The Center for Local, State, and Urban Policy

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FISCAL HEALTH PROJECT

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A Twenty-year Review of Flint's Financial Condition

Executive summary

Over the past twenty years, few cities have experienced as much fiscal stress as Flint, Michigan. After decades of economic decline, two periods of state receivership, the water crisis, and the COVID-19 pandemic, the City of Flint is trying to shore up its finances and provide services to citizens. To do so, it will need to carefully monitor its fiscal health. Much as doctors use vital signs and test results to track their patients' health, we can use financial and economic indicators to track the fiscal health of cities.

This report illustrates how data found in basic financial statements may be used to understand how Flint's financial condition has changed over time. We draw on data from Flint's Annual Comprehensive Financial Reports from FY 2000 to today (FY 2021) to calculate indicators that illustrate how different aspects of Flint's finances have responded to changing internal and external circumstances. Taking this long-term perspective on Flint's finances helps us see how fiscal stress manifests in different ways and helps us understand the effects of policy and management decisions.

The analysis makes clear that:

- **Flint's financial challenges are long-term and structural.** Flint is a city built for 200,000 mostly middle-class auto workers, but the decline of the auto industry and white flight have left Flint with a population just over 80,000, significantly poorer and blacker than the rest of the state, to pay the bills. Running a city that is over half empty is unsustainable without structural changes.
- **State-appointed receivers made temporary improvements to balance budgets and improve short-term liquidity, but failed or were simply unable to address the structural causes of Flint's fiscal distress.** The focus of Michigan's takeover policy has been eliminating deficits, which has been primarily achieved through spending cuts. Other than cutting retiree benefits, policies imposed under receivership largely failed to have any measurable effect on Flint's long-term solvency. In fact, it is likely that some problems like deferred infrastructure maintenance, which does not show up on basic financial statements, worsened as a result of budget cuts.
- **Absent state-level policy changes, particularly around revenue sharing, Flint will likely continue to struggle.** Over the past several decades, Flint's tax base has been hollowed out, as most of its wealth fled to surrounding suburbs, while its debt remained in place. But as a result of restrictive state policies, the City has very little autonomy to adjust its tax policies and is dependent on an underfunded State revenue sharing program. While the State could use the statutory portion of its revenue sharing program to recognize and remedy historical inequities, the program is chronically underfunded.[1]

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1. Introduction

The Flint water crisis is one of the great tragedies of the early 21st Century, a manifestation of the neglect of once prosperous cities that have been devastated by global economic forces, population loss, racism, disinvestment, and breakdowns in accountability at multiple levels of government. It will be remembered as a public health crisis that exposed an estimated 99,000 people to lead in their drinking water and likely caused an outbreak of Legionnaires' disease that killed at least a dozen people.[2,3]

Since 2014, and especially more recently with federal funds flowing to states and local governments in response to the COVID-19 pandemic, there has been a renewed interest in repairing the nation's water and sewer systems, increasing vigilance around potential contamination. The State of Michigan, for example, announced a major new initiative in 2018 to reduce the "action level" for lead in drinking water and replace any lead service lines delivering water to residents.[4]

While these are important and overdue actions, we must remember that the water crisis is not only a public health emergency. In a larger sense, it is a case study in what can happen when a city's population and tax base are hollowed out and chronic fiscal stress goes unaddressed. It is an example of what can happen when public officials become increasingly desperate for solutions to their community's problems. If we want to learn lessons from the tragedy in Flint, we must recognize that the next crisis in the next community may have nothing to do with drinking water.

Local governments provide services that are often taken for granted but are essential to a functioning society: providing drinking water, putting out fires, running community hospitals, plowing roads, etc. When communities are chronically stressed, local governments often find themselves in the position of simultaneously facing greater need for services and fewer resources with which to provide those services.

The longer this goes on, the stronger the temptation to take risks that can have disastrous consequences. In the case of Flint, it was trying to get more affordable water from the Flint River. In the case of Detroit, it was taking on unsustainable amounts of debt and financial risk to maintain cash flow and pay for services. In the case of Ferguson, Missouri, it was increasing reliance on revenue from fines and fees, like traffic tickets. Following the killing of Michael Brown in 2014, a U.S. Department of Justice civil rights investigation emphasized the Police Department's aggressive enforcement of fines and fees against Ferguson's black residents as contributing to biased policing.[5]

In all of these cases, fiscal distress is not the root cause of disaster. Rather, it is a symptom or warning sign that policymakers need to take a close look at the forces driving decline in communities. Fiscal distress weakens a community's defenses against these forces. It can entice leaders to follow ever-riskier strategies and leave communities with few resources when the worst comes to pass.

How can we do a better job of recognizing warning signs and responding to fiscal stress before it results in a crisis? What can we learn from cities that have experienced crises that have resulted from factors that produce chronic fiscal distress? The City of Flint gives us the opportunity to look back at the data and trace how Flint's financial condition deteriorated over the span of two decades. For this analysis, we collected data from twenty-two years of Annual Comprehensive Financial Reports, from FY 2000 through 2021. During this period, Flint was twice under state receivership, from 2002–2004 and 2011–2015, the latter of which includes when the water crisis began in 2014. We use these data to construct common financial indicators to illustrate various aspects of the City's financial condition.

2. Historical overview

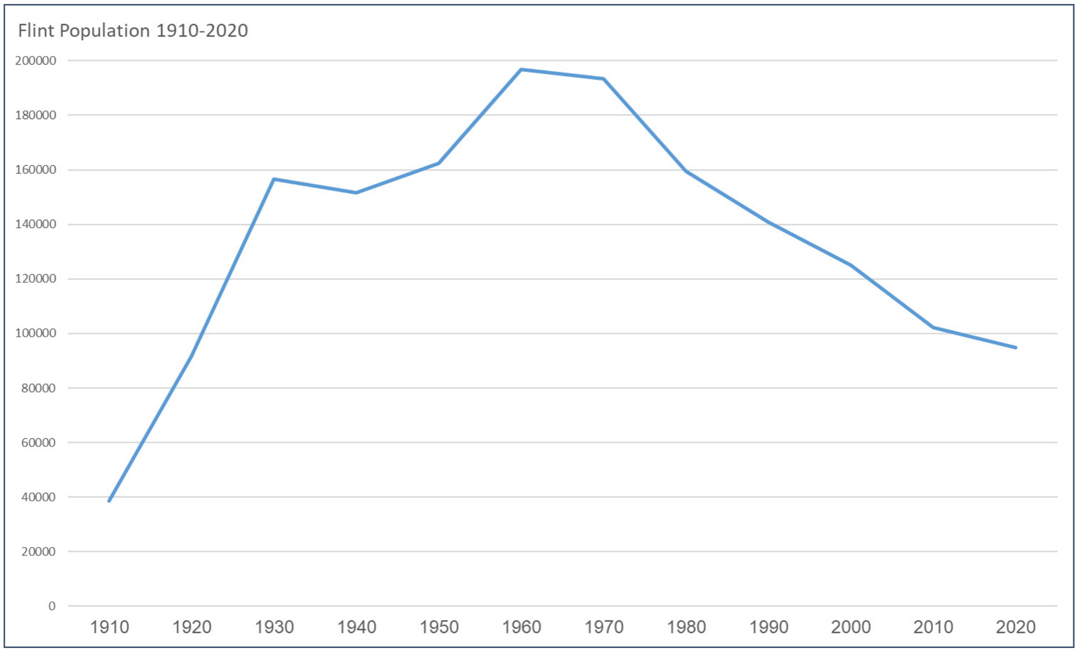
It is impossible to understand the nature of Flint's challenges without understanding its economic and demographic history. In the first half of the twentieth century, Flint was central to the development of the domestic auto industry. It is the original home of General Motors, which was incorporated in Flint in 1908 and grew into the largest automaker in the world, with a market share over 50 percent by mid-century.[6] Flint was also the site of the famous 1936–37 "sit-down strike," which consolidated the power of the United Auto Workers (UAW) and led to the unionization of auto workers.

Fueled by the growth of General Motors (GM), Flint's population soared from 38,550 in the 1910 Census to a peak of 196,940 in the 1960 Census (*Figure 1*), the second largest city in Michigan at the time. The Great Migration of black Americans from rural southern states to northern urban centers helped meet the growing labor demand in manufacturing centers like Flint and Detroit.[7] GM was not only the dominant employer, but it shaped the growth of Flint by actively recruiting workers and constructing homes and entire neighborhoods.[8]

The paradox of many industrial cities that grew in the early twentieth century was that alongside incredible economic growth was racial strife and restrictive policies that prevented most black residents from participating in the wealth generation available to their white counterparts. In Flint, this inequality was reinforced in GM-developed neighborhoods, which simply banned "any person or persons not wholly of the white or Caucasian race."[10] Even during the peak of its prosperity, Flint was the third most segregated city in the country,[11] and racial tensions influenced the economic development and eventual decline of the area.

In "City G.M. Built Looks Ahead Warily," published in the New York Times in 1998, a local resident reminisced how in his youth he and his friends referred to GM as 'Mother Motors'—a moniker meant to succinctly explain how the automaker nourished the City of Flint.[9] But much like U.S. Steel and Gary, Indiana, Kodak and Rochester, New York, GM and Flint declined as a pair.

Figure 1
Historical Population 1910–2020

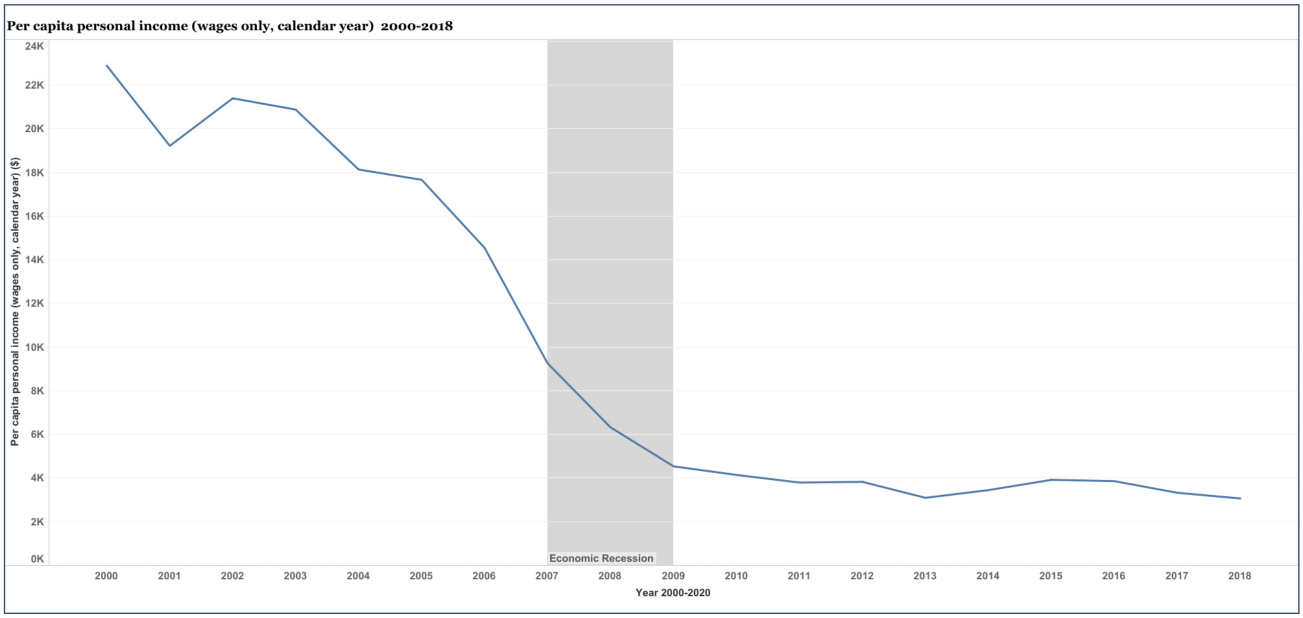


Beginning in the 1940s, GM shifted strategy and began to build new facilities outside of the City. Between 1940 and 1960, GM built eight new industrial complexes in the Flint area, all in the suburbs, with the City of Flint providing roads, water and sewer hookup, and other infrastructure the smaller suburbs were not equipped to provide.[12] The new facilities led to white outmigration and furthered racial segregation as the suburbs grew. Initially, GM supported the idea of keeping the nexus of economic power within the City of Flint, supporting annexation of the new industrial developments as well as a plan to consolidate the City and suburbs into a single government. The "New Flint" plan, as it was called, ultimately died following strenuous opposition from the almost exclusively white suburbs.[13]

White flight accelerated with protests and racial unrest during the 1960s, drawing resources and density away from the urban core, a phenomenon experienced by several major cities around the country. Around the same time, GM's market dominance began to falter, quality concerns marred the company's reputation, and the forces of globalization began to erode the domestic auto industry. By the 1980s, GM was in full retrenchment, closing factories and laying off thousands of workers in Flint and elsewhere.

