

FINANCIAL CONDITION ANALYSIS

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LEGISLATIVE SERVICES
AGENCY

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EXECUTIVE SUMMARY

This report uses a model developed by the International City/County Management Association (ICMA) and provides an example of a set of financial and environmental indicators that can be used to evaluate the financial condition of Indiana's school corporations. Based on our research we chose to evaluate the following financial indicators for Indiana using readily available data: Fund Balance, Deficit/Surplus, Salaries and Benefits Costs, State Revenues - Tuition Support, Federal Revenues, Property Tax Caps, Debt Service, Operating (General Fund) Deficit/Surplus, Interfund Transfers, Outstanding Debt, Outstanding Common School Fund Loans, Referendum Revenue, Population, Unemployment, and Household Income.

In order to summarize financial condition, the indicators must be analyzed against some type of standard. The three methods covered here are: comparison to self over time (trend analysis), comparison to a predetermined benchmark (benchmark analysis), or comparison to the rest of the school corporations (quartile analysis). This report illustrates these methods using data from Indiana's school corporations.

Lastly, we present an example of how the measures from the three financial condition analysis methods may be combined into a dashboard to show the financial condition for a school corporation. A dashboard of financial condition will likely need to include all forms of analysis, therefore, we include examples of all three for various indicators using an example school corporation in Indiana.

Several other agencies may collect, use, or distribute information related to school corporation financial condition. This analysis has revealed the need to create a data definition dictionary to be utilized by all agencies that have access to the data. This is to avoid misinterpretation of the specific components of the data. For example, it was discovered that some of the components of a financial indicator are the same but they are labeled differently. An analyst can be misled into thinking that the components are actually different.

This paper did not study any indicators relating to organizational factors (e.g. management practices, local policy choices, hiring practices). A more comprehensive analysis should take these factors into account. Additionally, further research should be conducted into computing specific benchmarks for some of the financial conditions. This paper also did not address if some financial conditions are more critical than others. Additionally, further research should aim at extending the current analysis to predict financial condition one or two years into the future. This would enhance the early-warning capabilities of the analytical tool.

It is important to note that a financial condition analysis is meant to provide an early warning system for units that may be heading toward financial distress. It will not have the same level of detail as a financial audit, and it will not uncover any systemic or managerial issues. However, the establishment of financial condition analysis could potentially assist in identifying school corporations in order to address potential causes of financial distress and to provide solutions.

PREFACE

Senate Resolution 56 urges the Legislative Council to assign to the appropriate study committee the topic of school district financial condition analysis and monitoring. This report is prepared for the Interim Committee on Tax and Fiscal Policy which was assigned this topic.

SR 56 proposes that the committee shall do the following:

1. Study the effectiveness of establishing a program in the appropriate state agency to do the following:
 - a. Annually analyze and monitor financial condition measures for school districts.
 - b. Benchmark and analyze trends in these measures.
 - c. Assist school districts experiencing fiscal stress with corrective action.
2. Examine and test generally accepted financial condition measures on a select group of Indiana school districts.
3. Examine the extent that the financial condition measures of each such school district are influenced by the following:
 - a. Features of the school funding formula.
 - b. Low or declining assessed values.
 - c. Low property tax collection rates.
 - d. Physical plant conditions.
 - e. The presence of charter schools.
 - f. Property Tax caps.
 - g. The presence of Pool 5 personal property.
 - h. The use of choice scholarships by students residing in the district.
 - i. Transportation issues.

In 2014, the Indiana General Assembly directed the Department of Local Government Finance (DLGF) to develop a set of indicators to evaluate the fiscal condition of school corporations. It outlined a set of indicators that the DLGF could consider. Many of the indicators covered in this analysis are already computed by the DLGF and presented online. Current law prevents the DLGF or any other agency from assigning a grade to school corporations. However, the law does not prohibit comparisons to either predetermined benchmarks or to other school corporations in order to draw conclusions about the financial condition of the school corporation.

The DLGF proposal was given added impetus when an emergency manager was appointed to oversee the finances of two school corporations. These events have spurred discussions around how to assess the financial condition of school corporations, which agency should assess financial condition, and how often it should be done.

This report will review the literature on financial condition indicators. It will provide examples of potential financial indicators for Indiana school corporations and possible ways to display a school corporation's financial condition.

LITERATURE

The literature contains numerous definitions of the term “financial condition”, but the underlying message of each definition is similar: a government must be able to provide quality services within their resources. Groves, Godsey, and Shulman (2001) state that in a narrow accounting sense the term refers to cash solvency, which is a government’s capacity to generate enough cash or liquidity to pay its bills. Maher and Nollenberger (2009) specify financial condition to be the ability of the governmental unit to pay its obligations in the next 30 to 60 days. Rivenbark, Roenigk, and Allison (2010) go a step further and define financial condition as the “government’s ability to finance its services on a continuing basis, including the government’s ability to maintain existing service levels, to withstand systematic and unsystematic risk, and to meet the demands of natural change over time.” In its Local Government Management Guide – Financial Condition Analysis, the Office of New York State Comptroller (2008) describes financial condition as the ability of a local government or school corporation to balance recurring expenditure needs with recurring revenue sources, while providing services on a continuing basis.

The literature is rich with methods that have been used for analyzing, interpreting, and communicating financial condition of local governmental units and school corporations. In some cases, researchers disagree about which indicators best represent financial condition. However, many of the definitions and methodologies overlap, and certain methodologies lend themselves more easily to assessing a school corporation’s financial condition. Brown (1993) developed a 10-point test and grading system that enables municipal officers to compare the financial condition of their cities against similar-sized cities across the nation. The test is based on 10 financial ratios that give a picture of the state of the revenues, expenditures, operating position, and debt structure of a city. There are some limitations associated with this procedure. First, it assumes that the ratios are all equally important. Second, it only indicates how a city compares relative to other cities; the procedure does not have any set criteria against which to grade a city. Third, it largely ignores environmental factors that could be influencing the financial factors.

Building on Brown’s work, Maher and Nollenberger (2009) focus their research on indicators associated with cash solvency, budgetary solvency, and long-term solvency. They take into account the environmental shift in the sources of local government revenue over the past 20-30 years away from relatively stable property taxes to more volatile sources like sales taxes, income taxes, and expanded fees and charges. They do not address the other limitations of Brown’s work.

