Offices of Research and Education Accountability
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Legislative Brief

Analysis of OREA changes made to the fiscal year 2016-17 BEP calculation

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The Basic Education Program (BEP), Tennessee's K-12 education funding formula, generates over $4 billion in state appropriations and accounts for more than a quarter of total state dollars in the budget. The formula has four main categories: Instructional Salary, Instructional Benefits, Classroom, and Non-Classroom. Within these four categories, 45 individual components generate state and local shares of funding for education-related expenses, such as teachers, nurses, and transportation. Before state funds are distributed to local school districts, the totals generated by the formula undergo an "equalization" process that takes into account every county's ability to pay for education. The formula directs a larger share of state money to districts in counties with less ability to fund schools, and requires counties with a higher capacity to raise revenue to contribute more local dollars.

Because of the BEP's complexity, the Tennessee Comptroller of the Treasury has called for more transparency in the formula on multiple occasions. In a 2011 memo, Comptroller Wilson stated, "It is in the best interest of all Tennesseans that the BEP formula be transparent, understandable, and verifiable."[1] The Comptroller's Office of Research and Education Accountability (OREA) has attempted to answer this need on all three fronts by recalculating and verifying the BEP formula, explaining the computation of all 45 components in detail, and making the calculation publicly available for all Tennesseans.

To verify the formula for fiscal year 2016-17, OREA took input data for student enrollment, unit costs, and other factors and reconstructed the entire BEP calculation from scratch. Calculating the BEP independently from the Tennessee Department of Education (TDOE) allowed OREA to identify several issues with the formula. OREA then recalculated the BEP with these changes to determine their overall effect. The office brought these changes to the attention of TDOE in late September; in response, TDOE stated that it intends to apply these changes to its calculation in the upcoming fiscal year 2017-18.[2]

The size of OREA's changes are small relative to overall BEP dollars: in total, districts lost $835,000 in state funding and gained an additional $1,197,000 for a net statewide increase of $362,000 in state dollars. Of the more than $4.3 billion statewide total, this discrepancy represents a 0.00825 percent difference between TDOE's calculation and OREA's changes. No

individual district experienced more than a 0.22 percent loss or gain in its final state share, and 37 districts saw no change in funding. For a detailed breakdown for each district, see the accompanying spreadsheet.

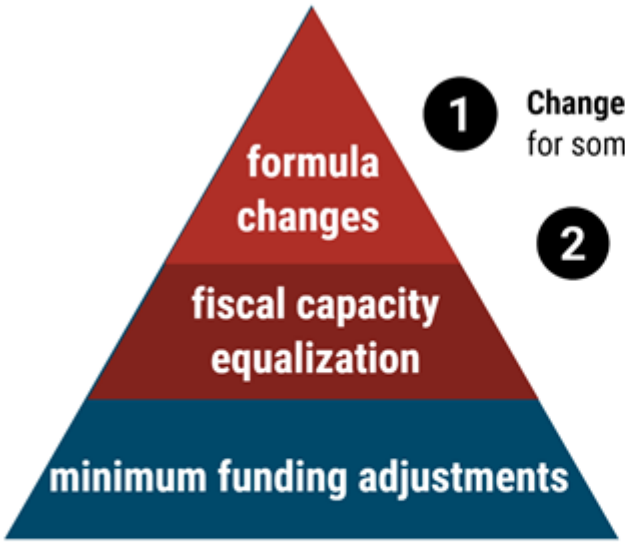
Changes affect two main areas of the BEP calculation:

1. OREA changes in the formula itself that affect allocations for specific components, which may impact some or all districts; and
2. Changes in each district's state and local share, as determined by fiscal capacity equalizations, as a result of changes from element 1 above.[A]

Because many parts of the BEP depend on one another, changes in one area may affect other changes; in a sense, changes are "stacked" or "tiered" on top of each other. For example, changes to the BEP formula itself materially affect only a few districts. On the other hand, fiscal capacity equalizations, which set state shares and local match rates based on each county's ability to pay for education, are relative. Through fiscal capacity equalizations, every district's allocation affects every other district: holding all other factors constant, if one district's state share increases, every other district's state share decreases. Consequently, even though formula changes affect only a few districts, these changes are passed on to *every* district through fiscal capacity equalizations. These changes may be so small, however, that they are lost during rounding and do not result in actual funding changes.

Finally, changes to both the formula itself and the resulting changes in state and local shares affect the minimum funding level for some districts. Public Chapter 1020 (2016) specified that no district may receive less than its funding in fiscal year 2015-16, adjusted for declining student enrollment, plus any increased costs due to raising the teacher salary unit cost or increased insurance premiums. A district that does not generate enough BEP funding in the current year to reach its minimum funding level, typically due to declining enrollment, receives a minimum funding adjustment. Thus, changes in the minimum funding level may result in greater or smaller minimum funding adjustments for some districts.

[A] As a result of both (1) and (2), districts' minimum funding levels may change as well. Accordingly, districts may have additional changes to their final state shares through minimum funding adjustments. Typically, only districts with declining student enrollment receive these adjustments.



1 **Changes to the BEP formula itself** affect allocations for some components for **some districts.**

2 **Fiscal capacity equalization.** When determining the state and local shares, every district's allocation affects every other district. With the changes to the formula above, state shares and local matches change for **all districts**; however, these changes may be so small that they are lost during rounding.

3 **Minimum funding adjustments.** Changes in the state/local split affect mandatory increase amounts, and therefore the minimum funding level, for **some districts.** As such, **some districts** may receive bigger or smaller minimum funding adjustments. These adjustments typically impact districts with declining student enrollment.

This brief documents all changes OREA made when recalculating the BEP formula for fiscal year 2016-17. Individually and as a whole, these changes do not make major amendments to the BEP formula, and their impact is negligible with regard to total BEP funding. The changes:

- Correct the coding of five high schools previously classified as elementary schools, affecting the number of school based positions generated for K-8 librarians, 9-12 librarians, 9-12 assistant principals, and K-8 library assistants;
- Eliminate rounding of overflow positions for 9-12 librarians, 9-12 assistant principals, and school secretaries to comply with Public Chapter 1020 (2016), which eliminated rounding for all positions;[3]
- Correct the Department of Children's Services' allocations for K-6 counselors, psychologists, and social workers;
- Revise the ADM used to estimate 12th grade students taking career and technical college readiness exams to more accurately project the number of students taking exams;
- Update the total miles transported for the career and technical transportation component;
- Update the insurance rate for transportation and maintenance and operations personnel;
- Create a "blended" state and local share rate for the Instructional Salary and Instructional Benefits category using all data from both categories, rather than salary data only;
- Update existing state and local share percentages for the Classroom and Non-Classroom categories to reflect changes in allocations above; and
- Update the mandatory increase calculation to reflect both the new Instructional state/ local split and changes in allocations above.

Finally, although it has no effect in the fiscal year 2016-17 calculation, OREA questioned the career and technical exam component in the Classroom category. TDOE is gathering information and considering revising the unit cost for this component in fiscal year 2017-18.

$362,000 net increase in final state share

With OREA's changes, no district experiences more than a 0.22 percent increase or decrease in state funding. Coffee County's state share increases by 0.22 percent, or $45,000; Davidson County loses $580,000 in state money, a 0.20 percent decrease.

