

SPECIAL COMMENT

Credit Trends: Pennsylvania Local Governments Face Credit Pressure in Weak Recovery

Most will retain ratings but downgrades will outpace upgrades in next 12-18 months

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Summary

Pennsylvania local governments face credit pressure stemming from the weak economic recovery following the Great Recession, with continuing tax base contraction and anemic job growth pressuring financial operations. Vulnerability to economically-sensitive revenues, state aid cuts, and ongoing demand for government services are the main drivers of weaker credit quality. While most Pennsylvania municipalities will continue to maintain stable financial operations, given adequate financial reserves and the unlimited property taxing ability of most local governments, we expect rating downgrades to continue to outpace upgrades over the next year. School districts are most at risk given rapidly rising pension costs, flat state aid projections and a statewide property tax cap, in place since 2006, that applies only to school districts.

There are several pockets of severe credit stress in the state, notably the state capital, Harrisburg, as well as the City of Scranton and a handful of smaller municipalities. Each of these highly stressed local governments has experienced five years of slow growth, rising cost burdens and turbulent capital markets that have contributed to their severely stretched finances, often exacerbated by poor management decisions and high debt burdens.

In contrast to the most distressed cases, the cities of Philadelphia (A2 stable) and Pittsburgh (A1 stable), the commonwealth's two largest cities by population, have shown considerable resilience since the onset of leaner times in 2007. Improved governance and financial management have resulted in sufficient financial reserves despite some draws in recent years. A sizable concentration of employers specializing in healthcare and higher education has partly insulated both cities from the steep rises in unemployment that accompanied the recent recession elsewhere.

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This special comment examines the economic and demographic conditions negatively impacting Pennsylvania local governments, including:

- » A slow economic recovery with weak job growth
- » Demographic challenges from slow-growing, aging population
- » Fiscal pressures at the state level
- » Sizable capital needs for cities and enterprise systems
- » Exposure to debt structure risks related to variable rate debt and derivatives

The report also examines several positive factors that benefit Pennsylvania's local governments:

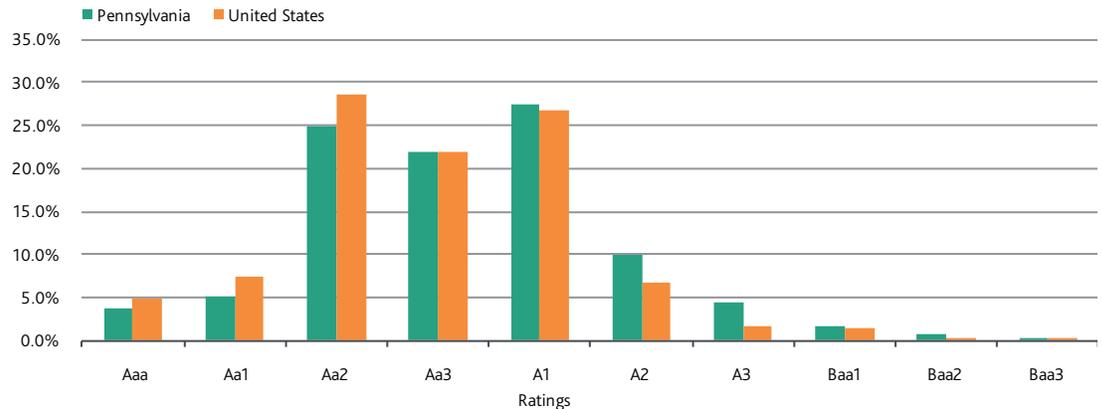
- » Robust health and education sectors have blunted the impact of recession
- » A more subdued run-up in pre-recession housing prices than in many other states
- » Rising natural gas exploration in the Marcellus Shale
- » Property tax limitation restricted to K-12 school districts
- » Reasonably well-funded pensions despite recent funding declines

Overview of Pennsylvania Local Government Ratings

We maintain underlying ratings on 428 Pennsylvania local governments along with 240 enhanced ratings on school districts that are based on three state intercept programs, with a total of \$72.7 billion in rated debt outstanding. As Exhibit 1 shows, the average underlying general obligation rating for municipalities in the state is Aa3, equal to the US nationwide median rating.

The Commonwealth of Pennsylvania's general obligation rating is Aa2, one notch below the average US state rating of Aa1, reflecting weaker-than-historic finances and liquidity, high unfunded pension liabilities and escalating pension expenses. On the other hand, the commonwealth has a broad, diverse and stable economy, and financial governance has been improving. There has been less reliance on non-recurring revenues and the state's strong executive authority to cut or freeze appropriations in mid-year continues to be a strength.

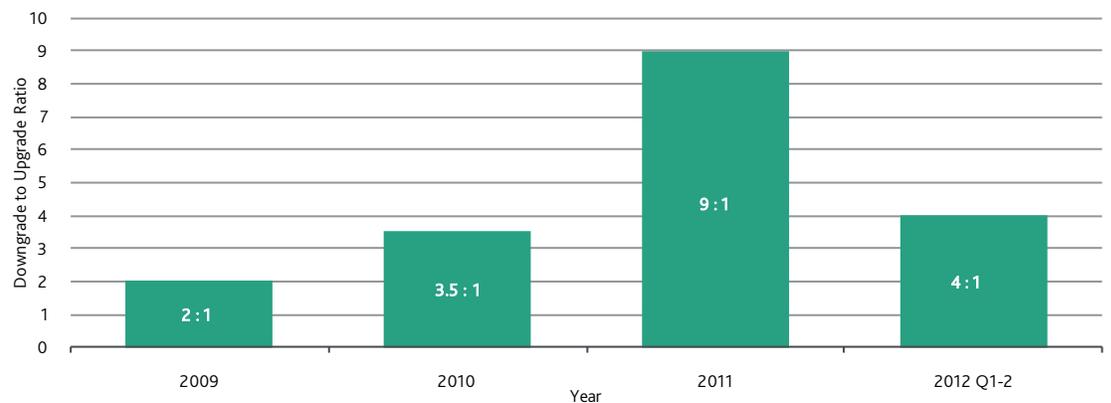
EXHIBIT 1

Pennsylvania Local Govt. GO Ratings Track Closely to U.S. Averages

Source: Moodys.com

The ratio of Pennsylvania local government rating downgrades to upgrades has been trending upward since 2009 (Exhibit 2), widening to 9 times in 2011 from 2 times in 2009 as credit quality deteriorated across the state.

EXHIBIT 2

Downgrades Continue to Outpace Upgrades

Source: Moodys.com

State's Recession Not as Deep as Nation, but Recovery Is Weak

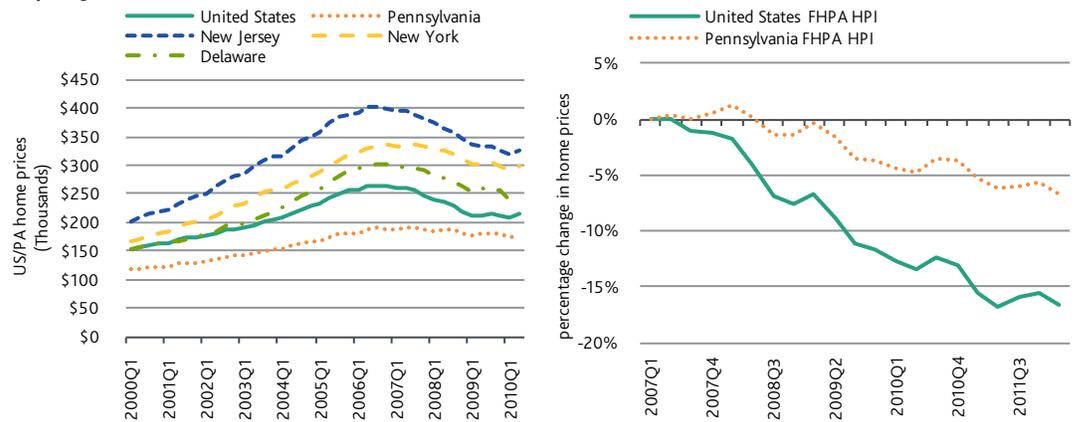
Pennsylvania's economic downturn was less severe than the nation as a whole. Gross state product increased by an average of 0.68% from 2007 to 2011 compared to 0.20% for the US, and the unemployment rate has been consistently lower than the national average.

