## PA's Fair Funding Formula Explained

Pennsylvania has the most inequitable spending per pupil in the United States, according to a 2015 Washington Post analysis of federal data on state and local funding.
"In Pennsylvania, per-pupil spending in the poorest school districts is 33 percent lower than per-pupil spending in the wealthiest school districts," The Post reported.

At the time of the Post article, Pennsylvania's Basic Education Funding Commission (BEFC) was already 10 months into its yearlong development of a new formula to distribute state basic education funds. Education stakeholders welcomed the development of this new formula, hoping it would reduce inequities and provide predictability in a state without a year-to-year consistent formula.
BEFC examined appropriate factors to include in a formula, held hearings around the state to gather testimony from school district officials and other experts, and surveyed school districts to get the most recent data to consider. However, BEFC was not charged with addressing the question of how much school funding is "adequate." The commission was only tasked with recommending an appropriate distribution of the basic education funding annually provided by the legislature.

## Key Dates:

- June 10, 2014 - Gov. Corbett signs House Bill 1738 (Act 51 of 2014) establishing the Basic Education Funding Commission.
- June 18, 2015 - The bipartisan, bicameral BEFC submits its unanimously approved report and recommended formula to the General Assembly for consideration.
- April 25, 2016 - House Bill 1589 (Act 25 of 2016) becomes law effectuating the new basic education funding formula recommended by BEFC for 2015/16.
- June 1, 2016 - Governor Wolf signs House Bill 1552 (Act 35 of 2016), which places BEFC's recommended formula in a permanent section of the Public School Code, which allows the formula to continue for 2016/17 and beyond.
- 2019/20 - Every five years, as required by Act 51 of 2014, BEFC "shall meet and hold public hearings to review the operation of the basic education funding provisions" and issue a report to leaders of the General Assembly.


## Formula Concept

The BEFC formula does not allocate a specific dollar amount to each school district. Instead, it determines each district's share of the amount of funding available to distribute from the state.

For example, the formula will yield a result saying, out of PA's 500 school districts, Erie City School District should receive 1.53 percent of the amount of funding available. This is different from a result saying Erie City School District should receive $\$ 1.53$ million of the $\$ 100$ million available. The BEFC formula determines the appropriate share of funding each school district receives. It does not answer the question: the share of what? This determination is made by the legislature through the annual budgeting process and various policy choices that will be examined in the "Hold-Harmless and Base Year" section of this briefing.

The BEFC formula is student-based, meaning a district's share of state funding is tied to its share of the student population. However, each school district is not given the same amount of state funding per student; that would be unfair and would ignore the vast differences in local resources available to districts as well as the research-supported evidence that some students require more resources than others to succeed.

As visualized in Figure 1, after starting with an accurate student count, the BEFC formula applies a series of weights to categories of students. The added weights for certain groups of students is a recognition of a higher cost to educate that group. The resulting weighted student count is then adjusted based on district factors to arrive at a weighted and adjusted student count. Finally, a district's share of funding under the BEFC formula is simply its share of the statewide weighted and adjusted student count.

In 2015/16, only 36.8 percent of aggregate education funding came from the state while 57.2 percent came from local sources, according to the PA Department of Education's "Annual Financial Reports." The U.S. Census' "Annual Survey of School System Finances" data from fiscal year 2015 ranks PA $47^{\text {th }}$ out of the 50 states in state support for public schools.

In other words, under the BEFC formula, each district receives the same amount of state funding per weighted and adjusted student. In order to appreciate how the BEFC formula addresses inequities and fairness, one needs to understand what the elements of the formula are and why they were chosen.

