



Members Brief

An informational brief prepared by the LSC staff for members and staff of the Ohio General Assembly

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Base Cost – Distribution of State Funds

The amount of state funding a school district receives is primarily driven by the per-pupil state share of the base cost. This amount depends on a district’s capacity to raise local revenues, which varies widely across the state. A major goal of the state foundation aid formula is to neutralize the effect of local wealth on access to basic educational opportunities. To do so, the formula determines a per-pupil local contribution based on a mix of property value and income measures, then requires the state to make up the difference to bring the total up to the district’s per-pupil base cost. This formula directs more state funding to districts with lower wealth. In FY 2022, the state share of the base cost totaled \$4.65 billion.

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Overview

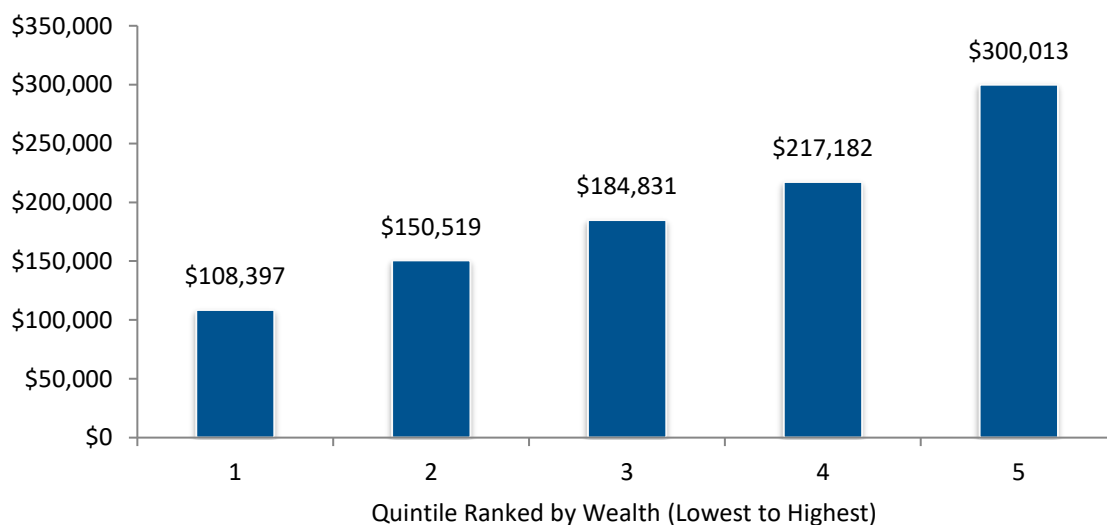
Funding the operating costs of school districts in Ohio is a partnership between the state and the school district. The state source component is funded primarily with general fund revenues and lottery profits, while the local component is funded at the school district level, primarily through property taxes. Some school districts also levy income taxes. The state foundation aid formula is the largest source of state support for the operating costs of school districts and other public schools. The state’s first challenge in providing foundation aid is to determine each school district’s base cost, which is seen as the cost of providing a regular education to typically developing students. The formula calculates a unique base cost per pupil for each district. See the [Base Cost Model](#) *Members Brief* for more information on how the formula’s base cost model works.

The state's second challenge is to determine how to distribute state funding for this cost to districts (how this cost is to be shared between state and local revenues). Given differences in district wealth levels, the formula determines a per-pupil local capacity amount (essentially, the local contribution) that depends on a mix of property valuation per pupil and income per pupil and a variable local capacity percentage that cannot exceed 2.5%. The per-pupil state share of the base cost generally is the difference between the per-pupil base cost and the per-pupil local capacity amount. This brief describes in detail how local capacity and the state share of the base cost, the largest component of state foundation aid, are determined. It also addresses the state share percentage, which is used to calculate the state share of the formula's categorical components that provide additional state aid for students with additional needs.