Several factors explain these differences. The downturn in Pennsylvania's real estate market was muted relative to much of the country, given that the state did not have the same robust growth during the boom. In addition, the economy has been buoyed by significant growth in the healthcare and higher education industries in recent years, particularly in the Philadelphia and Pittsburgh metro areas. These sectors now account for 20.3% of employment, compared to 15.1% for the nation. Pennsylvania is

also witnessing a modest resurgence in manufacturing, which accounts for 9.9% of employment, as compared to 8.9% for the US. Other factors mitigating the downturn's effects have been the rise in casino gambling and gas drilling in the Marcellus Shale regions of the state, which we discuss below.

EXHIBIT 3

Property Market Downturn has had a Modest Effect on PA Home Prices



Sources: National Association of Realtors, Moody's Analytics, Federal Housing Finance Agency, Freddie Mac

Despite these positives, Pennsylvania has experienced a slow recovery and Moody's Analytics expects the increase in gross state product to trail the nation over the next five years due in part to reductions in local government employment. Over the year ended in May 2012, Pennsylvania lost 16,900 public sector jobs, with 5,400 job cuts from December 2011 to May 2012.¹ Public K-12 school districts have been particularly hard-hit. Of note, 294 public school districts surveyed in late 2011 had cut 8,365 positions going into the 2012 fiscal year, following two consecutive years of staff reductions commencing in fiscal 2010, and 75% of the districts surveyed expected further cuts for fiscal 2013².

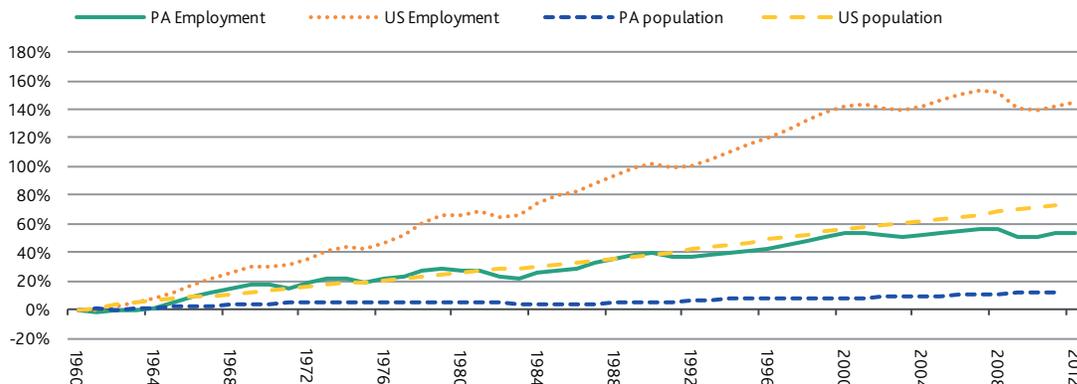
Slow population growth and an aging population may also place a long-term drag on the state's economic growth beyond the current recovery. Pennsylvania's population is older than the US average and has been growing more slowly than the US for decades (Exhibit 4).

¹ Keystone Research Center, "Falling Behind on Jobs", July 19, 2012, Mark Price & Steven Herzenberg

² Source: Pennsylvania Association of School Business Officials, May 22, 2012 report on survey results

EXHIBIT 4

Demographics Are a Major Hurdle, as Population Growth Lags the US



Source: US Census Bureau

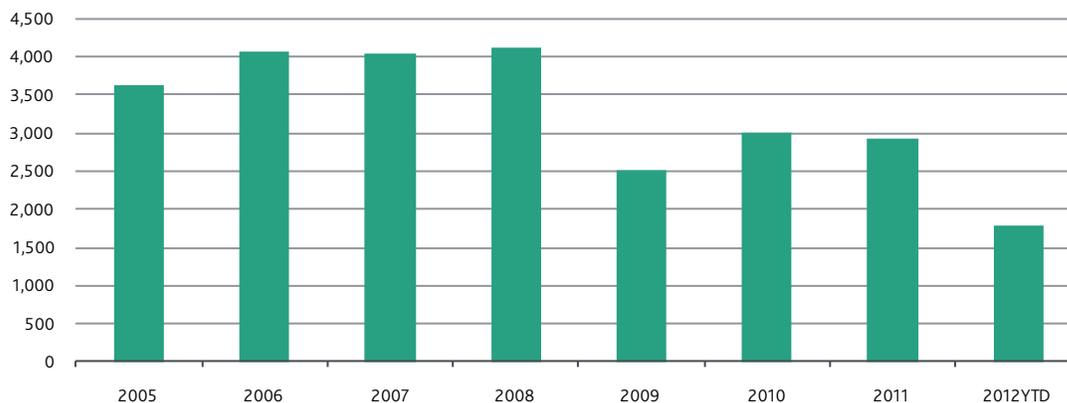
The ongoing gas-drilling activity in parts of the state overlying the Marcellus Shale is an area that could continue to drive economic growth in the state. In 2005, there were 46 unconventional natural gas wells in Pennsylvania. By mid-2012, the number of unconventional wells had grown to 5,437 out of a total of 25,674 gas wells – both conventional and unconventional – drilled between 2005 and 2012. Much drilling activity is occurring in areas that were heaviest hit by the decline of the steel industry, as well as rural areas where growth has lagged for decades.

The current and near-term economic benefits of the drilling activity include \$380 million in natural gas pipeline upgrades and expansions, the purchase and anticipated restart of two idle oil refineries in the Philadelphia area, and the proposed construction of Royal Dutch Shell’s new petrochemical plant in the Pittsburgh area. The state also established a drilling impact fee in February 2012, which is projected to generate \$210 million in new revenues for state and local governments in fiscal 2013.

The longer-term economic and environmental impact of gas drilling is unclear, however. Although drilling fees and leases provide new sources of revenue, they subject local governments to gas market price fluctuations and could entail additional costs related to environmental remediation or other unforeseen expenditures.

EXHIBIT 5

Total # of Natural Gas Wells Drilled Annually in Pennsylvania, 2005-2012



Source: Pennsylvania Dept. of Environmental Protection

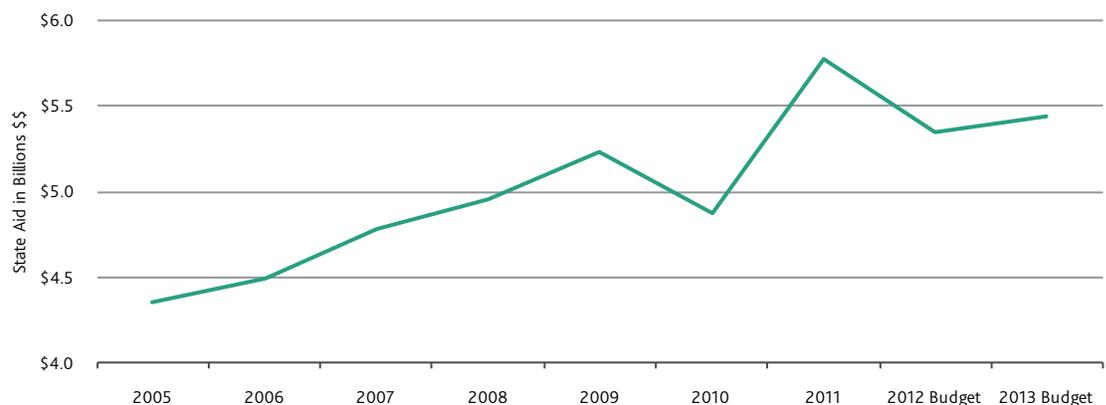
Growth in Local Government Revenues Will Remain Weak

Pennsylvania local government revenues largely consist of property taxes, state aid, earned income tax (where permitted by referendum), and fees for municipal services. In light of property tax base declines, state aid cuts and restrained income and employment growth, these revenue classes have not increased appreciably since 2007, and growth is likely to remain weak for several years. Many local governments have maintained structural balance by increasing tax rates and fees or controlling and reducing expenditures, but such actions will grow more difficult if revenue growth remains tepid. Other governments have drawn down accumulated reserves, constraining their financial flexibility.

School Districts: School districts face the most revenue pressure of all municipal sectors, given a high dependence on state aid and a property tax limit. On average, state aid accounts for 30% of school district revenue. The state reduced aid to districts for fiscal 2012 by an average of 5% and many districts were forced to make sizable program and staffing cuts – a big challenge exacerbated by high fixed costs and abundance of state-mandated programs. Prior to fiscal 2010, aid had increased at a steady rate of 2-3% per annum for decades; the leveling out of aid projected through at least fiscal 2015 therefore represents a paradigm shift. School districts benefited briefly from the receipt of American Reinvestment and Recovery Act (ARRA) moneys funneled through state agencies in fiscal 2011 (Exhibit 6), but such largess is unlikely to be repeated in the near-term as the [US government](#) (Aaa negative) confronts its own mounting fiscal pressures.