Table 1: Five largest percentage increases and decreases in final state shares

District	Change in state share – increase/(decrease)	Change from TDOE
Coffee County	$45,000	0.219%
Rogersville City	$6,000	0.184%
Humboldt City	$11,000	0.177%
Smith County	$26,000	0.159%
West Carroll Special School District	$8,000	0.156%
Davidson County	($580,000)	-0.203%
Hancock County	($13,000)	-0.193%
Pickett County	($8,000)	-0.191%
Lakeland	($5,000)	-0.113%
Lincoln County	($22,000)	-0.109%

Table 2: Five largest dollar amount increases and decreases in final state shares

District	Change in state share – increase/(decrease)	Change from TDOE
Hamilton County	$144,000	0.096%
Knox County	$134,000	0.068%
Montgomery County	$113,000	0.075%
Madison County	$72,000	0.148%
Coffee County	$45,000	0.219%
Davidson County	($580,000)	-0.203%
Campbell County	($28,000)	-0.099%
Lincoln County	($22,000)	-0.109%
Grainger County	($20,000)	-0.093%
Shelby County	($20,000)	-0.003%
Tipton County	($20,000)	-0.033%

While OREA made five changes to the BEP formula itself, it is difficult, if not impossible, to measure exactly the individual effects of these changes on final state shares for each district. The rounding protocol used for fiscal capacity equalizations, which set state shares and local match rates, makes these changes difficult to track at the district level.[B] It is possible, however, to determine to the nearest dollar how these changes affect the *total* allocation – state and local shares – before fiscal capacity is applied.

Table 3 lists the changes in overall state and local allocations due to changes in the formula. Because the state pays varying percentages of the state share for each district, changes to the final state share are less than the values reported in Table 3. For example, Bartlett's total state and local allocation increases by $27,000 in the Non-Classroom category; however, as the state pays approximately 50 percent of this total, Bartlett's *final* state share in this category increases only by $16,000.

Table 3: Changes in total state and local allocations resulting from changes to the BEP formula before fiscal capacity equalizations – increase/(decrease)

Change to calculation	Change in overall allocation (state and local)
Correct school type coding for five high schools	$101,566
Eliminate overflow rounding for 9-12 librarians, 9-12 assistant principals, and school secretaries*	$792,081*
Change ADM used to estimate 12th grade students taking career and technical exams	($7,747)
Change total miles transported for career and technical transportation component	($33,370)
Update insurance rates for transportation and maintenance and operations personnel	($5,614)
Correct the Department of Children's Services' allocations for K-6 counselors, psychologists, and social workers	$166,708
Total change in state and local allocations*	**$605,125***

*The first two changes – school type coding and overflow rounding – are interrelated. Several of the miscoded high schools are also affected by overflow rounding. As such, a portion of the changes due to overflow rounding are double counted, as some of the increase stems from those five schools gaining positions, rather than changes from rounding. As a result, the totals from the first two changes cannot be added together to obtain an accurate figure. The actual change for the two combined is an increase of $485,148.

[B] When determining state shares, TDOE first rounds the final allocation – state and local – to the nearest thousand for each category (Instructional Salary, Classroom, etc.). TDOE then multiplies the rounded total by the state share rate to determine the state portion of the total allocation. The resulting state share is then rounded again to the nearest thousand. Because this figure is rounded twice, small changes may be lost: depending on the direction it rounds, a penny change in the total allocation may result in a final difference of nothing, or a final difference of $1,000. Because many changes to the formula are very small for each district, estimating the final impact of a change with a $1,000 margin of error is not necessarily accurate.

It is also possible to determine overall changes in each category for the state as a whole. With OREA's changes, the overall state share increases in the Non-Classroom category, and decreases in both Instructional categories and the Classroom category, for a net increase of $95,000 in the final state share.

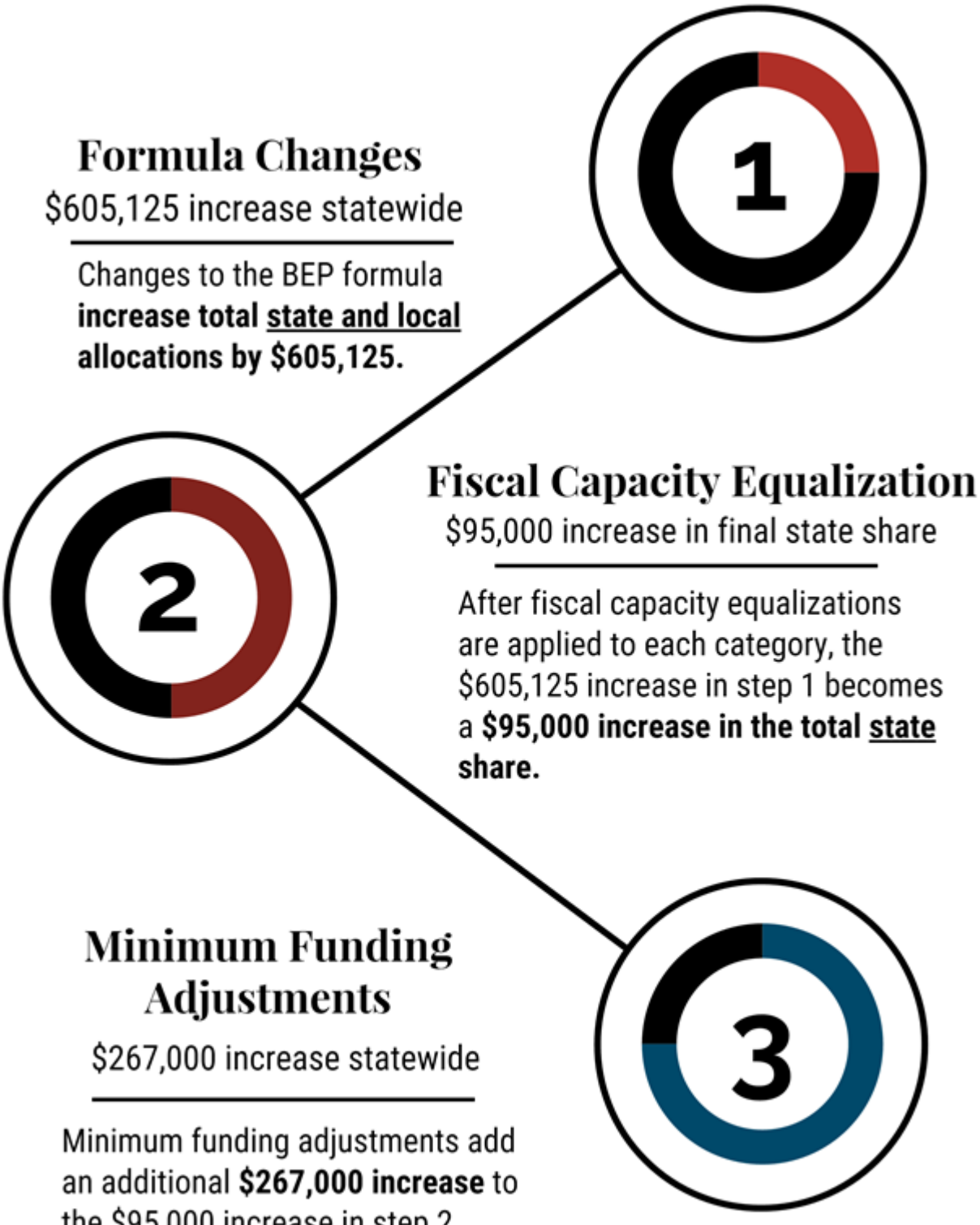
Table 4: Changes in total state and local allocations by category – increase/(decrease)

Category	Changes in total state and local allocation before fiscal capacity equalizations	Changes in total state share following fiscal capacity equalizations
Instructional Salary	$197,000	($87,000)
Instructional Benefits	$57,000	($20,000)
Classroom	($55,000)	($41,000)
Non-Classroom	$412,000	$243,000
Total	**$611,000**	**$95,000**

The Instructional Salary and Instructional Benefits categories pose an interesting question: How can an increase in the state and local total result in a *decrease* in the final state share? The change occurs because the calculation has two moving parts: changes to the formula itself, which increase total state and local allocations by $197,000 and $57,000, respectively; and changes to the state share and local match rates. See page 16 regarding the creation of a blended state/local split for the Instructional categories.

