

# Benchmarking Ohio's School Districts: Identifying districts that get more for their money in non-instructional spending







# **Benchmarking Ohio's School Districts:** Identifying districts that get more for their money in non-instructional spending

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About one-third of every public education dollar spent in Ohio does not make it into the classroom. Nearly \$7 billion a year in Ohio is spent on non-instructional areas in primary and secondary schools to pay for staff, equipment and materials that transport students to and from schools, keep the buildings open and running, make and serve food, and oversee the entire operations.



All of that non-instructional spending is important to the success of any school or district. Yet, policymakers, legislators and the public rightly focus on the amount of dollars spent on instruction (65.6% in Ohio) and the dollars spent elsewhere (34.4%.)1 That's because every dollar spent in noninstructional areas could potentially be dollars spent for instruction, and during lean budget times, that becomes a focus.

Thus, any examination of education efficiency should include a review of spending in the noninstructional areas like administration, transportation, food service, and maintenance and operations.

This benchmarking study takes a straight-forward approach to the issue of non-instructional spending by asking: How do school districts compare to their peers in these non-instructional spending areas, and if some seem to be getting more for their money, how can others learn from them and emulate those practices?

The results of this study, summarized below, are not a trivial matter.

The study identifies 136 Ohio public school districts that are getting more for their money than their peers in non-instructional spending areas, meeting quality indicators in each area but spending less than similar districts. One district, Akron Public Schools, is best-in-class in four out of five areas; seven others repeat in three of five areas.

All of these "smart schools" represent the best-in-class districts that can potentially be examples of how other districts can spend less but also meet minimal quality standards.

If all Ohio public school districts emulated the best-in-class districts in their peer groups, Ohio could save \$1.094 billion annually in state and local dollars for non-instructional spending, for a savings of about 20% across all spending categories. That is an average potential savings of about \$786 per pupil. The table below summarizes the potential savings.

# Potential statewide savings for non-instructional areas

Total Potential Savings	\$1.094 billion	20% savings
Maintenance & Operations:	\$343.5 million	17% savings
Central Administration:	\$248 million	23% savings
School-level Administration:	\$240 million	27% savings
Food Service:	\$141 million	22% savings
Transportation:	\$121.2 million	17% savings

These kinds of savings won't materialize overnight, and for some districts, maybe not at all. Benchmarking processes at their best give a target that others can shoot for, but the ability to meet that benchmark may be difficult to due to long-term contracts, bureaucratic inertia, or circumstances not accounted for in the benchmark study. But even if districts merely met the average spending levels of their peers across all categories, Ohio would save \$507 million a year in state and local education spending.

<sup>1</sup> From ODE Expenditure Flow Model. \$6722.59(instructional and pupil support)/10,253.57 (building operations, administrative and district staff support) = 65.6% instructional and 34.4% noninstructional. According to a recent report from Deloitte Research, up to 40 percent of every dollar spent on education never makes it to the classroom.



To get these kinds of savings will first take examination of best practices that these districts follow, an examination that will come in a separate study. (This study offers some general industry best practices as a start, however.) Then, state leaders and Ohio's public school districts must work together to share these practices and implement them across the state. Of course, not all districts may be able to reach the spending levels of the best-in-class peer districts in one year, two years, and perhaps at all. But by benchmarking districts against their peers and highlighting the differences, more school districts will have opportunities and guidance to better absorb expected reduction in state aid that may be as high as cuts of 10% to 20%.

The state, as it contemplates reducing state aid for public education, has a role and responsibility to help school districts reduce spending without hurting student achievement. Working with education stakeholders, state leaders should have as a primary goal sharing best practices in these areas to help others succeed at a lower cost.

# The Benchmarking Study

An effective way to examine spending practices and resource management is to benchmark specific non-instructional services across similar school districts. Benchmarking can offer a useful and productive tool for districts to see how they stack up against their peers and move toward greater efficiency. It not only offers school districts useful comparative data to help manage their resources, but also identifies best practices and measures areas of greatest impact. Districts also gain a greater understanding of their systems and what needs to be changed to make them work more efficiently.

Both state and national organizations are recognizing the need for benchmarking and sharing comparative data. Just last year, the Ohio Department of Education (ODE) launched the first-ever School District Benchmarking Report for specific instructional and non-instructional areas that are meant to "provide insight on how districts manage the resources provided by the state."

The School District Benchmarking Report covers various aspects of school district performance, administration and management, with data on academic performance, general financial condition, expenditure per pupil, operational and efficiency measures. Within each of these areas, a number of relevant data pieces are captured for each district. The operational and efficiency measures are subdivided into six specific groups - teacher costs, administrator costs, cost of benefits, building operations and maintenance, transportation, and food service – that then include specific data pieces.

The data captured by ODE covers a wide array of quality indicators that can be offered as ways to measure performance in a specific area or highlight descriptive differences between districts. For the purposes of this report, in some cases the ODE benchmark data was one of the quality indicators. In others the data was seen as not relevant as a quality indicator. For example, in the case of transportation, the indicators in the report help describe the district, capturing square miles in the district, riders per square mile or percent of non-traditional riders. One indicator, the ridership ratio, captures the efficiency of each district.

The Council of the Great City Schools, the nation's primary coalition of large city school districts, has begun a similar benchmarking effort for urban districts across the country recognizing the value of good comparative data. Its report identifies good data indicators for comparing specific non-instructional services in business operations (including food services, transportation and maintenance), finance, human resources and information technology.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> See, for instance, "A Report on the Performance Measurement and Benchmarking Project," October 2008, Council of Great City Schools. http:// www.cgcs.org/Pubs/ManagingResults\_1008.pdf



Whether Ohio's effort<sup>3</sup> or the Council of Great City Schools, benchmarking is a popular business practice to support continuous improvement and gain a competitive advantage. For many businesses, the benchmarking efforts feed into effective strategic planning processes and budgeting and serve as a way to identify new ideas and methods to improve processes.<sup>4</sup> By identifying and learning from the best practices, businesses have an opportunity to learn from successful peer companies. Similarly, this benchmarking report will identify benchmark indicators and districts, offering districts the opportunity to learn from their peer Ohio districts.

Comparing key data gives school districts the ability to analyze how well they manage their resources. Good data provides the evidence needed to make improvements, identify best practices and determine why some practices produce better results than others, in the end leading to more resources for classroom instruction and instructional support. Long-term efforts to benchmark key data ultimately could help to spur accountability for results, clarify goals and priorities, measure progress, enhance transparency and public trust, and improve understanding of various policy options.

Similar to these benchmarking efforts, this study offers Ohio's districts a way to begin to measure themselves against other districts and identify areas where greater efficiencies can be achieved. Building on this benchmarking concept and understanding the importance and usefulness of gathering good comparative data for benchmarking, this study, as noted above, highlights "best-in- class" school districts in four non-instructional areas: administration, transportation, food services and maintenance and operations. The guiding premise is that non-instructional savings could help allay cuts to instructional areas, especially in this time of strained budgets, as well as improve operational effectiveness.

# Overarching Research Design

The goal of this benchmarking study is to spread best practices and ways to strategically cut costs to districts across Ohio by identifying benchmark districts that are providing one of four specific non-instructional services - administration, food services, maintenance and operations or transportation - both efficiently and effectively. That is, identifying the district that has the lowest cost while providing a quality service.

This analysis starts with a base cost measurement for each category. The base costs are cost per pupil for maintenance and operations and administration, cost per meal for food services and cost per bus for transportation. The cost per pupil figures come from the Ohio Department of Education's District Data Profile, or CUPP Report, the cost per meal comes from ODE's Fiscal Benchmarking Report, and the cost per bus was provided by ODE's Transportation Division. To ensure a fair comparison, districts were divided into groups of peers, using ODE's typology grouping that captures the geographical and socio-economic demographics of the district.

Quality indicators were applied to filter out districts that might be spending the least but were not necessarily the most effective in achieving results. The quality indicators often act as proxies for basic performance levels in the specific non-instructional area. Then the districts with the cost in the lowest 5% were identified. An average cost per unit was then determined as a reasonable fiscal measure for other districts to work toward in each typology.

In end, the study lists benchmark districts that can provide other districts with an idea of an attainable fiscal goal for providing quality non-instructional services at a reasonable cost. It identifies the gap between the benchmark districts and all other districts and includes ways to reach this goal by highlighting the best practices gleaned from these districts.

<sup>&</sup>lt;sup>3</sup> The benchmarking study borrows from and updates a "Smart Schools" study conducted by New Ohio Institute in 2000. That study, which was unpublished, used a methodology similar to the one used here.

<sup>&</sup>lt;sup>4</sup> Kathawala, Yunus. "The Benchmarking process: assessing its value and limitations" Industrial Management July 1, 1997

Implied in this analysis is that if the benchmark districts can provide the specified non-instructional service at a quality level for a given amount, other similar districts could do so as well. This study offers the opportunity to determine that level of spending based on quality and identify the practices that could help other districts achieve higher efficiency.



# Grouping the Districts – Typology

The Ohio Department of Education divides all 613 school districts into one of seven designated peer typologies. These typologies group school districts by geographic location (urban, rural, small town), demographics (low to high poverty, low to high socioeconomic status) and enrollment size. The eight typologies are:5

Table 1: Typology of Ohio's Districts FY10

Typology	Number of Districts	Total FY10 ADM*	Minimum ADM*	Maximum ADM*	Mean ADM*	Number of Averaged Benchmark Districts (5%) <sup>6</sup>
1 – Rural: High poverty, low median income	97	147,156	187	4,185	1,517	5
2 – Rural: Low Poverty, Low to mod median income, small student population	161	204,637	405	4,043	1,271	8
3 – Rural/Small Town: Mod to high median income	81	130,002	227	5,170	1,605	4
4 – Urban: Low median income, high poverty	102	258,920	427	7,108	2,538	5
5 – Major Urban: Very high poverty	15	254,652	3,428	51,308	16,976	2.
6 – Urban/ Suburban: High median income	107	400,471	688	19,950	3,743	5
7 – Urban/ Suburban: very high median income, very low poverty	46	254,517	967	17,416	5,533	3
TOTAL	609	1,650,355			2,710	

<sup>\*\*</sup>Four districts were eliminated from the analysis due to their extremely small size: Put-in-Bay, Bass Island, College Corner and Kelley's Island

- % Workforce Admin/Professional (2000 census)
- Median income for district TY2002 (Dept of Taxation)
- % of adult population with college or more (2002 census)
- Population density (Population 2000 census per square mile)
- Total ADM\* FY2004 (EMIS)
- Percent poverty (FY2004 data used for DPIA calculations)
- Agriculture assessed valuation as percentage of residential + Agriculture (FY2004)
- Minority ADM\* as % of total ADM (FY2004 EMIS)

<sup>&</sup>lt;sup>5</sup> Variables used in Creating District Clusters (FY2004 – most recent year updated)

<sup>\*</sup>ADM is average daily membership, a standard count of student population.

<sup>6</sup> Used 5% of the number of districts in typology, with a minimum of 3 districts. The only exception is the Major urban categories where only one was selected for the Large Major Urbans, representing 10%, and two were selected in the Small Major Urbans, representing 13%.

Table 2: Breakdown of Major Urban Districts



Typology 5a – Large Major Urban	ADM	Averaged Bench- mark Districts (5%)	Typology 5b – Small Major Urban	ADM	Averaged Benchmark Districts (5%)
Columbus City SD Cleveland Municipal SD Cincinnati City SD Toledo City SD Akron City SD	51,309 46,676 32,506 25,194 23,044	1	Dayton City SD Canton City SD Hamilton City SD Lorain City SD Springfield City SD Youngstown City SD Euclid City SD Clev. Hts-Univ Hts Warren City SD E. Cleveland City SD	13,986 9,830 9,308 8,057 7,280 6,507 6,168 5,908 5,451 3,428	2
TOTAL	178,729		TOTAL	72,923	

As these typologies capture and categorize the main differences and characteristics of Ohio districts, they are a logical method of sorting districts to provide a more meaningful comparison. The typologies have been used widely elsewhere for comparisons between districts (i.e., school district report cards) and are generally accepted as a peer typology. These groupings ensure that this study is not highlighting efficiencies in Cincinnati Public Schools, with more than 30,000 students, as a useful comparison for a school district like Valley Local, with less than 1,200 students.

One exception to the ODE Typologies has been made for the purposes of this study. The urban typology (Typology 5) has been split into the Large Major Urban and the Small Major Urban to help account for the disparities in size and scope of the major urban districts and make the comparison more meaningful. The range in the major urban category is from 51,309 (Columbus) to 3,428 (East Cleveland City), a difference of more than 47,000 students. The division between large and small urban districts fell naturally between Akron and Dayton, where there is a difference in enrollment of more than 9,000 students. This creates a group of five Large Major Urban districts and another group of 10 Small Major Urban districts. See Table 2.

ODE's typologies were used to categorize three of the four areas: administration, maintenance and operations and food services. The remaining non-instructional area - transportation - adhered to a different method of grouping that reflects the unique characteristics of transportation. This methodology is explained in depth in the transportation section.

# Determining Quality

To ensure that the benchmark districts were meeting desired standards and could be held up as models for spending practices, quality indicators specific to the four non-instructional areas were identified. In each area, the quality indicators were derived from industry standards, best practices, research or existing data. They reflect performance measurement, government regulations and fiscal policies. Many of the indicators can be found in ODE's School Districts Benchmarking Report, reflecting their importance in gauging quality in each non-instructional area. The indicators are designed to ensure good fiscal health, safety and performance. They are intended to establish a baseline for quality service in the non-instructional areas - to make sure that quality is not being sacrificed to achieve a lower cost. As a baseline, they are not intended to highlight districts that are going beyond a basic, acceptable quality measurement.

The following quality indicators were used to screen out school districts that were performing below standard. The district:



## **Central Administration**

- Must not be in academic watch or emergency.
- Must not be in in fiscal caution, watch or emergency.<sup>7</sup>
- Must have a teacher attendance rate at or above the state average of 95%.
- Must have an ending fund balance at or above 2% of total revenue.
- Must not have a projected deficit in FY11 or FY12.
- Must have a Bureau of Workers Compensation Composite Rate at or below 1.
- Must have an instructional ratio greater than or at the state average of 55.4%.
- Must have no material financial violations in most recent state audit.
- Must not have failed their most recent levy, if any, in the past three years.

## **School-level Administration**

- Must not be in academic watch or emergency.
- Must have a teacher attendance rate at or above the state average of 95.0%.
- Must be above the three-year state performance index average for their typology.
- Must have a student attendance rate of at least the state report card indicator of 93%.
- Must not have had their designation lowered because of value-added performance.

## Maintenance and Operations

- Must not be in in fiscal caution, watch or emergency.
- Must have a Bureau of Workers' Compensation (BWC) Composite Rate at or below 1.
- Must have raised all matching dollars if approved for a grant from Ohio School Facilities Commission.
- Must have a dedicated revenue source for facilities.
- Must have a Safety Plan.
- Must have a chemical hygiene plan.
- Must encourage or provide for training for facility staff.
- Must have had no school closure due to facility-related problems.
- Must have no heating systems over 20 years old.

## **Pupil Transportation**

- Must not be in in fiscal caution, watch or emergency.
- Must have an average age for its bus fleet equal to or no older than the state average of 9.42
- Must have no regularly assigned buses more than 15 years old.<sup>8</sup>
- Must have an inspection passage rate at least at state average of 93.3%.

