Improving the Collection and Use of Financial Data by School Districts: Where are we today?

Phase I Report of the Education Fiscal Data Project (03/31/08)

Introduction

Much work has been undertaken in the past several months relative to understanding the current state of school district financial data and its use in Ohio. This intensive activity has led to a greater understanding of what is available, and also helps to begin the process of formulating mechanisms to make better use of this data in the interest of improving both school district financial management practices as well as the alignment of financial resource decisions with school improvement decisions.

This document represents the first of a series of reports of the Education Fiscal Data Project and is directed primarily at describing the current state of school district financial data collection and use. Future reports will take this work to the next level toward the fuller development of mechanisms and strategies to improve the collection and use of school district financial data.

This document is divided into two parts. **Part 1** presents ten sections that respond to some key questions related to the current state of school district financial data collection and use; **Part 2** presents some preliminary work around deriving greater meaning from financial data. This includes some proposed measures of effectiveness and efficiency, as well as more granular reporting of district level expenditure data.

Part 1 – Current State of Financial Data Collection and Use

<u>Section 1: What financial data are currently collected in Ohio? How are they used? To what extent can they be used to shine light on effectiveness and efficiency?</u>

Significant amounts of financial data are already collected in Ohio. In fact, in discussions with several users of Ohio financial data (including the rating agency Standard and Poors), the quality of Ohio's financial data has been commended. Standard and Poors has used Ohio's school district financial data to drive some of their work in Ohio with regard to providing districts with custom analyses related to various operational aspects of the organization.¹

For purposes of this document is it useful to provide a summary of the actual mechanisms and formats by which school district financial information are developed, maintained and used.

District Level Accounting Software: As a financial entity, each district has a need to receive money and pay bills – and to track these transactions for various purposes (auditing, reporting, management, etc.). Each district, therefore, has either purchased or had provided to it accounting

¹ Standard and Poors approach is summarized in Working Paper #16; "*Toward Effective Resource Use: Assessing How Education dollars are Spent*" of the School Finance Redesign Project; http://www.schoolfinanceredesign.org/pub/pdf/wp16_willis.pdf.

software that meets the need for recording the many financial transactions it is likely to experience. In some cases, districts purchase such software from private vendors which can often include customization for the district. In other cases, districts use state developed software (often referred to simply as "state software") which is developed by the State Software Development Team (SSDT) under contract to the Ohio Department of Education (ODE).

Over the course of a fiscal year, districts use their respective software to record their revenue and expenditure transactions.

Uniform School Accounting System (USAS): Ohio is fortunate to have a common chart of accounts prescribed for use by all school districts – known as the Uniform School Accounting System (USAS). This chart of accounts provides a structure that is used to "code" each financial transaction (receipt, expenditure, transfer). A common chart of accounts attempts to ensure a high level of comparability (assuming a reasonably common usage of the coding structure). Of course, well intentioned people can sometimes disagree as to the proper coding of a transaction – especially at very detailed levels – which can work counter to the goal of comparability. But, generally, the coding structures are clear and straightforward and require little interpretation.

All accounting software used by districts – either state software or software procured from private vendors – is required to conform to this common chart of accounts. The chart of accounts is specified by the Auditor of State and is modified and updated from time to time. The USAS manual² is a detailed (almost 200 pages long) document that provides very specific descriptions of all the dimensions that need to be tracked in district accounting software.

Each financial event at the district level is coded in the district's accounting system using the coding dimensions prescribed by USAS. These dimensions are as follows:

- **Transaction Indicator:** This is the broadest level of coding and is meant to broadly identify the transaction. For instance, a transaction that is an operating receipt is coded 03; one that is an operating expenditure is coded 05.
- **Fund:** In recognition that government entities practice fund accounting and have different funds serving different purposes, the coding system incorporates a fund code. There are different fund codes for local funds, state funds and federal funds. For instance, a transaction to/from the district's general fund is coded 001. One to/from the district's food service fund is coded 006. One to/from the district Title 1 federal program fund is coded 572.
- **Function:** The function code is a type of programmatic coding structure used for expenditures only. This coding allows districts to distinguish between the different purposes for which money is being spent. For instance, it allows a district to differentiate between regular education costs, special education costs and vocational education costs. The function code consists of four digits which allows it to include a variety of sub-levels of detail. The first level of coding is structured as follows:

1000	Instruction
2000	Supporting Services
3000	Operation of Non-Instructional Services
4000	Extracurricular Activities
5000	Facilities Acquisition and Construction Services

² The manual can be found on-line at <u>www.auditor.state.oh.us</u> – search for Uniform School Accounting System or directly from this link:

 $http://www.auditor.state.oh.us/LGS/Publications/LocalGovernmentManualsHandbooks/uniform_school_accounting_system_user_manual.pdf$

6000	Debt Service
7000	Other Uses of Funds
8000/9000	Not Used

Three additional levels of coding detail allow for a much more granular portrayal of expenditure information. To illustrate, consider a transaction coded with a function code of 1222. This can be interpreted as follows:

- 1xxx Instruction: All function codes that begin with a 1 fall into the Instruction first level function.
- 12xx Special Instruction: All function codes that begin with a 12 fall into the Special Instruction second level function.
- 122x Handicapped: All function codes that begin with a 122 fall into the Handicapped third level function.
- 1222 Hearing handicapped: The most detailed fourth level function code, in this example, identifies the transaction as relating to hearing handicapped special instruction.

There are hundreds of functions codes (considering all four levels) detailed in the USAS manual. The USAS manual indicates which level of coding detail is *mandated* and which is *discretionary*. (These designations are comparably specified in the EMIS manual discussed below.) This can be different in various function categories and is usually driven by state or federal reporting requirement needs. For instance, special education expenditures are required to be coded to the fourth level of detail, whereas vocational educational expenditures are only required to be coded to the third level of detail, and regular instruction only to the second level of detail.

Districts may exercise discretion in coding their transactions to a more detailed level if they desire to have more detailed information to guide their own analysis and management.

• **Object:** The object coding is used to describe the type of good or service being purchased. Where the function code answers the question "For what purpose?" the object code answer the question "what is being bought?" The object code has three levels of detail available. The following table summarizes the first level of coding.

100	Personal Services – Employees Salaries and Wages
200	Employees' Retirement and Insurance Benefits
300	Not Used
400	Purchased Services
500	Supplies and Materials
600	Capital Outlay
700	Capital Outlay – Replacement
800	Other Objects
900	Other Uses of Funds

Two additional levels of coding detail allow for a much more granular portrayal of the object of expenditure. To illustrate, consider a transaction coded with an object code of 453. This can be interpreted as follows:

- 4XX Purchased Services: All object codes that begin with a 4 fall into the Purchased Services first level function.
- 45x Utilities Services: All object codes that begin with a 45 fall into the Utilities Services second level function.
- o 453 Gas: Transactions coded with this code are for the purchase of natural gas.

As with function codes, some levels of detail are mandatory and others are discretionary.

One can begin to see how this structure can provide useful information. For instance, if a comparison was desired to show what percentage of total salaries was attributable to regular education, compared to special education and vocational education, the analysis could be performed using the respective matching function and object codes.

