The Cost Burden of Pension and OPEB Plans

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People often generalize about the costs of state pensions.

"States are staring at a trillion-dollar pension hole."
−*CBS MoneyWatch*

"Pensions pose time bombs for budgets."
−*The Pew Charitable Trusts*

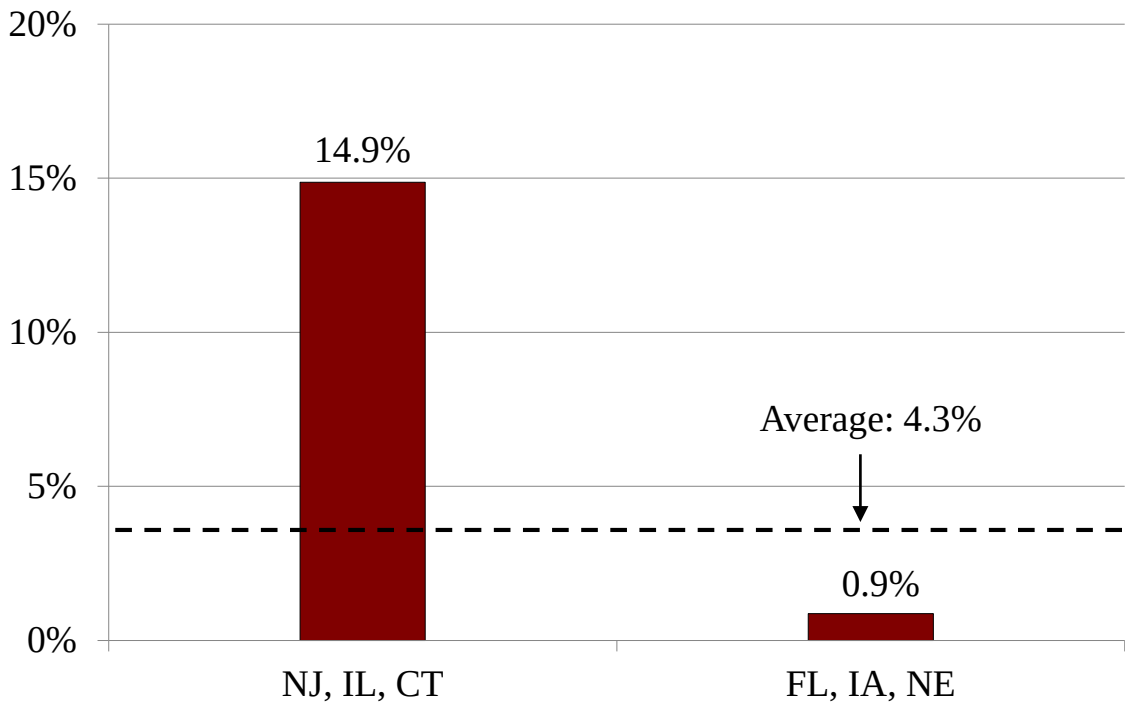
"Debt woes: Can Illinois (or your state) avoid becoming the next Greece?"
−*The Christian Science Monitor*

But this approach is too narrow to capture the liability burden facing governments…

