

Supplemental Data Appendix

Dollars and Sense: How State and Local Governments in Michigan Spend Your Money

2011 Citizen's Guide to
Michigan's Financial Health

Presented by
Governor Rick Snyder

HOW TO USE THIS APPENDIX:

This appendix to the report “Dollars and Sense: How State and Local Governments in Michigan Spend Your Money” provides additional data and information on Michigan governments and Michigan’s fiscal situation. Each of the first four sections contained in this appendix corresponds to a section in the original report, and elaborates on material in the corresponding section. For example, in the original report, we provided revenues and expenditures for all governments in Michigan combined. In this appendix, we go into more detail about the revenues and expenditures for particular levels of government, addressing state government, public schools, and other local governments separately.

There is also a fifth section in this appendix, which provides the methodology and the sources for much of the data contained in the original report. This fifth section gives a brief description of the methodology and assumptions used by Anderson Economic Group, LLC in estimating some of the data presented in the report when reliable sources of data were not available.

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Appendix A. Michigan Government Detail

In this section of the report, we provide information on the responsibilities of each level of government.

STATE GOVERNMENT

Beside the functions reserved for local governments discussed below, and certain tasks delegated to special authorities such as port authorities or waste management districts, the state government is responsible for every other public function or service in the state of Michigan. To briefly touch on some of its more important functions:

- operate state courts and provide state police
- provide and maintain infrastructure
- administer certain social programs that provide services, such as Medicaid, children's health insurance, workers' compensation, and unemployment insurance
- oversee other diverse matters of public interest, including historical preservation, investment in natural resources, economic development, and safety regulations for consumers and workers
- collect sales, income, business, and some specialized taxes, such as taxes on fuel and tobacco

LOCAL GOVERNMENTS

Local governments include counties, cities, townships and villages.

Counties. County governments are required to perform the following functions on behalf of the state:

- conduct elections
- enforce state criminal laws, administer justice, and house state prisoners
- maintain approval and recording of plats (division of the land into separate properties) and register property deeds
- issue birth certificates
- construct and maintain county roads

County governments are also permitted, though not required, to provide the following services. These services are often left to lower levels of local government:

- parks and recreation programs
- water and sewerage services, and solid waste disposal
- planning and zoning
- airports, port facilities, hospitals, and libraries
- economic development

Cities, Townships, and Villages. Cities and townships are responsible for assessing property as a basis for county and school taxation, and collecting those taxes for all local units of government. In addition to these functions, cities can provide a broad range of services as demanded by their residents, including:

- Land planning and zoning
- Police and fire protection
- Construction, maintenance, and operation of libraries, parks, and water and sewerage systems

PUBLIC SCHOOLS

Local public school districts are established by the State Legislature and are primarily responsible for educating students from kindergarten through 12th grade. Larger intermediate school districts provide technical and educational services to school districts. Local school districts, and the intermediate school districts of which they are a part, cover the entire state.

Community college districts, on the other hand, cover only certain parts of the state, particularly those areas that are most populous. These districts operate schools that provide college-level programs or degrees of two years or less.

Michigan has 15 public universities. As opposed to community colleges, Michigan's public universities are independently run, and therefore do not operate under any particular unit of government. The state legislature does, however, determine appropriations to the universities from the state each year, and the universities' boards are publicly elected.

GOVERNMENT REVENUE LIMITATIONS

Michigan voters have passed several limitations on the taxes that governments can impose on its citizens and what the state government can demand of local governments.

Headlee Amendment

The Headlee Amendment, an amendment to the state constitution passed by Michigan voters in 1978, put limitations and restrictions on government expenditures and revenues at the state and local level. The main stipulations of the Headlee Amendment are:

- The revenue that state government collects from within the state cannot exceed 9.49% of total personal income.
- The proportion of spending by local governments provided by the state government cannot drop below the share that it was in the fiscal year in which the amendment was passed.
- Any new programs mandated by the state, even those administered by local governments, must be fully funded by the state.

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- Any new local government taxes or increase in tax must be approved by voters in the jurisdiction of that local government.

Property Tax Limitations

Michigan local governments have always depended on property taxes for a significant portion of their revenue. The property tax system has been roughly in its current form since 1994, when Proposal A changed the structure of property taxation and school finance. The limits on property taxes raised by various government units in Michigan are as follows:

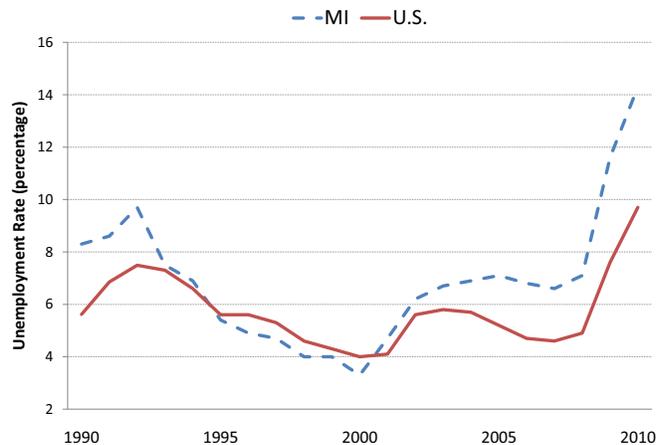
- The state education tax, a property tax administered on all property in the state, is limited to 0.6% of taxable value.
- Local school districts can administer a property tax of up to 1.8% or the level in their district in 1993, whichever is less. Exceptions can be made for certain types of capital investments.
- Local governments (townships, counties, cities, and villages) can administer property taxes of up to 1.5%, and in certain cases 2.0%, total. When there is overlap between jurisdictions, such as between counties and townships, they must coordinate rates to stay below this limitation.
- Principal residences and some agricultural properties are exempt from property taxes administered by schools and the state.
- Local governments can impose special assessments on a set of properties to fund the construction or maintenance of a project that particularly benefits that set of properties. Special assessments are not subject to the above limitations.
- The taxable value of any property, upon sale, is equal to the state equalized value, or half of the true cash value of the home. The taxable value of a property cannot increase by more than 5% or the rate of inflation of the previous year, whichever is lower.

Appendix B. Long-Term Economic Trends and Impact on Budget Detail

ECONOMIC SITUATION

A look at the unemployment picture in Michigan over the past ten years reveals that the state never fully recovered from the recession in 2001. While national unemployment peaked around 6% and began to decline in 2003, Michigan's unemployment rate continued to hover around 7% throughout the decade. After the more recent recession hit at the end of 2008, Michigan's unemployment rate rose even further, to almost 15% at the beginning of 2010. Over the decade, the gap between the unemployment rate in Michigan and the unemployment rate for the country as a whole continued to grow.

FIGURE B-1. Michigan Unemployment Higher Than Nation



Source: Bureau of Labor Statistics

Analysis: Anderson Economic Group, LLC

BUDGET IMPACT OF POOR ECONOMY

A poor economy leads to less revenue for governments and an increase in the demand for certain services. We provide examples from the state government below.

State Government Revenue

Changes to major sources of tax revenue due to the economy include the following.

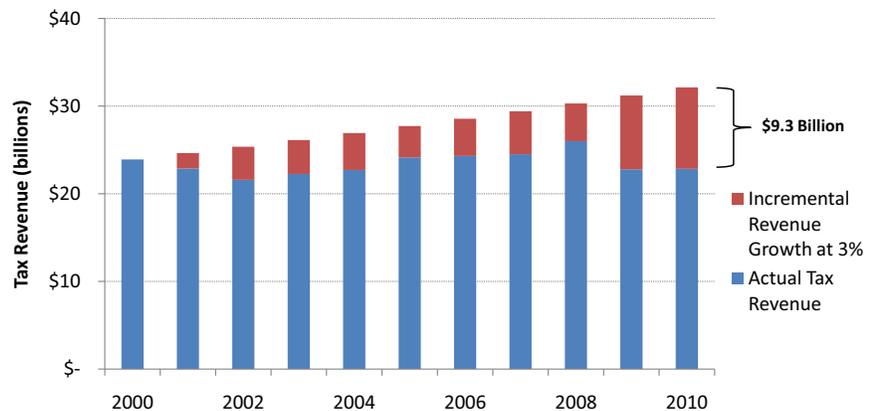
- *Property taxes* provide considerable revenue to state and local governments (including public schools). Between 2005 and 2010 the average residential sale price in Michigan fell from \$151,000 to \$106,000—a drop of roughly 30%. Residential taxable valuation of property fell 6.7% during this same time period,

reducing property tax revenue and funding for K-12 education, among other services.

- *Income taxes* provide general operating revenue and educational funding for the state. Since 2001, revenues from personal income taxes have declined by 12%, from \$7.4 billion to \$6.7 billion.
- *Sales taxes* provide revenue for education and government services. Revenues from these taxes are highly linked to the economy and consumers' consumption. While sales tax revenue grew from \$3.8 billion in 1994 to \$6.4 billion in 2002, sales tax revenues declined to \$6.0 billion in 2009.
- *Business taxes* in Michigan increased due to the repeal of the Single Business Tax and its replacement with the Michigan Business Tax, which includes a 22% surcharge.

To illustrate the impact of a poor economy on public revenue, Figure B-2 shows what tax revenue the State would have received between FY 2000 and 2010 if tax revenue grew at 3% annually, just above the rate of inflation during this period. In FY 2010 alone, the State would have had an additional \$9.3 billion.