- **Special Cost Center:** This four digit dimension allows districts to track revenues and/or expenditures that are temporary in nature or have special requirements. It can also be used to track different "projects" supported by restricted funds when there is more than one such project in a given fund.
- Subject Area/Subject (required for all teachers who teach specific subjects): This six digit coding dimension allows districts to track personnel expenditures based on a variety of subject areas. For instance, expenditures for mathematics teachers can be tracked separately from those for English teachers. Subject areas are more relevant with regard to expenditures at the high school level than in elementary grades although in the elementary grades physical education, art, and music are distinguished.
- **Operational Unit:** This three digit dimension allows districts to divide their operations into discrete operating units (usually these are separate buildings) and to track expenditures accordingly. This allows the tracking of expenditures at the building level. (It should be noted that in most cases operational unit aligns to a building IRN but not always. There are cases where a district might have a single building in which it operates its elementary, middle and high school. Each school has a separate IRN, but the building may have a single operational unit. This is a relatively rare occurrence.)
- Instructional Level (required for elementary/middle school teachers that don't have a specific subject area): This two digit dimension can be used by a district to track expenditures down to the grade level. Like the subject area/subject dimension it is used for personnel costs. Instructional grade levels are more significant at the elementary and middle school levels.
- Job Assignment (discretionary): This three-digit code is a more detailed dimension that can be used to assign personnel costs to specific job categories.
- **Receipt:** This four digit code is used when moneys are deposited to respective funds. The coding is designed to identify the type of money involved. The following table summarizes the major receive code categories.

1000	Receipts from Local Sources
2000	Receipts from Intermediate Sources
3000	Receipts from State Sources
4000	Receipts from Federal Sources
5000	Other Revenue

It is worth noting that with such a robust accounting coding system, different approach to providing service may result in non-comparable data. Consider two districts. One hires its own staff to provide special education services; the other contracts with the local ESC to provide special education services. In these cases, the first district would show higher payroll costs while the second district would show higher costs in contracted services. It may be worthwhile exploring ways to improve comparability of data when districts use these differing approaches for the delivery of services.

Educational Management Information System (EMIS): The EMIS system is operated by ODE and is used by the state, among other purposes, to download financial data from school districts after the close of the fiscal year. This process creates a financial data set that is used for a variety of purposes described later in this document. This downloading process is achieved by a procedure that involves the state defining data extraction protocols which are transmitted to the state's network of Information Technology Centers (ITCs) which serve as data aggregation points. The work performed by the ITCs is then transmitted to the state. Financial data for school districts is usually processed in this manner during the months of July and August. Over a period of several weeks these extraction protocols are run and error reports are generated for district review. The goal is that, after multiple processing cycles, the state ends up with the most complete and accurate financial data available from the districts.

The specific requirements for all EMIS reporting processes are specified in the EMIS manual – specifically Chapter 4.³ The EMIS reporting specifications for financial data rely completely on the USAS coding structures. The EMIS manual specifies the levels of detail required for the various object codes, subject codes, operating unit codes, and instructional level codes.

The EMIS manual also specifies what information is required to be reported at an operating unit (generally a building) level. The typical logic of reporting at the operating unit is that districts are required to report those objects of expenses that are easily attributable to a particular operating unit. Objects of expense that are not easily attributable are reported at a higher level, but are then apportioned across all buildings. So, for instance, salary costs are reported at the building level. Fringe benefit costs are reported at the district level but apportioned to each building based on the amount of salary.

In addition to the multiple categories prescribed by the USAS manual, the EMIS process also allows for district submission of other financial data. This includes a variety of supplemental schedules and other manually entered data that is primarily used by the State Auditor for audit preparation purposes.

Uses of Financial Data: To date, the primary use of school district financial data collected at the state has been to serve auditing and reporting purposes.

- Audits by the State Auditor: One of the Auditor of State's statutorily required roles includes the auditing of all governmental entities, including school districts. This requires the Auditor to review the financial records of a district and ensure that moneys are being used appropriately. The Audit process also results in the preparation of the year-end financial statements of the district. It may also include various levels of findings and suggestions for management improvement.
- Federal Reporting Requirements: The U.S. Department of Education's National Center for Education Statistics (NCES) is the clearinghouse for education data for the nation. The standards for the reporting of education related financial information to NCES are defined in the publication *Financial Accounting for Local and State School Systems: 2003 Edition*. NCES provides a rich set of financial data from its Education Finance statistics website at http://nces.ed.gov/edfin/search/search_intro.asp.

Financial reporting requirements differ from state to state. The NCES guidelines are used to attempt to ensure uniformity and comparability across the states. ODE is the cognizant agency in Ohio charged with transmitting financial information for the states and school districts to NCES. ODE manages a variety of data manipulation programs that allow the data received through the EMIS process to be transmitted to the federal government in the formats required.

One notable point about the NCES standards. These standards include a reporting dimension called "program." The program cost structure is organized into seven broad program areas. These are:

- Regular Education, Elementary
- Regular Education, Middle/Junior
- Regular Education, High School
- Special Education
- Alternative Education
- Vocational Education, 6-12
- Adult Education

Ohio's chart of accounts does not specifically have this "program" dimension – although a variety of function level and instructional level dimension data could be used to arrive at such a structure. There

³ The 2008 EMIS Manual can be found by searching for "2008 EMIS manual" in the search box on the ODE home page at <u>www.ode.state.oh.us</u>.

needs to be further discussions to determine the extent to which Ohio's accounting structure needs to incorporate the NCES program dimension explicitly.

- **Expenditure Flow Model:** Ohio has a long established protocol for computing district and building expenditures per pupil and of dividing such expenditures into five key categories as follows:
 - Instruction
 - Pupil support
 - Staff support
 - o Administration
 - Operations support

These values are computed by the Expenditure Flow Model (EFM) – a computer program that take EMIS reported data and processes it according to a variety of business rules. These rules are explained in the EFM Handbook⁴. The handbook explains exactly which function codes are attributed to each of the five categories. It also explains the manner in which prorations are made as necessary to portray an accurate picture of building level expenditures. EFM data has been widely used for a variety of purposes – but is a very general portrayal of district expenditure activity at a much more aggregated level.

Other Relevant Data: As important as financial data are, there are other data that can be used in tandem with financial data in order to assess effectiveness and efficiency. Ohio is fortunate, through a variety of data collection mechanisms, to have access to a variety of data that allows for more meaningful and expanded financial analysis. Such data includes, but is not limited to:

- Student counts including counts of different categories of students including disabled, economically disadvantaged, limited English proficient, etc.
- Teacher data including salaries and years of service.
- Building square footage which is useful relative to building operation expenses
- Transportation data including miles traveled and number of students transported
- District performance data including district performance index and value added gain scores.
- Five-year forecast data which is useful in gaining insight into each district's expected future pattern of expenditures and revenues.

Ability to Use Data for Measuring Effectiveness and Efficiency: The relative robustness of Ohio's financial data collection in combination with the other data available is conducive to supporting computations of effectiveness and efficiency. The ultimate goal of this project is to create useful effectiveness and efficiency measures. Preliminary discussion of such measures is contained in the second part of this report (beginning at pg. 18).

Section 2: What is the quality of the building level data? To what extent are building-level data being provided in a manner that is an accurate portrayal of the spending taking place?

EMIS specifications for data reporting require financial data to be submitted at the operating unit level for a variety of function and object code combinations (as specified in the EMIS manual). Consequently most districts report data at the building level when specified. In some cases, the "building" is not always the same as the "school." In a few cases, a district may have a single building that houses more than one school – for example, the elementary, middle and high

⁴ (search from the ODE homepage for "EFM Handbook") or click on the following link: http://www.ode.state.oh.us/GD/DocumentManagement/DocumentDownload.aspx?DocumentID=5454

schools are housed in a single building. In such a case, it is more difficult to extrapolate data to the school level. Fortunately, this does not occur all that frequently.