<sup>&</sup>lt;sup>7</sup> Fiscal caution, watch and emergency are designations given to school districts that are in varying degrees of fiscal distress. The Department of Education, in consultation with the Auditor of State, has established "fiscal practices and budgetary conditions" as guidelines for the State Superintendent of Public Instruction to place school districts in Fiscal Caution, Watch or Emergency. Districts in one of these designations have conditions they must then meet to be released from the designation. If the district does meet the conditions, their designation can be increased to the next level.

<sup>&</sup>lt;sup>8</sup> From http://www.nasdpts.org/paperBusReplacement.html The National Association of State Directors of Pupil Transportation cites two studies that find the point - age of the bus - at which the annual operation costs of school buses begin to increase significantly and continue an annual increase each year thereafter. One found this occurs at age 12 for type "C" buses while another found it was 15 for type "D" buses, both of which are relatively common buses used in districts. This study therefore chose 15 years as the cutoff age.

#### **Food Services**

- Must not be in fiscal caution, watch or emergency
- Must be self-supporting.
- Must be in compliance with federal food service regulations (Coordinated Review Effort)
- Must have lunch participation greater than state average of 54.3%.
- Must offer the National School Lunch Program.
- Must provide breakfast in compliance with state law.
- Must reach 99% or more of poor students eligible for federal subsidies.

Adherence to these quality standards was determined through various sources. Most data was obtained through the Ohio Department of Education (ODE), including fiscal or academic status, school spending or participation levels, and compliance with government regulations. Additional indicators were determined through survey tools or other government agencies.

This study focused on the lowest-spending districts in each peer typology to determine whether those districts passed the indicators. If it was determined that a lowest-spending district did not meet the quality indicators, the next lowest-spending district was reviewed until one could be found that met all the standards.

# Identifying Benchmark Districts

The lowest-spending district in each typology that was able to meet or exceed the quality indicators was declared the benchmark district. The benchmark district therefore is the district that provides a basic quality service at the lowest cost in the specified non-instructional spending area within its typology.

To account for some variation in how districts operate, a cohort of the lowest 5 percent of all benchmark districts in each typology was identified and then averaged to arrive at a "district benchmark average." This offers a more reasonable goal for other districts to target than one based on a single benchmark district.

As well as the quality indicators seem to perform, it should be noted that in a few instances some school districts accepted as benchmarks could not meet all of the original quality indicators. For example, nearly all districts in the wealthiest suburban peer typology had difficulty reaching the food services participation rate indicator, which is likely due to the low poverty rate. Also, the major urban districts had difficulty meeting all the indicators in more than one section of this report. This is likely due to the small number of districts in their peer typology as well as the unique challenges facing urban school districts. Each of the exceptions is noted in this report.

# Calculating the Spending Gap

With the benchmark districts selected and an average spending amount determined, the average spending by benchmarks can be compared to other districts in each typology. For each noninstructional service, the benchmark average was compared with each district in the peer typology to calculate the spending gap.

## Gaps

School districts that spent more than the benchmark average produced a positive gap, representing potential savings for the district if it were to perform similarly to the benchmark districts.

Some districts spending more than the benchmark may have also met the quality indicators for that spending category, indicating that these schools are possibly spending more than they need to provide quality non-instructional services.



Other districts may spend more than the benchmark but not have met the quality indicators for the category, hinting that the district has potentially overspent for the service and is not providing quality services.



The assumption of this study was districts can adjust their practices to achieve the same quality and spending levels as the benchmark districts in their peer typology. Achieving both efficiency and effectiveness is the objective, rather than achieving quality above reasonable standards, which may not be cost effective.9

# Interpreting the Gap

The gaps, which represent potential savings, have been aggregated within typologies and on a statewide level. The potential statewide savings in state and local spending across the non-instructional areas is the sum of the (positive) gaps from all districts. However, it should be noted that the potential savings identified in a given school district are not transferable to another school district, and that savings in one district could be realized independent of what any other district is doing. As noted, this is savings across state and local spending.

## Limitations

The fact that the benchmark districts spend a certain amount and reach an identified quality level suggests efficiencies are being achieved in these districts. However, it is important to note that the gap calculations (and the steps leading to the gap calculation) have some limitations.

First, the quality indicators used in this study represent a reasonably acceptable threshold, not the highest level of quality. Schools that exceed these thresholds certainly deserve credit for doing so, but our view is that in a time of budget pressure, spending on non-instructional areas should not be excessive, even if it brings a much higher level of quality. Schools are in the business of ensuring high academic achievement of students, and spending more than is necessary for food services, transportation, administration, and maintenance and operations may be wasteful in that it inevitably takes funding away from instructional areas.

Also, this study does not necessarily show that spending a set amount will result in achieving certain quality indicators. While the benchmark districts have been able to meet the quality indicators and spend less than others, their reasons for success might not always be apparent or even discoverable. What can be said is that the existence of lower spending districts with high levels of quality is a compelling yardstick that other similar districts could match.

Finally, this study did not have a reasonable way to adjust for possible variations in cost across the state. Ohio's school funding formula previously had a "cost of doing business" adjustment built into its funding formula that adjusted the base cost formula due to presumed differences in labor markets. However, this was phased out in FY 2008 and no reasonable measure has been deemed acceptable to measure differences in costs based on geographical location or various labor markets. 10

<sup>9</sup> Districts spending below the benchmark districts' average present a slightly different issue. They were not chosen as a benchmark because they did not meet the desired quality levels, but the "negative gap" doesn't necessarily represent the amount needed for a district to meet the quality indicators. Rather, the suggestion is that the lower-spending district could achieve quality by emulating the benchmark districts, which spend more and achieve more quality. It seems unlikely that any savings could be found for these districts and in fact some level of additional spending might be needed. Just how much these districts ought to spend to meet the quality indicators, however, is outside the scope of this study.

<sup>10</sup> In the last year of the Cost of Doing Business Factor (CDBF), the widest variation of differences in Ohio labor markets was 2.5% in Ohio, which by itself would not explain most of the variation in spending across districts within a typology or between benchmarked districts and others. The CDBF was applied countywide - all districts within the same county had the same CDBF; was based on the average weekly wage for the county and all contiguous counties; and was used to increase the base cost formula amount for every district in the county. For instance, in FY 2007, Gallia County had a factor of 1.0, and Hamilton County had a factor of 1.025. Multiplied by the base cost (in FY 2007 it was \$5,403), Gallia districts would have a base cost of \$5,403 and Hamilton districts would have \$5,538. The range across the state in the last year of the CDBF was \$5,403 to \$5,538. For a brief description, see http://www.lsc.state.oh.us/schoolfunding/illustration.pdf

# Food Service Overview



The role of food service in public schools is clearly an important one. Research shows that academic performance can be affected by a child's nutrition, and meeting the basic need for food has become a central function for many school districts, ensuring that children have the nutrition they need to help them learn. 11 At the same time, food service is a major budget item that directs substantial resources to a non-instructional function, and it is equally essential that Ohio school districts spend no more than is necessary to provide this service to keep more dollars available for instruction. Across the state, school districts spend \$642 million a year in state, federal and local funds on food service operations. 12

Ensuring that Ohio's districts have quality food service programs that are as efficient as possible will benefit their bottom line and academics. This study offers the balance of ensuring a quality food service program and keeping dollars where they can be most effective.

# Federal Food Programs

All schools have the option to participate in federal food programs to provide proper nutrition for students and ensure that they are ready to learn. The National School Lunch Program and the School Breakfast Program both aim to provide nutritionally balanced, low-cost or free meals to children each school day.

The National School Lunch Program (NSLP) is a \$9.3 billion program that is the second largest federally subsidized food assistance program, serving approximately 31 million lunches each school day.<sup>13</sup> More than half of all school-age children participate in the program at least once a week. Because it provides students with as much as 20% to 50% of their daily calories, the NSLP plays an unparalleled role in improving the nutritional quality of children's meals.

The School Breakfast Program is a \$2.5 billion program and serves nearly 11 million breakfasts each school day.<sup>14</sup> Studies indicate that breakfast improves attendance rates and decreases tardiness. The program also seems to improve academic performance and cognitive functioning among undernourished populations.15

# Methodology

To find ways that Ohio districts can strike the right balance in food services, researchers sought out as benchmarks those districts with the lowest cost per meal that were in compliance with food regulations, had relatively high participation rates, and did not subsidize their food service operations with general fund dollars.

The unit of measurement used to determine which districts are performing efficiently and effectively is cost per meal, which is the industry standard that best assesses the costs of a food service program. This allows for food service costs to be easily be divided by the number of meals served to arrive at a per-unit cost.16

Hinrichs, P., "The effects of the National School Lunch Program on education and health." Journal of Policy Analysis and Management (2010), 29: 479-505. doi: 10.1002/pam.20506

<sup>&</sup>lt;sup>12</sup> Data from the Ohio Department of Education, FY10.

<sup>13</sup> Joyal Mulheron and Kara Vonasek. "State Strategies to Help Schools Make the Most of Their National School Lunch Program." NGA Best Practices Issue Brief. January 11, 2010.

<sup>&</sup>lt;sup>14</sup> Food Research Action Center. State of the States 2010. U.S. Data

<sup>15</sup> Taras, Howard M.D., "Nutrition and student performance at school." Howard Taras, MD. Journal of School Health (2005) 75(6), 199-213.

<sup>16</sup> From ODE's School District Benchmarking Report - The cost per meal is measured by dividing the total operating expenses charged to the food service fund by the number of meals served. Some districts do not operate a food service program, in which case this number will be zero. They were eliminated from the study. Some districts, particularly districts with a large number of economically disadvantaged students, will serve both breakfast and lunch to students. Data is from FY10.

The quality indicators gauge the success of Ohio's school districts, reflecting suggested best practices in the industry and capturing the qualities of an efficient and successful school lunch program. The seven food service indicators are that the school district:



- Must not be in in fiscal caution, watch or emergency. Schools that are in financial crisis were ruled out because their finances were deemed unstable. Source: Ohio Department of Education (ODE) Website Data Files, FY10.
- Must have a lunch program that is self-supported and does not require any general fund money to operate. This is a basic fiscal indicator that the district food program is not taking away instructional funding. Source: ODE's School District Benchmarking Report FY10
- Must offer the National Student Lunch Program (NSLP). Providing lunches to students who qualify for NSLP is essential to ensuring children receive quality nutritional food to help in their academic success and overall health. Source: ODE's Office of School Nutrition, FY10.
- Must be in compliance with federal food service regulations. This is measured in the Coordinated Review Effort (CRE), an audit of the district covering all the critical areas of food service compliance for U.S. Department of Agriculture (USDA) regulations, state and local purposes, including compliance with federal nutrition standards, breakfast and lunch count compliance and food safety and sanitation. Districts incurring a monetary infraction, reflecting a more serious violation, were eliminated. Source: ODE's Office of School Nutrition (all districts reviewed every 5 years, accessed fall 2010.)
- Must have a lunch participation rate greater than the state average of 54.3%. This indicator helps to capture the districts that are more successful than average in ensuring participation, by such ways as meeting the student preferences, ensuring meal quality and managing the food service process effectively. Source: ODE's School District Benchmarking Report FY10
- Must reach 99% or more of poor students eligible for federal subsidies. Studies have found a direct correlation between NSLP participation and academic performance. This ensures that a district is reaching the population most in need of quality nutrition. Source: ODE's Office of School Nutrition and ODE Website Data Files, FY10.
- Must provide breakfast in compliance with state law. State law requires that districts must establish a breakfast program in every school where 20% or more of students are eligible for free meals.<sup>17</sup> Districts not meeting this were eliminated. Source: ODE Office of School Nutrition., FY10.

These indicators were used to identify districts that have food service programs that operate in an efficient and effective manner, comply with federal and state requirements, encourage participation, reach the most critical group of students and pay their share of the operating expenses.

With these districts identified, the lowest 5% were selected as benchmark districts and the average cost per meal in each peer typology was determined (see table). The next step was to arrive at potential savings for school districts based on the gap between what they spent and the average for their peer typology, multiplied by the total meals served. This was then aggregated up to estimate statewide potential savings in food service programs.

<sup>&</sup>lt;sup>17</sup> From OHIO REV. CODE ANN. § 3313.81.3





	County	2010 ADM	Cost per Meal
Type 1: Rural: High poverty, low median income			
Trimble Local	Athens	891	\$1.87
Ridgewood Local	Coshocton	1,358	\$2.07
Noble Local	Noble	1,087	\$2.08
Ripley- Union-Lewis Huntington	Brown	1,159	\$2.16
Morgan Local	Morgan	9,839	\$2.30
5% Benchmark District Avg			\$2.10
Type 2: Rural: Low Poverty, Low to mod median income, small student population			
Lakewood Local	Licking	2,148	\$1.92
Brown Local	Carroll	715	\$2.07
Eastern Local	Meigs	882	\$2.17
Hopewell-Loudon	Seneca	829	\$2.22
Hardin-Houston	Shelby	894	\$2.33
Licking Valley	Licking	2,095	\$2.41
Lincolnview Local	Van Wert	847	\$2.46
St.Mary's City	Auglaize	2,134	\$2.46
5% Benchmark District Avg			\$2.26
Type 3: Rural/Small Town: Mod to high median income			
Kalida	Putnam	617	\$2.48
Liberty-Benton Local	Hancock	1,242	\$2.65
Ottawa-Glandorf Local	Putnam	1,426	\$2.87
Triad Local	Champaign	1,039	\$2.91
5% Benchmark District Avg			\$2.73
Type 4: Urban: Low median income, high poverty			
Hamilton Local	Franklin	2,898	\$1.88
Galion City	Crawford	1,941	\$1.93
Weathersfield Local	Trumbull	983	\$1.97
Lima City	Allen	4,167	\$2.09
Fairborn City	Greene	4,403	\$2.15
5% Benchmark District Avg			\$2.00
Type 5a – Larger Major Urbans*			
Akron City	Summit	23,044	\$1.82
5% Benchmark District Avg			\$1.82
Type 5b – Smaller Major Urbans*			
Canton City	Stark	9,830	\$2.17
Springfield City	Clark	7,280	\$2.56
5% Benchmark District Avg			\$2.37



Type 6: Urban/ Suburban: High median income			
Perry Local	Stark	4,740	\$2.55
Plain Local	Stark	5,953	\$2.62
Delaware City	Delaware	4,751	\$3.00
Milford Exempted Village	Clermont	6,344	\$3.07
Oregon City	Lucas	3,890	\$3.07
5% Benchmark District Avg			\$2.86
Type 7: Urban/ Suburban: very high median income, very low poverty			
Lakota	Butler	17,416	\$3.56
Avon Local	Lorain	3,653	\$3.68
Forest Hills	Hamilton	7,429	\$3.21
5% Benchmark District Avg			\$3.48

The urban typology (typology 5) has been split into the Large Major Urban and the Small Major Urban " to help account for the disparities in size and scope of the major urban districts and make the comparison more meaningful.

# **Findings**

The potential savings for Ohio school districts is substantial. Applying the benchmark district average to all peer districts, the total potential food service annual savings across all 605 districts in the study is \$141 million. 18 (Using a more conservative estimates of savings, if school districts could reach the average spending level of all districts – without applying quality indicators – for each typology, the potential annual savings amounts to nearly \$40.5 million.)