## Elements of the Formula

On the next pages, Table 1 provides information on the student weights, and Table 2 details district factors.
Go to the "Learn How the State's Fair Funding Formula for Basic Education Works for Your School Districts 2017-18" spreadsheet on www.HACD. net to view the factors for each of PA's 500 school districts.



| Step 2: | A School District's <br> Weighted Student Count |  |  | Median House Index | ehold Income (MHII) |  | al Effort Index + <br> Capacity Index) |  | A School District's Total Weighted and Adjusted Student Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Table 2: Weighted \& Adjusted Student Count | Sparsity/Size Adjustment | Median Household Income Index |  |  | Local Effort Capacity Index |  | Local Effort Index Loc |  | Local Capacity Index |
| Rationale | Testimony at BEFC hearings revealed that PA school districts in rural areas have unique challenges leading to higher costs. Some examples include difficulty to consolidate services due to the geographic size of a district, extraordinary transportation challenges, and higher per-pupil costs due to a loss of economies of scale. | A fair formula for state funding needs to account for the vastly different amounts of local wealth between districts. The MHII replaces the Market Value / Personal Income Aid Ratio as the measure of a district's relative wealth. |  |  | "Local tax effort and wealth are critical factors impacting the ability of school districts to raise local revenue." BEFC Final Report, page 40 |  | The local effort index is designed to determine whether a school district is making a fair local tax effort. It compares the tax burden in each school district to the statewide median tax burden. Importantly, it includes an adjustment for school districts spending above the statewide median expenditures per weighted student so as to not reward wealthier districts that choose to have high taxes so that they may spend more per pupil. |  | s the question, how much spending weighted student could a district afford axed at the statewide median effort? local capacity index component vides more state funding for districts are unable to raise enough funds ally even if taxing at the statewide dian rate. |
| Statistic | "Specifically, when studying economies of scale in education, [researchers Baker and Levin] found per-pupil costs tend to be flat as district enrollment surpasses 2,000 students, while below this enrollment, costs tend to increase, dramatically so as enrollment dips below 500." - BEFC Final Report, page 35 | In 2015, the median household income in PA was \$53,599 and the number of households was 4,958,859. Using 2017/18 distribution data: 278 school districts have a MHII greater than 1, while 222 have a MHII index value below 1. The median MHII value is 1.0423 . |  |  | Using 2017/18 distribution data: PA's 125 poorest school districts based on the median household income index spent \$9,485 per weighted student while the wealthiest 125 districts spent $\$ 14,472$ per weighted student, or $53 \%$ more. |  | Using 2017/18 distribution data: The median local effort index is 0.92 . Pocono Mountain School District has the highest local effort index at 1.90. | Using 2017/18 distribution data: Of PA's 500 school districts, 252 receive a local capacity index of zero, and 248 have an index value above zero. Reading School District's local capacity index value of 0.84 is the highest. |  |
| Adjustment Definition | The sparsity/size adjustment weight is unique in the BEFC formula in that it is a district factor treated as a student weight. The weight is 0.7 , and it applies to school districts at or above the 70th percentile of sparsity size index. In other words, out of PA's 500 school districts, the 150 districts with the lowest population density receive additional support. The sparsity/size adjustment is part of the weighted student count. The special education formula uses the same sparsity/size ratio. | The MHIII measures a school district's median household income compared to the statewide median household income. The higher the MHII, the less income a school district has. The weighted student count is multiplied by the MHII in the formula. This means a MHIll value greater than 1 increases a school district's share of the funding, while a value below 1 decreases a school district's share of the funding. |  |  | The Local Effort Capacity Index is the sum of the Local Effort Index and the Local Capacity Index. In the BEFC formula, the Local Effort Capacity Index is multiplied by the weighted student count. This means an index value greater than 1 increases a school district's share of funding, while a value below 1 decreases a school district's share of the funding. |  | The local effort index is added to the local capacity index in the BEFC formula. The stronger the local effort is (after accounting for spending above the median), the higher the index value will be. | If the district's hypothetical capacity for spending per weighted student is lower than the hypothetical statewide median amount, the district's local capacity index is above zero. If higher, the index is zero. The local capacity index is added to the local effort index in the BEFC formula. |  |
| Calculation | See Appendix A | See Appendix A |  |  | See Appendix A |  | See Appendix A |  | Appendix A |
| Data Source(s) | PA Department of Education - for adjusted ADM <br> U.S. Census Bureau's latest decennial census - for Total Square Miles | Most recent 5-year estimate of the U.S. Census Bureau's American Community Survey ACS Series ID: S1903 |  |  | Most recent 5-year estimate of the U.S. Census Bureau's American Community Survey - for median income - ACS Series ID: S1903 <br> PA Department of Education - for local tax related revenue, current expenditures, adj. ADM, and state property tax reduction allocation <br> PA Department of Community and Economic Development's Tax Equalization Division - for market values and adjusted personal income (reported to PDE) |  |  |  |  |