Based on preliminary assessments, when building level data is provided it is of good quality. It should be understood, however, that there is greater likelihood of variation when the data reporting gets more detailed – as it does at the building level. This means, for instance, that district level payroll data is likely to be more consistently comparable across districts, but building level payroll data may see more variability – simply because there are more instances of coding interpretation that might arise.

The challenge with building level data is not the teachers or administrators assigned exclusively to that building – but rather those incidental types of expenditures that may be attributable to a number of buildings. For instance, a reading specialist assigned to serve 4 different elementary schools would, ideally, be attributed to each of the buildings based on actual time spent in the buildings. But this is not always easy to establish or process. More often than not, such expenditures are proportionally split among the buildings served.

Building level data analysis can be enabled by the availability of this data. Building level data can also be useful in examining issues of intra-district building-level distribution of resources.

<u>Section 3: What best practices can be identified at the local district level that drives</u> <u>effective and efficient use of resources?</u>

Our efforts at identifying local district level practices are on-going. A big contributor to defining best practices is the information generated through the performance audits conducted by the Auditor of State (see Section 4 below). While not complete, a variety of best practices have been identified.

- **Procurement consortiums**. For many years, Ohio law has allowed consortiums of school district to be formed in the interest of leveraging purchasing power that comes through consolidating the buying power of multiple entities. Procurement consortia in Ohio are generally members of the Ohio Council of Educational Purchasing Consortia (www.oecpc.org). These consortia can be successful in helping districts leverage their buying power for a wide array of necessary goods and services. These include such things as custodial/janitorial supplies, transportation supplies, natural gas and telephone service, food service products, and data processing services.
- *State term contract and GSA procurement.* Districts are able to leverage the buying power of the state by being allowed to purchase from state term contracts as well as federal GSA purchasing agreements. Such purchases can sometimes lead to better pricing although not always.
- *Effective procurement through competitive bidding*. Competitive bidding can allow the district to find the best price. Efficient districts diligently use competitive bidding.
- *Centralized vs. Decentralized procurement.* Sometimes there is a tendency to allow buildings to procure materials and supplies on their own. At the other extreme, there are cases where district central offices control all procurement. The most effective districts attempt to find a mix of these approaches that allow good pricing, but also getting

supplies to buildings in a just-in-time manner (so that inventories do not need to be maintained).

• *Leveraging regional partners.* For some districts, it makes more sense to work with the regional Educational Service Center (ESC) to handle certain types of employees or services. There is a variety of examples where districts, for instance, provide special education services through the ESC since the ESC can provide some economies of scale. Similar approaches can work with other types of services.

It is also notable that that work of the School Employees Health Care Board (SEHCB) is focused on best practices in the area of health insurance procurement and configuration. The Board is currently working toward defining best practices and then beginning to measure the extent to which districts are engaged in such practices. More information about the SEHCB can be found on the web at <u>www.sehcb.ohio.gov</u>.

<u>Section 4: What can be learned from district performance audits that could serve to help</u> highlight best practices or point to benchmarking and measurement approaches?

The Auditor of State has been preparing performance audits of school districts since 1999. These audits were begun in the interest of helping districts find improvement opportunities in areas of financial management. The first performance audits were done for Ohio's urban eight districts. Since that time, the Auditor has generally prepared performance audits for districts in fiscal emergency and districts that may be at risk of going into emergency.

The typical performance audit analyzes six different areas of school district operations. These are:

- Financial Systems
- Human Resources
- Facilities
- Transportation
- Technology
- Food Services

In each area, data from the school district is compared to data from comparable districts and industry accepted benchmarks in order to drive conclusions about the target district. Some of the industry accepted benchmarks and best practices are derived from the following sources:

- Government Finance Officers Association (GFOA)
- American Institute of Certified Public Accountants (AICPA)
- State Employment Relations Board (SERB)
- American School and University (AS&U)
- National Center for Educational Statistics (NCES)
- Florida Office of Program Policy Analysis and Government Accountability (OPPAGA)
- Texas Education Agency
- Ohio Education Association (OEA)
- Baldridge National Quality Program

Each performance audit includes a section entitled "Noteworthy Accomplishments" which outlines best or promising resource management practices in one or more of the functional areas. These commendations are followed by a series of recommendations to assist the district with improving resource management and, in almost all cases, saving money.

From their performance auditing work, the Office of the Auditor of State has identified a variety "best practices." These are as follows.

• Financial Systems

- Strategic planning is key to efficient and effective operations
- Capital planning is an essential element of the planning process
- o Financial forecasts should include detailed assumptions
- Appropriations must be consistent with strategic goals and objectives
- Purchasing consortia, competitive bidding, on-line purchasing and just-in-time delivery are effective means of streamlining the acquisition process
- o Accurate and timely management reports are essential to good budget management
- Automated time and attendance systems and integrated payroll and personnel databases ensure accuracy and reduce demand on staff resources

• Human Resources

- Employee contributions to health care premium costs, increasing annual deductibles and pro-rating benefits for part-time staff are effective to reduce insurance costs
- Cash options in lieu of medical benefits can reduce costs
- o Diligent leave time management can significantly reduce personnel costs
- ERIs and generous sick leave severance provisions are costly to districts
- o Carefully defining overtime eligibility and monitoring its use can result in significant savings
- Ensuring the ability to manage the workforce is critical to efficient operations

• Facilities

- o Capital planning and budgeting are essential elements of sound financial management
- Accurate enrollment projections are key to facility planning, estimating future staffing needs, and financial forecasting
- o Implementing an effective energy management program can lead to significant costs savings
- o Standardized custodial and maintenance procedures and supplies can streamline operations
- o A comprehensive preventive maintenance plan can reduce operating costs
- An automated work order system can provide key management information ad assist in more efficiently allocating scarce resources

• Transportation

- Computerized routing systems, multiple runs, and staggered school starting times are effective means for reducing operational costs
- o Formal bus replacement plans should be developed and updated regularly
- o Careful management of the parts of inventory can reduce unnecessary expenditures
- Preventive maintenance and record keeping are essential to efficient operations and can significantly extend bus life
- o Transportation eligibility should be established through district policy
- Transportation personnel should be included in special needs transportation planning and districts should routinely review options for the provision of service

• Technology

- Technology-related decisions should be driven by a technology plan
- Technology steering committees can be an effective means for managing the implementation of technology plans
- o Adequate support is essential to ensuring that technology use is maximized
- Technology replacement should be a key element of district financial planning
- Standardization can be an effective means for controlling costs

<u>Section 5. What work is happening in other states relative to effective and efficient use of resources?</u>

A variety of other states have done work in the area of effective and efficient use of resources. In most cases, this work mirrors the performance audits done by Ohio's Auditor of State. The most significant of these are summarized as follows:

• Florida:

Enacted in 2001, Florida's *Sharpening the Pencil* program was designed to improve school district resource management and identify cost savings. The legislature has not appropriated funding for the program since 2003-3004, but the law requires each school district to undergo a best financial management review every five years. Under these reviews, the Office of Program Policy Analysis and Government Accountability of the Florida legislature and the Auditor General jointly examine school district operations to determine if they are using best financial management practices, identify costs savings and link financial planning and budgeting to district priorities. Information on the top thirteen ways for school districts to save money as well as links to individual district studies is included on the web. The web site also includes a self assessment tool to allow districts to evaluate themselves based upon operational practices. This information can be found at www.oppaga.state.fl.us/school_districts/districtreviews.html.