Per-pupil local capacity

The amount of local revenue a district raises is largely dependent on its property valuation. Property values vary widely across school districts, affecting their capacity to raise local funding through taxation. Chart 1 illustrates the variation in property values across districts by dividing them into five groups, or quintiles, based on valuation per pupil. Each quintile includes approximately 20% of total students statewide. Districts in quintile 1 have the lowest property wealth and districts in quintile 5 have the highest property wealth. In FY 2022, approximately 20% of Ohio's students resided in school districts with per-pupil property valuations that averaged about \$108,000 while another 20% resided in school districts with per-pupil property valuations that averaged about \$300,000. The statewide average valuation was approximately \$193,000 per pupil. Districts with higher property value per pupil will receive higher local revenue per pupil with the same tax effort. For example, a 20-mill (2%) property tax levy generates about \$2,160 per pupil for a district with a valuation per pupil of \$108,000 and about \$6,000 per pupil for a district with a valuation per pupil of \$300,000.

Chart 1: Average Per-Pupil Valuation by Wealth Quintile, FY 2022



The share of each district's base cost that is supported by local revenues is determined by a district's capacity to raise local revenue. In an effort to equalize funding across districts, the

formula determines a “per-pupil local capacity amount” for each district by calculating (1) a per-pupil local capacity percentage and (2) weighted local capacity per pupil using a combination of valuation per pupil, federal adjusted gross income (FAGI) per pupil, and adjusted FAGI per pupil. These calculations are described below.

Per-pupil local capacity percentage

The per-pupil local capacity percentage essentially functions as an approximation of a local tax rate that the formula applies to a district’s combined weighted property and income measures to determine the per-pupil local share of the base cost. To calculate the local capacity percentage, the formula first determines each district’s median income ratio, which is equal to each district’s median FAGI divided by the median of the median FAGIs for all districts statewide. Essentially, this ratio serves as an indicator of a district’s income wealth relative to the statewide median. A ratio of less than 1.0 means the district has a lower income than the statewide median, and a ratio of greater than 1.0 means the district has a higher income. This calculation is based on median FAGI for the most recent tax year for which data is available. In FY 2022, this corresponds to TY 2019. That year, the statewide median FAGI was \$41,784.

The formula then ranks the districts by median income ratio, from highest to lowest. If a district’s ratio is among the highest 40 districts, the district’s local capacity percentage equals 2.5%. If a district’s ratio is less than the ratio of the 40th highest district but greater than 1.0 (i.e., the ratio for the district at the statewide median), the percentage is a scaled amount between 2.25% and 2.5%. If a district’s ratio is less than or equal to 1.0, the percentage equals the district’s ratio times 2.25%. The calculation of the percentage is summarized below.

Per-Pupil Local Capacity Percentage

District’s median income ratio = District’s median FAGI / Median of all districts’ median FAGIs

If the district’s median income ratio ≤ 1.0 , then

District’s per-pupil local capacity percentage = District’s median income ratio x 2.25%

If the district’s median income index > 1.0 , but less than the 40th highest district ratio, then

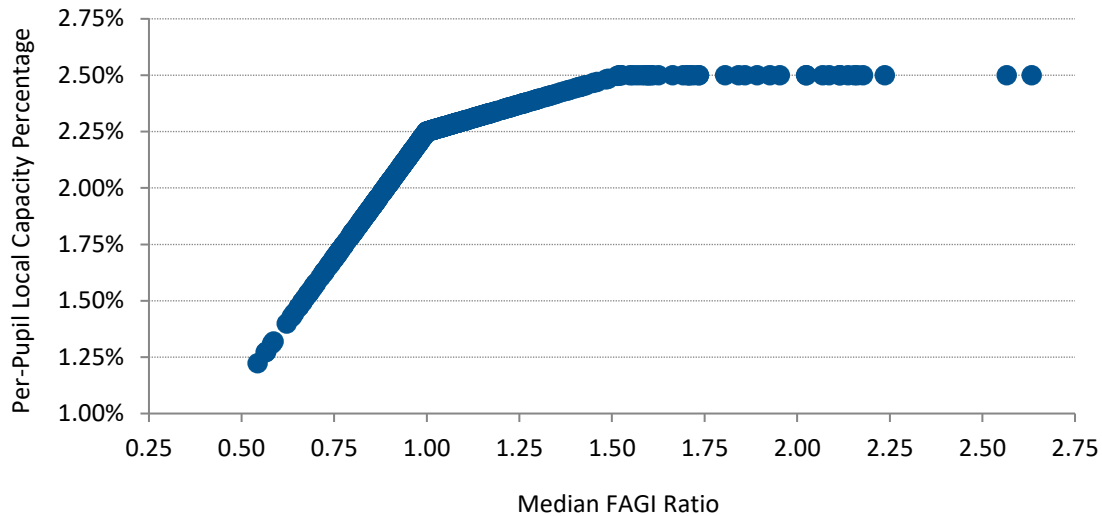
District’s per-pupil local capacity percentage =
District’s median income ratio x (2.25% to 2.5%, calculated on a sliding scale)