Accordingly, while the state still pays 70 percent overall for the categories, as specified in law, more money shifts *away* from some of the largest districts with the biggest allocations than money shifts *to* the smaller districts. This results in less state expenditures overall. While it may seem logical that these changes would result in *no* net change, rather than a decrease of $87,000 or $20,000, it is important to remember the size of the Instructional allocations. The Instructional Salary's entire state share is over $2 billion; thus, a decrease of $87,000 is less than 0.005 percent of the total. In other words, even with different state shares and local match rates, the state still pays the required 70 percent.

Finally, changes to minimum funding levels result in an additional statewide increase of $267,000, and account for the remaining changes to the BEP. Coupled with the $95,000 increased state share for all four categories, the increased minimum funding adjustments comprise the rest of the $362,000 state increase. For an explanation of minimum funding adjustments, see page 22.


Formula Changes
$605,125 increase statewide
Changes to the BEP formula increase total state and local allocations by $605,125.
1
Fiscal Capacity Equalization
$95,000 increase in final state share
After fiscal capacity equalizations are applied to each category, the $605,125 increase in step 1 becomes a $95,000 increase in the total state share.
2
Minimum Funding Adjustments
$267,000 increase statewide
Minimum funding adjustments add an additional $267,000 increase to the $95,000 increase in step 2, resulting in an overall increase of $362,000 in state money.
3

Tier 1: Five changes to the BEP formula before fiscal capacity equalizations

OREA identified five issues with the BEP formula itself; the resulting changes affect total state and local allocations before fiscal capacity equalizations are applied.

Changes in school based positions for select districts due to school type coding

Net result: $101,566 increased state and local allocation before fiscal capacity equalizations

Districts affected: Five (see Appendix A)

Most components funded in the BEP are based on school districts' overall ADM, or select portions of it. The calculation may use specific grade bands, for example, such as K-3 or 9-12, or select student populations, such as special education students or English learners.

Several instructional position components, however, are based on individual *school* ADM, rather than the district's ADM as a whole. Additionally, many of these positions are divided into grade bands, and depend on whether the individual school is classified as an elementary school, high school, or "all" (K-12).

Table 5: School based positions

Category	Component	ADM Used in Calculation
Instructional	K-8 librarians	individual school K-8 ADM
	9-12 librarians	individual school 9-12 ADM
	principals	individual school K-12 ADM
	K-8 assistant principals	individual school K-8 ADM
	9-12 assistant principals	individual school 9-12 ADM
Classroom	K-8 library assistants	individual school K-8 ADM
Non-Classroom	school secretaries	individual school K-12 ADM

Due to an error in the formula, five high schools were coded as elementary schools. As a result, they did not generate funding for 9-12 positions, but instead generated funding for K-8 positions:

- Coffee County Raider Academy;
- E.W. Grove School (Henry County);
- Lincoln County Ninth Grade Academy;
- Northview Senior Academy (Sevier County); and
- Bartlett Ninth Grade Academy.

OREA's changes correct the school type coding for these schools. While some districts lose positions and others gain them, the changes result in a net increase in the total state and local allocation before fiscal capacity equalizations in both Instructional categories, and a decrease in the Classroom category.

Table 6: Changes in school based positions due to school type coding; total state and local allocation before fiscal capacity equalizations – increase/(decrease)

Position	Change	Salary	Retirement	CDF	Insurance	Total
K-8 librarians	(5.0)	($222,150)	($37,077)	($2,319)	($29,246)	**($290,791)**
9-12 librarians	4.5	$199,935	$33,369	$2,319	$26,321	**$261,944**
K-8 assistant principals	—	—	—	—	—	—
9-12 assistant principals	2.5	$111,075	$18,538	$2,319	$14,623	**$146,555**
K-8 library assistants	(0.5)	($11,050)	($1,788)	($574)	($2,730)	**($16,142)**

The values in Table 6 reflect changes in *overall* state and local allocations. Because the state pays varying percentages of the state share for each district, changes to the final state share are less than the values shown in the table. Due to the rounding procedure used during fiscal capacity equalizations, however, it is difficult to determine the exact effect, to the nearest dollar, of the changes shown on each district's final state share. (See footnote B.)

Additionally, because the changes shown in Table 6 affect both the statewide total and select districts' totals, they may affect state shares and local match rates for all districts. Every district's allocation affects every other district through fiscal capacity equalizations. Keeping all other factors constant, increasing one district's state share decreases every other district's state share. Consequently, even though this change to the formula affects only five districts, these changes may be passed on to *every* district during fiscal capacity equalizations.

Changes in select school based positions as a result of eliminating overflow rounding

Net result: $792,081 increased state and local allocation before fiscal capacity equalizations*

Districts affected: 131 (see Appendix A)

*This total includes the previous changes made by reclassifying five schools from elementary schools to high schools. Accordingly, a portion of this total is double counted, as some of the increase stems from those five schools gaining positions, rather than changes from rounding. As a result, the totals from the previous section cannot be added to this total to get an accurate figure – the correct combined total for the two changes is $485,148.

Public Chapter 1020 (2016) eliminated rounding for all positions; however, TDOE continued rounding "overflow" positions for select school based positions: 9-12 librarians, 9-12 assistant principals, and school secretaries.[4]

For these components, "overflow" positions occur in large schools. For example, 9-12 librarians are generated based on a schedule: schools with fewer than 300 9-12 students receive 0.5 positions, schools with 300 to 999 students receive one position, and so on. Schools with 1,500 or more students receive a "base" of two positions, plus overflow positions. In this case, overflow positions are calculated at a rate of one additional position for every 750 students over the initial 1,500. In fiscal year 2016-17, TDOE rounded this overflow to the nearest 0.5 positions.

Example 1: Overflow positions for 9-12 librarians

Andrew Jackson High School has 2,725 students in grades 9-12. It receives a base of two librarians for its first 1,500 students. The remaining 1,225 students are "overflow" students that generate "overflow" positions at a rate of one librarian per 750 students. The additional librarian positions are thus:

$$\frac{1{,}225 \text{ students}}{750 \text{ students}} = 1.633 \text{ positions.}$$

TDOE rounded this overflow to the nearest half, or 1.5 positions, so that Andrew Jackson High School receives 3.5 positions total. OREA's changes eliminate rounding, giving the school 3.633 positions.

Because only schools in the top tier of the funding schedule receive overflow positions, not all schools – only the largest ones – are affected by these changes.[C]

OREA changes impact the totals of all three positions affected by overflow rounding in the Instructional and Non-Classroom categories. The values in Table 7 give the change in the total state and local allocation before fiscal capacity equalizations.

[C] It is important to note that, as these are school based positions, *school* size, not *district* size, matters. For example, even though Davidson County and Shelby County are the largest districts in the state, they are not necessarily most affected by overflow rounding; although they are large districts, they may not have larger than average schools. Therefore, large districts – or any size of district – should not be disproportionately affected by these changes.

