

JUNE 2016

THE COST OF EDUCATION

Summary Report

An analysis of school-level education
spending in Hamilton County



METRO
IDEAS
PROJECT

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SUMMARY REPORT

About Our Contributors



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As Projects Editor, David led efforts to ensure this project was accessible, engaging, and meaningful to the public. He designed the data visualizations and interactive graphics featured throughout this report and served as the primary editor of the report.

About The Metro Ideas Project

The Metro Ideas Project (MIP) is a nonpartisan, independent public policy research organization that strives to bring data-driven perspectives and solutions to complex urban problems facing cities across the country in order to reduce systemic inequality and to inspire a better urban future.

We are rooted in the traditions of journalism, academia, and storytelling. By bringing smart, informed solutions to local governments and communities, we aim to be the idea engine for American cities.

Based in Chattanooga, Tennessee, our team is made up of professionals from a wide array of disciplines and backgrounds. We have set out to reveal truth through engaging and accessible research that makes an impact.

Find out more at metroideas.org/about.

About This Project

Over the past several months, the Metro Ideas Project embarked on an journey to explore education finance in Hamilton County in order to better understand the challenges, opportunities, and shortcomings of our current method for funding schools.

The research involved dozens of interviews with school officials, thousands of rows of financial data, hundreds of documents, and countless cups of coffee.

All of this work is the result of a simple question: how much do we spend per-student at each individual school in Hamilton County? That single inquiry led us down the rabbit hole of a tangled web of regulations, funding sources, and allocation formulas that tie the education funding landscape together. Far from the straightforward answer we set out to find, we discovered endless layers of complexity and abstraction.

In unearthing the data necessary to answer our research question, our team found a diverse district relying on a traditional one-size-fits-all funding model that prioritized compliance and uniformity at the cost of flexibility for school leaders.

Principals in our community control only up to 2 percent of their budget and funding arrives to schools in restrictive staffing ratios and predetermined curricula.

In this report, the Metro Ideas Project proposes a different approach. We unpack the case for student-based budgeting as a better way to allocate school funds. Moreover, we present some actionable, practical steps the Hamilton County Department of Education can take to improve communication and transparency.

But far from a panacea, the research and conclusions from this report are just one set of ideas in what should be a broader conversation about education. It is our hope that elected leaders, education officials, the non-profit sector and the broader public find value in this contribution to that critical discussion.

Community is what makes our work matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joda' followed by a stylized flourish.

Joda Thongnopnua
Executive Director

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ABBREVIATIONS

ADA	Average daily admission
ADM	Average daily membership
BEP	Basic education program
CAFR	Comprehensive annual financial report
ELL	English language learner
FY2015	Fiscal year beginning July 2014 and ending June 2015
HCDE	Hamilton County Department of Education
IDEA	Individuals with Disabilities Act
MIP	Metro Ideas Project
TVAAS	Tennessee Value-Added Assessment System

I. SUMMARY REPORT

How much do we spend on average per student in Hamilton County?

The Tennessee Department of Education's State Report Card estimates a districtwide per-student average of \$9,728 for the 2014–15 school year (TN Department of Education, 2015). Average spending, however, masks spending variations among schools with different student populations. The question, “How much do we spend on average per student at each school in Hamilton County?” is a lot harder to answer. It turns out that there isn't a satisfactory response to this question.

Understanding average per-student spending at individual schools is important in determining whether all schools are receiving adequate funds to meet their students' needs. Equitable resource allocation can help ensure that all students, regardless of race, socioeconomic background or ability, have equal opportunities to achieve success. Metro Ideas Project (MIP) set out to study average per-student spending at individual schools in Hamilton County.

We spoke to officials from Hamilton County Department of Education (HCDE), school principals and teachers, and other leaders in the education sector to understand school spending. We also looked at over a dozen datasets to estimate per-school average spending. We learned that the education budget is highly complex and that breaking down spending to the school level is challenging due to current budgeting practices.

While we were able to estimate average per-student spending at individual schools we recognize that not all expenditures were analyzed down to the school level. Based on our best estimate we saw variations across schools, corresponding to different achievement outcomes. This final report provides an overview of our findings.

For the full education report series go to: metroideas.org/projects/the-cost-of-education/.

SUMMARY REPORT

Motivations For This Study

Data on average per-student spending is available at the Hamilton County level. However, data on individual schools is not. This gap in information presents barriers to understanding issues of equity among schools. It also presents challenges to transparency, community engagement and better funding decisions.

Equity

Several studies in recent years have revealed that intradistrict spending is often unequal.

One study found that in four out of five urban school districts in Texas, the highest poverty schools had 10 to 15 percent less per-student expenditures from non-categorical program funds than the lowest-poverty schools (Roza, Miller, & Hill, 2005). A later study of 10 large urban districts found that on average, teachers in the highest poverty schools received lower salaries than teachers in the lowest poverty schools (Roza, 2008).¹

The U.S. Department of Education completed the most extensive study on intradistrict spending in 2011. The department looked at state and local funding on a per-school basis for all districts in the U.S. with a Title I school (Heuer & Stullich, 2011). The data for this study was based on conditional reporting from districts that received Title I funds from the American Recovery and Reinvestment Act for the 2008-09 school year. This was an exceptional opportunity for the Department of Education to study how districts across the nation were funding individual schools and to ensure that federal funds were not compensating for an unfair distribution of local and state funds to benefit more affluent schools.

Data was analyzed from over 82,000 schools in 50 states, plus Washington, D.C., and Puerto Rico. The analysis revealed a reality of inequitable spending. On one hand, over

40 percent of Title I schools received less state and local money for personnel than non-Title I schools in the same district, controlling for grade level. On the other hand, the study revealed that over 50 percent of Title I schools had expenditures above the non-Title I school average. Spending inequality appeared to be highest at the elementary school level.

Transparency and accountability

Understanding per-school spending encourages transparency and accountability.

When it's clear how financial resources are used at the school level, the public will better understand the effectiveness of funding decisions. Parents can more easily hold the district accountable. Civil society can advocate for more equitable resource allocation. And policymakers can build consensus around tough budget decisions.

Better transparency was one of the key drivers behind the Department of Education's 2011 study. Following the release of the study's results, a department official stated, "Transparency on resource allocation within school districts is critical to ensuring every child has access to the same educational opportunities. This new data highlights that the Title I comparability provision is broken and has failed to provide access to equitable resources, and that it is possible to fix it" (Heuer & Stullich, 2011). Without honest communication, education stakeholders do not have the tools to clearly identify waste or needs and effect change where it is needed.

Better decision making

Average per-student spending at the school level may be one additional variable affecting individual student success. But without this data, it is impossible to study correlations between spending and achievement metrics like test scores or graduation rates. Understanding how expenditure relates to outcomes would help district leaders make more informed and effective budgeting decisions.

¹ Districts studied include Austin, Dallas, Denver, Fort Worth, Houston, Los Angeles, Sacramento, San Diego, San Francisco, San Jose Unified.

SUMMARY REPORT

The Hamilton County Education Budget

This section provides an overview of the main revenue sources for Hamilton County's education budget and looks at how it is organized.

Revenue

HCDE oversees an annual budget of roughly \$400 million, which is funded by federal, state and local governments (Figure 1).

HCDE's fiscal 2015 budget was composed of roughly 12 percent (\$50 million) of federal money (Hamilton County, 2015). Of this money, 33 percent were Title I grants; 19 percent were Individuals with Disabilities Education Act (IDEA) grants (TN Department of Education, 2015).

Tennessee state funds are derived primarily from sales tax revenue. The funds are distributed to counties according to a formula known as the Basic Education Program (BEP). The BEP formula is intended to calculate enough funds to cover a basic education for Tennessee students.

This formula is driven primarily by student enrollment and covers three broad categories: instruction, classroom and non-classroom needs. For example, for every 20 students in grades K-3, the state contributes funding towards one teacher (State Board of Education, 2015). While the state calculates the funds necessary for a basic education, the burden of paying for that education falls on both state and local governments. The ratio of state and local funding is calculated by the BEP. As a county's ability to pay increases, the proportion of state funds decreases. Hamilton County's education budget was composed of roughly 34 percent (\$137 million) of state funds (Hamilton County, 2015).

Local government contributions to the education budget come primarily from property tax revenue. The BEP expects wealthier counties with higher fiscal capacities to pay for a greater share of their education systems. Hamilton County funds account for 54 percent (\$216 million) of the education budget (Hamilton County, 2015). Sixty-one

percent comes from property tax. Thirty-one percent comes from local option sales tax revenue.

Education budget structure

HCDE revenue is broken down into four funds (HCDE, 2015):

- **General purpose school fund:** This is HCDE's operating budget. This money is discretionary and goes towards the basic operations of the school system — like paying bills, buying textbooks and paying salaries and benefits. In FY2015, HCDE had a budget of \$345,319,137 for this fund.
- **Federal projects fund:** These funds are earmarked for specific purposes designated by the state or federal government, such as Title I and IDEA. Not all schools or students qualify for these funds. HCDE received \$31,679,204 for its federal projects fund in FY2015.
- **Food service fund:** These funds go directly to federal school nutrition programs. HCDE's food budget last year was \$19,895,927 in FY2015.
- **Self-funded projects fund:** Money in this fund comes from grants or donations from non-governmental entities and are usually earmarked for specific schools or programs. The amount of money in this fund totaled \$2,276,959 in FY2015.

Over 81 percent of the general purpose school fund goes towards salaries and benefits — approximately \$203 million in salaries and \$78 million in benefits in 2015 (HCDE, 2015).

FIGURE 1.

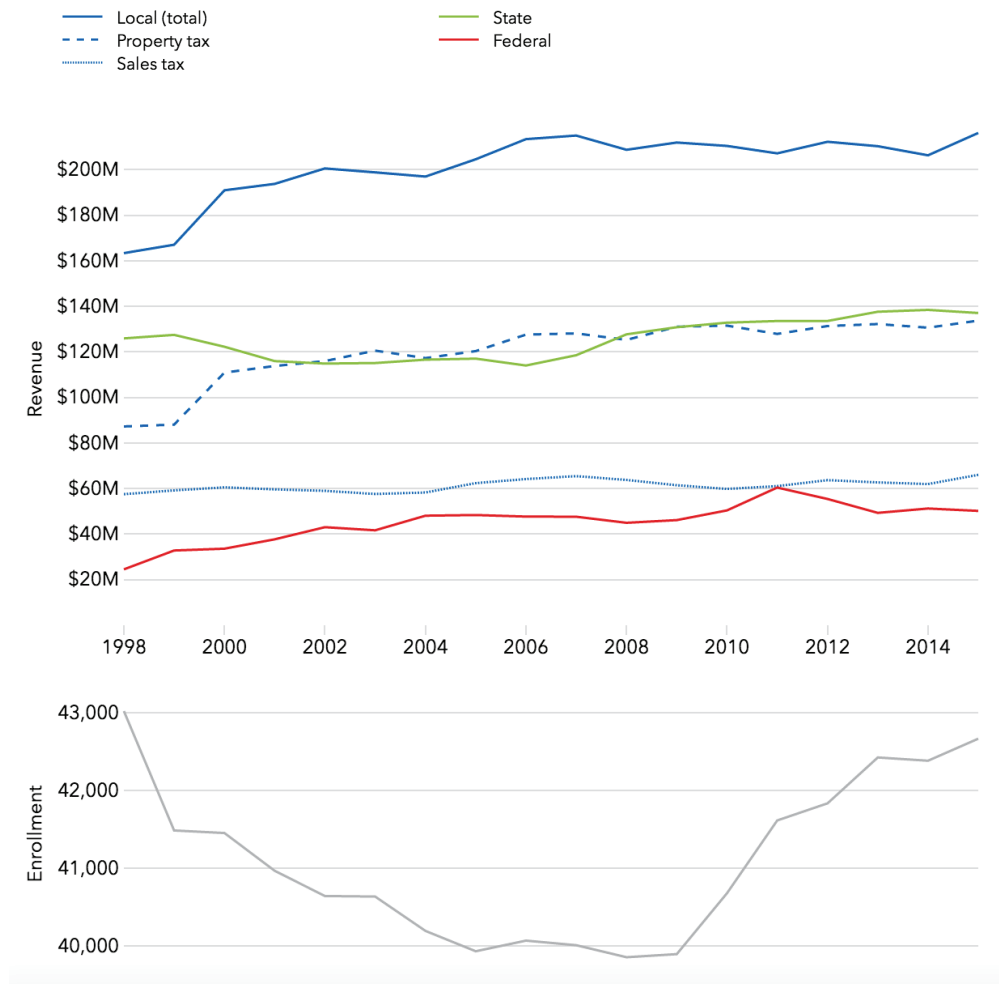


Figure 1: Hamilton County school revenues, adjusted for inflation (1998 to 2015)

SUMMARY REPORT

Findings

MIP's analysis of school-level spending reflects around \$300 million, or 75 percent, of HCDE's fiscal 2015 budget.