EXHIBIT 6

Pennsylvania K-12 Basic Education Aid Has Fluctuated Since 2009

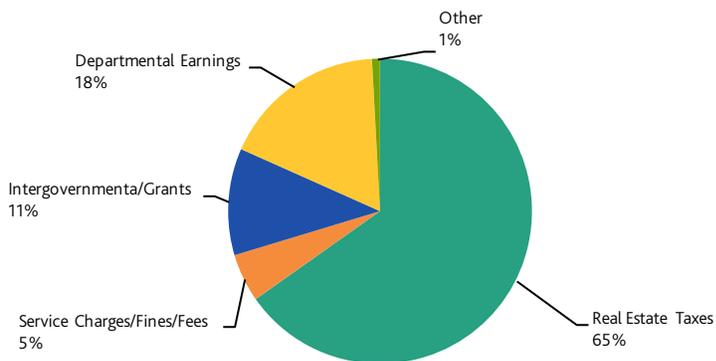


Source: Pennsylvania Dept. of Education

Many districts have raised property taxes to supplement state aid reductions. The tax cap for school districts (known as Act 1), however, limits their ability to increase the property tax rate beyond an annually-determined index. The index is based on average county wage and inflationary growth, and has declined since 2007 from 5% on average to approximately 1.8% for fiscal 2012. In addition, the state reduced the number of exceptions to the limit in a July 2011 statutory amendment. These constraints, as well as public resistance to tax increases, limit districts' ability to tap their property tax bases. School districts also have authority to levy an earned income tax (EIT); a modest rebound in EIT receipts since 2009 has helped mitigate slower property tax levy growth. But EIT receipts are likely to deliver modest future growth, at best, given the weak economy.

Counties: Pennsylvania counties benefit from unlimited property taxing ability and property taxes make up the majority of General Fund revenues. Like other sectors, however, counties have faced public opposition to tax increases. Several counties have experienced weakened credit quality due to multi-year operating deficits that have significantly reduced their reserves and liquidity, including Lackawanna, Lancaster (A1 stable), and Montgomery (Aa1 stable). Most counties maintain sufficient reserves and liquidity despite these challenges but if economic weakness persists, select counties' financial flexibility could deteriorate if they are unable to control expenditures or do not enhance revenues through tax or fee increases.

EXHIBIT 7

PA County General Fund Revenue Sources

Source: Moody's Investors Service and audited financial statements

Cities, Townships and Boroughs: Pennsylvania's largest cities have faced significant challenges over the past few decades as the US economy shifted away from manufacturing and the trend of suburbanization left many of them with weakened demographics and shrinking populations. Six of the ten largest cities recorded large population losses since 1980, along with an increase in poverty.

EXHIBIT 8

Little Correlation Between Population Decline and Credit Quality

City	Rating	2010 Population	% Change in pop. 1980-2010
Philadelphia	A2/STA	1,526,006	-10.60%
Pittsburgh	A1/STA	305,704	-38.70%
Allentown	A2/NEG	118,032	12.10%
Erie	NR	101,786	-17.00%
Reading	Baa2	88,082	10.70%
Scranton	NR	76,089	-15.80%
Bethlehem	NR	74,982	6.10%
Lancaster	A1	59,322	7.70%
Levittown	NR	52,983	-4.5%*
Harrisburg	NR	49,528	-7.50%

Cities listed in order of highest population as of 4/1/2010

*Percent change from 1990 to 2010

Source: U.S. Census Bureau

Even prior to the recession, these urban centers experienced modest to no growth in their property tax bases, and the weak recovery has resulted in muted growth in other revenue sources, such as wage and income taxes. Suburban towns and boroughs have maintained the strongest credit quality, given their stronger demographics and historically more steady property tax base growth. Rural townships fall somewhere in the middle, with somewhat weaker demographics and moderate tax base growth. In general, communities with more diversified employment and revenue bases have tended to maintain better credit quality than those with less diverse economies or revenue mix.

Enterprise Systems: Water and sewer enterprise systems are also coping with revenue constraints, which center on slower customer and connection fee growth since 2007. Prior to the downturn, a number of systems expanded their service areas, adding new residential and commercial customers as the economy grew and state and local regulations either encouraged, or mandated, the switch to municipal wastewater from private septic. These systems include municipal sewer authorities such as Lackawanna River Basin Sewer Authority (A1) and Greater Hazleton Joint Sewer Authority (A1). Some larger enterprises such as Chester Water Authority (Aa2 stable) have a history of growth through acquisitions and expansions, and this pattern persisted prior to the recession, aided by above-average population growth in several regions (e.g. Chester County – 15.1% growth from 2000 to 2010).

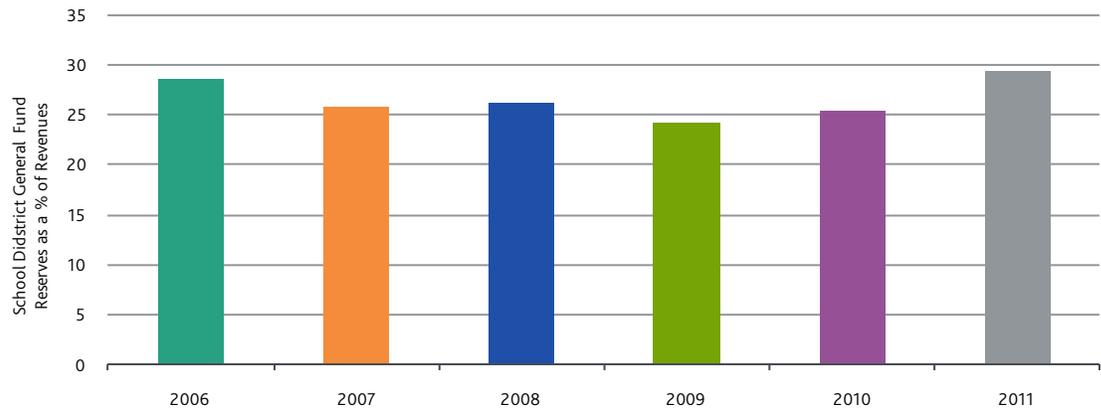
The recession caused customer bases to shrink and hit revenues as connection fees dried up and delinquencies rose. Sewer systems took an added blow in April 2011 when Pennsylvania's Department of Environmental Protection directed wastewater systems to stop treating hydraulic fracturing effluent, citing groundwater contamination risks. As revenues have stagnated, some enterprise systems have raised service rates to compensate, while others have chosen to delay rate increases until the economy recovers, citing ratepayer resistance. Systems with weaker operating margins and cash balances could be at risk of downward rating pressure if they start exhibiting signs of strained liquidity, below-average coverage or rising debt burdens.

Expenditure Pressures Continue to Mount

In a time of limited revenue growth, many Pennsylvania local governments have focused on expenditure cuts to balance financial operations. All local government sectors face significant fixed costs such as pension contributions, debt service and other post-employment benefits (OPEB) that are growing steadily and may be very difficult to reduce. Other costs may have some discretion, but are still very challenging to reduce, such as salary, employee healthcare benefits, and capital expenditures. Areas of focus for expenditure cuts include deferral of capital spending, debt restructuring, elimination of programs, development of municipal shared services, salary freezes, and reduction in headcount through attrition and layoffs.

Many Pennsylvania's local governments have exhausted discretionary or one-time spending cuts over the last several years and more challenging choices lie ahead.

EXHIBIT 9

School District GF reserves rose through 2011 due partly to Federal stimulus funds

Source: Moodys.com

School Districts' Pension Costs Are Becoming More Burdensome

Rapid growth in pension costs is the biggest expenditure challenge facing school districts as the state-managed Public School Employees Retirement System (PSERS) will require significant contribution increases to make up for investment losses and past underfunding. Pursuant to legislation enacted in November 2010 (Act 120), both school districts and the state will make increased pension contributions through 2020 to return PSERS to full funding by 2041. As a result, the annual pension cost for Moody's-rated districts, which averaged approximately 2.5% of expenditures in fiscal 2011, could account for up to 7.5% of budget for some districts by 2018. It's worth noting that the commonwealth currently provides a 50% subsidy for pension ARCs. If it decided to reduce the subsidy, an even greater share of costs would be passed on to schools.