If the district’s median income ratio \geq the 40th highest district index, then

District’s per-pupil local capacity percentage = 2.5%

Chart 2 plots the per-pupil local capacity percentage against district median FAGI ratio. In FY 2022, the per-pupil local capacity percentage ranges from about 1.2% to 2.5%, the maximum percentage. As the chart shows, the cap applies to districts with a ratio of about 1.5 or higher.

Chart 2: Per-Pupil Local Capacity Percentage by Median FAGI Ratio, FY 2022



Valuation per pupil

The foundation formula also captures the variations in local revenue generating capacity of each district, in part, through a district's property valuation per pupil. The schedule Ohio uses to appraise property creates the potential for large swings in a district's property value. The formula takes this schedule into account in determining the valuation a district's local capacity is based on, as described below.

Real property values in Ohio are reappraised every six years and updated in the third year following each reappraisal. As a result, in the reappraisal and update years, school districts generally experience large changes in real property valuation. For funding purposes, a district's valuation is the lesser of (a) the average valuation for the three most recent tax years for which data is available or (b) the district's taxable valuation for the most recent tax year for which data is available. In FY 2022, this calculation is based on property valuation for tax year (TY) 2018, TY 2019, and TY 2020.¹ The three-year average smooths property valuation changes that occur in reappraisal and update years. However, for school districts whose property valuation is declining, determining funding based only on the valuation for the most recent tax year available makes the district look less wealthy and results in a higher state share. In FY 2022, valuation was based only on TY 2020 data for 52 (9%) school districts. Of those districts, 40 (77%) were located in rural areas. Statewide, the valuation used for funding purposes was \$252.1 million (0.1%) less than the three-year average valuation.

¹ Tax years are generally from January 1 to December 31, whereas state and school fiscal years are from July 1 to June 30. In addition, most property taxes for a given tax year are paid in the following tax year. As a result of these two factors, property values in a given tax year correspond to the fiscal year two years later for funding purposes. For example, property values for TY 2020 are the most recent year used in the formula for FY 2022.

A district's valuation for funding purposes is divided by its base cost enrolled ADM to determine its valuation per pupil. A district's base cost enrolled ADM equals the greater of the district's enrolled ADM for the prior fiscal year or the average of the district's enrolled ADM for the three prior fiscal years. The calculation of valuation per pupil is summarized in the table below. In FY 2022, valuation per pupil averaged \$192,728 statewide.

Valuation Per Pupil

Valuation = Lesser of:
 (district's average valuation for the three most recent tax years available) and
 (district's valuation for the most recent tax year available)

Valuation per pupil = Valuation / base cost enrolled ADM

Income per pupil

In addition to property valuation, the formula takes into account the income of a district's residents as a measure of their ability to pay property taxes. Two additional measures of income, both related to FAGI, factor into the determination of the per-pupil local capacity amount. The first income measure is based on a district's aggregate FAGI and the second is an "adjusted" measure based on the district's median FAGI and tax returns filed.

FAGI per pupil

For funding purposes, a district's FAGI is the lesser of (a) the average FAGI for the three most recent tax years for which data is available or (b) the district's FAGI for the most recent tax year for which data is available. In FY 2022, this calculation is based on FAGI for TY 2017, TY 2018, and TY 2019.² That year, FAGI was based only on TY 2019 data for 32 (5%) school districts. Of these, 22 (69%) were located in rural or small town areas. Statewide, FAGI was \$388.2 million (0.1%) less than the three-year average FAGI in FY 2022.