The range in food service spending varied widely across districts, from \$1.82 per meal (Akron City) to \$8.84 per meal (Upper Arlington), while the average cost statewide was \$3.16 per meal. This compares with the UDSA calculation for total food service costs to average between two and three dollars. 19

Of the 605 school districts in the study, a little over half (327) were operating without a loss in the food service accounts. Additionally, nearly a third (191 districts) were identified as having irregularities in the Coordinated Review Effort, which assesses compliance with USDA and state regulations for all schools offering the National School Lunch Program. Along with the calculation of average participation, a significant number of districts were disqualified by these indicators.

In one peer typology – Urban/Suburban with very high median income and very low poverty – only one district (Pickerington, which was eliminated because of other indicators) had a participation rate higher than the average of 55%. Therefore, the participation rate was not used as an indicator for this typology.

Most districts (99%) participated in the National School Lunch Program, but some districts were eliminated for not serving the required breakfast in schools where 20% of students qualify for free lunch. Also, most were sufficiently reaching low-income students in their districts. Those that were not, along with screening for being in fiscal caution, watch or emergency, eliminated smaller numbers of districts.

<sup>18</sup> Exclusions: Outliers on the upper end - Nordonia (\$12.21) and Oak Hills (\$25.81) — were excluded from this data as it was presumed the data might be incorrect. Five additional districts that had missing data in ODE's School District Benchmarking Report that was used for this analysis have been excluded (some may not offer lunch programs.) Finally, as with all sections of this report, the four smaller districts - Put-in-Bay, College Corner, Kelley's Island and Bass Island - have been excluded. Due to an editing error in the report version released March 1, 2011, Forest Hills Local School District in Hamilton County should have been selected as a best-in-class district for Food Service in Type 7 in place of Avon Lake City in Lorain County. That change was made in this version of the report and in other materials and calculations were updated to reflect that change.

<sup>19 &</sup>quot;The Cost of School Lunch." School Food 101. (2010) W.K. Kellogg Foundation. http://www.schoolfoodfocus.org/site/wp-content/ uploads/2010/06/School-Food-101-Cost-of-School-Lunch-BW.pdf



Comparing all 605 districts, 551 districts spent more than the benchmark averages and could potentially realize the total annual savings of approximately \$138 million. While this is a potential savings in food services statewide, a distinction should be made that these savings may not be available for instructional use. Many food service operations keep revenue separate from food service expenses. So while the benchmarks identify potential savings in food services operations, the outcome of that savings may just be the ability to improve the food service operation or to cut the fees charged to students.

However, it is also the case that over a third of Ohio school districts (232) subsidize their food service with general funds. That loss from food service is \$21 million statewide, or about \$92,000 per district on average. These dollars certainly represent a savings that could be freed up for instructional use.

In all eight types of districts, most districts spend more than the benchmark average. Only 54 districts statewide spent less than the benchmark district averages, which represent a balance between fiscal prudence and acceptable quality. In some cases, this may be because districts offer more extensive or elaborate food services. Indeed, average participation rates indicate that the level of quality offered at these districts exceeds minimal standards. The choice for districts that spend more than the benchmark average may be to find their own best balance of cost and quality of service delivery.

## BEST PRACTICES IN FOOD SERVICE

So what can districts do to improve their food services operations while keeping their costs to a minimum? A review of state and national organizations that have examined this issue reveals the following best practices that can help districts improve their food service operations.<sup>20</sup>

# Strategies to reduce purchasing costs

The following are a list of cost-saving measures that districts can implement to stretch their bottom line.

- Create statewide or regional cooperative agreements for food procurement. Cooperative agreements are where several districts jointly negotiate contracts with local procurement vendors. Again, districts benefit from economies of scale and increased purchasing power. A National Food Service Management Institute study found that school districts that use cooperative agreements paid the least for food items monitored by the study and reduced distributors' costs because fewer contract bids were filled out and product demand was streamlined. Ohio has a number of food purchasing groups, including the Ohio Schools Council and Southwest Educational Purchasing (EPC). For example, according to the Ohio School Council, which has 127 district members, savings from their food co-op program can be as much as 70%.
- Maximize the use of USDA commodities. Districts receive a commodity allocation, or credit, that enables them to select food items at nearly no cost that they would otherwise have to purchase. Districts should ensure that they maximize their use of these commodities by making strategic food item selections.

- Joyal Mulheron and Kara Vonasek. "State Strategies to Help Schools Make the Most of Their National School Lunch Program." NGA Best Practices Issue Brief. January 11, 2010: 9.
- Kovac, Marc. "Strickland Signs Child Obesity Bill"
- National Food Service Management Institute, University of Mississippi, "Purchasing Decisions for Cost Effective Implementation of the Dietary Guidelines for Americans," Insight, Issue No. 4, December 1995.
- Ohio Schools Council Annual Report 2010. <a href="http://www.osconline.org/images/stories/2009-10-Annual-Report.pdf">http://www.osconline.org/images/stories/2009-10-Annual-Report.pdf</a>
- "School Breakfast Program." Ohio Department of Education website. <a href="http://education.ohio.gov/GD/Templates/Pages/ODE/ODEDetail.aspx?Pa">http://education.ohio.gov/GD/Templates/Pages/ODE/ODEDetail.aspx?Pa</a> ge=3&TopicRelationID=828&Content=87785
- "The Cost of School Lunch." School Food 101. (2010) W.K. Kellogg Foundation. http://www.schoolfoodfocus.org/site/wp-content/ uploads/2010/06/School-Food-101-Cost-of-School-Lunch-BW.pdf

<sup>&</sup>lt;sup>20</sup> Food services best practices were synthesized from the following sources:

• Match food items to supplier stock items. Similar to the USDA commodities recommendation, districts should match their school menus with the available stock inventory food items to avoid having to purchase more expensive special order items.



## Strategies to generate revenue

In addition to cost-saving measures, food service operations have the unique ability to generate revenue from their food sales.

- Increase enrollment in the NSLP. Federal and state reimbursement dollars are best leveraged when scale is achieved. These dollars are tied to the number of NSLP meals sold, which means maximizing student participation will help achieve scale and make NSLP more economically viable or successful for districts. Ohio and other states have already increased enrollment by automatically enrolling students who are deemed eligible through their family participation in the SNAP program. The following are additional best practices that help to increase participation:
  - Implement an electronic payment system to reduce the stigma of NSLP. Ohio's districts can address the concerns about the stigma of NSLP by investing in an electronic payment system and providing debit cards for students. By creating this payment system, the distinction is removed between full-paying students and non-paying or reduced-price NSLP participants. While a number of districts in Ohio have moved to an electronic payment system, some districts have not.
  - Ensure competitive foods are not more attractive options than NSLP lunches. Competitive foods are usually snacks, such as chips, candy, soda etc., that students prefer even if they are not usually nutritional. These could keep students from participating in NSLP. By establishing healthier nutritional standards for competitive foods, these snacks would be less appealing to students, keeping the focus on the NSLP lunches. While this is largely left to Ohio's districts to enforce, the state recently passed a law that requires districts to meet nutritional standards for beverages sold in cafeterias or vending machines.
  - Be innovative with breakfast programs. Finding the time in the morning to eat breakfast before school is a challenge. By being creative in solutions to this problem, by changing bus schedules or instituting "breakfast on the bus," districts can ensure greater participation. The Ohio Department of Education has assembled "success stories" in breakfast programs on their website that can serve as examples for other Ohio districts. As one example, Kent Elementary in Columbus worked with community partners to move their breakfast participation rate from 60% to 96% by offering the option of breakfast in the classroom, as well as having various contests and competitions with the students.
- Use a la carte items. While districts need to take care not to not reduce sales of full meals (NSLP participation) when pricing a la carte items, done correctly, a la carte can supplement existing program revenues.
- Use snack vending machines. Districts can consider vending machines that allow for additional revenue when the cafeteria is not open. However districts still need to be mindful of the nutritional value of these snacks and that they are not taking away from the participation in the purchased NSLP meals.

# Strategies for Management and Reducing Labor Costs



Labor and operating costs make up about 45% of total food service costs. The following are strategies that ensure an efficient system, where labor and operating costs are kept at a minimum.

- Outsource. Outsourcing is one way for districts to save money. Hiring a food service management company to run the meals program instead of the district allows for the district to benefit from the economies of scale and increased purchasing power of the management company.
- Establish a strong management system. By establishing strong management systems, districts will have the framework in place for short- and long-term decision making, ensuring food service programs remain financially healthy. This management system would
  - establish clear lines of authority,
  - have up-to-date policies and procedures,
  - streamline administrative requirements,
  - provide appropriate training for staff.
- Implement a shared manager program. In some cases, districts may be able to reduce labor costs by having two schools share one cafeteria manager. This would be effective in schools that serve mainly a set meal plan (versus a la carte), a relatively low number of meals (400 or fewer), and are in close proximity to each other.
- Use a central kitchen. By having a central kitchen, the staff in one school prepares meals for more than one school. The meals are then delivered to other school cafeterias. The savings in this strategy come from purchasing fewer appliances and reduced employee staffing.

# **Student Transportation Overview**



According to the National Association of State Directors of Pupil Transportation, school buses provide more trips to passengers than transit buses, representing the largest bus operation in the country. Nearly 450,000 school buses in the United States transport nearly 25 million children to and from school and school-related activities. In an average school year, school buses provide approximately 10 billion student trips and have the best safety record of any vehicle on the road.<sup>21</sup>

The operational logistics and cost of transporting students is not a small matter for Ohio's school districts. When providing transportation, districts need to consider routing logistics, the purchase and maintenance of buses and safety regulations, among other things. They have to balance the wishes of their school community, including demand for more frequent pick-ups or the busing of high school students, with the costs associated for providing more or less transportation service. They also have to consider various busing needs, such as those for special needs students or small numbers of students who attend specific schools on a different schedule than the district's schedule.

By law, districts must provide transportation to all kindergarten through eighth grade students who live more than two miles from their locally-assigned schools. This includes non-public and community school students. Many school districts go beyond this basic requirement, often busing students who live closer than a mile – possibly because there are no sidewalks or there are busy streets – or busing high school students.

Across the state, school districts spend \$683 million annually in state and local funds on student transportation.<sup>22</sup> The varying costs among districts reflect a number of factors particular to transportation. In addition to the above-mentioned variations in service and requirements, the density of the district and road conditions are also factors. Depending on the location of the district, wear and tear on the bus can be more or less severe, a mile traveled may contain frequent stops in traffic, or the route may include travel on an open country road.

Regardless of the variation of factors for transportation, Ohio's districts need to provide a safe way to transport students to school at a low cost. This study examines factors of transportation that ensure quality while keeping dollars spent at a minimum.

# Methodology

A number of variables affect the cost of transportation across the state, including the population density and physical area of the district. To determine which districts are functioning most effectively and efficiently, the methodology needs to capture these unique variations of transportation.

As with the other non-instructional studies, this transportation study began by grouping the districts in the well-established ODE typology categories. However, to account for the effect of variations in density on transportation operations, the typologies were further divided by riders per square mile in each district, creating subcategories of lower and higher ridership density districts. As a result, the following typology groupings were created.

<sup>&</sup>lt;sup>21</sup> http://www.nasdpts.org/paperBusReplacement.html

<sup>&</sup>lt;sup>22</sup> Data from Ohio Department of Education, FY10.

# Table 4: Transportation Typology Groupings



Typology	Rider Density – Riders per Square Mile	Rider Density Range	Number of Districts	Number of Averaged Benchmark Districts
1 – Rural: High	Low Ridership Density	2.78 – 7.28	50	3
poverty, low median income	High Ridership Density	7.34 – 34.24	47	3
2 – Rural: Low	Low Ridership Density	2.68 -6.87	56	3
Poverty, Low to mod median income, small	Medium Ridership Density	6.90 - 10.46	52	3
student population	High Ridership Density	10.54 – 26.78	53	3
3 – Rural/Small Town:	Low Ridership Density	2.23 – 9.98	40	3
Mod to high median income	High Ridership Density	10.39 – 35.44	41	3
4 – Urban: Low median income, high	Low Density	5.17 – 47.50	51	3
poverty	High Density	50.04 - 302.75	47	3
5 – Major Urban: Very	5a – Larger Major Urbans	42.30 – 202.90	5	1
high poverty	5b – Smaller Major Urbans	20.00 - 324.00	10	2
6 – Urban/ Suburban:	Low Density	4.18 - 64.46	54	3
High median income	High Density	65.5 – 231.75	51	3
7 – Urban/ Suburban: very high median income, very low poverty	(not divided)	38.66 – 317.36	44	3
TOTAL			601 <sup>23</sup>	39

The subdivisions by ridership density were made approximately at the midpoint, creating similar sized groupings. Therefore typology two has three divisions while typology seven has none. Typology 5 was once again the exception being divided into the five largest major urbans and the smaller major urban districts. One district was selected as the benchmark from the larger major urbans and two benchmark districts were selected from the smaller major urbans. Similar to the methodology with the other non-instructional studies, no division (except the major urbans) had less than three districts selected to calculate the benchmark district average.

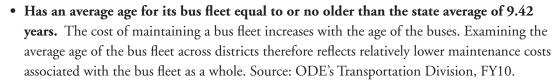
The unit of measurement used to determine which districts are performing efficiently and effectively was cost per bus, as the bus is the central variable of transportation operations.<sup>24</sup> This measure includes all operational costs associated with transportation, including salaries and benefits, supplies and maintenance. It does not include the purchase of new buses, which is a capital cost, not an operating one.

The transportation quality indicators selected gauge the success of Ohio's school districts, reflecting suggested basic standards and capturing the qualities of an efficient and successful school transportation system. The four transportation quality indicators are that the school district:

 Must not be in in fiscal caution, watch or emergency. Schools that are in financial crisis were ruled out considering that their finances were deemed unstable. Source: Ohio Department of Education (ODE) Website Data Files, FY10.

<sup>&</sup>lt;sup>23</sup> The following districts were excluded due to lack of data (e.g. some may not offer student transportation): New Miami Local, Clermont-Northeastern Local, Ottawa Hills Local, Fairport Harbor, Oakwood City, Lockland City, Lakewood City, Grandview Heights City. Also, as with all sections of this report, the four smaller districts - Put-in-Bay, College Corner, Kelley's Island and Bass Island - have been excluded.

<sup>&</sup>lt;sup>24</sup> Cost per bus was provided by the Pupil Transportation Office of ODE and includes both district/board owned and contractor buses. In cases where districts had some of each type of bus, the data was merged for an averaged cost per bus. Data was from FY 09.





- Has no regularly assigned buses more than 15 years old. 25 Studies have shown that the cost to maintain school buses increases significantly for older buses, with some citing 12 years as the threshold and others citing 15 years. This can also be a safety factor. For the purpose of this study, districts that have any regularly assigned buses over 15 years old have been eliminated. Source: ODE's Transportation Division. FY10.
- Has an inspection passage rate at least state average of 93.3%. The Ohio Department of Public Safety conducts inspections of all of Ohio's school district buses twice a year: once before school begins (the annual inspection) and once more during the school year (the spot inspection) to determine that the bus is fit to be in service. Districts with inspection rates lower than the state average of 93.3% were eliminated. Source: Ohio Department of Public Safety, FY10.