For our calculation of average per-student spending, we included items that directly benefit students. This means that many central spending items, such as school board or superintendent salaries, were not included.

Average per-student spending calculation

We included the following FY2015 spending categories in our per-student expenditure numbers for each school:

- **School-level salaries and benefits:** At over 80 percent of total spending, school personnel salaries and benefits are the biggest chunk of the general purpose school fund.
- **Title I:** These federal funds are intended to equalize the playing field for economically disadvantaged students. Title I represents over 50 percent of the federal projects fund. Fifty schools received Title I funding.
- **IDEA:** Federal funds for special education were not identified by school. IDEA grants were allocated based on a school's percentage of total students with disabilities.
- **Title III:** These federal funds assist students with limited English proficiency. Because school-level data was unavailable, we averaged the total grant amount based off of a school's percentage of English language learners (ELLs).
- **Transportation and food service:** These items are accounted for centrally but benefit nearly all students in the district. We divided this spending based on a school's enrollment as a percentage of total district enrollment.
- **Internal school funds:** These funds are raised at the school level through fundraising, donations, school

fees, etc. They also account for much of the self-funded projects fund.

The average per-student spending amount was calculated by taking the total amount from the spending categories detailed above for each school and dividing by the enrollment of each school in Hamilton County.

Differences from average spending

Our analysis found that HCDE spent on average \$7,200 per student in 2015. Just over 60 percent of schools spend within 10 percent of that average. Middle schools appear to have the most equal spending amounts with 80 percent spending within 10 percent of the average (*Figure 2*).

We found that around 40 percent of schools spend less than our districtwide average. This was consistent across elementary and middle schools. In contrast, around 20 percent of high schools spend less than the district average. High schools, however, have the most number of schools that spend above 10 percent of the the district average — 29 percent compared to 20 percent for elementary schools and 10 percent for middle schools.

Spending and student outcomes

Average per-student spending varies across schools because schools receive different funding amounts based on the number of teachers, Title I status and other factors. How do different average spending amounts relate to different achievement outcomes? This relationship can help inform us about return on investment. Do outputs respond to inputs? This data can also tell us about equity. Do lower performing schools have additional resources to help close achievement gaps?

We used 2015 school accountability data from the Tennessee Department of Education to explore the relationship between average spending and achievement. This state data measures the percentage of students who are advanced, proficient, basic or below basic (TN Department of Education, 2015). We looked at the percentage of students

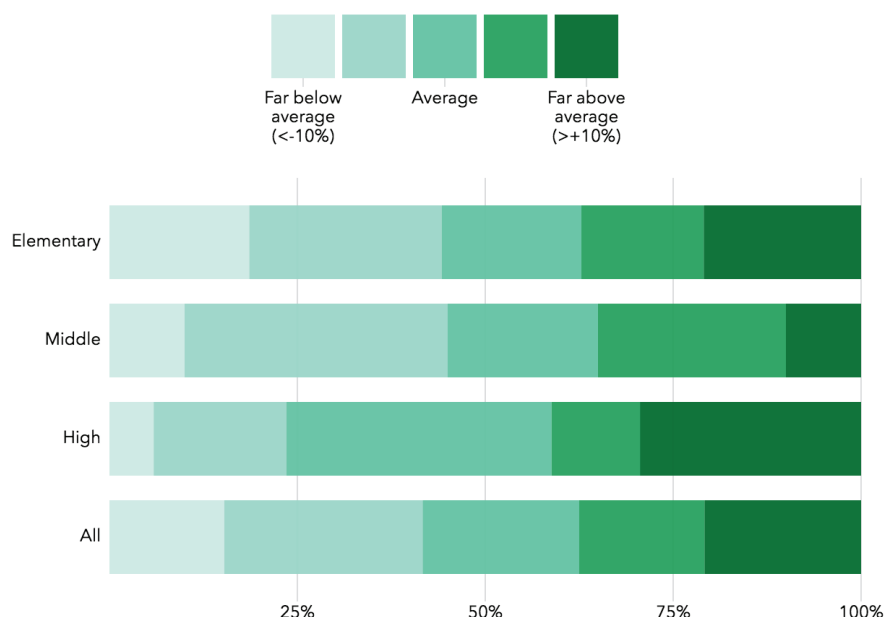


Figure 2: School spending per student compared to district average

rated as proficient or advanced for elementary (grade 3), middle (grade 7) and high schools (grades 9-12). Figures 3 and 4 show school-level proficiency relative to the county average for reading and math plotted against average per-student spending.

We found that out of the 80 schools studied, 58 percent had below average spending while 43 percent had above average spending.^{1 2} Comparing average spending with proficiency scores for Math at individual schools, we found that 25 percent of schools had low spending and low proficiency, while 33 percent had low spending and high proficiency. In comparison, 24 percent of schools had high spending and low proficiency, while 19 percent had high spending and high proficiency.

Comparing average spending with proficiency scores for English at individual schools, we found that 31 percent of schools had low spending and low proficiency, while 26 percent had low spending and high proficiency. In comparison, 21 percent of schools had high spending and low proficiency, while 21 percent had high spending and high

proficiency.

Figures 3 and 4 show how spending relates to student outcomes at different schools. Some schools spend relatively more but still have lower student proficiency. Some schools spend relatively less but have higher student proficiency. While spending is not the only influence on performance, it may help create conditions where students are able to thrive.

Future studies could look at what low-spend, high-achievement schools are doing to get the most out of their budgets. Another area would be to look at low-spend, low-achievement schools to understand how increased funding might help address achievement gaps. Additionally, it may be worthwhile to recalculate average spending for Title I status schools as a separate group in order to better understand the relationship between resources and proficiency among poorer student populations.

The Tennessee accountability system designates Reward Schools based on relatively high levels of achievement (TN Department of Education, n.d.). Reward Schools are the top five percent in the state in terms of student performance and year-over-year progress. While these schools are helping students achieve great outcomes, spending amounts differ among them. Both Lookout Mountain Elementary and Chattanooga School for the Liberal Arts have high

1 Percent values may not equal to 100 due to rounding.

2 Schools with both a middle and a high school or elementary and middle school were counted as separate entities. For example: Normal Park Lower and Normal Park Upper are considered as two different schools.

performance but relatively higher average per-student spending. Thrasher Elementary also has high performance but relatively lower average per-student spending. These differences highlight the need to look at how high per-

forming schools spend funds and how efficient behavior can be replicated (*Table 1*).

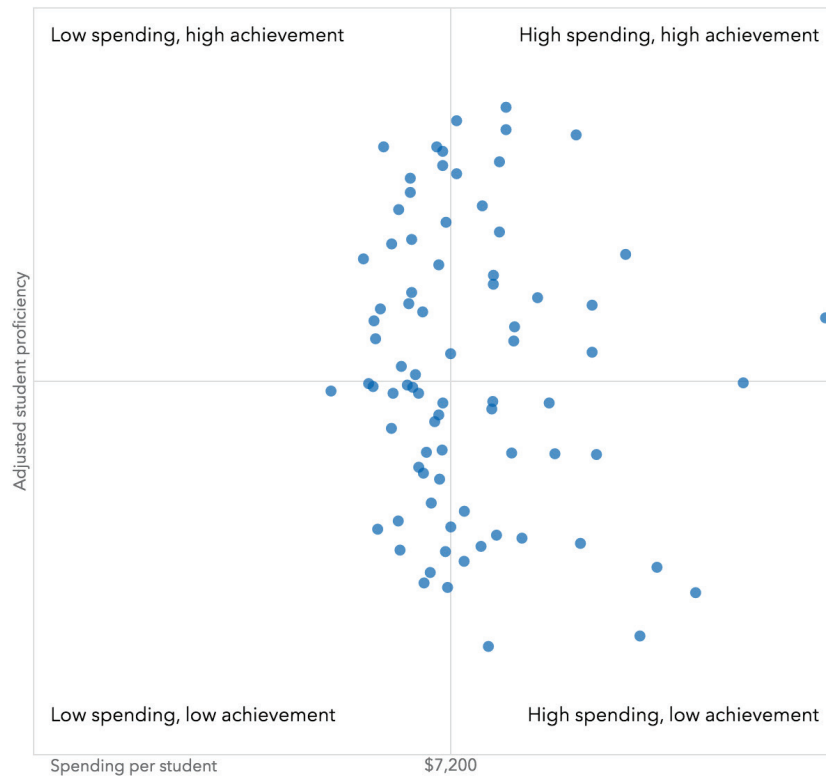


Figure 3: FY2015 School spending and student outcomes — English

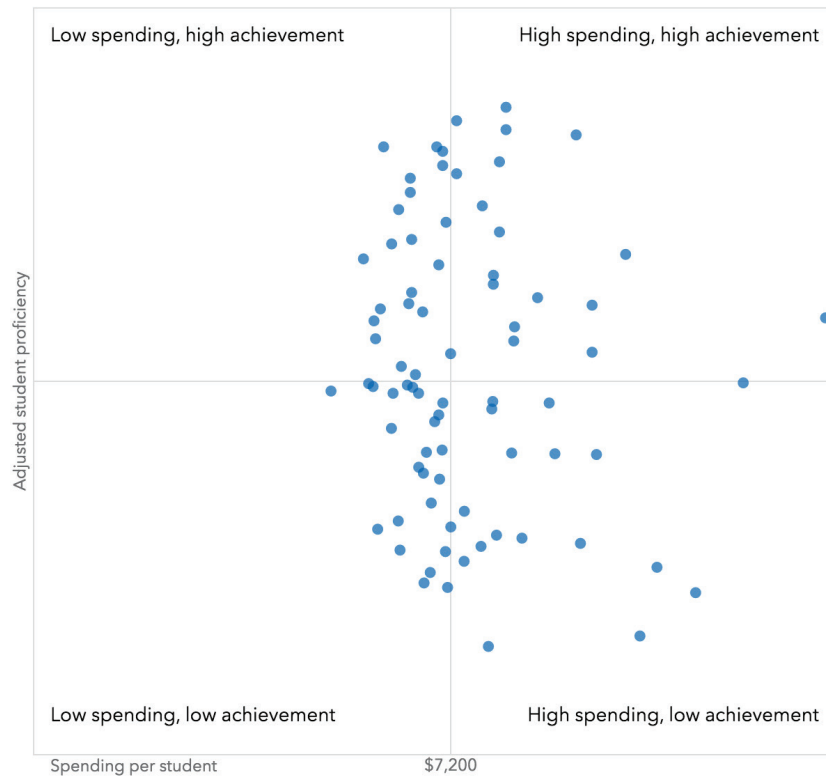


Figure 4: FY2015 School spending and student outcomes — Math

School	Reward Status	Avg Per-Student Spending	Spend to Achievement Relationship
Daisy Elementary	Progress	\$6,243.48	Low spending, high achievement
East Side Elementary	Progress	\$7,134.41	Low spending, high achievement
Lookout Mountain Elementary	Performance	\$8,764.21	High spending, high achievement
Chattanooga School for the Liberal Arts	Performance	\$7,889.74	High spending, high achievement
Thrasher Elementary	Performance	\$6,111.77	Low spending, high achievement

Table 1: Reward schools in Hamilton County

SUMMARY REPORT

Recommendations

Equitable school funding would give all students a better chance to succeed in the classroom. More dollars don't necessarily guarantee better test scores, but when schools are short on money they may struggle to create optimal learning environments (Roza, 2016).

