The Status of Local Government Pension Plans in the Midst of COVID-19

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Even though financial markets have mostly recovered from the initial downturn sparked by the COVID-19 pandemic, public pension plans will have closed fiscal year (FY) 2020 with virtually no change in their average funded ratio.[1] And, looking forward, the strains on state and local government revenue due to COVID-19 will likely hamper governments' ability in the near term to make their required pension contributions. This *brief* describes the current status and future outlook for local plans specifically, given that they include some of the worst funded public plans.

The discussion proceeds as follows. The first section reports on the projected status of local pension plans as of 2020. The second section projects the finances of local plans through 2025 and shows that, while the aggregate funded ratio is projected to decline, local plans as a group still maintain significant assets. The third section focuses on the most vulnerable local plans, where the adequacy of assets may become a serious issue. The final section concludes that, on the whole, local plans are only slightly worse off than state plans, but a few local plans are severely underfunded and face a real threat of insolvency.

Status of Local Plans as of FY 2020

Local pension plans – that is, plans administered by local governments – account for 95 percent of the 6,276 state and local plans, but only 12 percent of plan members and 20 percent of plan assets.[2] That is, these plans are numerous but mostly small.[3] The *Public Plans Database (PPD)* includes 80 local plans that represent 60 percent of all local plan assets and members. This sample is geographically representative, with at least one local plan in each of the 40 states that have a local plan (plus the District of Columbia).

Funded Ratio

As of mid-June, about half of local plans had reported 2019 funded levels, and none had reported 2020 levels.[4] Therefore, the analysis generates plan-by-plan projections to 2019 and 2020 using data from the most recently released reports. Based on these projections, the 2019 aggregate funded ratio for local plans was 72.1 percent – slightly lower than the 73.0 percent for states. For 2020, funded levels are projected to be 70.8

A Note to State and Local Governments

The COVID-19 pandemic and related economic downturn will negatively affect the overall finances of state and local governments. However, given the differences in revenue structures, intergovernmental transfers, access to capital, and overall service and programmatic responsibilities, the impact on states may differ from that of localities.

In May 2020, the Center for State and Local Government Excellence and the Center for Retirement Research at Boston College released 2020 Update: Market Decline Worsens the Outlook for Public Plans to assess where public pensions were headed by the end of 2020 and beyond. Building on this previous research, The Status of Local Government Pension Plans in the Midst of COVID-19, focuses more specifically on the 80 local government plans in the Public Plans Database, which represent 60% of all local pension members and assets.

Overall, state and local plans appear to be on a similar path, both in the near and long-term. This brief finds that for 2020, funded ratios are projected to be 70.8% for local government plans, relative to 72.4% for state plans. Also, depending on two different market scenarios – one based on expected returns and another on more muted returns - local plans are projected to have an aggregate funded ratio between 64.6% and 61.7% in 2025, while state plans will be between 68.2% and 65.2%. Stakeholders should note that for plans in the sample with the lowest funded ratios today, there is a real possibility that they will exhaust fund assets soon after 2025, requiring significantly larger annual budget allocations in order to provide promised benefits.