A district's FAGI is divided by its base cost enrolled ADM to determine its FAGI per pupil. The calculation of FAGI per pupil is summarized in the table below. In FY 2022, FAGI per pupil averaged \$237,136 statewide.

FAGI Per Pupil

FAGI = Lesser of:
 (district's average FAGI for the three most recent tax years available) and
 (district's FAGI for the most recent tax year available)

FAGI per pupil = FAGI / base cost enrolled ADM

² FAGI is derived from state income tax returns. For school funding purposes, FAGI for a given tax year corresponds to the fiscal year three years later due to lags in the availability of income tax statistics. For example, FAGI for TY 2019 is the most recent year used in the formula for FY 2022.

Adjusted FAGI per pupil

The second income measure calculates “adjusted FAGI” by multiplying a district’s median FAGI for the most recent tax year for which data is available by the number of state income tax returns filed by taxpayers residing in the district for that tax year. Unlike valuation and FAGI, adjusted FAGI does not take a three-year average into account. In FY 2022, this calculation uses median FAGI and state income tax returns for TY 2019. A district’s adjusted FAGI is divided by its base cost enrolled ADM to determine its adjusted FAGI per pupil. The calculation of adjusted FAGI per pupil is summarized in the table below.

In FY 2022, adjusted FAGI per pupil averaged \$164,354 statewide. This average is significantly less than the statewide average FAGI per pupil since adjusted FAGI, by using a median, is less sensitive to very large aggregate FAGI values. Effectively, adjusted FAGI reduces a district’s per-pupil local capacity amount and, thus, increases its state share. This measure particularly benefits very low poverty, suburban school districts, which tend to have much larger than average FAGI per pupil.

Adjusted FAGI Per Pupil

$$\text{Adjusted FAGI} = \frac{\text{(district's median FAGI for the most recent tax year available)}}{\text{(state income tax returns filed by district residents for the most recent tax year available)}}$$

$$\text{Adjusted FAGI per pupil} = \text{Adjusted FAGI} / \text{base cost enrolled ADM}$$

Per-pupil local capacity amount

The formula weights the district’s valuation per pupil at 60% and the per-pupil amounts for FAGI and adjusted FAGI each at 20%. Added together, the three factors represent a district’s weighted capacity per pupil. In FY 2022, the statewide average weighted capacity per pupil was \$195,935. The per-pupil local capacity amount is calculated by multiplying a district’s weighted capacity per pupil by the per-pupil local capacity percentage. This calculation is summarized below. The per-pupil local capacity amount averaged about \$4,251 statewide in FY 2022.

Per-Pupil Local Capacity Amount

$$\text{District's per-pupil local capacity amount} = [(\text{District's valuation per pupil} \times 60\%) + (\text{District's FAGI per pupil} \times 20\%) + (\text{District's adjusted FAGI per pupil} \times 20\%)] \times \text{District's per-pupil local capacity percentage}$$

State share of the base cost

The per-pupil state share of the base cost is calculated by subtracting the per-pupil local capacity amount from the per-pupil base cost for each district, except that the per-pupil state share of the base cost cannot be less than 5% of the per-pupil base cost. The total state share of the base cost is equal to the per-pupil base cost multiplied by the current year enrolled ADM.

This calculation is summarized below. The state share of the base cost totaled \$4.65 billion in FY 2022.