FIGURE B-2. Tax Revenue Comparison: Actual vs. Projected with 3% Growth



Source: Michigan Comprehensive Financial Statements
 Analysis: Anderson Economic Group, LLC

Demand for Government Services

During poor economic times, demand for certain government services automatically increases. Michigan's poverty rate (the percentage of families with income below the poverty line) has jumped from 10% in 2000 to over 16% in 2009. To put this in context, the poverty threshold for a family of four is a mere \$21,954. In 2009 almost 1.6 million citizens of Michigan lived below the poverty threshold.

Eligibility for state services like Medicaid and cash assistance depend on family income relative to the poverty line, so increases in poverty create fiscal pressures on the state. For example, Medicaid, which is a program that reimburses health care providers for services provided to individuals and families with low income, has experienced a large increase in number of recipients. Between 2000 and 2010 the average monthly number of Medicaid recipients in Michigan grew by 71%. Currently over 1.8 million people in Michigan receive Medicaid benefits.

A second example is the increase in demand for unemployment benefits. Between 2000 and 2009, the amount of unemployment benefits paid to Michigan residents jumped from less than \$1 billion to over \$6 billion annually. Initial unemployment claims increased by 400,000 in 2009 from the previous year.

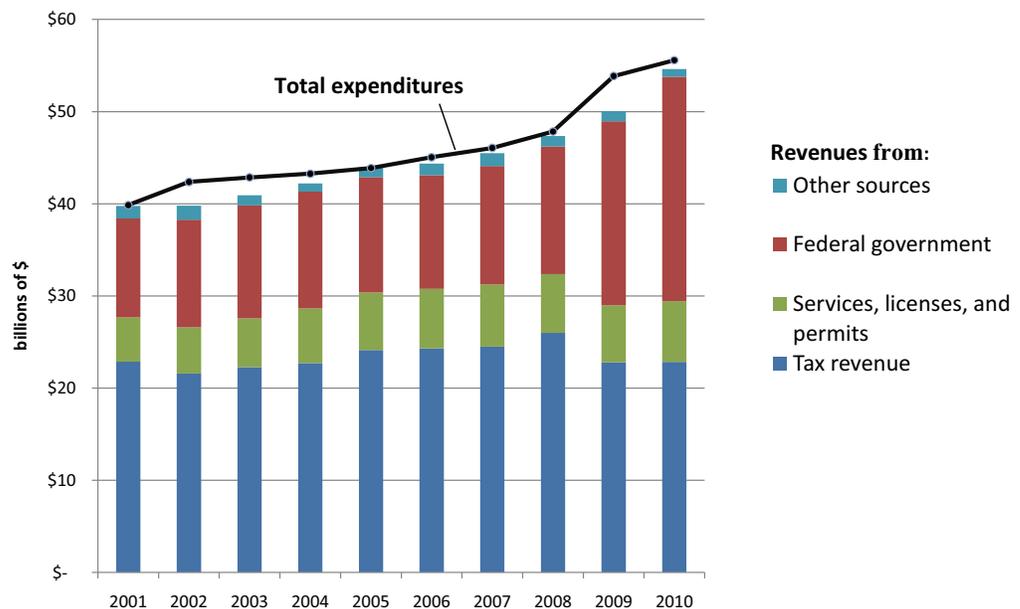
Appendix C. Revenue & Expenditure Detail

This appendix contains more information on the revenues and expenditures of state and local governments.

STATE GOVERNMENT

The State of Michigan received \$54.6 billion in revenue in FY 2010 and spent \$55.6 billion. As shown in Figure C-1, the state has run deficits, when we account for all primary government spending and revenues, for several years in the last decade, particularly those following recessions.

FIGURE C-1. Michigan State Government Revenues and Expenditures



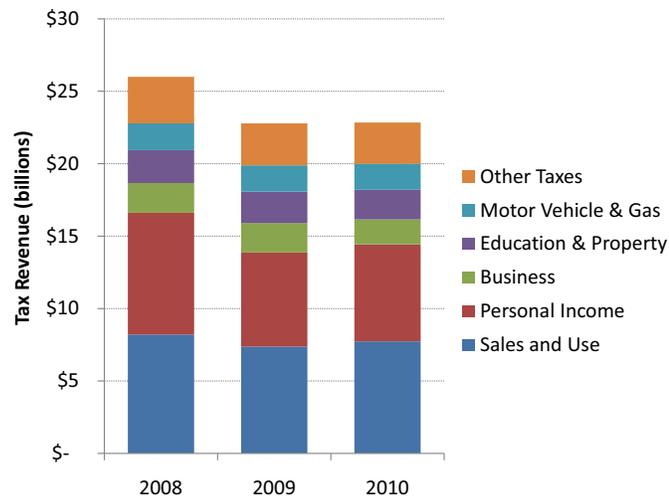
Source: Michigan Comprehensive Annual Financial Reports, Statement of Activities
Analysis: Anderson Economic Group, LLC

State Revenue Sources

The State of Michigan receives funds from a variety of sources including tax revenue, fees for services, and federal dollars.