-The Center for State and Local Government Excellence

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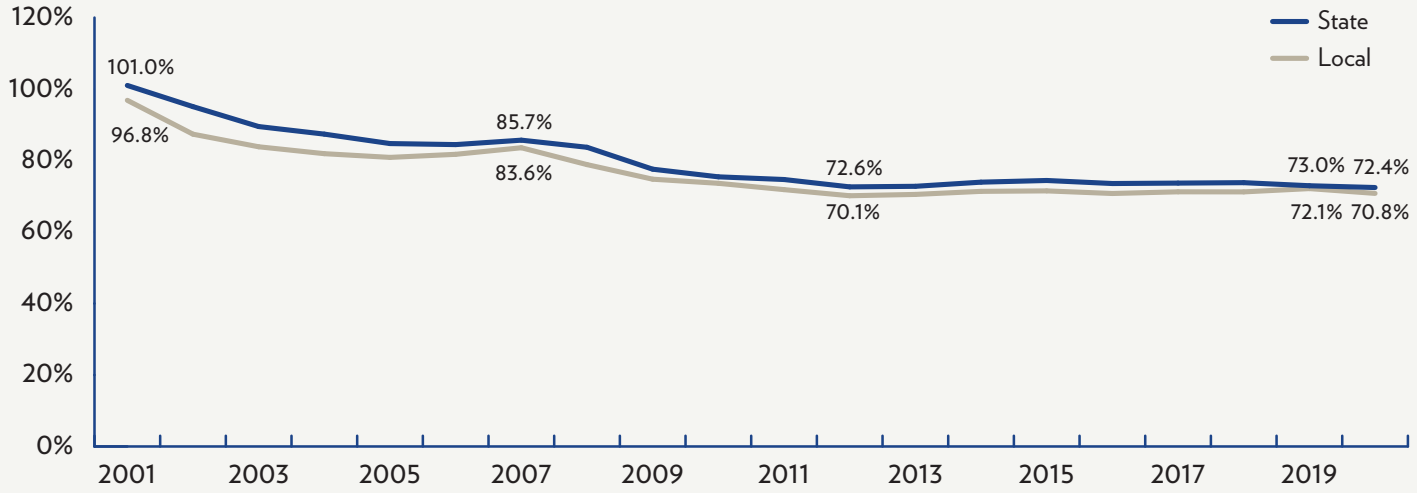
Figure 1. *Average Funded Ratios for State and Local Pension Plans, FY 2001-2020*



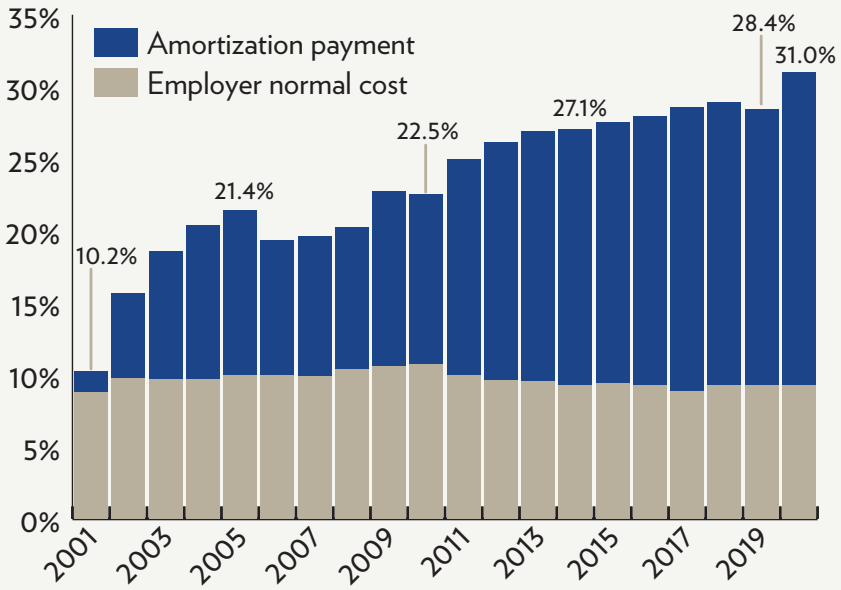
Sources: Authors' estimates based on various plan financial reports and *Public Plans Database* (PPD) (2001-2019).

percent for local plans, compared to 72.4 percent for state plans (see Figure 1).

Actuarially Determined Contributions

A decline in the funded ratio translates to an increase in plans' actuarially determined contributions (ADC) – the contribution amount designed to keep the plan on a steady path toward full funding. The ADC equals normal cost (the present value of the retirement benefits accrued in a given year) plus a payment to amortize the unfunded liability (the gap between the level of actuarial assets and actuarially accrued liabilities) over a specified timeframe (i.e., 20 to 30 years). Since 2001, local plans, like their state-administered counterparts – have seen significant increases in actuarial contributions, with nearly all of the increase due to larger payments to amortize the unfunded liability (see Figure 2).

Figure 2. *Actuarially Determined Contributions for Local Pension Plans, FY 2001-2020*



Sources: Authors' estimates based on various plan financial reports and PPD (2001-2019).