## Notes on PA's Basic Education Subsidy:

The state's and school districts' fiscal years run from July 1 to June 30 (except Scranton SD and Pittsburgh SD which are on calendar year budgets). Each fiscal year, the state makes six payments to school districts, beginning with an August payment and continuing every other month until the last payment in June. The first five payments each constitute 15 percent of what the state owes, while the final June payment represents 25 percent of what is owed, net of any reconciliations.

The state's basic education subsidy payment is viewed as a reimbursement to school districts for the previous year's expenses. For example, consider 2015/16 since that is when BEFC's recommended formula first took effect. The state's 2015/16 basic education subsidy payments to districts were reimbursements for the 2014/15 school year. So, the payments made in 2015/16 were based on 2014/15 data.

The trouble with this method was immediately revealed because the 2014/15 data was not finalized until halfway through 2015/16, meaning school districts did not know their actual state allocation until well into the fiscal year. Fluctuating data from the new formula made budgeting even more difficult for school districts. Therefore, to address this predictability issue, beginning with 2016/17, the PA Department of Education began using the most recent data available as of the June 1 preceding the beginning of the fiscal year in which the distributions occur. The legislature endorsed this change through Act 55 of 2017 which aligned the previously ambiguous statute with the department's new practice.

## Hold Harmless and Base Year

"Hold harmless, or the practice of guaranteeing that a school district receives no less than the same amount of state basic education dollars that it received in the prior fiscal year, has been a considerable factor in the distribution of basic education dollars in Pennsy/vania" - BEFC final report, page 36

The commonwealth's history of providing school districts with at least as much state basic education funding as they received in the previous year created winners and losers. Generally, growing districts have had to share marginal increases with districts experiencing declining enrollments, creating a gap between the per student levels of state funding. This practice has been widely viewed as unfair assuming the declining enrollment coincided with declining costs.

BEFC agreed to two guiding principles on the issue of hold harmless: first, no new money should be subject to a hold harmless provision; and secondly, eliminating the existing hold harmless practice immediately and in its entirety would have a drastic negative impact on a majority of PA's 500 school districts.
"Eliminating the hold harmless clause after more than 20 years of practice would result in 320 school districts receiving approximately $\$ 1$ billion less in basic education funding," the BEFC final report said.

In other words, had the entire $\$ 5.5$ billion basic education funding appropriation been distributed using the new, fair formula, 320 school districts would have lost a combined \$1 billion in state support with the remaining 180 districts realizing that new funding.


## Introducing "base positive" and "base negative"

A base amount is a level of funding that a school district is guaranteed to get from the state every year. For ease of reference, districts with a base amount that is more than what they would receive compared to if the base amount went through the fair funding formula will be referred to as "base positive." Conversely, districts whose base is less than their fair share will be referred to as "base negative." In other words, if all the basic education money went through the BEFC formula, base negative school districts would receive more funding and base positive districts would receive less funding.

To avoid this, BEFC determined that some sort of base -- or guaranteed -- amount was needed, at least initially, to prevent extreme swings in state funding for which school districts were not prepared. Instead of taking a position on how to deal with the existing pool of basic education funds, BEFC's final report identified three ways of addressing the longstanding hold harmless issue:

- Option 1: Select a base year of funding and distribute all funds above that amount through BEFC's recommended formula. For example, each district's allocation begins with what it received in 2014/15 and any funding appropriated above the amount that year is distributed through the formula. Under this scenario, a school district is always guaranteed to receive at least the state funding it received in 2014/15.
- Option 2: Deduct and redistribute a certain percentage of a "base positive" district's annual increase. For example, the legislature could decide to use a base year of 2014/15 and provide a $\$ 100$ million basic education funding increase through the formula. Suppose when the entire basic education funding appropriation is distributed through the formula, District A's base is greater than what is prescribed by the formula ("base positive") and District B's base is lower ("base negative"). If District A was due a $\$ 100,000$ increase, a certain percentage, maybe 50 percent, would be redistributed to District B and other "base negative" districts.
- Option 3: Gradually expand the percentage of basic education funding distributed through the formula. For example, 10 percent of the funds go through the formula in year 1,20 percent in year 2 , and so on until 100 percent is reached in year 10. Dollars not funneled through the formula would be distributed pro rata based on a district's existing share of basic education funds.