Groves, Godsey, and Shulman (2001) introduced a technique they call indicator analysis or financial ratio analysis. Formerly developed for the private sector, the authors applied it to the public sector. The method involves developing several ratios designed to reflect the financial, demographic, and economic status of the governmental unit. The individual indicators are then combined into a system of indicators in which relationships among the indicators could be measured and analyzed. Conclusions can then be drawn about the overall financial condition of the governmental unit. The authors utilize the Financial Trend Monitoring System developed by the ICMA. This system has similar limitations as other studies in that it does not point out the reason for indicator trends, nor does it provide a single indicator to measure financial condition. However, the authors believe the system provides an early warning to governmental units and clues to potential problems.

The academic research has been complemented by the studies and analyses undertaken by state governments. In Colorado, the Office of the State Auditor provides a set of financial indicators for each school corporation. The indicators focus primarily on each school corporation’s general fund, its debt, and any fund balance deficits. The analysis uses five ratios to assess a school corporation’s financial condition (Colorado Office of the State Auditor, 2014). In Ohio, the Auditor of State’s office has developed a tool to assist city and county officials to better predict the financial stability of their communities. The tool generates 17 indicators that are used to determine the financial condition of a governmental unit.

The office used the tool to evaluate those governmental units they knew were already in financial distress and concluded that had the tool had been available earlier, the governmental units could have requested assistance before their financial stress worsened (Ohio Auditor of State David Yost, 2017). The Office of the New York State Comptroller’s Division of Local Government and School Accountability based its analysis on a model from “Evaluating Financial Condition: A Handbook for Local Government” and developed 13 financial indicators to assess the financial condition of school corporations and local governments (Office of the New York State Comptroller). Sometimes, governments and academia have collaborated in developing a financial condition analysis tool. For example, the Department of State Treasurer of North Carolina and the School of Government at the University of North Carolina at Chapel Hill collaborated to create a web-based dashboard to monitor the financial condition of the state’s local governments.

In Indiana, the DLGF has developed an extensive set of indicators to evaluate the fiscal condition of all local governmental units. The indicators are divided into categories covering finances, debts, enterprises, exempt property, government acreage, local income taxes, assessed value, pension plans, property tax caps, retiree benefits, and tax increment financing.

The literature has yet to propose a standard set of indicators to analyze financial condition. This makes it difficult for practitioners to compare one governmental unit with another governmental unit, and to develop benchmarks or thresholds for when a unit may be in financial distress. Zehms (1991) points out that a set of financial ratios for business corporations has existed for years and, therefore, allows norms for these ratios to be developed. As more and more states adopt comprehensive financial condition analysis, a common set of indicators may emerge, but currently no such standard exists. Therefore, we will begin by focusing on the set of indicators that appear most commonly in the existing research.

Table 1 below summarizes the indicators found in the literature surveyed (N=number of articles that use the indicator). The most common Indicators used to measure financial condition appear at the top of the table. The list also includes the indicators that the DLGF uses in its analysis. Table 1 is not an exhaustive list of all potential indicators. The literature reviewed included studies of all governmental units. Some of the indicators apply more to municipalities and have limited value when used to analyze school corporations.

Table 1: List of Financial Condition Indicators

INDICATOR	FORMULA	N	DLGF
Fund Balances	Fiscal Year Cash Balance/Revenue	8	X
Debt Service	Debt Service/Revenues	8	
Fund Deficits	(Revenues-Expenditures)/Revenue	7	X
Liquidity	Cash and Investments/Current Liabilities	5	
Long-Term Debt	Long-Term Debt/Assessed Valuation	4	X
Level of Capital Outlay	Capital Outlays from Operating Funds/Net Operating Expenditures	4	
Revenue Per Capita	Revenue/Population	3	X
Restricted Revenues	Restricted Operating Revenue/Net Operating Revenue	3	
Enterprise Losses	Enterprise Profits/Losses -in Constant Dollars	3	X
Depreciation	Depreciation/Cost of Depreciable Fixed Assets	3	
Salary and Benefits Costs	Salaries and Benefits/Expenditures	2	X
Current Liabilities	Current Liabilities/Revenues (OR: Short Term Debt Issuance)	2	
Population	Total Population	2	X
Age	Median Age	2	
Property Value	Growth in Property Value	2	X
Poverty Households	Percent Households in Poverty	2	

INDICATOR	FORMULA	N	DLGF
Employment Base	Unemployment Rate	2	
Property Tax Revenues	Tax Levy/Tax Limit	2	X
Expenditures Per Capita	Net Operating Expenditures (Constant Dollars) /Population	2	X
Pension Assets	Pension Plan Assets/Pension Benefits Paid	2	X
Overlapping Debt	Overlapping Long-Term Debt/Assessed Value	1	
Elastic Tax Revenues	Elastic Operating Revenues/Net Operating Revenues	1	X
One-Time Revenues	One-Time Operating Revenue/New Operating Revenue	1	
Uncollected Property Taxes	Uncollected Prop Tax/Net Prop Tax Levy	1	X
User Charge Coverage	Revenue from Fees and User Charges/Related for Related Services	1	
Employees Per Capita	Number of Employees/Population	1	
Unfunded Pension Liability	Unfunded Pension Plan Vested Benefits/Assessed Valuation	1	
Accumulated Employee Leave Liability	Total Days of Unused Vacation and Sick Leave/Number of Employees	1	
Maintenance Effort	Expenditures for Repair and Maintenance/Amount of Assets	1	
Personal Income	Personal Income in Constant Dollars/Population	1	
Poverty Households or Public Assistance	Poverty or Public Assistance Households/Households in thousands	1	
Residential Development	Residential Property (Market Value)/Market Value of Total Property	1	
Vacancy Rates	Vacancy Rates	1	
Business Activity	Retail Sales; Businesses; Gross Business Receipts; etc.	1	

HOW TO CHOOSE INDICATORS

The literature has also provided an overall framework within which the set of financial condition indicators for Indiana school corporations can be analyzed. The framework will be adapted from the model developed by the ICMA and utilized by Groves, Godsey, and Shulman (2001) and the Office of the New York State Comptroller (see Figure 1). Proponents of this framework believe that the financial condition of a school corporation (as measured by financial data) is a function of the underlying fiscal, organizational, and environmental factors impacting the school corporation.