Flint's population, after reaching a peak of almost 200,000 in 1960, endured a decades-long decline that continues to this day. The 2020 Census estimates Flint's population at just 81,252, over 20,000 less than ten years prior. Those who left Flint during these decades were whiter and higher-income, leaving behind a city that is now 54 percent black, with median household income of $28,834 and a poverty rate of 38.8 percent .[14] *Figure 2* shows the dramatic decline in per capita wage income over the past two decades, from almost $23,000 per person in 2000 to less than $3,000 per person in 2020.

Figure 2
Historical income



Flint's dramatic decline has repeatedly put the City in a difficult fiscal position. Throughout most of American history, local government policies and institutions were designed to support growth and expansion. Starting in the 1960s and 1970s, however, state and local governments across the country faced population decline, economic shocks, and taxpayer revolts that strained budgets.

Urban fiscal distress—especially in high-profile cities like New York City, Cleveland, and Philadelphia—spurred policy intervention at the state-level, including in Michigan. In 1988, the State of Michigan passed Public Act 101. The law allowed the State to intervene in the City of Hamtramck's "financial emergency." Michigan's receivership policy, at first applied sparingly, has been broadened and dramatically strengthened several times since 1988, and was used most frequently during the administration of Governor Rick Snyder (2011–2019).[15] The appointment of these fiscal overseers was the State's intrusive response to broke cities and towns. Installed to clean up the city's books, these State appointees wielded the power of the mayor and city council: they could downsize operations, contract out services, fire employees, cancel collective bargaining agreements, and sell assets, among other powers.[16]

Flint's first Emergency Manager, Ed Kurtz, was installed by Governor John Engler in 2002, despite an unsuccessful attempt by the City to prevent a takeover.[17] Over two years, Kurtz issued nearly 120 directives aimed at cutting spending and balancing Flint's budget. *Table 1* provides details on the reforms implemented under the 2002–2004 receivership period.

Table 1
Major Reforms under State Receivership Periods

2002–2004	• Eliminated 484 paid positions, reduced W-2s issued from 2,195 to 1,711, and reduced wages from $56.1 million to $43.7 million • Eliminated pay for mayor and city council (later partially restored) • Cut/eliminated health, vision, and dental benefits and reduced the City's contributions to pension plans • Closed Flint Employees' Retirement System (FERS) pension plan to new hires • Budget cuts in public safety, parks and recreation, general government • Closed recreation facilities, ombudsman office, the Police North End precinct and several mini-stations, the city jail, two fire stations, and ambulance service • Closed/reorganized several funds, including moving the unprofitable golf course out of the General Fund into its own enterprise fund and contracting out its operations • Implemented a new cost allocation plan (later abandoned) • Added a Security/Fraud Manager • Increased water rates by 33 percent • Approved $1 million for sewer and road improvements • Continued General Fund borrowing from other funds for cash flow • Issued $8 million in fiscal stabilization bonds to eliminate General Fund deficit
2011–2015	• Reduced workforce by 20 percent • Negotiated wage reductions with police, firefighters, and municipal employees (AFSCME) unions • Union concessions reduced unfunded pension liability from $323 million (FY 2011) to $261 million in FY 2014 • Union concessions reduced unfunded retiree healthcare liability from $862 million (FY 2010) to $240 million in FY 2014 • Converted retiree healthcare benefits from a defined benefit plan to Retiree Medical Savings Accounts • Transferred pension plans to Michigan Municipal Employees Retirement System (MERS) to reduce administrative costs • Eliminated pay for mayor, city council (later partially restored) • Budget cuts in public safety, parks and recreation, general government • Eliminated ombudsman and Civil Service Commission • Restructured departments and consolidated certain services with Genesee County • New restrictions on overtime and departmental spending authority • New user fee for waste collection and special assessments for street lighting • Increased water and sewer rates by 25 percent • New 6 mill tax dedicated to Police and Fire • Created a new Master Plan and Capital Improvement Plan; additional financial management practice reforms • $7 million Emergency Stabilization Loan from state • Switched water source from Detroit Water and Sewer Department to Flint River

Following the first receivership period, however, the City's financial condition deteriorated, and when the Great Recession began a few years later, Flint again faced severe fiscal distress. On September 11, 2011, State Treasurer Andy Dillon drafted a report, a preliminary to a state takeover, to Governor Rick Snyder. There was hardly an area of the City's finances that was not cited as dysfunctional:

> "...inability of the City to operate within budgets and to avoid fund deficits, recurrent accumulated deficit spending, severe cash flow shortages resulting in an improper reliance on interfund borrowing and appropriations, the lack of funding of the City's pension plans and other post-retirement benefits..."[18]

Governor Snyder's response to the City's "local government financial emergency" was to appoint Michael Brown, a former Genesee County commissioner, city administrator, and not-for-profit executive, as Emergency Manager (2011–2012).[19] In August 2012, Brown was forced to step down as a result of a statewide voter initiative that amended the emergency manager law. The state government quickly adopted a new version of the law weeks later, and Ed Kurtz returned as Emergency Manager for less than a year, during which he committed Flint to the new Karegnondi Water Authority (KWA) and prepared to recommission Flint's water treatment plant to process Flint River water until KWA water was available.[20]

Following Kurtz's resignation, and Brown's brief return, two other emergency managers, Darnell Earley (2013-2015) and Gerald Ambrose (2015), were appointed. Earley and Ambrose facilitated a switch in the City's water supply that later caused an environmental and public health crisis when the water supply became contaminated by lead.[21]

A full list of major reforms under Flint's 2011–2015 receivership period is available in *Table 1*. In April of 2015, Flint began its transition back to local control. The Governor appointed a Receivership Transition Advisory Board (RTAB) to oversee the City's decisions and block any policies of which it disapproved.[22] The RTAB was finally dissolved in 2018, leaving control of the City with its Mayor and City Council.[23]

3. Flint's financial condition

One way to examine the history of the City of Flint is to trace how it is reflected in the City's fiscal health. Flint's declines in population and wealth, for example, translate to declines in two of the City's major revenue sources—income taxes and property taxes. Declining revenue, in turn, can lead to budget and public service cuts, cash shortages, and lack of investment in the long-term, all things that we observe in Flint and that we can measure using financial data.

To assess how the City of Flint's financial condition has changed over time as it has dealt with economic decline and demographic transformation, we examine data from Flint's Annual Comprehensive Financial Reports (FY 2000–FY 2021).[24] Drawing on municipal finance research, we construct a comprehensive set of financial indicators, such as expenditures per capita, current ratio, and debt burden.

The full set of data and indicators, along with data visualization tools, may be accessed at http://closup.umich.edu/fiscal-health-project/flint-financial-data-2000-2021, and an accompanying codebook provides additional detail.

Instead of systematically reviewing each indicator in this report, we focus on broader themes and trends that emerge over the twenty-two year span. Unless otherwise noted, all data cited in this report refer to governmental activities in the government-wide financial statements. A detailed description of the data and methodology is available in the *Appendix* below.

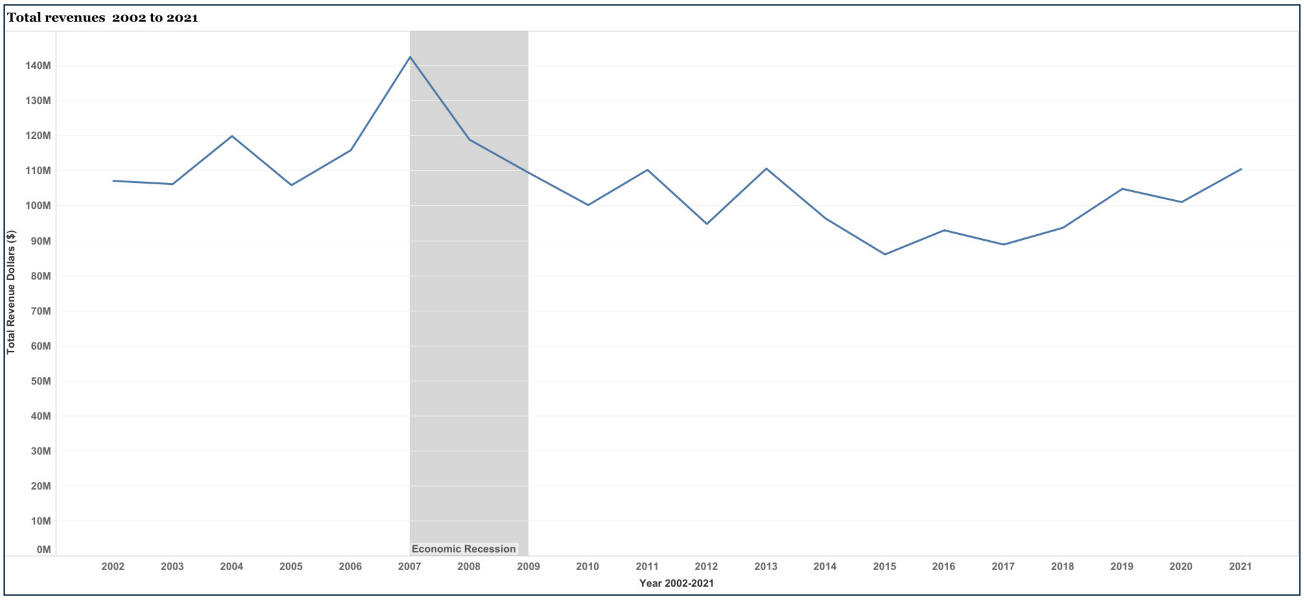
City of Flint organization

The City of Flint provides a full range of services including police, fire, road construction and maintenance, water and sewer services, waste pickup, and parks and recreation. Like most cities in Michigan, Flint's main sources of revenue include property taxes and unrestricted aid from the State (i.e. revenue sharing). In addition, Flint levies a one percent income tax on its residents (0.5 percent on non-residents who work in the City). While most services are provided by the City's General Fund and other "governmental" funds,[25] Flint also operates water and sewage accounts, enterprise funds designed to be funded primarily by fees for service. In addition, although they are independently managed, Flint is financially accountable for Hurley Medical Center[26], its Downtown Development Authority, Economic Development Corporation, and the Flint Area Enterprise Community.[27]

Falling revenues

Shrinking cities face unique fiscal challenges stemming from structural imbalances in revenues and spending. Turning first to revenues, it is clear that revenue trends respond relatively quickly to population and economic decline. As shown in *Figure 3*, between FY 2002 and FY 2011, City revenues increased by 2.9 percent, barely above the rate of inflation. Comparatively, City revenues fell by 4.9 percent between FY 2011 and FY 2019.

Figure 3
Total revenues (Governmental Activities)



In addition, the composition of the City's revenue sources has also changed. In FY 2002, property taxes made up a fifth of City revenues. By FY 2011, that had declined to 16.5 percent. In that same period, taxable value—the tax base on which the taxes are levied—declined by 15.2 percent. Residential taxable value decreased by 3.5 percent. Commercial taxable value increased by 1.5 percent. Industrial taxable value, into which General Motors property, plant, and equipment would be included, decreased by 56.4 percent. The decline in taxable value—industrial taxable value specifically—is indicative of the City's deindustrialization and inability to incur new development. Property tax revenues and property values are shown in *Figures 4* and *5*.