Tax Revenues. The amount of taxes collected by the State grew slowly, along with the economy, after the 2001 recession through 2008. During the past two years, though, we have seen tax collections fall precipitously due to the recession. From 2002-2008, total tax collections in the state rose from \$21.6 to \$26.0 billion, only to fall back to \$22.8 billion in both 2009 and 2010. Figure C-2 shows state tax revenues for each of the past 3 fiscal years.

FIGURE C-2. State Tax Revenue, 2008-2010



Source: Michigan Comprehensive Annual Financial Statement

Analysis: Anderson Economic Group, LLC

Federal Aid. The second-largest source of revenue for the state, after taxes, is the federal government. Aid from the federal government to Michigan was steadily increasing even before the recent recession, helping to mitigate the fiscal pressures due to the state's economy. In 2001, the federal government provided \$11 billion in revenue (29% of total state government revenue) to the state government in Michigan. By 2008, that number had increased to \$14 billion.

In 2009, thanks to an extra \$5.0 billion from the American Recovery and Reinvestment Act (popularly known as "the stimulus package") and \$2.4 billion for extended unemployment benefits, revenues from the federal government jumped to \$20 billion (40% of total revenue for the state government) from almost \$14 billion in 2008. In 2010, the state government received \$2.5 billion in stimulus money and \$4.4 billion for extended unemployment benefits, resulting in a total of \$24 billion in revenue from the federal government (45% of total revenue). The state anticipates \$1.7 billion in federal stimulus funds for the current fiscal year. The primary budget areas supported by stimulus funds are community health, human services, K-12 education, and transportation.

LOCAL GOVERNMENTS

The most recent year in which comprehensive local government data is available from the U.S. Census is FY 2008.¹ In that year, total local government rev-

1. In the body of this report, where we present local government data from more recent years in less detail, we use Anderson Economic Group estimates. For more information on our estimation process, please see "Appendix E. Data & Methodology".

enue, including schools, was \$44.6 billion. Also in that year, local governments spent \$46.9 billion.

Like state government, local governments receive funds from taxes, service fees, and from other government entities. Almost \$10 billion of local revenues come from charges for services and permits or licenses. Some of the larger charges include those for hospitals, air transportation, sewerage and waste management, toll roads, and the use of parks. Charges for the use of public utilities added an additional \$2.3 billion to revenues.

Local Government Revenue

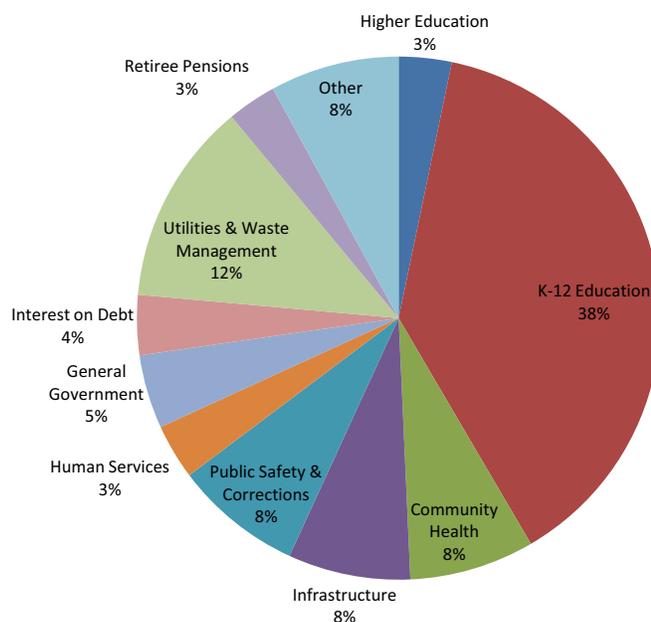
Tax Revenues. Local governments' primary source of revenue in Michigan is property taxes. In FY 2008, property taxes accounted for \$11.9 billion of local government revenue. About half of these revenues went directly to schools, while the other half was split between counties and cities. Property taxes make up almost all tax revenue for counties. Cities, however, in addition to property taxes, received \$460 million in individual income taxes since some cities collect this tax. Once other taxes on specific items, such as tobacco and alcohol, are accounted for, total tax revenue to local entities in 2008 was \$12.9 billion.

State and Federal Aid. Local governments are heavily dependent on grants and contributions from both the state government of Michigan and the federal government. The largest of these expenditures is that for schools, as discussed in the section "Public Schools" below. In addition to school aid, the federal government provides over \$1 billion annually to county and city governments. The state also provides approximately \$5 billion annually, most of it to county governments, for local operations. These expenditures are included in state-level appropriations, including payments for corrections and transportation.

Local Government Expenditures

When we include expenditures for schools, K-12 education is by far the largest expenditure category for local governments, making up almost 40% of total local government expenditures. (Note, however, that much of this spending is funded by state aid, so there is extensive overlap between this expense and the appropriations for K-12 education shown in the section "How Taxpayer Money Is Spent: Government Revenues and Expenditures".) After education, utilities and waste management is the second largest expenditure category for local governments at 12% of total expenses. As one might expect, almost all of these expenditures are concentrated within city governments. Counties and townships have low costs in this category, comparatively. See Figure C-3.