Jurisdiction	Pensions	OPEBs	Municipal Bonds
States	X		
Counties			
Cities			

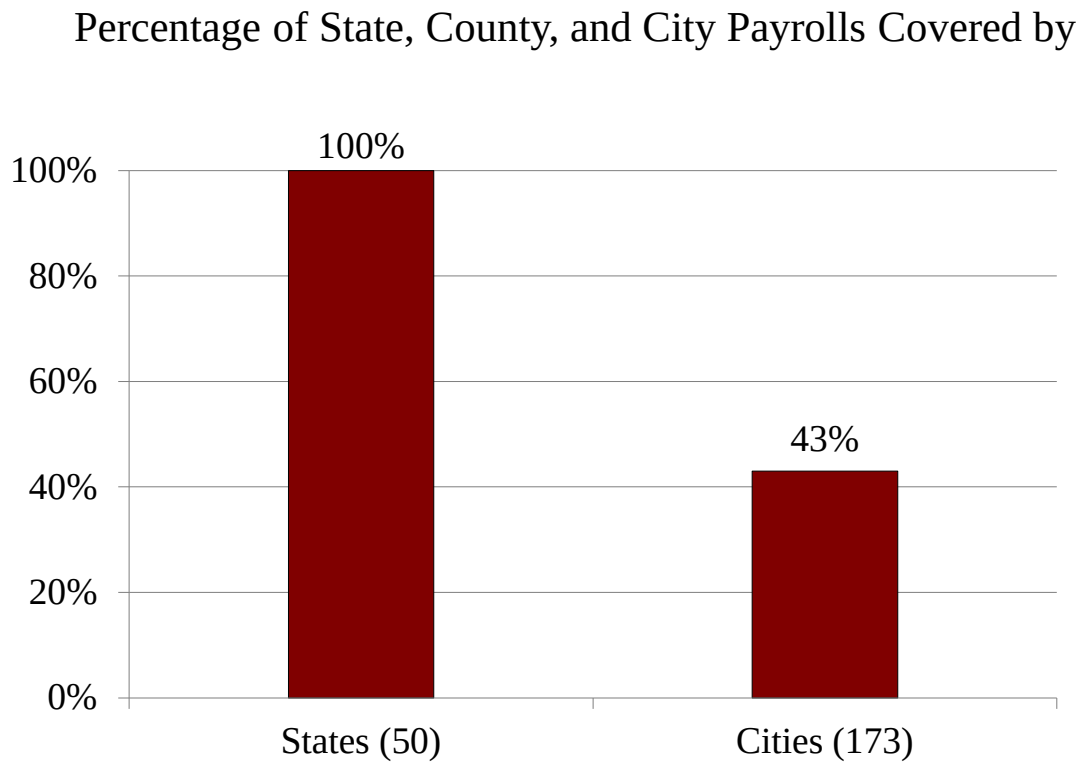
…and too broad to inform policy.

State Pension Costs as a Percentage of Own-Source Revenue for States with Highest and Lowest Burdens, 2014



Sources: Authors' calculations based on various FY 2017 plan and government financial reports and actuarial valuations; and U.S. Census Bureau (2017).

So, we looked at *all* major liabilities for a broad sample of individual jurisdictions.



Source: Authors' calculations based on U.S. Census Bureau (2017).

The analysis involved four main tasks.

1. Choosing the revenue base to put liability payments in context.

2. Determining the debt interest payments for each government.

3. Allocating retirement plan liabilities to each government

4. Calculating the required payment for retirement plan liabilities.

1. As our revenue base, we chose own-source revenues from the Census.

Sources of Total Net Revenue, by Level of Government

Level of government	Intergovernmental transfers					Own-source revenue
	Inflows from:			Outflows	Net transfers	
	Federal	State	Local			
State	42.2%	0.0%	1.1%	40.2%	3.1%	96.9%
County	3.8	30.4	2.5	3.7	32.9	67.1
City	6.8	13.1	3.1	2.7	20.3	79.7
Total	24.6	9.1	2.0	22.2	13.4	86.6

