PENSION & OPEB UNFUNDED LIABILITIES

Fiscal Impact on Maryland and Prince George’s County Public Schools
EXECUTIVE SUMMARY
How easily could your family budget absorb an unexpected $10,130 increase to your credit card obligations? In effect, every household in Prince George's County, Maryland owes that amount of money—sight unseen—to cover the costs of its school system's other post-employment benefits (OPEB), or more specifically, unfunded OPEB liabilities for retiree benefits in the amount of $3.1 billion. OPEB benefits translate, for example, to health care for retired employees.

In addition, the state's Maryland State Retirement and Pension System (MSRPS) has been inadequately funded for decades, and as of 2016, has $20 billion in unfunded pension liabilities, of which $1.4 billion (7 percent) is attributed to Prince George's County Public Schools (PGCPS) for teachers' and employees' pensions.

An unfunded pension liability amount of $1.4 billion is the equivalent amount of 42 years of 3 percent salary increases for PGCPS staff—so it is significant. Although this PGCPS unfunded pension liability is “booked” by the state, and not PGCPS, this amount still impacts the state's ability and political will to adequately fund county K-12 education, while also catching up on past unfunded pension liabilities.

Economically, Maryland ranks well when compared to other states, with the highest state median income in FY 2016, at $75,847, and the second-lowest poverty rate. However, the Mercatus Center at George Mason University ranked Maryland 37th-worst in state fiscal health, based on FY 2013 data, and 46th-worst based on FY 2015 data. This negative trend has significant implications for fixing excessive unfunded pension and OPEB liabilities.

Neither PGCPS's $3.1 billion in unfunded OPEB liability, nor its $1.4 billion share of unfunded pension liability, can be addressed through short-term budget cuts within the school system without undermining the quality of educational services:

- The average teacher receives a salary and benefit package of $94,232 in FY 2018. The total unfunded OPEB liability eclipses teacher pay at $282,596 per teacher. It would take the school system 10 years
to fund its OPEB obligations if it reduced teacher compensation by $28,000 per teacher per year.

- The district would have to reduce teaching staff by 1,921 teachers to close the OPEB liability, or 21 percent of the district’s teachers. Reducing teachers by this amount would increase class sizes from 14.7:1 to 18.7:1.

Nearly all states have challenges with unfunded pension and OPEB liabilities. The most common fix for excessive unfunded pension and OPEB liabilities is to exercise strict fiscal discipline over 20 to 30 years, set a funding goal, and fund to that goal consistently—regardless of what is going on in the economy and in the legislature. That discipline must be backed up by establishing meaningful rainy-day funds at the state and county levels. All Maryland actions taken to date have been insufficient.

Among all states, Maryland is ranked 16th in trust fund solvency—above average—despite its $20 billion unfunded pension liability. Projections of recent past fiscal behavior, however, based solely on actual fiscal outcomes, indicate that Maryland is falling further behind in pension funding, and PGCPS will not likely reduce its $3.1 billion unfunded OPEB liability by one-fourth by FY 2026. PGCPS will not likely be on target for a reasonable amount of unfunded OPEB liability within 30 years, unless more aggressive funding measures are executed consistently.

Maryland fully funded the MSRPS in FY 2000 (101 percent). But it has since failed to fully fund the MSRPS, resulting in only 70.5 percent funding as of FY 2016. Without increased financial stewardship, the state’s unfunded liability could grow to $40 billion by FY 2026, or only 56.8 percent of the funds needed to meet its pension obligations. Based solely on past actual fiscal experience, by FY 2026:

**Worst Case**
- MSRPS 56.8% funded, 43.2% unfunded
- $40.0 billion in unfunded liabilities

**Best Case**
- MSRPS 77.6% funded, 22.4% unfunded
- $20.5 billion in unfunded liabilities

More aggressive pension funding action is needed to assure that unfunded liabilities are reasonably reduced. Maryland needs to expand rainy-day funds specifically for its commitments to reduce unfunded liabilities and as a cushion for downturns.

Not addressing the problem now only makes the future worse for education, current students, taxpayers, and the next generation of students.