These basic indicators help account for districts that have a safe and well-maintained transportation program with sound fiscal practices.

With the quality indicators applied, the lowest five percent benchmark districts were identified and the average cost per bus in each peer typology was determined (See Table 5 below for list of districts and averages). The gap was then calculated for each district in each peer typology division and then multiplied by the number of buses to arrive at the district potential savings. This was then aggregated to determine statewide potential annual savings in transportation.

Table 5: Transportation Benchmark Districts

	County	2010 ADM	Cost per Bus
Type 1 – Low Density			
Bettsville Local SD	Seneca	187	\$19,539.33
Danville Local SD	Knox	719	\$31,084.57
Bloomfield-Mespo Local SD	Trumbull	326	\$37,175.50
5% Benchmark District Avg			\$29,266.47
Type 1 – High Density			
Sandy Valley Local SD	Stark	1,424	\$34,990.55
Perry Local SD	Allen	838	\$39,008.62
Southeast Local SD	Wayne	1,682	\$45,601.85
5% Benchmark District Avg			\$39,867.01
Type 2 – Low Density			
Columbus Grove Local SD	Putnam	912	\$23,669.00
Parkway Local SD	Mercer	1,053	\$24,131.50
Holgate Local SD	Henry	485	\$24,396.66
5% Benchmark District Avg			\$24,065.72
Type 2 – Medium Density			
Fort Recovery Local SD	Mercer	974	\$20,986.10
Marion Local SD	Mercer	904	\$22,418.22
St Henry Consolidated Local SD	Mercer	960	\$24,149.00
5% Benchmark District Avg			\$22,517.77

<sup>&</sup>lt;sup>25</sup> From http://www.nasdpts.org/paperBusReplacement.html The National Association of State Directors of Pupil Transportation cites two studies that find the point - age of the bus - at which the annual operation costs of school buses begin to increase significantly and continue an annual increase each year thereafter. One found this occurs at age 12 for type "C" buses while another found it was 15 for type "D" buses, both of which are relatively common buses used in districts. This study therefore chose 15 years as the cutoff age.



Felicity-Franklin Local SD	Type 2 – High Density			
St Mary's City SD	Felicity-Franklin Local SD	Clermont	1,080	\$29,439.53
5% Benchmark District Avg         \$30,300.83           Type 3 – Low Density         Fayetteville-Perry Local SD         Brown         930         \$35,110.30           Fairbanks Local SD         Union         976         \$39,277.37           Ada Ex Vill SD         Hardin         916         \$40,638.00           5% Benchmark District Avg         \$38,341.89           Type 3 – High Density         Union-Scioto Local SD         Ross         2,164         \$27,877.50           Ottawa-Glandorf Local SD         Putnam         1,426         \$30,980.31           Firelands Local SD         Putnam         1,426         \$30,980.31           Firelands Local SD         Lorain         1,872         \$41,842.72           5% Benchmark District Avg         \$33,566.84         Type 4 – Low Density           Wheelersburg Local SD         Scioto         1,522         \$36,169.54           Lancaster City SD         Fairfield         5,766         \$39,592.96           Tecurseh Local SD         Clark         3,144         \$39,694.31         \$38,485.60           Type 4 – High Density         Defiance         2,664         \$29,473.28         \$40,751.60         \$33,734.50           Type 4 – High Density         Erie         3,451         \$33,513.12	Southington Local SD	Trumbull	651	\$30,170.28
Type 3 - Low Density	St Mary's City SD	Auglaize	2,134	\$31,292.68
Fayetheville-Perry Local SD	5% Benchmark District Avg			\$30,300.83
Fairbanks Local SD	Type 3 – Low Density			
Ada Ex Vill SD	Fayetteville-Perry Local SD	Brown	930	\$35,110.30
Sa, 341.89	Fairbanks Local SD	Union	976	\$39,277.37
Type 3 - High Density	Ada Ex Vill SD	Hardin	916	\$40,638.00
Dinion-Scioto Local SD	5% Benchmark District Avg			\$38,341.89
Ottawa-Glandorf Local SD	Type 3 – High Density			
Firelands Local SD         Lorain         1,872         \$41,842.72           5% Benchmark District Avg         \$33,566.84           Type 4 – Low Density           Wheelersburg Local SD         Scioto         1,522         \$36,169.54           Lancaster City SD         Fairfield         5,766         \$39,592.96           Tecumseh Local SD         Clark         3,144         \$39,694.31           5% Benchmark District Avg         \$38,485.60           Type 4 – High Density         Defiance         2,664         \$29,473.28           Toronto City SD         Jefferson         743         \$33,213.25           Sandusky City SD         Erie         3,451         \$38,551.16           5% Benchmark District Avg         \$33,745.90         Type 5a – Larger Major Urbans           Akron City         Summit         23,044         \$47,516.08           5% Benchmark District Avg         \$47,516.08         \$47,516.08           Type 5 – Smaller Major Urbans         Butler         9,308         \$62,811.14           5% Benchmark District Avg         \$60,182.18         \$60,182.18           Type 5 – Smaller Major Urbans         Butler         9,308         \$62,811.14           5% Benchmark District Avg         \$60,182.18         \$60,182.18 <td>Union-Scioto Local SD</td> <td>Ross</td> <td>2,164</td> <td>\$27,877.50</td>	Union-Scioto Local SD	Ross	2,164	\$27,877.50
5% Benchmark District Avg         \$33,566.84           Type 4 – Low Density         Wheelersburg Local SD         Scioto         1,522         \$36,169,54           Lancaster City SD         Fairfield         5,766         \$39,592,96           Tecumseh Local SD         Clark         3,144         \$39,694,31           5% Benchmark District Avg         \$38,485.60           Type 4 – High Density         Defiance         2,664         \$29,473,28           Toronto City SD         Jefferson         743         \$33,213,25           Sandusky City SD         Erie         3,451         \$38,551,16           5% Benchmark District Avg         \$33,745,90           Type 5a – Larger Major Urbans         Summit         23,044         \$47,516.08           5% Benchmark District Avg         Summit         23,044         \$47,516.08           5% Benchmark District Avg         Butler         9,308         \$62,811.14           5% Benchmark District Avg         Butler         9,308         \$62,811.14           5% Benchmark District Avg         Butler         9,308         \$62,811.14           5% Benchmark District Avg         \$60,182.18         \$60,182.18           Type 6 – Low Density         Lexington Local SD         Richland         2,556         \$	Ottawa-Glandorf Local SD	Putnam	1,426	\$30,980.31
Type 4 - Low Density	Firelands Local SD	Lorain	1,872	\$41,842.72
Wheelersburg Local SD         Scioto         1,522         \$36,169.54           Lancaster City SD         Fairfield         5,766         \$39,592.96           Tecumseh Local SD         Clark         3,144         \$39,694.31           5% Benchmark District Avg         \$38,485.60           Type 4 – High Density         Defiance         2,664         \$29,473.28           Toronto City SD         Jefferson         743         \$33,213.25           Sandusky City SD         Erie         3,451         \$38,551.16           5% Benchmark District Avg         \$33,745.90         \$33,745.90           Type 5a – Larger Major Urbans         Summit         23,044         \$47,516.08           5% Benchmark District Avg         \$47,516.08         \$47,516.08           Type 5b – Smaller Major Urbans         Samuser         \$47,516.08           Dayton City SD         Montgomery         13,986         \$57,553.21           Hamilton City SD         Butler         9,308         \$62,811.14           5% Benchmark District Avg         \$60,182.18         \$70,966.18           Type 6 – Low Density         Lexington Local SD         \$60,182.18           Lexington Local SD         Franklin         3,435         \$39,458.80           Vermilion Local SD	5% Benchmark District Avg			\$33,566.84
Lancaster City SD	Type 4 – Low Density			
Tecumseh Local SD	Wheelersburg Local SD	Scioto	1,522	\$36,169.54
5% Benchmark District Avg         538,485.60           Type 4 – High Density         Defiance City SD         Defiance         2,664         \$29,473.28           Toronto City SD         Jefferson         743         \$33,213.25           Sandusky City SD         Erie         3,451         \$38,551.16           5% Benchmark District Avg         \$33,745.90           Type 5a – Larger Major Urbans         Summit         23,044         \$47,516.08           5% Benchmark District Avg         \$47,516.08         \$47,516.08           Type 5b – Smaller Major Urbans         \$47,516.08         \$57,553.21           Dayton City SD         Montgomery         13,986         \$57,553.21           Hamiton City SD         Butler         9,308         \$62,811.14           5% Benchmark District Avg         \$60,182.18           Type 6 – Low Density         S60,182.18           Lexington Local SD         Richland         2,556         \$38,726.29           Canal Winchester Local SD         Franklin         3,435         \$39,458.80           Vermilion Local SD         Erie         2,268         \$39,509.91           5% Benchmark District Avg         \$39,245.33         \$39,245.33           Type 6 – High Density         Lucas         3,939         \$4	Lancaster City SD	Fairfield	5,766	\$39,592.96
Type 4 - High Density	Tecumseh Local SD	Clark	3,144	\$39,694.31
Defiance City SD         Defiance         2,664         \$29,473.28           Toronto City SD         Jefferson         743         \$33,213.25           Sandusky City SD         Erie         3,451         \$38,551.16           5% Benchmark District Avg         \$33,745.90           Type 5a – Larger Major Urbans         Semmit         23,044         \$47,516.08           5% Benchmark District Avg         \$47,516.08         \$47,516.08           Type 5b – Smaller Major Urbans         South City SD         Butler         9,308         \$57,553.21           Hamilton City SD         Butler         9,308         \$62,811.14         \$5% Benchmark District Avg         \$60,182.18           Type 6 – Low Density         Lexington Local SD         Richland         2,556         \$38,726.29           Canal Winchester Local SD         Franklin         3,435         \$39,458.80           Vermilion Local SD         Erie         2,268         \$39,550.91           5% Benchmark District Avg         \$39,245.33         \$39,245.33           Type 6 – High Density         Lucas         3,939         \$42,243.21           Fairfield City SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25         \$38,785.25	5% Benchmark District Avg			\$38,485.60
Toronto City SD         Jefferson         743         \$33,213.25           Sandusky City SD         Erie         3,451         \$38,551.16           5% Benchmark District Avg         \$33,745.90           Type 5a – Larger Major Urbans         Summit         23,044         \$47,516.08           5% Benchmark District Avg         \$47,516.08         \$47,516.08           Type 5b – Smaller Major Urbans         Dayton City SD         Montgomery         13,986         \$57,553.21           Hamilton City SD         Butler         9,308         \$62,811.14           5% Benchmark District Avg         \$60,182.18           Type 6 – Low Density         Lexington Local SD         Richland         2,556         \$38,726.29           Canal Winchester Local SD         Franklin         3,435         \$39,458.80           Vermilion Local SD         Erie         2,268         \$39,550.91           5% Benchmark District Avg         \$39,245.33         Type 6 – High Density           Lake Local SD         Stark         3,405         \$39,794.97           Springfield Local SD         Lucas         3,939         \$42,243.21           Fairfield City SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25         5	Type 4 – High Density			
Sandusky City SD         Erie         3,451         \$38,551.16           5% Benchmark District Avg         \$33,745.90           Type 5a – Larger Major Urbans         Akron City         Summit         23,044         \$47,516.08           5% Benchmark District Avg         \$47,516.08         \$47,516.08           Type 5b – Smaller Major Urbans         Wontgomery         13,986         \$57,553.21           Dayton City SD         Montgomery         13,986         \$57,553.21           Hamilton City SD         Butler         9,308         \$62,811.14           5% Benchmark District Avg         \$60,182.18           Type 6 – Low Density         Lexington Local SD         Richland         2,556         \$38,726.29           Canal Winchester Local SD         Franklin         3,435         \$39,458.80           Vermilion Local SD         Erie         2,268         \$39,550.91           5% Benchmark District Avg         \$39,245.33         Type 6 – High Density           Lake Local SD         Stark         3,405         \$39,794.97           Springfield Local SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25	Defiance City SD	Defiance	2,664	\$29,473.28
\$33,745.90           Type 5a – Larger Major Urbans           Akron City         Summit         23,044         \$47,516.08           5% Benchmark District Avg         \$47,516.08           Type 5b – Smaller Major Urbans           Dayton City SD         Montgomery         13,986         \$57,553.21           Hamilton City SD         Butler         9,308         \$62,811.14           5% Benchmark District Avg         \$60,182.18           Type 6 – Low Density         Exington Local SD         Richland         2,556         \$38,726.29           Canal Winchester Local SD         Franklin         3,435         \$39,458.80           Vermilion Local SD         Erie         2,268         \$39,550.91           5% Benchmark District Avg         \$39,245.33           Type 6 – High Density         Lake Local SD         Stark         3,405         \$39,794.97           Springfield Local SD         Lucas         3,939         \$42,243.21           Fairfield City SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25         Type 7           Avon Local SD         Lorain         3,653         \$38,175.40           Hilliard City SD         Eranklin         <	Toronto City SD	Jefferson	743	\$33,213.25
Type 5a – Larger Major Urbans         Summit         23,044         \$47,516.08           5% Benchmark District Avg         \$47,516.08           Type 5b – Smaller Major Urbans         Spayton City SD         Montgomery         13,986         \$57,553.21           Hamilton City SD         Butler         9,308         \$62,811.14           5% Benchmark District Avg         \$60,182.18           Type 6 – Low Density         Lexington Local SD         Richland         2,556         \$38,726.29           Canal Winchester Local SD         Franklin         3,435         \$39,458.80           Vermilion Local SD         Erie         2,268         \$39,550.91           5% Benchmark District Avg         \$39,245.33           Type 6 – High Density         Lake Local SD         \$1,405         \$39,794.97           Springfield Local SD         Lucas         3,939         \$42,243.21           Fairfield City SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25           Type 7         Avon Local SD         Lorain         3,653         \$38,175.40           Hilliard City SD         Franklin         14,796         \$45,156.83           Lakota Local SD         Butler         17,416         \$49,317.00 <td>Sandusky City SD</td> <td>Erie</td> <td>3,451</td> <td>\$38,551.16</td>	Sandusky City SD	Erie	3,451	\$38,551.16
Akron City         Summit         23,044         \$47,516.08           5% Benchmark District Avg         \$47,516.08           Type 5b – Smaller Major Urbans           Dayton City SD         Montgomery         13,986         \$57,553.21           Hamilton City SD         Butler         9,308         \$62,811.14           5% Benchmark District Avg         \$60,182.18           Type 6 – Low Density         Lexington Local SD         Richland         2,556         \$38,726.29           Canal Winchester Local SD         Franklin         3,435         \$39,458.80           Vermilion Local SD         Erie         2,268         \$39,550.91           5% Benchmark District Avg         \$39,245.33         Type 6 – High Density           Lake Local SD         Stark         3,405         \$39,794.97           Springfield Local SD         Lucas         3,939         \$42,243.21           Fairfield City SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25         Type 7           Avon Local SD         Lorain         3,653         \$38,175.40           Hilliard City SD         Franklin         14,796         \$45,156.83           Lakota Local SD         Butler	5% Benchmark District Avg			\$33,745.90
\$47,516.08           Type 5b – Smaller Major Urbans           Dayton City SD         Montgomery         13,986         \$57,553.21           Hamilton City SD         Butler         9,308         \$62,811.14           5% Benchmark District Avg         \$60,182.18           Type 6 – Low Density         Lexington Local SD         Richland         2,556         \$38,726.29           Canal Winchester Local SD         Franklin         3,435         \$39,458.80           Vermilion Local SD         Erie         2,268         \$39,550.91           5% Benchmark District Avg         \$39,245.33         \$39,245.33           Type 6 – High Density         Lake Local SD         Stark         3,405         \$39,794.97           Springfield Local SD         Lucas         3,939         \$42,243.21           Fairfield City SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25         \$38,175.40           Hilliard City SD         Franklin         14,796         \$45,156.83           Lakota Local SD         Butler         17,416         \$49,317.00	Type 5a – Larger Major Urbans			
Type 5b – Smaller Major Urbans         Montgomery         13,986         \$57,553.21           Hamilton City SD         Butler         9,308         \$62,811.14           5% Benchmark District Avg         \$60,182.18           Type 6 – Low Density         Exington Local SD           Lexington Local SD         Richland         2,556         \$38,726.29           Canal Winchester Local SD         Franklin         3,435         \$39,458.80           Vermilion Local SD         Erie         2,268         \$39,550.91           5% Benchmark District Avg         \$39,245.33         \$39,245.33           Type 6 – High Density         Lake Local SD         Stark         3,405         \$39,794.97           Springfield Local SD         Lucas         3,939         \$42,243.21           Fairfield City SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25           Type 7         Avon Local SD         Lorain         3,653         \$38,175.40           Hilliard City SD         Franklin         14,796         \$45,156.83           Lakota Local SD         Butler         17,416         \$49,317.00	Akron City	Summit	23,044	\$47,516.08
Dayton City SD         Montgomery         13,986         \$57,553.21           Hamilton City SD         Butler         9,308         \$62,811.14           5% Benchmark District Avg         \$60,182.18           Type 6 – Low Density         Lexington Local SD         Richland         2,556         \$38,726.29           Canal Winchester Local SD         Franklin         3,435         \$39,458.80           Vermilion Local SD         Erie         2,268         \$39,550.91           5% Benchmark District Avg         \$39,245.33         \$39,245.33           Type 6 – High Density         Lake Local SD         Stark         3,405         \$39,794.97           Springfield Local SD         Lucas         3,939         \$42,243.21           Fairfield City SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25         Type 7           Avon Local SD         Lorain         3,653         \$38,175.40           Hilliard City SD         Franklin         14,796         \$45,156.83           Lakota Local SD         Butler         17,416         \$49,317.00	5% Benchmark District Avg			\$47,516.08
Hamilton City SD	Type 5b – Smaller Major Urbans			
\$60,182.18           Type 6 – Low Density           Lexington Local SD         Richland         2,556         \$38,726.29           Canal Winchester Local SD         Franklin         3,435         \$39,458.80           Vermilion Local SD         Erie         2,268         \$39,550.91           5% Benchmark District Avg         \$39,245.33           Type 6 – High Density         Use Stark         3,405         \$39,794.97           Springfield Local SD         Lucas         3,939         \$42,243.21           Fairfield City SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25           Type 7         Avon Local SD         Lorain         3,653         \$38,175.40           Hilliard City SD         Franklin         14,796         \$45,156.83           Lakota Local SD         Butler         17,416         \$49,317.00	Dayton City SD	Montgomery	13,986	\$57,553.21
Type 6 – Low Density         Richland         2,556         \$38,726.29           Canal Winchester Local SD         Franklin         3,435         \$39,458.80           Vermilion Local SD         Erie         2,268         \$39,550.91           5% Benchmark District Avg         \$39,245.33           Type 6 – High Density         Use Local SD         Stark         3,405         \$39,794.97           Springfield Local SD         Lucas         3,939         \$42,243.21           Fairfield City SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25           Type 7         Avon Local SD         Lorain         3,653         \$38,175.40           Hilliard City SD         Franklin         14,796         \$45,156.83           Lakota Local SD         Butler         17,416         \$49,317.00	Hamilton City SD	Butler	9,308	\$62,811.14
Lexington Local SD       Richland       2,556       \$38,726.29         Canal Winchester Local SD       Franklin       3,435       \$39,458.80         Vermilion Local SD       Erie       2,268       \$39,550.91         5% Benchmark District Avg       \$39,245.33         Type 6 – High Density         Lake Local SD       Stark       3,405       \$39,794.97         Springfield Local SD       Lucas       3,939       \$42,243.21         Fairfield City SD       Butler       9,810       \$49,317.58         5% Benchmark District Avg       \$43,785.25         Type 7       Lorain       3,653       \$38,175.40         Hilliard City SD       Franklin       14,796       \$45,156.83         Lakota Local SD       Butler       17,416       \$49,317.00	5% Benchmark District Avg			\$60,182.18
Canal Winchester Local SD         Franklin         3,435         \$39,458.80           Vermilion Local SD         Erie         2,268         \$39,550.91           5% Benchmark District Avg         \$39,245.33           Type 6 - High Density         Lake Local SD         Stark         3,405         \$39,794.97           Springfield Local SD         Lucas         3,939         \$42,243.21           Fairfield City SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25           Type 7         Avon Local SD         Lorain         3,653         \$38,175.40           Hilliard City SD         Franklin         14,796         \$45,156.83           Lakota Local SD         Butler         17,416         \$49,317.00	Type 6 – Low Density			
Vermilion Local SD         Erie         2,268         \$39,550.91           5% Benchmark District Avg         \$39,245.33           Type 6 – High Density           Lake Local SD         Stark         3,405         \$39,794.97           Springfield Local SD         Lucas         3,939         \$42,243.21           Fairfield City SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25           Type 7         Avon Local SD         Lorain         3,653         \$38,175.40           Hilliard City SD         Franklin         14,796         \$45,156.83           Lakota Local SD         Butler         17,416         \$49,317.00	Lexington Local SD	Richland	2,556	\$38,726.29
5% Benchmark District Avg       \$39,245.33         Type 6 - High Density         Lake Local SD       Stark       3,405       \$39,794.97         Springfield Local SD       Lucas       3,939       \$42,243.21         Fairfield City SD       Butler       9,810       \$49,317.58         5% Benchmark District Avg       \$43,785.25         Type 7         Avon Local SD       Lorain       3,653       \$38,175.40         Hilliard City SD       Franklin       14,796       \$45,156.83         Lakota Local SD       Butler       17,416       \$49,317.00	Canal Winchester Local SD	Franklin	3,435	\$39,458.80
Type 6 – High Density         Lake Local SD       Stark       3,405       \$39,794.97         Springfield Local SD       Lucas       3,939       \$42,243.21         Fairfield City SD       Butler       9,810       \$49,317.58         5% Benchmark District Avg       \$43,785.25         Type 7         Avon Local SD       Lorain       3,653       \$38,175.40         Hilliard City SD       Franklin       14,796       \$45,156.83         Lakota Local SD       Butler       17,416       \$49,317.00	Vermilion Local SD	Erie	2,268	\$39,550.91
Lake Local SD       Stark       3,405       \$39,794.97         Springfield Local SD       Lucas       3,939       \$42,243.21         Fairfield City SD       Butler       9,810       \$49,317.58         5% Benchmark District Avg       \$43,785.25         Type 7         Avon Local SD       Lorain       3,653       \$38,175.40         Hilliard City SD       Franklin       14,796       \$45,156.83         Lakota Local SD       Butler       17,416       \$49,317.00	5% Benchmark District Avg			\$39,245.33
Springfield Local SD         Lucas         3,939         \$42,243.21           Fairfield City SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25           Type 7         Avon Local SD         Lorain         3,653         \$38,175.40           Hilliard City SD         Franklin         14,796         \$45,156.83           Lakota Local SD         Butler         17,416         \$49,317.00	Type 6 – High Density			
Fairfield City SD         Butler         9,810         \$49,317.58           5% Benchmark District Avg         \$43,785.25           Type 7         Avon Local SD         Lorain         3,653         \$38,175.40           Hilliard City SD         Franklin         14,796         \$45,156.83           Lakota Local SD         Butler         17,416         \$49,317.00	Lake Local SD	Stark	3,405	\$39,794.97
\$43,785.25         Type 7       Lorain 3,653 \$38,175.40         Avon Local SD       Lorain 14,796 \$45,156.83         Lakota Local SD       Butler 17,416 \$49,317.00	Springfield Local SD	Lucas	3,939	\$42,243.21
Type 7         Avon Local SD       Lorain       3,653       \$38,175.40         Hilliard City SD       Franklin       14,796       \$45,156.83         Lakota Local SD       Butler       17,416       \$49,317.00	Fairfield City SD	Butler	9,810	\$49,317.58
Avon Local SD         Lorain         3,653         \$38,175.40           Hilliard City SD         Franklin         14,796         \$45,156.83           Lakota Local SD         Butler         17,416         \$49,317.00	5% Benchmark District Avg			\$43,785.25
Hilliard City SD         Franklin         14,796         \$45,156.83           Lakota Local SD         Butler         17,416         \$49,317.00	Type 7			
Lakota Local SD Butler 17,416 \$49,317.00	Avon Local SD	Lorain	3,653	\$38,175.40
, , , , , , , , , , , , , , , , , , , ,	Hilliard City SD	Franklin	14,796	\$45,156.83
5% Benchmark District Avg \$44,216.41	Lakota Local SD	Butler	17,416	\$49,317.00
	5% Benchmark District Avg			\$44,216.41

