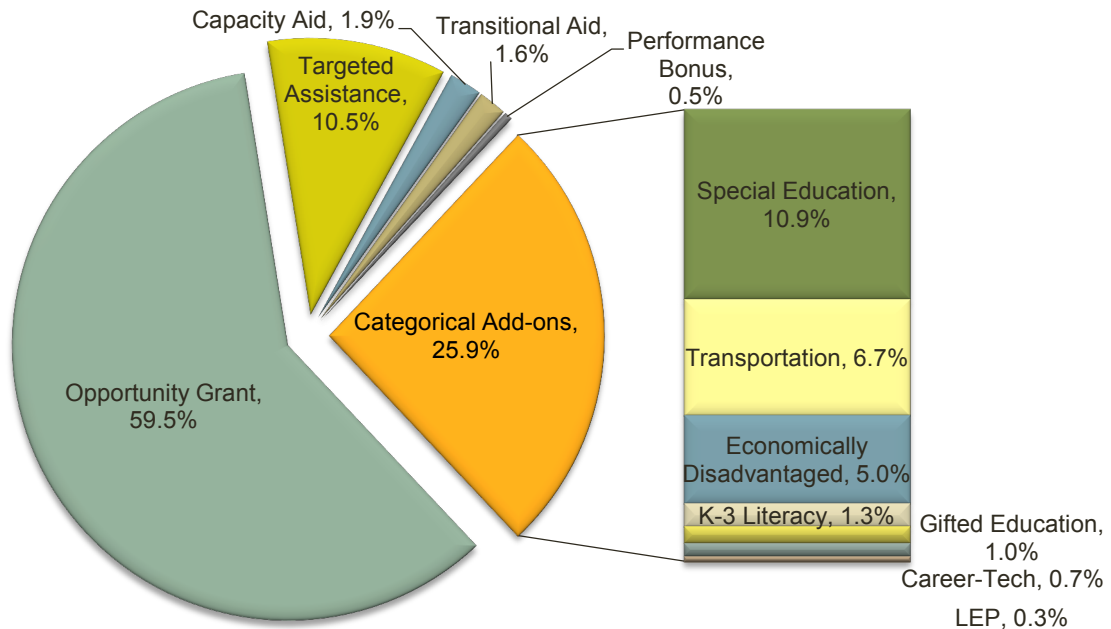
State foundation aid is based largely on the number of students residing in each district and the capacity of each district to raise revenues locally. The formula uses annualized full-time equivalent (FTE) enrollment and the state share index, respectively, to measure these two variables.

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 full-time equivalent (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 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 Program,[3] 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 foundation funding, 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.

The formula below summarizes the calculation of formula ADM for each district. Statewide, school district formula ADM totaled 1.68 million students in FY 2016.

Calculation of Formula ADM
Formula ADM = Total ADM – 80% x JVS ADM + 20% CTE compact ADM

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.

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[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.

To demonstrate how the state foundation aid formula works, this item and others throughout this section will illustrate the calculations used in the formula using one or more hypothetical school districts. The following is an example of the FY 2016 formula ADM calculation for a hypothetical district, District A.

District A's Formula ADM for FY 2016	
Factor	**Count**
A. Total ADM	1,000
B. JVS ADM	32
C. CTE compact ADM	8
D. Formula ADM = A - (0.8 x B) + (0.2 x C)	976

Three-year 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. A three-year average is used to smooth these large changes in value. To make the formula even more stable, the state share index is calculated once for both years of the biennium. That is, the index for FY 2016 and FY 2017 is based on the average property value for FY 2014, FY 2015, and FY 2016 (TY 2012, TY 2013, and TY 2014).[4]

Adjusted value

Three-year average value is adjusted 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 2016, 14 districts received this adjustment. These districts' values were reduced by

> 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.

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[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 2014, therefore, are mostly received in FY 2016. For purposes of the school funding formula, property values in a given tax year correspond to the fiscal year two years later.

a total of $1.73 billion. While this adjustment increases the initial calculation of FY 2016 state funding by about $52.8 million statewide, the subsequent application of the formula's gain cap provision limits the net increase to about $16.3 million.

Adjusted Property Value
Three-year average value = Average of taxable property value for fiscal years 2014, 2015, and 2016
Potential value = Three-year average value + Exempt value
Adjustment = Greater of $0 or (Exempt value - 0.30 x Potential value)
Adjusted value = Three-year 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 value per pupil (using total ADM for FY 2015[5]) by the statewide unadjusted average per pupil, as shown in the table below. Thus, a district with an adjusted value per pupil the same as the state average will have a property value index of 1.0, wealthier districts will have an index greater than 1.0, and less wealthy districts will have an index value less than 1.0. For FY 2016 and FY 2017, the statewide three-year average value per pupil is $139,164. The property value index ranges from about 0.28 to 5.54, excluding several outlier districts.

Property Value Index
District value per pupil = Adjusted value / Total ADM for FY 2015
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 $32,873. Next, the formula requires a similar calculation for FAGI, by dividing a district's three-year average FAGI per pupil by the statewide three-

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[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.

year average FAGI per pupil. The statewide three-year average FAGI per pupil was $172,790. 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 4.10, excluding an outlier district.

Income Index
Median income index = District median Ohio adjusted gross income for TY 2013 / Statewide median Ohio adjusted gross income for TY 2013
District FAGI per pupil = District three-year average FAGI / Formula ADM for FY 2015
District three-year average FAGI = average of FAGI for TYs 2011, 2012, and 2013
Statewide 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 / Statewide 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 2016 and FY 2017, the income adjustment applies to 266 school districts (43.6%). While this adjustment increases the initial calculation of FY 2016 state funding by about $119.1 million statewide, the subsequent application of the formula's gain cap provision limits the net increase to about $20.5 million.

Wealth Index
If Income index < Property value index and Median income index $\leq$ 1.5: Wealth index = (0.6 x Property value index) + (0.4 x Income index) If Income index $\geq$ Property value index or Median income index > 1.5: 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 0.90 or less than 0.05.

State Share Index
If Wealth index ≤ 0.35:
State share index = 0.90;
If Wealth index > 0.35 but ≤ 0.90:
State share index = {0.40 x [(0.90 – Wealth index) / 0.55]} + 0.50;
If Wealth index > 0.90 but < 1.8:
State share index = {0.45 x [(1.8 – Wealth index) / 0.9]} + 0.05;
If Wealth index ≥ 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 state foundation aid formula.

Chart S.2: State Share Index
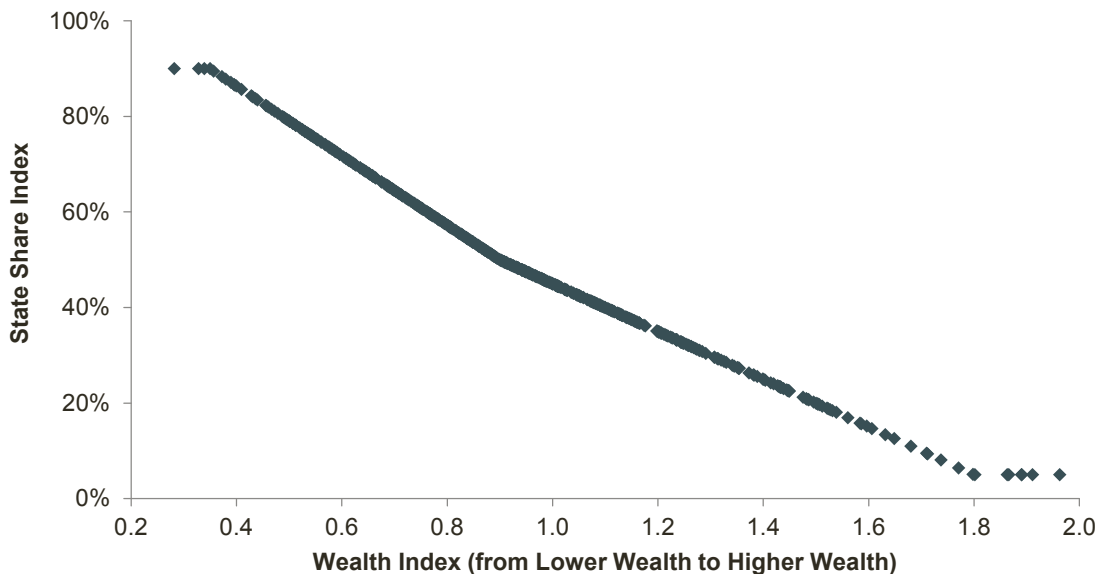
Chart S.3 shows the distribution of the state share index over the 610 school districts. As can be seen from the chart, there is a spike in the middle of the distribution. The state share index lies between 32% and 66% for 422 districts (69.2%). In FY 2016 and FY 2017, 21 high-wealth districts have state share index values of 5%, the index's floor level, while three low-wealth districts are at the ceiling level of 90%.

Chart S.3: Distribution of State Share Index, FY 2016
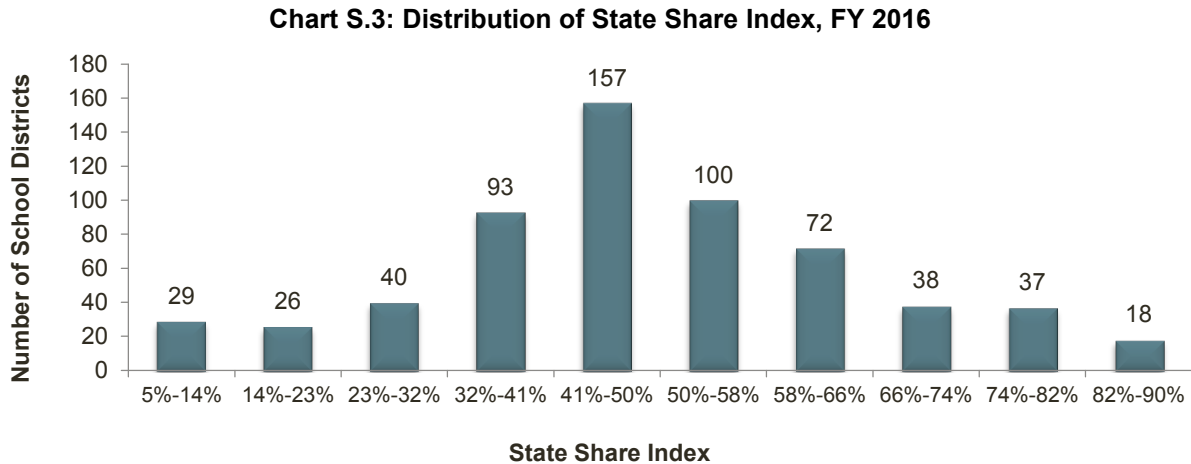
Opportunity grant

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 $5,900 in FY 2016 and $6,000 in FY 2017, which 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 $4,932.8 million in FY 2016. 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 = $5,900 in FY 2016 and $6,000 in FY 2017

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 L below. District A is a little less wealthy than the statewide average while districts B and C are the least and most wealthy of the three, respectively. Note that 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's relative income is less than its relative value per pupil. The formula compensates for this 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 there been no income factor, District C's state share index would have been 0.1709, or about 17.1%.

State Share Index for FY 2016 and FY 2017			
Factor	District A	District B	District C
A. Taxable property value for FY 2014	$105,000,000	$78,000,000	$219,000,000
B. Taxable property value for FY 2015	$130,000,000	$75,000,000	$218,000,000
C. Taxable property value for FY 2016	$131,000,000	$72,000,000	$220,000,000
D. 3-year average value = (A + B + C) / 3	$122,000,000	$75,000,000	$219,000,000
E. State tax-exempt property value	$13,000,000	$80,000,000	$30,000,000
F. U.S. government-owned property value	$300,000	$0	$6,000,000
G. Potential value = D + E - F	134,700,000	$155,000,000	$243,000,000
H. 30% of Potential value = G x 0.3	$40,410,000	$46,500,000	$72,900,000
I. Adjustment = Greater of (E - F - H) or $0	$0	$33,500,000	$0
J. Adjusted 3-year Average Value = D - I	$122,000,000	$41,500,000	$219,000,000
K. Total ADM for FY 2015	1,010	1,010	1,010
L. District Value Per Pupil= J / K	$120,792	$41,089	$216,832
M. Statewide Value Per Pupil	$139,164	$139,164	$139,164
N. Value Index = L / M	0.8680	0.2953	1.5581

The example continues on the next page.

State Share Index for FY 2016 and FY 2017 (continued)			
Factor	District A	District B	District C
O. Median Income for TY 2013	$32,000	$30,000	$35,000
P. Statewide Median for TY 2013	$32,873	$32,873	$32,873
Q. Median Income Index = O / P	0.9734	0.9126	1.0647
R. FAGI for TY 2011	$135,000,000	$93,000,000	$250,000,000
S. FAGI for TY 2012	$140,000,000	$98,000,000	$263,000,000
T. FAGI for TY 2013	$148,000,000	$106,000,000	$270,000,000
U. 3-year average FAGI = (R + S + T) / 3	$141,000,000	$99,000,000	$261,000,000
V. Formula ADM for FY 2015	986	986	986
W. District FAGI Per Pupil = U / V	$143,002	$100,406	$264,706
X. Statewide FAGI Per Pupil	$172,790	$172,790	$172,790
Y. Income Index (Q x 0.5) + ((W/X) x 0.5)	0.9005	0.7468	1.2983
Z. Wealth Index	0.8680	0.2953	1.4542
AA. State Share Index	0.5233	0.9000	0.2229

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 (22.3%) 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 52.3%.