Ultimately, the General Assembly opted to implement the first option - a fixed base year and all new money going through the new formula. Each district's level of basic education funding in 2014/15 has been established as the base amount. In 2017/18, 7.6 percent of total basic education funding went through the fair funding formula (Figure 2).

In 2017/18, 113 school districts' base amounts were more than 200 percent of what they would receive if those dollars were instead distributed using the fair funding formula. The 2014/15 base amount guarantee maintains $\$ 505$ million in state basic education funding for those districts. Meanwhile, 65 school districts receive less than 70 percent of what would be their fair share of the base amount. This corresponds to $\$ 648$ million in state basic education funding not realized for those districts.

| Table 3: Base Analysis Using 2017/ 18 Distribution Data | Number of School Districts | State Funding M aintained or Not Realized By Using 2014/15 as a Base Instead of Distributing All Funds Thru BEFC's Fair Funding Formula |  | 2015/16 Actual Student Count | 2015/16 W eighted Student Count |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Base Positive | 363 | + | 1,163,765,546 | 843,437 | 992,380 |
| Base Negative | 137 | \$ | $(1,163,765,546)$ | 865,017 | 1,109,505 |
| Base Share 100-110\% | 33 | \$ | 18,930,566 | 133,730 | 155,590 |
| Base Share 110-120\% | 31 | \$ | 35,459,319 | 103,911 | 120,474 |
| Base Share 120-150\% | 83 | \$ | 163,485,907 | 198,381 | 229,487 |
| Base Share 150-200\% | 103 | \$ | 440,441,408 | 250,648 | 299,624 |
| Base Share 200-300\% | 94 | \$ | 404,576,395 | 132,210 | 158,691 |
| Base Share above 300\% | 19 | \$ | 100,871,952 | 24,557 | 28,515 |
| Base Share 90-100\% | 19 | \$ | $(8,139,086)$ | 68,516 | 78,251 |
| Base Share 80-90\% | 23 | \$ | $(37,224,225)$ | 98,935 | 114,491 |
| Base Share 70-80\% | 30 | \$ | $(470,088,142)$ | 335,031 | 458,780 |
| Base Share below 70\% | 65 | \$ | $(648,314,094)$ | 362,534 | 457,983 |

Note: The base share is the actual base amount as a share of the amount if all funding when through the fair funding formula. Anything above $100 \%$ means a district's actual base is higher than its fair share.


Lastly, Table 4 summarizes a decile analysis of school districts' base shares. It shows that the poorest 50 school districts in the state by median household income are the ones most negatively impacted by the continuation of hold harmless. However, most of the dollars associated with base positive districts are concentrated in the bottom half of the wealth distribution of school districts. Interestingly, the only three groups that are base negative are the bottom decile (the poorest 50 school districts), the top decile (the wealthiest 50 school districts), and the seventh decile.

## Adjustments to the Base and Formula:

Erie School District will become the third district to receive a base adjustment as a result of the 2017/18 Fiscal Code. The amount of funding Erie School District receives in 2017/18 through the educational access program (expected to be $\$ 14$ million of the $\$ 23.15$ million appropriation) will be considered part of the district's base allocation for basic education funding beginning in 2018/19.

Before Erie, Act 35 of 2016 placed BEFC's recommended formula in a permanent section of the Public School Code and included adjustments to two districts' base amounts: Chester Upland School District received an additional $\$ 12$ million in its base to address its longstanding structural budget deficit, and Wilkinsburg Borough School District received a \$3 million upward adjustment to help pay for closing middle and high schools and sending those students to another district.