• Virginia:

After conducting several pilots in 2004, Virginia codified a school efficiency review program in 2005. The goal of the school efficiency review program is to ensure that non-instructional functions are running efficiently so that as much of this funding as possible goes directly into the classroom. The program identifies savings that can be gained in the school division through best practices in organization, service delivery, human resources, facilities, finance, transportation, and technology management. The department of planning and budget manages the school efficiency review program but hires educational consultants to conduct the reviews. Beginning in 2006, partial recovery of the cost of the reviews may occur if the school district is not implementing recommendations or realizing savings. Additional information on Virginia's program can be obtained by visiting http://www.dpb.virginia.gov/school/index.cfm.

• Texas:

Originally housed in the Office of the State Controller and now managed by the Texas Legislative Budget Board, Texas has a long history of conducting School Performance Reviews. The reviews conducted in Texas go beyond the analysis of financial practices. A typical school review with include analysis and recommendations related to educational service delivery; district leadership, organization, and management; asset and risk management; financial management; purchasing and warehousing; human resource management; facilities use and management; technology management; transportation; food services; safety and security; and community involvement. The LBB also publishes a comprehensive guide to the protocols used for conducting these reviews. Additional information on Texas' program can be obtained by visiting http://www.lbb.state.tx.us/Perf_Rvw_PubEd/Perf_Rvw_PubEd.htm.

• Council of the Great City Schools

The Council of Great City Schools has initiated a multi-year project to identify performance measures, key indicators and best practices that can serve as guides to improve the financial and business operations of urban school districts. The initial report, *Managing for Results in America's Great City Schools: A Report of the Performance Measurement and Benchmarking Project*, focuses on a set of indicators in four business areas: transportation, food services, maintenance and operations and procurement and supply chain. While not included in the initial report, a preliminary analysis has been conducted on measures for financial management and general accounting. Project plans include expansion to an examination of human resources and information technology in 2008. Cincinnati, Cleveland, Columbus, Dayton and Toledo public schools are members of this organization. The full report, which includes 50 initial indicators (in business areas outlined above), can be found at http://www.cgcs.org/pdfs/KPI_report.pdf.

<u>Section 6: What tools, rubrics and protocols does Ohio have in place to gauge good educational practices?</u>

Ohio has developed, and continues to develop, a variety of tools, rubrics and protocols that can be used to gauge good practice. This work began with some research around schools that were "beating the odds" – that is, that were achieving strong academic gains with high percentages of high needs students. This research evolved into an emerging educational practices diagnostic tool that is proving to be very effective in helping to identify potential causes for poor academic program results in schools and districts.

Schools of Promise: Much of the initial work around effective educational practices in Ohio began with the analysis of Ohio's Schools of Promise. Schools of Promise are those school buildings that are "beating the odds" by achieving success with high concentrations of economically disadvantaged students. By examining the practices of these schools, five key areas of successful practice emerged. These are:

- Rigorous standards and instruction;
- Strong instructional leadership
- Instruction designed for all students' success;
- Parent and community involvement;
- A positive school culture

The work around Schools of Promise focused on building level activity, but the findings complimented national research that showed similar successful practices as driving success at the district level. The Schools of Promise research has had a lasting impact on ODE's work on school and district improvement.

Ohio Improvement Process: Some of the most exciting work happening at ODE today is the development of detailed tools and processes designed to support good educational practices. These have been designed to help increase the success of ODE's technical assistance to schools and districts relative to improving academic achievement. Over the past year, ODE has been developing and testing a set of diagnostic tools that allow for qualitative analysis of educational

practices in districts. Thus far, this process has proven to be helpful to districts that have participated.

The *Ohio Improvement Process* has four iterative steps. These are:

- Stage 1: Identify critical needs of districts and schools
- Stage 2: Develop a focused plan
- Stage 3: Implement the focused plan
- Stage 4: Monitor the improvement plan

The Stage 1 process is where a great deal of attention is paid to measuring and analyzing key educational practices. The School Improvement *Diagnostic Review Process* is designed to help districts and schools improve students' performance by analyzing their current practices against effective research-based practices, identifying areas of strength and areas needing improvement. This diagnostic process relies upon teams of skilled reviewers (called state diagnostic teams) from outside of the district or school, and standardized protocols for data collection and analysis. The onsite review process includes a tour of the building and/or central office, classroom observations, and interviews with select individuals or groups, document reviews, completion of a diagnostic profile, and an analysis of strengths and opportunities for improvements. The focus of the review process is on the educational system and is not to be an evaluation of individual teachers or administrators.

The Diagnostic Review Process focuses on six critical components identified as essential for reaching high achievement. These six components were identified from a review of the research on high performing districts and schools, and reflect the themes from ODE's own *Schools of Promise* research. The six critical components are:

- 1. Alignment with Standards
- 2. Instructional Practices
- 3. Environment/Climate
- 4. Leadership
- 5. Professional Development
- 6. Data Driven Decisions

Within each of these six critical areas are *diagnostic indicators*, which describe effective practices that are critical to improving academic achievement for all students. Using the diagnostic indicators, review team members determine the degree to which a school or district demonstrates these effective practices. The indicators of effective practice used in the school and district diagnostics are aligned to Ohio's standards and guidelines.⁵

Qualitative methods are at the core of the School Improvement Diagnostic Review process and enable the review team to gain a deeper understanding of the instructional practices in the school and district. Team members use standardized protocols, or procedures, as they collect data during observation, interview, and document review activities, and as they analyze data to generate the diagnostic summary. Fidelity of implementation ensures the integrity and reliability of the process. The standardized protocols include the following:

⁵ Operating Standards for Ohio's Schools; Ohio Academic Content Standards; Ohio Standards for the Teaching Profession; Ohio Standards for Principals; Ohio Standards for Professional Development; Ohio School Climate Guidelines; and, Comprehensive System of Learning Supports Guidelines.

- Tracking guides of the diagnostic indicators in the six critical areas
- Building observation guide to record building observations
- Classroom observation guide to record individual observations
- Interview guides and structured questions for individuals and/or groups
- Document review guide
- Diagnostic inquiry guide on the process, documentation, and report writing
- Review team meeting guide for data analysis.

After the diagnostic team members have collected data on the existence of the various indicators of effective practice, each member will *independently* complete an online school building and/or district diagnostic profile form that indicates the degree to which specific practices were found in the building or district. Once each review team member has completed their individual diagnostic profiles, an *average score* is calculated for each of the six critical areas. Next, a *graphical report* is generated that displays the aggregate districts' or school building's score for each of the six critical areas. This graphical display provides the diagnostic team and the building or district with a quick overall analysis of their areas of strength and weakness. Once all of the diagnostic profile data have been analyzed and graphically displayed, the team will generate a written summary report for each of the six critical areas. This diagnostic summary represents the culmination of an analysis of all data sources from the site review. Each of the six critical areas in the summary report includes *strengths* and *opportunities for action and improvement planning* based upon evidence collected through the entire review process.

After the district/building receives the completed report from the State Diagnostic Team, the district/building will then move to the ODE Stage 2 of the School Improvement Process and write a focused plan for implementing change. The diagnostic summaries are expected to guide the school district, along with numerous other data sources, as it assesses its needs and sets priorities for school improvement.