FIGURE C-3. Local Government and School District Expenditures, FY2008



Source: U.S. Census Bureau Annual Survey of State & Local Government Finance
 Analysis: Anderson Economic Group, LLC

Other large expenditure categories, as shown in Figure C-3 above, are community health, infrastructure, and public safety and corrections, each of which are heavily subsidized by state and federal aid. Within these categories, counties are largely responsible for public health expenditures, though cities do contribute a fair amount to hospital construction (approximately \$440 million in 2008). Infrastructure expenditures are incurred roughly equally by cities and counties. For public safety, cities have large expenditures for firemen and policemen (almost \$2 billion last year), while counties incur the bulk of corrections spending (about \$600 million).

PUBLIC SCHOOLS

In addition to analyzing the U.S. Census of Governments data for local governments (including public schools), we reviewed the Department of Education Bulletin 1011 data on public school operating revenues and expenditures. We present this information below.

Operating Revenues

Public schools in Michigan are funded by a combination of local, state, and federal funds. The total funding for public schools for 2009 was just over \$17 billion. Of that funding, roughly 60%, or \$10.4 billion, originated from the state of Michigan's funds. The remaining revenue is made up of about \$5 billion from local governments and \$1.7 billion from the federal government.

Since 2000, education in Michigan has become more reliant on federal sources of revenue. Between 2000 and 2009 federal sources of revenue have grown from \$750 million to \$1.7 billion. While federal funds accounted for only 5% of total revenues in 2000, in 2009 they accounted for 10%. This increasing reliance on federal funding is noteworthy because federal funding can fluctuate from year to year and future decreases in federal funding could have serious implications for public school operations in Michigan.

Operating Expenditures

Operating expenditures have also grown substantially in the last ten years. Total operating expenditures grew 33% between 2000 and 2009 and totaled \$16 billion by 2009. While operating expenditures continue to be smaller than funding, the gap between the two has decreased in the last ten years. As a result, the year-end balance on state education funds has decreased from \$4.8 billion in 2000 to \$2.7 billion in 2009. Thus, the ratio of general funds to operating expenses has fallen from 14% to 8%.

Appendix D. Michigan's Fiscal Health Detail

CHANGES TO STATE PENSION PLANS

In the late 1990s, the Michigan State Employees Retirement System (MSERS) moved away from the old model of retirement benefits, called “defined benefit,” where a retiree gets a guaranteed amount of money. New state employees now are eligible for a “defined contributions” plan, a benefits package that consists of a tax-deferred savings account, resembling 401(k) plans available in the private sector. This was a step forward in reining in pension costs at the state level, but there are still many employees and retirees enrolled in the old system.

The Michigan Public School Employees Retirement System (MPERS) has undergone benefit changes for its members in the past year. Teachers who began working prior to July 2010 have a defined benefit plan, but new hires are enrolled in a hybrid plan that involves both defined benefit and defined contribution components.

UNEMPLOYMENT INSURANCE

In order to ensure the solvency of the state’s unemployment insurance system, there are some state and federal mechanisms that automatically go into effect when the unemployment insurance fund becomes insolvent. Michigan state law calls for a solvency tax: When the amount of money in the unemployment trust fund is less than the amount of outstanding federal loans for unemployment insurance, some employers have to pay an increased rate. The employers who have to pay an increased rate are those whose laid-off employees have drawn more from the system than that employer has paid in. The state solvency tax was scheduled to go into effect in the beginning of 2009, but due to economic hardships the state legislature suspended the tax until the beginning of 2011. An increase in unemployment taxes for qualifying businesses kicked in on January 1, 2011.

The federal government also has strict regulations on paying back loans for unemployment insurance, in order to promote the solvency of the unemployment insurance system. For every year that Michigan has an outstanding loan, the federal government will increase the rate on Michigan businesses by 0.3%.¹ In 2009, the federal unemployment tax rate for Michigan was increased from 0.8% to 1.1%, and will increase again this year. Money from this extra 0.3% automatically goes to pay down the principal on the unemployment

1. This is not technically a tax increase, but a decrease in the tax credit provided by the federal government. Practically, it has the same effect as an increase. The increase is 0.3% each year for the first few years of the outstanding loan. After that, the formula for the tax credit is more complicated.