Historically, both state and local plans have received roughly 90 percent of their ADC on average. However, pension researchers (and some practitioners) have questioned the adequacy of actuarial contributions as they are commonly calculated – highlighting the importance of more stringent funding methods, such as level dollar amortization (which does not backload costs in the way a level-percent-of-pay method does) and shortened amortization periods.[5]

While implementing these best practices would make plans better off, the adequacy of pension contributions ultimately depends on achieving the assumed return. The average annualized return for local plans since 2001 is 5.6 percent – the same as states, but below the 7.2-percent return that they expected over the period.[6] When returns fall short of expectations, contributions will be inadequate no matter how stringent the funding method.

Projections to 2025

To understand how COVID-19 might affect the future funded status of local plans – either through constraints on government contributions or through the financial markets – the plan-by-plan projections are extended from 2020 to 2025.[7]

State and local governments will likely see significant reductions in revenue that could hamper their ability to adequately fund their pensions. To account for this situation, pension contributions over the next five years are projected to follow the pattern observed during the Great Recession in which contribution growth slowed for a few years before returning to more historical levels. Specifically, annual growth in pension contributions is projected to be about 2.5 percent in 2021 and 2022, and roughly 6.5 percent thereafter.[8]

In terms of financial markets, we adopted two scenarios. The first scenario projects that financial markets remain at current levels until June 2021, and plans achieve their expected return – roughly 7.2 percent – for the next four years. To test plans' ability to withstand a period of lower returns in the financial markets, the second scenario projects that markets remain at current levels until June 2021 and plans achieve a 5.6-percent annual return from that point forward (similar to the annualized return that public plans experienced from 2001 to 2020 – a period that has included three financial downturns).

Table 1 presents some of the key results from these projections. Under both market scenarios, the 2025 funded ratio falls from 2020 levels, with the funded ratio for local plans slightly lower than that of state plans. However, in the aggregate, both state and local plans are projected to maintain assets to pay benefits for several years. Even in the lower-return scenario, the average ratio of assets to benefits (a rough measure of trust

Historically, some governments have paid less of the actuarially determined contribution immediately following major downturns.

Table 1. *Key Financial Metrics for Local and State Pension Plans, 2020 and 2025*

Item	Local			State		
	2020	2025		2020	2025	
		Expected return	Lower return		Expected return	Lower return
Funded ratio	70.8%	64.6%	61.7%	72.4%	68.2%	65.2%
Assets to benefits ratio	12.1	11.1	10.3	13.1	11.2	10.4
Net cash flow to assets ratio	-3.2	-4.4	-4.8	-3.1	-3.8	-4.1

Sources: Authors' estimates based on various plan financial reports and PPD (2001-2019).

fund health) as of 2025 is 10.3 for locals and 10.4 for states – meaning that the plans are projected to have assets on hand equal to about ten years of benefits.

Importantly, plans can sustain asset levels indefinitely if annual investment returns offset their negative cash flow. The net cash flows for local plans in the lower-return scenario are negative 4.8 percent of assets – an achievable threshold to overcome given that the annualized return from public plans from 2001 to 2020 (a period that has included three financial downturns) is 5.6 percent. But, if plans do not consistently achieve investment returns that offset their negative net cash flows, they risk a downward spiral towards asset depletion.

How the Most Vulnerable Plans Might Fare

Although local plans remain relatively resilient on average, plans with extremely low funded ratios in 2020 may face the risk of running out of assets in the foreseeable future if markets are slow to recover. Table 2 presents the projection results for the ten worst-funded local plans under the lower-return scenario.

In 2025, the average estimated funded ratio for the 10 worst-funded local plans is projected to be 37 percent. And the three worst local plans — Chicago Municipal, Charleston (WV) Fire, and Chicago Police — are projected to have funded ratios of less than 30 percent.[9]

Given the low funded ratios, a more pressing issue may be the extent to which plans will be able to pay benefits. For this assessment, as noted, the key metric is the ratio of assets to benefits. For the 10 worst-funded local plans, the average ratio is projected to be 5.2. That figure means that, in 2025, these 10 local plans are projected to have assets on hand equal to about five years of benefits. However, the projected ratio for Chicago Municipal – which has severely negative cash flows – is equal to only about two years of payments. So, while all local plans are projected to have assets at the end of the five-year period of slow growth, some face the real possibility of exhausting their assets shortly thereafter.