Chart S.4 shows the average per-pupil funding in FY 2016 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 $4,459 per pupil. The average per-pupil amount for districts in wealthier quartiles is progressively smaller. The statewide average in FY 2016 was $2,931 per pupil.

Chart S.4: Average Opportunity Grant Per Pupil by Wealth Quartile, FY 2016

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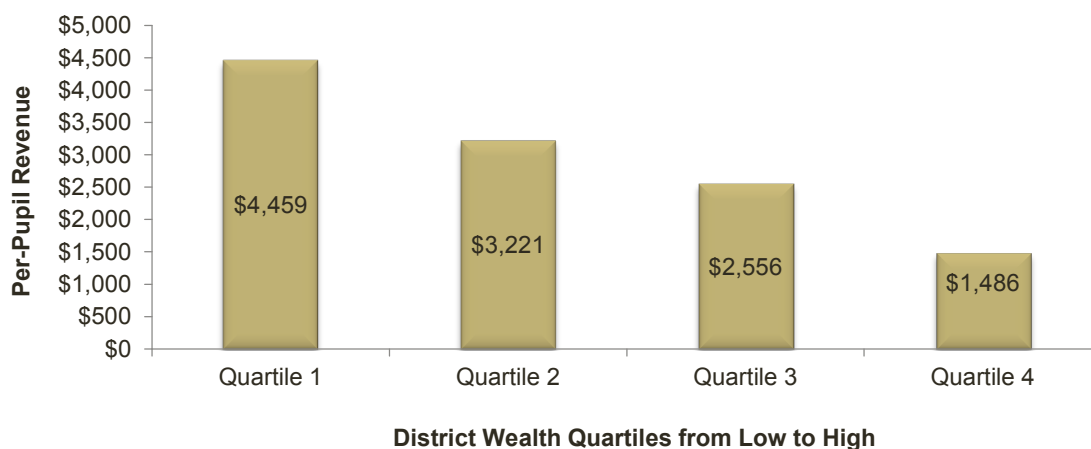
The following calculates the opportunity grant for the hypothetical Districts A, B, and C, which are assumed to have identical ADM figures. Due to the state share index, the lowest wealth district, District B, receives the largest opportunity grant amount while the highest wealth district, District C,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

Opportunity Grant for FY 2016			
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	0.5233	0.9000	0.2229
D. Opportunity grant = $5,900 x (A + B) x C	$3,019,457	$5,193,180	$1,286,200

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 $840.5 million in FY 2016.

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 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.

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[6] That is, for FY 2016, value per pupil is the average of FYs 2014, 2015, and 2016 and, for FY 2017, it is the average of FYs 2015, 2016, and 2017.

Wealth Per Pupil
District wealth per pupil = 0.5 x (Average of last three years' taxable property value / Formula ADM) + 0.5 x (Average of last three years' FAGI / Formula ADM)
Statewide wealth per pupil = 0.5 x (Sum of the average of all districts' taxable property value / Sum of all districts' formula ADM) + 0.5 x (Sum of the average of all districts' FAGI / 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 2016, the threshold district's wealth per pupil is $198,217. 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 2016, statewide wealth per pupil is $157,781 and the wealth index values of the 489 districts eligible for base targeted assistance vary from about 0.80 to about 2.56. 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 2016 ranges from about 4.8 mills (6 mills x 0.80) to about 15.4 mills (6 mills x 2.56). The calculation of a district's equalized millage is summarized below.

Millage Equalized by Base Targeted Assistance
District wealth index = Statewide wealth per pupil / District wealth per pupil
District additional millage = 0.006 x 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 $2 to about $2,093. The calculation of the base tier is given below. Base targeted assistance for school districts totaled approximately $703.7 million in FY 2016.

Base Targeted Assistance
Base targeted assistance per pupil = (Wealth per pupil of 490th lowest wealth district - District wealth per pupil) x Target millage x District wealth index
Base targeted assistance = Base targeted assistance per pupil x Net formula ADM
Target millage = 0.006
Net formula ADM = Formula ADM - EdChoice Scholarship ADM - Autism Scholarship ADM - Jon Peterson Special Needs Scholarship ADM - e-school ADM - 75% 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 $1,022 per pupil, significantly more than the other quartiles. The chart also illustrates the effect of applying the wealth index to the target millage rate. On average, the districts in quartile 1 have a wealth index of 1.75, while districts in quartiles 2 and 3 have an average wealth index of 1.21 and 0.93, respectively. Thus, the base tier equalizes an average of 10.53 mills (6 mills x 1.75) for the least wealthy districts, close to double the average 5.58 mills equalized in districts comprising quartile 3 (6 mills x 0.93).

Chart S.5: Average Base Targeted Assistance Per Pupil by Wealth Quartile, FY 2016

Wealth Quartile	Per-Pupil Revenue
Quartile 1	$1,022
Quartile 2	$464
Quartile 3	$169
Quartile 4	$18

District Wealth Quartiles from Low to High
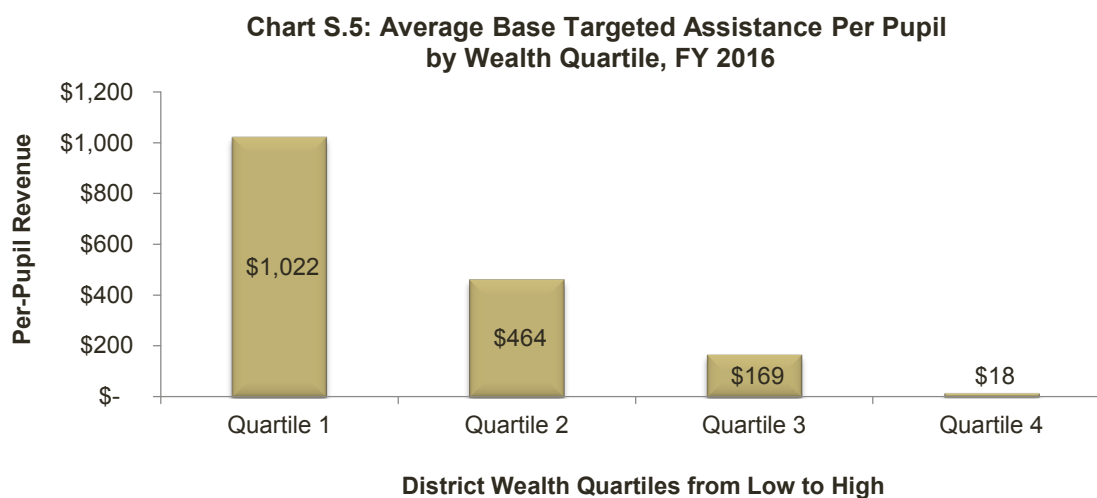
Supplemental tier

The formula also provides supplemental targeted assistance based on a district's percentage of agricultural property value. This tier is calculated by subtracting 10% from each district's agricultural percentage and multiplying the difference by 40% of the formula amount ($2,360 in FY 2016 and $2,400 in FY 2017) 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 2016, 319 (52.3%) districts met this threshold. The

calculation of supplemental targeted assistance is given below. Supplemental targeted assistance for school districts totaled approximately $136.8 million in FY 2016.

Supplemental Targeted Assistance
District agricultural percentage = Three-year average valuation of district agricultural real property / Three-year average valuation of all real property in district
Supplemental targeted assistance =   (District agricultural percentage – 0.1) x (0.4 x Formula amount) x Net formula ADM   If this calculation results in a negative number, then Supplemental targeted assistance funds = $0
Three-year average valuation for FY 2016 = Average valuation for TYs 2012, 2013, and 2014   Three-year average valuation for FY 2017 = Average valuation for TYs 2013, 2014, and 2015

Chart S.6 shows average per-pupil funding in FY 2016 calculated under supplemental targeted assistance by district comparison group (referred to as typology) using the district's formula ADM. 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 $435 in FY 2016, over six times more than the average of $71 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 2016
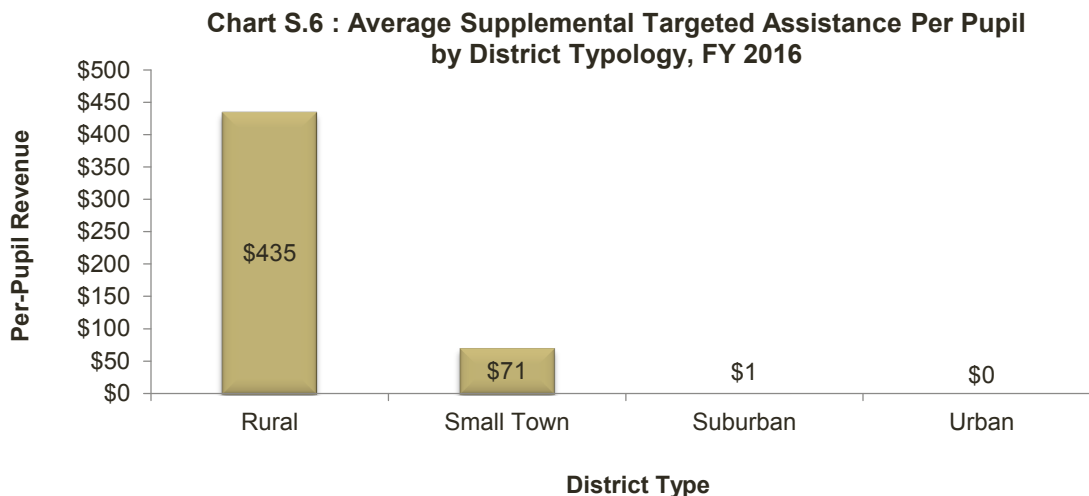
The following calculates base and supplemental targeted assistance in FY 2016 for the hypothetical districts A, B, and C. Once again, assume that these districts have identical ADM figures. Note that, because of its high wealth rank (562), District C is ineligible for base tier funds, but receives supplemental tier funds because more than 10% of its real property value is comprised of agricultural property.

Targeted Assistance for FY 2016			
Factor	**District A**	**District B**	**District C**
A. 3-year average value	$122,000,000	$75,000,000	$219,000,000
B. Formula ADM	976	976	976
C. Value per pupil = A / B	$125,000	$76,844	$224,385
D. 3-year Average FAGI	$141,000,0000	$99,000,000	$261,000,000
E. FAGI per pupil = D / B	$144,467	$101,434	$267,418
F. Wealth per pupil = (0.5 x C) + (0.5 x E)	$134,734	$89,139	$245,902
G. Statewide wealth per pupil	$157,781	$157,781	$157,781
H Wealth index = G / F	1.1711	1.7700	0.6416
I. Wealth rank (from lowest to highest)	245	46	562
J. Threshold wealth = 490th rank	$198,217	$198,217	$198,217
K. Base tier per pupil = (J - F) x 0.006 x H	$446	$1,158	$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	$419,293	$1,088,931	$0
S. 3-year average agricultural real property value	$50,000,000	$5,000,000	$45,000,000
T. 3-year average total real property value	$118,000,000	$70,000,000	$215,000,000
U. Agricultural percentage = S / T	0.4237	0.0714	0.2093
V. Supplemental targeted assistance = (U – 0.1) x (0.4 x $5,900) x Q	$718,160	$0	$242,476
W. Total targeted assistance = R + V	$1,137,453	$1,088,931	$242,476

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 2016, the median capacity amount was $221,870. 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 valuation 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 valuation for FY 2016 = Average valuation for TYs 2012, 2013, and 2014 Three-year average valuation for FY 2017 = Average valuation for TYs 2013, 2014, and 2015

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 2016, the average formula ADM of all districts below the median capacity amount was 1,029, leading to a capacity aid per-pupil amount of about $216.

Capacity Aid Per-Pupil Amount
Capacity aid per-pupil amount = Median capacity amount / Average formula ADM of all districts with capacity amounts 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 (values of 2.75 in FY 2016 and 3.50 in FY 2017) and then by the capacity ratio. Capacity aid for school districts totaled approximately $143.1 million in FY 2016.

Capacity Aid
Capacity aid = Capacity aid per-pupil amount x Formula ADM x Capacity aid multiplier x Capacity ratio
Capacity aid multiplier = 2.75 in FY 2016 and 3.50 in FY 2017

Chart S.7 shows average per formula ADM funding in FY 2016 calculated under capacity aid by district typology. Rural districts receive the highest amount of average per-pupil funding from this component at $409. These districts have, on average, the lowest aggregate valuations among the district types and make up 65% 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, eight (2.7%) are smaller urban districts. No major urban districts qualify.