The retirement costs exception to the Act 1 property tax limit alleviates some pension cost pressure, allowing schools to raise property taxes above the allowable index with the approval of the State Department of Education, although public opposition may make districts wary of doing so. Some districts have built up large pension reserves in recent years in anticipation of these scheduled costs increases. Districts lacking such reserves, or with generally weak finances, will come under the greatest strain as pension costs rise precipitously. On average³, Pennsylvania school districts grew their reserves during the 2009-11 period, aided by federal stimulus funding (i.e. ARRA moneys), giving them a healthy reserve cushion to draw on while phasing in the increased pension costs (Exhibit 9).

Counties Focus on Containing Health and Human Services Costs

Judicial and corrections-related expenses are pressuring counties, along with the rising cost of providing healthcare to employees. Counties with large capital programs may come under strain given the high fixed costs related to existing debt. Counties that own and operate nursing homes or indigent-care hospitals may also find annual subsidies to be an added strain on already-stretched budgets. Some counties have sold their nursing homes to private-sector operators, thereby eliminating the need for often considerable subsidies. For example, Lackawanna County sold its nursing home in early 2010 and was able to reduce its payroll by nearly 30%. For most counties, however, cost-containment,

³ For Moody's rated credits only. We rate 240 out of 500 school districts in the commonwealth.

including reductions in health and human services that often have discrete revenue sources like state grants, is likely to be a focus for maintaining balanced operations.

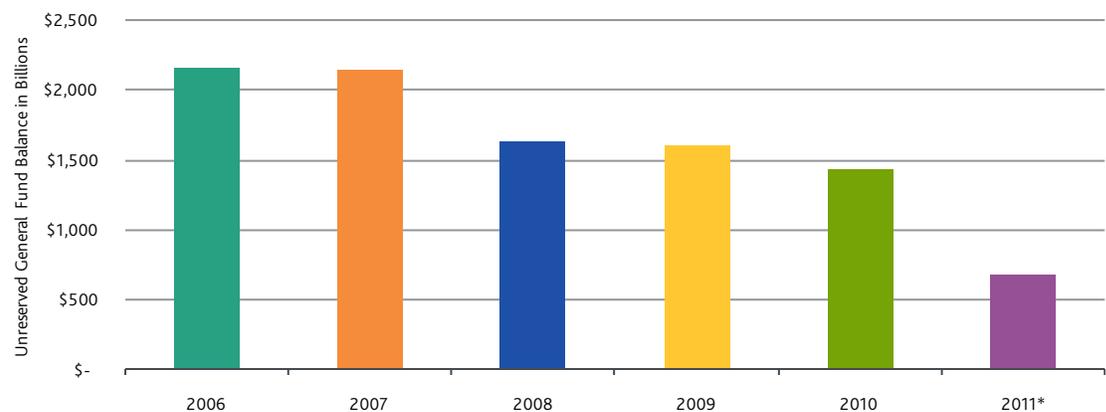
Cities, Townships and Boroughs Are Managing Costs

Most cities, townships and boroughs appear to be managing their cost pressures. As a percent of revenues, General Fund reserves were higher in fiscal 2011 than they were in fiscal 2006, prior to the recession. On an absolute level, however, reserves declined by nearly \$700 million, or 33%, over the same period (Exhibit 10), falling to \$1.46 billion from \$2.16 billion for Moody's-rated cities and towns⁴. The pressure has not reached a crisis level for most cities and towns, however, given that many provide limited essential services and have shown both an ability and willingness to cut expenses.

The majority of townships and boroughs provide a narrow suite of services focused on licensing, roads and sanitation, which has been critical to their credit stability as fewer services mean lower annual budgetary costs. Larger townships and cities are typically responsible for public safety, including police and fire, as well as public works and civic services such as libraries and zoning, but many smaller and rural communities provide considerably less, as public safety is often handled by county sheriffs or the state police. The broader social safety net encompassing health and welfare is generally handled at the county or state level in Pennsylvania, relieving smaller municipalities of responsibility for the poor and indigent. Fewer social services and more limited infrastructure demands tend to equate with lower staffing needs and employee benefit costs.

EXHIBIT 10

City and townships gross reserves have fallen over the past five years



*Reflects only FY11 audited financials collected year-to-date

Source: Moodys.com and audited financial reports

Larger cities provide a broader array of essential services, and therefore have higher recurring costs as well as greater numbers of unionized workers. Cities also tend to have higher unemployment and weaker demographics, along with more significant deferred capital needs. The ability to make service cuts and reduce staffing levels will be critical to sustaining financial flexibility for cities. Since the recession ended in June 2009, Pennsylvania has lost 31,000 public sector jobs, 20,052 of these from the local government sector, equal to a 4% reduction in local government employment. School districts have borne the brunt of local government job losses, 19,375 of the total⁵ and equal to a 6.5% decline, indicating that cities barely reduced staff. Cities have instead relied on a mix of reserve draws,

⁴ Moodys.com data and audited financial reports for Pennsylvania cities

⁵ Keystone Research Center, "The State of Working Pennsylvania 2012", August 29, 2012, Mark Price & Steven Herzenberg, co-authors

one-shots, cuts to less-essential services and reductions in overtime and seasonal staff to balance their budgets. This indicates some measure of flexibility for cities to adjust permanent staffing levels going forward. Staff reductions can be politically challenging, however, particularly if service cuts noticeably impact the delivery of services.

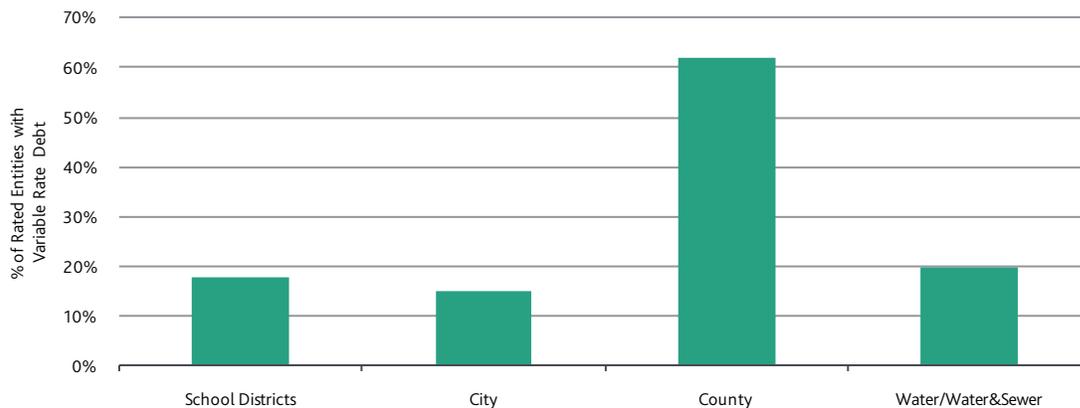
Enterprise Systems: Water and sewer enterprise systems face fewer salary and fringe benefit pressures than other local governments due to their smaller staffing needs. They also have a greater ability to adjust costs to offset revenue declines, given that their business models focus on providing large volumes of a single commodity that is not very sensitive to market prices. As demand for the commodity, particularly water, shrinks over time (often due to more efficient use), the costs associated with purchasing, pumping, and treating that commodity also fall. Enterprise systems have also been able to defer upgrades and rely on routine maintenance to sustain operations during the recession and early stages of recovery.

The key source of cost pressure for municipal enterprises are state and federal regulations, as they limit the ability to restrain expenditures given the need to finance federally mandated improvements. In Pennsylvania, support for regional consolidation of local water and wastewater enterprises has led to higher debt levels for a small number of issuers, most notably the City of McKeesport Municipal Authority (A1), to fund the merger of small, local systems into large, multi-jurisdictional operations. In other cases, the drive for greater regionalization has lowered cash levels, when cash instead of debt is used to finance consolidation (e.g. Delaware County Regional Water Quality Control Authority (A1 positive)). While the intent of regionalization is to reduce long-term costs through economies of scale, short-term fiscal strain can sometimes be an unintended consequence.

Debt Structure and Liquidity Risks Remain Sources of Credit Strain

Variable rate debt and derivative agreements, such as interest rate swaps, can help issuers achieve lower borrowing costs, but can also expose them to liquidity shocks if they are required to post collateral, pay swap termination fees or repay bonds on the accelerated amortization schedules that are generally part of the terms of liquidity agreements. Roughly 22% of Moody's-rated Pennsylvania municipalities have exposure to some form of variable rate debt or derivative agreements. Variable rate demand bonds (VRDBs), the most common form of floating rate debt, are designed to provide municipalities with a lower all-in cost of funds, but can expose them to a variety of counterparty, rollover and interest rate risks in addition to the risk of accelerated principal repayment.