Figure 1: Financial Condition Analysis Framework

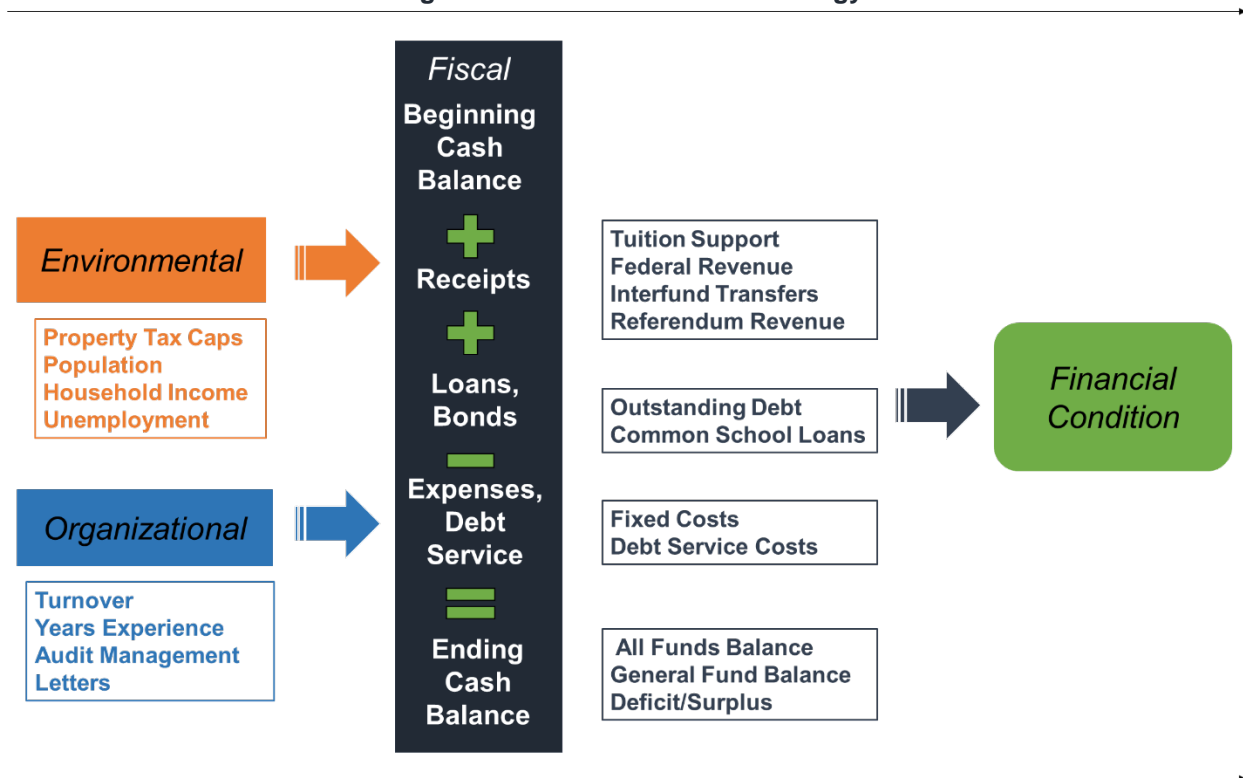


Source: Adapted from *Evaluating Financial Condition: A Handbook for Local Governments*. ICMA, 2003

The set of indicators chosen to analyze financial condition are therefore informed by this framework. In order to demonstrate how to choose indicators and how to combine them together to analyze financial condition, we have chosen several indicators starting with what is common in the literature, and then narrowing down the list to those that we can create with data that is available, and the indicators that came up most frequently in conversations with practitioners in Indiana.

One of the most prominent ways to summarize fiscal factors is by examining fund balance. In the process of calculating the ending fund balance for a school corporation, all of the other financial indicators must be added or subtracted from the beginning fund balance. We will refer to this as the cash balance method, demonstrated in Figure 2 below. All of the indicators that will be analyzed for our Indiana example are listed in Figure 2. The yellow indicators represent environmental factors, and the blue indicators represent financial factors. We did not construct any organizational factors due to a lack of data, but organizational factors may be influencing the financial factors along with the environmental factors, and we included some potential examples. In order to calculate cash balance, we begin with the cash balance from the previous fiscal period, add receipts, add loans and bonds, and subtract expenses and debt costs. Each of the steps of the cash balance formula can be represented by the accompanying indicators.

Figure 2: Cash Balance Methodology



The financial condition indicators were selected to exhibit current financial condition as well as trends over time. For a more detailed description of each indicator, see the Appendix. The data used in this analysis are from fiscal year 2012 to fiscal year 2016 and come from several sources including: Department of Education, DLGF, the Treasurer of State, and the National Center for Education Statistics. The indicators represent a sample of potential indicators that we were able to construct using readily available data for Indiana school corporations, but there are several more possibilities. Many of the indicators reported here are already computed by DLGF.