Chart S.7 : Average Capacity Aid Per Pupil by District Typology, FY 2016
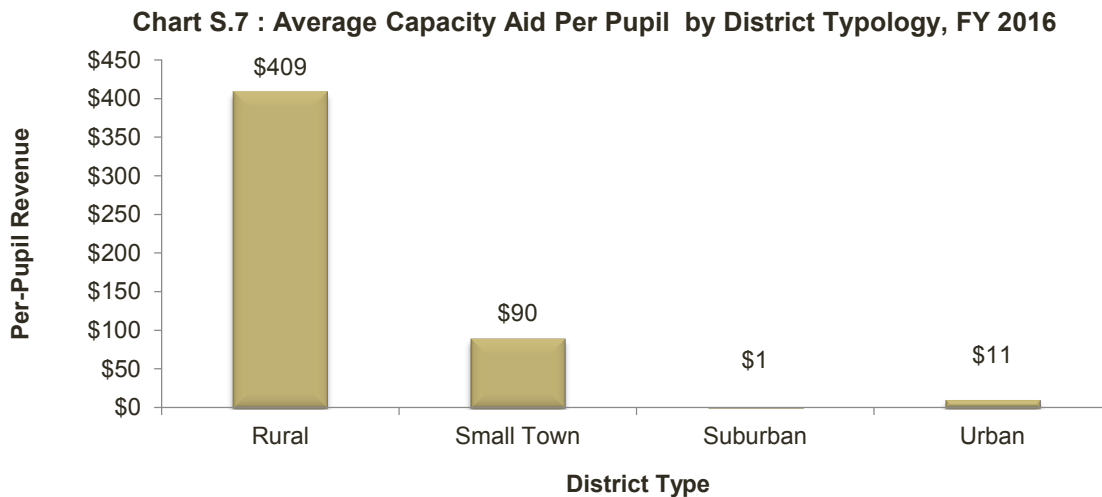
The following calculates capacity aid for the hypothetical Districts A, B, and C. All three districts raise less money with one mill than the median district and thus, qualify for funding under this component. Due to its small property tax base, District B has the highest capacity ratio and receives the largest capacity aid amount. District C, whose capacity amount is very near to the median capacity amount, receives very little capacity aid.

Capacity Aid for FY 2016			
Factor	**District A**	**District B**	**District C**
A. 3-year average value	$122,000,000	$75,000,000	$219,000,000
B. District capacity amount = A x 0.001	$122,000	$75,000	$219,000
C. Median capacity amount	$221,870	$221,870	$221,870
D. Capacity ratio = the lesser of (C / B) – 1 or 2.5	0.8186	1.9583	0.0131
E. Average formula ADM of districts below the median capacity amount	1,029	1,029	1,029
F. Capacity aid per-pupil = C / E	$215.68	$215.68	$215.68
G. Formula ADM	976	976	976
H. Capacity aid multiplier	2.75	2.75	2.75
I. Capacity aid = F x G x H x D	$473,880	$1,133,61	$7,587

Categorical components

The opportunity grant is the cornerstone of the state 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. They account for students receiving special education and related services, economically disadvantaged students, gifted students, students in grades K-3, students

State funding accounts for a district's unique characteristics that result in differences in costs that are beyond the district's control.

receiving career-technical education services, and limited English proficiency students. Since the size and road conditions of districts also vary considerably, this section also discusses the formula for determining transportation aid.

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 school foundation 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	Funding Per Pupil FY 2016	Funding Per Pupil FY 2017
1 Speech only	$1,547	$1,578
2 Specific learning disabled, developmentally disabled, other health – minor	$3,926	$4,005
3 Hearing impaired, severe behavior disabled	$9,433	$9,622
4 Vision impaired, other health – major	$12,589	$12,841
5 Orthopedically disabled, multi-disabled	$17,049	$17,390
6 Autism, traumatic brain injury, both visually and hearing impaired	$25,134	$25,637

Each special education student is counted in the district's ADM as one student for the purposes of calculating the opportunity grant for the district. 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 232,758 in FY 2016. Chart S.8 displays the incidence of each of the six

special education categories. As the chart shows, almost 66% of special education ADM falls under category two.

Chart S.8: Special Education ADM by Category, FY 2016
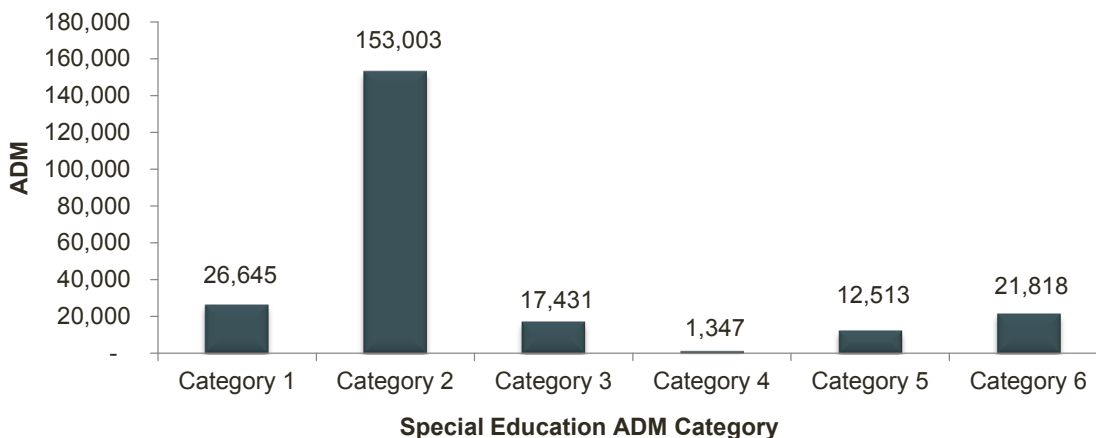
In order to determine special education additional aid, the formula calculates the sum of the amounts obtained by multiplying the special education ADM for each category by the per-pupil amount for that category and, to equalize this funding based on school district capacity to raise local revenues, by the state share index. This calculation is summarized below. The total amount calculated for special education additional aid statewide was $813.1 million in FY 2016.

Special Education Additional Aid
Special education additional aid = (Category 1 ADM x Per-pupil amount + Category 2 ADM x Per-pupil amount + Category 3 ADM x Per-pupil amount + Category 4 ADM x Per-pupil amount + Category 5 ADM x Per-pupil amount + Category 6 ADM x Per-pupil amount) x State share index

Economically disadvantaged funds

Another categorical cost is that incurred by districts for disadvantaged students. These students may not have access to the same resources and opportunities outside of school that other students have. 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 state uses students from low-income families (i.e., families eligible for free and reduced price school lunch) as a proxy for disadvantaged students. Studies have shown that students from low-income families perform less well in school than their peers from middle- and high-income families. The school foundation aid formula provides additional funding to school districts based on the number and concentration of economically disadvantaged students in a district. In order to provide more funding to districts with higher concentrations of economically

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 2016.

Category	A. Special Education ADM	B. Per Pupil Amount	C. State Share Index	D. Calculated Funding = A x B x C
One	15	$1,547	0.5233	$12,143
Two	82	$3,926	0.5233	$168,462
Three	11	$9,433	0.5233	$54,298
Four	0	$12,589	0.5233	$0
Five	5	$17,049	0.5233	$44,607
Six	12	$25,134	0.5233	$157,827
Total	**125**	--	--	**$437,337**

Special Education Additional Aid for FY 2016

disadvantaged students, the formula calculates an economically disadvantaged index. The index is created by dividing the percentage of students in the district that are economically disadvantaged by the percentage of students in the state that are economically disadvantaged. The result is squared to target funding to districts with higher concentrations of poverty. This index ranges from 0.0 to 4.05. Calculation of the index is summarized below.

Economically Disadvantaged Index
% Economically disadvantaged = Economically disadvantaged ADM / Total ADM
Economically disadvantaged index = (District % economically disadvantaged / State % economically disadvantaged)^2

The formula provides a per-pupil amount of $272 in FY 2016 and FY 2017 times the district's economically disadvantaged index for each student in the district's ADM who is 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 $420.8 million in FY 2016.

Economically Disadvantaged Funds
Economically disadvantaged funds = Economically disadvantaged per-pupil amount x Economically disadvantaged index x Economically disadvantaged ADM
Economically disadvantaged per-pupil amount = $272 in FY 2016 and FY 2017

Chart S.9 shows the effect of the economically disadvantaged index on the per economically disadvantaged pupil amount in FY 2016. 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 (48.3%) 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 for FY 2016. In contrast, the economically disadvantaged index for the district with the highest economically disadvantaged percentage (97.2%) in FY 2016 was about 4.05. Thus, that district's per-pupil amount in FY 2016, in effect, was about $1,102 ($272 x 4.05).
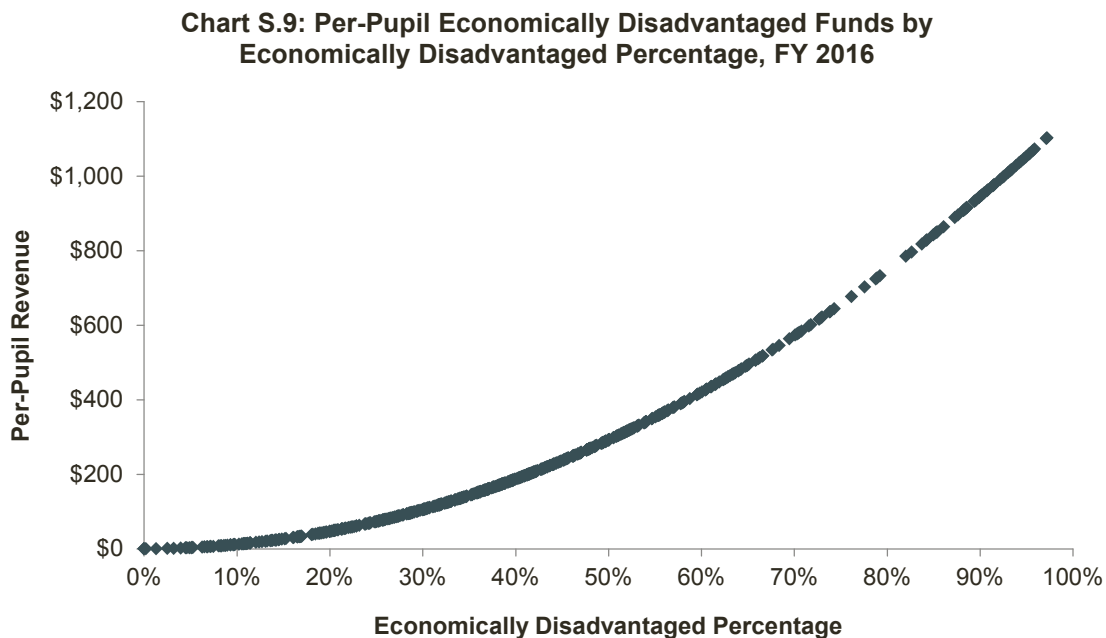
Chart S.9: Per-Pupil Economically Disadvantaged Funds by Economically Disadvantaged Percentage, FY 2016

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 2016. Since District A's economically disadvantaged percentage is very close to the state average, its economically disadvantaged index is close to 1.0.

Economically Disadvantaged Funds for FY 2016	
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	0.4829
F. Economically disadvantaged index = $(D / E)^2$	0.9392
G. Economically disadvantaged funds = $272 x F x (A - B)	$119,051

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 school 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 in FY 2016 and FY 2017. This calculation is summarized below. In FY 2016, the total amount calculated for gifted identification funds statewide was $8.5 million.

Gifted Identification Funds
Gifted identification funds = Gifted identification per-pupil amount x Formula ADM
Gifted identification per-pupil amount = $5.05 in FY 2016 and FY 2017

Unit funding

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 nor 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

The following calculations continue the example of the hypothetical District A. The table shows the calculation of District A's gifted funds for FY 2016.

Gifted Funds for FY 2016	
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

gifted intervention specialist unit is $37,370 in FY 2016 and FY 2017. The calculations for gifted units are summarized below. In FY 2016, the number of gifted coordinator and gifted intervention specialist units calculated by the formula statewide was 525 and 1,423, respectively. The total amount calculated for gifted unit funding statewide in FY 2016 was $72.8 million.

Gifted Unit Funding
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 in FY 2016 and FY 2017

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 those 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 school 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

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 2016.

K-3 Literacy Funds for FY 2016	
Factor	Amount
A. K-3 ADM	315
B. K-3 E-school ADM	5
C. State share index	0.5233
D. Equalized K-3 literacy funds = (A - B) x 184 x C	$29,848
E. Unequalized K-3 literacy funds = (A - B) x $121	$37,510
F. Total K-3 literacy funds = D + E	$67,358

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 per-pupil amounts of $184 in FY 2016 and $193 in FY 2017 while the unequalized portion is calculated using per-pupil amounts of $121 in FY 2016 and $127 in FY 2017. The calculation of this funding is summarized below. The total amount calculated for K-3 literacy funds statewide in FY 2016 was $109.2 million.

K-3 Literacy Funds
K-3 literacy funds = (K-3 ADM x Equalized per-pupil amount x State share index) + (K-3 ADM x Unequalized per-pupil amount)
Equalized per-pupil amount = $184 in FY 2016 and $193 in FY 2017 Unequalized per-pupil amount = $121 in FY 2016 and $127 in FY 2017

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 for 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. JVSDs are funded through a separate but comparable formula that is discussed at the end of this section.