Table 7: Changes in school based positions due to eliminating rounding; total state and local allocation before fiscal capacity equalizations

Position	Change	Salary	Retirement	CDF	Insurance	*Total*
9-12 librarians*	3.27	$145,096	$24,217	$614	$19,102	**$189,029**
9-12 assistant principals*	3.21	$142,423	$23,770	$4,078	$18,750	**$189,021**
school secretaries	9.87	$307,079	$49,685	$3,362	$53,905	**$414,032**

*These positions include the previous changes made by reclassifying five schools from elementary schools to high schools. Accordingly, these totals are, in a sense, artificially inflated, as some of the increase stems from those five schools gaining positions, rather than rounding. As a result, the totals from Table 6 and this table cannot be added to get an accurate figure – the correct combined total for the two changes is $485,148.

As noted previously, the values above reflect changes in *overall* state and local allocations. Changes in the final state shares for districts affected will be smaller than those listed above, as the state pays only a portion of each category. Furthermore, as detailed in footnote B, it is difficult to exactly track the impact of these changes on the final state share due to rounding procedures.

Because the changes shown in Table 7 affect both the statewide total and select districts' totals, they may affect the state/local split for all districts.

Changes in career and technical college readiness exam allocation due to ADM used in calculation

Net result: $7,747 decreased state and local allocation before fiscal capacity equalizations

Districts affected: 43 (see Appendix A)

The Classroom category funds college readiness for 12th grade Career and Technical Education (CTE) students. The ADM used to generate funding for this component is not the actual number of full-time equivalent (FTE) students in grade 12, however, but rather an estimate found by dividing the total number of FTE students by 4.[D] Although this total is divided by 4 to estimate 12th graders, the ADM used in TDOE's calculation includes CTE students in grades 7-8. While there are relatively few CTE students in grades 7-8, the 12th grade estimate is nonetheless inflated.

[D] All CTE ADMs are calculated on a "full-time equivalent" basis. "Full-time equivalent," as defined in TCA 43-3-302(8), is the number of hours a student spends in a class – in this case, a CTE class – out of the total hours in the school week. For example, a student who spends five hours out of a 32.5-hour school week in CTE classes counts as 0.15 CTE students.

OREA's calculation changes the 12th grade estimate by dividing only 9-12 students, rather than 7-12 students, by 4. In doing so, the estimate of 12th grade FTE students decreases by approximately 430, reducing the cost of the component by $7,747.

As fiscal capacity equalizations have not yet been applied to this total, only a portion of this change – approximately 75 percent statewide – will be realized in the final state share. The change for each district will vary depending on the district's local match rate. Furthermore, because this change affects both the statewide total and every district's total, it may affect state shares and local match rates for all districts.

In the course of research, OREA questioned the nature of the exams included in this component. In the past, this component was intended to fund WorkKeys exams, a job skills assessment attached to the ACT. Presently, while districts may continue administering WorkKeys, many districts give industry certification tests to CTE students in fields such as welding or IT. The $18.00 unit cost funded in fiscal year 2016-17 for this component does not consider the cost of professional certification exams, and is significantly lower than the fee for many of these tests. TDOE is gathering information on costs to consider including in the BEP formula for fiscal year 2017-18.

Changes in career and technical transportation allocation due to student miles transported

Net result: $33,370 decreased state and local allocation before fiscal capacity equalizations

Districts affected: 22 (see Appendix A)

Twenty-two school districts transport Career and Technical Education (CTE) students to classes at either another school district, or a Tennessee College of Applied Technology (TCAT). Funding for this component is based on a unit cost per student, per mile transported. The unit cost is inflated annually each year based on a non-compensation inflation factor.

To find the transportation cost of each student, the updated unit cost is multiplied by the number of miles the student is transported ("student miles"). The district's total cost of the component is the unit cost per student, per mile transported multiplied by the number of student miles transported.

Example 2: Career and Technical Transportation

Andrew Jackson High School transports 15 CTE students to the neighboring James K. Polk TCAT, which is eight miles away. Andrew Jackson High School thus transports a total of 120 "student miles." This figure is multiplied by the fiscal year 2016-17 unit cost of $30.85, generating $3,702 in CTE transportation funding.

TDOE's fiscal year 2016-17 CTE transportation funding calculation did not update the statewide total of "student miles." Rather than using the fiscal year 2016-17 total of 38,591 student miles, it instead based the allocation on the 39,673 student miles transported in the previous year. In doing the calculation, TDOE effectively funded CTE transportation at a unit cost of $31.72 per student rather than $30.85.

With OREA's changes, all 22 districts that transport CTE students lose funding. In total, the changes generate $33,370 less for this component before fiscal capacity equalizations. As with the previous changes, only a portion of this total – roughly 75 percent statewide – will be realized in the final state share after fiscal capacity is applied. Each district's decrease will vary depending on its local match rate; in addition, because this change affects both the statewide total and some districts' totals, it may affect state shares and local matches for all districts.

Changes in insurance rates for transportation and maintenance and operations personnel

Net result: $5,614 decreased state and local allocation before fiscal capacity equalizations

Districts affected: All

The majority of personnel in the BEP – teachers, librarians, nurses, etc. – generate "positions," based either on a funding ratio or an ADM schedule. That is, a school district may generate 105.2 regular K-12 teachers, 6.8 counselors, and 2.4 technology coordinators based on its ADM. Within the Non-Classroom category, concrete numbers of superintendents, technology coordinators, system secretaries, school secretaries, and custodians are also generated on a "position" basis. Salary allocations for these positions are found by multiplying the number of positions by a set salary unit cost. Similarly, insurance allocations for these positions are determined by multiplying the number of positions generated by the appropriate premium.

Transportation and maintenance and operations (M&O) personnel, by contrast, do not generate "positions." Instead, the BEP generates an overall transportation and M&O cost. Unlike the funding ratios used for personnel in other components, the calculation for transportation and M&O depends on more than ADM; transportation, for example, considers actual district expenditures for these categories in addition to ADM. To fund personnel, then, a percentage of the overall transportation and maintenance and operations costs is allocated for salaries for corresponding employees: 45 percent of the overall transportation cost, and 6o percent for M&O.

Because there are no positions generated for these components, insurance cannot be funded by multiplying the number of positions by the premium dollar amount. Rather, for these personnel, insurance is funded as a percentage of salary. This rate is the average insurance allocation generated for other Non-Classroom personnel (superintendent, technology coordinator, etc.) as a percentage of the salaries for these positions. As such, even though insurance is funded at a rate for transportation and maintenance and operations personnel, rather than a set premium, this rate is still linked to the premium dollar amount:

$$\text{insurance rate} = \frac{\text{insurance premiums for Non-Classroom positions}}{\text{salary for Non-Classroom positions}}$$

Due to the changes in overflow rounding for school secretaries, as previously described, more positions are generated for the state as a whole in the Non-Classroom category. This changes the overall salary allocation and insurance premiums, resulting in a slightly different insurance rate. The new rate decreases the total state and local allocation by $5,614.

Table 8: Changes in insurance rates for transportation and maintenance and operation personnel – increase/(decrease)

	TDOE	OREA	Change
Position-based Non-Classroom salaries	$264,345,688	$264,652,767	$307,079
Position-based Non-Classroom insurance premiums	$49,984,965	$50,038,869	$53,905
Insurance rate	18.9089%	18.9074%	-0.0016%
Total change in state and local allocations			**($5,614)**

The decrease in Table 8 is a change in the *total* state and local allocation before fiscal capacity equalizations are applied; accordingly, only a portion of this change will be realized in the final state share. Because the change is so small, the rounding used to determine state shares and local matches makes it difficult to track the effect of this change for each district. Additionally, because this change affects both the statewide total and every district's total, it may slightly change local match rates and state shares for all districts.

Tier 2: Changes in fiscal capacity equalizations due to creating a new state/local split for the Instructional categories and updating the distribution of the remaining categories

The BEP has two parts: a state share and a statutorily required local match. To determine state and local shares, the BEP allocation is "equalized" for each district, based on each county's ability to pay for education, or fiscal capacity. Counties with less ability to fund education – a lower fiscal capacity – receive more state funding and have a lower local match than counties with more capacity to raise revenue.