EXHIBIT 11

PA Counties Have Largest Exposure to Variable Rate Debt

Source: Moodys.com

Exposure to variable rate debt and swaps has contributed to weaker credit quality for a number of Pennsylvania local governments, although most have managed the risks and related costs without significant financial deterioration. For some, higher exposure to variable rate debt or swaps has exacerbated already-weakened credit quality stemming from structurally imbalanced operations and narrowed liquidity.

Many municipalities have chosen not to convert variable rate debt into fixed rate debt, because it would be too expensive to terminate swaps when interest rates are as low as they are. In general, issuers have not had difficulty replacing their expiring liquidity facilities with those of stronger banks, or replacing their VRBDs with alternative variable rate products such as floating rate bank loans or notes with mandatory tender features. But others have eliminated their variable rate exposure entirely to avoid the associated risks and costs. We believe many Pennsylvania local governments will continue to be exposed to variable rate debt and swaps, although issuance of new VRBDs and entry into new swap agreements will be limited.

Limited Overall Exposure to Enterprise Risk, Despite Harrisburg and Scranton

Many Pennsylvania local governments guarantee the debt of component unit enterprise systems, although this is largely limited to essential, noncompetitive services such as water and sewer. For the most part, Pennsylvania municipalities have managed these contingent liabilities without significant stress to their general financial operations. These services are often provided by municipal authorities with separate governing and legal structures and revenue streams, generally with no comingling of the enterprise and general funds, and the debt is typically self-supporting from user fees.

In two cases, however, these types of guarantees have caused deep financial strain and even default: Harrisburg's failed incinerator and Scranton's recent 10-day default on guaranteed bonds issued by its parking authority.

In the case of Harrisburg, the Harrisburg Authority issued a total of \$310 million in debt to refurbish a waste-to-energy facility, all of which the city guaranteed with its general obligation, unlimited tax pledge. The city expected the net revenues generated by facility operations to cover the debt service, but was forced to make payments under the guarantee, some of which were significant, exacerbating

the city's financial strain to the point where it defaulted first on the guarantee and then on its own, direct general obligation debt starting in March 2012. So far, the state has prevented Harrisburg from seeking bankruptcy protection under Chapter 9 of the federal bankruptcy code.

In the case of Scranton, the city's parking authority had \$100 million of debt outstanding as of June 2012, roughly half of which the city guaranteed. When the parking authority encountered cash flow problems in May 2012 and called on the guarantee, the city initially withheld moneys needed to cover a June 1, 2012 debt service payment, eventually transferring the funds on June 14. The city's technical default on guaranteed GO debt has significantly impacted its access to the capital markets, as it has been unable to find a bank willing to provide it the \$16 million short-term loan it needs to help fund operations for the remainder of 2012.

State's Formal Intervention Program Has Produced Mixed Results

Compared to states with strong traditions of local government oversight such as Massachusetts and North Carolina, Pennsylvania maintains a moderate level of oversight over its municipalities. The Financially Distressed Municipalities Act of 1987 (Act 47) is the state's main program for assisting financially distressed municipalities. Its provisions apply to all local governments except for school districts, although the state recently passed legislation to create a similar program for schools. Since 1987, 26 municipalities have entered Act 47; six have exited.

Two of the 26 municipalities that have entered the program, namely Harrisburg and Scranton, have defaulted on debt obligations; Scranton's default was cured within 14 days. While most Act 47 municipalities have maintained relatively stable financial operations and none that have left the program has returned - suggesting to us that Act 47 has been a success - the two recent defaults highlight the program's weaknesses.

Act 47's gaps include:

- » Voluntary cooperation – a municipality can refuse to comply with the coordinator's recovery plan. For example, Harrisburg's city council rejected the financial recovery plan proposed by its Act 47 coordinator and chose instead to seek bankruptcy protection (although the state has so far prevented them from doing so)
- » Recovery plans are subject to implementation risk. Officials may fail to effectively implement a plan due to weak management or departmental resistance.
- » Act 47 provides municipalities with limited new revenue. At the Act 47 coordinator's discretion, an earned income tax may be levied on non-residents (known as a "commuter tax"), although this has not always been adopted in practice. When adopted, non-resident EITs have typically generated additional revenues in the range of 3% to 10% of budget, providing only modest financial relief to Act 47 localities.

EXHIBIT 12

Act 47 – Key Provisions

- » The state Dept. of Community and Economic Development (DCED) is authorized to declare a municipality distressed, usually after the municipality requests such designation
- » DCED uses 11 criteria to make its determination, which include three years of deficit operations of at least 1% of budget

- » DCED appoints an Act 47 coordinator from outside the local government to prepare and administer a financial recovery plan intended to eliminate deficits, restore balanced operations and avoid future fiscal emergencies
- » Remedies on the expenditure side include staff reductions, changes to collective bargaining agreements, debt restructuring and issuance of deficit financing
- » On the revenue side, the coordinator may seek annual approval to levy a commuter tax on non-residents working in the municipality
- » Coordinator will also determine if the local government's fiscal condition is severe enough to merit filing for Chapter 9 bankruptcy protection. This has been disallowed by the commonwealth in the case of Harrisburg until Nov. 30 of 2012.

In addition, an October 2011 state supreme court ruling (*City of Scranton versus Fire Fighters Local Union 60*) severely limited Act 47's ability to alter collective bargaining agreements. As part of its decision, the court ordered Scranton to honor millions of dollars worth of arbitration awards that went beyond the limits of its Act 47 recovery plan, exacerbating its fiscal distress. By placing arbitration awards outside the scope of Act 47, the court eliminated one of Act 47's most effective tools. In response, the commonwealth in July 2012 passed Act 133, which requires the terms of arbitration awards to comply with a distressed municipality's Act 47 plan. Act 133 partially re-establishes an Act 47 coordinator's ability to alter labor agreements, which had been one of Act 47's key strengths, by allowing coordinators to appeal arbitration awards that violate or diminish the provisions of a recovery plan. Because Act 133 does not give coordinators the authority to prevent the implementation of an arbitration award outside of the appeals process, however, we believe it does not completely reverse the impact of the *City of Scranton* ruling on Act 47.

In addition to Act 47, the state has also appointed oversight boards in three cases. The Pennsylvania Intergovernmental Cooperation Authority (PICA) was formed in 1991 to help Philadelphia tackle its fiscal crisis and provides the city with effective financial oversight and has the authority over an additional wage tax that provides a strong incentive for the city to comply. An oversight board modeled on PICA was created for Pittsburgh in the mid-2000s. While Philadelphia was never under Act 47, Pittsburgh remains in the program, in addition to its oversight board.

The Philadelphia School District's (Ba1 negative) oversight board, the School Reform Commission (SRC) was established in 2002, and has been historically less effective than PICA. The district's financial operations weakened considerably in the past two years, have been driven by high mandated costs, competition for state aid from charter schools, a growing pension burden and reductions to basic state education aid. The district has limited control over local or state revenues, obliging it to make several rounds of cost reductions and consolidate facilities, an endeavor in which the SRC is providing assistance. The district is also planning to issue deficit financing bonds in the Fall of 2012.

A variety of legislative changes are being debated at the state level that could strengthen Act 47's institutional framework if adopted. These proposals include (1) making it easier for third-class cities (i.e., all cities other than Philadelphia, Pittsburgh and Scranton) to adopt commuter taxes, (2) allowing local governments to obtain more income from nonprofit organizations, and (3) providing new incentives for municipalities to share services and/or consolidate.