We have three primary recommendations for the school system to improve resource allocation and transparency:

1. Shift the budget's focus to students;
2. Listen to principals and teachers; and
3. Communicate with the public.

Recommendation 1. Shift budget focus to students

Current budgeting practices focus on staff, buildings and programs. State funding mechanisms have pushed school districts toward enrollment-centered funding strategies. But that strategy obscures the diversity of Hamilton County's student population.

Some students cost more to educate than others. They face different challenges and barriers to success. A one-size-fits-all budgeting process does not account for the educational needs of a large and varied student population.

That traditional model isn't the only way to allocate education dollars.

Student-based budgeting is different from top-down approaches. It focuses funds toward students rather than enrollment ratios. Under this system, the district and schools would jointly identify priority groups and determine how much it costs to ensure students have equal opportunities in the classroom.

Additional funding would be weighted for students who meet certain criteria. An economically disadvantaged student or one with limited English proficiency might be given greater weight. For example, the school system in Prince George's County, Maryland, began implementing

this approach in 2011 (Prince George's County Public Schools, 2012). All students there start with a base allocation of \$3,077. They then receive additional funding based on their grade level, socioeconomic status, achievement and other factors (*Table 2*).

Dollars are allocated without restriction to schools, which have the autonomy to determine how the money is spent.

A student-based budgeting model has four main benefits:

- **Student-focused:** It creates a direct pipeline between funding and students. Priorities are clearly defined through a weighted formula established by school leaders. Dollars follow students even if they switch schools.
- **Transparent:** The funding formula prioritizes students' needs instead of enrollment numbers. It provides a clear rationale for resource distribution throughout the school system. It makes budgets and public spending more accessible.
- **Efficient:** Students are the building blocks of this budgeting model. The more money allocated to a particular student group, the more resources provided for those students. Principals and teachers also have more flexibility and autonomy to meet the specific needs of their students.
- **Equitable:** This model recognizes that some students cost more to educate than others. By budgeting for these extra costs, it helps provide optimal learning environments for all students.

Student-based budgeting is particularly helpful in large, diverse districts where equitable resource allocation is a challenge.

While not a silver bullet, this budgeting framework would help Hamilton County schools become more flexible, equitable and responsive.

Funding Priority	Who Recieves Funds	Dollars Per Student (Weight)
Base Funding Grade Level	All students	\$3,077 (1.0)
	Grade K to 1	\$166 (0.05)
	Grade 6 to 8	\$830 (0.27)
	Grade 9	\$332 (0.11)
Poverty	Students on free or reduced lunch	\$94 (0.03)
Low Academic Performance	Grade K to 8	\$133 (0.44)
	Grade 9 to 12	\$133 (0.44)
High Academic Performance	Grade K to 8	\$91 (0.03)
	Grade 9 to 12	\$91 (0.03)
English Language Learner: Beginner	Grade K to 1	\$1,661 (0.54)
	Grade 2 to 9	\$1,848 (0.60)
	Grade 10 to 12	\$1,661 (0.54)
English Language Learner: Intermediate	Grade K to 1	\$1,578 (0.51)
	Grade 2 to 9	\$1,578 (0.51)
	Grade 10 to 12	\$1,578 (0.51)
English Language Learner: Advanced	Grade K to 1	\$1,246 (0.40)
	Grade 2 to 9	\$1,246 (0.40)
	Grade 10 to 12	\$1,246 (0.40)

Table 2: Example of weights and funding priorities: Prince George's County, MD

Recommendation 2. Listen to school leaders

Successful implementation of student-based budgeting depends on collecting and listening to feedback from the principals and teachers who have unique insight into students' needs.

HCDE should take steps to listen closely to schools:

- **Talk about basic school needs.** In interviews, school leaders identified fundraising as a strategy to meet basic school needs such as classroom equipment and maintenance. Schools with the capacity to raise funds are better able to address these shortfalls than schools with limited fundraising resources. The district and schools need to discuss how to better meet these basic needs across all schools.
- **Find out what teachers are paying for.** Teachers are each allocated \$100 to purchase supplies for a school year. Many cover additional expenses out of pocket. The school system should establish a formal way to identify what those purchases entail.
- **Communicate up and down.** Communication between central office and schools has traditionally been top-down. Schools, however, know their students and needs better. Two-way communication can help foster a more collaborative relationship, which would be an important starting point in discussions of student-based resource allocation.

Recommendation 3. Communicate with the public

HCDE is the largest employer in Hamilton County and has an annual budget of roughly \$400 million. The complexities of its budget and overall operations make it difficult for the public and community leaders to understand how spending impacts students and outcomes.

A lack of transparency around the budget leads to confusion among parents, educators and policymakers. To make a more understandable and accessible budget, the following actions should be taken:

- **Include average per-student spending for each school in the annual budget.** When budgeting is based around students, average per-student spending amounts should be easier to capture. Publishing these spending figures can help ensure that schools are equitably and efficiently funded.
- **Continue to publish "A Guide to Understanding the Budget."** HCDE released its citizen's guide to the

budget in 2015. This was a positive step forward. The school district should publish this guide annually to communicate how money is used.

- **Hire dedicated communications personnel.**

Throughout our research, we communicated directly with accounting and finance staff in central office. This task should not have fallen on their shoulders. HCDE would benefit from dedicated personnel responsible for responding to the media and public.

- **Create an open data portal.** HCDE should augment existing data published by the state of Tennessee by launching an open data portal. This might include school-by-school budget data, anonymized teacher evaluation data and school safety records. HCDE should look to Chattanooga's open data portal as a model for how to manage and present open data.

- **Webcast budget and school board meetings.**

These meetings are usually held on weekday afternoons when work and other responsibilities prevent most people from attending. HCDE should webcast all school board meetings to promote community engagement and outreach.

SUMMARY REPORT

Conclusion

During our attempt to analyze average per-student spending at the school level we encountered a number of challenges, such as the scarcity of available data online and the inherent complexities of the education sphere.

The overarching challenge, however, was the way the school budget is currently structured by HCDE.

Our recommendations outline ways that HCDE can address these challenges so that school budgeting is clearer. More importantly, though, student-based budgeting helps

ensure student-focused, transparent, efficient and equitable resource allocations to schools. This in turn encourages an optimal learning environments for all students to succeed.

We hope our findings and recommendations serve as a catalyst for further discussion and action about policies that could bring greater equity and transparency into the school district.

II. METHODOLOGY

METHODOLOGY

Teacher Salary and Qualification

An analysis of teacher salary and qualification was undertaken for part two of the online report. The following outlines how teacher salary and qualification were analyzed.

Teacher Investment Index

MIP obtained a school-by-school breakdown of teachers' education and years of experience for fiscal 2015. The dataset included information on 3671.31 teachers from 79 schools.¹ Each teacher was accounted for by education

schedule was interpreted as a signal for how HCDE values each type of degree regardless of years of experience. The base weights for education attainment were established as the percent difference between each degree at 0 years of experience and a BA at 0 years.

2. A base weight of 1 was assigned to a BA and 0 years of teaching experience.

	BA	MA	MA + 45	ED SP	PHD
Salary at 0 years experience	\$36,765.04	\$39,886.60	\$40,927.12	\$41,967.64	\$45,089.20
Percentage difference between each degree salary and BA salary	0	.085	.113	.142	.226
Base weight for education attainment	1	1.085	1.113	1.142	1.226

Table 3: Base weights for education attainment

attainment (BA, MA, MA +45 credit hours, ED.D. and ED.S.) and number of years teaching (0-25 years).

A Teacher Investment Index was created by weighting education attainment and years of experience. The scores for each school range from 1 to 1.4 (1 being the lowest) to reflect aggregate qualification and experience.

The following is a step-by-step explanation of how weights and school scores were calculated.

Education attainment weight

1. Weights for education attainment were calculated using HCDE's salary schedule for 2015-16.² The salary

Years of experience weight^{3 4}

1. Weights for years of experience were calculated by subtracting the pay for the highest year of experience included on the salary schedule (25 years) from the pay for 0 years of experience. This figure was then averaged across 25 years to produce the average pay increase per year.

2. The average salary increase was added to the base salary and the percent change calculated. This percent

fixed Salary Scale, <http://www.hcde.org/?PN=Pages&SubP=Level-1Page&L=2&DivisionID=14293&DepartmentID=0&SubDepartmentID=0&PageID=20791&ToggleSideNav=>

¹ Fractional teacher counts represent part-time teachers.

² Hamilton County Department of Education, FY16 Certified Salary Scale, <http://www.hcde.org/?PN=Pages&SubP=Level-1Page&L=2&DivisionID=14293&DepartmentID=0&SubDepartmentID=0&PageID=20791&ToggleSideNav=>

³ MA+45 in Table 4 represents Masters plus a certain number of semester hours as determined by the State.

⁴ ED SP represents an Education Specialist degree.

	BA	MA	MA + 45	ED SP	PHD
Salary at 0 years experience	\$36,765.04	\$39,886.60	\$40,927.12	\$41,967.64	\$45,089.20
Salary at 25 years experience	\$54,107.04	\$59,309.64	\$60,350.16	\$61,390.68	\$64,512.24
Salary difference between 0 and 25 years experience	\$17,342	\$19,423.04	\$19,423.04	\$19,423.04	\$19,423.04
Average increase per year over 25 years	\$693.680	\$776.922	\$776.922	\$776.922	\$776.922
Percent increase from base salary	1.0189	1.0195	1.0190	1.0185	1.0172
Base weight for years of experience	1.0189	1.0195	1.0190	1.0185	1.0172

Table 4: Base weight for years of experience

increase was then exponentially multiplied by itself based on each teacher's years of experience.

then divided by the total number of teachers for that school to produce an average qualification and years of teaching score.

Final weight

The combined weight for education attainment and years of experience was calculated using the following formula:

$$\frac{\sum (\text{Number of teachers} * \text{Final weight})}{\text{Number of teachers}}$$

$$(\text{Education base weight}) \times (\text{Years of experience base weight} ^ \text{number of years experience})$$

A table of calculated weights can be found in *Annex I*.

Comparison with TVAAS scores

We compared the Teacher Investment Index results to 2015 Tennessee Value-Added Assessment System (TVAAS) results, which measure “the impact schools and teachers have on their students’ academic progress. TVAAS

	Elementary	Middle/ High	Total teachers
All teachers	41% (344)	28% (367)	(901)
Title I teachers	42% (195)	26% (330)	(525)
Non-Title I teachers	52% (149)	33% (227)	(376)

Table 5: Teachers with 4 or 5 TVAAS score in FY 2015

School score

A score for each school was taken by multiplying the number of teachers by the relevant weight for education attainment and years of experience. This raw score was

measures student growth, not whether the student is proficient on the state assessment” (TN Department of Education, n.d.)