# **Findings**



Applying the benchmark districts average to all peer districts, the total potential annual transportation savings across all 601 districts studied is \$121.2 million. 26 (Using a more conservative estimate of savings, if districts were to reach the average of all districts - without applying the indicators - in each typology, the potential annual savings across all districts amounts to nearly \$50 million.)

The range in transportation spending varied widely across all districts, from \$5,829.40 per bus (Brooklyn City, Cuyahoga, Type 4) to \$86,912.65 per bus (South Euclid-Lyndhurst, Cuyahoga, Type 6), while the average cost per bus statewide was \$42, 926.86.

Of the 601 districts studied, only 220 districts (36%) met the threshold of having no buses over the age of 15, while only 74 districts had no buses over the age of 12. Additionally, 271 districts (45%) were eliminated due to the age of the bus fleet exceeding the state average of 9.42 years. The average age of the bus fleet per district ranged from two to 31 years. These two factors accounted for the elimination of most of the districts from being considered best-in-class.

Nearly one-third of all districts (193) were eliminated due to inspection passage rates lower than the state average of 93.3%. Many districts performed well on this measure. Over one-third of all districts (229) had a perfect passage rate. Only 32 districts were eliminated for being in fiscal caution, watch or emergency.

The gap analysis shows that 451 of the 601 districts spent more than the benchmark averages. While in most typology divisions there was a significant positive gap identified, the major urban typology groupings only had a small positive gap.

No major urban district was able to pass all four indicators, as some indicators were especially difficult for them. Only one of the major or small major urban districts spent more per bus than the benchmark district. This was in part due to the fact that many of these districts have older bus fleets. Only one larger urban and three smaller urban districts met the bus age requirement. Districts in the smaller urbans didn't fare much better when it came to average age, as only four smaller urban districts out of ten have a bus fleet of at least the state average. Three of the five larger urbans passed this indicator.

Because of the aging fleet of the major urban districts, the study selected districts passing either the average bus age or having no buses over 15 years old (along with the other quality indicators.) Combined with the number of districts in this typology in fiscal caution watch or emergency or not meeting the bus inspection indicator, only three districts could qualify as benchmark districts.

In addition to the indicators applied in this analysis, ODE's transportation office has created a ridership ratio measure that is designed to capture the efficiency of the district to maximize the number of riders on a given bus. The model establishes a target student per bus value for each district in the state, attempting to capture districts that have policies in place that lead to lower rider ratios. This measure could, for instance, reflect districts that run single routes versus multiple ones, or districts that have all school buildings starting or ending the day close together, thus minimizing the amount of time available to pick up students. Districts that exceed the target are defined as being

<sup>&</sup>lt;sup>26</sup> The following districts were excluded because they either did not operate transportation systems or otherwise lacked data: New Miami Local, Clermont-Northeastern Local, Ottawa Hills, Fairport Harbor, Oakwood City, Lockland City, Lakewood City, Grandview Heights City. Also, as with all sections of this report, the four smaller districts - Put-in-Bay, College Corner, Kelley's Island and Bass Island - have been excluded. An earlier version of this report released March 1, 2011 contained an error in calculating transportation benchmark results for Fairfield City Schools due to erroneous data supplied by the Ohio Department of Education. The error slightly reduced potential savings overall and resulted in Fairfield being designated as a best-in-class district in Typology 6 - High Density, replacing Mariemont City. All calculations associated with this erroneous data have been updated in this report and accompanying materials.

efficient relative to other districts in the state.

For the purpose of this study, this measure was not used as a quality indicator but rather a possible best practice that could result from these findings. It is worth noting that, of the 39 benchmark districts selected, 17 met or exceeded ODE's ridership ratio. Further research into the best practices of the benchmark districts would be needed to understand and interpret the effect of this measure.



## BEST PRACTICES IN TRANSPORTATION

Transportation best practices can help ensure greater efficiency in transportation. These practices, culled from state-level studies, revolve largely around improved routing and leveraging purchasing power through collaboration and pooling efforts.<sup>27</sup>

The major common theme is for districts to collaborate, share or pool their resources to save dollars.

## Routing Practices

Routing of vehicles is possibly the most important factor for a district to establish an effective and cost-efficient student transportation system. By establishing an efficient bus route, a district will ensure reasonably high average bus occupancy and reasonably low cost-per-rider and cost-per-mile. Districts can consider the following routing factors that can lead to greater efficiencies:

- Move from single-routed buses to double or higher. Districts need to route for higher efficiencies on their buses. The cost of buses is constant and therefore by having one bus make multiple runs (or tiers) a district can reduce cost per pupil and increase ridership. Transport time and seats on the bus are constraints to how much a district can implement multiple runs. Time is an issue in rural areas, where students may be riding on buses for a very long time, while seats are more of an issue in urban/suburban areas because of the high number of pupils.
- Ensure continual maximum capacity and efficiency with frequent student counts and routing adjustments. According to the State Auditor, districts could substantially reduce transportation costs by counting students monthly and changing routes accordingly. Other studies confirm that frequent review of numbers and routes is essential for efficiency.
- Reduce the number of bus stops. Districts need to move from the individualized bus stop to fewer bus stops serving larger number of students. This will cut down on the additional time taken to travel more streets and make more stops.
- Use routing and scheduling software. In order to be able to manage multiple routes and frequently check student counts and make adjustments, districts must have capable routing or scheduling software that can streamline transportation data, plan the routes and/or create staggered bell schedules. Without this software, districts spend more time manually scheduling bus routes and storing information in multiple places. The software can reduce labor-hours and decrease the complexity of information among the various transportation data sources.