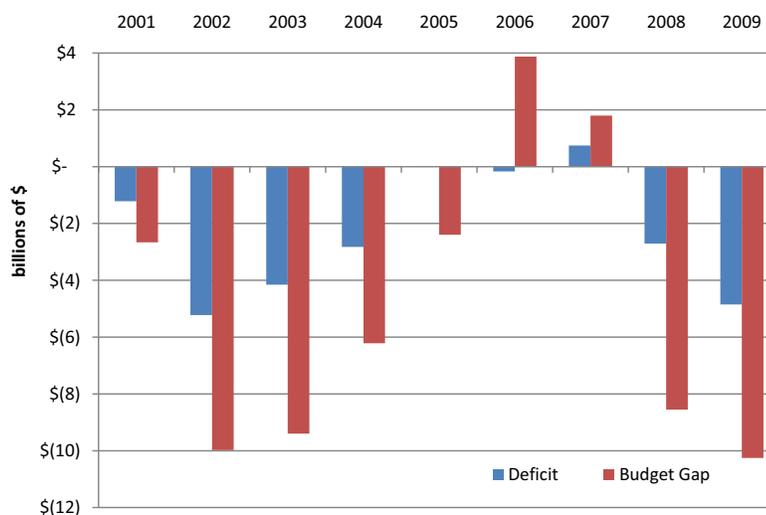
insurance fund's federal debt. In 2010, the tax rate increased again, from 1.1% to 1.4%, and will increase again in 2011.

The American Recovery and Reinvestment Act of 2009 (the federal stimulus package) stipulated that any loans to states for unemployment insurance did not accrue interest until the end of 2010. Because of this rule, Michigan owes no interest on the almost \$4 billion in outstanding loans it has received so far. For the 2010-11 fiscal year, the House Fiscal Agency estimates that the state will need to pay \$150 million in interest on federal loans for unemployment insurance. Only about half of this is expected to be covered by the state solvency tax, and the other half has not been appropriated.

PUBLIC BUDGET GAP

In order to demonstrate how the public budget gap has differed from budget deficits, Figure D-1 below shows the total state and local budget gap combined as compared to the combined deficits for state and local government in each year for the past decade. Recall that budget gaps are similar to deficits, but they include any increase in unfunded liabilities for pensions and health care, which are not included in the usual definition of deficits.

FIGURE D-1. Combined State and Local Government Public Budget Gap Compared to Budget Deficits, FY 2001-FY 2009



Sources: State of Michigan CAFR, CAFRs for state and local pension plans, U.S. Census Bureau State and Local Finance Survey, AEG estimates

Analysis: Anderson Economic Group, LLC

Note: Local OPEB unfunded obligations are not included due to data limitations. Pre-2006 OPEB for state are estimated due to data limitations.

To demonstrate which components are driving the results shown above, Table D-1 shows more detailed calculations for the budget gap, separating state and local governments.

TABLE D-1. Public Budget Gap, FY2001-FY2009 (millions of \$)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
State Government									
Revenues	\$39,775	\$39,805	\$40,920	\$42,220	\$43,936	\$44,360	\$45,486	\$47,341	\$48,966
<u>- Expenses</u>	<u>-\$39,849</u>	<u>-\$42,378</u>	<u>-\$42,858</u>	<u>-\$43,259</u>	<u>-\$43,876</u>	<u>-\$45,052</u>	<u>-\$46,062</u>	<u>-\$47,837</u>	<u>-\$53,857</u>
<i>Nominal Deficit</i>	<i>\$(74)</i>	<i>\$(2,573)</i>	<i>\$(1,938)</i>	<i>\$(1,038)</i>	<i>\$60</i>	<i>\$(692)</i>	<i>\$(576)</i>	<i>\$(496)</i>	<i>\$(3,826)</i>
- Unfunded Pensions	-\$449	-\$3,172	-\$3,715	-\$2,130	-\$3,204	-\$4,478	-\$466	-\$3,743	-\$3,893
<u>- Unfunded OPEB</u>	<u>-\$556</u>	<u>-\$570</u>	<u>-\$583</u>	<u>-\$597</u>	<u>-\$611</u>	<u>-\$626</u>	<u>-\$354</u>	<u>-\$1,650</u>	<u>-\$602</u>
<i>Budget Gap</i>	<i>\$(1,080)</i>	<i>\$(6,314)</i>	<i>\$(6,236)</i>	<i>\$(3,765)</i>	<i>\$(3,755)</i>	<i>\$3,160</i>	<i>\$245</i>	<i>\$(5,889)</i>	<i>\$(8,320)</i>
Local Governments									
Revenues	\$37,026	\$37,641	\$39,906	\$42,170	\$43,854	\$43,113	\$48,684	\$44,641	\$48,966
<u>- Expenses</u>	<u>-\$38,168</u>	<u>-\$40,290</u>	<u>-\$42,123</u>	<u>-\$43,955</u>	<u>-\$43,898</u>	<u>-\$42,591</u>	<u>-\$47,362</u>	<u>-\$46,856</u>	<u>-\$49,990</u>
<i>Nominal Deficit</i>	<i>\$(1,142)</i>	<i>\$(2,649)</i>	<i>\$(2,217)</i>	<i>\$(1,784)</i>	<i>\$(45)</i>	<i>\$522</i>	<i>\$1,322</i>	<i>\$(2,215)</i>	<i>\$(1,024)</i>
- Unfunded Pensions	-\$442	-\$1,012	-\$943	-\$667	-\$1,406	-\$192	-\$230	-\$445	-\$912
<i>Budget Gap</i>	<i>\$(1,584)</i>	<i>\$(3,661)</i>	<i>\$(3,160)</i>	<i>\$(2,451)</i>	<i>\$1,361</i>	<i>\$715</i>	<i>\$1,552</i>	<i>\$(2,660)</i>	<i>\$(1,936)</i>
State + Local Governments									
<i>Nominal Deficit</i>	<i>\$(1,216)</i>	<i>\$(5,222)</i>	<i>\$(4,155)</i>	<i>\$(2,823)</i>	<i>\$15</i>	<i>\$(170)</i>	<i>\$746</i>	<i>\$(2,711)</i>	<i>\$(4,850)</i>
<i>Budget Gap</i>	<i>\$(2,664)</i>	<i>\$(9,976)</i>	<i>\$(9,396)</i>	<i>\$(6,216)</i>	<i>\$(2,394)</i>	<i>\$3,875</i>	<i>\$1,797</i>	<i>\$(8,549)</i>	<i>\$(10,256)</i>