	Elementary	Middle/ High	Total teachers
All schools	41% (44)	15% (33)	(77)
Title I schools	37% (30)	14% (21)	(51)
Non-Title I schools	50% (14)	17% (12)	(26)

Table 6: Schools with 4 or 5 TVAAS score in FY 2015

This comparison only included schools for which 2015 TVAAS scores were available through the Tennessee Department of Education. This left out Chattanooga High Center for Creative Arts, Dawn School, Signal Mountain Middle-High and Washington Alternative Center. Teachers for Normal Park Lower and Normal Park Upper were combined to represent an aggregate score for Normal Park Museum Magnet School. The same was done for East Hamilton High School and East Hamilton Middle School to form East Hamilton.

The original spreadsheet with teacher qualifications and experience did not include Chattanooga Charter School of Excellence, Chattanooga Girls Leadership Academy, Wallace A. Smith Elementary, East Lake Academy of Fine Arts, Hamilton County Collegiate High at Chattanooga State or Ivy Academy, Inc.

Category	Average
All schools	\$5,633.51
Title I schools	\$5,796.88
Non-Title I schools	\$5,398.13

Table 7: Average per-student spending on salaries and benefits

Districtwide TVAAS scores

We calculated teachers and schools that received a 4 or 5 TVAAS score as a percentage of total district teachers and schools with data (Table 5 and 6).

Average per-student spending on salaries and benefits (FY 2016)

HCDE provided a per-school breakdown of salaries and benefits for FY2016 for school-level personnel, which included teachers, principals and other staff. We were interested in calculating how schools differed in terms of average per-student spending on salaries and benefits from three different averages:

1. Average spending across all schools;
2. Average spending across Title I schools; and
3. Average spending across non-Title I schools.

The averages were calculated by summing salaries and benefits across those categories and dividing by average daily membership (ADM).

Annexes II and III show the dollar difference and percent difference from the three averages for each school.

Year	Average
2008	\$3,316.36
2009	\$4,099.55

Table 8: Average per-student spending on salaries

While data on 76 schools was provided, two schools did not have ADM figures. They were not included in the study. HCDE did not provide data for Chattanooga Girls Leadership Academy, Chattanooga Charter School of Excellence and Ivy Academy, Inc.

Average per-student spending on salaries across time (FY 2008 and FY 2016)

We looked at spending inequality over time for 68 schools in Hamilton County using data on salaries for school-level instructional and support staff from 2008, published by the U.S. Department of Education as part of their 2011 study on intradistrict spending equity titled, “Comparability of State and Local Expenditures Among Schools Within Districts: A Report From the Study of School-Level Expenditures” (Heuer & Stullich, 2011). We compared the percent difference of each school’s average per-student salary expenditure from the average across all schools for both 2008 and 2016. This is a different approach from the previous analysis for 2016 in that benefits were not included in the calculation.

Some differences in personnel calculation between the two years should be noted. Data on 2008 included nurses

but excluded special education expenses. Inversely, data from 2016 excluded nurses but included special education expenses.

The averages for both years are as follows:

Annex IV shows the percent difference for the schools included in this study. The change of each school was then classified according to whether spending moved closer to average spending from 2008 to 2016.

METHODOLOGY

Average per-student spending at schools

This section indicates how MIP calculated average per-student spending at the school-level.

National, state and county average per-student spending

Ten years of data were graphed comparing average per-student spending at the national, state and county levels. National and state data were taken from the National Education Association report, “Ranking of the States 2014 and Estimates of School Statistics 2015” (National Education Association, 2015). Hamilton County averages were taken from collated Comprehensive Annual Financial Reports (CAFRs) on revenue and enrollment available through Hamilton County (Hamilton County, 2015).

Spending was divided by average daily membership (ADM), rather than average daily attendance (ADA). Because ADM is higher than ADA, the average for per-student expenditure will be lower than figures that use ADA.

School average per-student spending

The following section details the expenditure items that were used to calculate average per-student spending by school. We included spending items that directly benefited students. This means that many central spending items, such as school board and superintendent salaries, were not included.

Some data was already divided on a per-school basis and included salaries and benefits, Title I and school-level funds. When data was not earmarked by school, we allocated spending amounts either based on the number of students at a school as a percentage of district enrollment (transportation and food service) or the percentage of a special student population (special education and English language learners).

We used audited data unless it was unavailable. In those instances, we used budgeted figures. All data is from FY 2015.

Salary and benefits: Overview

Salary and benefit data were available from two sources: the general purpose operating fund budget and a school-by-school breakdown document of salaries and benefits for school personnel. We obtained both from HCDE.

We focused on FY2015 data because our goal was to compare per-student expenditure with performance data, which date from 2015. Student performance in one year may drive budgeting decisions for the following year. However, by examining performance and spending data for a single year, we could better understand the relationship between inputs and outputs.

We conducted a review of each source to compare the reported totals for salaries and benefits to select the appropriate data to be used in our analysis.

Salary and benefits: General purpose operating fund budget

The general purpose operating fund budget reflects FY2015 figures. We calculated salary and benefit figures for school-level personnel in all cases that included a school reference number. This calculation included some information that was not in the school-by-school breakdown, such as stipends for personnel who take on additional roles, such as band leader, coach or department chair.

Expenses that could not be attributed to a specific school, such as salaries for central office personnel, were excluded. Funds destined for textbooks and technology were also excluded, as they were not specified for a particular school. The included and excluded funds are indicated in *Table 9*. A list of all functions is included in *Annex V*.

Salary and benefits: School-by-school breakdown document

In addition to the general purpose operating fund budget, HCDE provided a clear school-by-school breakdown for salaries and benefits for FY2015. This document was orig-

Function code	Function	Excluded	Included
71100	Regular instruction program	\$39,783,409	\$137,379,569
71200	Special education program	\$9,991,632	\$24,517,253
71300	Vocational education program	\$1,823,735	\$6,918,014
72130	Other student support	\$1,433,958	\$5,294,854
72210	Regular instruction program - support services	\$5,016,469	\$4,279,605
72220	Special education program - support services	\$2,944,944	\$37,348
72410	Office of the principal	\$4,239,963	\$20,256,902
Total:		\$65,234,110	\$198,683,545

Table 9: Excluded and included general purpose operating fund budget (2015)

inally released in April 2015 as part of then-Superintendent Rick Smith's countywide tour outlining a proposed tax increase to benefit schools. Salary and benefit data were clearly identified for each school. Total salaries and

• **Salaries.** For individual salary amounts, we used HCDE's detailed general purpose operating fund budget for FY2015, which includes itemized salaries. We noted that for Calvin Donaldson, HCDE's operating

School	#Pre-K personnel	School	#Pre-K personnel	School	#Pre-K personnel
Battle Academy	1	Lookout Valley Elem.	2	Soddy Elem.	2
Calvin Donaldson	4	North Hamilton Elem.	2	Spring Creek Elem.	2
Daisy Elementary	2	Ooltewah Elem.	4	Tommie F. Brown	2
East Lake Elem.	2	Orchard Knob Elem.	2	Wolftever Creek	4
East Ridge Elem.	4	Red Bank Elem.	1	Woodmore Elem.	2
Lakeside Academy	2	Snow Hill Elem.	2		

Table 10: Excluded Pre-K personnel

benefits equaled \$237,904,493. The data provided by HCDE did not capture all school-level personnel, including health workers, who are accounted for at the central level.

We removed pre-Kindergarten teachers and assistants from this data, as pre-K was beyond the scope of this report. Seventeen elementary schools included pre-K personnel. The list of schools is provided in Table 10 as well as a detailed report below on how pre-K spending was removed from the aggregated salaries and benefits data.

The following details how we removed pre-K personnel from the salaries and benefits data:

Pre-K Personnel Benefits	Result
Method 1	\$739,039
Method 2	\$656,200

Table 11: Benefits for Pre-K personnel

fund budget listed 1 teacher and 1 teaching assistant, whereas the school-by-school salary and benefit break-

down included 2 teachers and 2 teaching assistants. We therefore doubled the listed salary amount for Calvin Donaldson. The total amount to be deducted from schools with a pre-K program totaled \$1,317,472.

• **Benefits.** We approached our calculation of individual benefit amounts with a sensitivity analysis:

o **Method 1.** The first method we used was to total all benefits across schools and then divide by total number of teachers to get a per-person average benefit.

o **Method 2.** We totaled all benefit data for pre-K personnel using the general purpose operating fund budget. We noted, however, that the total would be less than the actual amount, given the two unaccounted for teachers at Calvin Donaldson.

• The results for the two benefits totals can be found below in *Table 11*. Following this sensitivity analysis, we decided to use the Method 1 calculation, as personnel data was more recent and we preferred to overestimate rather than underestimate pre-K spending. A detailed account of pre-K spending removed by school is provided in *Annex VI*.

After subtracting calculated pre-K salaries and benefits, the revised total amount in teacher salaries and benefits for Hamilton County in FY2015 was \$235,847,982 – a roughly \$2 million difference.

Salaries and benefits	\$237,904,493
Pre-K Salaries	(\$1,317,472)
Pre-K Benefits	(\$739,039)
New salaries and benefits	\$235,847,982

The difference between the general purpose operating fund budget and the school-by-school breakdown in salaries and benefits is roughly \$37 million. We used the school-by-school breakdown, as these were more recent

Total special education students	5,315
Total IDEA amount	\$10,126,735
Per-student IDEA	\$1,905

Table 12: Per-student special education spending

numbers and clearly earmarked as salaries and benefits per school.

Title I funds

We received a school-by-school breakdown of FY2015 Title I funds from HCDE. While the FY2015 CAFR indicated that Hamilton County received roughly \$17 million in Title I funding, the HCDE document accounted for only roughly \$8 million at the school-level. This is because a portion of

Total limited English students	2,067
Total Title III amount	\$296,237
Per-student Title III	\$143

Table 13: Per-student English language education spending

Title I funding goes toward additional expenses, including private school allocations, pre-K, and literacy and numeracy coaches.

Fifty schools received Title I funding in 2015. Snow Hill Elementary, which was designated as Title I in FY2016, was not included in this list. As we wanted to limit our study to 2015, we did not include Snow Hill Elementary as a Title I school.

IDEA funds

Total students	41,899
Total food service fund	\$18,980,990
Per-student food service fund	\$453

Table 14: Per-student food service spending

Federal funds for special education were not identified by school. IDEA grants were allocated based on a school's percentage of total students with disabilities. The total IDEA grant amount for Hamilton County was taken from the Tennessee Department of Education's Annual Statis-

Total students	41,899
Total transportation spending	\$14,645,337
Per-student transportation spending	\$350

Table 15: Per-student transportation spending

tical Report for 2015 (TN Department of Education, 2015). Statistics on the percentage of students with disabilities was taken from the Tennessee Department of Education's school-level profile data for 2015 (TN Department of Education, 2015).

Title III funds

These federal funds assist students with limited English proficiency. School-level data was unavailable. These funds were allocated based on a school's percentage of total limited English speakers. Data on total Title III funds and the percentage of English language learners was taken from the same sources used for the IDEA grant (TN Department of Education, 2015).

Food service funds

Food service is accounted for centrally but benefits nearly all students in the district. Data on the amount of money spend on food service was taken from Hamilton County's CAFR (Hamilton County, 2015). We divided this fund based on a school's size as a percentage of the total district enrollment. Statistics on average daily membership were taken from the Tennessee Department of Education's school-level profile data for 2015 (TN Department of Education, 2015).

Transportation funds

Transportation is also accounted for centrally. Like food service, data on transportation spending was taken from Hamilton County's CAFR and apportioned based on a school's size as a percentage of the total district enrollment.