**INTRODUCTION**

Solutions for large complex public problems require an intersection of major driving forces for full context. In this case, comprehensive fiscal health is interconnected with Maryland state finances; delivering pension & OPEB obligations depends on trust fund solvency, and strong education systems influence the progress of our state GDP and economy.

**PGCPS will not likely be on target for a reasonable amount of unfunded OPEB liability within 30 years, unless more aggressive funding measures are executed consistently.**

A PGCPS audit found that Maryland “continues to trim discretionary state spending to address the continuing structural deficit.” In 2000, the Maryland State Retirement and Pension System (MSRPS) was fully funded at 101.2 percent. By 2016, funded levels had plummeted to 70.5, according to data from MSRPS reporting. For full and proper context, the fiscal health of the state, PGCPS, the MSRPS, and PGCPS’s OPEB trust fund must be considered together.

Data for this report were drawn from comparative Mercatus Center data at George Mason University, arrayed by EduAnalytics for context, and from Maryland’s historical record of fiscal behavior, based on audits, producing the following policy conclusions:

1. The proper full context for analysis of county school district and state pension and OPEB fis-
Pension & OPEB Unfunded Liabilities

cal health must include Maryland’s fiscal health and PGCPs’s fiscal health.

2. Maryland’s comprehensive fiscal health, ranked 46th by the Mercatus Center, is among the five weakest states, in company with NJ (50th), IL (49th), MA (48th), and KY (47th).

3. Nearly all states have challenges with unfunded pension and OPEB liabilities. Maryland ranks 16th in trust fund solvency, above average, but has a huge pension unfunded liability ($20.0 billion). PGCPs also has a significant OPEB unfunded liability ($3.1 billion). Thus, both require secure and consistent funding over the next 30 years to correct. Maryland and PGCPs need to have more substantial and secure rainy day funds and strategies.

4. Maryland has a significantly weaker fiscal short-position than the average of all states (cash ratio, quick ratio, and current ratio) and a weaker-than-average restrictive long-position (amount of general obligation bonds and total primary debt). These conditions are not conducive to maintaining a substantial and secure rainy day fund and strategy. The fiscal status quo for Maryland and PGCPs is not sufficient to correct fiscal deficiencies and unfunded liabilities.

5. Projections of recent past fiscal behavior, based solely on actual fiscal outcomes, indicate that the MSRPS (Maryland State Retirement and Pension System) will not likely reduce its $20 billion unfunded liability, and may increase it, by FY 2026, unless more aggressive measures are executed consistently.

6. Projections of recent past fiscal behavior, based solely on actual fiscal outcomes, indicate that PGCPs will not likely reduce its $3.1 billion unfunded liability by one-fourth by FY 2026 (10 years from now), and will not likely be on target for a reasonable amount of unfunded liability within 30 years, unless more aggressive measures are executed consistently.

7. Given the current state fiscal structural deficit and PGCPs’s negative equity, a tenuous fiscal future built on a shallow short fiscal position and a restrictive long position, a history of ineffec-
tive fiscal behavior, additional contextual examples from unfunded liability problems in other states, and PGCPs audits showing challenges facing fiscal managers – it is highly unlikely that state and local unfunded liability problems will be resolved passively by GDP growth or enrollment growth, assuming status quo measures.

**APPROACH**

Based on the FY 2015 comprehensive annual financial reports of the 50 states, this study ranks states’ fiscal solvency using 13 metrics that assess the extent to which states can pay short-term bills and meet longer-term obligations. State finances are analyzed according to five categories of solvency: cash, budget, long-run, service-level, and trust fund. These five categories are combined to produce an overall ranking of state fiscal solvency (Figure 1).

For context, InSpire/EduAnalytics plotted FY 2015 state fiscal health data from the Mercatus Center at George Mason University onto a 4-quadrant bubble chart (Figure 2). The horizontal axis for this chart represents, for each state, its ranking by comprehensive fiscal health (1 is best; 50 is worst).
The vertical axis represents state ranking by trust fund solvency. Each state is represented by a bubble. The relative bubble size for a state represents that state's ratio of unfunded liability divided by state personal income (1 is best; 50 worst).