Overall, the state pays 70 percent of both Instructional categories, as set in law in Public Chapter 1020 (2016). Depending on each county's fiscal capacity, however, the state may pay more or less than 70 percent of the Instructional allocation for each individual district. Similarly, the state pays 75 percent of the Classroom category and 50 percent of the Non-Classroom category overall.

Two types of changes affect the split between districts' state shares and corresponding local matches:

1. Changes in existing match rates for the Classroom and Non-Classroom categories due to OREA changes to the BEP formula, detailed above; and
2. Changes from creating a new state/local match rate for the Instructional categories using all data from both categories, rather than salary data only.

Changes in existing match rates due to previous changes

The final state and local share rates are based on three factors, as shown in the equations on page 18:

1. The combined fiscal capacity index, an average of values provided by TACIR and CBER;
2. The statewide total of all funds generated for each category; and
3. A district's total generated for each category (summed for all districts to compute element 2 above).

Element 1, the values from TACIR and CBER, are calculated independently from the BEP and are not affected by the issues OREA identified during the BEP verification process. Conversely, due to the formula changes earlier – new positions due to rounding, changes in career and technical transportation, etc. – both elements 2 and 3 change.

As a whole, statewide totals for all four categories (element 2) see a net increase or decrease with OREA's changes. Additionally, individual districts gain or lose funding, due to generating more or fewer positions and the corresponding changes in salaries, retirement benefits, and

insurance premiums (element 3). These changes in elements 2 and 3 lead to generating slightly different local match rates under OREA's changes. Because the change in total allocations is so small, the resulting differences in local match rates are also very small. The greatest percentage changes for the Classroom and Non-Classroom categories are noted in Table 9.

Table 9: Greatest variance in existing state share percentages due to BEP formula changes

Category	District	Percent Change
Classroom	Sevier County	0.0027%
	Bledsoe County	-0.0264%
Non-Classroom	Moore County	0.2343%
	Pickett County	-0.1717%

These values reflect changes in state funded allocations, not the local match rate. For example, the state will pay an additional 0.0027 percent of Sevier County's Classroom category with OREA's changes.

New Instructional state/local split

Public Chapter 1020 (2016) split the previous Instructional category into two categories: Instructional Salary and Instructional Benefits. Overall, the state pays 70 percent of both categories, as it did for the single Instructional category previously.

In fiscal year 2016-17, TDOE calculated the state/local split for both Instructional categories using data from the Instructional Salary category only – data for retirement and insurance was not used to calculate the state/local split for the Instructional Benefits category. The resulting state funded percentages, based on salary allocations only, were applied to both the Instructional Salary and Instructional Benefits categories.

Because the Instructional Salary and Instructional Benefits categories are so closely related, it may be surprising that not including benefits data affects the calculation. By using salary data only, however, the ten districts with the highest Cost Differential Factor (CDF) values generate slightly higher state share rates and correspondingly lower local match rates than they would if the fiscal capacity equalization also included retirement and insurance data.

The reason for this change is complicated, and is more easily illustrated by calculating state and local share rates separately for the Instructional Salary and Instructional Benefits categories. When the calculation is separated, the state still pays 70 percent overall for both categories; however, districts generate slightly different state and local share rates. This difference is directly attributable to a county's CDF. Somewhat analogous to a cost of living adjustment, CDF is, in a sense, a "cost of doing business" adjustment. CDF was developed based on the idea that

school districts in counties with generally higher wages may need to offer higher salaries to attract and retain teachers. As a result, counties with relatively higher than average wages in the private sector receive a CDF adjustment, or additional BEP funding for salaries and retirement contributions.[E]

In essence, districts with the highest CDF values have different Instructional state share rates due to the varying presence of CDF in their overall allocations. In the Instructional Salary category, for example, districts receive CDF adjustments for salaries, which account for 100 percent of the funds generated in the category. In the Instructional Benefits category, however, CDF is applied only to retirement contributions, which make up approximately 56 percent of the total generated. Districts do not receive a CDF adjustment for insurance premiums, which account for the remaining funds. Consequently, districts receiving CDF generate proportionally less CDF money in the Instructional Benefits category than the Instructional Salary category.

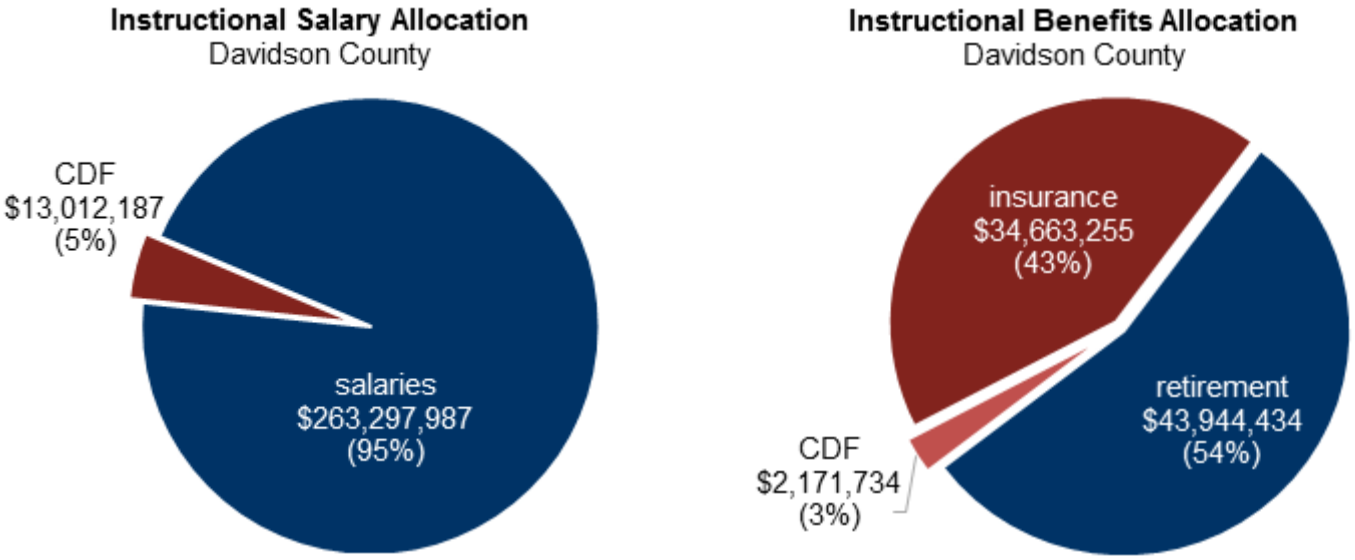
For example, in fiscal year 2016-17, Davidson County has the second highest CDF value, funded at 104.94 percent.[F] In the Instructional Salary category, Davidson County generates $276,310,000 in total state and local money: roughly $263,298,000 in salaries, and $13,012,000 in CDF. CDF accounts for 4.7 percent of Davidson County's overall allocation.

In the Instructional Benefits category, Davidson County generates $80,779,000 in total state and local funds: $43,944,000 in retirement contributions, $34,663,000 in insurance premiums, and $2,172,000 in CDF. In the Instructional Benefits category, CDF comprises only 2.7 percent of Davidson County's allocation.

[E] Public Chapter 1020 (2016) reduced CDF funding from 50 percent to 25 percent of the full value calculated by CBER, and did not guarantee this funding in future years. Completely phasing out CDF funding would eliminate the differential detailed in this section: districts would have identical state share rates and local matches in the Instructional Salary and Instructional Benefits categories, less any minor differences due to rounding.