Career-Technical Education Categories		
Category	Funding Per FTE FY 2016	Funding Per FTE FY 2017
1 Workforce development programs in agricultural and environmental systems, construction technologies, engineering and science technologies, finance, health science, information technology, and manufacturing technologies	$4,992	$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	$4,732	$4,921
3 Career-based intervention programs	$1,726	$1,795
4 Workforce development programs in education and training, marketing, workforce development academics, public administration, and career development	$1,466	$1,525
5 Family and consumer science programs	$1,258	$1,308

Across all five categories, career-technical education FTE amounted to 28,774 in FY 2016. Chart S.10 displays statewide FTE by career-technical education category. As

Chart S.10: Career-Technical Education FTE by Category, FY 2016

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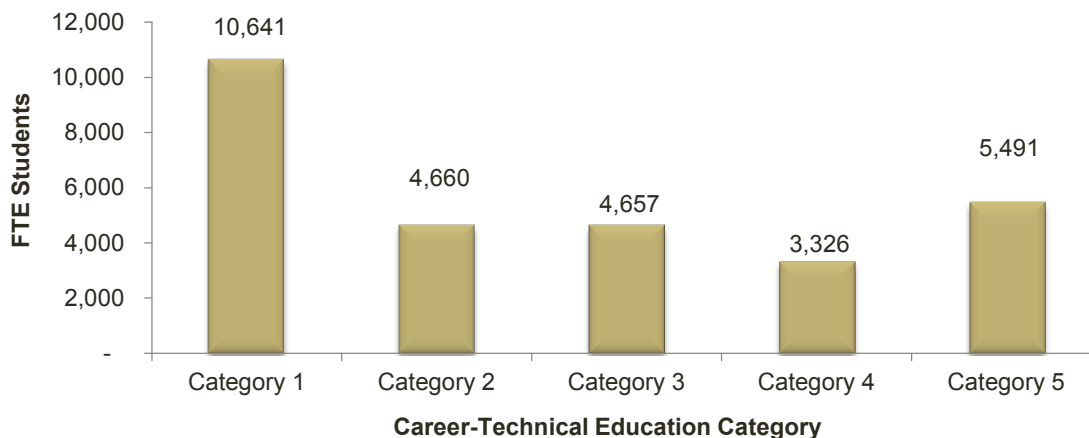
[7] School districts may opt to not provide career-technical education to students in grades seven and eight by annually adopting a resolution and submitting it to the Ohio Department of Education.

the chart shows, categories one and five contain the highest number of FTEs, representing a combined 56% of the total.

The formula multiplies the FTE in each category by the dollar amounts above and by the state share index. The amounts for each category are then summed. This calculation is summarized below. The amount calculated for career-technical education funds statewide was $51.7 million in FY 2016.

Career-Technical Education Funds
Career-technical education funds = (Category 1 FTE x Per-pupil amount + Category 2 FTE x Per-pupil amount + Category 3 FTE x Per-pupil amount + Category 4 FTE x Per-pupil amount + Category 5 FTE x Per-pupil amount) x State share index

The formula also provides career-technical education 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. Like career-technical education additional funds, associated services funding is equalized based on a district's state share index. The amount calculated for career-technical education associated services funds statewide was $3.7 million in FY 2016.

Career-Technical Education Associated Services Funds
Career-technical education associated services funds = (Category 1 FTE + Category 2 FTE + Category 3 FTE + Category 4 FTE + Category 5 FTE) x Associated services per-pupil amount x State share index
Associated services per-pupil amount = $236 in FY 2016 and $245 in FY 2017

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 career-technical education leadership for the districts comprising the CTPD and is responsible for reviewing and approving or disapproving each member school district's career-technical education program. Under current law, a district or school's career-technical education program must be approved by the lead district, or by ODE if initially disapproved by the lead district, before it receives career-technical education funds.

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 school foundation aid formula provides additional funding based on the ADM of LEP

The following calculations continue the example of the hypothetical District A. The table shows District A's assumed FTE for each of the five career-technical education categories and the calculation of District A's career-technical education funds for FY 2016.

Category	A. Career-Technical FTE	B. Per Pupil Amount	C. State Share Index	D. Calculated Funding = A x B x C
Career-Technical Education Funds for FY 2016				
One	30	$4,992	0.5233	$78,367
Two	15	$4,732	0.5233	$37,143
Three	10	$1,726	0.5233	$9,032
Four	5	$1,466	0.5233	$3,836
Five	20	$1,258	0.5233	$13,166
Subtotal	**80**	--	--	**$141,543**
Associated Services FTE	80	$236	0.5233	$9,880
Total	--	---	--	**$151,423**

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 2016, LEP ADM totaled 51,048 statewide. About two-thirds of these students (33,674) 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.

Category	Funding Per Pupil FY 2016	Funding Per Pupil FY 2017
Limited English Proficiency Categories		
1 LEP students in U.S. schools for no more than 180 school days and not previously exempted from spring English assessments	$1,515	$1,515
2 LEP students in U.S. schools more than 180 school days or previously exempted from spring English assessments	$1,136	$1,136
3 LEP students in a Trial-Mainstream period	$758	$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 2016, the amount calculated for LEP funds statewide was $29.5 million.

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 index

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 2016.

Limited English Proficiency Funds for FY 2016				
Category	A. LEP ADM	B. Per Pupil Amount	C. State Share Index	D. Calculated Funds = A x B x C
One	2	$1,515	0.5233	$1,586
Two	7	$1,136	0.5233	$4,161
Three	1	$758	0.5233	$397
Total	**10**	**--**	**--**	**$6,143**

Transportation

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. State transportation requirements only apply to students in grades K-8 who live more than two miles from the school. However, the state funds transportation service for high school students and for students who live between one and two miles from the school in addition to the transportation services required by the state. The transportation formula supports the transportation of all "regular" pupils in buses owned by the district or operated through a contract. All other types of regular 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

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 50% or the district's state share index. The total base cost calculated by the formula was $829.0 million in FY 2016. Once the applicable state share was applied, the amount calculated for the base payment statewide was $462.0 million in FY 2016.

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 2016.

Transportation Aid for FY 2016	
Factor	**Amount**
A. State average cost per pupil in FY 2015	$925.09
B. State average cost per mile in FY 2015	$4.64
C. Qualifying riders in FY 2016	500
D. Annual miles driven in FY 2016	125,000
E. Per pupil subsidy = A x C	$462,543
F. Per mile subsidy = B x D	$580,145
G. Base cost = Greater of E or F	$580,145
H. State share index	0.5233
I. Base payment = G x (Greater of 0.5 or H)	$303,581
J. Payment amount for other types of transportation	$10,000
K. Community school transportation payment	$0
L. Total base transportation allocation = I + J + K	$313,581
M. District square miles	150
N. Total ADM in FY 2015	1,010
O. Rider density = N / M	6.7
P. Supplement density threshold	35
Q. Transportation supplement percentage = (P – O) / 100	0.2827
R. Transportation Supplement = Q x F x 0.55	$90,193
S. Total transportation aid = L + R	$403,774

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 $4.1 million for 81 districts in FY 2016. 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 $3.6 million for 60 districts in FY 2016, are also added to the district's base transportation payment. The calculation of the total transportation allocation for each school district is summarized below. The amount calculated for the total transportation allocation statewide in FY 2016 was $ 469.7 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
If the district's per-pupil subsidy is greater than its per-mile subsidy: Base payment = District's per-rider subsidy x Greater of 50% or district's 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 50% or district's state share index
Total base transportation funds = Base payment + Payment for other types of school transportation + Payment for students transported by community schools

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 35 in FY 2016 and 50 in FY 2017 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 35% in FY 2016 and 50% in FY 2017. 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 $31.3 million for 332 districts in FY 2016.

Transportation Supplement
Transportation supplement percentage = (Density threshold – District rider density) / 100
Density threshold = 35 in FY 2016 and 50 in FY 2017
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

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 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 2016, these payments totaled $60.5 million, of which $55.1 million went to school districts.

Performance bonuses

H.B. 64 of the 131st General Assembly added two new components based on school district four-year graduation rates and third grade reading proficiency rates in an effort to incentivize performance. 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 ($443 in FY 2016 and $450 in FY 2017). 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 bonuses statewide was $19.6 million in FY 2016.

Graduation Bonus
Graduation bonus = Graduation 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 $16.2 million in FY 2016.

Third Grade Reading Bonus
Third grade reading bonus = Third grade reading proficiency percentage x 0.075 x Formula amount x Number of proficient or higher readers in third grade x 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

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 2016.

Performance Bonuses for FY 2016	
Factor	**Amount**
A State share index	0.5233
B. Graduate count	80
C. Graduation rate	0.93
D. Graduation bonus = B x 0.075 x $5,900 x C x A	$17,228
E. Number of proficient third-grade readers	60
F. Third grade reading proficiency percentage	0.83
G. Third grade reading bonus = E x 0.075 x $5,900 x F x A	$11,532
H. Total performance bonuses = D + G	$28,760

Additional funding adjustments

In general, the final allocation for each district may be adjusted further by either guaranteeing districts receive no less than their state foundation aid in FY 2015 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 2016 and FY 2017 to guarantee 100% of their FY 2015 state aid. However, in FY 2017, career-technical education and career-technical education associated services funds are provided outside of the guarantee. To account for this, the transitional aid guarantee base in FY 2017 is adjusted by subtracting each district's FY 2016 career-technical education and career-technical education associated services funds. The calculation of temporary transitional aid is summarized below. In FY 2016, temporary transitional aid totaling $122.9 million was paid to 173 (28.4%) districts.

Temporary Transitional Aid
Temporary transitional aid = Transitional aid guarantee base – Foundation funding for the guarantee If this calculation results in a negative number, then Temporary transitional aid = $0
Transitional aid guarantee base in FY 2016 = FY 2015 foundation funding
Transitional aid guarantee base in FY 2017 = Transitional aid guarantee base in FY 2016 – (FY 2016 Career-technical education funds + FY 2016 Career-technical education associated services funds)
Foundation funding for the guarantee in FY 2016 = Opportunity grant +Targeted assistance + Special education additional aid + K-3 literacy funds + Economically disadvantaged funds + Limited English proficiency funds + Gifted funds + Career-technical education funds + Career-technical education associated services funds + Capacity aid + Graduation bonus + Third grade reading bonus + Total base transportation funds + Transportation supplement
Foundation funding for the guarantee in FY 2017 = 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

Gain cap

Foundation funding is subject to a gain cap of 7.5% of prior year funding in each year of the biennium, except for capacity aid, the transportation supplement, the graduation bonus, the third grade reading bonus, and, in FY 2017 only, career-technical education and career-technical education associated services funds, which are exempt from the cap. Thus, each district will receive the full calculated amounts for these exempt components, whether or not the district is subject to the gain cap. The formula calls for a district's opportunity grant, targeted assistance, economically disadvantaged funds, gifted funds, K-3 literacy funds, and LEP funds to be reduced proportionately to comply with the gain cap. Special education additional funds, career-technical education funds and career-technical education associated services funds in FY 2016

The following calculations continue the example of the hypothetical District A. Assume District A's FY 2015 foundation funding is $6 million. The table shows the calculation of District A's temporary transitional aid for FY 2016.

Temporary Transitional Aid for FY 2016	
Factor	**Amount**
A. Transitional aid guarantee base (FY 2015 foundation aid)	$6,000,000
B. Foundation funding for the guarantee	$5,900,388
C. Temporary transitional aid = if B < A, A - B, else $0	$99,612

only, 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 2016, it was not necessary to apply the gain cap to those three components. The calculation of the gain cap is summarized below. In FY 2016, the gain cap reduced funding to 188 (30.8%) districts by a total of $613.7 million.

Gain Cap
FY 2016 Gain cap = Limitation base for FY 2016 x 1.075
FY 2017 Gain cap = Limitation base for FY 2017 x 1.075
Limitation base for FY 2016 = the following FY 2015 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 funds + Career-technical education associated services funds + Prorated transportation aid + Temporary transitional aid
Limitation base for FY 2017 = the following FY 2016 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 + Total base transportation funds + Temporary transitional aid

Final foundation funding

A district'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 2016, a total of $7.47 billion was allocated to the 610 school districts in Ohio.

| Final Foundation Funding |
| --- |
| Final foundation funding in FY 2016 = (The lesser of Foundation funding subject to the gain cap or the gain cap) + Capacity aid + Transportation supplement + Graduation bonus + Third grade reading bonus |
| Final foundation funding in FY 2017 = (The lesser of Foundation funding subject to the gain cap or the gain cap) + Career-technical education funds + Career-technical education associated services funds + Capacity aid + Transportation supplement + Graduation bonus + Third grade reading bonus |
| Foundation funding subject to the gain cap in FY 2016 = Opportunity grant + Targeted assistance + Special education additional funds + K-3 literacy funds + Economically disadvantaged funds + Limited English proficiency funds + Gifted funds + Career-technical education funds + Career-technical education associated services funds + Total base transportation funds + Temporary transitional aid |
| Foundation funding subject to the gain cap in FY 2017 = Opportunity grant + Targeted assistance + Special education additional funds + K-3 literacy funds + Economically disadvantaged funds + Limited English proficiency funds + Gifted funds + Total base transportation funds + Temporary transitional aid |

As noted above, overall, the statewide average final foundation funding per pupil in FY 2016 was $4,439. Chart S.11 displays final foundation funding per pupil by formula component and wealth quartile.