This relative type of measure enables appropriate state-to-state comparisons. Maryland has better-than-average trust fund solvency (ranked 14th), but ranks 46th for comprehensive fiscal health (Figure 3).

Quadrant D shows Maryland is 14th in trust fund solvency—better than average, and 46th in comprehensive fiscal health, among the five worst states: NJ (50th), IL (49th), MA (48th), KY (47th). Maryland ranks 14th (better than average) in trust fund solvency. So, why worry about unfunded pension and OPEB liabilities?

**Directionality and historical fiscal behavior:**
In FY 2000, the MSRPS was fully funded, with no unfunded liabilities. Now it's 70 percent funded in the best case, or 34 percent using a risk-free investment rate assumption.

**Magnitude of amount:** The reported unfunded pension liability amount is $20 billion; using a very conservative risk-free investment rate, $88 billion. OPEB could add another $9 billion. This will require a plan that is more aggressive than current practice to reduce unfunded liabilities, while staying current with annual contributions.
Few state rainy day dollars: Maryland's weak comprehensive fiscal health is primarily due to its poor short-term metrics—too few funds for rainy days (Figure 4).

KEY TERMS

Cash solvency measures whether a state has enough cash to cover its short-term bills, which include accounts payable, vouchers, warrants, and short-term debt. (Maryland ranks 46th)

Budget solvency measures whether a state can cover its fiscal year spending using current revenues. Did it run a shortfall during the year? (Maryland ranks 39th)

Long-run solvency measures whether a state has a hedge against large long-term liabilities. Are enough assets available to cushion the state from potential shocks or long-term fiscal risks? (Maryland ranks 44th)

Service-level solvency measures how high taxes, revenues, and spending are when compared to state personal income. Do states have enough "fiscal slack?" If spending commitments demand more revenues, are states in a good position to increase taxes without harming the economy? Is spending high or low relative to the tax base? (Maryland ranks 16th)

Trust fund solvency measures how much debt a state has. How large are unfunded pension liabilities and OPEB liabilities compared to the state personal income? (Maryland ranks 14th).

HISTORY OF PENSION AND OPEB PROBLEMS

Illinois's financial problems are extensively covered by financial media. The common assessment is that Illinois decision-makers kicked the unfunded-liability-and-state-fiscal-problems can down the road for decades—never acknowledging the problems, only window-dressing for personal and political gain. For decades, Illinois lacked AWE (awareness, will, and the economy). Now Illinois is in shock and AWE, but at least now Illinois has a chance for improvement.

Maryland, at 46th, is ranked just three positions above Illinois's 49th ranking for comprehensive fiscal health. Just two things differentiate Illinois's fiscal problems from other states: time and AWE. At what point in time does a state truly confront and address its fiscal problems in a realistic manner with AWE? Illinois waited until state cash was depleted. Taxpayers are taxed to the extent that they are leaving the state, and citizens are seeing 30 percent increases in taxes for reduced services.

Maryland's unfunded liabilities are in the tens of billions of dollars and require a consistent funding plan spanning 20 to 30 years to fix. At what point does Maryland want to address this issue fully with AWE?

Regarding Maryland's short-position weakness, pertinent FY 2015 metrics from the Mercatus Center's data and analysis are shown below (see green shaded ratios, Figure 5). Also see the small surplus per capita compared to the large long-term liability per capita. Maryland's current weak short-position...
will not support an adequate rainy day fund to assure that fiscal plans to reduce unfunded liabilities will not be derailed by common changing economic conditions and political jockeying.

But isn’t a ranking of 14th for trust fund solvency good? For the long term, there is both good and bad news.

**Good news:** Maryland ranks 14th for trust fund solvency (in an environment where most states have serious problems with unfunded liabilities). Maryland has a problem, but it is smaller than most states.

**Bad news:** In addition to having a weak short-position, Maryland has higher than average general obligation bonds and total primary debt per capita. (Figure 6)

**FY 2016 ACTUALS AND PROJECTIONS**

The PGCPS FY 2016 audit found that “the new pension reporting requirements mandated by the Government Accounting Standards Board (GASB) have resulted in negative equity in the government-wide statement of net assets for the first time in the school system’s history.” In FY 2016, PGCPS’s OPEB trust fund was 1.9 percent funded and 98.1 percent unfunded, with an unfunded liability amount of $3.1 billion (best case).