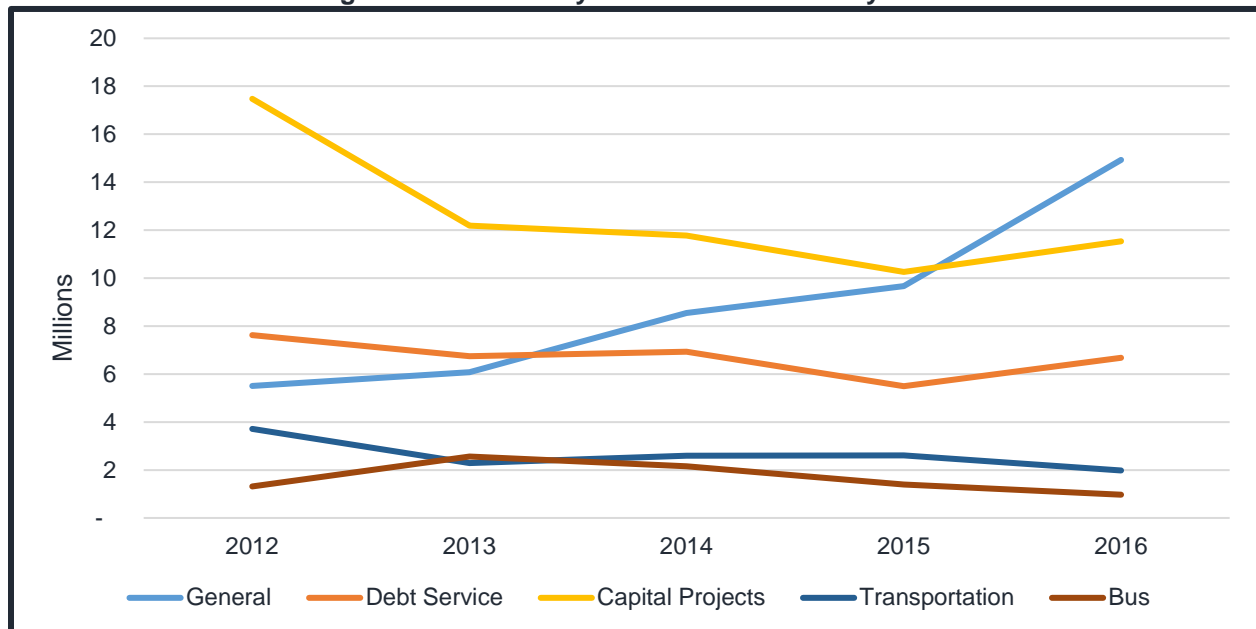
HOW TO ANALYZE THE INDICATORS

Once the set of indicators to be analyzed is chosen, the final step in a financial condition analysis is to determine which school corporations could be in financial difficulty. The literature discusses three examples of how this has been done.

The first option is not to give a single financial condition status to a school corporation, but instead present each indicator by itself over time with trend lines. We call this method *trend analysis*. This affords the individual performing the analysis the flexibility to establish benchmarks after analyzing the trends to make the determination about what constitutes financial stress, but it could create inconsistency if different individuals come to different conclusions about the same set of data. This is the method employed by Rivenbark, Roenigk and Allison. Each ratio has a benchmark and a trend line over the five years in the analysis. In Indiana, the DLGF currently presents its financial condition indicators for two years and the change in the indicator from one year to the next without establishing any benchmarks or comparisons between school corporations. In accordance with the statute, neither the DLGF nor any other state agency is permitted to use the financial condition indicators to assign a school corporation a summative grade.

Figure 3 below provides an example of a trend analysis. Figure 3 shows an individual school corporation's fund balance for five of the main funds used in Indiana: the general fund, debt service fund, capital projects fund, transportation fund, and bus replacement fund over the course of five fiscal years. The graph allows an individual to see if the balance is positive in each year, and whether the balance is decreasing over time. In this example, the general fund balance is clearly increasing over time, but the capital projects fund is decreasing over time. This school corporation may be able to cover its main education-related expenditures out of its general fund, but it may have difficulty covering capital project expenditures. This figure also shows this school corporation does not maintain a very large balance in its transportation or bus funds, which may make it difficult if the school corporation experiences any unforeseen changes in its transportation plans.

Figure 3: Trend Analysis of Cash Balance by Fund



Source: Data analysis by the Office of Fiscal and Management Analysis.

The second option is to compare the result of each indicator against a predetermined benchmark which we call a *benchmark analysis*. For example, Ohio’s system uses benchmarks for each ratio and categorizes a city or county based on the benchmarks. If the unassigned general fund balance is zero or negative, then the city is in the critical outlook category for that ratio. If the general fund balance is declining from the prior year by more than one percent, then the city is in the cautionary category for that ratio. All 17 ratios are then examined as a whole to see how often a city or county falls into one of the two ranges indicating financial stress. This method is helpful because it provides clear thresholds that school corporations can aim for, but it is difficult to know what a benchmark threshold should be until several years of data are collected and analyzed. Another weakness of a benchmark analysis is that a unit that is very close to the benchmark but slightly above or below in the wrong direction can be categorized as being in financial distress, when in reality, it could be very similar to a unit that was not placed in that category.

Table 2 provides an example of a benchmark analysis for an Indiana school corporation. In this example, the benchmark for all indicators, except tuition support, is simply whether or not the school corporation improved on each indicator from FY 2012 to FY 2016. For tuition support, the benchmark is whether or not the school corporation is in the lowest quartile of growth over five years. In the fourth column, if the difference in the indicator from FY 2012 to FY 2016 is green it means that the school corporation’s condition on the indicator is improving; if the difference is red it means the school corporation’s condition on the indicator is worsening. This example school corporation improved its operating deficit over time and is now running a surplus (a 5.95 percentage point increase). However, its overall deficit when looking at all funds remained negative and worsened over time (a 0.28 percentage point decrease). The school corporation’s outstanding debt increased by 15.97 percentage points, which may indicate that it is maintaining its operating surplus through debt. However, it did manage to decrease salary and benefits costs (decreased by 6.36 percentage points), which could also be contributing to the positive change in the operating fund balance.

Table 2: Benchmark Analysis of All Financial Condition Indicators

INDICATOR	VALUE 2016	VALUE 2012	DIFFERENCE
Deficit/Surplus	(3.96)	(3.68)	(0.28)
Operating Deficit/Surplus	1.21	(4.74)	5.95
Fund Balance	47.06	48.88	(1.82)
Interfund Transfers	22.10	27.90	(5.80)
Salary and Benefits Costs	93.27	99.63	(6.36)
Debt Service	5.68	5.45	0.23
Tuition Support	\$7M	\$6.8 M	3.20
Property Tax Caps	3.89	3.55	0.34
Federal Revenue	7.12	5.82	1.30
Outstanding Debts	30.94	14.96	15.97
Common School Loans	-	-	-
Referendum Revenue	-	-	-

Source: Data analysis by the Office of Fiscal and Management Analysis.

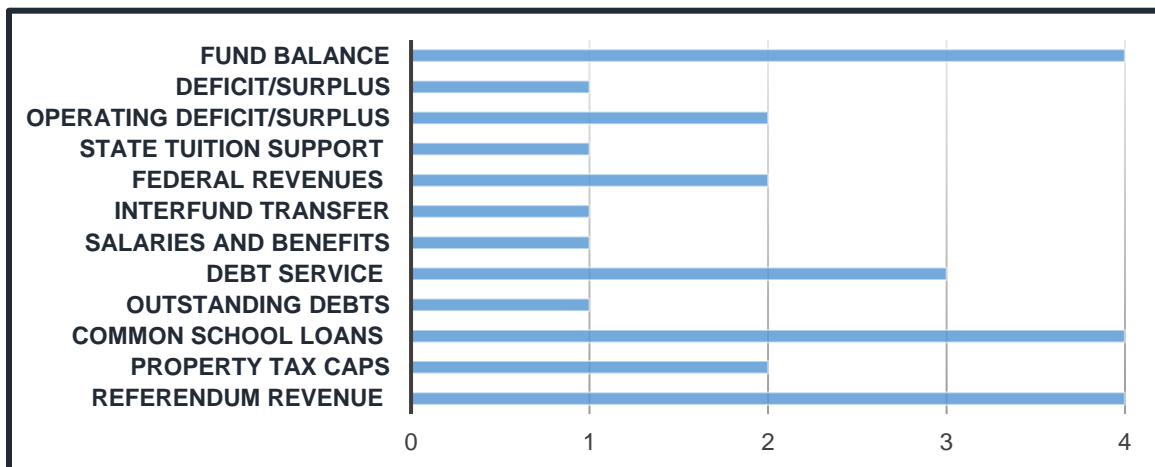
The third option is to compare the indicators to other school corporations, ignoring any benchmarks or actual values of the indicators. We refer to this method as *quartile analysis*. In general, this method assigns each school corporation a value from 1 to 4, representing the quartile it falls into in the distribution of that financial indicator. Brown (1993) implemented a form of this type of method. First, he created a database of financial ratios for 750 cities grouped according to population.