Internal school funds

HCDE provided MIP with a per-school breakdown of internal school funds. Internal school funds are money accounted for at the school-level. They include donations, school fees, transfers from the school board to a local school and funding raised through cooperative agreements with outside organizations, such as NGOs.

Internal school funds are broken down into general and restricted activity funds. The State School Accounting Manual describes the differences between them:

Fund	Total Amount	CSAS Upper (64%)	CSAS Lower (36%)
General	\$200,067	\$128,043	\$72,024
Restricted	\$419,228	\$268,306	\$150,922

Table 16: CSAS internal school fund calculations

"The **general fund** is used to account for all money to be used for the general operation of the school or for the welfare of the student body. This includes, but is not limited to, allocations, locker fees, parking fees, li-

brary fines, rental income, unallocated interest income, school-wide fundraisers, and donations without stipulations. All expenditures from the general fund must benefit the school or must contribute to the welfare of the student body and supplement, and not replace, funds necessary to fulfill the local board's obligation to provide an instructional program, property, equipment, and salaries. Expenditures meeting these criteria are restricted in purpose only as directed by the board of education, general laws and regulations, and school policies."

Federal Program	Amount
Vocational education program	\$686,153
Title IV	\$504,152
Title V	\$0
Title VI	\$0
Race to the Top	\$1,115,418
Other federal funds	\$3,253,069
Total:	\$5,558,792

Table 17: Excluded federal funds

"The **restricted fund** is used to account for all money which is restricted for the use of a specific group (club, class, etc.) or legally restricted for a specific purpose (BEP funds, scholarship donations, board appropriations for restricted purposes, etc.). The restricted fund may also be used for grants, donations, and awards in which the intended purpose does not fall under the scope of the General Fund (Governor's Award, performance incentive money, certain corporate donations, etc.). (TN

Department of Education, 2011)"

The internal school funds listed for Chattanooga School for the Arts & Sciences (CSAS) Upper and Lower were aggregated into one school. In order to come up with sepa-

Function code	Function	Example	Total Amount
72110	Attendance	15 social workers (\$755,228)	\$1,684,309
72120	Health services	Drugs and medical supplies (\$15,886)	\$3,417,807
72230	Vocational education program-support services	Director of vocational education support (\$104,203)	\$278,354
72310	Board of Education	9 board members (\$101,064)	\$6,204,720
72320	Director of schools	Superintendent (\$214,896)	\$1,019,173
72510	Fiscal services	Staff development (\$20,000)	\$2,788,751
72520	Human services personnel	12 clerical (\$531,771)	\$1,269,092
72610	Operation of plant	Electricity (\$7,986,961)	\$23,954,769
72620	Maintenance of plant	Maintenance and building repairs (\$1,470,205)	\$8,097,165
72810	Central and other	Office supplies (\$4,950)	\$2,250,904
73300	Community service	School-aged child care director (\$104,033)	\$2,986,682
73400	Early childhood education	Early childhood teachers (\$55,767)	\$2,810,171
76100	Regular capital outlay		\$130,000
81300	Principal on bonds		\$97,500
99000	Transfers		\$9,369,138
Total:			\$66,358,535

Table 18: Items excluded from per-student spending calculation

rate figures, we divided the funds based on the proportion of students at each school. CSAS Lower recorded 360 students while CSAS Upper recorded 638 students in FY2015, which are 36 percent and 64 percent of the total student body, respectively. Internal school funds were allocated using these proportions, as shown in Table 16.

Funds excluded from the per-student calculation

Out of the FY2015 general purpose operating fund budget, we excluded some items from our per-student calculation. These exclusions are centrally-coded functions and for the most part not directly related to students.

From this list (Table 18) there were expenditure items that directly benefited students that we chose to omit. For ex-

School	Grant	Amount
Brown Academy	Focus	\$16,292
Tyner Academy	Focus	\$18,726
Brainerd High	Priority	\$727,898
Dalewood Middle	Priority	\$409,306
Orchard Knob Middle	Priority	\$439,644
Orchard Knob Elementary	Priority	\$532,499
Woodmore Elementary	Priority	\$450,618
Chattanooga Girls Leadership Academy	Priority	\$247,760

Table 19: Schools receiving Focus or Priority grants

penses related to the operation and maintenance of plant (i.e. schools), by far the largest omitted cost, we decided not to estimate per-school spending because buildings differ vastly in size and energy consumption. In the case of health services, we know that some schools do not have nurses or that some nurses serve two or more schools. Given these layers of complexity, we decided not to estimate health services in the per-school breakdown.

not included in the per-student calculation for two reasons.

The first reason is that in FY2015 the two schools that received Focus school grants received only a small carryover (\$36,000) from the total disbursed two year grant (\$800,000). This amount was not representative of the much larger additional funds and was excluded from the final calculation.

School	Per-student expenditure	Revised per-student expenditure
Brown Academy	\$8,427.49	\$8,479.38
Tyner Academy	\$7,366.87	\$7,398.88
Brainerd High	\$9,771.83	\$11,085.73
Dalewood Middle	\$8,817.62	\$10,200.41
Orchard Knob Middle	\$7,669.94	\$8,613.39
Orchard Knob Elementary	\$6,567.99	\$7,469.01
Woodmore Elementary	\$6,897.14	\$8,195.75
Chattanooga Girls Leadership Academy	n/a	n/a

Table 20: Revised Focus and Priority school per-student spending

We did not include some federal funds, because it was either unclear which schools were benefitting from these grants or how many students were benefitting: The state of Tennessee designates Priority and Focus schools that are able to receive additional funds to help improve student performance. Priority Schools are the lowest-performing five percent of schools in terms of academic achievement. Focus Schools are the 10 percent of schools with the largest achievement gaps between different student groups, such as racial and ethnic groups. Funds received through these improvement grants were

The second reason is that MIP received a per-school breakdown of Priority school grants from HCDE only after the publication of our original analysis. We note, however, the amounts and schools receiving these grants below.

With the exception of Orchard Knob Elementary and Woodmore Elementary, all schools that received Focus or Priority grants had higher than average per-student spending. Revised average per-student expenditure is presented below.

Subject	Grade	Countywide % proficient or advanced
Math	3	64.7%
Reading/Language Arts	3	37.0%
Math	7	48.5%
Reading/Language Arts	7	48.1%
Algebra I	9-12	48.9%
English II	9-12	59.8%

Table 21: County accountability results

Average per-student spending vs. Student achievement

We wanted to examine the relationship between average per-student spending at individual schools and student achievement. To do this we created a scatter plot with average spending as the x-axis and student achievement as the y-axis.

For student achievement data, we used the Tennessee Department of Education's 2015 school accountability data on math and reading/language arts for grades 3 and 7 and aggregated data for grades 9-12 (TN Department of Education, 2015). The accountability data provides data at the school, district and state levels. It includes the percentage of students who are advanced, proficient, basic or below basic in a subject. We measured the difference between each school's proficient and advanced results with corresponding countywide results. We then plotted this difference as the y value.

Schools excluded from this analysis

The following schools were excluded from the average per-student spending analysis:

- Chattanooga Charter School of Excellence
- Chattanooga Girls Leadership Academy

- Hamilton County Collegiate High at Chattanooga State
- Hamilton County High School
- Hamilton County Virtual School
- Ivy Academy, Inc.
- Washington Alternative
- Dawn School
- New Consortium of Law and Business

Salary and benefits data for charter and virtual schools was unavailable through HCDE. Data on internal school funds was unavailable for Hamilton County Collegiate High. Accountability data was unavailable for Hamilton County High School or alternative schools.

III. ANNEXES

ANNEX I. Teacher investment index weights

Years of experience	BA	MA	MA + 45	ED SP	PHD
0	1.000	1.085	1.113	1.142	1.226
1	1.019	1.106	1.134	1.163	1.248
2	1.038	1.128	1.156	1.184	1.269
3	1.058	1.150	1.178	1.206	1.291
4	1.078	1.172	1.200	1.228	1.313
5	1.098	1.195	1.223	1.251	1.336
6	1.119	1.218	1.246	1.274	1.359
7	1.140	1.242	1.270	1.298	1.382
8	1.161	1.266	1.294	1.322	1.406
9	1.183	1.291	1.318	1.346	1.430
10	1.206	1.316	1.344	1.371	1.455
11	1.228	1.341	1.369	1.397	1.480
12	1.251	1.368	1.395	1.423	1.505
13	1.275	1.394	1.421	1.449	1.531
14	1.299	1.421	1.448	1.476	1.558
15	1.324	1.449	1.476	1.503	1.585
16	1.349	1.477	1.504	1.531	1.612
17	1.374	1.506	1.533	1.559	1.640
18	1.400	1.535	1.562	1.588	1.668
19	1.426	1.565	1.591	1.617	1.697
20	1.453	1.596	1.621	1.647	1.726
21	1.481	1.627	1.652	1.678	1.756
22	1.509	1.658	1.684	1.709	1.786
23	1.537	1.691	1.716	1.741	1.817
24	1.566	1.724	1.748	1.773	1.848
25	1.596	1.757	1.781	1.806	1.880

ANNEX II. Dollar difference average per-student
salary & benefits from averages (2016)

DOLLAR DIFFERENCE			
School	Difference from avg spending: All schools	Difference from avg spending: Title I schools	Difference from avg spending: Non-Title I schools
ALLEN ELEMENTARY	-\$784.06	-\$947.43	-\$548.68
ALPINE CREST ELEMENTARY	-\$121.61	-\$284.98	\$113.78
APISON ELEMENTARY	\$135.76	-\$27.60	\$371.15
BARGER ACADEMY	\$396.89	\$233.52	\$632.27
BATTLE ACADEMY	\$984.72	\$821.36	\$1,220.11
BIG RIDGE ELEMENTARY	-\$309.86	-\$473.22	-\$74.47
BRAINERD HIGH	\$2,107.96	\$1,944.59	\$2,343.34
BROWN ACADEMY	\$1,434.73	\$1,271.36	\$1,670.12
BROWN MIDDLE	\$559.79	\$396.42	\$795.17
Center for Creative Arts (CCA?)	-\$157.20	-\$320.56	\$78.19
CENTRAL HIGH	-\$241.80	-\$405.16	-\$6.41
CHATT SCH ARTS SCIENCES 6-12	-\$348.98	-\$512.35	-\$113.60
CHATT SCH ARTS SCIENCES K-5	\$1,226.45	\$1,063.08	\$1,461.83
CHATT SCH LIBERAL ARTS	\$633.63	\$470.27	\$869.02
CHATTANOOGA ST MIDDLE COLLEGE	-\$2,999.79	-\$3,163.15	-\$2,764.40
CLIFTON HILLS ELEMENTARY	-\$378.18	-\$541.55	-\$142.80
DAISY ELEMENTARY	-\$619.35	-\$782.72	-\$383.97
DALEWOOD MIDDLE	\$1,199.34	\$1,035.98	\$1,434.73
DONALDSON ELEMENTARY	\$707.60	\$544.23	\$942.99
DUPONT ELEMENTARY	-\$948.86	-\$1,112.22	-\$713.47
EAST BRAINERD ELEMENTARY	-\$232.06	-\$395.43	\$3.33
EAST HAMILTON MIDDLE/HIGH	-\$378.09	-\$541.46	-\$142.71
EAST LAKE ELEMENTARY	-\$534.24	-\$697.61	-\$298.86
EAST LAKE MIDDLE	-\$209.53	-\$372.89	\$25.86
EAST RIDGE ELEMENTARY	-\$785.09	-\$948.46	-\$549.71
EAST RIDGE HIGH	\$221.63	\$58.27	\$457.02
EAST RIDGE MIDDLE	-\$566.12	-\$729.48	-\$330.73
EAST SIDE ELEMENTARY	-\$327.05	-\$490.42	-\$91.67