Figure 4
Property tax revenues

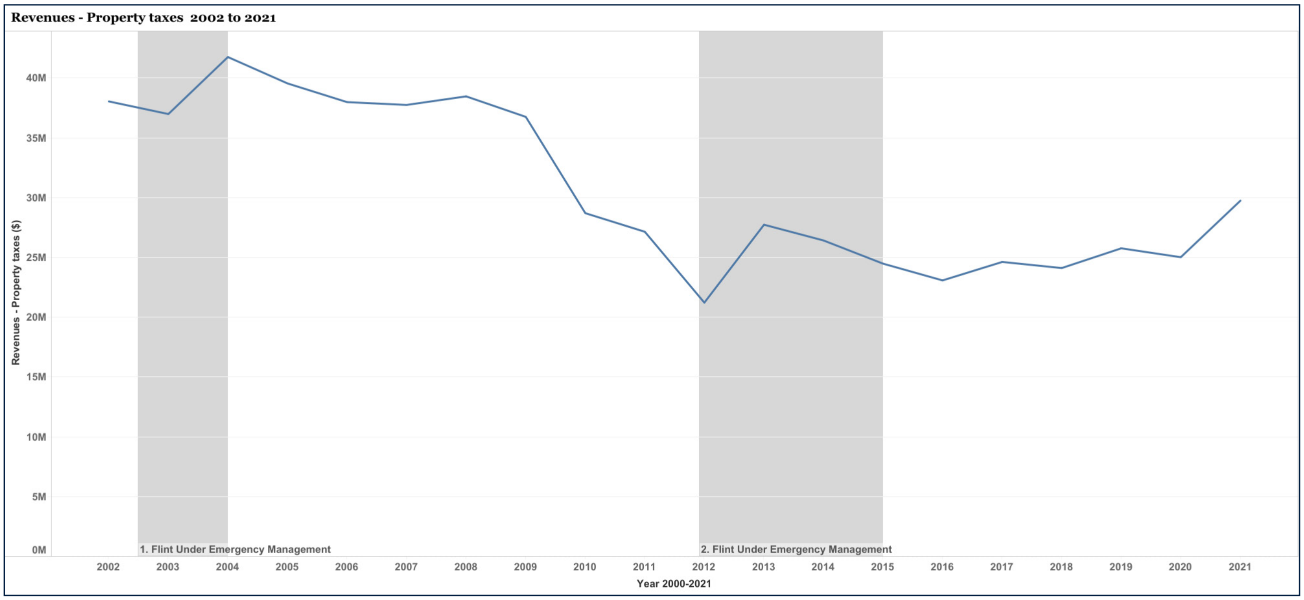
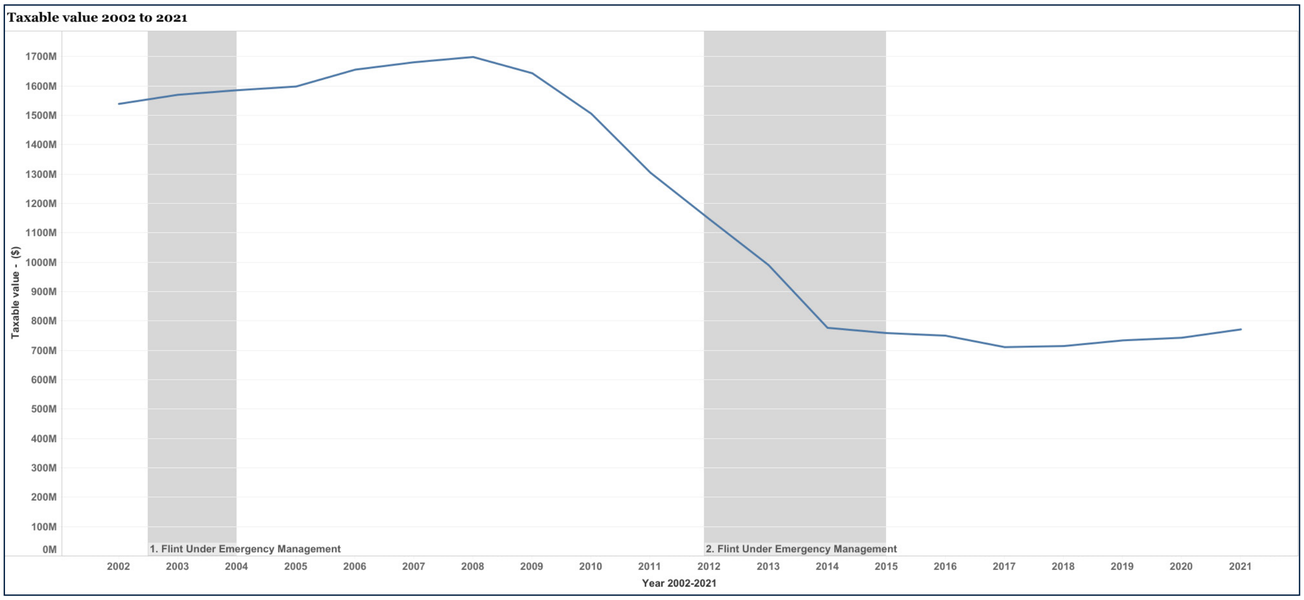


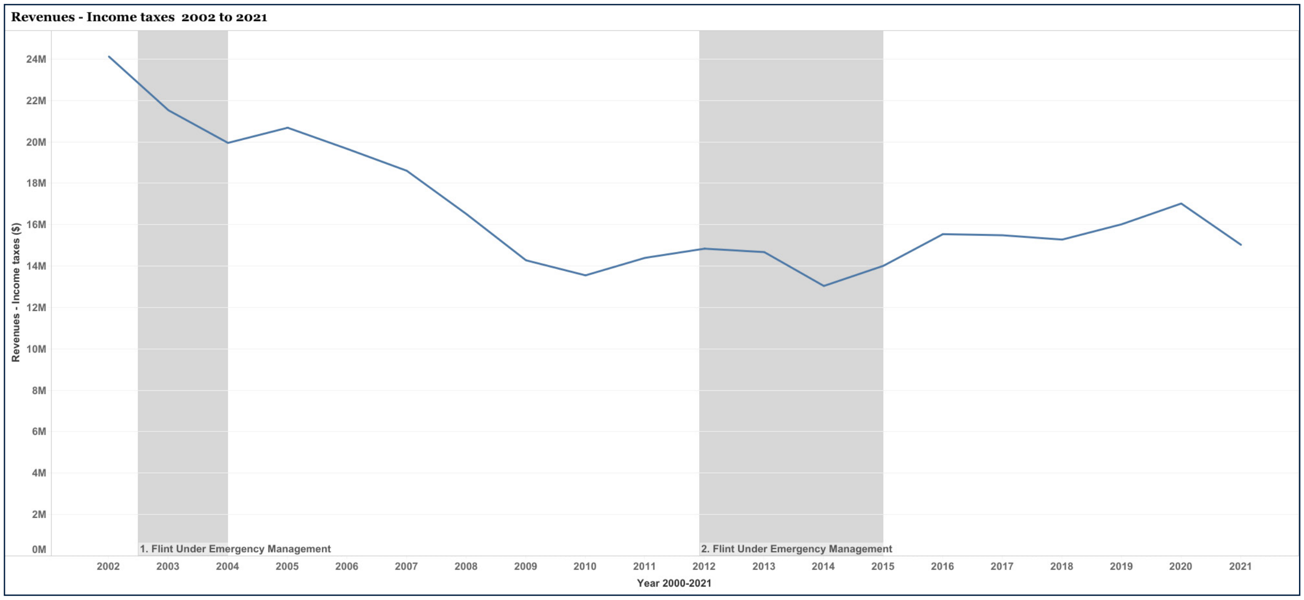
Figure 5
Property values



Despite the industrial decline, in some ways GM is still "Mother Motors." In FY 2011, only about a year after GM filed for bankruptcy, the car company remained the City's top employer if not its top taxpayer. Nearly 20,000 were employed by GM within city limits in FY 2001—22.3 percent of total employment. By FY 2011, the number of employees had shrunk to 14,408, but as a percent of total employment in the City of Flint, GM employment actually increased to 35.4 percent. As of 2020, GM employs about 9,500 employees in Flint, which reflects 15 percent of total employment.

While GM's share of employment has fluctuated, overall employment has been on a steady decline. Between 2002, when there were about 78,500 people working in Flint, and 2019, employment fell by 58 percent. Consequently, income tax revenues declined rapidly, as shown in *Figure 6*. Between FY 2002 and FY 2011, income tax revenues fell from $24.1 million to $14.4 million, a decline of 40.3 percent. Since FY11, income tax revenues have hovered near $15 million a year, about 15 percent of total revenues.

Figure 6
Income tax revenues



If GM is "Mother Motors," the State has played the complementary paternal role. In FY 2009, state shared revenues were $19.9 million, 18.1 percent of City revenues. (FY 2009 is the first year that state shared revenues are broken out and distinct from other unrestricted aid). Unlike cities and towns in other states, localities in Michigan cannot collect sales tax. Instead a 6 percent sales tax is levied statewide—a portion of which is distributed by the State to counties and municipalities. Of the shared revenues, the amount distributed is based on the State Constitution (30 percent) and statute (70 percent). Consequently, when the State has had financial trouble, the statutory portion of payments to counties and municipalities has been adjusted downward so that the State may retain more of the monies to shore up its own finances. This occurred amidst the Great Recession. In Flint, as with other sources of revenues, state shared revenues have also decreased, but less dramatically than other sources. Of the $110.4 million in total revenue collected by the City in FY 2021, $16.9 million or 15.3 percent was state shared revenue.

Spending pressures

In contrast to revenues, expenditures are much more resistant to reduction in the face of fiscal and economic stress for two primary reasons. First, as Flint's population and economic fortunes declined, the residents who remained in the City were generally lower-income and in greater need of public services, especially as job opportunities diminished. As a result, there continues to be significant political pressure to maintain services and protect vulnerable residents, even as revenues decline.

Despite cuts during the two receivership periods, there has been a tendency for spending to rise on both an absolute and per capita basis, as shown in *Figures 7, 8,* and *9*.