[F] Williamson County School District and Franklin Special School District, both located in Williamson County, have the highest CDF, funded at 107.05 percent. Because fiscal capacity equalizations are done at the county level – meaning both the county and special school district have the same local match rate – it is easier to walk through an example in a county with only one district. The same analysis applies for all other counties.

Exhibit 1: Davidson County's total state and local Instructional allocations



The reduced presence of CDF adjustments in the Instructional Benefits category influences fiscal capacity equalizations. In TDOE's calculation, which used Instructional Salary data to determine state and local share rates for both the Instructional Salary and Instructional Benefits category, CDF artificially inflated the state share rate for districts with the highest CDF values. TDOE's fiscal capacity equalization effectively assumed that districts receive CDF adjustments for insurance, even though they do not. Running fiscal capacity equalizations separately takes CDF into account correctly – applied to salaries and retirement contributions, and not applied to insurance – and generates a different state/local split for the two Instructional categories.

For both Instructional categories, a county's local match rate is given by:

$$\frac{\left[\left[\text{total statewide allocation} \times 30\%\right]_{\substack{\text{total local}\\ \text{share}}} \times \text{county CBER-TACIR factor}\right]_{\substack{\text{dollar amount}\\ \text{of county share}}}}{\text{total state and local county allocation}}$$

Rearranging the formula above explains why counties with high CDF adjustments receive a higher local match in the Instructional Benefits category. Neither the 30 percent total local share nor the county CBER-TACIR factor changes between the two categories. The only change occurs in the ratio between the total statewide allocation and the total county allocation, in bold below:

$$\left[\frac{\textbf{total statewide allocation}}{\textbf{total state and local county allocation}}\right] \times 30\% \times \text{county CBER-TACIR factor}$$

The inverse of this factor is the county's allocation as a percentage of the total allocation for all 95 counties, or how much the county generates out of the entire state:

$$\frac{\text{total state and local county allocation}}{\text{total statewide allocation}}$$

Plugging in the figures for Davidson County explains the changing local match rates. As a whole, Davidson County generates more of the statewide total in the Instructional Salary category than the Instructional Benefits category. This is due to the district generating proportionally more CDF in the Instructional Salary category. Holding all other factors constant, this increases Davidson County's total state and local allocation in the Instructional Salary category, and lowers its local match. Conversely, with the reduction in CDF in the Instructional Benefits category, Davidson County's overall allocation in relation to the rest of the state's decreases – the county generates less of the statewide total – increasing the district's local match and reducing its state share.

Table 10: Davidson County's total state and local allocation as a percentage of the total statewide allocation

Category	Total District Allocation	Total Statewide Allocation*	County Percentage of Total
Instructional Salary	$276,310,000	$2,870,875,000	9.62%
Instructional Benefits	$80,779,000	$851,681,000	9.48%

*Because the Department of Children's Services (DCS) is entirely state funded (the state pays 100 percent of its allocation, with no corresponding local match), its allocation is not included in these totals.

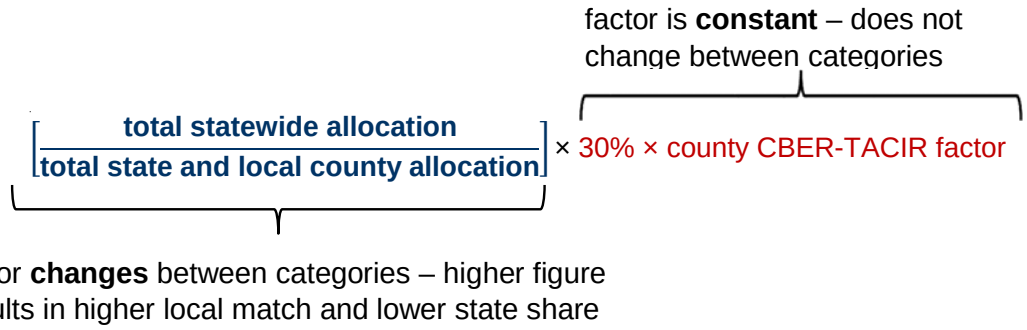
The fiscal capacity equalization uses the inverse of the percentage in Table 10. A higher initial percentage in the Instructional Salary category then results in a lower figure when the ratio is flipped. The opposite is true for the Instructional Benefits category: a smaller initial ratio results in a larger inverse. Thus, the final factors used in fiscal capacity equalizations – noted in boxes in Table 11 – are smaller in the Instructional Salary category (10.39) and larger for Instructional Benefits (10.54).

Table 11: Changing the factors used in Davidson County's fiscal capacity equalization

Instructional Salary	Instructional Benefits
$\frac{\text{total state and local county allocation}}{\text{total statewide allocation}} = 0.0962$	$\frac{\text{total state and local county allocation}}{\text{total statewide allocation}} = 0.0948$
↓↓	↓↓
$\frac{\text{total statewide allocation}}{\text{total state and local county allocation}} = \mathbf{10.39}$	$\frac{\text{total statewide allocation}}{\text{total state and local county allocation}} = \mathbf{10.54}$

Inserting the smaller factor into the equalization formula used to determine the local match rate results in a smaller local match, and, correspondingly, a higher state share in the Instructional Salary category. Similarly, inserting the larger figure for the Instructional Benefits category results in a higher local match and a lower state share.

Exhibit 2: Determining local match rate



This analysis extends to the three counties – 10 districts – with the highest CDF. These districts' state shares decrease in the Instructional Benefits category; all other districts experience an increased state share and lowered local match.[G]

[G] A very careful reader may point out that *both* factors are changing in the numerator and denominator of this factor: while counties with CDF generate proportionally less in the Instructional Benefits category due to CDF, the *statewide total* decreases by the same amount. This is completely true; however, the five counties that receive CDF adjustments absorb the entirety of this loss. The totals for counties that do not receive CDF funding do not change. Taking the same county total in the Instructional Benefits category and dividing it by a proportionally smaller statewide total results in a larger allocation for these counties in relation to the entire state – that is, these counties generate more of the statewide total in the Instructional Benefits category than the Instructional Salary category. As shown for Davidson County above, an increased allocation decreases the local match rate and increases state funding, holding all other factors constant.

Creation of a blended Instructional rate

While calculating state and local share rates separately for the Instructional Salary and Instructional benefits category correctly accounts for CDF, TDOE indicated that it intends to create a blended Instructional rate using all data from both categories: salary, retirement, insurance, and CDF.

Applying a blended rate to both categories has the same net effect as using separate rates for each category. Only the distribution of funds changes: when using separate rates, districts retain the original Instructional Salary allocation calculated by TDOE, and experience changes only in their Instructional Benefits allocations. When using a blended or hybrid rate, both Instructional Salary and Instructional Benefits allocations change. When totaling the two categories and the BEP allocation as a whole, however, the net effect is the same, less any minor variation due to the rounding protocol of the equalization calculation.

Regardless of the method, state shares and local match rates shift slightly among districts. Ten districts – those with the highest CDF – experience a decrease, resulting in less state funding and a higher local match.[H] All remaining districts see a positive shift and receive more state funding with a lower local match. In general, this shift occurs in descending order: counties with the lowest state share and highest local match rates experience the biggest increase in the state share rate, and counties with the highest state share and lowest local match rate see the smallest change.

Although four additional districts receive CDF in fiscal year 2016-17 (Anderson County, Clinton City, Oak Ridge, and Knox County), their CDF percentage is not high enough to result in a decrease.

[H] Fayetteville City's and Lincoln County's state share also decreases slightly (-0.00012 percent); however, this decrease primarily results from Lincoln County's loss of instructional positions due to miscoded high schools, not from creating a blended Instructional state share rate.