Chart S.11: Per Pupil Final Foundation Funding by Wealth Quartile, FY 2016
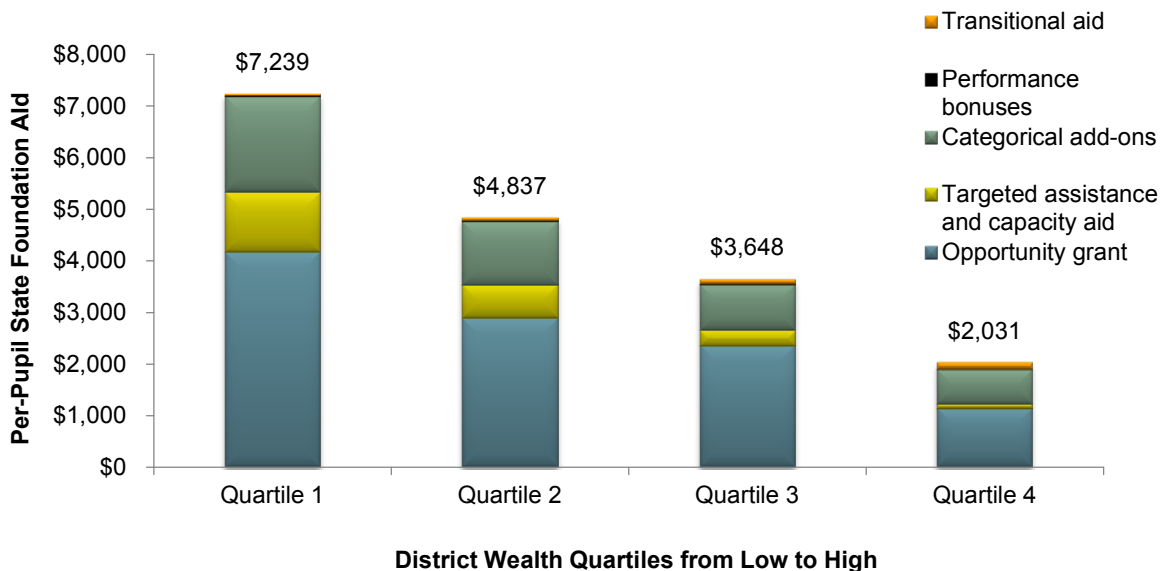
State funding transfers

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 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.

The following calculations continue the example of the hypothetical District A. The table shows the calculation of District A's gain cap and final foundation funding for FY 2016. As the table shows, District A is not subject to the cap.

Gain Cap and Final Foundation Funding for FY 2016	
Factor	**Amount**
A. Limitation base (FY 2015 foundation aid)	$6,000,000
B. Gain cap = A x 1.075	$6,450,000
C. Foundation funding subject to the limitation	$5,307,555
D. Final foundation funding = (Lesser of B or C) + Capacity aid+ Transportation supplement + performance bonuses + Transitional aid	$6,000,000

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 373 schools educating 117,126 FTE students (6.8% of public school enrollment) in FY 2016. Community schools include e-schools, which provide educational services

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

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 currently educate students in grades 6-12 using curriculum emphasizing STEM.[8] STEM schools must operate in collaboration with higher education institutions and business organizations. Currently, there are seven STEM schools that are governed independently from any school district.[9] In FY 2016, STEM schools educated a total of 1,989 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. There is no local share for community and STEM schools 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, there is no state share applied to their funding. A school's per-pupil

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[8] S.B. 3 of the 131st General Assembly expanded the grades offered in STEM schools to grades K-12 starting in the 2017-2018 school year.

[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.

opportunity grant is, therefore, equal to the formula amounts of $5,900 in FY 2016 and $6,000 in FY 2017, the same amounts used for traditional school districts. The total amount transferred for the opportunity grant statewide was $702.9 million in FY 2016.

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 $18.2 million in FY 2016.

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 2016 were $137.2 million, $8.9 million, and $6.0 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 in FY 2016 and $272 in FY 2017 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 $53.6 million in FY 2016.

K-3 literacy funds

For each student in grades K-3, a brick-and-mortar community school receives a per-pupil amount of $305 in FY 2016 and $320 in FY 2017, each of which equals the sum of the equalized and unequalized portions of the K-3 literacy component for traditional school districts. Though the law includes this component in the formula for STEM school deductions and transfers, in practice, those schools do not receive this funding in FY 2016 and FY 2017 since they currently educate students only in grades 6-12. E-schools do not receive this funding. The total amount deducted for K-3 literacy funds statewide was $9.7 million in FY 2016.

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 2016, a total amount of $3.6 million was transferred to 37 community schools.

Summary of state aid 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 $940.1 million in FY 2016.

State Aid for Community and STEM Schools
State aid 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 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 $150 in FY 2016 and $200 in FY 2017 to assist with facilities costs. E-schools receive a per-pupil amount of $25 in FY 2016 and FY 2017. Facilities funding is paid directly by the state using lottery profits. In FY 2016, school facilities funding for community and STEM schools statewide was $13.1 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 third grade reading and graduation bonuses for community and STEM schools statewide were $1.50 million and $1.15 million, respectively, in FY 2016, for a total of $2.65 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. If a student chooses to attend a district other than the one in which the student resides under open enrollment, the formula amount of $5,900 in FY 2016 and $6,000 in FY 2017 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.

Approximately 74% 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 18% of school districts do not accept open enrollment students. In FY 2016, approximately 75,172 (4.5%) FTE students attended schools other than their resident district schools through the open enrollment option and $443.9 million in school foundation aid was transferred on behalf of those students.

Educational Choice Scholarship Pilot Program

The Educational Choice Scholarship Pilot 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 $5,900 in FY 2016 and $6,000 in FY 2017 for students in grades 9-12. Scholarship students are counted in the resident district's ADM in order to calculate state aid. In FY 2016, a total of $87.7 million was deducted statewide for about 20,200 scholarship students in 44 school districts.

Beginning in FY 2014, H.B. 59 of the 130th General Assembly expanded EdChoice eligibility to 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 2016, $22.5 million was spent by the state to fund these scholarships, which covered students in grades K-2. Under current law, this program is being phased in over time by adding a new grade level each year. In FY 2017, eligible students in grades K-3 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 $4,250 for students in grades K-8 and $5,700 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 2016, $11.9 million was deducted from Cleveland's state aid to fund this program for total program spending of about $34.5 million. This amount was used to provide over 7,200 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 2016, $76.7 million was transferred for the scholarships for about 3,100 students in 433 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 state 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 2016, $41.0 million was transferred for the scholarships for about 3,800 students in 407 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 FY 2016, the payment rates range from about $41 (default floor) to $163 (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 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 or 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 2016, about $39 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 2016 and FY 2017, $2.6 million per year is set aside from the GRF for the payments. Additionally, a provision in H.B. 113 of the 131st General Assembly allows a portion of the funds in the Auxiliary Services Reimbursement Fund (Fund 5980) to be used to make CCP payments for nonpublic students. In FY 2017, $2.0 million is appropriated from Fund 5980 for this

purpose, bringing the total available in FY 2017 to $4.6 million. Payments for home-instructed students are funded through an earmark of $1.5 million per year in FY 2016 and FY 2017 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 considered "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 2016, the statewide cost of the per-pupil amount was $11.8 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 2016, 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 nearly 75% 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 2016, the cost of these contracts totaled $201.5 million. In sum, therefore, a total of $221.9 million was deducted from school district state aid and transferred to ESCs in FY 2016.

ESCs also receive funding directly from the state. This funding includes a per-pupil amount, gifted funding, and special education transportation funding. In FY 2016, direct state funding for ESCs totaled $46.2 million.

Joint vocational school district funding

Currently, there are 49 joint vocational school districts (JVSDs) in Ohio. They have a total of 504 associate school districts that may send students to their schools. As with a traditional school district, each JVSD has its own taxing authority. 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. As with school districts, the ability of a JVSD to raise local revenues is 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, career-technical education 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 career-technical education funds, special education additional aid, LEP funds, and graduation bonus. Each component of the JVSD formula is described in more detail below.

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

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 and tax effort requirements are much lower than those of traditional districts. The formula uses a base cost approach to calculate each JVSD's opportunity grant. Under this approach, a base cost is established 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 0.5 mill by the JVSD's three-year average taxable property value. The opportunity grant (the state share) is simply 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 FY 2016, 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 $145.0 million in FY 2016.

JVSD Opportunity Grant
Base cost = Formula amount x Formula ADM
Local share = Three-year average value x Charge-off rate

If (Base cost – Local share) ≥ Base cost x 0.05:
Opportunity grant = Base cost – Local share
If (Base cost – Local share) < Base cost x 0.05:
Opportunity grant = Base cost x 0.05

Formula amount = $5,900 in FY 2016 and $6,000 in FY 2017
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. Unlike the state share index used for traditional school districts, the state share percentage will vary between FY 2016 and FY 2017. JVSD state share percentages in FY 2016 ranged from 5% to 90% with a statewide average of 65.4% and a median of 70.4%. The calculation of the state share percentage is summarized below.

JVSD State Share Percentage
State share percentage = Opportunity grant / 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 education FTEs at JVSDs statewide amounted to about 31,529 in FY 2016. CTE funds for JVSDs totaled $69.3 million in FY 2016.

JVSD Career-Technical Education Funds
Career-technical education funds = (Category 1 FTE x Per-pupil amount + Category 2 FTE x Per-pupil amount + Category 3 FTE x Per-pupil amount + Category 4 FTE x Per-pupil amount + Category 5 FTE x Per-pupil amount) x 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 $4.9 million in FY 2016.

JVSD Career-Technical Education Associated Services Funds
Career-technical education associated services funds = (Category 1 FTE + Category 2 FTE + Category 3 FTE + Category 4 FTE + Category 5 FTE) x Associated services per-pupil amount x State share percentage
Associated services per-pupil amount = $236 in FY 2016 and $245 in FY 2017

Special education additional aid

Across all six special education categories, special education ADM at JVSDs statewide amounted to about 8,433 in FY 2016. Special education additional aid for JVSDs totaled $33.0 million in FY 2016.

JVSD Special Education Additional Aid
Special education additional aid = (Category 1 ADM x Per-pupil amount + Category 2 ADM x Per-pupil amount + Category 3 ADM x Per-pupil amount + Category 4 ADM x Per-pupil amount + Category 5 ADM x Per-pupil amount + Category 6 ADM x Per-pupil amount) x State share percentage

Economically disadvantaged funds

In FY 2016, JVSDs educated about 14,400 students identified as economically disadvantaged. The economically disadvantaged percentage for JVSDs ranged from 0.4% to 78.4%, with the statewide average being 38.3%. The resulting economically disadvantaged index values were as high as about 4.18. Thus, the per economically disadvantaged pupil amount, in effect, ranged from $0 to $1,137 in FY 2016 ($272 x 4.18). The total amount calculated for JVSD economically disadvantaged funds statewide was $5.4 million in FY 2016.

JVSD Economically Disadvantaged Funds
Economically disadvantaged funds = Economically disadvantaged aid per-pupil amount x Economically disadvantaged index x Economically disadvantaged ADM
Economically disadvantaged aid per-pupil amount = $272 in FY 2016 and FY 2017

Limited English proficiency funds

Across all three LEP categories, JVSDs educated about 65 LEP students statewide in FY 2016. LEP funds for JVSDs totaled $40,546 in FY 2016.

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

Similar to traditional districts, JVSDs receive the formula's new 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 ($443 in FY 2016 and $450 in FY 2017). 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
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

Like traditional school districts, temporary transitional aid is provided to JVSDs in FY 2016 and FY 2017 to, in general, guarantee 100% of their FY 2015 state aid. The calculation for temporary transitional aid is summarized below. Similar to traditional districts, CTE funds and CTE associated services funds are exempt from the guarantee in FY 2017. In FY 2016, temporary transitional aid totaling $23.8 million was paid to 27 JVSDs.

JVSD Temporary Transitional Aid
Temporary transitional aid = Transitional aid guarantee base – Foundation funding for the guarantee
If this calculation results in a negative number, then Temporary transitional aid = $0
Transitional aid guarantee base in FY 2016 = FY 2015 foundation funding
Transitional aid guarantee base in FY 2017= Transitional aid guarantee base in FY 2016 – (FY 2016 Career-technical education funds + FY 2016 Career-technical education associated services funds)
Foundation funding for the guarantee in FY 2016 = Opportunity grant + Special education additional aid + Economically disadvantaged funds + Limited English proficiency funds + Career-technical education funds + Career-technical education associated services funds + Graduation bonus
Foundation funding for the guarantee in FY 2017 = Opportunity grant + Special education additional aid + Economically disadvantaged funds + Limited English proficiency funds + Graduation bonus

Gain cap

Total foundation funding is equal to the sum of foundation funding and temporary transitional aid. However, like traditional school districts, JVSD foundation funding is subject to a gain cap of 7.5% in FY 2016 and FY 2017 compared to the previous year's funding, except for the graduation bonus and, in FY 2017 only, career-technical education and career-technical education associated services funds, which are exempt from the cap. Like traditional school districts, special education and, in FY 2016 only, career-technical education funds and career-technical education associated services 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 FY 2016, it was not necessary to apply the gain cap to those two components. The calculation of the gain cap is summarized below. In FY 2016, the gain cap reduced funding to 11 (22.4%) JVSDs by a total of $4.9 million.

JVSD Gain Cap
FY 2016 gain cap = Limitation base for FY 2016 x 1.075
FY 2017 gain cap = Limitation base for FY 2017 x 1.075
Limitation base for FY 2016 = the following FY 2015 amount after any reductions to comply with the gain cap: Opportunity grant + Special education additional funds + Economically disadvantaged funds + Limited English proficiency funds + Career-technical education funds + Career-technical education associated services funds + Temporary transitional aid
Limitation base for FY 2017 = the following FY 2016 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

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 2016, final foundation funding for JVSDs totaled $280.7 million.