Is the status quo sufficient to assure that current pension and OPEB contributions are paid, and unfunded liabilities are significantly reduced, given a present with fiscal structural deficit and negative equity, and a tenuous fiscal future built upon shallow finances and a past with ineffective fiscal behavior? Why base a projection on historical fiscal behavior?

The rationale for basing pension and OPEB projections on historical fiscal behavior (in charts that follow) is this:

**First**, all traditional calculations of liabilities and unfunded liabilities are really just estimates based on numerous assumptions (there is no one right answer).

**Maryland ranks 14th for trust fund solvency (in an environment where most states have serious problems with unfunded liabilities).**

**Second**, each entity has a natural tendency to window-dress their estimates and/or hide behind accounting standards that are not intended to advance analysis or context—MSRPS, PGCPS, actuaries, and CPAs included.

**Third**, the future is unknown; past behavior is known.

The source of data for these projections is audits. These projections do not reflect any changes in funding strategy (except if they are reflected in the historical data), or changes in the economic or demographic environment. They take past fiscal conditions at face value—no adjustments for inflation, real estate changes, or other variables that might affect fiscal performance. Each point is a single data point. The data is a single moment in time.
behavior as reflected in fiscal outcomes and base projections on that actual data.

**BENEFITS AND LIMITATIONS OF SIMPLE PROJECTIONS**

**Benefits**
Projections based on actual fiscal behavior filter out wishful thinking, window dressing, and misapplication of assumptions. They consider only actual fiscal outcome data. Because of the limitations noted below, such projections are best used for a reasonableness test (in the ball park) to determine if something is reasonably feasible based on actual behavior and math. These projections do not attempt to determine a precise future outcome, but rather provide a 30,000-foot view of possibility.

**Limitations**
Projections based on actual fiscal behavior do not reflect any planned changes in funding strategy, or changes in the economic or demographic environment. They take past behavior as reflected in fiscal outcomes and base projections on that actual data without consideration of any additional assumed factors, even assumptions that may be obvious and reasonable. Therefore, such projections should be limited to use as a means to test the broad reasonableness of an expectation, not as a means to calculate or estimate a future specific number.

**BEST AND WORST-CASE SCENARIOS**

**Worst-Case**
The (Figure 7) scenario is projected from 17 years of ineffective fiscal behavior, based on a projection of actual data from FY 2000 (when the MSRPS was fully funded) to FY 2016, indicates that by FY 2026 the unfunded liability will have doubled to about $40.0 billion and the percent funded will be near 56.8 percent—if positive variables (such as a good investment rate) and negative variables (such as, an economic downturn) nearly offset.

**Best-Case**
Even a best-case scenario, projected from the last 7 years of insufficient fiscal behavior, leaves $20.5 billion unfunded.

Figure 8 is based on a more reasonable projection of actual data from FY 2010 to FY 2016 (more recent years with better fiscal behavior), indicates that by FY 2026 the unfunded liability will remain
at near $20.5 billion and the percent funded will have increased to about 77.6 percent—if positive variables (such as a good investment rate) and negative variables (such as, an economic downturn) nearly offset.

Shouldn’t strategy consider best and worst cases? According to audits, in FY 2016 MSRPS was 70.5 percent funded, and unfunded liabilities totaled $20.0 billion. Figures 7 and 8 show a worst-case projection (based on 17 years of ineffective fiscal behavior) and a best-case projection (based on the last 7 years of better but insufficient fiscal behavior). Without any additional remedial action, the most likely outcomes by FY 2026 (10 years from now) will likely be between these worst and best cases.

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Worst Case
- MSRPS 56.8% funded, 43.2% unfunded
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Best Case
- MSRPS 77.6% funded, 22.4% unfunded
- $20.5 billion in unfunded liabilities

More aggressive pension funding action is needed to assure that unfunded liabilities are reasonably reduced. Maryland needs to improve its ability to expand a rainy day fund specifically for its commitments to reduce unfunded liabilities.