Despite a Decade of Declines, Most Municipal Pensions Remain Adequately Funded

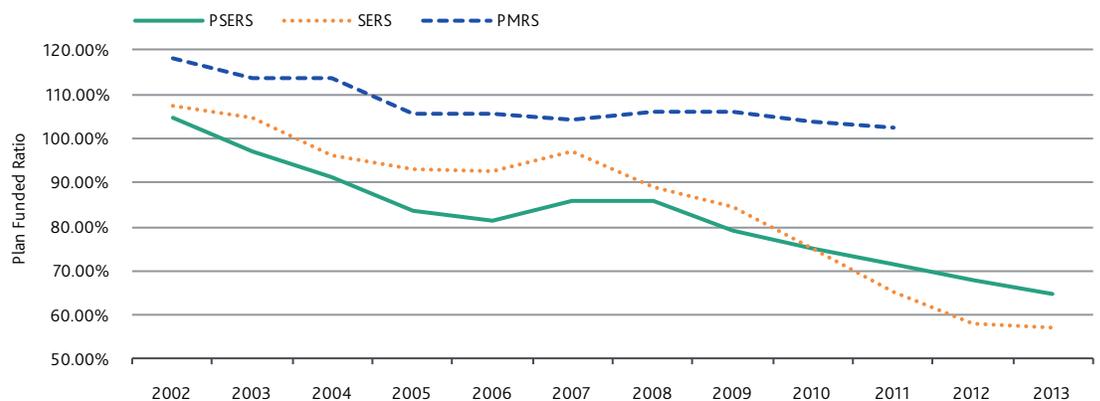
Most rated Pennsylvania municipalities have continued making their full pension ARC payments since the onset of the recession in 2007, and even municipalities that have skipped ARC payments or paid only a fraction of their total ARC tend to have plans with reported funded ratios of 70% or more.⁶ The overall trend in funded levels has nevertheless been sharply downward in the decade since 2002 – exacerbated by the 2008 crisis – and pensions are likely to represent another source of credit strain for localities, albeit a manageable one for the majority.

The financial liabilities associated with pension obligations arise from their legal status as binding promises to make payment. The commonwealth does not face an imminent local governments pension funding crisis, however, given that the majority of plans for the credits we rate are adequately funded, with reported actuarial funded levels in the 70% to 90% range as of 2010.⁷ A modest number of plans have lower funded levels, and a handful of localities could come under increased stress as increase their ARC payments to make up for past underfunding; as mentioned earlier, school districts face significant annual increases in the coming decade.

Municipal pension funding and plan design exhibit tremendous diversity in Pennsylvania, as one might expect from a state of its size with a large number of municipalities (3,036 local governments, including 501 school districts, but excluding municipal enterprise systems). Several have notably high funded ratios, including Upper Moreland Township's firefighters' plan (107% funded), Warminster Township (94% funded), and West Lampeter Township (104% funded). Also notable for the conservatism of its return assumptions is Centre County's employee pension plan which, while only 84% funded on an actuarial basis, utilizes a 3.25% discount rate – far below the 8% US average.

EXHIBIT 13

Pension Funding Levels Have Weakened since 2002



Source: Pennsylvania School Employees' Retirement System; Pennsylvania State Employees Retirement System, Pennsylvania Municipal Retirements System Annual Financial Reports

⁶ See Moody's Request for Comment, "Adjustments to US State and Local Government Reported Pension Data," July 2, 2012, Timothy Blake and Marcia Van Wagner

⁷ Reported numbers do not reflect future adjustments being contemplated by Moody's as discussed in http://www.moodys.com/viewresearchdoc.aspx?docid=PBM_PBM144863

The Pennsylvania Municipal Retirement System (PMRS) and the two major state-sponsored plans (i.e. PSERS and SERS) provide a yardstick for understanding both recent declines in funded ratios to weaker-than-historic levels as well as the broad middle ground occupied by the majority of municipal pension plans.

PMRS, a plan funded by local governments but administered by the commonwealth, includes roughly 600 participating municipalities and is the largest source of pension data in Pennsylvania. Under its “agent plan” design, local governments participating in PMRS have separate accounts for each of their pension plans, with some having as many as four accounts representing pensions for fire, police, sanitation and other municipal staff groups. Municipalities submit contributions to PMRS on a monthly or semi-annual basis and PMRS manages the funds on their behalf, utilizing a very conservative 6% discount rate. According to PMRS’ fiscal 2011 audit, the system’s funded ratio is 102.4%, or better than fully-funded (Exhibit 13).⁸ The system’s high aggregate funded ratio reflects the low 6% discount rate and cautious management by the state. We would caution, however, that funded levels for individual PMRS plans can differ considerably, given that the plans have benefit and other features that vary widely outside the high-level factors cited above.

By contrast, PSERS is a one-size-fits-all state plan for school districts where all participants rise or fall with plan. The system’s actuarial funded ratio of 69.1% in 2011 occupies the middle ground in local government pensions, with large numbers of local plans having similar, or slightly higher, funded levels. As a result of state legislation (Act 120) to return PSERS to full funding by 2041, annual retirement costs for schools doubled from fiscal 2010 to fiscal 2012, are scheduled to rise by another 45% in fiscal 2013, and will increase at an average rate of 20% per annum through 2018⁹.

Several large cities, and a number of townships and boroughs, have lower-than-average pension funding levels. Notable cases include the retirement systems of Lansdale Borough (62.8% funded), Lower Gwynedd Township’s police pension plan (57% funded), the City of Allentown’s firemen’s (51.8%) and policemen’s (46%) pension plans, and Philadelphia’s municipal employees plan (45% funded). Several of these issuers have a history of pension underfunding and/or have issued pension obligation bonds to make up for past underfunding. Pittsburgh increased the aggregate funded ratio of its three pension plans to 62% from 34% in 2011 as a result of a settlement it made with the state pension oversight body (i.e. Pennsylvania Employee Retirement Commission) involving a \$45.4 million lump sum payment in 2010 and commitment of significant financial resources going forward.

⁸ Pennsylvania Municipal Retirement System (PMRS), Actuarial Valuation as of January 1, 2011, as per May 2012 actuarial report by Cheiron

⁹ Public School Employees’ Retirement System of Pennsylvania, June 30, 2011 actuarial report, Buck Consultants, January 2012

Appendix

Moody's-Rated PA Local Governments – Cities, Townships and Boroughs

	Current Senior Most Rating*
Abington Township (Montgomery County), PA	Aa1
Aleppo Township (Allegheny County), PA	Baa2
Allentown City, PA	A2
Amity Township (Berks County), PA	Aa3
Aston Township, PA	A1
Bellevue Borough, PA	A2
Bensalem Township, PA	Aa2
Bethlehem Township, PA	Aa2
Bridgeport Borough, PA	A2
Bristol Township, PA	Aa3
Bryn Athyn Borough, PA	A2
Buckingham Township (Bucks County), PA	Aa1
Butler Township (Luzerne County), PA	A1
Camp Hill Borough, PA	Aa2
Carlisle Borough, PA	Aa2
Cecil Township, PA	A1
Center Township (Beaver County), PA	A3
Chambersburg Borough, PA	Aa2
Cheltenham Township, PA	Aa2
Chestnuthill Township, PA	A1
College Township, PA	A1
Concord Township (Delaware County), PA	Aa2
Cranberry Township (Butler County), PA	Aa2
Derry Township (Dauphin County), PA	Aa1
Downingtown Borough, PA	A1
Doylestown Township, PA	Aa2
East Brandywine Township, PA	A2
East Coventry Township, PA	A1
East Lampeter Township, PA	Aa3
East Marlborough Township, PA	Aa2
East Pennsboro Township, PA	A3
East Whiteland Township, PA	Aa2
Easton City, PA	A2
Easttown Township, PA	Aa2
Economy Borough, PA	A1
Exeter Township (Berks County), PA	Aa2
Ferguson Township (Centre County), PA	Aa2
Forks Township (Northampton County), PA	Aa3
Franklin Township (Chester County), PA	Aa3
Gettysburg Borough, PA	A1
Greencastle Borough, PA	A1
Grove City Borough, PA	A1
Hanover Township (Northampton County), PA	Aa3
Haverford Township, PA	Aa2
Horsham Township, PA	Aa2
Jefferson Hills, PA	A1