The final three columns investigate the future pension contributions potentially faced by the government sponsors of these troubled plans. The first column reports the ADC in 2025, which averages just under 60 percent of payrolls – nearly double the

Table 2. *Projections of Key Financial Metrics for the Ten Worst-Funded Local Plans, 2025*

Plan name	Funded Ratio	Assets to benefits	Net cash flow	Contribution comparison		
				Actuarial contribution	Stave off insolvency	Pay-go
Local Plans Average	36.7%	5.2	-4.7%	58.9%	49.0%	70.3%
Chicago Municipal	11.1%	1.9	-19.7%	83.2%	51.8%	59.5%
Charleston, WV Fire*	22.0%	5.6	8.1%	56.7%	71.4%	106.4%
Chicago Police	24.1%	4.1	-0.6%	66.1%	52.8%	70.2%
Providence ERS	33.4%	4.6	1.9%	64.3%	44.9%	62.2%
Dallas Police and Fire	34.3%	3.6	-12.7%	58.6%	84.9%	109.4%
Chicago Teachers	37.4%	5.9	-4.6%	71.6%	49.1%	75.2%
Omaha ERS	44.7%	4.2	-8.1%	64.6%	39.2%	52.9%
Omaha Police and Fire	52.1%	7.7	-2.2%	57.6%	35.4%	64.0%
Houston Municipal	53.2%	7.2	-6.3%	29.5%	32.5%	56.0%
Philadelphia Municipal	54.4%	6.8	-2.6%	37.0%	28.1%	46.7%

*Charleston Fire is funded as a pay-go system and its actuarial valuation is based on a 4.5-percent assumed return. For comparison purposes, the funded ratio and actuarial contribution presented in this table are calculated based on a 7.2-percent assumed return – the average used by local plans.

Sources: Authors' estimates based on various plan financial reports and PPD (2001-2019).

average for all local plans.[10] To the extent that the government sponsors of these troubled plans cannot afford to pay the high actuarial contributions, the contribution rate required to simply stave off trust fund insolvency – that is, the exhaustion of their pension assets – averages nearly 50 percent of payroll (assuming plans earn 5.6-percent returns). Finally, if plans do run out of assets, governments shift to pay-go funding, whereby benefits are paid directly from annual contributions without the assistance of investment returns on accumulated pension assets.[11] Under pay-go, government contributions average just over 70 percent of payrolls. These sobering statistics highlight the precarious position of the worst-off local plans and the high costs that their sponsoring governments will face in the near future.

Conclusion

As a result of the financial downturn sparked by COVID-19, public plans will close 2020 with virtually no change in their average funded ratio. Projections beyond 2020 suggest that the finances for all public plans will deteriorate further, with local plans slightly worse off than states. Still, most local plans will maintain sufficient assets from which to pay benefits indefinitely. A few of the worst-funded local plans, however, face the real threat of trust fund exhaustion thereafter and will require extraordinary contributions by their government sponsors.