The 2017/18 budget changed other aspects of the BEFC formula. The "Notes on the Basic Education Subsidy" subsection discussed one change regarding data timing. Act 55 of 2017, the 2017/18 Education Code, modified the "current expenditures" definition so as to not include tuition from patrons. Students financed by patrons (federal government, other school districts, etc.) are not included in a district's average daily membership, so the funding for those students should not factor into the expenditure per average daily membership calculation used as part of the local effort capacity index.

Act 55 also clarified that, starting with 2017/18, Philadelphia's sales, use, and cigarette tax revenue should be included in its local tax-related revenue as used in the local effort capacity index calculation. These local revenue sources are unique to Philadelphia and were mistakenly not included in the district's 2015/16 and 2016/17 BEFC calculations, which resulted in underpayments to Philadelphia of $\$ 2.7$ million in 2015/16 and $\$ 6.3$ million in 2016/17. Act 55 clarified the issue for future years but took no action to make Philadelphia whole for the $\$ 9$ million in underpayments over the previous two years.

## Quartile Analysis:

Tables 5 and 6, on the following page, summarize a quartile analysis of PA school districts' spending per student and share of state basic education funding. In this analysis, school districts are placed in four groups based on their "median household income index" rank. Each quartile contains 125 school districts. The bottom quartile represents the poorest 125 districts.

| Table 5: <br> Quartile Analysis (using Median Household Income Index) for Total Spending | 2015/16 <br> Current Expenditures |  | $\begin{aligned} & \text { 2015/16 } \\ & \text { adj ADM } \end{aligned}$ | 2015/16 add-on for W eighted Student Count | Expenditures per student |  | Expenditures per weighted student |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bottom Quartile | \$ | 7,524,077,783 | 552,340 | 240,914 | \$ | 13,622 | \$ | 9,485 |
| Second Quartile | \$ | 3,019,166,188 | 219,514 | 46,608 | \$ | 13,754 | \$ | 11,345 |
| Third Quartile | \$ | 5,469,239,573 | 379,265 | 59,878 | \$ | 14,421 | \$ | 12,454 |
| Top Quartile |  | 8,731,845,395 | 557,335 | 46,032 | \$ | 15,667 | \$ | 14,472 |


| Table 6: <br> Quartile Analysis (using Median Household Income Index) for State Funding Share | Base BEF Allocation |  | Share of Base BEF Allocation |  | 2017-18 <br> BEFC Distribution | Share of BEFC Distribution | Share of 2015/16 adj ADM | Share of 2015/16 <br> Weighted Student Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bottom Quartile | \$ | 2,794,164,836 | 50\% | \$ | 266,859,437 | 59\% | 32\% | 38\% |
| Second Quartile | \$ | 944,555,308 | 17\% | \$ | 48,779,760 | 11\% | 13\% | 13\% |
| Third Quartile | \$ | 983,643,375 | 18\% | \$ | 71,738,505 | 16\% | 22\% | 21\% |
| Top Quartile | \$ | 820,048,198 | 15\% | \$ | 65,289,585 | 14\% | 33\% | 29\% |

In the 2017/18 BEFC formula calculations, the top quartile of school districts spent $\$ 14,472$ per weighted student while the bottom quartile spent $\$ 9,485$. In other words, PA's wealthiest 125 districts spent $\$ 4,987$, or 53 percent, more per weighted student than the 125 poorest districts in the state.

The bottom quartile of school districts educate 32 percent of the actual students but 38 percent of the weighted student count. Collectively, these districts receive 59 percent of the state basic education funding distributed through the fair funding formula. Prior to the new formula, these districts were receiving 50 percent of state basic education funding. This means Pennsylvania is driving more dollars toward the poorest 125 school districts under the new formula.

## Conclusion

In only its third year, the fair funding formula has begun to address the ingrained inequities in PA's school funding, but its impact has been limited since it only applies to a small portion of the commonwealth's overall basic education funding. The statute that created BEFC requires an evaluation of, and a report on, the formula's operation every five years. So, the fair funding formula remains a work in progress.

See the "Learn How the State's Fair Funding Formula for Basic Education Works for Your School Districts 2017-18" spreadsheet on www.HACD. net to view the factors for each of PA's 500 school districts, including yours.

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