State Share of the Base Cost

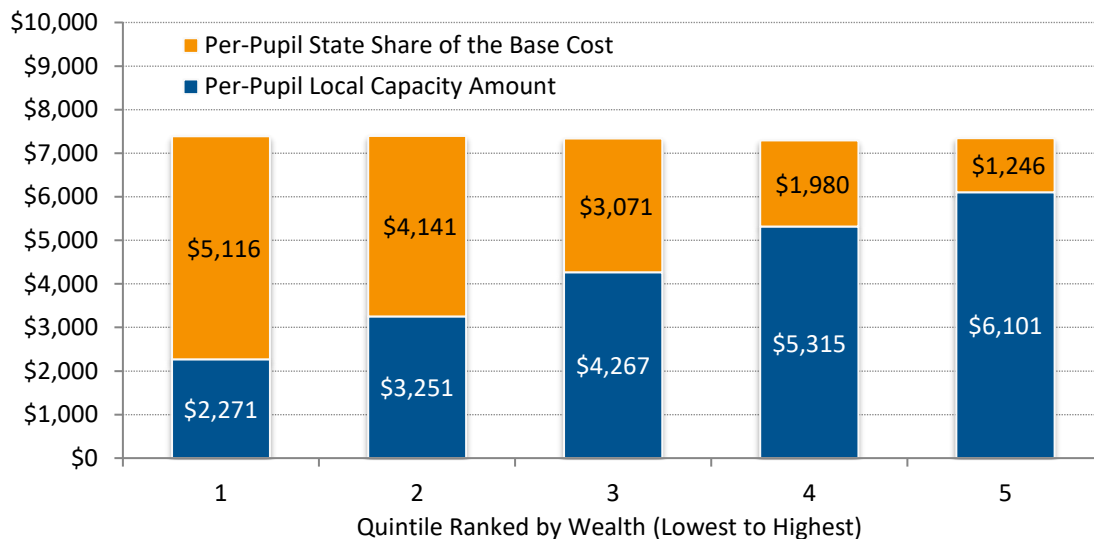
If $(\text{Per-pupil local capacity amount} / \text{District's base cost per pupil}) > 95\%$, then
 Per-pupil state share of base cost = $\text{District's base cost per pupil} \times 5\%$

If $(\text{Per-pupil local capacity amount} / \text{District's base cost per pupil}) \leq 95\%$, then
 Per-pupil state share of base cost =
 $\text{District's base cost per pupil} - \text{District's per-pupil local capacity amount}$

District's state share of the base cost =
 $\text{Per-pupil state share of the base cost} \times \text{District's current year enrolled ADM}$

Chart 3 illustrates how the distribution between state and local shares of the base cost change depending on a district's wealth. As the chart shows, lower wealth districts generally receive more funding on a per-pupil basis from the state and less from local sources due to their lower ability to raise revenues from property taxes. In FY 2022, the average per-pupil state share of the base cost (indicated by orange bars) was highest in the lowest wealth quintile (quintile 1) at \$5,116, whereas districts in the highest wealth quintile (quintile 5) averaged a per-pupil state share of \$1,246. Conversely, the local share (indicated by blue bars) for quintile 1 was \$2,271, compared to \$6,101 for quintile 5.

Chart 3: Average Per-Pupil State and Local Shares of the Base Cost by Wealth Quintile, FY 2022



State share percentage

In general, the formula calculates the state share percentage as the ratio of a district's per-pupil state share of the base cost to its per-pupil base cost, with a minimum state share

percentage of 5%. It is used in the calculation of five categorical components of foundation funding (special education additional aid, career-technical education and associated services funds, gifted student funding, English learner funds, and pupil transportation). Like the distribution of the per-pupil state share of the base cost, the state share percentage is higher for lower wealth districts. In FY 2022, the state share percentage averaged 69.3% for districts in quintile 1, 56.0% for quintile 2, 41.8% for quintile 3, 27.1% for quintile 4, and 17.0% for quintile 5. The weighted average state share percentage was 42.2%.

State Share Percentage

If $[(\text{district's base cost per pupil} - \text{district's per-pupil local capacity amount}) / \text{district's base cost per pupil}] < 5\%$, then state share percentage = 5%; else
 State share percentage = $(\text{district's base cost per pupil} - \text{district's per-pupil local capacity amount}) / \text{district's base cost per pupil}$

Chart 4 shows the distribution of the state share percentage among districts. The majority of districts (57%) have a state share percentage between 32% and 67%. Districts with a state share percentage above 67% make up about 18% of all districts, while about one-quarter of districts (25%) have a state share percentage below 32%. Looking at the floor and ceiling of the percentage, 46 (8%) high wealth districts have state share percentages at the 5% minimum while the highest percentage is 90.5%.

Chart 4: Distribution of State Share Percentage, FY 2022