Moody's-Rated PA Local Governments – Cities, Townships and Boroughs

	Current Senior Most Rating*
Kennedy Township, PA	A1
Kennett Square Borough, PA	A3
Kutztown Borough, PA	A3
Lancaster City, PA	A1
Littlestown Borough, PA	A1
Logan Township (Blair County), PA	Aa3
London Grove Township, PA	A1
Lower Gwynedd Township, PA	Aaa
Lower Macungie Township, PA	Aa2
Lower Makefield Township, PA	Aa1
Lower Merion Township, PA	Aaa
Lower Paxton Township, PA	Aa2
Lower Providence Township, PA	Aa2
Lower Salford Township, PA	Aa2
Malvern Borough, PA	Aa3
Marshall Township, PA	Aa2
Mccandless Township, PA	Aa2
Meadville City, PA	A2
Middletown Township (Bucks County), PA	Aa2
Millersville Borough, PA	A1
Monessen City, PA	Baa1
Monroeville Borough, PA	Aa2
Montgomery Township (Montgomery County), PA	Aa1
Mount Lebanon Township, PA	Aa1
Narberth Borough, PA	Aa3
Neshannock Township, PA	A1
Newtown Township (Bucks County), PA	Aa3
Newtown Township (Delaware County), PA	Aa3
North Sewickley Township, PA	A3
Northampton Township (Bucks County), PA	Aa3
O'hara Township, PA	Aa2
Oil City City, PA	Baa2
Palmer Township, PA	Aa2
Palmerton Borough, PA	A2
Patton Township, PA	Aa3
Penbrook Borough, PA	A3
Peters Township (Washington County), PA	Aa2
Philadelphia City, PA	A2
Phoenixville Borough, PA	Aa3
Pittsburgh City, PA	A1
Plumstead Township, PA	Aa2
Pocopson Township, PA	Aa2
Radnor Township, PA	Aa1
Reading City, PA	Baa2
Ridley Township, PA	Aa3
Sandy Creek Township, PA	A2
Scott Township (Allegheny County), PA	A1
Shillington Borough, PA	A1

Moody's-Rated PA Local Governments – Cities, Townships and Boroughs

	Current Senior Most Rating*
Skippack Township, PA	Aa2
Solebury Township, PA	Aa3
Spring Township (Berks County), PA	Aa2
State College Borough, PA	Aa2
Steelton Borough, PA	Baa1
Stroudsburg Borough, PA	A1
Susquehanna Township (Dauphin County), PA	Aa2
Tredyffrin Township, PA	Aaa
Union Township (Lebanon County), PA	Baa1
Upper Allen Township, PA	Aa3
Upper Darby Township, PA	Aa3
Upper Dublin Township, PA	Aa2
Upper Gwynedd Township, PA	Aa2
Upper Makefield Township, PA	Aa1
Upper Merion Township, PA	Aaa
Upper Moreland Township, PA	Aa2
Upper Pottsgrove Township, PA	A2
Upper Saucon Township, PA	Aa3
Upper Southampton Township, PA	Aa3
Warminster Township, PA	Aa3
Warrington Township (Bucks County), PA	Aa2
Warwick Township (Bucks County), PA	Aa2
West Bradford Township, PA	Aa3
West Chester (city of), PA	A1
West Hanover Township, PA	Aa3
West Lampeter Township, PA	Aa2
West Norriton Township, PA	A2
West Vincent Township, PA	Aa3
West Whiteland Township, PA	Aa1
Westtown Township, PA	Aa3
Whitehall Township, PA	Aa3
Whitpain Township, PA	Aaa
Williams Township (Northampton County), PA	A2
Willistown Township, PA	Aa1
York City, PA	Baa3
York Township, PA	Aa2

Moody's-Rated PA Local Governments – Large Pools & Pooled Financings

	Current Senior Most Rating
Delaware Valley Regional Financing Authority	A2
Bethlehem Area Vocational-Technical School Authority	A1
Bucks County Technical School Authority	A1
Dubois Area Vocational Technical School Authority	A2
Middle Bucks Area Vocational-Technical School Authority	Aa3
Montgomery County Intermediate Unit	Aa3
Central Montgomery County Area Vocational School Authority	A2
Lehigh Career And Technical Institute	A2
York County School of Technology Authority	A1
Upper Bucks County Technical School Authority	Aa3
PSPSBA (Western Center for Technical Studies Project)	Aa3

Moody's-Rated PA Local Governments - Counties

	Current Senior Most Rating
Adams County, PA	A1
Allegheny County, PA	A1
Bedford County, PA	A3
Berks County, PA	Aa1
Blair County, PA	A1
Bucks County, PA	Aaa
Centre County, PA	Aa2
Chester County, PA	Aaa
Columbia County, PA	A1
Delaware County, PA	Aa1
Erie County, PA	Aa3
Fayette County, PA	A2
Jefferson County, PA	A2
Lancaster County, PA	A1
Lehigh County, PA	Aa1
Monroe County, PA	Aa2
Montgomery County, PA	Aa1
Northampton County, PA	Aa1
Pike County, PA	Aa3
Somerset County, PA	A1
Westmoreland County, PA	Aa2

Moody's-Rated PA Local Governments - School Districts

	Current Senior Most Rating*
Abington Heights School District, PA	Aa2
Abington School District, PA	Aa2
Allegheny Valley School District, PA	A1
Altoona Area School District, PA	Aa3
Annville Cleona School District, PA	A1
Armstrong School District, PA	A1
Athens Area School District, PA	A2
Avon Grove School District, PA	Aa2
Baldwin Whitehall School District, PA	Aa3

Moody's-Rated PA Local Governments - School Districts

	Current Senior Most Rating*
Bedford Area School District, PA	Aa3
Belle Vernon Area School District, PA	A2
Bellefonte Area School District, PA	A1
Bellwood Antis School District, PA	A2
Bensalem Township School District, PA	Aa2
Benton Area School District, PA	A1
Bethel Park School District, PA	Aa2
Bethlehem Area School District, PA	A1
Big Beaver Falls Area School District, PA	A3
Big Spring School District, PA	A1
Blackhawk School District, PA	A2
Bloomsburg Area School District, PA	A1
Boyertown Area School District, PA	Aa2
Brandywine Heights Area School District, PA	A1
Bristol Township School District, PA	Aa3
Brookville Area School District, PA	A1
Burrell School District, PA	A1
Carlisle Area School District, PA	Aa2
Carmichaels Area School District, PA	A3
Centennial School District, PA	Aa2
Central Bucks School District, PA	Aa1
Central Valley School District, PA	A1
Central York School District, PA	Aa2
Chambersburg Area School District, PA	Aa2
Chartiers Houston School District, PA	A1
Cheltenham Township School District, PA	A1
Chestnut Ridge School District, PA	A2
Chichester School District, PA	Aa3
Clearfield Area School District, PA	A1
Coatesville Area School District, PA	A1
Cocalico School District, PA	Aa3
Colonial School District, PA	Aa1
Columbia Boro School District, PA	A1
Commodore Perry School District, PA	A1
Conemaugh Valley School District, PA	A3
Conestoga Valley School District, PA	Aa2
Conewago Valley School District, PA	Aa2
Connellsville Area School School District, PA	A2
Coudersport Area School District, PA	A1
Council Rock School District, PA	Aa2
Crawford Central School District, PA	A1
Crestwood School District, PA	Aa3
Cumberland Valley School District, PA	Aa3
Dallas School District, PA	A1
Daniel Boone School District, PA	A1
Danville Area School District, PA	A1
Deer Lakes School District, PA	A2
Delaware Valley School District, PA	Aa3
Derry Township School District, PA	Aa1
Donegal School District, PA	A1

Moody's-Rated PA Local Governments - School Districts

	Current Senior Most Rating*
Dover School District, PA	A1
Downingtown Area School District, PA	Aaa
Dunmore Boro School District, PA	Aa3
East Lancaster County School District, PA	Aa3
East Penn School District, PA	Aa2
East Stroudsburg Area School District, PA	A1
Eastern Lebanon County School District, PA	A3
Eastern York School District, PA	Aa3
Easton Area School District, PA	Aa2
Elizabeth Forward School District, PA	A2
Elizabethtown Area School District, PA	Aa3
Ephrata Area School District, PA	Aa3
Everett Area School District, PA	A2
Exeter Township School District, PA	Aa2
Fairfield Area School District, PA	A1
Fleetwood Area School District, PA	A1
Forest City Regional School District, PA	A1
Fox Chapel Area School District, PA	Aa2
Freedom Area School District, PA	A1
Garnet Valley School District, PA	Aa2
Gateway School District, PA	Aa3
General Mc Lane School District, PA	A1
Gettysburg Area School District, PA	Aa3
Glendale School District, PA	Aa3
Governor Mifflin Sch District School District, PA	Aa3
Great Valley School District, PA	Aaa
Greencastle Antrim School District, PA	A1
Greensburg Salem School District, PA	A1
Greenville Area School District, PA	A2
Hamburg Area School District, PA	Aa3
Hanover Public School District, PA	Aa3
Harbor Creek Township School District, PA	A1
Hatboro-Horsham School District, PA	Aa2
Haverford Township School District, PA	A1
Hazleton Area School District, PA	A1
Hempfield School District, PA	Aa2
Hermitage School District, PA	A1
Highlands School District, PA	A2
Hollidaysburg Area School District, PA	Aa3
Homer Center School District, PA	A3
Jeannette City School District, PA	A3
Jersey Shore Area School District, PA	A1
Jim Thorpe Area School District, PA	A2
Kennett Cons School District, PA	Aa2
Keystone Oaks School District, PA	Aa3
Kiski Area School District, PA	A1
Lakeview School District, PA	A2
Lampeter Strasburg School School District, PA	Aa3
Lehigh Area School District, PA	Aa3
Lewisburg Area School District, PA	Aa3