Table 12: Districts with decreased state share rates in the Instructional categories

District	Funded CDF	Change in State Share Rate
Franklin Special School District	107.048%	-0.21476%
Williamson County	107.048%	-0.21476%
Davidson County	104.942%	-0.16178%
Arlington	104.472%	-0.07585%
Bartlett	104.472%	-0.07585%
Collierville	104.472%	-0.07585%
Germantown	104.472%	-0.07585%
Lakeland	104.472%	-0.07585%
Millington	104.472%	-0.07585%
Shelby County	104.472%	-0.07585%

Tier 3: Changes in mandatory increase calculation

All districts have a minimum level of funding: as set by Public Chapter 1020 (2016), a district cannot receive less than it received in fiscal year 2015-16, adjusted for declining ADM, plus any mandatory increase costs:[5]

FY 2016-17 minimum funding = FY 2015-16 base funding + mandatory increase

A district that does not generate enough funding through the BEP in the current year to reach its minimum funding level triggers a minimum funding adjustment. Formerly termed "baseline" funding, this adjustment "makes up the difference," so that the district ultimately receives its minimum level of funding.

Mandatory increase calculates any increase in funds generated in the Instructional categories due to increases in the salary unit cost, the corresponding retirement contributions, and increased insurance premiums. This funding is built into the formula to ensure that districts with declining ADM, and therefore declining BEP funding, receive enough money to increase salaries and benefits at the same levels as other districts, despite reductions in other expenditures.

For calculation purposes, the mandatory increase cost is the difference between the Instructional money a district receives in the current year and the amount the district *would have* received if there had been no salary unit cost raises or insurance increases. The calculation is:

$$\text{mandatory increase} = \text{instructional costs with increases} - \text{instructional costs without increases}$$

Table 13: Factors used to compute mandatory increase

Instructional Factors with Increases		Instructional Factors without Increases	
Current year	**Prior year**	**Current year**	**Prior year**
• ADM • Salary • Retirement contribution rate • Insurance premium • CDF • State share rate*		• ADM • CDF • State share rate*	• Salary • Retirement contribution rate • Insurance premium

*OREA's changes multiply all factors by the newly created blended state share rate for the Instructional categories.

OREA's changes affect the mandatory increase calculation in two ways:

1. OREA multiplies all components by the blended state/local split values for the Instructional categories (Tier 2); and
2. Changes in the number of instructional positions, resulting from the formula changes (Tier 1), affect the allocations for salaries, retirement, and insurance.

Both changes to the formula and changes to fiscal capacity equalizations affect some districts' mandatory increase values, and by extension, their minimum funding levels. The change creates two scenarios:

1. Districts that do not generate their minimum funding threshold through the BEP formula may receive a different minimum funding adjustment with OREA's changes. In fiscal year 2016-17, 44 districts received these adjustments under TDOE's calculation, and 43 under OREA's changes.
2. Districts that meet their minimum funding threshold through the BEP formula do not receive any minimum funding adjustments. Accordingly, even though the mandatory increase amount may change for these districts with OREA's changes, it has no effect on the final state share.

As a result of OREA's changes, districts trigger an additional $267,000 in minimum funding adjustments statewide. Furthermore, minimum funding adjustments mitigate, or even completely negate, the Tier 1 and Tier 2 changes made to the BEP formula for some districts. For example, with OREA's changes, Shelby County's funding decreases in two parts: first, due to changes in the formula and state and local shares, the district's total state share generated through the formula decreases by $271,000 after fiscal capacity equalizations. Second, as a result of this decrease, Shelby County's mandatory increase, and by extension, its minimum funding level, decreases by $20,000.

Because Shelby County did not generate enough money to reach its minimum funding level with or without Tier 1 or Tier 2 changes, however, the district triggers a minimum funding adjustment. With OREA's changes, this adjustment cancels out $251,000 of Shelby County's $271,000 decrease, so that Shelby County loses only $20,000 in its final state share. This $20,000 loss results directly from the decrease in the mandatory increase amount. The same process takes place with several districts that otherwise would have lost funding due to Tier 1 and 2 changes. Effectively, due to Tier 3 minimum funding adjustments, Tier 1 and Tier 2 changes do not ultimately impact some districts.

Exhibit 3: Minimum funding adjustments cancel out changes to BEP formula in Shelby County

Step 1: Shelby County's minimum funding level is found by adding its base funding from fiscal year 2015-16 to its fiscal year 2016-17 mandatory increase. Its fiscal year 2015-16 base funding does not change due to Tier 1 or Tier 2 changes, as this value is set by statute and based on final allocations in the previous fiscal year. OREA's changes result in a $20,000 lower mandatory increase, however, and correspondingly, a decrease of $20,000 in the minimum funding level.

	TDOE	OREA	Change
FY 16 base funding	$562,388,000	$562,388,000	—
Plus mandatory increase	18,714,000	18,694,000	(20,000)
FY 17 minimum funding level	$581,102,000	$581,082,000	($20,000)

Step 2: To find its minimum funding adjustment, the BEP funding Shelby County generates in fiscal year 2016-17 is subtracted from its minimum funding level.

Due to changes in the BEP formula and fiscal capacity equalizations, Shelby County generates $271,000 less through the BEP formula under OREA's changes. Accordingly, subtracting OREA's $271,000 lower BEP state funding from OREA's $20,000 lower minimum funding level increases Shelby County's minimum funding adjustment by $251,000. This $251,000 *increased* adjustment occurs because the district's base funding from fiscal year 2015-16 is not affected by OREA's changes – therefore, with the changes, the minimum funding adjustment must make up a bigger "gap" to ensure Shelby County reaches its minimum funding level.

	TDOE	OREA	Change
FY 17 minimum funding level	$581,102,000	$581,082,000	($20,000)
Less FY 17 state BEP funding	(575,671,000)	(575,400,000)	271,000
FY 17 minimum funding adjustment	$5,431,000	$5,682,000	$251,000

Step 3: Shelby County's minimum funding adjustment is added to its state share generated through the BEP. The resulting total is Shelby County's final state share. The district's increased minimum funding adjustment with OREA's changes effectively cancels out $251,000 of the $271,000 decrease due to changes in the formula. As a result, Shelby County's final state share decreases by only $20,000, due entirely to the reduction in mandatory increase.

	TDOE	OREA	Change
FY 17 minimum funding adjustment	$5,431,000	$5,682,000	$251,000
Plus FY 17 state funding	575,671,000	575,400,000	(271,000)
Final BEP State Share	**$581,102,000**	**$581,082,000**	**($20,000)**

Changes in DCS funding due to county sharing provision

Net result: $166,708 increase in total allocation before fiscal capacity equalizations; $9,000 increase in *final* statewide expenditures

Districts affected: One

While the Department of Children's Services (DCS) is funded like a school district for all BEP categories, a different process is used to determine final allocations. School districts cannot receive funding below a set minimum, which is their "base" allocation from fiscal year 2015-16 (adjusted downward for declining ADM) plus the cost of funded teacher raises and increased insurance premiums.

Rather than using the fiscal year 2015-16 allocation for DCS in the minimum funding calculation, a different "base" amount is calculated. Although the BEP generates a local match

for districts, in practice, many school districts contribute more local funding than is required. As a state agency, however, DCS is entirely state funded and has no corresponding local match or local funding body to appropriate additional local money.

> The per-pupil expenditure figure used to determine the minimum funding for DCS is based on Average Daily Attendance (ADA), while all BEP components are based on Average Daily Membership (ADM). ADA is typically lower than ADM, as not every student is present at school every day. Thus, by multiplying the ADA-based per-pupil amount by ADM, DCS receives more funding than may be intended.