In each group, the computed ratios were then sorted into quartiles (each quartile contains 25 percent of the population group) and ranked the unit's ratio from worst (quartile #1) to best (quartile #4). Brown takes the analysis a step further and aggregates all of these quartile rankings into one overall score for the unit. He assigned each quartile a score that ranges from -1 to +2. This scale is designed to allow only cities with ratios above the median (quartiles 3 and 4) to obtain a positive overall score. The financial ratios of a unit can then be compared to similar-sized units and scored accordingly.

This method could be used to assess the financial condition of school corporations without establishing a benchmark. It also gives a final score to each unit, allowing all indicators to be summarized as one indicator. The disadvantage of this method is that it is sensitive to the distribution of each indicator. For example, if every school corporation has a negative cash balance but your school corporation has the least negative cash balance, you would receive a high score for that indicator. In other words, it ignores the actual value of the indicator. It also forces school corporations into four categories regardless of the shape of the distribution of the data. If there are four school corporations that are outliers and the rest are fairly similar, this analysis may cause a false sense of negativity since 25% of the school corporations have to be in the lowest category even though they are very similar to the school corporations in the middle two categories. Another weakness of this method is that it is difficult to implement for changes over time and works best when comparing indicator values within one fiscal year.

Figure 4 provides an example of a quartile analysis for an Indiana school corporation in FY 2016. Each bar represents one indicator and expresses which quartile the school corporation falls into when compared to the full distribution of indicator values for school corporations in Indiana excluding charter schools¹. This school corporation is doing quite well in terms of its overall fund balance compared to all other school corporations and scored a 4 for that indicator. Even though they have a relatively high fund balance, they are in the lowest quartile for the deficit/surplus indicator which indicates that in FY 2016 they spent more than they collected in revenue and were assigned a score of 1. When a school corporation has a deficit but a positive fund balance, the outstanding debts, common school loans and referendum revenue indicators can provide clues as to whether the fund balance is remaining positive due to borrowing instead of increases in revenue from local, state, and federal sources.

Figure 4: Quartile Analysis: Financial Condition Indicator Quartiles FY 2016



Source: Data analysis by the Office of Fiscal and Management Analysis.

¹ Charter school corporations were omitted from this analysis due to large differences in their financial indicator values when compared with school corporations. Any financial condition analysis will likely need to be conducted separately for charter school corporations since they will require a different set of benchmarks and quartile comparisons.

This school corporation is in the fourth quartile for common school loans and referendum revenue, indicating they are not using these sources. However, they are in the lowest quartile in terms of outstanding debt, which could provide a clue to future financial condition deterioration.

These methods of financial condition analysis (trend analysis, benchmark analysis, and quartile analysis) provide a high-level summary of a school corporation's financial condition. It may help provide an early warning system for school corporations that are running into financial distress in the future and provide clues as to why they are trending towards a poor financial condition. However, a deeper analysis will still be required to uncover why a school corporation is in a worsening financial condition and what should be done to remedy the situation.

INDIANA SCHOOL CORPORATION DASHBOARD EXAMPLE

Figure 5 is a concrete example of how financial condition indicators can be combined into a single page dashboard. This example was created with Indiana's school corporations in mind. It combines quartile, benchmark, and trend analysis for an example school corporation. This example does not provide a summative score or grade for the school corporation, but it is still possible to assess how the school corporation's financial condition compares to the rest of Indiana's school corporations. This was created to show the options available for conducting financial condition analysis for school corporations, and it is not meant to prescribe a specific method or procedure.

At-A-Glance: School Corporation A

FY CASH BALANCE BY FUND



ENROLLMENT TRENDS

STEADY INCREASE
OVER THE PAST 6 YEARS

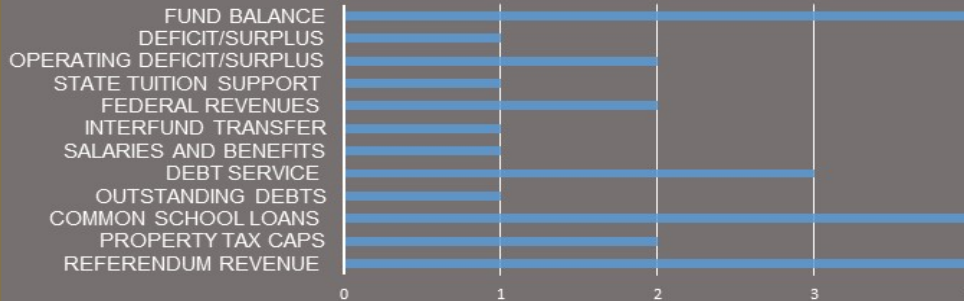


ABOVE AVERAGE ENROLLMENT

(11,325 FOR SCHOOL CORP. A
VERSUS 4,110 AVERAGE IN 2017)

FINANCIAL HEALTH INDICATORS & BENCHMARKS

FINANCIAL CONDITION INDICATOR QUANTILES FY 2016



INDICATOR	2016	2012	DIFFERENCE
DEFICIT/SURPLUS	(3.96)	(3.68)	(0.28)
OPERATING DEFICIT/SURPLUS	1.21	(4.74)	5.95
FUND BALANCE	47.06	48.88	(1.82)
INTERFUND TRANSFERS	22.10	27.90	(5.80)
FIXED COSTS	93.27	99.63	(6.36)
FINANCIAL OBLIGATIONS	5.68	5.45	0.23
TUITION SUPPORT	\$7M	\$6.8 M	3.20
PROPERTY TAX CAPS	3.89	3.55	0.34
FEDERAL REVENUE	7.12	5.82	1.30
OUTSTANDING DEBTS	30.94	14.96	15.97
COMMON SCHOOL LOANS	-	-	-
REFERENDUM REVENUE	-	-	-

ENVIRONMENTAL TRENDS

POPULATION
PROGRESSIVELY INCREASED
FROM 70,440 IN 2010
TO 72,891 IN 2014

CONSISTENTLY ABOVE AVERAGE
HOUSEHOLD INCOME
(\$54,848 IN 2014 **VERSUS**
\$50,741 AVERAGE)

UNEMPLOYMENT DECREASED
FROM 4.4% IN 2013
TO 3.6% IN 2014

Office of Fiscal and Management Analysis

10/02/2017

Source: Data analysis by the Office of Fiscal and Management Analysis.