PORTION OF UNFUNDED LIABILITY
MSRPS apportions unfunded liability amounts to participating organizations, including to PGCPs, for reporting purposes. The total state MSRPS unfunded pension liability in FY 2016 is $20.0 billion. PGCPs’s portion of that unfunded pension liability in FY 2016 was $1.4 billion (7 percent of total). In FY 2015 and FY 2016 the apportioned amounts for PGCPs were as follows:

Teachers’ retirement & pension system: Unfunded liability
- FY 2015 $920,357,725
- FY 2016 $1,246,330,282
Employees’ retirement & pension system:
Unfunded liability
- FY 2015 $133,245,038
- FY 2016 $183,391,231

HISTORICAL FISCAL BEHAVIOR
Figure 9 bases a projection on actual data from FY 2010 through FY 2016 (most recent 7 years of data available). Prior to FY 2010, the OPEB trust fund (established in FY 2008) had only marginal contributions and asset accumulation as a place-holder. Using GASB-specified measures below, recent past fiscal behavior will result in run-away net OPEB obligation, even if positive variables (such as a good investment rate) and negative variables (such as health care cost increases) nearly offset, and if PGCPS does not experience any major revenue disruptions.

PGCPS’ OPEB unfunded liability is almost 3 times’ annual salaries.

As Figure 10 indicates, the PGCPS OPEB liability is almost the size of three years of covered salaries,
Pension & OPEB Unfunded Liabilities

CONCLUSION

It takes a plan and discipline to dismantle a mountain. Prior to FY 2008 the "pay-go" method was used to pay for OPEB, with essentially 0 percent funded liability – as was common practice at that time. Positive, yet insufficient, actions have been taken by PGCPS regarding other post-employment benefits (OPEB). The OPEB trust fund was set up in FY 2008, and contributions are being made to reduce unfunded liabilities. For determination of funding status, OPEB managers use an assumed investment rate of 5.25%, which is more realistic and conservative than the rate used by MSRPS (7.55 percent). But more is needed.

The OPEB reasonableness projection in the chart above shows that based solely on past fiscal behavior the net OPEB obligation continues at 279.5 percent of covered salaries in FY 2016. For FY 2016 the unfunded liabilities total $3.096 billion whereas covered salaries are $1.108 billion. The current size of this unfunded liability hole is huge, and will require decades of consistent funding to fill. The same FY 2016 metric is presented in yellow shaded boxes below for other jurisdictions.

UNFUNDED LIABILITIES EXPLAINED

A state has only one bucket of money. America’s Constitution and state constitutions establish a fiscally closed system of governance, whereby a state has its own finite bucket of money. Take a dollar out of that bucket for one thing, like funding OPEB liabilities, and there is one less dollar for anything else. Maryland school districts, state agencies, and local governments receive most of their money from that one bucket.

The total amount of PGCPS’s OPEB unfunded liabilities ($3.096 billion) is equal to 93 years of annual 3 percent salary increases for teachers and employees.

Not addressing the problem now only makes the future worse for education, students, taxpayers, and future generations of students. More action is needed.

Economists explain the workings of a state’s finite bucket of money using a more concise term: "crowding out" (or "crowd out"). In a real-world example of the consequences of pension and OPEB unfunded liabilities, Laurence Msall of the Civic Federation, a budget watchdog, noted that in Illinois, 22 percent of all state general funds are paying off pensions and servicing debt, and this is crowding out other areas in the budget, such as education. And in California, “These large and growing contributions to public employee defined benefit plans are diverting revenues away from other priorities,” wrote Wayne Winegarden of the Pacific Research Institute. “Public pension expenditures are crowding out expenditures on public goods and services and creating pressure to raise taxes in order to fund government employees’ retirement.” Winegarden noted that in San Jose, California, taxes have increased while roads deteriorate and community services suffer. Lower- and middle-income taxpayers end up paying more to fund public employee pensions.

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of Education program designed to enhance the level of products and services provided by state charter associations. Additionally, he provided the financial analysis for the U.S. Government Accountability Office study of Title 1 expenditures and the U.S. Department of Education National Charter School Finance Study.

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1. All comments regarding OPEB are about PGCPS’s OPEB obligation, unless otherwise indicated.
4. Ibid.

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