JVSD Final Foundation Funding
Final foundation funding in FY 2016 = (The lesser of Foundation funding subject to the gain cap or the gain cap) + Graduation bonus
Final foundation funding in FY 2017 = (The lesser of Foundation funding subject to the gain cap or the gain cap) + Career-technical education funds + Career-technical education associated services funds + Graduation bonus
Foundation funding subject to the gain cap in FY 2016 = Opportunity grant + Special education additional funds + Economically disadvantaged funds + Limited English proficiency funds + Career-technical education funds + Career-technical education associated services funds + Temporary transitional aid
Foundation funding subject to the gain cap in FY 2017 = 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 2016, preschool special education payments totaled $108.7 million.

Preschool Special Education Funding
Preschool special education funding = $4,000 x preschool special education ADM + (Category 1 ADM x Per pupil amount + Category 2 ADM x Per pupil amount + Category 3 ADM x Per pupil amount + Category 4 ADM x Per pupil amount + Category 5 ADM x Per pupil amount + Category 6 ADM x Per pupil amount) x State share index x 0.5

Tax Loss 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 2016, school districts received a total of $1,100.8 million and JVSDs received a total of $42.0 million statewide in property tax rollback and homestead exemption reimbursements. 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.12 shows the average rollback reimbursement per pupil in the four wealth quartiles for FY 2016. 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.

Chart S.12: Average Rollback Reimbursement Per Pupil by Wealth Quartile, FY 2016
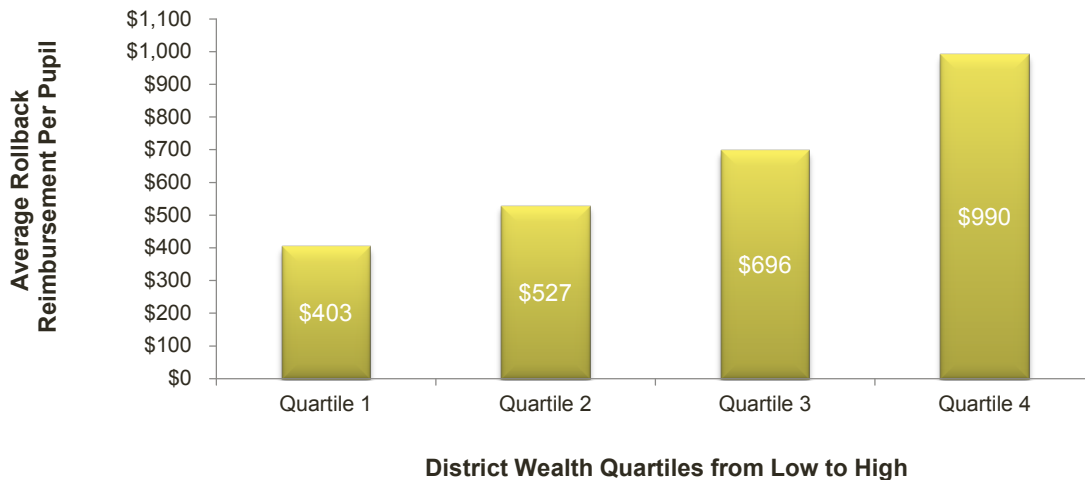
Tangible Personal Property (TPP)

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. These reimbursements are targeted to districts for which these tax revenues represented a significant portion of

the districts' total resources. H.B. 64 resumed the phase-out of these payments beginning in FY 2016 after a two-year pause in FY 2014 and FY 2015. The phase-out is based on a district's combined business and utility property tax reimbursement payments in FY 2015. Payments based on the current expense class of tax levies are reduced in FY 2016 and FY 2017 by a certain percentage of a district's total resources, starting between 1% and 2% in FY 2016 and increasing incrementally in FY 2017 according to the district's property wealth and personal income. As a result, payments to districts with lower per-pupil property wealth and personal income are phased out more slowly in those years. Reimbursements based on emergency levies are phased out over five years, while payments for permanent improvement levies ended after FY 2016. For FY 2016, the direct reimbursement for districts was $352.4 million and for JVSDs was $5.3 million.

S.B. 208 of the 131st General Assembly modified the formula for calculating fixed-rate operating direct reimbursements for TPP tax losses for school districts beginning in FY 2018 by requiring that the payments be reduced based on a uniform 5⁄8 mill (0.000625) of the average of the total taxable value of the district for tax years 2014, 2015, and 2016.

TPP Supplement

Under the foundation formula, a school district's state aid generally may not fall below its FY 2015 level in FY 2016 or FY 2017. However, due to the phase-out of TPP reimbursement payments described above, a school district's combined amount from these sources may be less than what was received in FY 2015. In response, supplemental funding is provided to traditional school districts to guarantee that the combined amount of foundation funding and fixed-rate operating direct reimbursements for TPP tax losses does not fall below the FY 2015 level in FY 2016 and 96% of the FY 2015 level in FY 2017. In FY 2016, these payments amounted to $47.0 million for 122 districts.

TPP Supplement
TPP Supplement in FY 2016 = Combined state aid in FY 2015 – Combined state aid in FY 2016 If this calculation results in a negative number, then TPP Supplement = $0
TPP Supplement in FY 2017 = (Combined state aid in FY 2015 – (Career-technical education funding in FY 2016 + Career-technical education associated services funding in 2016)) x 0.96) – (Combined state aid in FY 2017 – (Career-technical education funding in FY 2017 + Career-technical education associated services funding in 2017)) If this calculation results in a negative number, then TPP Supplement = $0
Combined state aid in each year = Foundation aid + Fixed rate operating direct reimbursements for TPP tax losses

LOCAL OPERATING REVENUE

The primary local funding source for schools is locally voted property taxes, which account for approximately 94.4% of local operating revenue, excluding the portion of property taxes paid by the state (property tax rollbacks and homestead exemption). Another 4.6% comes from school district income taxes and about 1.0% comes from the casino gross revenue tax. In TY 2014, school districts levied a total of $9.10 billion in property tax for operating purposes. An additional $1.27 billion was levied for permanent improvements and debt service. In TY 2014, joint vocational school districts levied a total of $336.7 million in property tax for operating purposes and an additional $27.5 million for permanent improvements and debt service. As stated in the section on state operating revenue, $1.14 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 $410.4 million in FY 2016. Gross casino revenue distributions totaled $80.8 million for school districts, $3.8 million for JVSDs and $6.2 million for nontraditional schools such as community schools in FY 2016. 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 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. Table L.1 shows the statewide total taxable property value composition based on the three property categories for TY 2014. It can be seen from the table 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.

74% of state taxable property value is residential and agricultural real property.

Table L.1: Taxable Property Value, TY 2014		
Property Category	**Amount**	**Percentage**
Class I real property	$179.99 billion	74.0%
Class II real property	$50.59 billion	20.8%
Public utility TPP	$12.68 billion	5.2%
Total Taxable Property Value	**$243.25 billion**	**100.0%**

School District Taxable Property Value Composition

Table L.1 gives the taxable property value composition in TY 2014 for the state. However, the composition for each individual district varies widely across the state. Table L.2 shows the maximum, minimum, and median ranges for each category.

Table L.2: The Taxable Property Value Composition, TY 2014			
Category	**Minimum**	**Maximum**	**Median**
Class I Real	16.8%	97.0%	80.1%
Class II Real	0.8%	74.2%	13.7%
Public Utility TPP	0.5%	64.6%	4.3%

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

> **For the same tax effort, a high wealth school district raises more local revenue.**

varies widely across school districts. Chart I.2 from the introduction is reproduced below. It shows the distribution of values per total ADM in TY 2014. It can be seen that values per-pupil range from less than $75,000 in 35 districts to more than $225,000 in 55 other districts. The statewide weighted average is $142,000 per pupil while the statewide median district's value per pupil is $140,000. 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 total ADM for the majority (341 or 55.9%) of school districts range from $100,000 to $175,000 in TY 2014.

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 Values Per Pupil, TY 2014
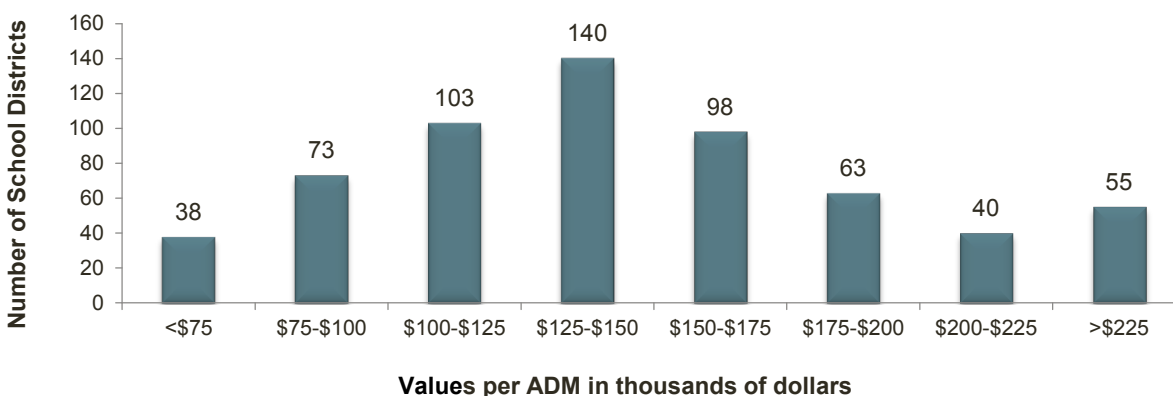
Changes in Taxable Property Values

After several years of annual increases, real property value statewide peaked in TY 2008. It then declined four years in a row for a total decrease of 6.5%. Since then, all school district types, except for urban school districts, have gained aggregate real property value. From TY 2012 to TY 2014, statewide real property value increased by 2.3%.

Rural districts experienced the largest increase in real property value over the past seven years. As shown in Chart L.1, their value increased by 6.2% from TY 2008 to TY 2012 and by 12.1% from TY 2012 to TY 2014 due to steady increases in statewide agricultural real property value – $2.84 billion (27.6%) from TY 2008 to TY 2012 and $5.01 billion (38.1%) from TY 2012 to TY 2014. Agricultural real property value comprises a much larger share of total real property valuation for rural districts (33.7% in TY 2014) than for all districts as a whole (7.9%).

From TY 2012 to TY 2014, real property value increased 3.5% for small town school districts and 1.1% for suburban districts. From TY 2008 to TY 2012, these districts lost 2.8% and 7.4% of their value, respectively. Urban district value continued to decline (-2.2% from TY 2012 to TY 2014), but at a slower rate than the 14.0% loss from TY 2008 to TY 2012.

Residential real property accounts for 70.2% of total statewide real property value in TY 2014. From TY 2012 to TY 2014, this value was essentially unchanged statewide. However, the change varied from a gain of 1.1% in suburban districts to a loss of 3.0% in urban districts. From TY 2008 to TY 2012, residential real property value decreased $15.55 billion (8.8%) statewide.

Chart L.1 Percentage Change in Real Property Value, TY 2008 to TY 2014
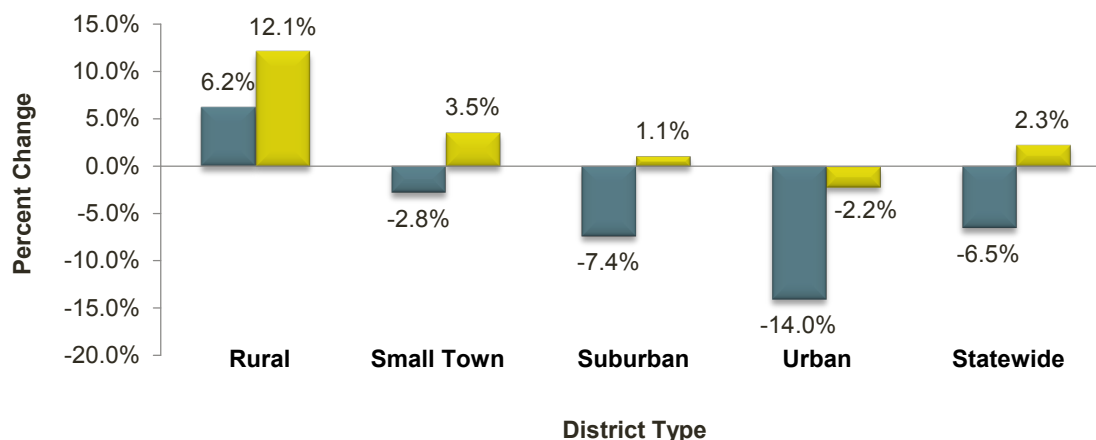
The remaining 21.9% of real property value in TY 2014 is made up of commercial, industrial, mineral, and railroad real property. From TY 2012 to TY 2014, this property value increased 0.2% statewide following a decrease of 5.6% from TY 2008 to TY 2012. In TY 2014, real property value was $230.6 billion, representing 94.8% of the total property value 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 or 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 JVSDs, 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.

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

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

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.