<sup>&</sup>lt;sup>27</sup> Transportation best practices were synthesized from the following sources:

<sup>•</sup> Idaho School Transportation Best Practices. Department of Education, Division of School Transportation. Revised November 3, 2005. http://www.sde.idaho.gov/site/transportation/docs/reg\_rule/BestPractices.pdf

 <sup>&</sup>quot;School Transportation Efficiency Measures" lowa Association of School Boards Fiscal Management Conference. July 15, 2008. http://www.ia-sb.org/uploadedFiles/IASB/Events\_and\_Training/Recent\_Presentations/2008\_Fiscal\_Management\_Conference/Possible%20 <u>Transportation%20Cost%20Saving%20Options.pdf</u>

<sup>•</sup> Texas School District Transportation Services. Texas School Performance Review. Legislative Budget Board sd transportation services http://www.lbb.state.tx.us/Perf\_Rvw\_PubEd/White\_Papers/transportation.pdf\_on\_webpage: http://www.pubEd/White\_Papers/transportation.pdf\_on\_webpage: http://www.pubEd/White\_Papers/transportation.pdf\_on\_webpage: http://www.pubEd/White\_Papers/transportation.pdf\_on\_webpage: http://www.pubEd/White\_Papers/transportation.pdf\_on\_webpage: http://www.pubEd/White\_Papers/transportation.pdf\_on\_webpage: http://www.pubEd/White\_Papers/transportation.pdf\_on\_webpage: http://www.pubEd/White\_Papers/transportation.pdf\_on\_webpage: http://www.pubEd/White\_Papers/transportation.pdf\_on\_webpage: http://www Perf\_Rvw\_PubEd.htm

Ohio state auditor email on recommended best practices and interview with Pete Japikse from Ohio Department of Education Transportation Division.

# Purchasing and Equipment Practices



Keeping equipment and fuel costs low can be equally important to the efficiency of transportation operations. The following best practices help to ensure that districts are stretching their purchasing dollars for transportation.

- Ensure cost-effective fuel purchasing. With the price of fuel both on the high side and volatile, districts need to think strategically when purchasing fuel. Some options to ensure the lowest cost are:
  - Buy fuel in bulk, not at the pump. Districts can save in money and time buying in bulk and having the fuel stored in a fuel storage tank, often provided by the vendor.
  - Pool fuel purchasing. This could be done with another district or with the local municipality and would lead to lower fuel prices for all.
  - Lock in a fuel price at strategic times of the year. According to an Iowa review of best practices, fuel prices are historically lower during certain months of the year. Districts may be able to work with the provider to determine when this is and lock in that fuel price.
  - Bid often for fuel. As an alternative to locking in a low price, bidding out the price fuel frequently will help to ensure the district is getting the lowest price.
- Ensure cost-effective parts purchasing. For frequently used supplies and parts, purchasing consortiums and other shared arrangements with other districts and jurisdictions can leverage a district's purchasing power. This also extends to buses, which can be purchased in the state of Ohio through bus purchasing consortiums.
- Implement a bus replacement plan. By implementing a bus replacement plan, districts can phase in new buses and replace old ones, based on anticipated growth and analysis of the age and condition of the fleet. This will allow for maximum efficiency of use, including moving a bus from a longer route to a shorter one to extend its life. It will also prevent the necessity to acquire a large number of buses in any one year.
- **Ensure that a preventative maintenance plan is in place.** Especially now that buses are highly technologically enhanced, conducting preventative maintenance will keep costs at a minimum, ensuring routine repairs are addressed. Left unattended a minor repair could turn into a major one, or even an unexpected breakdown or accident.

# Additional Sharing Opportunities

Across the country, school transportation comes up as a top way for districts to share services. In addition to collaborating to purchase fuel or other supplies, districts can share their routing services for certain types of students, such as special education, non-public, joint-vocational, etc. Coordinating transportation at a level higher than the district for specific student populations could lead to greater efficiencies and savings. This is exemplified by a study conducted by the Educational Service Center of Central Ohio that found significant preliminary savings of \$1.2 million by simply coordinating busing from multiple districts to two private schools in the Columbus area. (For more on this report, see www.OhioSmartSchools.org for "Towards a New Model of Educational Governance for Ohio.")

# **Maintenance and Operations Overview**



The maintenance and operation of school buildings is a basic function that districts must manage well to provide a space conducive to learning. Not only do school districts need to ensure that their buildings are safe and well maintained, they also need to ensure that they are keeping up with current technologies and business practices that will provide for cost effective facility operations and efficient use of available resources. Across the state, Ohio school districts spend \$3.6 billion in state and local funds for maintenance and operations.<sup>28</sup>

In 1997, the Ohio General Assembly created the Ohio School Facilities Commission (OSFC) to help improve the poor condition of school buildings statewide. Since then, more than \$6.5 billion has been spent with current expenditures nearing \$4 million a day. This is by far the largest capital building program ever undertaken by the state. The OSFC is currently about halfway through renovating or replacing Ohio's school buildings with 174 districts completed and another 131 in progress. As of November 2010, the Commission had opened 780 new or completely renovated buildings in conjunction with its school district partners.

The OSFC has helped school districts increase the efficiency in their building operations and maintenance. One such significant initiative has been the adoption of the LEED certification. In September 2007, OSFC elected to use the U.S. Green Building Council's LEED® for Schools rating system as the roadmap for documenting and measuring the progress of its Green Schools Initiative.<sup>29</sup> School districts participating in OSFC programs are required to achieve at least LEED Silver Certification, with an emphasis on energy efficiency. According to the U.S. Green Building Council, LEED buildings cost only 1 to 2 percent more than conventional construction and these nominal additional costs are quickly offset entirely by the energy savings generated within the first year, leaving districts quickly with a net savings in energy efficiency.<sup>30</sup>

School districts that have gone through, or are in the process of going through, the OSFC building program will have up-to-date buildings that are more energy efficient, while districts that have yet to go through the program are more likely to have older and more out-of-date facilities. However, all districts can undertake basic maintenance measures to create more efficiencies, such as updated heating systems, as well as basic measures of effectiveness, such as training programs for staff and fiscal planning for upkeep.

Ensuring that Ohio's schools have safe and effective maintenance operations and are well prepared fiscally to tend to facilities maintenance is an essential basic function of every district. As Ohio continues on its path to improving and upgrading public school buildings, it is essential that districts properly and sufficiently maintain them. By examining basic measures of quality, this study will highlight districts that have safe, effective and fiscally supported facilities and maintenance operations.

# Methodology

The unit of measurement used to determine which districts are performing efficiently and effectively is building and maintenance operation expenditure per pupil, which covers all items of expenditure relating to the operation of the school buildings and the central offices. These include the costs of utilities and the maintenance and the physical upkeep of buildings.<sup>31</sup>

Includes building maintenance, operations, transportation and food service expenditures.

<sup>&</sup>lt;sup>28</sup> Data from the Ohio Department of Education, FY10.

<sup>&</sup>lt;sup>29</sup> LEED refers to the Leadership in Energy and Environmental Design Green Building Rating System. See <a href="http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1988">http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1988</a>

<sup>30</sup> Holowka, Taryn. "USGBC: LEED — Immediate Savings And Measurable Results". Environmental Design and Construction. July 12, 2007

<sup>&</sup>lt;sup>31</sup> The building operation expenditure per pupil was obtained from Ohio's District Data Profile (or CUPP Report), FY09.



The maintenance and operations quality indicators selected are grouped into two categories: 1) agency-provided indicators and 2) district-level survey indicators. The agency-provided indicators are the quality indicators that could be obtained from a database at the state level. They address the fiscal health of the maintenance operation, as well as general workers' safety and standard costs in key aspects of maintenance. The district-level survey indicators were the result of a survey of all districts on matters of district safety, training, facilities management and condition.

The four agency-provided quality indicators are that the school district:

- Must not be in in fiscal caution, watch or emergency. Schools that are in financial crisis were ruled out considering that their finances were deemed unstable. Source: Ohio Department of Education (ODE) Website Data Files, FY10.
- Have a Bureau of Workers' Compensation (BWC) Composite Rate at or below 1. All employers in Ohio contribute to the Ohio Workers' Compensation system, which acts as an insurance policy for employees who are injured on the job. The composite rate is presented as measure of the comparative cost between districts and is impacted by historical claims and the districts' participation in BWC rate reduction programs. Districts with a rate higher than 1, which indicates higher than average payments as a result of higher claims, were filtered out as this reflects a level of general district building safety. Source: ODE School District Benchmarking Report, FY10.
- Must have raised all matching dollars if approved for a grant from the Ohio School Facilities Commission. The Ohio School Facilities Commission is systematically addressing school buildings in all districts in Ohio. Once the OSFC determines a district's facilities needs, the district is required to raise matching dollars to the state portion. Districts that choose not to raise this money or are unable to raise the funds are excluded. Source: Ohio School Facilities Commission, FY10.
- Must have a dedicated revenue source for facilities. To ensure adequate funding for maintaining buildings, districts can pass permanent improvement or classroom facilities levies that are restricted in use for only capital items. They cannot be used for personnel or day-to-day operations. Districts that do not have one of these dedicated revenue sources for facilities were excluded. Source: Ohio Department of Taxation, FY09.32

The five district-level survey quality indicators are that the school district:

- Must have a Safety Plan, 33 A safety plan, which is a basic state requirement for every district and school, covers environmental conditions and operations of each building to determine potential hazards to students and staff. Source: Ohio School Facilities Commission and Ohio Education Matters/KnowledgeWorks joint survey.
- Must have a chemical hygiene plan, <sup>34</sup> Similar to the safety plan, the chemical hygiene is specific to hazardous chemicals. Source: Ohio School Facilities Commission and Ohio Education Matters/KnowledgeWorks joint survey.
- Must encourage or provide for training for facility staff. A recent facilities report shows that every dollar spent on facility management training results in a return of \$3.95.35 This measures a basic effort of training of staff needed to perform effectively. Source: Ohio School Facilities Commission and Ohio Education Matters/KnowledgeWorks joint survey.

<sup>32</sup> In addition to the permanent improvement levy, every OSFC District that has participated in a the OSFC Classroom Facilities Assistance Program is required to come up with ½ mill or equivalent set aside for facilities or maintenance for a period of 23 years. ORC 3318.

<sup>33</sup> ORC 3313.536 http://codes.ohio.gov/orc/3313.536

<sup>34</sup> Chemical hygiene procedures were part of Jarod's Law, which covered safety in schools but was repealed a year ago. They are now part of the Ohio Public Employment Risk Reduction Act and are reviewed by the BWC.

<sup>35 &</sup>quot;Research Shows 4:1 ROI on IFMA's FM Training and Education" International Facility Management Association http://www.ifma.org/tools/research/surveys/2009/ROI-On-Education-and-Training.pdf

- Must have had no school closure due to facility-related problems. This includes heating, potable water, environmental, structural or other reason. Source: Ohio School Facilities Commission and Ohio Education Matters/KnowledgeWorks joint survey.
- Must not have any heating systems over 20 years old. The maintenance and repairs required of a heating system tend to increase significantly at 20 years. Districts were ruled out if they had heating systems over this age. Source: Ohio School Facilities Commission and Ohio Education Matters/KnowledgeWorks joint survey.

These indicators keep the focus on districts that have maintenance and operations programs that are functioning in an efficient and effective manner, meet basic safety standards, are prepared fiscally to maintain buildings and have adequate maintenance levels.

With the quality indicators applied, the lowest five percent benchmark districts were identified and the average cost per pupil in each peer typology was determined (See Table 6 below for list of districts and averages). The gap was then calculated for each district in each peer typology and then multiplied by the total pupils to arrive at the district potential annual savings. This was then aggregated to statewide potential annual savings in maintenance and operations.

Table 6: Maintenance and Operations Benchmark Districts

	County	2010 ADM	Cost per Pupil
Type 1			
Leetonia Exempted Village	Columbiana	818	\$1,326
New London Local	Huron	1,157	\$1,593
Montpelier Exempted Village	Williams	1,077	\$1,615
Sandy Valley Local	Stark	1,518	\$1,643
Paint Valley Local	Ross	1,094	\$1,645
5% Benchmark District Avg			\$1,564
Type 2			
Holgate Local	Henry	467	\$904
Mohawk Local	Wyandot	990	\$1,165
Versailles Exempted Village	Darke	1,370	\$1,300
Wauseon Exempted Village	Fulton	1,993	\$1,397
Stryker Local	Williams	524	\$1,400
Marion Local	Mercer	883	\$1,403
St Mary's City	Auglaize	2,246	\$1,453
Coldwater Exempted Village	Mercer	1,403	\$1,473
5% Benchmark District Avg			\$1,312
Type 3			
Ottoville Local SD	Putnam	521	\$1,434
Western Reserve Local SD	Mahoning	679	\$1,504
Union-Scioto Local SD	Ross	1,956	\$1,527
Northeastern Local	Clark	3,666	\$1,679
5% Benchmark District Avg			\$1,536



Type 4			
Columbiana Ex Vill SD	Columbiana	1,051	\$1,171
Bellefontaine City SD	Logan	2,787	\$1,502
Salem City SD	Columbiana	2,243	\$1,534
Hamilton Local SD	Franklin	3,145	\$1,538
North College Hill City SD	Hamilton	1,605	\$1,540
5% Benchmark District Avg			\$1,457
Type 5a – Larger Major Urbans			
Akron City SD	Summit	27,929	\$2,423
5% Benchmark District Avg			\$2,423
Type 5b – Smaller Major Urbans			
Hamilton City SD	Butler	9,452	\$1,707
Euclid City SD	Cuyahoga	7,028	\$2,347
5% Benchmark District Avg			\$2,027
Type 6			
Louisville City SD	Stark	3,306	\$1,463
Brookville Local SD	Montgomery	1,581	\$1,600
North Royalton City SD	Cuyahoga	4,619	\$1,605
North Canton City SD	Stark	4,868	\$1,671
Anthony Wayne Local SD	Lucas	4,588	\$1,774
5% Benchmark District Avg			\$1,623
Type 7			
Granville Ex Vill SD	Licking	2,533	\$1,684
Aurora City SD	Portage	2,999	\$1,733
Dublin City SD	Franklin	13,620	\$1,983
5% Benchmark District Avg			\$1,800

# **Findings**

Applying the benchmark district average (as listed in each peer typology) to all peer districts, the total potential maintenance and operations annual savings across the 609 districts studied is \$617.9 million.<sup>36</sup> (Using a more conservative estimate of savings, if higher spending districts were to match just the average spending in each typology – without applying quality indicators – the potential annual statewide savings would be nearly \$250 million.)

The range in maintenance and operations spending varied widely across all districts, from \$904 per pupil (Holgate Local, Henry County, Type 2) to \$5,513 per pupil (Lordstown Local, Trumbull, Type 3), while the average cost statewide was \$2,004.04 per pupil.

The agency-level quality indicators ruled out a significant number of districts. Of the 609 districts, one-fifth (122) were identified as having to pay higher Bureau of Workers' Compensation premiums due to the number of claims, while nearly another fifth (116) do not have some sort of permanent improvement levy in place to help with the upkeep of their facilities. Additionally, 51 districts declined funding offered by the OSFC Program to replace or renovate older buildings, while another 48 districts were not able to pass a levy to raise the matching funds for the program. Less significantly, 32 districts are in fiscal caution, watch or emergency.