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APPENDIX

The appendix contains the specifications of the financial condition indicators we chose to analyze based on our research. The purpose, the formula, how to interpret the indicator, and the summary statistics for that indicator for all Indiana school corporations except charter schools are included. The summary statistics include the average, standard deviation, minimum, and maximum values for the indicator. The same summary statistics are provided for the difference in the indicator over five years. All ratios are expressed as percentage points. The environmental indicators apply more to the households in the geographical boundaries of the school corporation rather than to the school corporation itself. In this case the school district will be referred to when analyzing the indicator.

Financial Indicator 1. Fund Balance

Purpose: To measure whether a school corporation's reserves are sufficient to absorb future changes.

Formula:
$$\frac{\text{Total Fund Balance}}{\text{Gross Expenditures}}$$

Analysis: This ratio measures the total fund balance as a percentage of gross expenditures. The larger the reserve, the better the school corporation is able to absorb, in the short term, the impact of sudden revenue loss or significant increases in operating costs. Continuous reductions in fund balances may indicate poorly structured budgets that can lead to future budgetary problems, even if the current fund balance is positive. A negative trend would be the percentage decreasing over time and/or a negative fund balance.

On average, in FY 2016 the total fund balance of school corporations comprised about 37.5% of gross expenditures and this share has risen somewhat from five years ago. However, there is considerable variability across school corporations as indicated by the minimum and maximum values and the standard deviation, which indicates the ratio varies, on average, from about 20% to 54%. The minimum value also indicates that most school corporations are running small negative or positive fund balances.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	37.54	17.23	-3.30	107.27
Difference over 5 years	3.80	14.23	-50.74	59.83

Financial Indicator 2. Deficit/Surplus

Purpose: To measure whether or not a school corporation's annual revenues are sufficient to pay for annual operations.

Formula:
$$\frac{\text{Gross Revenues} - \text{Gross Expenditures}}{\text{Gross Expenditures}}$$

Analysis: This ratio measures the difference in revenues and expenditures for a fiscal year as a percentage of gross expenditures. If expenditures exceed revenues, the school corporation has a deficit; if revenues exceed expenditures, the school corporation has a surplus. Over time, deficits in individual years may offset surpluses from other years. A school corporation that relies on surplus fund balances to finance current operations (depleting cash balance over time to finance a yearly deficit) may eventually experience fiscal problems. A negative trend would be the percentage decreasing over time.

In FY 2016, the average school corporation managed to spend less than its annual revenue, maintaining a small surplus of around 1.33% of expenditures. This surplus has decreased from five years ago. There is also considerable variability across school corporations as indicated by the minimum and maximum values and the standard deviation, which indicates the ratio varies, on average, from a deficit of about 7% to a surplus of about 9%. About 40% of school corporations have deficits and the largest deficit is 34% of expenditures.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	1.33	8.01	-34.36	38.51
Difference over 5 years	-6.43	12.46	-116.93	36.59

Financial Indicator 3. Salaries and Benefits Costs

Purpose: To identify how much of a school corporation’s total costs are nondiscretionary, and therefore more difficult to control during times of fiscal stress.

Formula:
$$\frac{\text{Salaries and Benefits}}{\text{GF Expenditures}}$$

Analysis: This ratio measures the amount of money spent on salaries and benefits as a percentage of gross expenditures. If the ratio is increasing, it indicates that the school corporation is losing flexibility to adapt to changing circumstances. It could also indicate that a school corporation is shrinking in size and is not proportionally shrinking its labor force. A negative trend would be a high percentage or an increase over time.

On average, school corporations in FY 2016 allocated 88% of their general fund expenditures to salaries and benefits, about the same as they did five years ago. There is little variability across school corporations as indicated by the minimum and maximum values and the standard deviation. The majority of school corporations allocated between 83% and 93% of their general fund expenditures to salaries and benefits. The maximum value in Indiana is 98%, which means that almost all of the school corporation’s general fund expenditures are on salaries and benefits.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	88.11	4.60	69.10	98.23
Difference over 5 years	-0.28	3.54	-13.12	12.46

Financial Indicator 4. State Revenues – Tuition Support

Purpose: To identify trends in state tuition support for a school corporation.

Formula: Total Tuition Support

Analysis: Total tuition support measures the extent to which a school corporation’s state funding is changing. Tuition support represents the largest source of revenue for Indiana school corporations. The formula for tuition support is determined by the Indiana General Assembly as part of the biennial budget. In Indiana, the major driving force behind tuition support is a school’s Average Daily Membership (ADM), a measure of enrollment. School corporations do not directly control the formula used for state tuition support. As a result, there is a risk that the amount of tuition support may be reduced in times of revenue shortfalls at the state level, or if large changes are made in the tuition support formula. Looking at the amount of tuition support over time captures changes in state policy and changing school enrollment.

If a school corporation's tuition support is growing at a slower rate compared to other school corporations, it may indicate future financial distress if the school corporation does not accompany the slow growth with decreases in expenditures.

In FY 2016 school corporations on average received about \$22.2 M in state tuition support payments, about 4% less than they did five years ago. However, there is considerable variability across school corporations as indicated by the minimum and maximum values and the standard deviation, which indicates that about 90% of school corporations receive tuition support payments between \$1.5M and \$50 M.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	\$22,154,969	\$28,226,248	\$1,505,012	\$231,689,734
Percent Change in 5 years	-4.14	10.35	-47.50	19.60

Financial Indicator 5. Federal Revenues

Purpose: To identify trends in federal support for a school corporation.