The State Diagnostic Review Process is managed by the Office of Educational Reform, which works in conjunction with the Office for Exceptional Children and the Center for School Options and Finance. ODE is making every effort to coordinate the school improvement requirements for corrective action, with the mandated requirements for focused monitoring and fiscal monitoring.

Other Rubrics and Protocols: A variety of other tools exist, or are being developed, to further this work, as follows:

- *Standards for the Teaching Profession:* Through the state's professional standards board, Ohio has developed a set of teacher standards that define what teachers need to know and be able to do. These standards are latticed in a manner that recognizes differences starting with standards that apply to a novice teacher and leading to those that apply to a master teacher. These standards can serve teachers and those providing professional development as a guide to managing future development. In addition to the standards, Ohio is developing a model evaluation tool that can be used to guide the teacher evaluation process. Such a tool would not be mandatory but could be adopted for use by districts at their discretion.
- *Ohio Standards for Principals:* Similar to the standards for the teaching profession, Ohio has developed standards for principals. The role of principal is generally recognized as critical to the success of educational delivery at the building level.

- *Standards for Professional Development:* Research continually demonstrates the importance of high quality, aligned, embedded professional development in assisting students reach higher levels of achievement. This stands in contrast to what is often termed "drive by" professional development. Ohio has established a set of standards that define what good professional development is and how it can be used effectively to promote higher student achievement.
- *School Climate Guidelines:* Research also demonstrates the importance of school climate to student academic success. In this area as well, Ohio has developed guidelines that can be used by buildings and districts to improve school climate.
- *Comprehensive System of Learning Supports:* Another key component of an effective education system are those supports that are in place both academic and non-academic interventions that can be used to assist students that may be falling behind in their academic performance. ODE has developed these guidelines to help districts understand the various approaches to providing supports to help students remove barriers to learning.
- **Dropout recovery program guidelines:** Students who drop out from school present an especially difficult challenge. ODE has studied a variety of approaches to effectively address the issue of dropout prevention and recovery and has published a list of effective programs that can be used to address these challenges.

<u>Section 7: What tools, rubrics and protocols does Ohio have in place to gauge the linkage of money resources to student outcomes?</u>

Unfortunately, Ohio does not currently have much available in the way of tools, rubrics and protocols to gauge the linkage between money resources and student outcomes. While it is clear that there is a strong need for more work in this area, there are a number of processes and tools in place to build upon.

- *Staffing and Financial Analyses:* ODE has a long history of providing staffing and financial analysis to those districts requesting these services or districts with five year forecasts that indicate the potential for future fiscal distress. The financial analysis is conducted to verify that the information in the five year forecast aligns with current revenue and expenditure patterns. The staffing analysis compares the staff levels of districts with comparable districts and state minimum requirements for various categories of staff.
- *Comprehensive System of Learning Supports:* In July 2007, the state board of education adopted a Comprehensive System of Learning Supports guideline. The fifth guideline speaks to "Fiscal Resources: Budgeting Based on Student Needs" addressing whether or not the district leadership team uses individual building data and collaboratively plans to allocate and leverage appropriate resources to schools for supporting and implementing effective instructional and student support interventions. The guideline has seven sub-elements that further nuance what good practice looks like.

Districts that receive poverty based assistance are required to use these guidelines for the implementation of programs to address academic and non-academic barriers to learning. The guidelines address all areas of an educational system, including the decision making involved in resource allocations. This document can be found by going to the ODE homepage – <u>www.ode.state.oh.us</u> – and searching for "Learning Supports."

• *Ohio Improvement Process:* Districts subject to corrective action under the federal No Child Left Behind statute are required to receive technical assistance by the state. In Ohio, technical assistance begins with a diagnostic analysis of the district through the review of performance data, on-site observations of instructional practices, and a review of leadership and decision making processes which includes a review of the resource allocation decision making process in the district.

<u>Section 8: What role can the newly available value-added data play in measuring effectiveness and efficiency?</u>

Value added data offers the potential for measuring the contribution made by a school or district toward improving academic results. Until recently, Ohio could only rely on absolute measures of achievement. Testing data could tell which students were in each of five achievement categories – accelerated, advanced, proficient, basic, and below basic. The state also computed a performance index – a composite score based on the numbers of students in each of the five categories. Ohio was also able to generate a rough measure of improvement by computing the change in performance index from one year to the next.

However, these measures did not really shed light on the extent to which educational services being provided added value to a student's learning. It was possible to conceive of a school district for which students may not have been passing tests in high numbers, but that was making great strides in academic improvement. It was from this concept that drove the search for mechanisms that allow for a more precise measurement of value added emerged.

Working first through Battelle for Kids and Battelle's Project Soar, Ohio began to experiment with methodologies that could measure the value added of educational services provided. The EVAAS methodology that is being used has been developed by the SAS Institute, with the leading edge assistance of Bill Sanders who first began doing value added measurement in Tennessee.

The actual value added measure and methodology was first piloted on a statewide basis using the testing data from the 2005-06 school year – when it was computed only for fourth grade compared to third grade. For the 2006-07 school year, the computations were made for the full range of grade levels (4th through 8th) in both reading and mathematics.

Since a goal of financial analysis is to understand spending in the context of the return received, the idea of value added holds great potential. Value added computations use previous testing performance for students over several years to estimate the gains that each student can be expected to achieve in one academic year. Schools and districts can use this data to understand if they are, on average, helping students to make more, less or average academic progress than is expected for their group of students. By comparing groups of students to their own expected

performance, the value added data allows a picture to be painted of the success of a district at driving academic improvement.

There are a variety of limitations to the value added data. For instance, it is only generated for math and reading for grades four through eight using standard assessments (with no alternate assessments included). While this is a limited universe of information, absent other data, it is not unreasonable to use it as a proxy for overall district progress.

Section 9: What kinds of reports are already generated and/or available, and who has access?

There are a wide variety of financial reports available for use by school districts and the general public. Much of what is available, however, is simply the direct reporting of data without much in the way of analysis. The following summarizes some of these available reports.

- Interactive Local Report Card Power User Reports: ODE's website allows users to access the interactive local report card. The iLRC is really a tool that allows users to easily access ODE's substantial data warehouse of information from Ohio's districts and other educating entities. It includes a special section, the Power User Reports, that allows users to create customized reports on a whole host of issues, including:
 - Revenue data
 - Expenditure data
 - Staffing data
 - Student population data (demographics, attendance, enrollment, etc.)
 - Performance and accountability data

The Power User Reports section allows users to choose between state, district, and building data and move between these levels to get detailed information about a particular topic.

- **District Financial Profile (Cupp Report):** For many years, ODE has produced district financial profiles. These profiles are compilations of about 60 factors that paint a picture of the district from various vantage points. These financial profiles include data about revenues including property tax millage rates, expenditures, staffing ratios, average salaries, etc and other district demographics to provide a robust comparison of similar districts.
- *District Financial Reports:* Each district is required by law to publish financial statements. The ideal is for a district to publish a Comprehensive Annual Financial Report (CAFR) that is produced in accordance with Generally Accepted Accounting Principles (GAAP). While there is no central state web-based access for these reports, they can be easily obtained from each district.
- *Audits and Performance Audits:* Audits of government entities and their accompanying financial statement are probably the documents that have had the greatest availability in Ohio's history. Some people, however, find audit reports to be highly technical and

difficult to understand. Audits can be found using the audit search feature of the State Auditor's website at <u>http://www.auditor.state.oh.us/Public/AuditSearch/default.aspx</u>.