Moody's-Rated PA Local Governments - School Districts

	Current Senior Most Rating*
Line Mountain School District, PA	A3
Lower Dauphin School District, PA	A1
Lower Merion School District, PA	Aaa
Lower Moreland Township School District, PA	Aa2
Loyalsock Township School District, PA	Aa3
Manheim Central School District, PA	Aa3
Manheim Township School District, PA	Aa3
Marple Newtown School District, PA	Aa2
Mc Guffey School District, PA	A3
Mckeesport Area School District, PA	A2
Mechanicsburg Area School District, PA	Aa3
Mercer Area School District, PA	A1
Methacton School District, PA	Aa2
Mid Valley School District, PA	A2
Middletown Area School District, PA	Aa3
Mifflinburg Area School District, PA	A1
Millcreek Township School District, PA	Aa3
Mohawk Area School District, PA	A1
Moon Area School District, PA	A1
Moshannon Valley School District, PA	A2
Mountain View School District, PA	A1
Mt Lebanon School District, PA	Aa1
Mt Pleasant Area School District, PA	Baa1
Muhlenberg School District, PA	Aa3
Nazareth Area School District, PA	Aa3
Neshaminy School District, PA	Aa2
New Brighton Area School District, PA	A2
New Hope Solebury School District, PA	Aa1
Norristown Area School District, PA	Baa1
North Penn Sch District School District, PA	Aa2
North Pocono School District, PA	A1
Northampton Area School District, PA	Aa3
Norwin School District, PA	A1
Octorara Area School District, PA	A1
Oil City Area School District, PA	A1
Owen J Roberts School District, PA	Aa2
Palmerton Area School District, PA	A1
Palmyra Area School District, PA	Aa3
Panther Valley School District, PA	A2
Parkland School District, PA	Aa2
Pen Argyl Area School District, PA	A1
Penn Delco School District, PA	Aa2
Penn Hills Township School District, PA	A3
Penn Manor School District, PA	Aa3
Penn Trafford School District, PA	A1
Penndel School District, PA	Aa3
Pennsbury School District, PA	Aa2
Pequea Valley School District, PA	Aa3
Perkiomen Valley School District, PA	Aa2
Peters Township School District, PA	Aa2

Moody's-Rated PA Local Governments - School Districts

	Current Senior Most Rating*
Philadelphia School District, PA	Ba1
Philipsburg-Osceola School District, PA	A1
Phoenixville Area School District, PA	Aa2
Pine Richland School District, PA	A1
Pittsburgh City School District, PA	Aa3
Pittston Area School District, PA	A1
Pocono Mt School District, PA	Baa2
Port Allegany School District, PA	A2
Pottsgrove School District, PA	Aa2
Pottstown School District, PA	A1
Pottsville Area School District, PA	A1
Purchase Line School District, PA	A2
Quaker Valley School District, PA	Aa2
Quakertown Community School District, PA	Aa3
Radnor Township School District, PA	Aa2
Reading School District, PA	A3
Red Lion Area School District, PA	Aa3
Richland School District, PA	A1
Ringgold School District, PA	A1
Riverside School District, PA	A2
Rochester Area School District, PA	A3
Rose Tree Media School District, PA	Aa2
Salisbury Township School District, PA	Aa2
Saucon Valley School District, PA	Aa3
Schuylkill Haven Area School District, PA	A1
Schuylkill Val School District, PA	Aa3
Selinsgrove Area School District, PA	A1
Seneca Valley School District, PA	Aa2
Shaler Area School District, PA	A1
So Fayette Township School District, PA	A1
So Middleton School District, PA	Aa3
So Western School District, PA	Aa3
Solanco School District, PA	Aa3
Souderton Area School District, PA	Aa2
South Park School District, PA	Baa1
Southeastern School District, PA	Aa3
Southern Columbia Area School District, PA	A1
Southern Lehigh School District, PA	Aa2
Southern York County School District, PA	Aa2
Southmoreland School District, PA	A1
Spring Ford School District, PA	Aa2
Spring Grove Area School District, PA	Aa3
Springfield Township School District, PA	Aa2
St Marys Area School District, PA	A1
State College Area School District, PA	Aa2
Stroudsburg Area School District, PA	A1
Susquehanna Township School District, PA	Aa2
Susquenita School District, PA	A1
Tredyffrin-Easttown School District, PA	Aaa
Trinity Area School District, PA	A1

Moody's-Rated PA Local Governments - School Districts

	Current Senior Most Rating*
Tulpehocken Area School District, PA	A1
Tunkhannock School District, PA	A1
Tussey Mountain Sch District School District, PA	A3
Twin Valley School District, PA	A2
Uniontown Area School District, PA	A3
Unionville Chadds Ford School District, PA	Aa1
United School District, PA	A2
Upper Adams Merged Sch School District, PA	A2
Upper Darby School District, PA	Aa2
Upper Dublin School District, PA	Aa3
Upper Merion Area School District, PA	Aa2
Upper Moreland Township School School District, PA	Aa2
Upper Perkiomen School District, PA	Aa2
Upper St Clair Township School School District, PA	Aa2
Valley Grove School District, PA	A1
W Greene School District, PA	A2
Wallenpaupack Area School District, PA	Aa3
Warren County School District, PA	A2
Warwick School District, PA	A1
Waynesboro Area School District, PA	A1
Wellsboro Area School District, PA	A1
West Allegheny School District, PA	Aa3
West Chester Area School District, PA	Aaa
West Jefferson Hills School District, PA	Aa3
West Mifflin Area School District, PA	A3
West Shore School District, PA	A1
West York Area School District, PA	Aa3
Westmont Hilltop School District, PA	A1
Whitehall Coplay School District, PA	Aa3
Wilmington Area School District, PA	A1
Wilson Area School District, PA	Aa3
Wilson School District, PA	Aa3
Wissahickon School District, PA	Aaa
Wyomissing Area School District, PA	Aa3
York City School District, PA	Baa1
York Suburban School District, PA	A1

Moody's-Rated PA Local Governments – Municipal Water Enterprises

	Current Senior Most Rating*
Altoona Water Authority, PA	A1
Chester Water Authority, PA	Aa2
Erie City Water Authority, PA	A1
Fox Chapel Authority, PA	Aa3
Greenville Municipal Authority	A3
Hollidaysburg Borough Authority	Baa1
North Penn Water Authority, PA	Aa2
Northampton Borough Municipal Authority, PA	A1
Westmoreland County Municipal Authority, PA	Aa3

Moody's-Rated PA Local Governments - Municipal Sewer Enterprises

	Current Senior Most Rating*
Allegheny County Sanitary Authority, PA	A1
Delaware County Regional Water Quality Control Authority, PA	A1
East Norriton Plymouth Whitpain Joint Sewer Authority	A1
Greater Hazleton Joint Sewer Authority, PA	A1
Hollidaysburg Sewer Authority	Baa1
Lackawanna River Basin Sewer Authority	A1
Mckeesport City Municipal Authority (Sewer Enter), PA	A1
Monroeville Municipal Authority Sewer Enterprise	A3
Mountaintop Area Joint Sanitary Authority	Baa1
NEW KENSINGTON MUNICIPAL SANITATION AUTHORITY, PA	A1
Peters Township Sanitary Authority	A1
Spring Benner Walker Joint Authority, PA	A3
University Area Joint Authority, PA	A1
WASHINGTON-EAST WASHINGTON JOINT AUTHORITY, PA	Aa3

Moody's-Rated PA Local Governments – Municipal Water & Sewer Enterprises

	Current Senior Most Rating*
Horsham Water And Sewer Authority, PA	Aa2
Lower Bucks County Joint Municipal Authority, PA	Aa2
North and South Shenango Joint Municipal Authority	A3
Northampton, Bucks County, Municipal Authority, PA	Aa3
Philadelphia (City of) Water and Sewer Enterprise, PA	A1
Pittsburgh Water and Sewer Authority, PA	A2
Warwick Township Water & Sewer Authority, PA	Aa3

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