H.B. 920 20-Mill Floor

Although 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 220 districts (36.1%) were at the H.B. 920 20-mill floor in at least one class of real property in TY 2014. These 220 floor districts tend to be smaller than average and represent only 16.7% 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 220 floor districts in TY 2014, 36 districts were at the floor in both class I and class II real property, 177 districts were in class I only, and the other 7 districts were in class II only.

Table L.3 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 54.5% and 80.2%, respectively. In fact, 152 (69.1%) of the floor districts in TY 2014 are rural districts.

Table L.3: The Number and Percentage of H.B. 920 Floor Districts by District Type, TY 2014				
District Type	**Description**	**Total Districts**	**Floor Districts**	**% Districts on Floor**
Type 0	Outliers - island districts	3	3	100.0%
Type 1	Rural - High Poverty & Small Student Population	123	67	54.5%
Type 2	Rural - Average Poverty & Very Small Student Population	106	85	80.2%
Type 3	Small Town - Low Poverty & Small Student Population	111	43	38.7%
Type 4	Small Town - High Poverty & Average Student Population Size	89	16	18.0%
Type 5	Suburban - Low Poverty & Average Student Population Size	77	3	3.9%
Type 6	Suburban - Very Low Poverty & Large Student Population	46	2	4.3%
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%
	Total	**610**	**220**	**36.1%**

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 220 floor districts in TY 2014, 165 districts (75.0%) had either emergency or substitute levies[10] or school district income taxes. Table L.4 shows that 30.4% of districts with emergency or substitute levies and 63.5% 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 220 floor districts was 29.03 mills in TY 2014, compared to an average of 41.18 mills for nonfloor districts and an average of 39.08 mills for all districts.

Table L.4: H.B. 920 Floor District Supplemental Levies, TY 2014			
	Total Districts	**Floor Districts**	**% Districts on Floor**
Emergency or Substitute Levies	263	80	30.4%
School District Income Tax (FY 2016)	197	125	63.5%

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[10] A substitute levy allows a school district to convert one or more emergency levies into a new levy that operates for a continuous period of time and allows tax levy revenues to grow as new construction occurs.

Summary of Local Tax Levies and H.B. 920

Table L.5 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.5: 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 5 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 $410.4 million in school district income taxes was collected by 197 school districts (32.3%) in FY 2016. As shown in Table L.4, 63.5% of these are H.B. 920 20-mill floor districts. These 197 districts tend to be smaller than average and represent approximately 17.7% of statewide total ADM. These districts have an average ADM of approximately 1,540 students and an average property value per pupil of approximately $133,700 compared to an average ADM of approximately 3,420 students and an average property value per pupil of approximately $140,300 for the other 413 districts.

Chart L.2 shows the distribution of income tax revenues per pupil for the 197 districts with such revenues in FY 2016. Per-pupil school district income tax collections range from less than $100 to over $4,900 with an average of $1,350 per pupil for these 197 districts. Per-pupil amounts of less than $100 often indicate the beginning

Chart L.2: Distribution of Income Tax Per Pupil, FY 2016
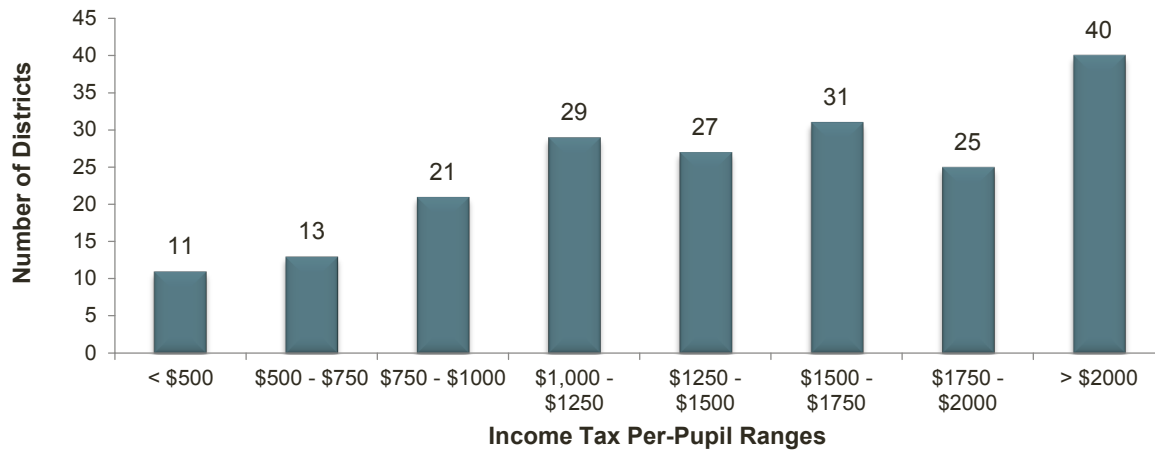
or ending of a tax levy. By dividing income tax revenue into total property value, the equivalent effective millage rate is calculated. Chart L.3 shows the distribution of income tax equivalent effective millage rates for the 197 districts with income tax revenues in FY 2016. Effective millage rates range from less than one mill to over 27 mills with an average of 9.6 mills for these 197 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.3: Distribution of School District Income Tax Equivalent Effective Tax Rates, FY 2016
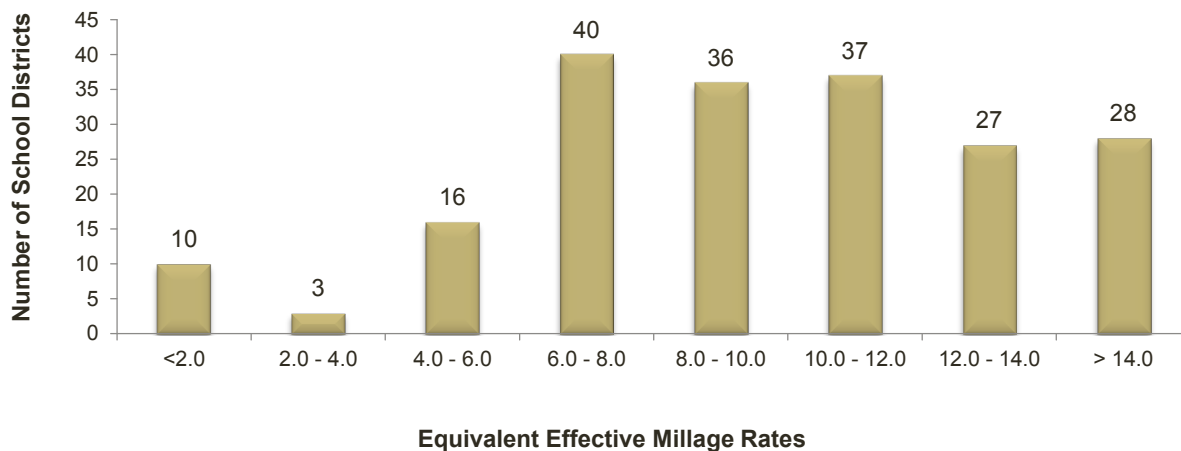
Summary of School District Effective Operating Tax Rates

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 2014, these range from about 20 mills or less in the bottom ten districts to more

than 57 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 99.9, 80.7, and 74.1 mills, respectively. The statewide average is 39.1 mills and the statewide median is 32.9 mills. Chart L.4 shows the distribution of overall effective operating tax rates. It can been seen from the chart that the equivalent overall effective rates for 329 school districts (53.9%) range from 27.5 to 40.0 mills.

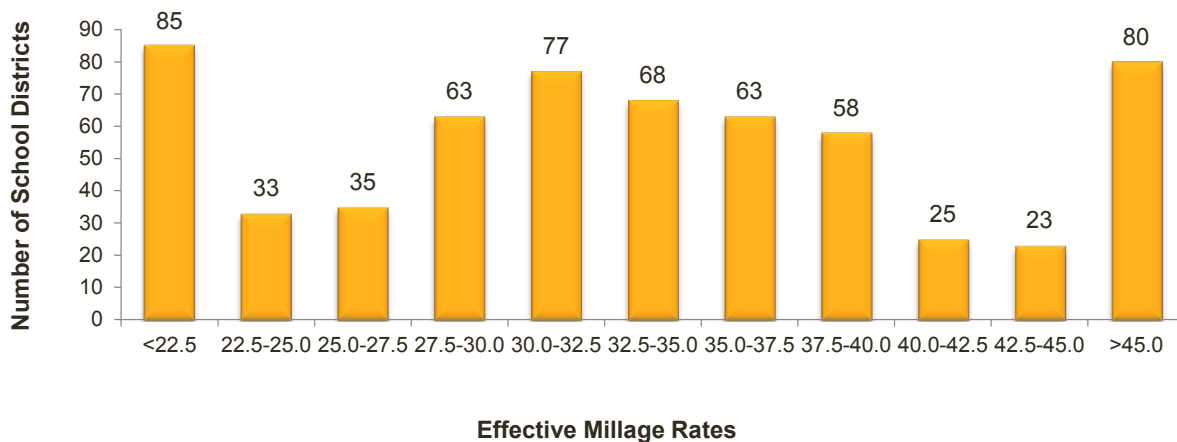**Chart L.4: Distribution of Overall Effective Operating Tax Rates, TY 2014**

Chart L.5 shows the average equivalent overall effective operating tax rates for groups of districts categorized by value per pupil in TY 2014. Average rates increase as the value per pupil increases, with the exception of the districts with the lowest and highest values per pupil. Having too many low wealth districts with high tax rates is generally a sign of a poorly designed school finance system. In such a situation, low wealth districts are forced to levy high millage rates to provide a basic education. In general, this does not appear to be the pattern in Ohio.

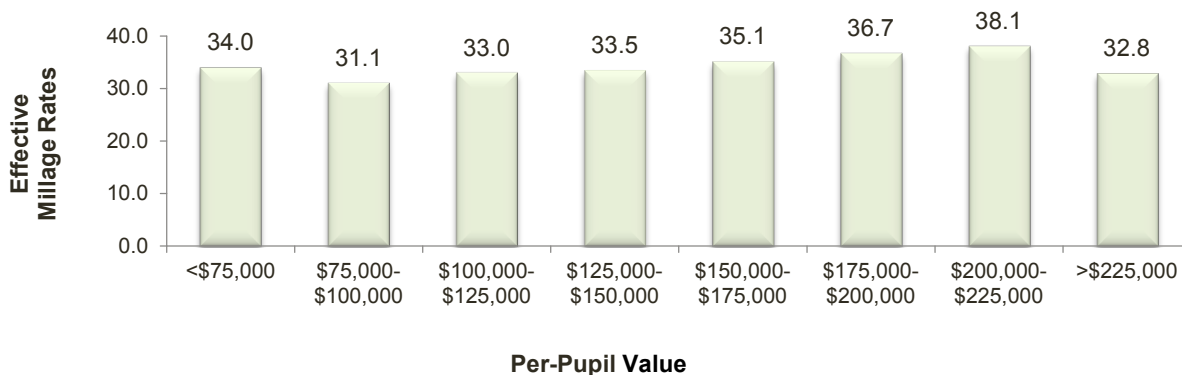**Chart L.5: Average Overall Effective Operating Tax Rates by Value Per Pupil, TY 2014**

Chart L.6 takes a different look at tax effort by showing the equivalent millage rate on locally-paid (subtracting out state-paid property tax rollbacks) property and school district income taxes for both operating and nonoperating purposes by the district types described in Table L.3. This chart shows that urban (types 7 and 8) and suburban (types 5 and 6) districts tend to have higher rates than rural (types 1 and 2) and small town (types 3 and 4) districts. This coincides with rural districts being more likely to be on the H.B. 920 floor.

Chart L.6: Equivalent Millage Operating and Nonoperating Locally-Paid Rates by District Type, FY 2016
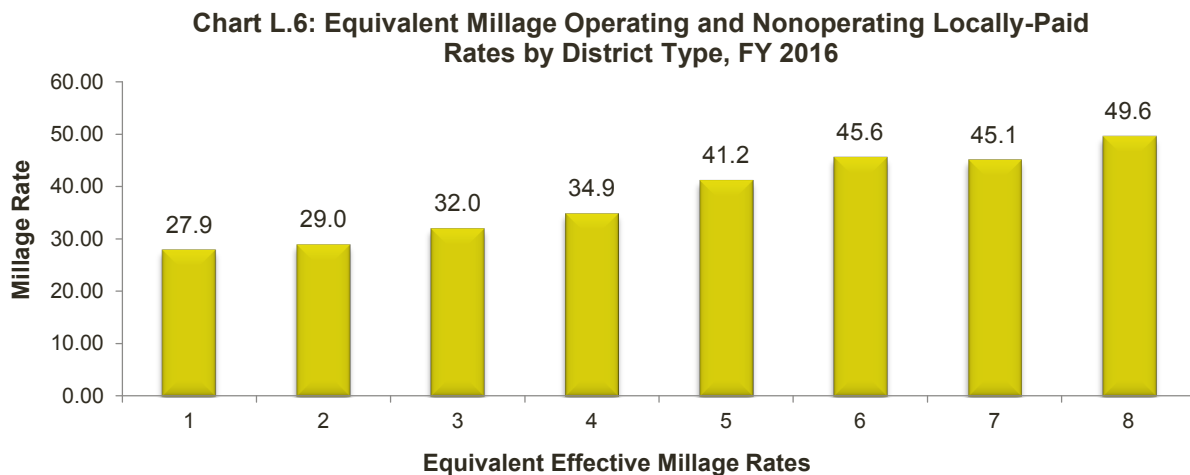
Summary of School District Operating Tax Revenue

School districts collected a total of $9.51 billion in operating taxes in TY 2014, including the portion paid by the state through property tax rollbacks and the homestead exemption. Chart L.7 shows school district operating tax revenues by levy type. Current expense levies, representing approximately 72.8% of total operating tax revenues, were the largest component. Emergency levies generated 11.5%, inside millage 11.4%, and school district income tax levies 4.3%.