- *Ohio Legislative Services Commission Longitudinal Expenditures Data*: This site provides state budget statistics from 1975 to the present for dollars expended overall and for various program areas. This is located at http://www.lbo.state.oh.us/fiscal/budget/revenuehistory/staterevenue126.cfm.
- *School Funding by District:* This powerful site is populated with data provided by the Department of Education, but is managed by the Legislative Service Commission. It makes available to the user five types of graphs for each district showing trends for a 12-year period. These are 1) Per Pupil Operating Revenue; 2) Total Operating Revenue; 3) Per Pupil Operating Expenditure; 4) Total Operating Expenditure; and 5) Enrollment. It is located at http://ode.legislature.state.oh.us/.
- *www.schoolmatters.com* This website is a national site that allows users to search for data on any school district in the nation. These data include academic performance data as well as some finance data.
- *Ohio Department of Taxation Data:* The Ohio Department of Taxation has long played a role in providing data related to school district revenues. These data sets include information about property taxation and income taxation, as well as information derived from other tax data. This data can be accessed at http://www.tax.ohio.gov/divisions/tax_analysis/tax_data_series/school_district_data/publ_ications_tds_school.stm.

<u>Section 10: What work is occurring to ensure that Ohio's data are compatible with the</u> national Schools Interoperability Framework (SIF) data standards?

Ohio was awarded a federal grant to support the collection and reporting of longitudinal data. This grant is being used to drive the redesign of the state's EMIS system to allow it to be more nimble and usable. Part of the redesign process is to ensure that data reporting requirements are compatible with the collaborative Schools Interoperability Framework (SIF) standards. These standards allow data to move between organizations and applications more accurately and efficiently, as well as focusing the technology efforts and resources of schools in a common direction. A key task in the EMIS redesign is creating a mechanism that allows data to move between districts and the state that is expandable, reliable and does not add a significant resource burden on schools. The SIF standards leverage the most common software applications already in use by Ohio's schools to fulfill this goal. A pilot vertical reporting system will be used to collect data beginning in December 2008 with a small number of districts. Full implementation will occur in FY2010 during the contractor performance period.

Phase I Report Part 2 – Preliminary Work Toward Increased Meaning

The ultimate purpose of the Education Fiscal Data Project is to support a vision that Ohio becomes a national leader in the effective and efficient use of resources by the state and school districts driving education improvement. To do this, it is necessary to find ways to derive increased meaning from financial data, and to use the data in ways that support improving educational achievement.

The work presented in this part of the Phase I report is preliminary. Data processing methodologies are still being refined and data quality assurance efforts are being engaged. The purpose of presenting this information at this time is to provide a preview into the work being undertaken. Readers should be careful in using the data presented here pending the conclusions of further refinement and quality assurance.

A. Effective Use of Resources

One of the primary goals for any investment is to produce as much of a specified result as possible. The simple idea of a way to measure the amount of educational growth being delivered per dollar is worthy of consideration – and yet fraught with complexity.

Every child that is presented to a school district for education is different. Each starts at a different point, and is impacted differently by the educational services provided. This creates a number of issues. For purposes of thinking about the effective use of resources there are really two key issues. The first is how to accommodate the notion that effectively delivering education services to *some students costs more than others*. The second is how to recognize the different starting points – academically – for each child, and measure the *academic progress contributed by the school*.

Methods that attempt to address these two issues are discussed in the following sections on *"Calculating an expenditure per equivalent pupil"* and *"Computing a resource-effectiveness measure"*.

Calculating an Expenditure per Equivalent Pupil

Ohio, like many other states, has a long history of computing an expenditure per pupil (EPP) figure for each school district and for school buildings. However, it has been recognized that this measure is less than satisfying as it does not recognize the varying levels of resource need presented by different categories of students. The following maps illustrate some of the variation for two categories of students – students with disabilities and economically disadvantaged students.





These two maps illustrate the variations across the state in the types of students being educated. Map 1 shows a relatively scattered disbursement pattern of concentrations of students with disabilities – there are high and low percentage districts all across the state. The percentages vary from a low of 5.95% to a high of 23.53%! It is notable that there is one particular area in Southeast Ohio where there is a cluster of high concentration.

Map 2 is somewhat different in that it clearly shows the highest concentrations of poverty in the state's major urban areas, as well as in the Southeastern part of the state.

The straight computation of expenditures per pupil achieved by simply dividing total operating expenditures by total numbers of pupils – regardless of any consideration of student need – seems unfair and unsatisfying. To illustrate the weakness of EPP, consider the table below showing two hypothetical districts. Districts A and B both have the same expenditures (\$8.0 million) and the same number of students (1,000). Hence the current computation of expenditure per pupil shows them at the same level -- \$8,000 per pupil.

For purposes of illustration, however, assume that all of District A's students are regular students, but District B has 10% of their students as Category 2 special education students. State law acknowledges that Category 2 special education students, on average, carry an additional financial resource need equal to 0.3691 times the base cost amount. This means each student really counts as 1.3691 of a regular student. If we apply this logic, we get a needs-adjusted expenditure per equivalent pupil (EPEP) of \$7,715 for District B. Therefore we understand that District A spends more resources per equivalent pupil than District B.

	District A	District B
Total Expenditures	\$8,000,000	\$8,000,000
Total Students	1,000	1,000
Total regular students	1,000	900
Total Cat. 2 Spec. Ed Students	0	100
Total Equivalent Students	1,000	1,037
Expenditures Per Pupil (EPP)	\$8,000	\$8,000
Expenditures per Equivalent Pupil (EPEP)	\$8,000	\$7,715

*Methodology*⁶: In order to overcome these issues of pupil variation, it is necessary to develop a methodology to compute a *needs-adjusted student count* that can be used to compute an expenditure per equivalent pupil value. The following methodology is still considered to be preliminary, but is beginning to yield some interesting results while at the same time raising interesting questions.

- 1. The same district student counts (average daily membership) used to compute the EPP value serves as the starting point for this computation.
- 2. From the total student count, the number of students identified in each of Ohio's six categories of special education are separated out.
- 3. From the total student count, the number of students identified as economically disadvantaged are separated out.
- 4. From the total student count, the number of students identified as limited English proficient are separated out.

(Note: Once this separation process is completed, the total number of students is NOT additive – since, for example, a special education student may also be economically disadvantaged, etc.)

- 5. The following weights are then applied to the numbers of students in each category:
 - For special education students, the statutorily defined weight for each category as indicated on the table below.

⁶ A similar methodology is used in the report of the U.S. General Accounting Office – GAO-03-234 – entitled *School Finance: Per-Pupil Spending Differences between Selected Inner City and Suburban Schools Varied by Metropolitan Area.*

Category	Weight
Special Ed – Category 1 – Speech Only	0.2892
Special Ed – Category 2 – Learning disabled, Cognitively impaired,	0.3691
Other Health - minor	
Special Ed – Category 3 – Hearing impaired, Visually impaired,	1.7695
Severely behaviorally handicapped	
Special Ed – Category 4 – Other Health – Major; Orthopedic	2.3646
Special Ed – Category 5 – Multi-handicapped	3.1129
Special Ed – Category 6 – Traumatic Brain Injury, Autism, Deaf-Blind	4.7342

- For economically disadvantaged students (excluding those that may also be category 3-6 special education students), a weight of 0.20 times the ratio of the districts percentage of economically disadvantaged students to the state percentage not to exceed a total weight of 0.50. This sliding-scale weighting is designed to provide greater resources for high concentrations of economically disadvantaged students. In this weighting structure, for example, a district with the statewide average poverty (ratio of 1.0) would receive a weight of 0.2 for each economically disadvantaged student. Similarly a district with twice the statewide average would receive a weight of 0.4 for each economically disadvantaged student. A district with half the statewide average would receive a weight of 0.1 for each economically disadvantaged student.
- For limited English proficient students, the same weight used for category 1 special education is applied 0.2892.