Sources: State of Michigan CAFR, CAFRs for various pensions, U.S. Census Bureau State and Local Finance Survey, AEG Estimates
Analysis: Anderson Economic Group, LLC

Notes: OPEB for local governments are negligible. We assume that state debt held by local governments is negligible and vice versa. Due to data limitations, values for changes in unfunded OPEB up to 2006 and local revenues and expenses in 2001 and 2003 are based on AEG estimates.

Appendix E. Data & Methodology

This appendix contains more detailed information on the sources we used, and how we estimated total public revenues and expenditures by government entities in Michigan. It also provides more details on our “Public Budget Gap” calculation, and a breakdown of the categories we use in analyzing state appropriations.

INDEX OF SOURCES

The following is an index showing primary sources for some of the data used in this report.

TABLE E-1. Major Sources of Data

Data	Primary Source
State Government Revenues and Expenditures	State of Michigan Comprehensive Annual Financial Report (CAFR), Statement of Activities
Local Government Revenues and Expenses	U.S. Census Bureau Survey of State and Local Finance; U.S. Census Bureau Census of Governments
State Appropriations	Michigan Senate Fiscal Agency Appropriations Report
General Fund / School Aid Fund Cash and Accounts Payable	Michigan CAFR, Governmental Funds Balance Sheet
State Government Debt	Michigan CAFR, Notes on “Bonds and Notes Payable”
Local Government Debt	U.S. Census Bureau Survey of State and Local Finance; U.S. Census Bureau Census of Governments
Pension Payments, Benefits, Valuations, and Liabilities	Financial reports for MSERS, MPSERS, MERS, DGRS, and DPFRS
OPEB or Retirement Health Care Payments, Benefits, Valuations, and Liabilities	Financial reports for MSERS, MPSERS, and MERS, and Detroit CAFR
State Unemployment Insurance Contributions, Payments, and Equity	Michigan CAFR, Proprietary Funds Statement of Net Assets and Statement of Cash Flows

COMBINING DATA FOR STATE AND LOCAL GOVERNMENTS

We present total public revenues and expenditures in Michigan, including both local and state governments. There is local data missing for the years 2001 and 2003, and local data for 2009 and 2010 has not been released.

For those years that are missing in the local data, we used the growth of revenues and expenditures in each category of state revenues or spending to fill in the gaps. For example, revenue from the federal government to the state increased by 3.8% from 2002 to 2003. We assumed that the same was true for local governments in that year, and that revenues from the federal govern-

ment to local governments in Michigan increased from the Census estimate in 2002 of \$1.31 billion to \$1.36 billion in 2003. This method is particularly appropriate in cases like tax revenue, where the state and local governments are drawing on the same tax base and will likely see similar trends in tax revenues. This method is more dubious in the case of certain types of expenditures where we might see substitution between state and local spending, and also certain types of revenues, like charges for services, where the revenue streams for state and local governments are quite different.

To arrive at total public revenues and expenditures, we add together the values for local and state governments in each category. Since this results in double-counting transfers from state government to local governments on both sides of the ledger (the same transfer is counted in both state and local expenditures and state and local revenues), we subtract the amount of money transferred from the state to local governments each year from both total expenditures and total revenues.

For the more specific distribution of revenues and spending, we add together state and local expenditures, and subtract any overlap. In order to do that, we made further assumptions about how state money would be allocated to local governments. Because local governments received \$18 billion in revenues from the state in 2008, we subtracted amounts summing to \$18 billion from various categories of local spending, and then added local spending to state spending to obtain values for total public spending in each category.