Figure 7
General Fund expenditures

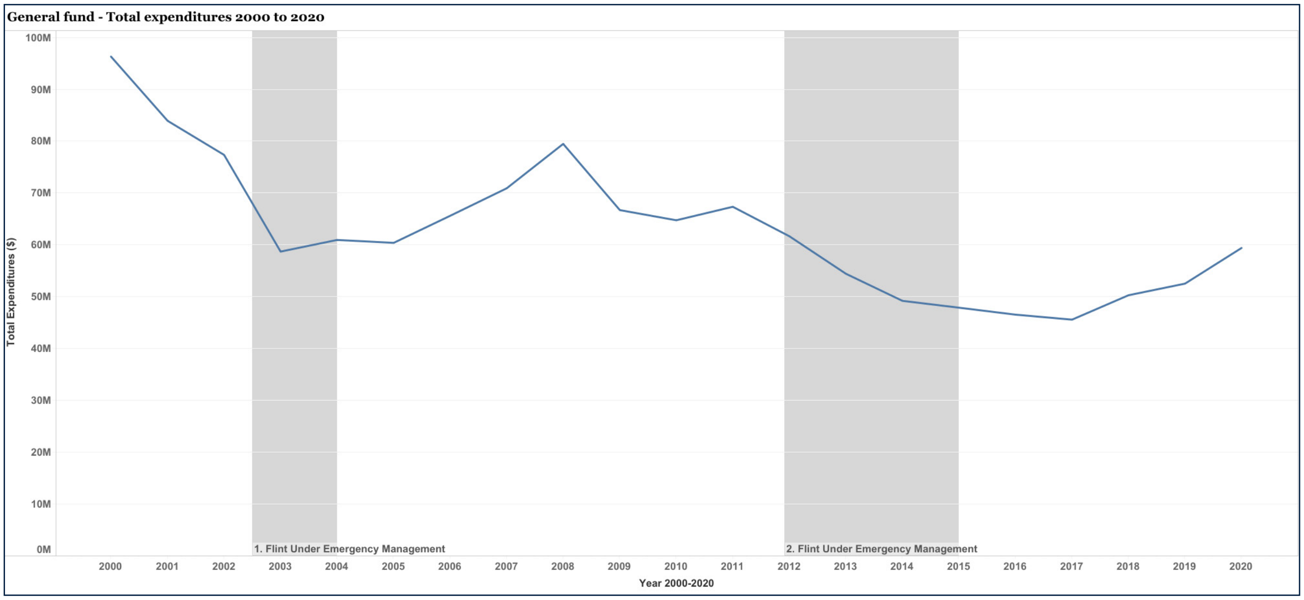


Figure 8
Total governmental activities expenses

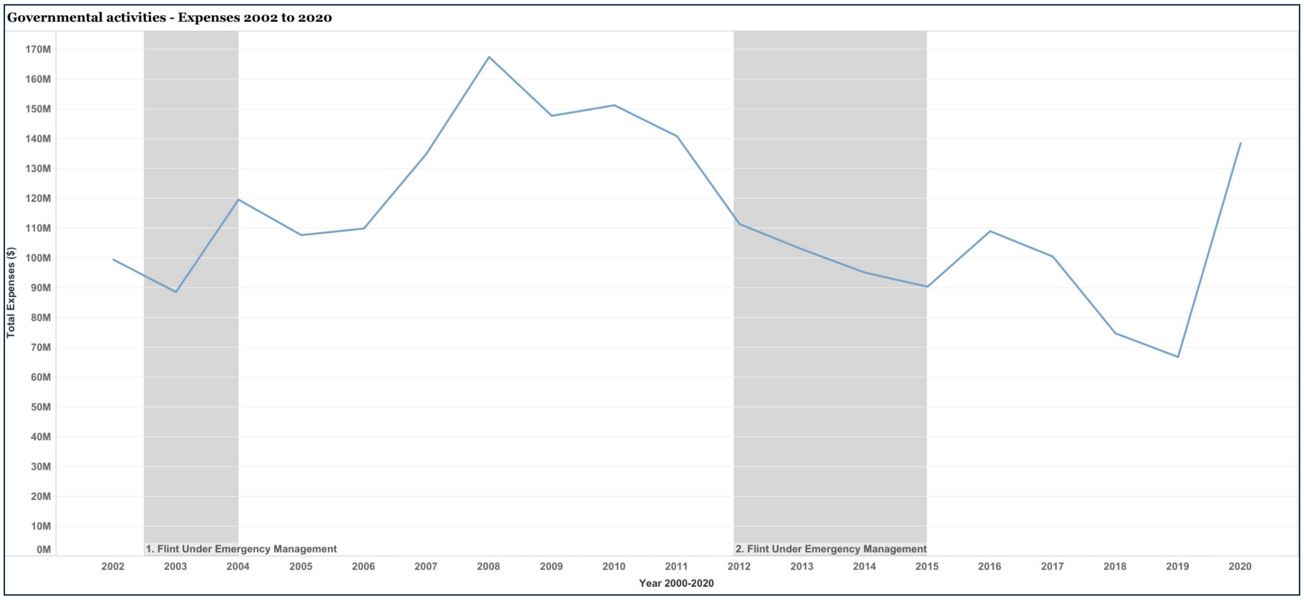
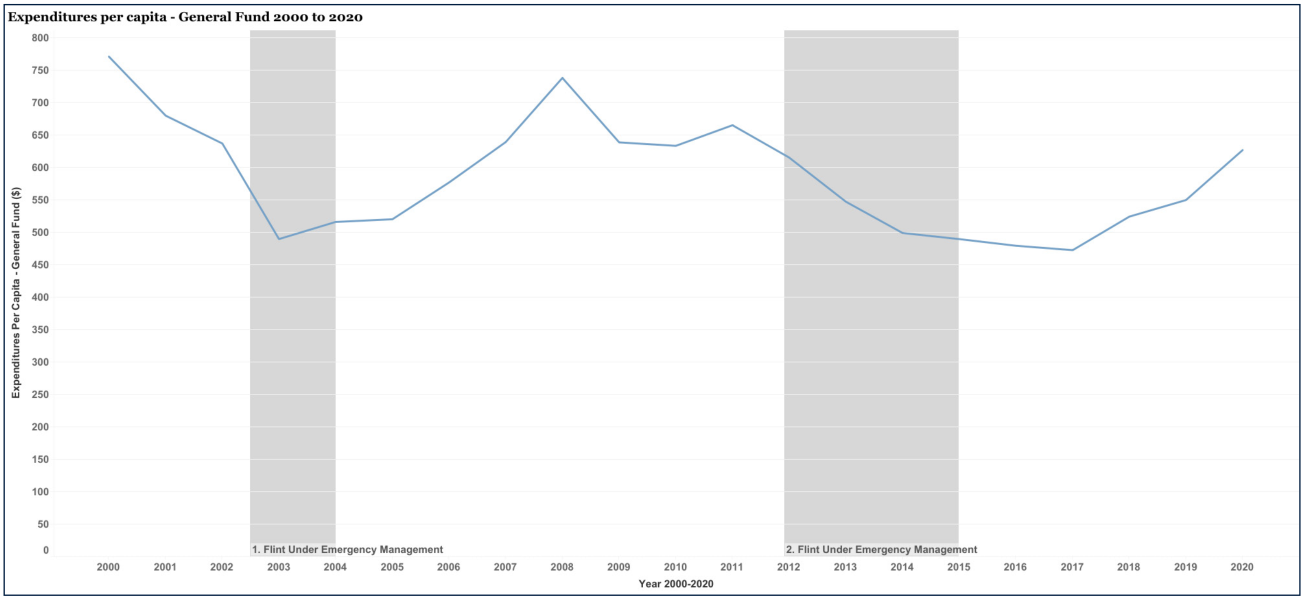
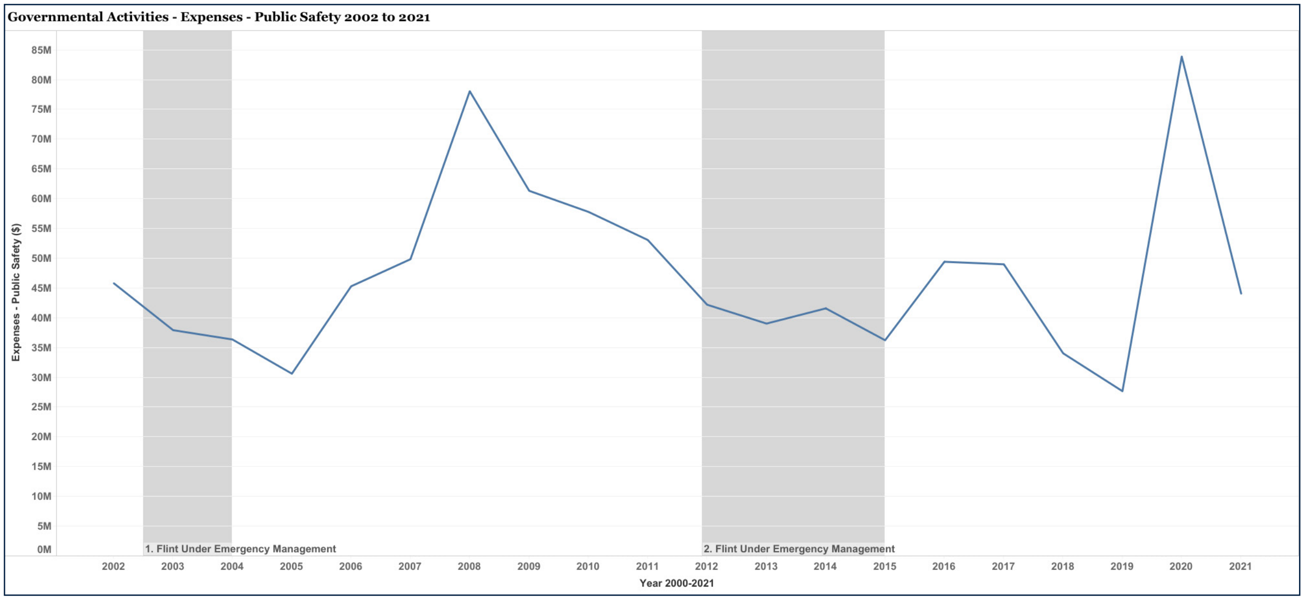


Figure 9
General Fund expenditures per capita



This pressure to maintain spending is particularly evident in the area of public safety. The City's economic decline left it with the same dire statistics on poverty and crime as other cities like Gary, Indiana or Newark, New Jersey. Charlie LeDuff, a local journalist, wrote a feature for the *New York Times* in 2011 called "Riding Along With Cops in Murdertown, U.S.A."[28] (Flint recorded 52 murders in 2011.) In FY 2003, there were 241 uniformed employees in the Police Department. In FY 2011, there were 132 left. The "Murdertown" article said police in Flint were "outmanned, outgunned and flat broke." But if there was anywhere the City of Flint invested what resources it did have it was in public safety, as illustrated in *Figure 10*. In FY 2011, public safety spending (inclusive of fire and EMS) was 37.7 percent of total governmental spending and that proportion has been trending upward, with public safety comprising 47.2 percent of total governmental spending in FY 2021.

Figure 10
Public safety expenditures



In 2012, Flint voters approved a six mill levy dedicated to public safety, and an accompanying ordinance specifies that police and fire spending must comprise at least 55.5 percent of General Fund spending. This measure was renewed by voters in 2016 and 2021 as crime continued to be a top concern.[29] While this measure demonstrates the community's concern for public safety, it further constrains the already limited resources and leaves little room for other priorities. What's worse, crime still bedevils the City. There were 67 murders in 2021. There were 118 uniformed police officers, down from the 132 reported in FY 2011, and further down from the 241 reported in FY 2003.

Infrastructure

The other major reason that expenditures are resistant to reduction is that a shrinking city must cover costs left over from when the City was bigger. Flint's infrastructure was designed to serve a population over twice its current size, and now the costs of maintaining that infrastructure are spread over a much smaller base.

For example, the City is responsible for 508 miles of city streets, 986 miles of sidewalks, over 11,000 streetlights, 5,200 fire hydrants, 540 miles of water mains, and 570 miles of sanitary sewer, plus other fixed assets. None of these numbers have changed in the last twenty years and they all have costs associated with depreciation, repair, and maintenance.

These cost pressures are felt acutely in the water system, leading to increasingly unaffordable user rates for residents. Between 1980 and 2018, Flint's inflation-adjusted user rates increased by 320 percent.[30] In an effort to spare residents confiscatory rates, cities often look for opportunities to cut costs. Often, the choice is to defer maintenance. In Flint, deferred maintenance has led to water main breaks and leaks that have become a hazardous and expensive problem. Flint loses 40 to 60 percent of its potable water to leaks—a typical amount is 10 percent.[31] This drives up user rates further.

> ...although a city is often said to be shrinking, its physical area remains the same. The same number of streets must be policed and repaired, sewers and water lines maintained, and transit systems operated...With fewer taxpayers, revenues are lower, often leading to higher taxes per capita, an overall deterioration of services or both. More people depart, and the downward spiral continues.
>
> "Downsizing Cities" by Witold Rybczynski, The Atlantic 1995[32]

Legacy costs

In addition to infrastructure, other legacy costs for cities include expenses related to non-current liabilities: bonded debt, as well as pension and retiree health care obligations. Unlike some other shrinking cities—Detroit, for example—Flint has historically kept its bonded debts at a manageable level. However, like many cities, Flint has struggled with the burden of unfunded pension and retiree health care liabilities. As with the City's physical plant, a smaller Flint today is paying for the benefits for retirees of yesterday's much bigger city.

In FY 2021, Flint contributed approximately $28.8 million to its pension plan (overseen by the multiemployer system of MERS), or 15.4 percent of citywide revenues (business activities included). Yet the City's pension plan is only 28.5 percent funded, far below what is widely considered sustainable (*Figure 11*). In other words, the City has only set aside $155.9 million for promises made to employees to provide them with post-retirement income, promises valued at $547.3 million.

In the early 2000s, Flint's pension plan was fully funded. The assets set aside in its pension fund matched or exceeded projected liabilities. However, in the later half of the decade, Flint failed to contribute its full "actuarially determined contribution" (*Figure 12*) the estimated amount required to maintain the solvency of its pension fund, in FY 2006 to FY 2008, which contributed to an increase in the plan's unfunded liability.