DOLLAR DIFFERENCE			
School	Difference from avg spending: All schools	Difference from avg spending: Title I schools	Difference from avg spending: Non-Title I schools
FALLING WATER ELEMENTARY	\$1,273.65	\$1,110.29	\$1,509.04
GANNIS MIDDLE VALLEY ELEMENTARY	-\$790.58	-\$953.94	-\$555.19
HAMILTON COUNTY HIGH	\$1,777.07	\$1,613.70	\$2,012.45
HARDY ELEMENTARY	-\$457.68	-\$621.05	-\$222.30
HARRISON ELEMENTARY	-\$751.84	-\$915.21	-\$516.46
HILLCREST ELEM	\$478.46	\$315.09	\$713.84
HIXSON ELEMENTARY	\$1,563.94	\$1,400.58	\$1,799.33
HIXSON HIGH	\$133.33	-\$30.04	\$368.72
HIXSON MIDDLE	-\$471.75	-\$635.12	-\$236.37
HOWARD SAT	\$1,172.84	\$1,009.48	\$1,408.23
HUNTER MIDDLE	-\$559.07	-\$722.43	-\$323.68
LAKESIDE ACADEMY	\$324.53	\$161.17	\$559.92
LOFTIS MIDDLE	\$264.25	\$100.88	\$499.63
LOOKOUT MOUNTAIN ELEMENTARY	\$741.23	\$577.86	\$976.61
LOOKOUT VALLEY ELEMENTARY	\$1,530.76	\$1,367.40	\$1,766.15
LOOKOUT VALLEY MIDDLE/HIGH	\$2,529.60	\$2,366.23	\$2,764.98
MCCONNELL ELEMENTARY	-\$741.57	-\$904.93	-\$506.18
NOLAN ELEMENTARY	-\$15.41	-\$178.77	\$219.98
NORMAL PARK ACADEMY	\$192.12	\$28.76	\$427.51
NORTH HAMILTON CO ELEMENTARY	\$200.67	\$37.31	\$436.06
OOLTEWAH ELEMENTARY	-\$787.69	-\$951.06	-\$552.31
OOLTEWAH HIGH	-\$857.76	-\$1,021.13	-\$622.38
OOLTEWAH MIDDLE	-\$241.91	-\$405.28	-\$6.53
ORCHARD KNOB ELEMENTARY	-\$564.69	-\$728.06	-\$329.31
ORCHARD KNOB MIDDLE	\$827.66	\$664.30	\$1,063.05
RED BANK ELEMENTARY	-\$501.82	-\$665.18	-\$266.43
RED BANK HIGH	\$336.95	\$173.58	\$572.33
RED BANK MIDDLE	-\$204.70	-\$368.07	\$30.68
RIVERMONT ELEMENTARY	\$2,583.98	\$2,420.62	\$2,819.37
SALE CREEK MIDDLE/HIGH	\$391.94	\$228.58	\$627.33
SEQUOYAH HIGH	\$2,116.16	\$1,952.79	\$2,351.54
SHEPHERD ELEMENTARY	-\$134.66	-\$298.02	\$100.73
SIGNAL MTN MIDDLE/HIGH	\$255.49	\$92.13	\$490.88
SMITH ELEMENTARY	-\$182.92	-\$346.29	\$52.46

DOLLAR DIFFERENCE			
School	Difference from avg spending: All schools	Difference from avg spending: Title I schools	Difference from avg spending: Non-Title I schools
SNOW HILL ELEMENTARY	-\$39.95	-\$203.31	\$195.44
SODDY DAISY HIGH	\$10.27	-\$153.09	\$245.66
SODDY DAISY MIDDLE	\$352.22	\$188.86	\$587.61
SODDY ELEMENTARY	\$482.09	\$318.73	\$717.48
SPRING CREEK ELEMENTARY	-\$355.56	-\$518.93	-\$120.18
STEM SCHOOL	-\$372.07	-\$535.44	-\$136.69
THRASHER ELEMENTARY	-\$1,091.81	-\$1,255.18	-\$856.43
TYNER HIGH ACADEMY	\$582.31	\$418.95	\$817.70
TYNER MIDDLE ACADEMY	-\$200.53	-\$363.90	\$34.86
WESTVIEW ELEMENTARY	\$76.02	-\$87.35	\$311.40
WOLFTEVER CREEK ELEM	\$203.40	\$40.03	\$438.78
WOODMORE ELEMENTARY	\$338.33	\$174.97	\$573.72

ANNEX III. Percent Difference Average Per-Student Salary
& Benefits from Averages (2016)

PERCENT DIFFERENCE			
School	Difference from avg spending: All schools	Difference from avg spending: Title I schools	Difference from avg spending: Non-Title I schools
ALLEN ELEMENTARY	-13.92%	-16.34%	-10.16%
ALPINE CREST ELEMENTARY	-2.16%	-4.92%	2.11%
APISON ELEMENTARY	2.41%	-0.48%	6.88%
BARGER ACADEMY	7.05%	4.03%	11.71%
BATTLE ACADEMY	17.48%	14.17%	22.60%
BIG RIDGE ELEMENTARY	-5.50%	-8.16%	-1.38%
BRAINERD HIGH	37.42%	33.55%	43.41%
BROWN ACADEMY	25.47%	21.93%	30.94%
BROWN MIDDLE	9.94%	6.84%	14.73%
Center for Creative Arts (CCA?)	-2.79%	-5.53%	1.45%
CENTRAL HIGH	-4.29%	-6.99%	-0.12%
CHATT SCH ARTS SCIENCES 6-12	-6.19%	-8.84%	-2.10%
CHATT SCH ARTS SCIENCES K-5	21.77%	18.34%	27.08%
CHATT SCH LIBERAL ARTS	11.25%	8.11%	16.10%
CHATTANOOGA ST MIDDLE COLLEGE	-53.25%	-54.57%	-51.21%
CLIFTON HILLS ELEMENTARY	-6.71%	-9.34%	-2.65%
DAISY ELEMENTARY	-10.99%	-13.50%	-7.11%
DALEWOOD MIDDLE	21.29%	17.87%	26.58%
DONALDSON ELEMENTARY	12.56%	9.39%	17.47%
DUPONT ELEMENTARY	-16.84%	-19.19%	-13.22%
EAST BRAINERD ELEMENTARY	-4.12%	-6.82%	0.06%
EAST HAMILTON MIDDLE/HIGH	-6.71%	-9.34%	-2.64%
EAST LAKE ELEMENTARY	-9.48%	-12.03%	-5.54%
EAST LAKE MIDDLE	-3.72%	-6.43%	0.48%
EAST RIDGE ELEMENTARY	-13.94%	-16.36%	-10.18%
EAST RIDGE HIGH	3.93%	1.01%	8.47%
EAST RIDGE MIDDLE	-10.05%	-12.58%	-6.13%
EAST SIDE ELEMENTARY	-5.81%	-8.46%	-1.70%

PERCENT DIFFERENCE			
School	Difference from avg spending: All schools	Difference from avg spending: Title I schools	Difference from avg spending: Non-Title I schools
FALLING WATER ELEMENTARY	22.61%	19.15%	27.95%
GANNIS MIDDLE VALLEY ELEMENTARY	-14.03%	-16.46%	-10.28%
HAMILTON COUNTY HIGH	31.54%	27.84%	37.28%
HARDY ELEMENTARY	-8.12%	-10.71%	-4.12%
HARRISON ELEMENTARY	-13.35%	-15.79%	-9.57%
HILLCREST ELEM	8.49%	5.44%	13.22%
HIXSON ELEMENTARY	27.76%	24.16%	33.33%
HIXSON HIGH	2.37%	-0.52%	6.83%
HIXSON MIDDLE	-8.37%	-10.96%	-4.38%
HOWARD SAT	20.82%	17.41%	26.09%
HUNTER MIDDLE	-9.92%	-12.46%	-6.00%
LAKESIDE ACADEMY	5.76%	2.78%	10.37%
LOFTIS MIDDLE	4.69%	1.74%	9.26%
LOOKOUT MOUNTAIN ELEMENTARY	13.16%	9.97%	18.09%
LOOKOUT VALLEY ELEMENTARY	27.17%	23.59%	32.72%
LOOKOUT VALLEY MIDDLE/HIGH	44.90%	40.82%	51.22%
MCCONNELL ELEMENTARY	-13.16%	-15.61%	-9.38%
NOLAN ELEMENTARY	-0.27%	-3.08%	4.08%
NORMAL PARK ACADEMY	3.41%	0.50%	7.92%
NORTH HAMILTON CO ELEMENTARY	3.56%	0.64%	8.08%
OOLTEWAH ELEMENTARY	-13.98%	-16.41%	-10.23%
OOLTEWAH HIGH	-15.23%	-17.62%	-11.53%
OOLTEWAH MIDDLE	-4.29%	-6.99%	-0.12%
ORCHARD KNOB ELEMENTARY	-10.02%	-12.56%	-6.10%
ORCHARD KNOB MIDDLE	14.69%	11.46%	19.69%
RED BANK ELEMENTARY	-8.91%	-11.47%	-4.94%
RED BANK HIGH	5.98%	2.99%	10.60%
RED BANK MIDDLE	-3.63%	-6.35%	0.57%
RIVERMONT ELEMENTARY	45.87%	41.76%	52.23%
SALE CREEK MIDDLE/HIGH	6.96%	3.94%	11.62%
SEQUOYAH HIGH	37.56%	33.69%	43.56%
SHEPHERD ELEMENTARY	-2.39%	-5.14%	1.87%
SIGNAL MTN MIDDLE/HIGH	4.54%	1.59%	9.09%
SMITH ELEMENTARY	-3.25%	-5.97%	0.97%

PERCENT DIFFERENCE			
School	Difference from avg spending: All schools	Difference from avg spending: Title I schools	Difference from avg spending: Non-Title I schools
SNOW HILL ELEMENTARY	-0.71%	-3.51%	3.62%
SODDY DAISY HIGH	0.18%	-2.64%	4.55%
SODDY DAISY MIDDLE	6.25%	3.26%	10.89%
SODDY ELEMENTARY	8.56%	5.50%	13.29%
SPRING CREEK ELEMENTARY	-6.31%	-8.95%	-2.23%
STEM SCHOOL	-6.60%	-9.24%	-2.53%
THRASHER ELEMENTARY	-19.38%	-21.65%	-15.87%
TYNER HIGH ACADEMY	10.34%	7.23%	15.15%
TYNER MIDDLE ACADEMY	-3.56%	-6.28%	0.65%
WESTVIEW ELEMENTARY	1.35%	-1.51%	5.77%
WOLFTEVER CREEK ELEM	3.61%	0.69%	8.13%
WOODMORE ELEMENTARY	6.01%	3.02%	10.63%

ANNEX IV. Percent Difference Average Per-Student Salary
from Countywide Average (2008 & 2016)