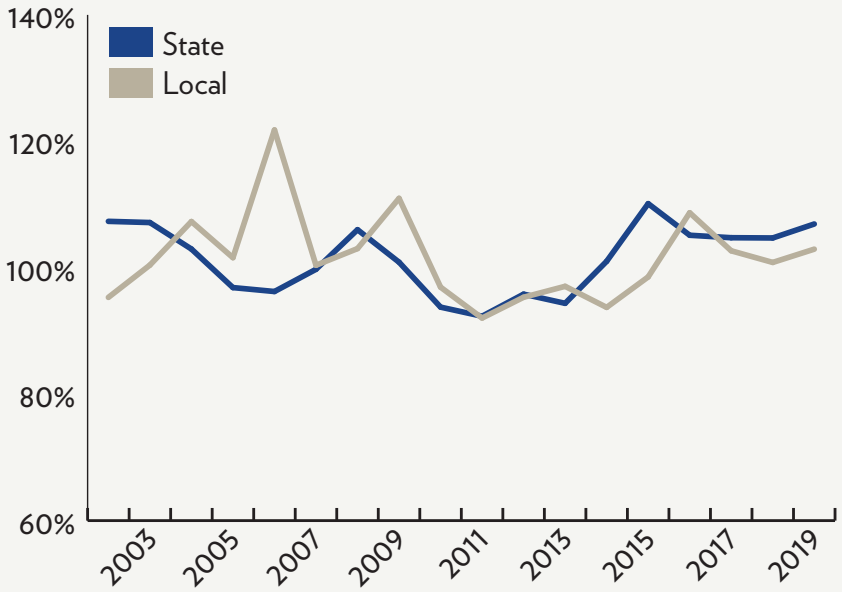
Appendix A: Local Pension Funding

Like their state-administered counterparts, local plans have historically paid at least 90 percent of their actuarially determined contributions each year (see Figure A1).

Interestingly, local plans tend to use more stringent funding methods than state plans when determining their actuarial contributions. Specifically, a larger percentage of local plans use the level dollar method to amortize their unfunded liability, which pays down a larger portion of the funding gap in earlier years (see Figure A2).[12] Local plans also have shorter amortization schedules, which further increases their scheduled payments to close the funding gap.

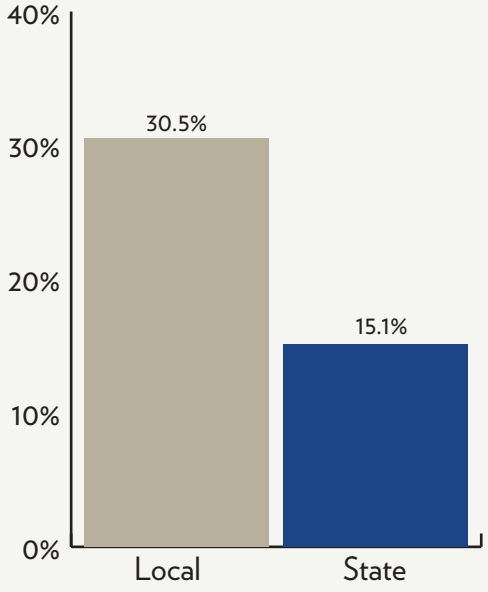
One way to assess the expected impact of local pension contributions is by expressing the amortization payment as a percentage of the unfunded liability. The ratio for local plans is 8.2 percent – meaning that pension contributions are expected to reduce unfunded liabilities by about 8 percent each year. Given that the percentage is 7.2 for state plans, local contributions are expected to reduce unfunded liabilities by about 1 percentage point more than state contributions.

Figure A1. *Percentage of Actuarially Determined Contributions Paid for State and Local Pension Plans, FY 2002-2019*



Sources: Authors' estimates based on various plan financial reports and PPD (2002-2019).

Figure A2. *Percentage of Plans Using Level Dollar Amortization, 2019*



Sources: Authors' estimates based on the PPD (2019).

Appendix B: Projection Methodology

Projected Investment Returns

The analysis assumes that plans maintain the most recent asset allocation reported in the PPD (generally, based on CAFRs reporting as of 2019) through 2025. To estimate overall portfolio returns for 2020, annual returns for each asset class are based on changes to selected indices presented in Table B1.

For future periods in which index data are not available, the analysis assumes two scenarios:

- **Faster Growth:** Indices remain at their current levels until June 2021. Thereafter, each plan achieves its assumed return – roughly 7.2-percent each year.
- **Slower Growth:** Indices remain at their current levels until June 2021. Thereafter, each plan achieves a 5.6-percent annual return to match the average annualized return for public plans since 2001.

Projected Contribution Growth

Total pension contributions (employee and employer combined) for each plan are assumed to grow by 8.5 percent in 2019 and 2020 – equal to the average annualized rate of growth for PPD plans between 2013 and 2018. Thereafter, each plan's contributions grow by 2.5, 2.6, 6.8, 6.5, and 6.5 percent from 2021 to 2025 – equal to the average year-to-year pattern of growth for all PPD plans immediately following the Great Recession in 2009. Projected contributions for each year are capped at each plan's actuarially determined contribution.