Figure 11
Pension funded ratio

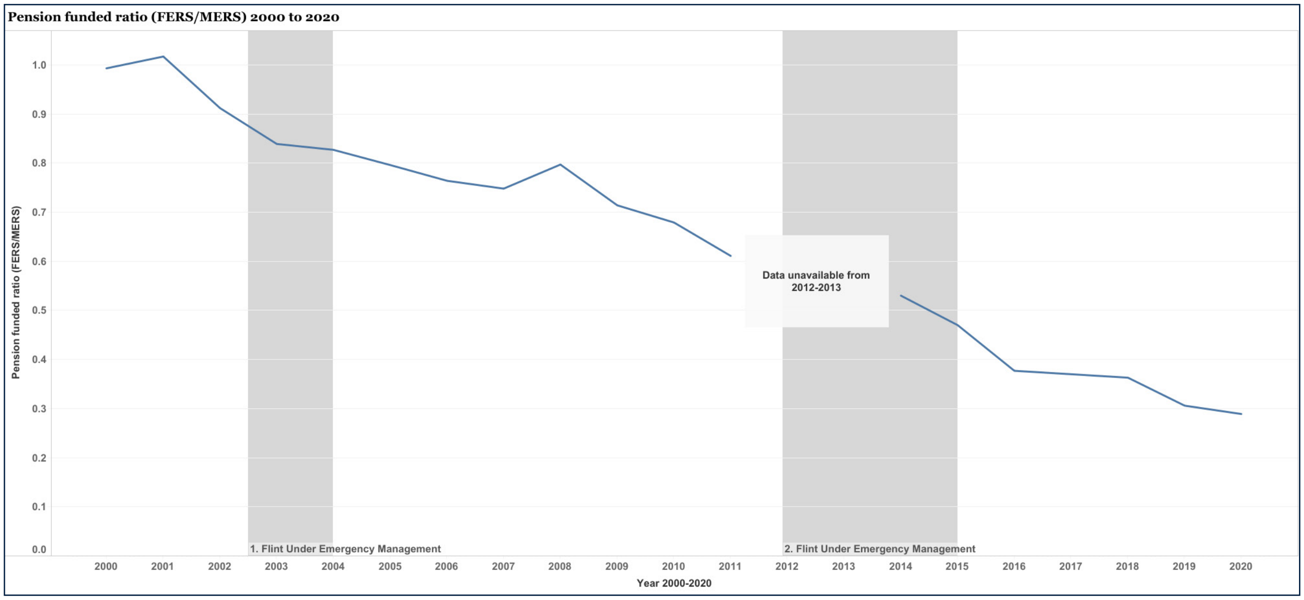
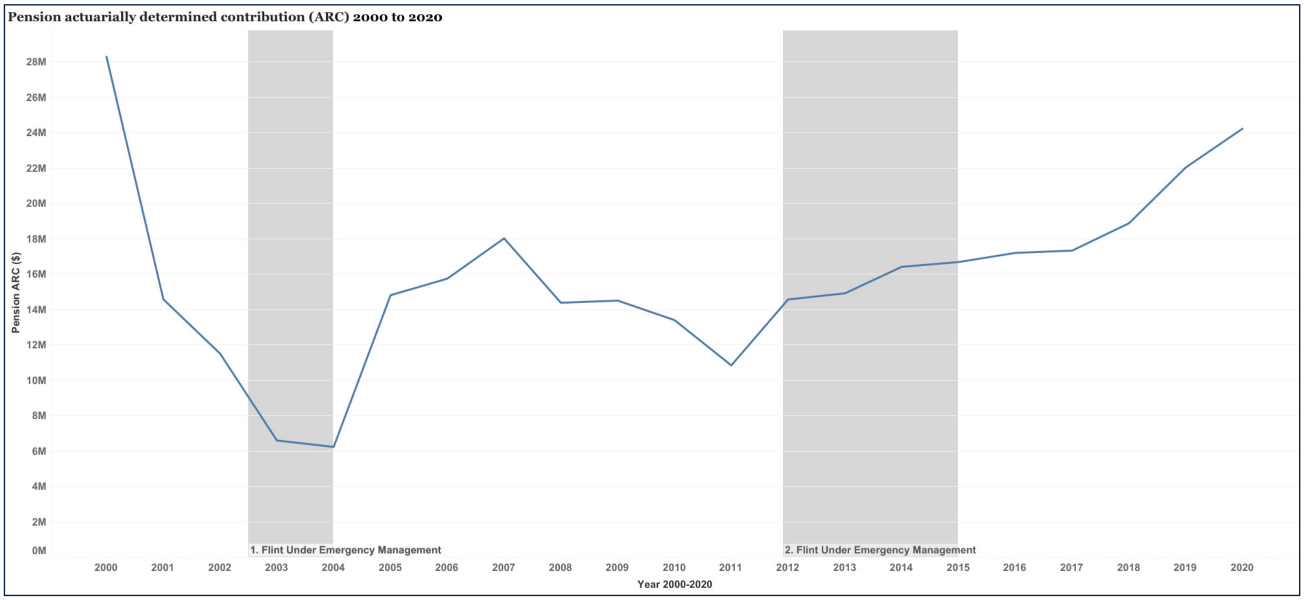
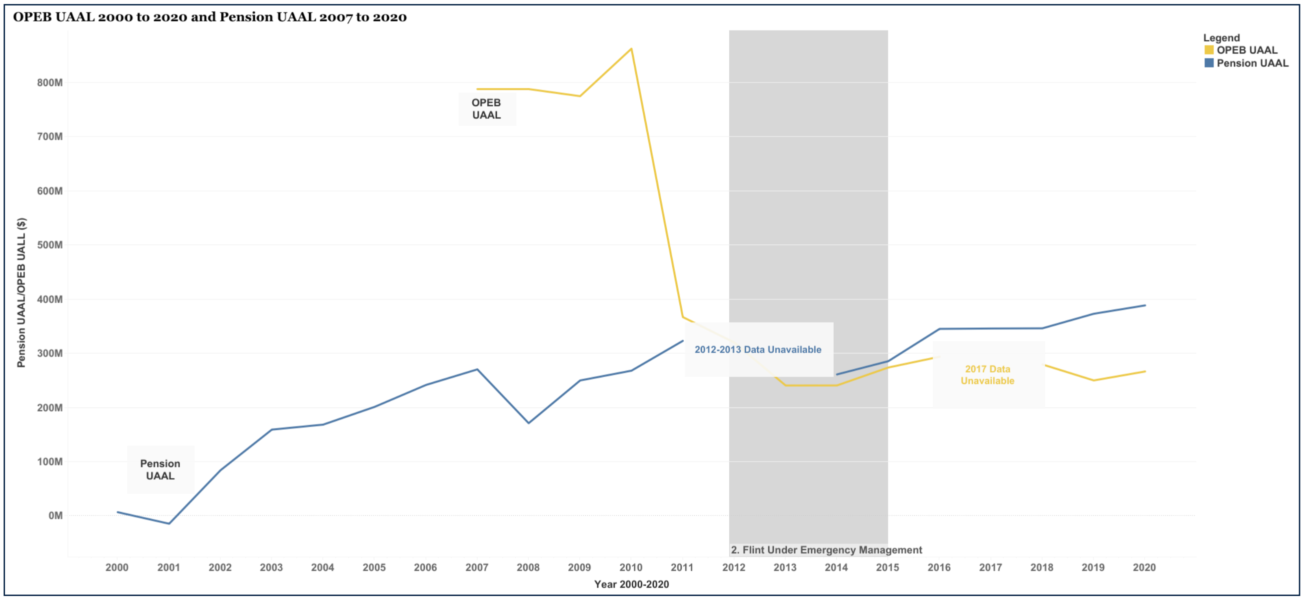


Figure 12
Pension Actuarially Determined Contribution (ARC)



In addition to pensions, the City also has substantial liabilities associated with its other post-employment benefits (OPEBs), which are primarily for retiree health care. Unlike the pension plan, the City follows a pay-as-you-go policy and does not fund OPEB benefits ahead of time. In FY 2021, Flint paid $11.6 million in benefits under the plan, and its unfunded OPEB liability is estimated at $196.0 million, as illustrated in *Figure 13*.

Figure 13
Pension UAAL + OPEB UAAL



As a result of these legacy costs related to unfunded liabilities and debt, Flint's annual budget process is highly constrained, consuming significant resources to pay for decisions of the past rather than focusing on the needs of current and future residents. For example, in FY 2020, the City paid a combined $45.0 million on debt and pensions. The sum equates to 24.1 percent of the $187.1 million in revenue the City collected (business activities included). In other words, almost a quarter of the City's resources are not available for current operations, services to citizens, or public investment.

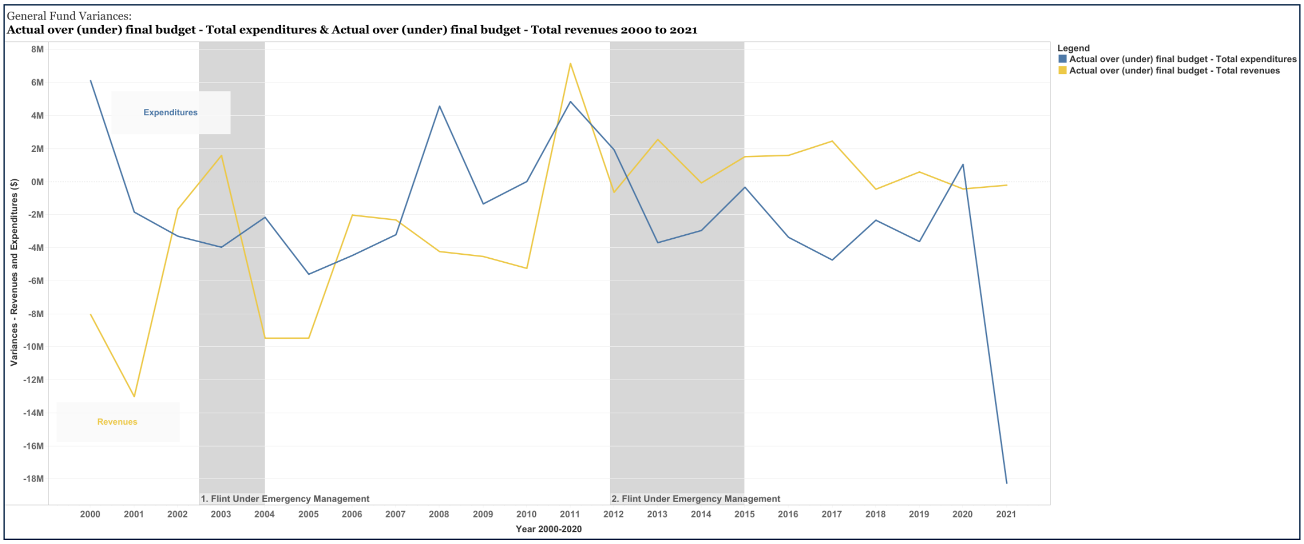
General Fund budget variances

Another way to examine revenues and expenditures is to track budget variances, forecasting errors where there are differences between budgeted and actual revenues and expenditures. Variances can happen for a variety of reasons, both anticipated and unanticipated. One recent example is that in FY 2021, actual expenditures were $18.2 million below budget, mainly attributable to reductions in police and fire activities as a result of the COVID-19 pandemic.

Revenues and expenditures can be difficult to predict in an environment of shrinking budgets and a shrinking economy. For example, because such a large portion of local government budgets reflects salaries and wages, staffing difficulties with turnover and recruitment can make expenditures difficult to predict. In addition, officials consumed with short-term problems like ensuring adequate cash flow may simply not have the bandwidth to focus on more proactive long-term planning. However, serially large variances can often be indicative of poor budgeting practices or a contentious political environment.

Figure 14 shows General Fund revenue and expenditure variances. For revenues, positive (negative) amounts illustrate that revenues came in above (below) budget projections. Prior to FY 2011, the City was consistently overestimating revenues, a problem noted in the State's 2011 review that led to the installation of the Emergency Manager. Since then, however, revenue variances have significantly improved, tracking slightly positive, which suggests appropriately conservative forecasting. In addition, as part of a recent revision of its City Charter, Flint is currently setting up a formal Revenue Estimating Committee.

Figure 14
General Fund variances—revenues and expenditures



On the spending side, variances have typically been less problematic than revenues, with most years' expenditures coming in under budget. One exception was FY 2008, when expenditures exceeded the budgeted amount by $4.6 million as a result of new contracts with police and fire unions. Also in FY 2008, the ACFR notes that there was a dispute with the City Council over whether the budget was properly adopted.