School	Difference from 2008 average	Difference from 2016 average
ALLEN ELEMENTARY SCHOOL	-0.08	-0.13
ALPINE CREST ELEMENTARY SCHOOL	0.15	-0.03
APISON ELEMENTARY SCHOOL	-0.11	0.02
BARGER ACADEMY	0.06	0.07
BATTLE ACADEMY FOR TEACHING LEARNING	0.00	0.16
BESS T SHEPHERD ELEMENTARY	-0.08	-0.03
BIG RIDGE ELEMENTARY SCHOOL	-0.02	-0.06
BRAINERD HIGH SCHOOL	0.04	0.38
BROWN ACADEMY FOR CLASSICAL STUDIES	0.00	0.23
BROWN MIDDLE SCHOOL	0.16	0.10
CALVIN DONALDSON ELEMENTARY	0.01	0.10
CENTRAL HIGH SCHOOL	-0.11	-0.03
CHATTANOOGA HIGH CENTER FOR CREATIVE ARTS	0.17	-0.03
CHATTANOOGA SCHOOL FOR THE LIBERAL ARTS	0.36	0.11
CLIFTON HILLS ELEMENTARY	-0.21	-0.08
DAISY ELEMENTARY SCHOOL	-0.04	-0.12
DALEWOOD MIDDLE SCHOOL	0.03	0.20
DUPONT ELEMENTARY	0.01	-0.18
EAST BRAINERD ELEMENTARY	0.02	-0.05
EAST LAKE ACADEMY OF FINE ARTS	0.13	-0.04
EAST LAKE ELEMENTARY	0.11	-0.12
EAST RIDGE ELEMENTARY SCHOOL	0.01	-0.16
EAST RIDGE HIGH SCHOOL	0.01	0.04
EAST RIDGE MIDDLE SCHOOL	-0.04	-0.09
EAST SIDE ELEMENTARY	-0.07	-0.08
FALLING WATER ELEMENTARY	-0.01	0.23
GANNIS MIDDLE VALLEY ELEMENTARY	-0.03	-0.15
HAMILTON COUNTY HIGH SCHOOL	-0.07	0.34
HARDY ELEMENTARY SCHOOL	-0.05	-0.10
HARRISON ELEMENTARY SCHOOL	0.10	-0.14

School	Difference from 2008 average	Difference from 2016 average
HILLCREST ELEMENTARY	-0.17	0.07
HIXSON ELEMENTARY	0.09	0.26
HIXSON HIGH SCHOOL	0.19	0.02
HIXSON MIDDLE SCHOOL	0.13	-0.09
HOWARD ACADEMY OF ACADEMICS TECHNOLOGY	-0.04	0.21
HUNTER MIDDLE SCHOOL	-0.04	-0.10
LAKESIDE ACADEMY	-0.07	0.04
LOFTIS MIDDLE SCHOOL	-0.09	0.06
LOOKOUT MOUNTAIN ELEMENTARY	0.90	0.12
LOOKOUT VALLEY ELEMENTARY	-0.06	0.24
LOOKOUT VALLEY MIDDLE/HIGH SCHOOL	0.35	0.47
MCCONNELL ELEMENTARY SCHOOL	0.07	-0.14
NOLAN ELEMENTARY SCHOOL	-0.12	-0.01
NORMAL PARK MUSEUM MAGNET SCHOOL	0.27	0.03
NORTH HAMILTON ELEMENTARY SCHOOL	0.07	0.02
OOLTEWAH ELEMENTARY SCHOOL	-0.02	-0.15
OOLTEWAH HIGH SCHOOL	-0.22	-0.14
OOLTEWAH MIDDLE SCHOOL	-0.12	-0.04
ORCHARD KNOB ELEMENTARY	0.01	-0.07
ORCHARD KNOB MIDDLE SCHOOL	0.22	0.12
RED BANK ELEMENTARY SCHOOL	-0.12	-0.10
RED BANK HIGH SCHOOL	0.15	0.07
RED BANK MIDDLE SCHOOL	-0.06	-0.03
RIVERMONT ELEMENTARY	0.01	0.42
SALE CREEK MIDDLE/HIGH SCHOOL	0.18	0.09
SEQUOYAH HIGH SCHOOL	0.30	0.39
SNOW HILL ELEMENTARY SCHOOL	-0.02	-0.01
SODDY DAISY HIGH SCHOOL	-0.15	0.02
SODDY DAISY MIDDLE SCHOOL	0.09	0.06
SODDY ELEMENTARY SCHOOL	0.01	0.07
SPRING CREEK ELEMENTARY SCHOOL	-0.17	-0.07
THRASHER ELEMENTARY SCHOOL	-0.07	-0.19
TYNER ACADEMY	0.14	0.12
TYNER MIDDLE ACADEMY	0.14	-0.03
WALLACE A SMITH ELEMENTARY	-0.05	-0.03
WESTVIEW ELEMENTARY SCHOOL	0.00	0.01

School	Difference from 2008 average	Difference from 2016 average
WOLFTEVER CREEK ELEMENTARY	-0.02	0.01
WOODMORE ELEMENTARY	0.03	0.05

ANNEX V. General Purpose Operating Fund Budget
Function Codes

Function code	Function
71100	Regular Instruction Program
71200	Special Education Program
71300	Vocational Education Program
72110	Attendance
72120	Health Services
72130	Other Student Support
72210	Regular Instruction Program-Support Services
72220	Special Education Program-Support Services
72223	Vocational Education Program-Support Services
72310	Board of Education
72320	Director of Schools
72410	Office of the Principal
72510	Fiscal Services
72520	Human Services (Resources) Personnel
72610	Operation of Plant
72620	Maintenance of Plant
72710	Transportation
72810	Central and Other
73300	Community Services
73400	Early Childhood Education
76100	Regular Capital Outlay

ANNEX VI. Excluded Pre-K Salary and Benefits Estimates

School	Pre-K Teacher Count	Pre-K Assistant Count	Salaries: Teachers	Salaries: Assis- tants	Method #1 Benefits	Method #2 Benefits
Battle Academy For Teaching Learning	1		\$15,608		\$18,476	\$13,899
Calvin Donaldson Environmental Science Academy	2	2	\$106,772	\$36,182	\$73,904	\$67,932
Daisy Elementary	1	1	\$38,084	\$17,470	\$36,952	\$31,218
East Lake Elementary	2		\$72,088		\$36,952	\$33,113
East Ridge Elementary	2	2	\$94,531	\$34,010	\$73,904	\$65,357
Lakeside Academy	2		\$88,750		\$36,952	\$35,953
Lookout Valley Elementary	1	1	\$55,767	\$15,918	\$36,952	\$33,887
North Hamilton Elementary	1	1	\$40,125	\$14,367	\$36,952	\$30,874
Ooltewah Elementary	2	2	\$90,451	\$37,113	\$73,904	\$65,355
Orchard Knob Elementary	2		\$81,269		\$36,952	\$34,678
Red Bank Elementary		1		\$16,850	\$18,476	\$14,176
Snow Hill Elementary	1	1	\$41,145	\$16,850	\$36,952	\$31,601
Soddy Elementary	1	1	\$58,147	\$18,712	\$36,952	\$34,916
Spring Creek Elementary	1	1	\$46,245	\$18,091	\$36,952	\$32,747
Tommie F. Brown International Academy	2		\$81,269		\$36,952	\$34,678
Wolftever Creek Elementary	2	2	\$92,490	\$29,044	\$73,904	\$63,901
Woodmore Elementary	1	1	\$44,205	\$15,919	\$36,952	\$31,915

ANNEX VII. Average Per-Student Spending Categories by School

School	ADM	Adjusted Salary & Benefits	Schools general fund	Schools restricted fund	Title I	IDEA Funding	Title III Funding	Food service	Transportationv	Total expenditure	Avg per-student expenditure
Allen Elementary	596	\$3,175,124	\$95,908	\$64,820		\$164,967	\$396	\$269,999	\$208,325	\$3,979,539	\$6,677
Alpine Crest Elementary	299	\$1,702,397	\$23,953	\$46,522	\$41,828	\$96,517	\$1,281	\$135,452	\$104,512	\$2,152,462	\$7,199
Apison Elementary School	628	\$3,290,659	\$85,388	\$58,531		\$169,060	\$6,569	\$284,495	\$219,511	\$4,114,213	\$6,551
Barger Academy	402	\$2,355,658	\$39,506	\$31,950	\$205,201	\$91,220	\$143	\$182,113	\$140,515	\$3,046,305	\$7,578
Battle Academy For Teaching Learning	374	\$2,362,916	\$68,959	\$37,645	\$54,106	\$67,019	\$663	\$169,429	\$130,728	\$2,891,465	\$7,731
Bess T Shepherd Elementary	553	\$3,132,366	\$26,092	\$27,986	\$209,515	\$122,068	\$20,486	\$250,519	\$193,295	\$3,982,327	\$7,201
Big Ridge Elementary	477	\$2,403,941	\$98,342	\$31,749		\$118,044	\$423	\$216,089	\$166,730	\$3,035,319	\$6,363
Brainerd High School	554	\$4,287,680	\$36,322	\$172,269	\$294,733	\$177,703	\$270	\$250,972	\$193,645	\$5,413,594	\$9,772
Brown Middle School	472	\$2,511,479	\$43,536	\$61,961	\$117,694	\$96,277	\$435	\$213,824	\$164,982	\$3,210,188	\$6,801

School	ADM	Adjusted Salary & Benefits	Schools general fund	Schools restricted fund	Title I	IDEA Funding	Title III Funding	Food service	Transportationv	Total expenditure	Avg per-student expenditure
Calvin Donaldson Environmental Science Academy	312	\$2,082,540	\$19,992	\$14,003	\$204,644	\$76,446	\$3,756	\$141,342	\$109,056	\$2,651,778	\$8,499
Central High School	884	\$4,881,555	\$78,717	\$308,300	\$81,957	\$209,834	\$275	\$400,468	\$308,993	\$6,270,098	\$7,093
Chatt High Center For Creative Arts	585	\$3,372,786	\$112,622	\$237,972		\$62,337	-	\$265,015	\$204,480	\$4,255,213	\$7,274
Chattanooga School For Arts And Sciences CSAS Upper	638	\$3,252,326	\$128,043	\$268,306		\$111,356	-	\$289,025	\$223,006	\$4,272,062	\$6,696
Chattanooga School For Arts And Science CSAS Lower	360	\$2,799,209	\$72,024	\$150,922		\$65,947	\$142	\$163,086	\$125,834	\$3,377,164	\$9,381
Chattanooga School For The Liberal Arts	410	\$2,595,332	\$112,871	\$126,017		\$71,523	-	\$185,737	\$143,311	\$3,234,792	\$7,890
Clifton Hills Elementary	530	\$2,691,674	\$21,483	\$17,477	\$353,680	\$108,122	\$21,910	\$240,099	\$185,256	\$3,639,702	\$6,867
Daisy Elementary	496	\$2,387,183	\$60,023	\$35,533	\$65,343	\$150,618	-	\$224,697	\$173,371	\$3,096,768	\$6,243
Dalewood Middle School	296	\$2,039,095	\$16,710	\$41,294	\$170,723	\$104,362	\$275	\$134,093	\$103,464	\$2,610,016	\$8,818