On a preliminary basis, a ratio can be computed between the student count used for the EPP computation, and the needs-adjusted student count described above, with the result being a measure of the *degree of difficulty* of the educational process. The following map illustrates this degree of difficulty measure:



Areas in blue represent the quintile of school districts where the student demographics are such as to drive the smallest difference between simple student counts and needs-adjusted student counts. Whereas the red areas are the quintile of districts where the student demographics drive the largest change between simple student counts and needs adjusted student counts.

Computing a Resource Effectiveness Measure

By combining value added gain scores and expenditures per equivalent pupils, one can begin to identify resource effective districts. The idea is to find those districts that get the greatest value added gain per dollar.

Since the value added gain scores range around zero with both positive and negative values, in order to compute a resource effectiveness measure, all values had to be converted to positive numbers. So as to maintain the rank order of the values, a constant of 3.7 was added to each districts value added gain score. This allowed the district with the lowest gain score (-3.7) to become zero, and all other scores to be positive and maintain their relative position vis-à-vis all others.

These values were then divided by the EPEP for each district. The result is shown in the following map. Each of the five colors represents approximately 120 districts with the districts in blue being the most highly resource effective.



Map 4: Cost Effectiveness (Quintiles)
I (Most cost effective)
II II III II V IV (Least cost effective)

Care should be taken in interpreting this data. Low spending districts that make modest gains could be computed to be highly resource effective. At the same time high spending districts that achieve high gains could be computed to be less resource effective.

B. Efficiency Measures

Average teacher salaries: Generally speaking, roughly 50% of a district's expenditures will be taken up by teacher salaries and benefits. Statewide the average teacher salary paid by school districts ranges from a low of \$32,350 to a high of \$72,375 – more than double! Clearly, lower teacher costs could possibly indicate a more efficient district. There are many explanations for why districts might vary with regard to average teacher salary. These include:

- Historic ability and desire to pay higher salaries.
- Regional competition with regard to teacher wages
- Desire to attract teachers into hard to staff areas

• Higher percentages of teachers with longer lengths of service.



Teacher Pupil Ratios: The average number of pupils taught by each teacher in a district can be an indicator of efficiency. Of course, there is likely some point at which class sizes become too large and have a negative impact on learning. That said, research tends to demonstrate little educational value for lower class sizes except in grades K-3 in districts with high concentrations of poverty students. The map below illustrates teacher/pupil ratios in Ohio's school districts:



Statewide the average teacher/pupil ratio (the average of district values) is 1:18.6 with the lowest ratio being 1:11 and the highest being 1:28 – again, more than double! What is interesting about this map is that it seems to demonstrate a higher likelihood of finding lower class sizes (represented by blue and green) in rural Ohio, evident both in the Northwestern and Southeastern parts of the state. Very few districts (about 28) have average class sizes in excess of 23. The majority of districts have average class sizes between 16 and 20.

There may be some logical explanations for the geographic pattern illustrated. Smaller districts that are more geographically dispersed are likely to have smaller student populations in each building and greater variability in the class sizes in each grade level.

Transportation: Based upon a requirement set forth in the FY 2006-2007 budget legislation, the department worked with a group of transportation stakeholders to develop a new transportation funding formula. One part of this formula was a measure of a district's transportation efficiency. While the new formula was not enacted in the FY 2008-2009 budget, the department uses the efficiency calculations – and publishes the data on its web – to assist districts with management goals.

The efficiency calculation is made by examining the number of regular education students transported per school bus in a school district. The model establishes a target student per bus value for each district in the date. Districts that exceed the average are defined as being efficient relative to others in the state.

With this value as a starting point, adjustments are made to account for the significant differences in geographical and population size of districts. These differences influence the ability of districts to route buses. Districts that are relatively small with a high number of riders can easily achieve a higher number of riders per bus, while a district that is geographically large with a low number of riders will experience lower per bus loads. The primary difference between these districts is measured by evaluating their rider density. Rider density is calculated by dividing a district's actual bus riders by its size in square miles. The measurement of this rider density is then used to adjust the target rider ratio for each district. A detailed explanation of the efficiency calculation and district-by-district targets can be found by searching for "Efficiency Targets" from the ODE homepage (www.ode.state.oh.us).



In addition to the efficiency targets, the department publishes annual cost and reimbursement data for each district on the web. This data provides information on cost per pupil by transportation type (board-owned bus, contract bus, etc.), and a breakdown of transportation costs for such things as bus driver salaries, maintenance and repair, fuel, insurance and other expenses. As yet another mechanism to assist districts in managing transportation costs, the department examines this cost data annually. Districts with costs that exceed statewide averages are contacted by the department, and in some cases, a detailed review of the districts data and operations is conducted. The cost and reimbursement reports can be found on the web by searching for "Cost Analysis" from the ODE homepage (www.ode.state.oh.us).

Retirement and Benefits: After salary expenses, payments for retirement and benefits – especially health care benefits – can consume a tremendous amount of a district's budget. If not managed carefully, these costs can get out of control and become difficult to manage. The School Employees Health Care Board has been analyzing the specific issue of health care costs and has promulgated various guidelines relative to best practices. (Their work can be found at www.sehcb.ohio.gov).

Analyzing retirement and benefits expenses as a percentage of total expenditures yields some interesting information. This measure ranges from a low of 13.7% to a high of 29.9% -- showing tremendous variability. The map below illustrates this metric by district.





Again, care should be taken in interpreting this information. All things being equal, a district with less discretionary resources may find themselves paying a higher percentage of fringe benefits. Additionally, the data may imply that tradeoffs have been made between salaries and fringe benefits – that is, employees accepting lower salaries due to more generous or higher cost fringe benefit packages.

Food Services: One area that receives attention in school district operations is food service. Using data collected through the Claims Reimbursement and Reporting System (CRRS) as well financial data from EMIS, the department has selected a few initial measures for food service efficiency, including:

- Food service fund gain/loss statement
- Cost per meal
- Cost per pupil served
- Participation rates in national school breakfast and lunch programs

While these indicators will not tell the full story of a district's food service operation, the National Food Service Management Institute identifies them as critical to making a financial assessment of school food service operations.

Currently, the department's Office of Child Nutrition Programs works with districts to ensure compliance with federal programs and to assist districts with improving the efficiency and effectiveness of food service operations. Districts must submit information on the number of meals served and enrollment in and applications for free and reduced price meals via the CRRS system to receive reimbursement for USDA programs. While entering financial data for the food service operation is optional, many districts use this functionality in CRRS to assist in managing their food service operations. From the system, districts can extract data such as gain/loss of food service operations, cost per meal, food and labor costs, and participation rates in different food service programs. This system, however, is not currently used consistently by all districts for financial data.

The map below illustrates one of these metrics – cost per meal – across the school districts of the state. This metric relies on the meal data reported in CRRS and the financial data reported through EMIS.