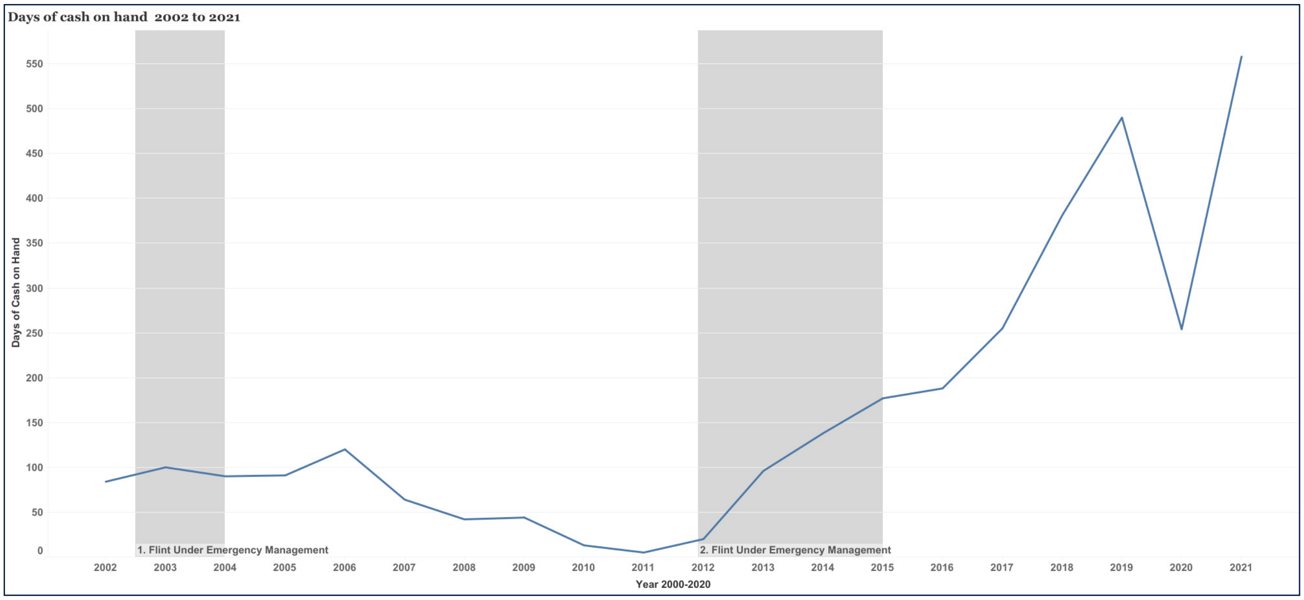
Liquidity challenges

Another important aspect of financial condition is liquidity, or put simply: cash. Does the entity in question have the cash needed to pay workers, service debt, purchase property, plant, and equipment, etc.? At issue is this: can the City of Flint pay its bills as they become due—could it always? In finance, this question captures the concept of liquidity. Ongoing misalignment between revenues and expenditures, as Flint has experienced, can create problems for maintaining adequate liquidity.

To measure liquidity a handful of metrics may be used, such as the ratio of current assets to current liabilities (current ratio) or days of cash on hand. The latter metric contemplates a scenario where the world stops and not another dollar of revenue is collected. If that happened, how many days could the City of Flint continue to operate? For how many days could it collect trash, police the streets, put out fires, or offer other essential services to citizens?

A typical rule of thumb is to keep at least 90 days of cash. In FY 2011, the City of Flint had $1.9 million in cash on hand: five days' worth. Since FY 2011, the City has slowly accumulated reserves, and, with additional help from federal pandemic aid in FY 2021 it had 558 days' worth of cash on hand, as shown in *Figure 15*.

Figure 15
Days of cash on hand



General Fund deficits and fund balance

Declining revenues combined with resistance to or difficulty in cutting spending inevitably lead to deficits and difficulties with declining fund balances (or net assets). Because the General Fund is the primary account for most governmental functions, these difficulties are often focused on the General Fund. One strategy to dealing with a structural deficit in the General Fund is to simply cut spending or find additional revenue sources. However, State law tightly restricts Michigan local governments' autonomy to raise revenue, and Flint's residents already pay some of the highest taxes and fees in the state. And when a majority of expenditures reflect legacy costs or services that the community deems essential, budget cuts are a politically difficult option.

As an alternative, cities often look for ways to tap into sources of reserves. However, these strategies are risky. A city may be able to tap into reserves on a temporary basis to get through a difficult period, but it is not a sustainable strategy. Between FY 2000 and FY 2020, the city's General Fund ran a deficit eight times, as shown in *Figure 16*. In part, the efforts of emergency managers to bring the budget into balance can be discerned from the General Fund deficits and surpluses. The City had run General Fund deficits in FY 2000 and FY 2001, and when the Emergency Manager took over in FY 2002, those turned into surpluses that continued through FY 2006, two years after the Emergency Manager's tenure.

However, deficits returned in FY 2007 and remained through the next receivership period that started in FY 2011. By this time, the General Fund annual deficits culminated as an *accumulated* deficit, shown in *Figure 17*. In other words, the balance of the General Fund (i.e., fund equity—short-term assets minus short-term liabilities—the public sector equivalent of net worth) was $7.3 million in the red by FY 2011.

Figure 16

General Fund net changes in fund balance

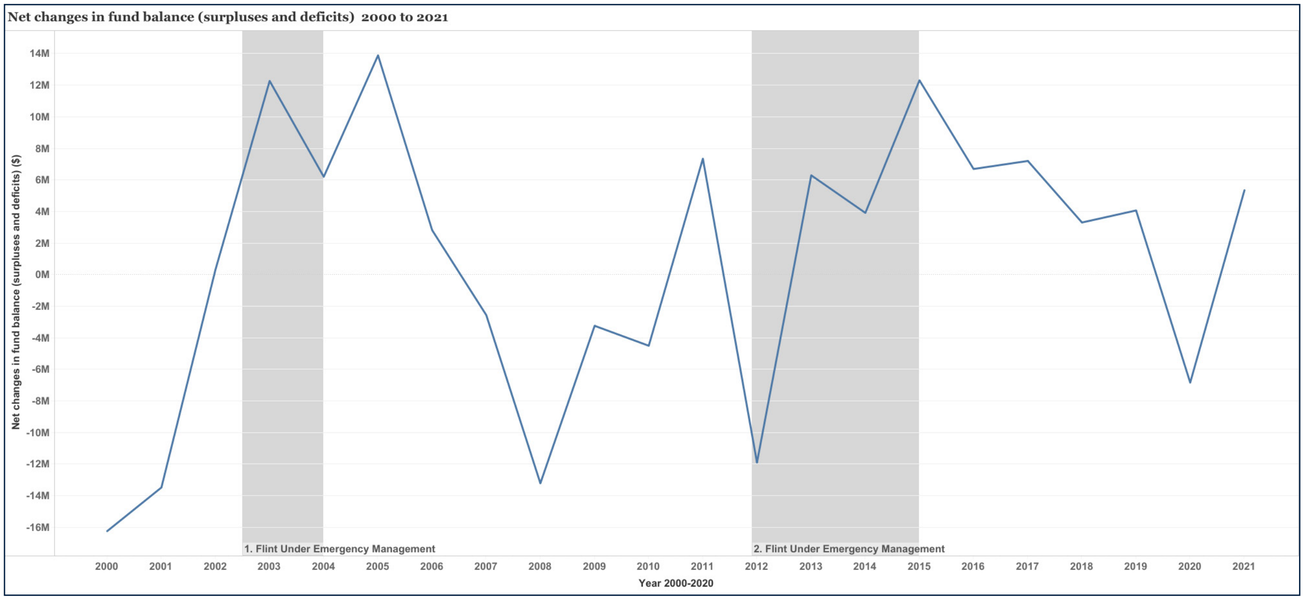
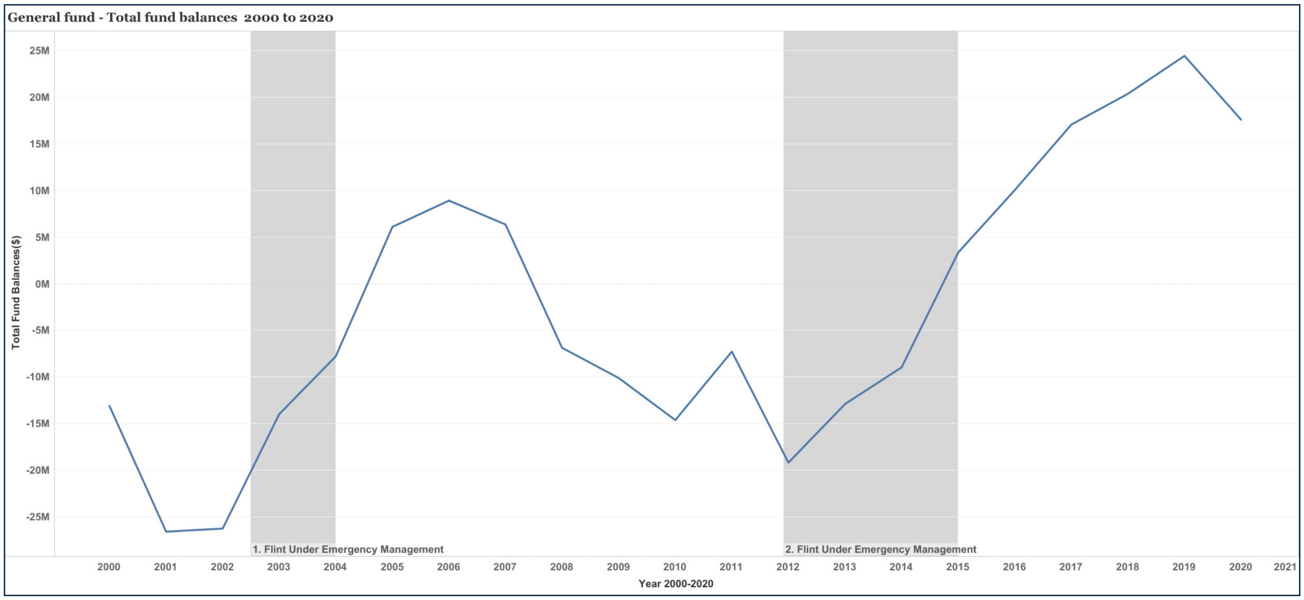


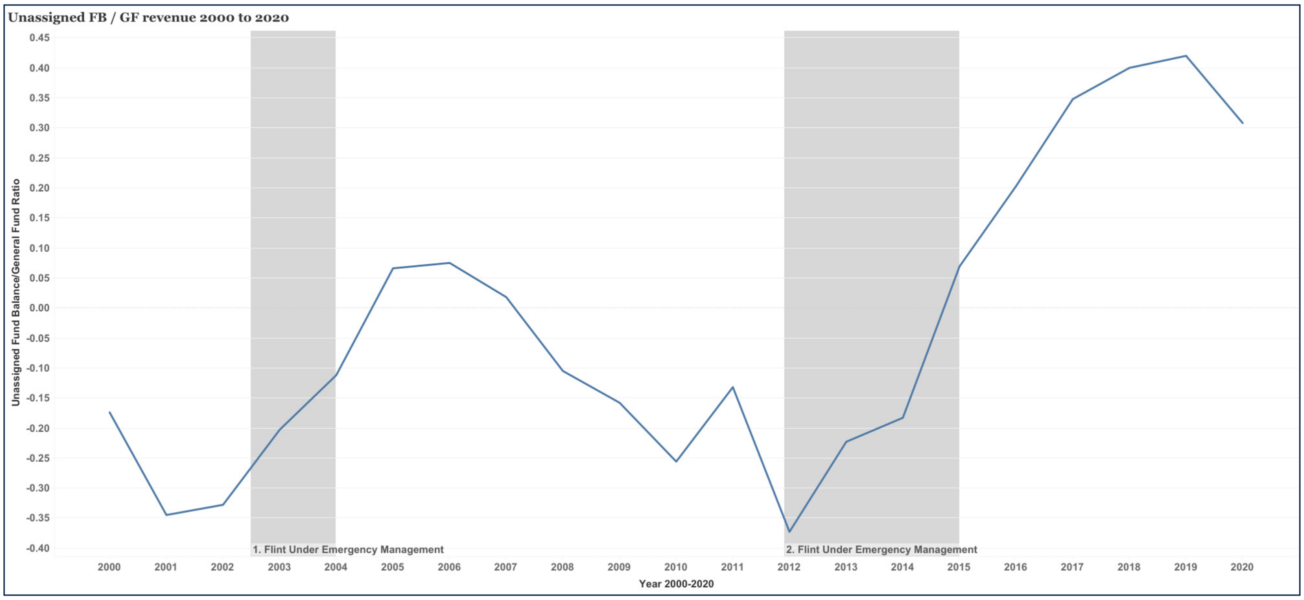
Figure 17

General Fund total fund balance



Since FY 2012, the General Fund has only had one annual deficit in FY 2020, a result of the COVID-19 pandemic. Flint's General Fund balance has been slowly growing and it moved back into positive territory in FY 2015. Many cities follow policies to maintain General Fund balances of at least 15 to 20 percent of revenues, and Flint has achieved this target since FY 2016 (*Figure 18*).