Formula: $\frac{\text{Federal Revenues}}{\text{Gross Revenues}}$

Analysis: This ratio measures the extent a school corporation's operations are supported by federal revenues. It is the percentage of total revenues that comprises federal revenues. Because a school corporation does not directly control federal revenues, there is a risk that in a time of budgetary stress at the federal level, the amount of federal revenues may be reduced. In general, the higher the percentage of the school corporation's operations are funded by federal revenues, the greater the risk that a school corporation bears. A negative trend would be this percentage increasing over time.

On average, school corporations in FY 2016 received about 6% of their total revenues from federal sources and that ratio has decreased a little from five years ago. Additionally, there is little variability across school corporations as indicated by the minimum and maximum values and the standard deviation, which indicates that the ratio varies, on average, from 3% to 10%. The maximum value indicates that a few school corporations could be more heavily dependent on federal revenue than might be acceptable.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	6.41	3.54	1.38	29.10
Difference over 5 years	-0.61	2.05	-10.81	13.79

Financial Indicator 6: Property Tax Caps

Purpose: To identify how much revenue a school corporation has forgone due to property tax caps.

Formula: $\frac{\text{Property Tax Credit}}{\text{Certified Levy}}$

Analysis: This ratio measures the amount of property tax circuit breaker credits provided to taxpayers as a percentage of the total amount of property taxes the school corporation is authorized to levy. School corporations rely on property taxes for the transportation, bus replacement, capital projects, debt service, and pension debt funds². The circuit breaker limits the tax liability of homeowners to 1% of the assessed value; 2% for residential properties, agricultural land and long-term care facilities; and 3% for nonresidential properties and personal property. If a school corporation is unable to collect a high portion of the potential property tax revenue, it may have difficulty maintaining expenditure levels for transportation, bus replacement, capital projects and debt service. A negative trend would be a large percentage or an increasing percentage over time.

On average, school corporations in FY 2016 had to forgo 5% of their property taxes to circuit breaker credits, a little higher than they did five years ago. However, there is considerable variability across school corporations. Of the 289 school corporations, 113 had to forgo less than 1% of their property taxes; 121 had to forgo between 1% and 10%; 50 had to forgo between 10% and 30%; and 5 had to forgo between 30% and 46% of their property taxes.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	5.10	7.29	0.00	45.97
Difference over 5 years	0.71	3.26	-18.20	22.14

Financial Measure 7. Debt Service

Purpose: To identify how much of a school corporation’s total costs are committed to annual debt service.

Formula:
$$\frac{\text{Debt Service}}{\text{Gross Expenditures}}$$

Analysis: This ratio measures the sum of all debt service expenditures as a percentage of all expenditures. As school corporations experience financial stress, they may start to issue more debt to meet current obligations. Increasingly relying on debt can obscure the need for a school corporation to budget appropriately and adjust its cash flow practices to manage more effectively. Factors to take into consideration when analyzing debt include the interest costs, the relative dependence on seasonal borrowing as a share of total cash needs, the total amount of overlapping debt, and how well the local government collects taxes, state aid, or other receipts pledged for repayment of its notes. A negative trend would be the percentage increasing over time.

On average, school corporations in FY 2016 allocated about 6% of their general fund expenditures to servicing their debt and this share has increased slightly from five years ago. Additionally, there is little variability across school corporations as indicated by the minimum and maximum values and the standard deviation, which indicates the ratio varies, on average, from about 4% to 9%. The maximum value also indicates that a few school corporations may have a relatively high debt load.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	6.10	2.58	0.00	16.08
Difference over 5 years	0.14	1.68	-5.90	8.63

² These funds will be combined into the operations fund beginning in FY 2019.

Financial Measure 8: Operating (General Fund) Deficit/Surplus

Purpose: To identify the extent to which a school corporation is running a deficit or surplus in its General Fund (GF).

$$\text{Formula: } \frac{\text{GF Revenues} - \text{GF Expenditures}}{\text{GF Expenditures}}$$

Analysis: The ratio is measured as the difference in general fund revenues and expenditures as a percentage of the total general fund expenditures. This percentage represents the amount of additional revenue that would have been required in order for the school corporation's revenues to fully fund its annual expenditures. The majority of a school corporation's revenue and expenditures are deposited in and spent out of its general fund³. It is possible that a school corporation does not have an overall deficit when all funds are included, but is operating with a general fund deficit. This could be an indication that the school corporation is overspending and may have difficulty maintaining that level over time. A negative trend would be the existence of a deficit in any one year, or the percentage decreasing over time or becoming a deficit (negative) instead of a surplus (positive).

On average, school corporations in FY 2016 had a small surplus in their general fund, comprising about 1.4% of general fund expenditures, but this surplus has decreased slightly from five years ago. There is some variability across school corporations as indicated by the minimum and maximum values and the standard deviation, which indicates the ratio varies, on average, from a deficit of about 4% to a surplus of about 6%. However, about 40% of school corporations are running a deficit with the largest deficit about 35% of general fund expenditures.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	1.36	5.00	-34.67	21.89
Difference over 5 years	-0.24	7.89	-46.99	28.45

Financial Measure 9: Interfund Transfers

Purpose: Identify whether or not a school corporation is transferring money from one fund to another to cover expenditures or compensate for a deficit.

$$\text{Formula: } \frac{\text{Interfund Transfers}}{\text{Gross Revenues}}$$

Analysis: This ratio is measured as the total sum of transfers made from one fund to another as a percentage of total revenues. A school corporation with a high percentage of interfund transfers could be struggling to meet expenditures and is transferring money between funds in order to compensate. It is also possible that a school corporation is transferring money from one fund to another before the end of the fiscal year in order to have a positive cash balance or surplus in a specific fund, masking an issue of insufficient funds. A negative trend would be a high percentage or an increasing percentage over time.

On average, in FY 2016 the amount of interfund transfers in school corporations comprised about 5.5% of total revenue, a slight increase from five years ago. There is some variability across school corporations as indicated by the minimum and maximum values and the standard deviation, which indicates the ratio varies, on average, from about 0% to 13%. The maximum value also indicates that a few school corporations are increasingly heavily dependent on fund transfers to finance some of their operations, which could eventually lead to financial stress.

³ This fund will be replaced by the education fund beginning in FY 2019.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	5.45	7.88	0	86.38
Difference over 5 years	0.22	9.54	-57.68	81.21

Financial Measure 10: Outstanding Debt

Purpose: To identify the level of debt that a school corporation is carrying.