Building Operations and Maintenance: One standard measure of a district's operational efficiency is to examine overall operations and maintenance costs across total building square footage. This measure gives a general sense of the range of operational costs per square foot and how districts compare to one another. It can also be useful to examine the data at a more granular level. For purposes of the initial analysis, the following measures have been developed:

- Plant operations/maintenance costs per square foot
- Utility costs per square foot
- Custodial/maintenance costs per square foot

The map below illustrates on of these measures – plant operations/maintenance costs per square foot – for each school district.



Workers Compensation Costs: Another area for which data is readily available is the premium rates paid for Workers Compensation insurance by school districts. While these rates may reflect isolated events of worker injury, they also can reflect a district's overall attention to workplace safety and implementation of injury reduction strategies; the data ranges from a low of 0.15 to a high of 3.39. The following map illustrates the variation in workers compensation premiums across school districts.



C. How are districts spending their money?

Currently, school district financial reporting is carried out at two extremes: 1) a simplified breakdown of expenditures by broad categories; or 2) detailed financial reporting and forecasting. Unfortunately, neither of these methods provides clear insight into the resource allocation decisions made by the districts. For example, while there are reports that allow for the comparison of instructional expenditures between districts, these reports do not distinguish between the expenditures for regular classroom instruction, special education, vocational education, gifted education, or student interventions. Thus, two districts with similar total instruction expenditures may have very divergent cost structures when one drills down to a more detailed level. On the other hand, financial reports and the five-year forecast provide overall salary and benefit expenditures in districts but no distinction is made between salaries paid to instructional staff and that paid to administrative staff.

Developing reports that will allow for a more refined analysis of expenditure categories will provide insight into the resource allocation decisions in a district. The work on this project is resulting in the belief that there would be value in the development of additional reports from the

expenditure flow model data that will provide expenditure data for the following categories with breakdowns on salary and benefits, supplies and materials, purchased services, and other expenses:

• Instruction

- o Regular
- Special Education
- o Gifted
- Vocational Function
- o Other

• Extracurricular

- Academic Extracurricular
- Occupation Oriented Extracurricular
- Sport Oriented Extracurricular
- School & Public Service Co curricular

• Student Support

- o Guidance
- Health Services
- Attendance & Social Work
- Disabled Student Support
- Instruction Enhancements

• Staff Support

- Instructional Improvement
- Educational Media
- o Other

• Operations

- Operation & Maintenance of Plant
- Pupil Transportation
- o Fiscal
- Food Service
- Community Services

• Administration

- Board of Education
- o Administration
- o Fiscal
- o Business
- o Central Services

D. Financial Metrics Guide

From the work discussed in this report, the idea is emerging about the merit and value of generating a standard annual financial metrics guide for each district. The purpose of such a guide would be to allow districts to gain a better understanding of their status with regard to the types of financial measures discussed in this report. Such an understanding would foster productive dialog relative to financial choices and expenditure strategies, and provoke conversations about improvements. Such a guide might include the following components:

1. District Performance Information

Report Card Designation

Performance Index Value Added Designation

2. General Financial Condition

Structural Surplus/Deficit Ending Balance as a Percent of Total Revenues Change in ending balance Debt metric Audit (most recently completed) issues

3. Efficiency Measures (by quintile)

Food Service Transportation Building Operations Teacher Salary and Fringe Health Care Costs

4. Effectiveness Measures (by quintile)

5. Building level metrics

E. Helping Districts Model Resource Allocation Choices

With support from the School Finance Redesign Project at the University of Washington's Center on Reinventing Education and the Bill & Melinda Gates Foundation, Education Resource Strategies (ERS) has designed a web-based tool to guide district and school leaders in understanding and maximizing their allocation of time, people, and money to support improved instruction. The District Resource Allocation Modeler (DREAM) tool allows school leaders to understand their resource use at the district and the individual school leaders with a variety of scenarios to meet the program goals of all students. (The DREAM tool approach is summarized in Working Paper #19 of the School Finance Redesign Project entitled *District Resource Allocation Modeler (DREAM): A Web-Based Tool Supporting the Strategic Use of Educational Resources* and can be found at www.schoolfinanceredesign.org – click on "Working Papers" toward the bottom of the page.) The DREAM tool:

- Provides a framework of how high-performing schools organize resources to improve performance.
- Links research to specific district budget options.
- Identifies the key school system cost drivers and budget levers.
- Allows users to explore the impact of changes to key system-wide budget levers.
- Allows users to experiment with specific design decisions around improved performance and see their budgetary impact.

As illustrated in the graphic below, this web-based tool is anchored on the research-based idea that quality education is a function of *three key resource-driven components*: 1) Academic time; 2) Teaching quality; and 3) Individual attention. Each of these elements is supported by the three primary resources of *time, money, and people*. Districts have some degree of *flexibility* in managing the allocation of these three primary resources in an effort to have the maximum

impact on student achievement. The DREAM tool is designed to build the district *leadership capacity* to not only understand the interactions between time money and people, but to test a variety of allocations of these resources. By focusing resources more strategically on their highest priority needs districts can support their efforts toward academic improvement. The tool is supplemented with a useful overview of research related to the effective practices that have been shown to improve student achievement to encourage the allocation of resources to support effective practices.



The tool focuses on four targeted policies: elementary school design, secondary school design, professional development and compensation, and time resources. To allow districts to review these targeted areas, the tool is populated with staff, student, and financial data provided by the district through EMIS. With this data, the district is provided detailed overviews of the key elements of each targeted area. For example, elementary class sizes are provided for each elementary grade and the district can modify this class size and calculate the change in the number of teachers that are required; by incorporating the financial data around teacher salaries and benefits, the impact of these class size changes be used to calculate the budget impact. Through this process, district leaders can more strategically align critical drivers of improved student performance: academic time, individual attention, and teaching quality.

ODE partnered with ERS to test this tool as a resource for district and building management in Ohio with six districts in the initial pilot group. District response to the tool was positive, particularly as means to encourage communication between the fiscal office and the academic offices for the process of strategic planning and resource allocation. As one district stated, "I think it could be a good tool for working through goals of the District in a work session environment." The model was found to accurately reflect the staffing and design elements in the district to support its use as a planning and budgeting tool. The department is working with ERS to develop a process for the expanding this project to more districts and to encourage its use in districts in fiscal distress or districts required to develop corrective action plans under No Child Left Behind.

Conclusions and Next Steps

The Education Fiscal Data Project is off to a promising start. There is an increased realization of not only the quality and depth of financial data about school districts, but also of the potential ability to bring greater meaning to this data. Such meaning then can be used to help encourage and promote discussions around more efficient use of resources, as well as the more effective use of resources toward the goal of improving increase student academic achievement.

Next steps include:

- Refinement of presented efficiency and effectiveness measures.
- Development of additional measures.
- Development of templates for expanded financial reports and finance metric guides.
- Development of diagnostic protocol around financial best practices.
- Explore mechanisms to allow districts to support improved data quality.
- Explore possible building level metrics.

Reader comments on any and all aspects of this report are welcome. Please send your comments to Paolo DeMaria, Associate Superintendent of School Options and Finance at paolo.demaria@ode.state.oh.us, Kim Murnieks, Executive Director at kim.murnieks@ode.state.oh.us, and Barbara Mattei-Smith, Associate Director of School Funding and Fiscal Support Services at barbara.mattei-smith@ode.state.oh.us.