Figure 18
Unassigned fund balance/General Fund revenue



Emergency loans and interfund borrowing

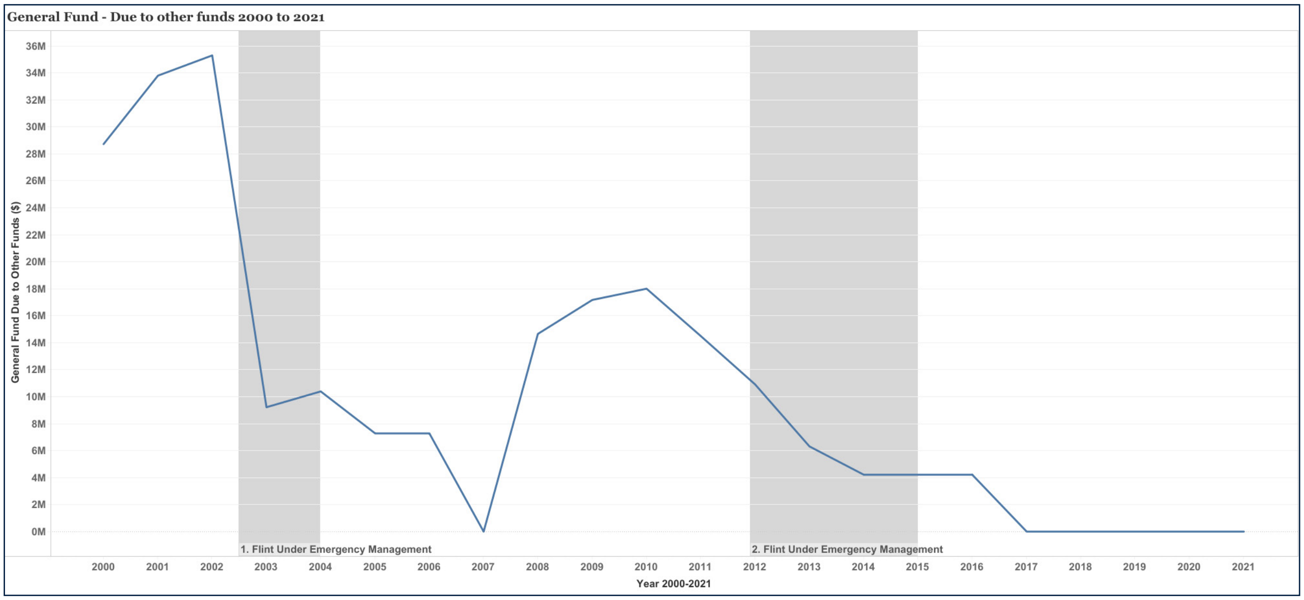
While Flint's growing reserves may be seen as a promising sign that Flint is regaining a structural balance between General Fund revenues and spending, part of what has buoyed its fund balance over time has been borrowing—both externally and internally. In FY 2005, when Flint's first receivership ended, the City issued $8 million in fiscal recovery bonds that would mature in FY 2010. This one-time cash infusion provided a temporary boost to the General Fund, but Flint's fund balance fell below zero again by FY 2008.

As Flint exited receivership again in FY 2015, it borrowed another $7 million in an emergency loan from the State. The debt matures in 2030 and as of FY 2021, the City still owes $4.47 million.

In addition to this external borrowing to cover shortfalls in the General Fund, the City has routinely engaged in interfund borrowing and cash advances—mainly from the Water Supply Division Fund (Water Fund) and Sewage Disposal Division Fund (Sewage Fund)—to support the General Fund. In FY 2003 and again in FY 2012—both under Emergency Managers—the Sewage Fund provided a long-term cash advance to the General Fund. In FY 2003, the advance was $14 million, and in FY 2012, the advance was $11 million. In addition, the General Fund has required short-term cash advances to maintain liquidity several times during this period.

Between FY 2009 and FY 2011, the City transferred a cumulative $9 million out of the Water Fund and Sewage Fund into the General Fund. The City's accounts for street repair were similarly raided. In FY 2011, the General Fund liability "Due to Other Funds" totaled $14.5 million, 79 percent of the fund's liabilities. Since then, the City has curtailed the use of interfund borrowing and from FY 2016 onward, ACFRs show a "Due to Other Funds" balance of zero, as shown in *Figure 19*.

Figure 19
General Fund due to other funds



Solvency of Water and Sewage Funds

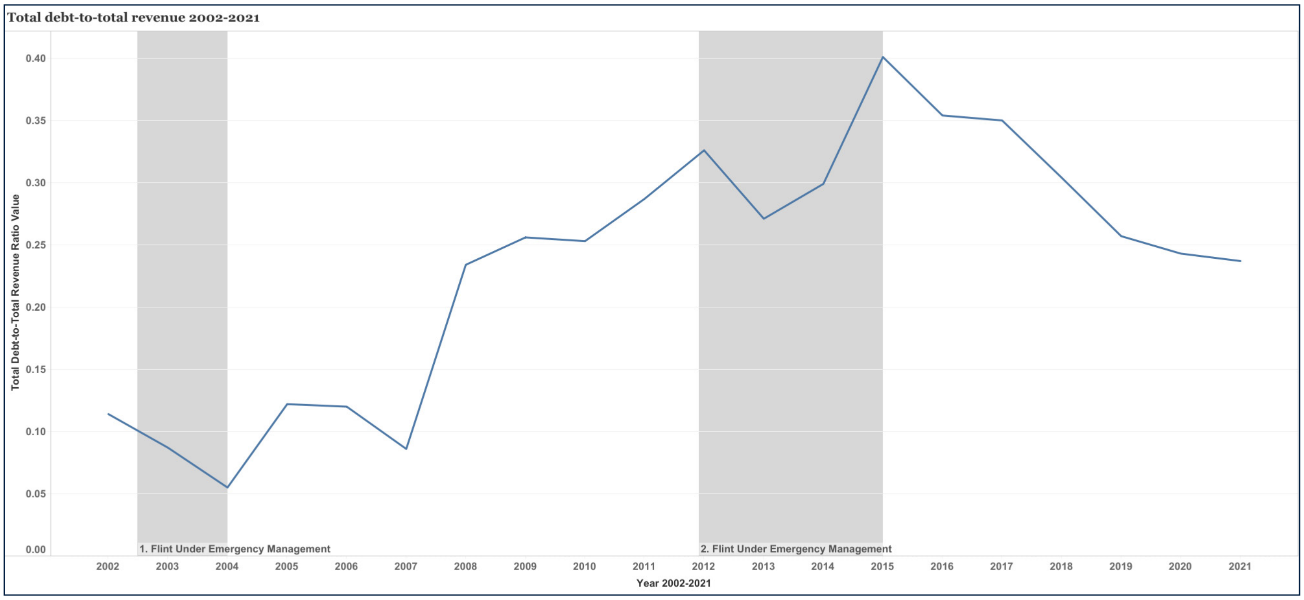
The General Fund's reliance on the Water and Sewage Funds for cash created problems for their own solvency. Both funds subsidized the General Fund in years where tax revenues were inadequate, but neither fund was positioned to do so. In fact, there were years in which transfers left the Water Fund with a cash balance of less than $1 million and the Sewage Fund with $0 (FY 2010 and FY 2011). Between FY 2008 and FY 2011, both the Water and Sewage Funds' activities resulted in a net decrease in cash flow.

As a result, the Water and Sewage Funds, meant to be handled like a business, where ratepayers pay the expense to provide potable water and sewer disposal, instead operated at a net loss. (The Water Fund incurred losses in FY's 2000, 2001, 2003, 2004, 2009, 2010, and 2011 and the Sewage Fund in FY's 2001, 2004, 2006, 2007, 2008, 2009, FY 2010, and FY 2011). Since FY 2013, however, the City is gradually building up its net position in its enterprise funds.

Debt burden and long-term solvency

Ordinarily, cities and towns borrow only for capital projects—the acquisition and or development of property, equipment, and infrastructure—that create valuable assets for the City's residents. The City of Flint, however, also borrowed to cover deficits. Between FY 2002 and FY 2011, the City's indebtedness more than doubled: from $12.2 million to $31.6 million. In FY 2002, the City's debt-to-revenue ratio amounted to 11.4 percent—put differently for every dollar the City collected in revenue, the City had 11 cents in debt. As *Figure 20* illustrates, debt-to-revenue declined to 5.5 percent by FY 2004, during Flint's first receivership, but continued to rise afterward with the emergency loan from the State. By FY 2011, it was up to 28.7 percent of revenues. Likewise, the interest expense—the cost of debt—doubled. In FY 2002, the city spent less than a percent on interest expense. Interest expense increased to 1 percent of revenues in FY 2011.

Figure 20
Debt-to-revenue ratio



Indebtedness followed a similar pattern between FY 2011 and FY 2015, the City's second receivership. By FY 2015, emergency managers left the City with a debt-to-revenue ratio of 40.1 percent—40 cents in debt for every dollar in revenue—the highest value during the twenty-two years studied.

Despite this rising indebtedness, Flint had no new assets to show for its debt burden. A substantial part of its debt burden was not representative of public investment. Of the $31.6 million in debts that the City had accrued by FY 2011, a quarter or $8 million was representative of non-investment debt. In FY 2015, non-investment debt comprised 41.7 percent of the City's $34.6 million in debt.

Carrying debt related to past deficits limits Flint's capacity to take on debt for capital improvement projects. Flint has struggled to invest in infrastructure and capital equipment to improve service delivery. While the city has reduced its capital assets associated with the number of police mini-stations, patrol units, and emergency response vehicles, the majority of its capital asset inventory has not changed over the past 20 years. As mentioned above, the City is still responsible for 508 miles of city streets, 540 miles of water mains, 570 miles of sanitary sewer, and 1,092 acres of parks, along with other capital assets.

The change in the value of infrastructure and other capital assets is illustrated in *Figures 21* and *22*. The value of governmental capital assets has been steadily falling since FY 2008. While some of this reduction may reflect planned reductions in capital assets (e.g. reducing the number of patrol units), it also suggests that the City has struggled to invest in its capital assets to keep up with depreciation. The value of enterprise (water and sewer) capital assets was essentially flat through FY 2018, when federal and state aid associated with the water crisis began to come in.

Figure 21
Governmental capital asset ending net value—2004 to present

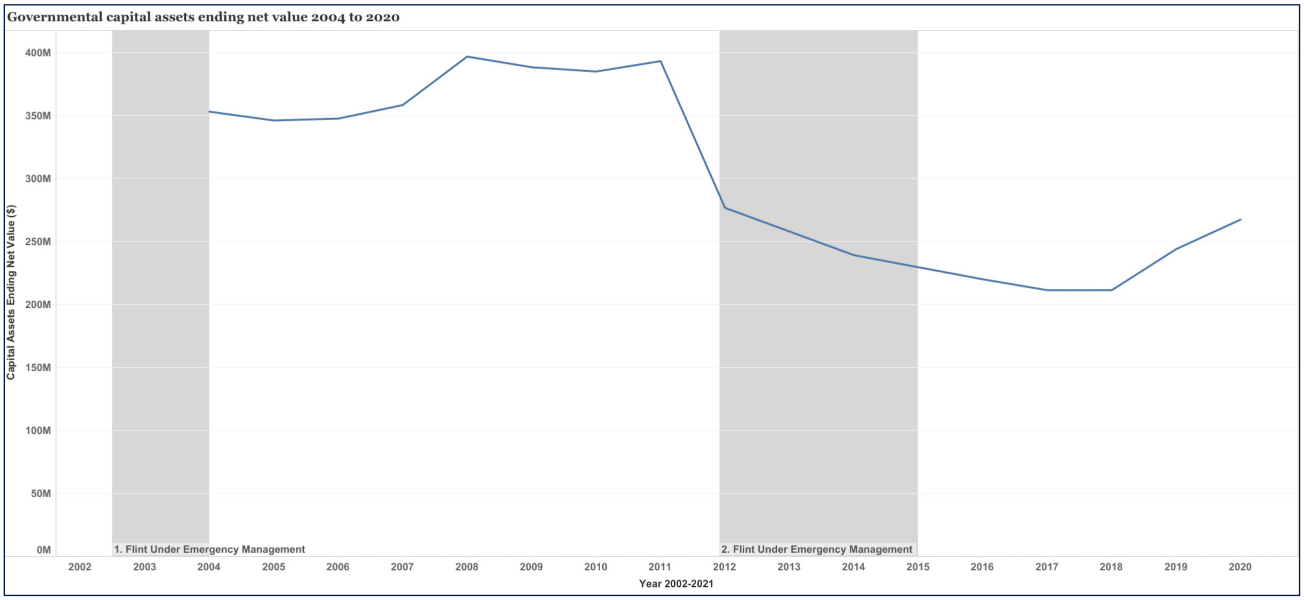
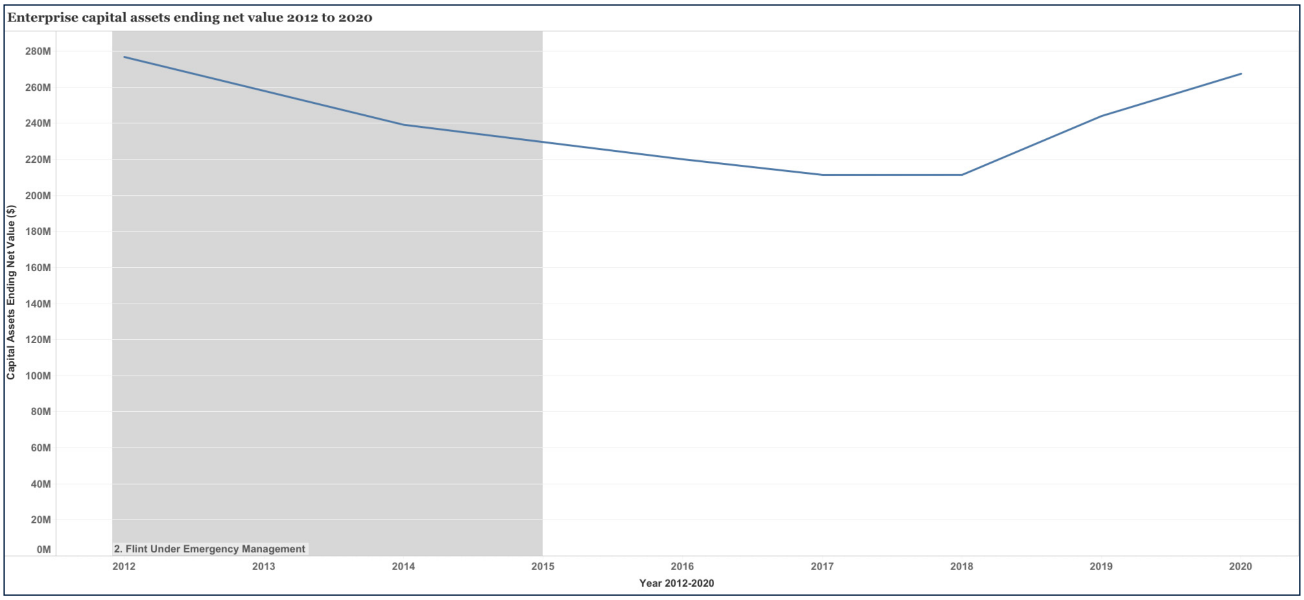