Table B1. *Indices Used to Project Asset Class Returns*

Asset class	Index
Domestic equities	Russell 3000
International equities	MSCI ACWI ex. USA
Fixed income	S&P Aggregate Bond Index
Cash	S&P 3-month US Treasury Index
Private equity	LPX Group Composite Listed Private Equity Index
Hedge funds	HFRI Fund of Funds Composite
Commodities	S&P World Commodity Index
Real estate	MSCI US REIT Index

Projected Benefit Growth

Annual benefit payments for each plan are assumed to grow by the average annualized rate observed between 2013 and 2018.

Projected Assets

Projected market assets for each plan are estimated based on the following equation: *Asset(t+1) = Asset(t)*(1+investment return(t+1)) + .5*(contributions(t+1) - benefits(t+1))*(1+investment return(t+1)) + .5*(contributions(t+1) - benefits(t+1))*.

To convert market assets to actuarial assets, the CRR applies each plan's method of actuarial smoothing to the estimated market gains and losses calculated by comparing each plan's projected investment returns to their assumed return.

Actuarial Liabilities

Actuarial liabilities for each plan are estimated based on the following equation: *Liabilities(t+1) = Liabilities(t)*(1+assumed investment return(t+1)) + .5*(normal cost accrual(t+1) - benefits(t+1))*(1+ assumed investment return(t+1)) + .5*(normal cost accrual(t+1) -benefits(t+1))*

The assumed return for each plan remains constant at the most recently reported levels. Normal cost accrual is equal to the total normal cost as a percentage of payroll multiplied by covered payroll. The analysis assumes that each plan's total normal cost as a percentage of payroll remains constant at the most recently reported levels, while covered payroll grows by the plan's most recently reported assumption for payroll growth.

End Notes

1 Aubry, Munnell, and Wandrei (2020).

2 Local plans cover virtually no teachers, roughly 25 percent of local administrative employees, and 50 percent of local public safety workers.

3 While most local plans are small, some are very large. More than 90 percent of local plans have under $1 billion in assets, but three plans – the New York City Employee Retirement System, the New York City Teachers Retirement System, and the Los Angeles County Employee Retirement System – each have market assets in excess of $50 billion.

4 While most local plans report on a June fiscal-year-end, a meaningful share report on a December fiscal-year-end and have not yet released their 2019 reports as of June 2020.

5 See Appendix A for more details on the local pension contributions.

6 The majority of state and local pension plans report their investment performance as of June or December. Among plans reporting as of June, the average annualized return was 5.6 percent for locals and 5.5 percent for states. For those reporting as of December, the average annualized return was 5.5 percent for locals and 6.0 percent for states. If, in addition to using more stringent funding methods, local plans were to adjust their return expectations to more closely match their actual investment performance since 2001, the average actuarial contribution for local plans in 2020 would rise from 31.0 percent of payroll to 45.3 percent.

7 See Appendix B for projection methodology.

8 Projected contributions average roughly 80 percent of the ADC from 2021 to 2025. Importantly, for estimation purposes, annual contributions for each plan are capped at the plan's ADC.

9 The City of Chicago put in place funding policies for Chicago Municipal and Chicago Police plans that stipulate specific dollar amounts for pension contributions over the next 3-5 years. Using the city's funding schedule produces funded ratios in 2025 of 18.9 percent and 25.4 percent for Chicago Municipal and Chicago Police, respectively.

10 Although some plans – such as Chicago Municipal and Chicago Police – have scheduled contribution increases over the next 3-5 years, the analysis projects the same rates of contribution growth for all plans.

11 The 1978 Pension Task Force Report on Public Employee Retirement Systems found that roughly a quarter of pension plans funded pension benefits on a pay-go basis.

12 The remainder of plans use level percent of payroll, which backloads the amortization of unfunded liabilities towards later years in the amortization schedule. In contrast, level dollar maintains a consistent dollar payment each year, allowing more of the liability to be paid down in early years.

References

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