We made the following assumptions in determining where state funds were spent by local government:

- All state funding for elementary and secondary schools would pass through local government units.
- The remainder of significant state funding for local governments would be spent on transportation, health and hospitals, and human services.
- The amount of state funding spent by local governments on transportation, health and hospitals, and human services is in proportion to the total amount spent in each category by the state.

In the end, we assumed that, in 2008, state funds would be allocated by local governments in the following way.

**TABLE E-2. Allocation of State Funds by Local Governments,
FY 2008 (millions of \$)**

K-12 education	\$12,998
Transportation	\$1,805
Health and hospitals	\$2,270
Human services	\$1,006
TOTAL	\$18,080

*Sources: State of Michigan CAFR, U.S. Census Bureau State and Local Finance Survey, AEG estimates
Analysis: Anderson Economic Group, LLC*

It is likely that some state funds were allocated to other types of spending by local governments, but there is reason to believe that the bulk of local spending due to state funds occurred in these categories, and estimating the expenditures for further categories would not significantly affect the distribution of public spending.

In the first section of this report, where we show how much money goes directly from citizens to different units of government, we make the approximation that, of all local revenues, for each given source of revenue, the share going to public schools was the same in 2010 as it was in 2008. We make this same approximation in determining how much money goes directly from the federal government to public schools.

PUBLIC BUDGET GAP METHODOLOGY

We show our measure for the public budget gap compared to deficits for state and local governments in the years 2001 through 2009. This measure takes the deficit and then subtracts any new unfunded pension or retirement obligations to more broadly capture any shortfall in funding for the state's operations. We included the following pension programs in this analysis:

TABLE E-3. Pension Plans Included in Public Budget Gap Analysis

State Government

Public School Employees Retirement System (PSERS)*
State Employees Retirement System (SERS)*
State Police Retirement System (SPRS)*
Military Retirement Plan (MRP)*
Legislative Retirement System (LRS)
Judges Retirement System (JRS)

* Also included OPEB for these retirement systems

TABLE E-3. Pension Plans Included in Public Budget Gap Analysis

Local Governments
Municipal Employees Retirement System (MERS)
Detroit General Retirement System (DGRS)
Detroit Police & Fire Retirement System (DPFRS)
Grand Rapids General Retirement System (GRGRS)
Grand Rapids Police & Fire Retirement System (GRPFRS)

* Also included OPEB for these retirement systems

For those systems for which we did include OPEB, they only had actuarial assessments performed over the last 3 years (starting in 2007). Therefore, for the years prior to 2007, we had to estimate how much the unfunded liabilities in OPEB would increase from year to year.

**STATE
APPROPRIATIONS
CATEGORIES**

The State of Michigan legislature allots appropriations to 26 different departments or budget areas. We chose to aggregate these departments further into 9 larger appropriations categories. The community health and corrections categories each contain only one department of the same name, while all other categories contain at least two, as shown below.

TABLE E-4. Defining State Appropriations Categories

Category State Budget Area	FY2010 Appropriations (thousands of \$)	% of 2010 Total
Community Health	\$13,622,116	29.9%
Corrections	\$1,997,730	4.4%
General Government	\$2,611,357	5.7%
Attorney General	\$52,530	0.1%
Civil Rights	\$14,007	0.0%
Executive Office	\$4,785	0.0%
Judiciary	\$255,659	0.6%
Legislative Auditor General	\$13,017	0.0%
Legislature	\$107,153	0.2%
State	\$195,467	0.4%
Tech, Management, & Budget	\$382,707	0.8%
Treasury (Debt Service)	\$80,178	0.2%
Treasury (Operations)	\$412,701	0.9%
Treasury (Revenue Sharing)	\$979,118	2.1%
Treasury (Strategic Fund)	\$114,037	0.2%

Source: House Fiscal Agency
Analysis: Anderson Economic Group, LLC

TABLE E-4. Defining State Appropriations Categories

Category State Budget Area	FY2010 Appropriations (thousands of \$)	% of 2010 Total
Higher Education	\$1,911,604	4.2%
Community Colleges	\$299,361	0.7%
Higher Education	\$1,612,243	3.5%
Human Services	\$7,793,685	17.1%
Human Services	\$6,288,178	13.8%
Energy, Labor, & Economic Growth	\$1,505,507	3.3%
Infrastructure	\$3,397,270	7.4%
Capital Outlay	\$35,659	0.1%
Transportation	\$3,361,611	7.4%
K-12 Education	\$12,822,407	28.1%
Education	\$114,926	0.3%
School Aid	\$12,707,481	27.9%
Resource Protection	\$780,637	1.7%
Agriculture	\$79,152	0.2%
Natural Resources & Environmental Quality	\$701,485	1.5%
Public Safety	\$680,177	1.5%
Military & Veterans Affairs	\$153,231	0.3%
State Police	\$526,946	1.2%
TOTAL	\$45,616,981	

*Source: House Fiscal Agency
Analysis: Anderson Economic Group, LLC*