Figure 22
Enterprise capital asset ending net value—2012 to present



In the long-term, Flint's economic development and solvency will depend on its ability to maintain and improve its capital assets so that it can deliver services the community depends on.

Detecting Early Warning Signals

Facing local fiscal distress, many states have programs in place to monitor local financial conditions so that they can provide assistance or, in some cases, intervene in the form of state takeover. However, the signs that states watch for as warnings for fiscal distress vary widely.

For example, Michigan's financial monitoring system, designed in 2002 and put in place in 2006, was based mainly on financial condition indicators including population trends, changes in property tax value, General Fund spending as a percentage of property tax value, budget deficits in current and prior years, and long-term debt as a percentage of property tax value. State officials analyzed these indicators and assigned points to determine whether a municipality is fiscally neutral, under fiscal watch, or in fiscal stress. The system was later updated to include more indicators for cash solvency and budgetary solvency.[33]

Public Act 436 of 2012 reformed Michigan's receivership program, focusing on fiscal stress "red flags" such as missing debt payments, default in bond payments, failure to pay employee wages and compensation, failure to file basic financial statements, tax revenue delinquency, and long-term debt rating below the BBB category[34]. Although the system has been through several revisions, state oversight of local government health has largely focused on local finances, including financial indicators drawn from financial statement data and revenue base indicators.

In comparison, the Pennsylvania Early Warning System (EWS) seeks to identify fiscal distress before local municipalities reach crisis. The system is designed to identify the need for early intervention, which includes financial aid and technical assistance from the State.[35] Therefore, it makes sense for Pennsylvania to incorporate a broader set of underlying economic conditions into its monitoring system given its focus on structural deficits that require support from the state.

The EWS examines the financial condition of Pennsylvania municipalities by analyzing annual financial, demographic, and economic data for each local government unit[36]. As shown in the table below, the 15 indicators used for analysis include not only financial condition indicators but also external environmental factors. These factors capture local economic robustness, and local demands for service, as measured by educational attainment, housing vacancy, housing value, median household income, poverty rate, and unemployment rate.

For each municipality, each indicator is compared against a benchmark value. The municipality receives a certain number of points if the value for an indicator fails to meet the benchmark. The benchmark is established based on professional standard or median values among all municipalities. The higher the points, the more severe fiscal warning it indicates. The points for all 15 indicators total 100; if an indicator is weighed more importantly, more points are assigned to the indicator.[37]

The table below uses statewide data from Michigan in 2017 to show the score Flint would have received if Michigan had implemented the Pennsylvania early warning system. Here, the benchmark is set by median values across all cities in Michigan, except for fund balance as a proportion of total revenue, which is set at 16.7 percent as recommended by GFOA; the ratio between General Fund expenditure and revenue, which is set at 1.02 so that the deficit is capped at 2 percent of General Fund revenue; and the pension factor, which is set at 40 percent, a trigger to be deemed underfunded under Michigan PA 202.

Unsurprisingly, Flint receives points for debt burden, lack of liquidity, and underfunded pensions, but for the four other financial indicators, Flint does not receive points. However, turning to the demographic and economic indicators, Flint's fiscal stress becomes much more clear, with the City receiving points in each area but one, including poverty, unemployment, low income, low housing value, and high home vacancy.

Detecting Flint's fiscal distress with Pennsylvania's early warning system

	Benchmark	Direction[1]	Points[2]	Indicator for Flint	Flint Score
Financial					
General fund equity/total revenue	0.167	Descending	8	0.35	0
General fund equity/total assets	0.13	Descending	7	0.82	0
General fund expenditures/total revenues	1.02	Ascending	9	0.93	0
Governmentwide total outstanding LT debt/ total revenue	0.22	Ascending	7	0.34	7
Current Cash/Current Liability	5.84	Descending	8	4.85	8
General fund public safety expenditures/total revenue	0.17	Ascending	7	0.06	0
Pension funded ratio	60	Descending	6	37	6
Demographic & Economic					
% of population 65+ years old	15.4	Ascending	4	12.4	0
% families below poverty level	39.18	Ascending	8	64.37	8
% of population over 25 with bachelor's degree+	24.76	Descending	3	14.22	3
Unemployment Rate	3.2	Ascending	8	8.83	8
Median household income	43787	Descending	6	26330	6
Median housing values	95500	Descending	7	28200	7
% of housing units vacant	9.16	Ascending	7	26.17	7
% of housing units owner-occupied	63.64	Descending	5	57	5
				Total Score	**65**

1. This signals the direction of the benchmark measure. If the direction is descending, then an indicator value less than the benchmark value signals potential fiscal distress. Likewise, if the direction is ascending, then an indicator value greater than the benchmark value signals potential fiscal

2. If an indicator value surpasses the benchmark value, then the municipality is assigned the number of points.

4. Conclusion

Flush from federal aid from the Coronavirus Aid, Relief, and Economic Security Act of 2020 and American Rescue Plan Act of 2021, the City of Flint ended FY 2021 with $142.8 million in cash on hand: 558 days' worth. Greater revenues—$110.4 million in FY 2021—have helped the City accrue reserves, provide services, and pay down debt. Debt has dropped to $26.2 million from $30.9 million in FY 2012. The debt-to-revenue ratio is 23.7 percent, much below the 32.6 percent measured in FY 2012.

However, the City is in a precarious position. The full aftermath of the water crisis is still unfolding, and it is unclear how much damage has been done to the City's fiscal future. It is also not clear whether the City's population, which fell by 21 percent between the 2010 and 2020 Census estimates, has hit its nadir. The State recently revised its Constitutional revenue sharing estimates to reflect the 2020 Census, and because its population has fallen, Flint will lose $3.45 million it received for FY 2021 and FY 2022 (to be deducted from future payments).[38]

There are positive signs, however. In 2020, victims of the water crisis settled with the State for $600 million,[39] and the City is on track to replace all lead service lines by the end of 2022.[40] Property values are growing steadily, and local philanthropic support and higher education institutions should help provide long-term stability to support economic development. The City has received $94.7 million in American Rescue Plan Act dollars and is currently soliciting citizen input on how to spend it.

But one-time cash infusions related to the water crisis and pandemic are just that, one-time, leaving the City with the same challenges it has been facing for half a century. While replacing lead pipes and repairing the City's water infrastructure are essential, they are fundamentally remedial in nature. In other words, by the time the City fixes things that are wrong, how much will be left over to invest in quality of life improvements for the future?

Despite the efforts of emergency managers, Flint's long-term decline in population and economic conditions requires more than just budget cuts or changes in financial management practices. The long-term health of the City of Flint will continue to depend on the underlying causes of population and economic decline, unreliable state revenue sharing, and state-imposed restrictions on local revenue options. State-level policy should be focused on these underlying drivers. In addition, the state should explore ways to take a holistic and data-driven approach to improve its monitoring of local fiscal distress, including modernizing data reporting and collection efforts. High-quality detailed data are essential to detect signs of stress early, before they lead to crises.

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Appendix. Data and methodology

The purpose of this analysis is to use Flint's financial data to illustrate how the City's financial condition has changed over the past twenty years. Financial condition analysis is an exercise that involves a holistic assessment of several types of financial and economic data. The primary source of data for this report is the City's Annual Comprehensive Financial Reports from FY 2000 through 2021, which include the City's audited financial data as well as demographic and economic data compiled from other sources such as the Bureau of Economic Analysis, the Census Bureau, and the Michigan Department of Treasury.

In the scholarly literature, financial condition is defined as a government's ability to meet financial and service obligations.[41] Financial condition is multidimensional and reflects not only a government's financial management decisions (e.g. budgetary decisions) but external economic and political factors that affect resources or constraints on decision-making.

The concept of financial condition or solvency is often operationalized along four dimensions, which are measured with various financial ratios or indicators. Cash solvency focuses on the very near term–whether a government has sufficient liquidity to meet short-term obligations. An indicator of cash solvency, for example, could be the ratio of General Fund unassigned fund balance to revenue (or expenditures). Budget solvency focuses on the sufficiency of revenues to cover spending during the current budgetary period. Long-term solvency focuses on the government's ability to meet long-term obligations. Service solvency also takes a long-term perspective, but instead of focusing on liabilities, it focuses on the government's ability to maintain high-quality services for its constituents.[42]

Practitioners and scholars have developed dozens of systems and methodologies to diagnose local government financial conditions.[43] Most methodologies focus on a parsimonious set of indicators or aggregate a set of indicators into a single index for purposes of comparative analysis across governments. However, it is widely agreed that there is no "one size fits all" approach, and the context and purpose of the analysis should dictate the choice of data, measures, and methodology.[44]

For this analysis of the City of Flint, we take both quantitative and qualitative approaches. Quantitatively, we have aimed to compile data that allow us to construct most of the indicators used in leading methodologies, capturing all four dimensions of solvency. The data are sufficient, for example, to replicate the indicators in Brown's 10-point test or the State of Michigan indicator system.

We have also compiled additional data and indicators that allow us to draw attention to the more unique aspects of the City of Flint. For example, while many financial condition methodologies would aggregate data across all proprietary funds, we focus on the Water Fund and Sewage Fund separately to highlight the role that these particular funds have played in the City's financial condition.

For the qualitative portion of our analysis, we reviewed each ACFR in full to note important details that are not captured by quantitative data. Qualitative observations include narrative explanations provided in the text, additional details provided in footnotes, and the presence/absence of certain disclosures such as "going concern" notes (present in FY 2000–FY 2003). In addition, we used the detailed qualitative review to inform our choice of quantitative data and indicators to highlight in the report.

The main strength of the use of ACFR data and financial indicators to diagnose financial condition is their objectivity and consistency over time. ACFR data reliability is increased by the audit process, and accounting standards ensure that data are comparable across time and that all "material" facts are included in ACFRs. However, financial data do not usually reveal the rationales behind the numbers and they fail to capture many dimensions of financial condition that are concerning to local officials. For example, while many local officials list deteriorating infrastructure as one of their top financial concerns, data in ACFRs do not directly measure infrastructure conditions, deferred maintenance, or funding needs.[45] Considering these strengths and weaknesses, a systematic review of ACFR data can be helpful in identifying "red flags" that should be investigated further.

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