As part of the effort to gather district data, Ohio Education Matters/KnowledgeWorks, in partnership with the Ohio School Facilities Commission, conducted an electronic survey on maintenance

<sup>36</sup> Exclusions: As with all sections of this report, the four smaller districts - Put-in-Bay, College Corner, Kelley's Island and Bass Island - have been excluded, reducing the 613 total school districts to 609



measures that included the quality indicators used in this report.<sup>37</sup> Responses were received from 291 districts out of 613 districts. Of those who responded, well over half of the districts (153, or 63.8%) reported having heating systems over 20 years old, excluding a significant amount of districts in this study. Another 44 districts (18.3%) reported school closures due to a facility-related problem. On the other hand, the majority of the districts surveyed had a safety plan (282 - 98.6%) and a chemical hygiene plan (245, or 87.8%). Also, most districts seem to value improving the skills of their maintenance staff by encouraging or providing training opportunities for facility staff (94.7% - 269).

As 291 districts responded to the electronic survey, additional districts were contacted by phone or email to answer the survey questions. The additional district phone responses mirrored the percentages of those in the survey, with heating systems and school closures coming up short most often.

It should be noted that of the major urbans - both smaller and larger - no district met all the quality indicators. In the smaller urbans, four districts out of ten were eliminated immediately because they were in fiscal caution, watch or emergency. Of the remaining six districts, three more were eliminated for having high claims with the Bureau of Workers' Compensation. The three remaining districts (Hamilton City, Euclid City and Dayton) all had heating systems over 20 years old, but only Hamilton City and Euclid City had no other infractions and were therefore selected as the benchmark districts.

Among the larger major urban districts, none of them are in fiscal caution, watch or emergency and only one district was eliminated after applying agency-provided quality indicators. However, all of the remaining four districts had heating systems over 20 years old. The heating system indicator was again not used for major urban districts.

Comparing all 609 districts, 548 districts spend more than the benchmark district averages. In all peer typologies, more districts spend over the district benchmark average than spend less, indicating room for savings or improvement. However, the high number of districts without a permanent improvement levy in place or with outdated heating systems seems to indicate that districts may not be investing enough in maintenance in general.

While more research is needed to understand where and how districts can improve, additional questions on the electronic survey conducted jointly with the Ohio School Facilities Commission shed some light on areas of weakness and need. Of those surveyed, less than half (122 - 42.4%) of the 291 districts that responded maintain an active computerized maintenance management system, which would reduce the time it takes to manage maintenance paperwork and tracking and would allow for better reporting of maintenance data in districts. Along those same lines, only 24.6% of those surveyed (32 districts) are actively using some form of an energy tracking system. As will be discussed below, many of Ohio's districts lack these planning and tracking systems which would lead to greater efficiencies.

While school district facilities are in the process of being upgraded, which is a major improvement over building conditions just 10 years ago, there appears to be considerable opportunity for school districts to improve the operations and maintenance of school buildings to save costs.

<sup>&</sup>lt;sup>37</sup> Ohio Education Matters/KnowledgeWorks and the Ohio School Facilities Commission surveyed traditional school district superintendents and treasurers via emails sent through Survey Monkey in November 2010. Survey responses were received from 291 districts (either superintendent or treasurer.) An additional 64 districts that did not fill out the survey were contacted by phone and by email over a three-week period, and another 46 responses were received. Of the 18 districts that did not respond, 13 districts were eliminated as potential benchmarks due to their lack of response. Of the 13 districts eliminated, four were in Typology 2; one was in Typology 3; two were in Typology 4; three were in Typology 6; and three were in Typology 7.

## FACILITIES AND MAINTENANCE BEST PRACTICES



So how can Ohio's districts become more efficient and effective in facilities operations? As was mentioned briefly above, many best practices are about proper planning and tracking. The following best practices emphasize these points, as well as additional activities that districts should consider.<sup>38</sup>

• Implement a comprehensive facility maintenance program. A comprehensive maintenance program will include deferred, preventive, repair/upkeep (predictive) and emergency maintenance.

The most cost-effective maintenance programs will include a combination of preventive and predictive maintenance that appropriately balances prevention and repair. Without a good preventive and predictive plan in place, districts face a high number of emergency or reactive maintenance issues, leading to costly unplanned equipment downtime.

Specifically a preventive maintenance plan should include the following seven best practices that are necessary for successful preventive maintenance:<sup>39</sup>

- Inventory building components and assess their conditions.
- Build the capacity for ranking maintenance projects and evaluating their costs.
- Plan strategically for preventive maintenance in the long-term and short-term.
- Structure a framework for operating a preventive maintenance program.
- Use tools to optimize the preventive maintenance program.
- Advance the competence of maintenance workers and managers.
- Involve appropriate maintenance personnel in decision-making and in communicating building needs.
- Adopt a computerized maintenance management system (CMMS). Computerized maintenance-management systems automate and streamline the logistical tasks associated with maintenance programs, such as generating and tracking work orders, tracking equipment performance, tracking preventative maintenance and outside service calls, etc. They eliminate tedious paperwork, increase staff productivity and streamline maintenance monitoring and reporting for management. It should be noted that adequate training must accompany this.
- Invest and encourage staff training. Modern buildings and systems are complex and require that the staff is knowledgeable about how to maintain various pieces of equipment and become experts in different maintenance areas. Ensuring that the staff has good basic skills and diverse advanced technical skills will reduce the reliance on outside contractors, ultimately saving money for the district.
- Implement an energy tracking system. Creating a system for tracking utility information that can communicate results will promote awareness of energy use and collective ownership. (This report's survey also asked whether districts were using an energy tracking system. Only 24.6% of all Ohio districts surveyed responded that they use an energy tracking system of some kind. Therefore, Ohio's districts generally have an opportunity to better manage their energy usage and likely reduce costs.) For a more detailed analysis of energy efficiency, see www.ohiosmartschools.org for the report, "Sustainable Energy Efficiency in Ohio Schools."

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<sup>&</sup>lt;sup>38</sup> Maintenance and operations best practices were synthesized from the following sources:

<sup>39</sup> http://www.sde.idaho.gov/site/facilities/docs/maintenance/MaintenancePlan.pdf Idaho State Department of Education

# **Administration Overview**



At the core of all school district operations is administration and management at the central office and school-building levels. Ensuring that students are meeting high academic standards should no doubt be the primary goal of all superintendents, central office administrators, building principals and other administrative staff. But in support of that goal, successful administrators are tasked with managing personnel and operations in a manner that is both effective in reaching overall student achievement goals and efficient in using the fewest amount of resources to do so.

Much attention has been paid recently to administrative costs among Ohio school districts. Last year, a report by Greater Ohio Policy Center and the Brookings Institution Metropolitan Policy Program noted that Ohio ranks 47th in the nation in the share of elementary and secondary education spending that goes to instruction and ninth in the nation in the share that goes to administration. 40 In turn, Governor Kasich during and after the gubernatorial campaign last year indicated he wanted a funding system that put more money into the classrooms and less in administration.<sup>41</sup>

The benchmarking analysis of administrative costs here indicates that many Ohio school districts could indeed spend less on administrative costs, potentially freeing up more dollars for instruction. Across the state, school districts spent more than \$1.98 billion from state and local sources on administration.42

Benchmarking and measuring school district administration costs requires an examination of how well the district is being managed financially as well as academically. For this examination, only those districts that are doing a good job at both improving the academic achievement of students and managing expenses can be considered successful.

Administration costs are incurred at two distinct levels – at the central office level and at the school level. Across the state, school districts spend \$1.09 billion on central administration and \$893 million in school building-level administration.<sup>43</sup> Central office administration is where the health of the district and the overall academic success is managed, with the focus being on the superintendent, treasurer and other district-level decision-makers and functions they perform. School building-level administration, however, focuses on the ability of the principal to lead and manage successfully all the workings of the staff, academics and additional functions in the building. The principal is responsible for setting the tone in the building and ensuring academic success.

Measuring the costs of these two distinct areas separately is important in sorting out where practices and policies are efficient and where changes could increase efficiency. By identifying and reviewing districts that can serve as benchmarks for administrative spending, this report offers insights into how districts are structured and how some districts are spending less than others and getting similar or better results.

# Methodology

To examine more clearly administrative costs that are at the central office and those incurred at the schools by principals and staff, administration expenditures were divided into central administration and school-level administration:44

<sup>&</sup>lt;sup>40</sup> Restoring Prosperity: Transforming Ohio's Communities for the Next Economy, Greater Ohio Policy Center and the Brookings Institution Metropolitan

<sup>&</sup>lt;sup>41</sup> See, for instance, http://www.politifact.com/ohio/statements/2010/nov/30/john-kasich/gov-elect-john-kasich-says-ohios-classroom-educati/

<sup>&</sup>lt;sup>42</sup> Data from Ohio Department of Education, FY10.

<sup>&</sup>lt;sup>44</sup> A subset of ODE's CUPP Report as calculated by ODE by our request, FY09.



- Central administrative cost per pupil. The central office administrative costs are the costs incurred for the board of education, superintendent's office, fiscal services, business manager and support services. These costs do not deal directly with the education of the students and encompass planning, research, information services, staff services and data processing expenditures.
- School building-level administrative cost per pupil. School-level administrative costs include the functions of the building principal's office. This includes functions performed by the principal, assistant principals and other assistants, and clerical staff that oversee supervision of all operations of the school, assignment of duties to staff members, supervision and maintenance of school records and coordination of school instructional activities. The principal's office sets the goals and directions and makes key decisions for the building. The office also motivates staff, makes recommendations for hiring of staff members, evaluates personnel, deals with daily crises and concerns itself with the surrounding environment of the building.

## Central Administration

In the case of central administration, the goal was to identify districts that have kept administration spending low while ensuring basic district fiscal and academic health. Nine quality indicators were selected to gauge the fiscal and academic success of Ohio's school districts:

### **Central Administration**

- Must not be in academic watch or emergency. As a major component of Ohio's accountability system, each district receives an annual designation based on four measures. 45 The designations are excellent with distinction, excellent, effective, continuous improvement, academic watch and academic emergency. For the purposes of this study, these report card designations were used to determine districts' academic effectiveness. Any districts not receiving at least continuous improvement were eliminated. Source: Ohio Department of Education (ODE) Website Data Files, FY10.
- Must not be in in fiscal caution, watch or emergency. Schools that were in financial crisis were ruled out because their finances were deemed unstable. Source: ODE Website Data Files, FY10.
- Must have a teacher attendance rate at or above the state average of 95%. An important role of the district administration is to successfully manage its personnel and set expectations. For this report, teacher attendance rate is being used as a proxy for some aspects of the district-level management. While in a support role, the district administration sets goals and the tone for the district that principals carry out at the school-level. School districts with a below-average teacher attendance rate could reflect understaffing, lack of attention to staff issues and policy, or poor leadership at the central administration level, making them a less than desirable district to be singled out for best practices. Source: ODE Website Data Files, FY10.
- Must have an ending fund balance at or above 2% of total revenue. The ending balance is a strong indicator of the district's ability to enter the next fiscal year with sufficient funds to meet any unanticipated changes in revenues or expenditures. Any district with less than 2% in this field is considered to be at risk for fiscal difficulties and was eliminated from consideration. Source: ODE School District Benchmarking Report, FY10.
- Must not have a projected deficit in FY11 or FY12. Projected deficits are a fiscal red flag regarding the management of the district and financial planning. Any districts with a projected deficit in 2011 or 2012 were filtered out. Source: Ohio Department of Taxation, Fund Balance Forecasts, dated Nov. 8, 2010.

<sup>45</sup> The four measures are state indicators of student attendance, graduation rates and passage rates on state achievement tests in various subject; a performance index that includes progress toward state standards, federally mandated Annual Yearly Progress measures on performance of student subgroups like disadvantaged students; and a value added measure that tracks annual student growth in performance.

 Must have a Bureau of Workers Compensation Composite Rate at or below 1. All employers in Ohio contribute to the Ohio Worker's Compensation system, which acts as an insurance policy for employees who are injured on the job. The composite rate shows the comparative costs between districts and is impacted by historical claims and the district's participation in BWC rate reduction programs. Districts with a rate higher than 1 indicates higher than average payments as a result of higher claims, which could indicator poor management, poor supervision of staff, or lack of attention to safety issues. Thus, these districts were filtered out. Source: ODE School District Benchmarking Report, FY10.



- Must have an instructional ratio greater than or at the state average of 55.4%. The percentage of a district's budget spent on instruction reflects its focus on the core mission student achievement. Measured as the instructional expenditure per pupil versus all expenditures, the instructional expenditure ratio captures the costs associated with instructional delivery to the students, such as salaries and benefits of the teaching personnel and the other instructional expenses. These items strictly apply to the school buildings and do not include costs associated with the central office. Districts with an instructional ratio lower than the average were not considered. Source: ODE Report Card, FY09.
- Must have no material financial violations in most recent state audit. The state auditor conducts routine audits of all school districts, as well as additional audits where they are requested or mandated due to fiscal infractions. Districts that were found to have any material violations were filtered out. Source: Ohio Auditor of State Audit Database, accessed November 2010.46
- Must not have failed its most recent levy, if any, in the past three years. This measure attempts to capture the relationship between the school district and community, with levy passage indicating a vote of confidence in the district administration. While levies pass or fail for numerous reasons, one factor could be the ability of district leadership to develop and execute outreach and relationship building with district voters, both during a levy campaign and the years in between them. Districts with recent failed levies were ruled out. Source: Ohio School Boards Association's Levy Database, accessed Nov. 2010 (after general election.)<sup>47</sup>

While many of these indicators serve as proxies, given the availability of data, they offer a general test of whether the central administration has enough resources and uses them well to meet certain management and financial outcomes. These indicators, then, were used to identify districts with central administrations that operate in an efficient and effective manner, ensuring fiscal responsibility and basic academic success.

With these districts identified, the lowest 5% were selected as benchmark districts and the average cost per pupil in each typology was determined (See Table 7).

The next step was to arrive at potential savings for school districts that were not operating at these benchmark levels. Potential savings were based on the gap between what those districts spent and the average for the benchmark districts in their peer group, multiplied by their student enrollment. This was then aggregated to estimate statewide potential annual savings in central administration costs.