To provide a similar amount of funding equivalent to the required local match and additional above and beyond local money for DCS, the base amount used to set the minimum funding level for DCS reflects the statewide average of state and local expenditures per student in the previous year. DCS cannot receive less funding than this per-pupil expenditure multiplied by its ADM, plus any mandatory increase costs:

DCS minimum funding = per-pupil total + mandatory increase

As the per-pupil figure includes above and beyond local expenditures, this minimum funding calculation provides the "equivalent" additional local money DCS would receive if it were a school district with additional local revenues. Typically, DCS does not generate enough funding through the BEP formula to meet this average per-pupil amount; consequently, additional money is allocated each year to reach this threshold.

As such, the changes detailed in Table 14 do not significantly affect the *final* allocation for DCS. While the changes increase the Instructional totals generated through the BEP formula, DCS still does not generate as much as its per-pupil base figure. Consequently, the only change to the minimum funding level for DCS is an increase of $9,000 in mandatory increase costs, due to the new positions generated from changes to the formula. This increases the final state payment for DCS by $9,000. Because DCS totals do not factor into the fiscal capacity equalization used to determine state and local shares, funding for all other districts is not affected by these changes.

Several positions in the Instructional categories are based on "county sharing" – that is, funding for the positions may be shared between multiple districts in the same county. As a safeguard for small districts and counties, every county must receive a minimum of one K-6 counselor, one 7-12 counselor, one psychologist, and one social worker. This requirement is necessary in part because of the high funding ratios for these positions. Psychologists, for example, are funded at a ratio of one position per 2,500 students, and small districts may not have enough students to generate a position on their own. Accordingly, for such small districts, a county

minimum of one position per county is instituted, and districts receive their proportional share of funding based on ADM.

TDOE's calculation did not generate the minimum of one K-6 counselor, psychologist, and social worker for DCS in the correct manner. As stated previously, the changes shown in Table 14 prompt an increase of $9,000 for DCS, and do not affect final state shares for the remaining school districts in fiscal year 2016-17.

Table 14: Changes in DCS county shared positions

Position	Change	Salary	Retirement	Insurance	Total
K-6 counselors	0.89	$39,520	$6,596	$5,203	$51,319
Psychologists	1.00	$44,430	$7,415	$5,849	$57,695
Social workers	1.00	$44,430	$7,415	$5,849	$57,695
Total	**2.89**	**$128,380**	**$21,427**	**$16,901**	**$166,708**

Endnotes

[1] Justin P. Wilson, Comptroller of the Treasury, "Basic Education Program," Memo, addressed to Kevin Huffman, Commissioner of Education, B. Fielding Rolston, Chairman of the State Board of Education, Dolores Gresham, Senate Education Committee Chair, Richard Montgomery, House Education Committee Chair, December 6, 2011.

[2] Russell Moore, Director, Office of Research and Education Accountability, "Basic Education Program (BEP) Formula," Memo, addressed to Elizabeth Fiveash, Maryanne Durski, Brad Davis, September 20, 2016.

[3] Public Chapter 1020, 2016, http://share.tn.gov/sos/ (accessed July 7, 2016).

[4] Ibid.

[5] Ibid.

Appendix A: Districts affected by Tier 1 changes to the BEP formula

Changes in school based positions due to school type coding

1. Bartlett
2. Coffee County
3. Henry County
4. Lincoln County
5. Sevier County

Changes in select school based positions as a result of eliminating overflow rounding

1. Alamo City
2. Alcoa City
3. Anderson County
4. Arlington
5. Athens City
6. Bartlett
7. Bedford County
8. Benton County
9. Bledsoe County
10. Blount County
11. Bradley County
12. Bristol City
13. Campbell County
14. Cannon County
15. Carter County
16. Cheatham County
17. Chester County
18. Claiborne County
19. Clay County
20. Cleveland City
21. Clinton City
22. Cocke County
23. Coffee County
24. Collierville
25. Crockett County
26. Cumberland County
27. Davidson County
28. Dayton City
29. Decatur County
30. DeKalb County
31. Dickson County
32. Dyer County
33. Dyersburg City
34. Elizabethton City
35. Fayette County
36. Fayetteville City
37. Fentress County
38. Franklin County
39. Franklin Special School District
40. Germantown
41. Gibson Special School District
42. Giles County
43. Grainger County
44. Greene County
45. Greeneville City
46. Grundy County
47. Hamblen County
48. Hamilton County
49. Hancock County
50. Hardeman County
51. Hardin County
52. Hawkins County
53. Haywood County
54. Henderson County
55. Henry County
56. Hickman County
57. Houston County
58. Humboldt City
59. Humphreys County
60. Huntingdon Special School District
61. Jackson County
62. Jefferson County
63. Johnson City
64. Johnson County
65. Kingsport City
66. Knox County
67. Lakeland
68. Lauderdale County
69. Lawrence County
70. Lebanon City
71. Lenoir City
72. Lewis County
73. Lexington City
74. Lincoln County
75. Loudon County
76. Macon County
77. Madison County
78. Manchester City
79. Marion County
80. Marshall County
81. Maryville City
82. Maury County
83. McKenzie Special School District
84. McMinn County
85. McNairy County
86. Meigs County
87. Milan Special School District
88. Millington
89. Monroe County
90. Montgomery County
91. Moore County
92. Morgan County
93. Murfreesboro City
94. Newport City
95. Oak Ridge
96. Obion County

97. Oneida Special School District
98. Overton County
99. Paris Special School District
100. Pickett County
101. Polk County
102. Putnam County
103. Rhea County
104. Roane County
105. Robertson County
106. Rogersville City
107. Rutherford County
108. Scott County
109. Sequatchie County
110. Sevier County
111. Shelby County
112. Smith County
113. Stewart County
114. Sullivan County
115. Sumner County
116. Sweetwater City
117. Tipton County
118. Trenton Special School District
119. Trousdale County
120. Tullahoma City
121. Unicoi County
122. Union City
123. Union County
124. Van Buren County
125. Warren County
126. Washington County
127. Weakley County
128. West Carroll Special School District
129. White County
130. Williamson County
131. Wilson County

Changes in career and technical exam allocation due to ADM used in calculation

1. Anderson County
2. Arlington
3. Bartlett
4. Bedford County
5. Blount County
6. Bradley County
7. Bristol City
8. Campbell County
9. Cleveland City
10. Coffee County
11. Collierville
12. Cumberland County
13. Davidson County
14. Elizabethton City
15. Franklin Special School District
16. Germantown
17. Grainger County
18. Greeneville City
19. Hamblen County
20. Hamilton County
21. Hardeman County
22. Hawkins County
23. Hollow Rock-Bruceton
24. Houston County
25. Humboldt City
26. Knox County
27. Lawrence County
28. Loudon County
29. Madison County
30. Marion County
31. Maury County
32. McNairy County
33. Millington
34. Montgomery County
35. Oak Ridge
36. Putnam County
37. Rutherford County
38. Shelby County
39. Sullivan County
40. Sumner County
41. Warren County
42. Williamson County
43. Wilson County

Changes in career and technical transportation allocation due to student miles transported

1. Anderson County
2. Bedford County
3. Benton County
4. Bledsoe County
5. Carroll County
6. Carter County
7. Cocke County
8. Cumberland County
9. Greeneville City
10. Hamblen County
11. Jackson County
12. Knox County
13. Lewis County
14. Macon County
15. Marshall County
16. Morgan County
17. Oneida Special School District
18. Overton County
19. Robertson County
20. Scott County
21. Shelby County
22. Wayne County

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