Chart L.7: School District Operating Revenues by Levy Type, TY 2014
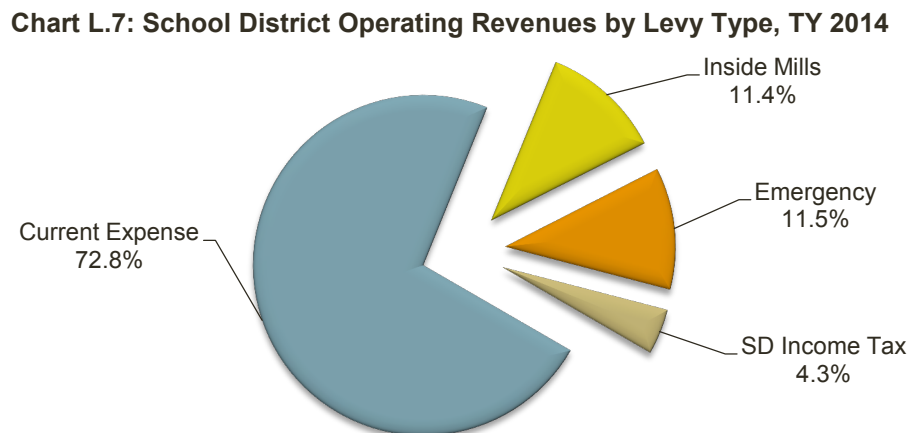
In TY 2014, local operating tax revenues per-pupil ranged from under $1,250 in the bottom five school districts to more than $20,000 in the top four districts. The statewide weighted average is $5,545 and the statewide median is $4,685. It should be noted that state education aid is largely equalized 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 L.8: Distribution of Per-Pupil Local Operating Tax Revenues, TY 2014
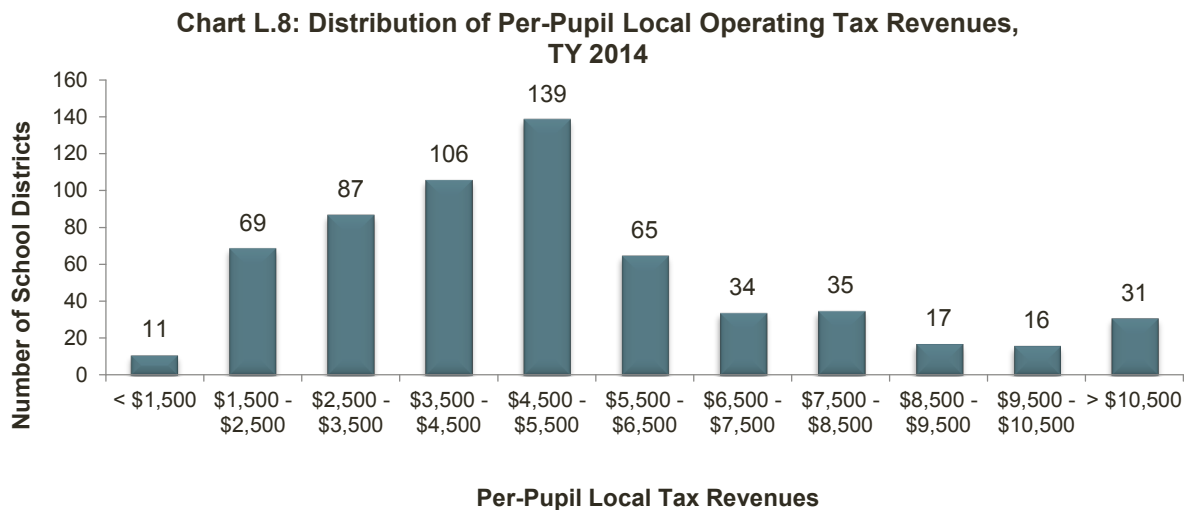
Joint Vocational School Districts

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 2014, the 49 JVSDs collected a total of $364.7 million in local revenue. 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 2014, 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.

Gross Casino Revenue Tax

In 2009, Ohio voters approved a constitutional amendment that authorizes the opening of 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 2016, a total of $90.8 million was distributed to schools, consisting of $80.8 million to traditional school districts, $3.8 million to JVSDs, and $6.2 million to nontraditional schools such as community schools.

FEDERAL OPERATING REVENUE

Federal dollars accounted for 5.6% of all public school revenue in FY 2016. 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 2016, 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 2016, $562.7 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 2016 ranges from a high of $838 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 2016						
Comparison Group—Description		**Number of Districts**	**Student Poverty %**	**Title I Per Pupil**	**% Special Education**	**IDEA Per Pupil**
Rural	High poverty, small population	123	52.2%	$314	14.8%	$208
Rural	Average poverty, very small population	106	41.5%	$218	13.3%	$174
Small Town	Low poverty, small population	111	33.5%	$172	12.3%	$191
Small Town	High poverty, average population	89	57.1%	$309	14.7%	$216
Suburban	Low poverty, average population	77	31.5%	$156	12.7%	$198
Suburban	Very low poverty, large population	46	15.8%	$75	11.3%	$173
Urban	High poverty, average population	47	71.0%	$445	16.7%	$230
Urban	Very high poverty, very large population	8	92.6%	$838	19.1%	$320
	AVERAGE		**47.8%**	**$306**	**14.3%**	**$214**

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 2016, $400.1 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 2016 ranges from a high of $320 for very large urban districts, which have an average of 19.1% of enrollment receiving special education, to a low of $173 for large suburban districts, which have an average of 11.3% 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 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 state foundation formula. The state 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 and targeted assistance. However, this funding is adjusted in FY 2016 and FY 2017, 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 revenues from net state foundation aid and two other major sources of state revenue, property tax rollbacks and reimbursements, in FY 2016. As can be seen from the chart, these per-pupil revenues ranged from less than $2,000 in eight districts to more than $10,000 in a total of 16 districts. Most districts (449, 73.6%) received per-pupil revenues from $4,000 to $7,000.

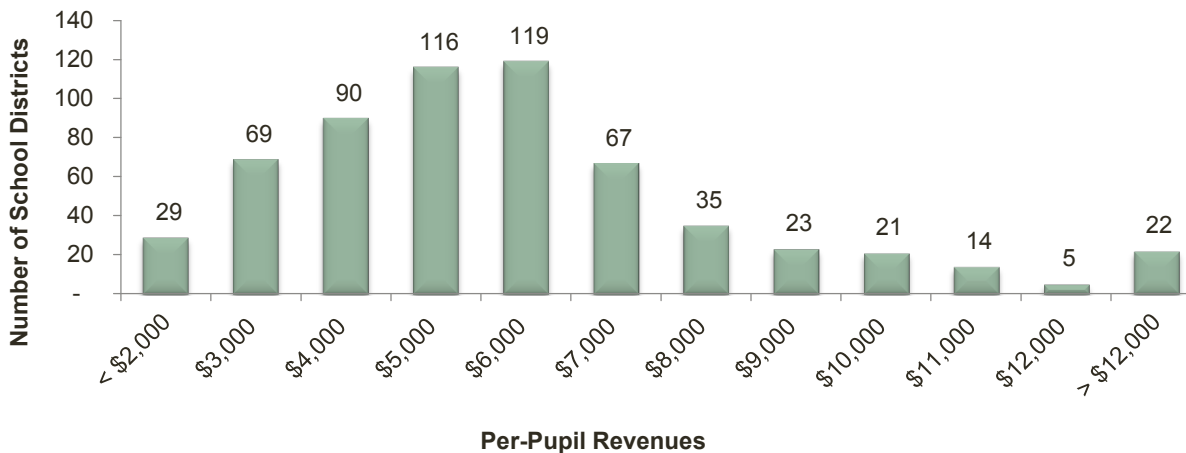**Chart X.1: Distribution of Per-Pupil Revenues from Major State Sources, FY 2016**
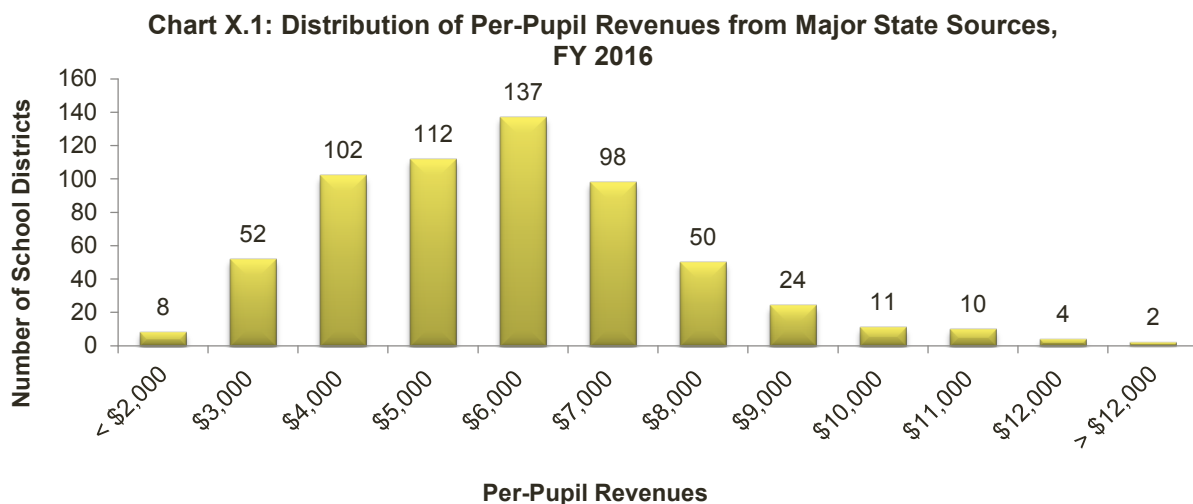
Local tax revenues are primarily determined by a district's taxable property value and effective property tax rates. These effective tax rates are determined through periodic tax levies that are either approved or rejected by the voters residing in the district. The rates for certain types of levies are reduced by H.B. 920 when a district's taxable real property value increases due to inflation. A small percentage of local 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 local tax revenues in FY 2016. As can be seen from the chart, per-pupil local

tax revenues in FY 2016 ranged from less than $2,000 in 29 districts to more than $12,000 in 22 districts. Most districts (461, 75.6%) received per-pupil local tax revenues from $3,000 to $7,000.

Chart X.2: Distribution of Per-Pupil Local Tax Revenues, FY 2016

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 2016. As can be seen from the chart, per-pupil federal revenues in FY 2016 ranged from less than $100 in ten districts to more than $1,000 in twenty districts. Most districts (423, 66.6%) received per-pupil federal revenues from $300 to $600.

Chart X.3: Distribution of Per-Pupil Federal Formula Revenues, FY 2016
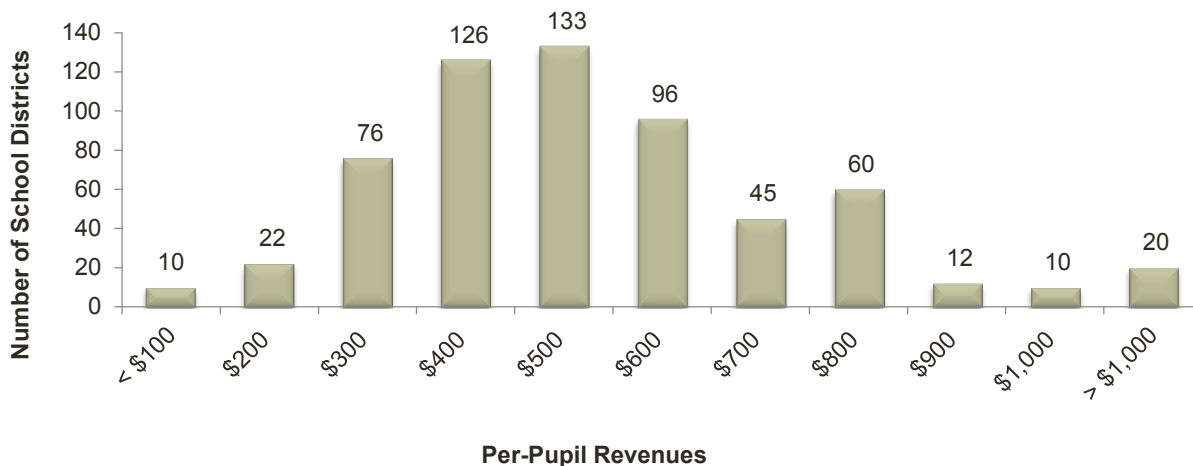
Finally, Chart X.4 presents per-pupil revenues in FY 2016 from all three of the above sources by district wealth quartile. In FY 2016, average per-pupil revenues were $10,426 in quartile 1, $10,074 in quartile 2, $10,605 in quartile 3, and $12,362 in quartile 4. As can be seen from the chart, state and 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: Revenues Per Pupil, FY 2016