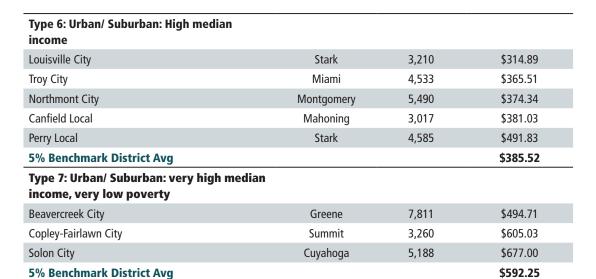
<sup>46</sup> http://www.auditor.state.oh.us/auditsearch/search.aspx

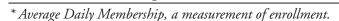
<sup>47</sup> http://portal.osba-ohio.org/fmi/iwp/cgi?-db=Levy%20database&-loadframes





	County	2010 ADM*	Cost per Pupil
Type 1: Rural: High poverty, low median			
income			
New London Local	Huron	1,157	\$403.90
Ridgewood Local	Coshocton	1,368	\$412.91
Indian Valley Local	Tuscarawas	1,909	\$419.77
West Holmes Local	Holmes	2,574	\$430.82
Gallipolis City	Gallia	2,248	\$442.78
5% Benchmark District Avg			\$422.04
Type 2: Rural: Low Poverty, Low to mod median income, small student population			
Northwestern Local	Wayne	1,439	\$382.73
Tuscarawas Valley Local	Tuscarawas	1,598	\$414.05
Gibsonburg Exempted Village	Sandusky	1,100	\$422.90
Wauseon Exempted Village	Fulton	2,011	\$430.32
Crestview Local	Richland	1,247	\$459.95
Western Brown Local	Brown	3,359	\$497.48
United Local	Columbiana	1,312	\$504.03
Eaton Community Schools	Preble	2,178	\$510.21
5% Benchmark District Avg			\$452.71
Type 3: Rural/Small Town: Mod to high median income			
Clinton-Massie Local	Clinton	1,730	\$407.41
New Bremen Local	Auglaize	860	\$467.37
Centerburg Local	Knox	1,152	\$482.11
Anna Local	Shelby	1,219	\$578.29
5% Benchmark District Avg			\$483.80
Type 4: Urban: Low median income, high			
poverty Salem City	Columbiana	2,032	\$511.78
Steubenville City	Jefferson	2,223	\$535.31
Hubbard Exempted Village	Trumbull	2,141	\$537.08
New Philadelphia City	Tuscarawas	2,141	\$557.08
Dover City	Tuscarawas	2,973	\$566.43
5% Benchmark District Avg	iuscaravvas	Z <sub>1</sub> 411	\$500.45 \$542.48
Type 5a – Larger Major Urbans**			JJ42.40
Akron City	Summit	23,427	\$775.26
5% Benchmark District Avg	Julillill	23,421	\$775.26
Type 5b – Smaller Major Urbans**			\$115.20
Canton City	Stark	10 1/10	\$766.64
•		10,148	\$766.64 \$804.29
Euclid City  5% Panchmark District Ava	Cuyahoga	6,041	
5% Benchmark District Avg			\$785.47





<sup>\*\*</sup>The urban typology (Typology 5) has been split into the Large Major Urban and the Small Major Urban to help account for the disparities in size and scope of the major urban districts and make the comparison more meaningful.

## School-Level Administration

For school-level administration, the selection process focused more on districts' academic success, as well as effective management. 48 The four school-level administration indicators were that the benchmark school districts:

- Must not be in academic watch or emergency. Source: Ohio Department of Education (ODE) Website Data Files, FY10.
- Must have a teacher attendance rate at or above the state average of 95.0%. Source: ODE Website Data Files, FY10.
- Must be above the three-year state performance index average for their typology.<sup>49</sup> The performance index is a weighted score that rewards the achievement of every student, not just those who score proficient or higher. Districts and schools earn points based on how well each student does on all tested subjects. Districts that had a performance index below the average within their peer group were filtered out.<sup>50</sup> Source: ODE website data, FY10.
- Must have a district student attendance rate of at least the state report card indicator of 93%. Student attendance rates are a strong indicator for student success and are one of the key measures of the state's accountability system. Districts not meeting this basic attendance rate level were filtered out. Source: ODE website data, FY10.
- Must not have had its designation lowered because of value-added performance. While achievement scores demonstrate a student's proficiency at one point in time, the value-added measure reflects how much progress the student has made since the prior year. Districts that have not shown a year's worth of growth in academic performance for three consecutive years have their report card designation reduced. Districts with this reduction in designation have been eliminated. Source: ODE Website data, FY10.

<sup>&</sup>lt;sup>50</sup> Peer Typology performance index averages were as follows: Type1 – 93.34, Type 2 – 96.98, Type 3 – 99.33, Type 4 – 91.99, Type 5a/b – 79.34, Type 6 - 99.07, Type 7 - 105.37. The variation in these averages correlates closely to the poverty level of the district, and is the reason that the averages were taken by typology in this case.



<sup>48</sup> The school-building level administrative cost data was only available in the aggregate for all of the schools in a single district. Thus, given that the data was not available for each school building, the academic rating of the entire district was deemed the appropriate quality indicator, reflecting the aggregate district effort at spending at the building level.

<sup>&</sup>lt;sup>49</sup> ODE Performance Index for FY08 - FY10.

With these districts identified, the lowest 5% were selected as benchmark districts and the average cost per pupil in each peer typology was determined (See Table 8).



The next step was to arrive at potential savings for school districts based on the gap between what they spent and the average for their peer typology, multiplied by their student enrollment. This was then aggregated to estimate statewide potential annual savings in school-level administration costs.

Table 8: School-level Administration Benchmark Districts

	County	2010 ADM*	Cost per Pupil
Type 1: Rural: High poverty, low median income			
New Riegel Local	Seneca	387	\$327.20
Sandy Valley Local	Stark	1,495	\$335.25
Symmes Valley Local	Lawrence	839	\$392.43
Montpelier Exempted Village	Williams	1,090	\$417.19
Ridgewood Local	Coshocton	1,368	\$428.46
5% Benchmark District Avg			\$380.11
Type 2: Rural: Low Poverty, Low to mod median income, small student population			
Columbus Grove Local	Putnam	907	\$332.65
Delphos City	Allen	1,103	\$337.16
Fairfield Local	Highland	885	\$337.49
Crestview Local	Richland	1,247	\$354.38
Marion Local	Mercer	918	\$368.85
Clear Fork Valley Local	Richland	1,769	\$370.69
West Branch Local	Mahoning	2,488	\$370.94
Southeastern Local	Clark	853	\$395.02
5% Benchmark District Avg			\$358.40
Type 3: Rural/Small Town: Mod to high median income			
Russia Local	Shelby	470	\$370.50
West Liberty-Salem Local	Champaign	1,224	\$413.40
Wayne Local	Warren	1,425	\$419.99
Ottawa-Glandorf	Putnam	1,431	\$420.66
5% Benchmark District Avg			\$406.14
Type 4: Urban: Low median income, high poverty			
Weathersfield Local	Trumbull	998	\$260.41
Wheelersburg Local	Scioto	1,486	\$284.41
Lowellville Local	Mahoning	621	\$290.70
Urbana City	Champaign	2,240	\$319.80
Rittman Exempted Village	Wayne	1,121	\$370.78
5% Benchmark District Avg			\$305.22
Type 5a – Larger Major Urbans**			
Cincinnati City	Hamilton	33,121	\$622.15
5% Benchmark District Avg			\$622.15



Type 5b – Smaller Major Urbans**			
Canton City	Stark	10,148	\$615.95
Euclid City	Cuyahoga	6,041	\$640.24
5% Benchmark District Avg			\$628.10
Type 6: Urban/ Suburban: High median income			
Tipp City Exempted Village	Miami	2,568	\$281.92
Brunswick City	Medina	7,304	\$331.90
Willoughby-Eastlake City	Lake	8,311	\$347.73
Champion Local	Trumbull	1,560	\$370.24
Anthony Wayne Local	Lucas	4,525	\$382.57
5% Benchmark District Avg			\$342.87
Type 7: Urban/ Suburban: very high median income, very low poverty			
Granville Exempted Village	Licking	2,454	\$330.98
Avon Lake City	Lorain	3,616	\$429.40
Oakwood City	Montgomery	2,106	\$475.65
5% Benchmark District Avg			\$412.01

The urban typology (typology 5) has been split into the Large Major Urban and the Small Major Urban " to help account for the disparities in size and scope of the major urban districts and make the comparison more meaningful.

# **Findings**

#### **Central Administration**

Of the 609 public school districts studied, nearly half (279) spent below the average instructional ratio for the state, while 260 were below the average teacher attendance rate.<sup>51</sup> These two indicators eliminated the largest number of districts in the central administration analysis.

Additionally, one-fifth of the districts (122) were identified as having to pay higher Bureau of Worker's Compensation premiums due to the number of claims and nearly the same number (121) were found to have a deficit in 2012, with only 17 districts with a deficit in 2011. Only 41 districts had a fund balance at the critical level of under 2% of total revenue. State designations for fiscal and academic conditions eliminated a handful of districts, with only 10 in academic emergency or watch and 32 districts in fiscal caution, watch or emergency.

With these initial filters applied, state audits and a school levy analysis were performed on the potential benchmark districts, eliminating any additional districts based on these measures.

Among the major urban districts – both small and large – none of them were able to meet all the indicators. In light of this, a two-tiered methodology was applied to arrive at the benchmark districts in these groups. First, any district in academic or fiscal caution, watch or emergency was automatically ruled out. In the smaller urbans, this eliminated five districts out of 10 but none in the large urbans. Then each remaining district had to pass a threshold number of indicators. For the large major urbans, the threshold was that the district had to pass four out of seven remaining indicators, while the small major urbans had to pass six out of seven remaining indicators. While this study was not able to determine why the urban districts had more difficulty passing these indicators, the larger urbans had a harder time passing the basic average thresholds set for teacher attendance or

<sup>51</sup> Exclusions: As with all sections of this report, the four smaller districts - Put-in-Bay, College Corner, Kelley's Island and Bass Island - have been excluded., reducing the number examined to 609 from 613.

instructional ratio. Also, notably, all of the large major urbans had some sort of infraction on their state audit. Otherwise, districts failed various different indicators without any pattern.



Statewide, 107 districts spent less than the benchmark averages, showing that even with meaningful screening to capture average instructional spending and performance, good community relations (levy passage) and sound fiscal management, there is a potential for savings in the majority of districts.

#### **School-Level Administration**

The indicators for school-level administration reflect basic academic benchmarks recognized by the state, as well as measures that reflect management of the largest category of staff - teachers. Of the 609 public school districts studied, nearly half (292) had performance index averages lower than the average of their peers. Additionally, 260 districts had below-average teacher attendance rate. These two indicators, representing the academics of the district and offering a proxy for basic staff management, eliminated a significant number of districts.

The additional indicators each eliminated only a handful of districts, with 10 in academic emergency or watch and 9 below the state student attendance rate target of 93%. Finally, 14 districts' designations were lowered due to value-added ratings that were below expected levels for three consecutive years.

Statewide, only 52 districts spent less than the benchmark averages for school administration, which seems to indicate wide spending variations in school-level spending, even when basic proxies for academic and management quality are applied. These benchmark district averages indicate that there is likely room for increased efficiency at the school administrative level.

Interpretation of this data may be somewhat limited however, as larger districts with larger enrollments in a given school could result in a smaller per-pupil cost at the school level than districts with smaller enrollments and school sizes. This study is meant to offer a way to begin to examine this data and understand variations in administrative expenditures and where school districts are providing a quality education at a low cost.

# Summary Findings

The potential savings for Ohio school districts through improved administrative practices is substantial. Applying the benchmark district average to all peer districts, the total potential central administration annual savings across all 609 districts is \$248 million, and the potential schoollevel administration annual savings is \$240 million.<sup>52</sup> (Using a more conservative estimate, if school districts were to reduce administrative expenses just to the average of all districts – without applying the quality indicators – for each typology, the potential annual savings amounts to \$102 million for central administration and another \$64.6 million annually for school-level administration.)

Central administration spending ranged widely, from \$262.02 per pupil (Fairfield City, typology 6 – wealthy suburban) to \$2,459.64 per pupil (Cuyahoga Heights, typology 6 – wealthy suburban), while the average cost statewide was \$650.94 per pupil. Strikingly, the top spender and the lowest spender are in the same peer typology – wealthy suburban – highlighting the potential for savings and overall range of spending in administration across districts. Additionally, when examining the combined central and school-level administration costs, which make up the total administration expenditure reported on ODE's District Profile Report (or CUPP Report), these two districts still represent some of the highest and lowest spending in the state. Combined central and school-level

<sup>52</sup> Exclusions: As with all sections of this report, the four smaller districts – Put-in-Bay, College Corner, Kelley's Island and Bass Island – have been excluded, reducing the number examined to 609 from 613.

administration spending for Cuyahoga Heights is \$3,368.12, which is third highest in the state, and Fairfield City is \$815.25, which is the fifteenth lowest in the state. This simply reiterates the potential for realizing savings.



The range in school-level administration spending varied widely as well, from \$49.85 per pupil (Coshocton City) to \$1,206.72 per pupil (Liberty Local), while the average cost statewide was \$528.64 per pupil.

Closer examination of the districts identified as benchmark districts reveal four districts that were identified as benchmarks on both central and school-level administration. (See Table 9.)

Table 9: Benchmark Districts for both Central and School-level Administration

District (Peer Typology)	County	2010 ADM	Central Admin Cost per Pupil	School-level Cost per Pupil	Total Admin Cost per Pupil
Ridgewood Local (1)	Coshocton	1,368	\$412.91	\$428.40	\$841.31
Crestview Local (2)	Richland	1,247	\$459.95	\$354.38	\$814.33
Canton City (5b)	Stark	10,148	\$766.64	\$615.95	\$1,382.59
Euclid City (5b)	Cuyahoga	6,041	\$804.29	\$620.24	\$1,424.53

Overall, Crestview Local School District ranked 14th lowest in total administration per pupil spending in the state, while Ridgewood ranked 30th. Canton City and Euclid City ranked fifth and sixth of all 15 major urban districts.

While this analysis has shed light on the potential for savings at the district and school level of administration, further research is needed to better understand the implications of this analysis. The identification and review of the benchmark districts for both the central and school-level administration may provide greater insight into the factors leading to the variation in costs, as well as key practices and a roadmap for other districts to reach a more efficient and effective administration. Some of these factors may be local salary differences, school-building enrollment sizes or student population needs of the district. Regardless, for districts that spend more than their benchmark average, this analysis offers a starting point for review of administrative services to determine if a better balance between cost and quality could be achieved.

## BEST PRACTICES IN ADMINISTRATION

Determining best practices in administration is a little more difficult than for the other noninstructional areas covered in this report due to the nature of the services offered. However, central administration in particular is responsible for sound management and fiscal practices. The leading practices below come from performance audits conducted by the Ohio state auditor's office. These are the practices they feel would help ensure sound district management, as well as reduce costs.<sup>53</sup>

• Formal Staff Planning: Using a formal staff planning system can help a school district better identify and allocate its personnel. This strategy requires all personnel to be placed within an organizational framework based on job function, skills and, most importantly, workload measures. Hiring and attrition decisions can be more clearly articulated when workloads change. Formally defining the workloads, including class sizes, and staffing to those workloads can help a district better manage its largest cost center - personnel.

<sup>53</sup> Obtained from the Auditor of State Office, October 2010



- Strategic and Capital Planning: Strategic planning is still limited and poorly developed in Ohio school districts. In general strategic goals are not used to guide programs and spending and, though districts must submit long-range plans to the Ohio Department of Education, these focus exclusively on academic goals that have limited measures. Strong plans help districts steer their operations and be more prepared for future events, particularly in business-side operations.
- Use performance-based management. Most Ohio districts do not track the cost of programs or the performance (effect) of programs. While this is sometimes difficult to do, the information is very valuable in making decisions about program offerings. For example, knowing the actual per unit cost of extracurricular activities can help a district better anticipate costs and savings related to reducing the variety of extracurricular activities, instituting pay-to-play or terminating certain extracurricular programs.
- Increased collaboration/use of distance and alternative learning models: Schools in western states have been implementing models of greater collaboration on course offerings among districts and the use of distance learning alternatives to continue to offer a wide range of programs but at a reduced cost. Districts can pool resources for courses with few students and share the cost of teachers, materials, and distance learning. This ensures students retain access to a varied curriculum but also helps districts economize.
- More efficient use of building capacity. Facilities costs usually comprise about 9% of district operating costs. Underutilized buildings, particularly in districts where significant cost savings could be achieved by closing a building, represent unnecessary additional costs. Better building utilization creates both immediate and long-term cost savings.