School	ADM	Adjusted Salary & Benefits	Schools general fund	Schools restricted fund	Title I	IDEA Funding	Title III Funding	Food service	Transportationv	Total expenditure	Avg per-student expenditure
Dupont Elementary	358	\$1,796,139	\$35,405	\$15,447	\$125,881	\$75,572	\$7,675	\$162,180	\$125,135	\$2,343,435	\$6,546
East Brainerd Elementary	663	\$3,756,952	\$97,614	\$25,049	\$95,934	\$189,279	\$11,561	\$300,351	\$231,744	\$4,708,484	\$7,102
East Hamilton Middle/High School	1,707	\$8,955,998	\$200,401	\$584,042		\$348,239	\$277	\$773,301	\$596,663	\$11,458,922	\$6,713
East Lake Academy Of Fine Arts	527	\$3,144,074	\$33,911	\$55,155	\$283,055	\$145,293	\$10,931	\$238,740	\$184,207	\$4,095,366	\$7,771
East Lake Elementary	506	\$2,735,996	\$26,444	\$13,635	\$303,630	\$113,711	\$23,877	\$229,227	\$176,867	\$3,623,387	\$7,161
East Ridge Elementary	933	\$4,473,643	\$86,069	\$47,285	\$250,485	\$245,530	\$16,261	\$422,666	\$326,120	\$5,868,057	\$6,289
East Ridge High School	785	\$4,562,633	\$44,136	\$228,078	\$186,092	\$124,011	\$10,444	\$355,619	\$274,388	\$5,785,401	\$7,370
East Ridge Middle School	713	\$3,489,094	\$51,625	\$70,648	\$255,643	\$160,140	\$7,370	\$323,002	\$249,221	\$4,606,743	\$6,461
East Side Elementary	593	\$3,196,800	\$47,253	\$29,226	\$332,548	\$103,207	\$45,756	\$268,640	\$207,277	\$4,230,706	\$7,134
Falling Water Elementary	195	\$1,323,540	\$36,275	\$24,991	\$22,243	\$51,704	-	\$88,338	\$68,160	\$1,615,252	\$8,283
Ganns Middle Valley Elementary	573	\$2,813,566	\$78,396	\$79,272		\$103,419	\$4,755	\$259,579	\$200,286	\$3,539,273	\$6,177

School	ADM	Adjusted Salary & Benefits	Schools general fund	Schools restricted fund	Title I	IDEA Funding	Title III Funding	Food service	Transportationv	Total expenditure	Avg per-student expenditure
Hardy Elementary School	443	\$2,645,265	\$24,480	\$8,860	\$275,269	\$106,915	\$244	\$200,687	\$154,846	\$3,416,565	\$7,712
Harrison Elementary	377	\$1,907,726	\$36,745	\$11,758	\$85,036	\$99,067	\$430	\$170,788	\$131,776	\$2,443,327	\$6,481
Hillcrest Elementary	276	\$1,769,936	\$18,121	\$3,490	\$151,747	\$67,513	\$98	\$125,033	\$96,473	\$2,232,409	\$8,088
Hixson Elementary	441	\$3,281,990	\$59,475	\$23,871	\$113,073	\$135,991	\$8,409	\$199,781	\$154,147	\$3,976,737	\$9,018
Hixson High School	829	\$5,035,815	\$59,767	\$339,018	\$82,128	\$220,460	\$1,088	\$375,552	\$289,768	\$6,403,595	\$7,724
Hixson Middle School	666	\$3,410,609	\$71,881	\$165,021	\$85,529	\$231,537	\$3,205	\$301,710	\$232,793	\$4,502,285	\$6,760
Hunter Middle School	755	\$3,681,780	\$149,870	\$104,433		\$231,102	\$835	\$342,028	\$263,902	\$4,773,950	\$6,323
Lakeside Academy	432	\$2,295,642	\$64,222	\$23,730	\$241,347	\$78,466	\$394	\$195,704	\$151,001	\$3,050,505	\$7,061
Loftis Middle School	578	\$3,560,954	\$116,199	\$150,461		\$177,726	\$414	\$261,844	\$202,034	\$4,469,632	\$7,733
Lookout Mountain Elementary	170	\$1,223,693	\$42,887	\$57,120		\$29,781	-	\$77,013	\$59,422	\$1,489,916	\$8,764
Lookout Valley Elementary	284	\$1,814,600	\$42,338	\$17,866	\$70,247	\$97,426	\$524	\$128,657	\$99,269	\$2,270,927	\$7,996

School	ADM	Adjusted Salary & Benefits	Schools general fund	Schools restricted fund	Title I	IDEA Funding	Title III Funding	Food service	Transportationv	Total expenditure	Avg per-student expenditure
Lookout Valley Middle / High School	366	\$2,727,929	\$24,738	\$89,436	\$47,655	\$96,690	\$280	\$165,804	\$127,931	\$3,280,464	\$8,963
McConnell Elementary	490	\$2,456,155	\$87,037	\$15,553		\$116,690	\$279	\$221,979	\$171,274	\$3,068,966	\$6,263
Nolan Elementary	608	\$3,439,346	\$101,004	\$126,571		\$116,573	\$139	\$275,435	\$212,520	\$4,271,587	\$7,026
Normal Park Museum Magnet School	779	\$4,588,288	\$209,602	\$464,645		\$192,552	\$1,913	\$352,901	\$272,291	\$6,082,192	\$7,808
North Hamilton Elementary	338	\$1,778,108	\$46,850	\$27,033	\$35,760	\$91,729	-	\$153,120	\$118,144	\$2,250,744	\$6,659
Ooltewah Elementary	839	\$3,771,604	\$128,077	\$33,450		\$180,917	\$1,123	\$380,082	\$293,263	\$4,788,516	\$5,707
Ooltewah High School	1,414	\$6,903,290	\$82,941	\$415,669		\$271,418	\$3,751	\$640,567	\$494,248	\$8,811,884	\$6,232
Ooltewah Middle School	792	\$4,144,623	\$85,109	\$134,030	\$87,432	\$235,346	\$5,140	\$358,790	\$276,835	\$5,327,305	\$6,726
Orchard Knob Elementary	591	\$2,874,438	\$22,434	\$22,968	\$355,349	\$127,265	\$4,920	\$267,733	\$206,578	\$3,881,685	\$6,568
Orchard Knob Middle	466	\$2,730,086	\$10,415	\$38,309	\$237,454	\$180,106	\$3,832	\$211,106	\$162,885	\$3,574,194	\$7,670
Red Bank Elementary	642	\$3,398,567	\$38,765	\$29,748	\$166,682	\$209,423	\$6,885	\$290,837	\$224,404	\$4,365,311	\$6,800

School	ADM	Adjusted Salary & Benefits	Schools general fund	Schools restricted fund	Title I	IDEA Funding	Title III Funding	Food service	Transportationv	Total expenditure	Avg per-student expenditure
Red Bank High School	722	\$6,532,640	\$90,855	\$334,328	\$95,310	\$196,502	\$2,901	\$327,079	\$252,367	\$7,831,982	\$10,848
Red Bank Middle School	610	\$3,240,817	\$32,348	\$90,068	\$148,196	\$179,897	\$3,519	\$276,341	\$213,219	\$4,184,404	\$6,860
Rivermont Elementary	186	\$1,844,410	\$18,060	\$9,030	\$124,157	\$63,278	\$317	\$84,261	\$65,014	\$2,208,527	\$11,874
Sale Creek Middle / High School	568	\$3,089,484	\$36,046	\$271,211		\$152,113	\$290	\$257,314	\$198,538	\$4,004,996	\$7,051
Sequoyah High School	337	\$2,804,189	\$30,921	\$134,406	\$48,487	\$167,079	-	\$152,667	\$117,795	\$3,455,543	\$10,254
Signal Mountain Middle/High School	1,252	\$7,002,428	\$204,081	\$487,126		\$189,925	\$700	\$567,178	\$437,623	\$8,889,062	\$7,100
Snow Hill Elementary	509	\$2,707,446	\$91,738	\$23,206		\$120,317	\$270	\$230,586	\$177,915	\$3,351,478	\$6,584
Soddy Daisy High School	1,210	\$6,473,388	\$113,491	\$457,142		\$274,034	-	\$548,151	\$422,942	\$8,289,149	\$6,851
Soddy Daisy Middle School	502	\$2,733,179	\$43,560	\$135,863	\$51,843	\$146,696	\$143	\$227,415	\$175,469	\$3,514,168	\$7,000
Soddy Elementary	337	\$2,128,673	\$71,264	\$29,259	\$41,235	\$150,400	-	\$152,667	\$117,795	\$2,691,293	\$7,986
Spring Creek Elementary	701	\$3,742,135	\$74,572	\$17,074	\$270,300	\$193,577	\$16,968	\$317,565	\$245,027	\$4,877,219	\$6,958

School	ADM	Adjusted Salary & Benefits	Schools general fund	Schools restricted fund	Title I	IDEA Funding	Title III Funding	Food service	Transportationv	Total expenditure	Avg per-student expenditure
STEM School Chattanooga	190	\$1,197,679	\$18,956	\$32,039		\$41,694	-	\$86,073	\$66,412	\$1,442,853	\$7,594
The Howard School	619	\$4,687,673	\$14,134	\$217,021	\$318,645	\$168,982	\$14,066	\$280,418	\$216,365	\$5,917,304	\$9,559
Thrasher Elementary	560	\$2,682,174	\$115,212	\$84,852		\$90,637	\$284	\$253,690	\$195,742	\$3,422,591	\$6,112
Tommie F. Brown International Academy	314	\$2,105,224	\$22,304	\$61,789	\$153,903	\$50,130	\$880	\$142,248	\$109,755	\$2,646,232	\$8,427
Tyner Academy	585	\$3,234,114	\$54,227	\$208,779	\$215,981	\$125,311	\$1,714	\$265,015	\$204,480	\$4,309,622	\$7,367
Tyner Middle Academy	470	\$2,426,150	\$39,156	\$82,858	\$232,450	\$103,317	\$2,879	\$212,918	\$164,283	\$3,264,012	\$6,945
Wallace A. Smith Elementary	634	\$3,655,680	\$123,531	\$71,601		\$166,851	\$1,228	\$287,213	\$221,608	\$4,527,712	\$7,142
Westview Elementary	706	\$3,629,692	\$113,146	\$69,549		\$183,583	\$846	\$319,831	\$246,775	\$4,563,421	\$6,464
Wolftever Creek Elementary	415	\$2,664,883	\$32,100	\$30,193	\$116,770	\$121,253	\$5,123	\$188,002	\$145,059	\$3,303,383	\$7,960
Woodmore Elementary	347	\$1,811,842	\$13,207	\$14,577	\$199,640	\$75,552		\$157,197	\$121,290	\$2,393,306	\$6,897

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ANNEX VIII. Persons Contacted for This Report

No.	Name	Title	Organization
1	Heather DeGaetano	Managing Director	Causeway
2	Jared Bigham	Education and Workforce Initiatives	Chattanooga Chamber; Public Education Foundation
3	Elaine Swafford	Executive Director	Chattanooga Girls Leadership Academy
4	Michael Baskin	Chief Policy Officer	City of Chattanooga
5	Maeghan Jones	President	Community Foundation
6	Shane Harwood	Principal	East Lake Elementary School
7	Steven Robinson	Principal	East Ridge Middle School
8	Amelia Jacobs	Teacher	East Ridge Middle School
9	Marguerite Roza	Director, Edunomics Lab	Georgetown University
10	Laura Anderson	Associate Director, Edunomics Lab	Georgetown University
11	Christie Jordan	Assistant Superintendent of Finance	HCDE
12	Preston Gonter	Federal Programs Director	HCDE
13	Carolyn Childs	Director School Nutrition	HCDE
14	Keri Randolph	Assistant Superintendent of Innovation	HCDE
15	Rachel Elliott	CPA, Accounting Manager, Federal Programs	HCDE
16	Kimberly Myers	Accounting Manager	HCDE
17	Jill Levine	Principal	Normal Park Museum Magnet
18	Thomas Arnold	Principal	Ooltewah Elementary School
19	Blake Freeman	Principal	Soddy Daisy Middle School
20	Nupur Sashti	Executive Director, Office of Data Management and Reporting	Tennessee Department of Education
21	Chris Brooks	TEA UniServ Staff	Tennessee Education Association
22	Theresa Turner	TEA UniServ Coordinator	Tennessee Education Association
23	Lori Quillen	Program Officer	The Benwood Foundation
24	Rebekah Marr	Research Consultant (formerly)	The Benwood Foundation
25	Dana Price	SE Regional Director	TN PTA
26	Sherrie Ford	President, Hamilton County	TN PTA
27	Elizabeth Crews	Executive Director	UnifiEd

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