Formula: $\frac{\text{Outstanding Debt}}{\text{Gross Revenues}}$

Analysis: The ratio is measured as total outstanding debt as a percentage of gross revenues. Similar to a private enterprise, a high level of debt compared to revenues could indicate that a school corporation is over-extended. It is important to assess outstanding debt in relation to revenue because over time a school corporation may increase its level of debt in order to expand if it is growing. Therefore, as long as revenue is also increasing, keeping the ratio fairly stable over time is not as critical. A negative trend would be a high percentage or an increasing percentage over time.

On average, in FY 2016 the amount of outstanding debt of school corporations was about 84% of total revenue, a moderate decrease from five years ago. There is some variability across school corporations as indicated by the minimum and maximum values and the standard deviation, which indicates the ratio varies, on average, from about 34% to 128%. The maximum value also indicates that a few school corporations are increasingly heavily dependent on debt to finance some of their operations, which could eventually lead to financial stress.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	81.09	46.91	0.00	269.04
Difference over 5 years	-14.94	33.82	-125.77	172.36

Financial Measure 11: Outstanding Common School Fund (CSF) Loans

Purpose: To identify the level of common school fund loans that are currently outstanding.

Formula: $\frac{\text{Outstanding CSF Loans}}{\text{Gross Revenues}}$

Analysis: The ratio is measured as total outstanding common school fund loans for any purpose as a percentage of total revenue. A school that accumulates common school fund loans over time without realizing increases in revenue may become at risk of paying back these loans to the state. These loans are used for construction, technology expansion, charter schools, or for other reasons. If a school corporation does not grow or maintain expected enrollment levels, the loans may be difficult to pay back. A negative trend would be a high percentage or an increasing percentage over time.

On average, in FY 2016 the amount of outstanding common school fund loans of school corporations was about 4% of total revenue, a slight increase from five years ago. However, there is some variability across school corporations as indicated by the minimum and maximum values and the standard deviation, which indicates the ratio varies, on average, from about 0% to 12%. The maximum value also indicates that a few school corporations have a relatively high common school fund balance, which could potentially significantly reduce tuition support payments to the school corporation.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	3.58	9.35	0.00	63.29
Difference over 5 years	0.19	6.64	-16.55	62.66

Financial Measure 12: Referendum Revenue

Purpose: To measure the extent a school corporation is supplementing revenue with temporary revenues.

Formula: $\frac{\text{Referendum Revenue}}{\text{Gross Revenues}}$

Analysis: The ratio is measured as total property tax referendum revenue as a percentage of total revenue. In Indiana, a property tax referendum passed by a local taxing unit is exempt from the property tax caps. Therefore, some school corporations will seek out a referendum in order to increase local revenue beyond what they can normally collect from property taxes. A referendum is only for seven years and has to be renewed by the voters. Since it is a temporary revenue source, it should only be used for temporary expenditures. If a school corporation has a high percentage of revenue coming from a referendum and is utilizing this money to maintain higher expenditures, they could have difficulty if the referendum is not renewed. A negative trend would be a high percentage or an increasing percentage over time.

On average, school corporations in FY 2016 received less than 1% of their total revenue from a referendum tax levy. However, there is considerable variability across school corporations. Of Indiana's 289 school corporations, 39 had a referendum tax levy in FY 2016. On average, these school corporations received about 6% of the revenues from the referendum tax levy, with 6 school corporations receiving 10% or more.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	0.83	2.70	0	24.59
Difference over 5 years	0.57	2.28	-4.35	24.59

Environmental Measure 1: Population

Purpose: To identify trends in population among households in a school district, which may help predict changes in enrollment.

Analysis: Population levels are highly correlated with a school corporation ADM. As previously stated, ADM is the main driving force in state funding for school corporations. A declining population may indicate local economic distress and may lead to declining ADM in the future. School corporations may have difficulty cutting costs since many expenditures are fixed in the short run. A negative trend would be a decrease in population over time.

On average, in FY 2016 the population of school districts was 23,000, a slight increase from five years ago. However, there is considerable variability across school districts as indicated by the minimum and maximum values and the standard deviation. There are about 125 school districts with a population of less than 10,000; 158 school districts with a population between 10,000 and 100,000; and 6 school districts with a population of over 100,000.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	22,699	31,848	1,496	299,492
% Change over 5 years	2.40%	9.33%	-23.73%	54.74%

Environmental Measure 2: Unemployment

Purpose: To identify trends in the local economy that may influence the school district.

Analysis: The local unemployment rate could signal several things for a school district's financial condition. It could indicate that a larger portion of families in the school district relative to other school districts will require additional services beyond education. It could also indicate that families may be more likely to move out of the school district in search of employment. The unemployment rate used is reported by the American Community Survey and adjusted for school district geography by the National Center for Education Statistics. A negative trend would be a larger rate than the state rate or an increasing rate over time.

On average, in FY 2016 the unemployment rate in school districts was 5.2%, a slight increase from five years ago. There is little variability across school districts as indicated by the minimum and maximum values and the standard deviation, which indicates the unemployment rate varies, on average, from about 4% to 6%. The maximum value indicates that sustained economic growth is a challenge for a few school districts.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	5.20%	1.64%	1.60%	10.20%
% Change over 5 years	0.50	1.56	-4.50	6.30

Environmental Measure 3: Household Income

Purpose: To identify trends in household income that may influence school corporation financial condition.

Analysis: Household income can serve as a proxy for many other economic variables that could signal changes for a school district. Household income tends to be correlated with educational attainment, marital status, property values, and other environmental measures. A lower household income or declining household income could indicate that the school district make-up is changing, clueing school districts into potential future changes in expenditures. Average household income is reported by the American Community Survey and adjusted for school district level geography by the National Center for Education Statistics. A negative trend would be a lower average than the rest of the state or a decreasing average over time.

On average, in FY 2016 annual household income in school districts was about \$51,000, a slight increase from five years ago. However, there is considerable variability across school districts as indicated by the minimum and maximum values and the standard deviation. About 50% of school districts have an average annual household income less than \$50,000; there are two districts with an average annual household income over \$100,000.

Summary Statistics:

	Average	Standard Deviation	Minimum	Maximum
Indicator (FY 2016)	50,728	11,257	25,121	104,937
% Change over 5 years	2.73%	8.74%	-18.50%	29.86%