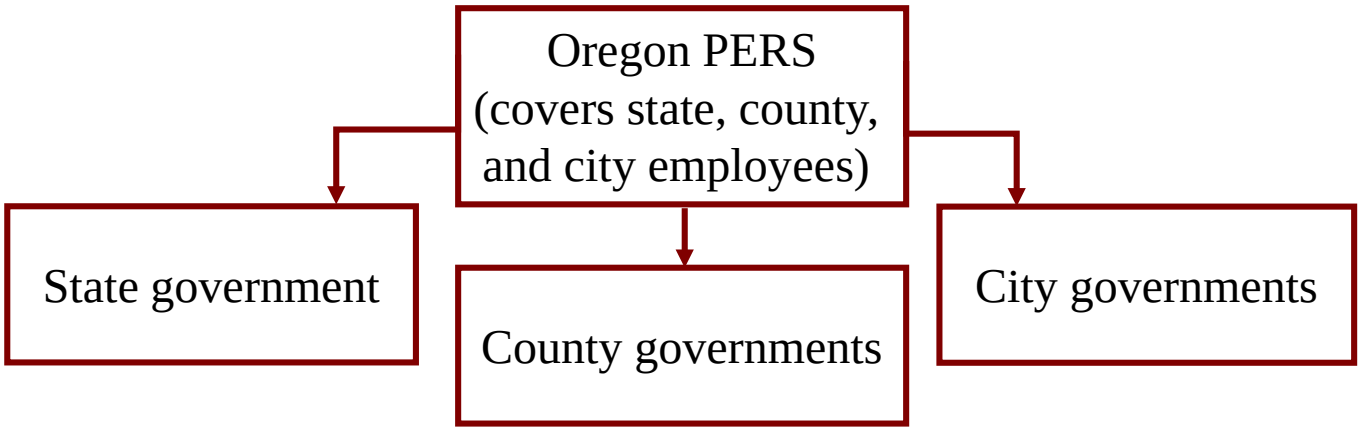
Source: Authors' calculations from U.S. Census Bureau (2014).

2. We estimated debt interest payments based on data from the Census.

- We assume that governments maintain their current debt-to-revenue levels going forward.

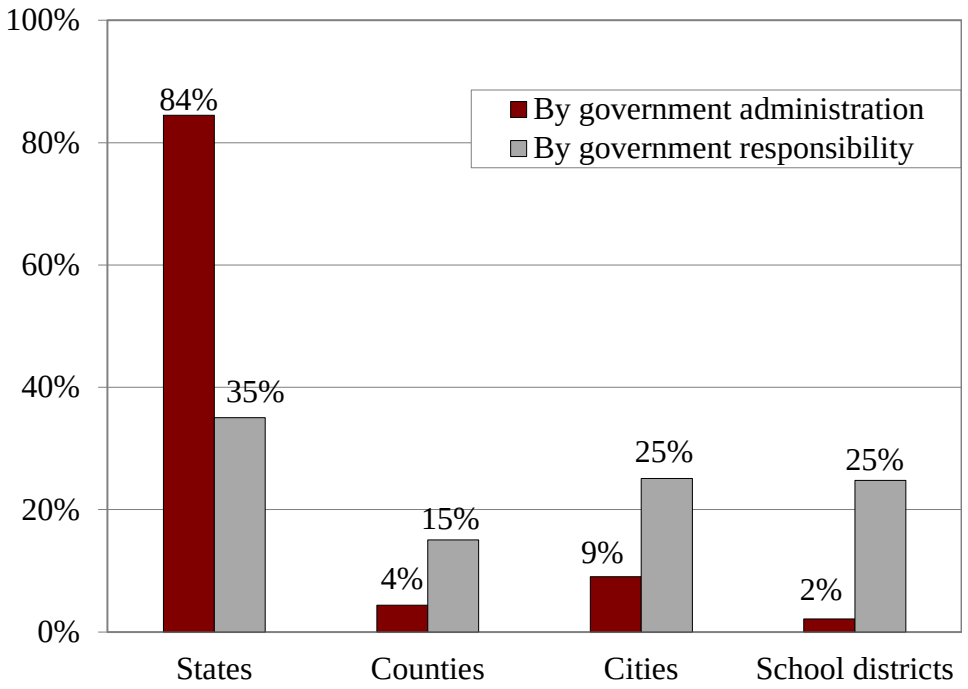
- We assume that interest payments are 5 percent of outstanding debt.

3. We allocated pension and OPEB liabilities by who funds - not who runs - the plan.



Once allocated, a large share of pension liabilities shifts from states to localities.

Distribution of Pension Liability by Government Administration and Responsibility, in Billions



Sources: Authors' calculations based on various FY 2014 plan and government financial reports and actuarial valuations; and U.S. Census Bureau (2014).

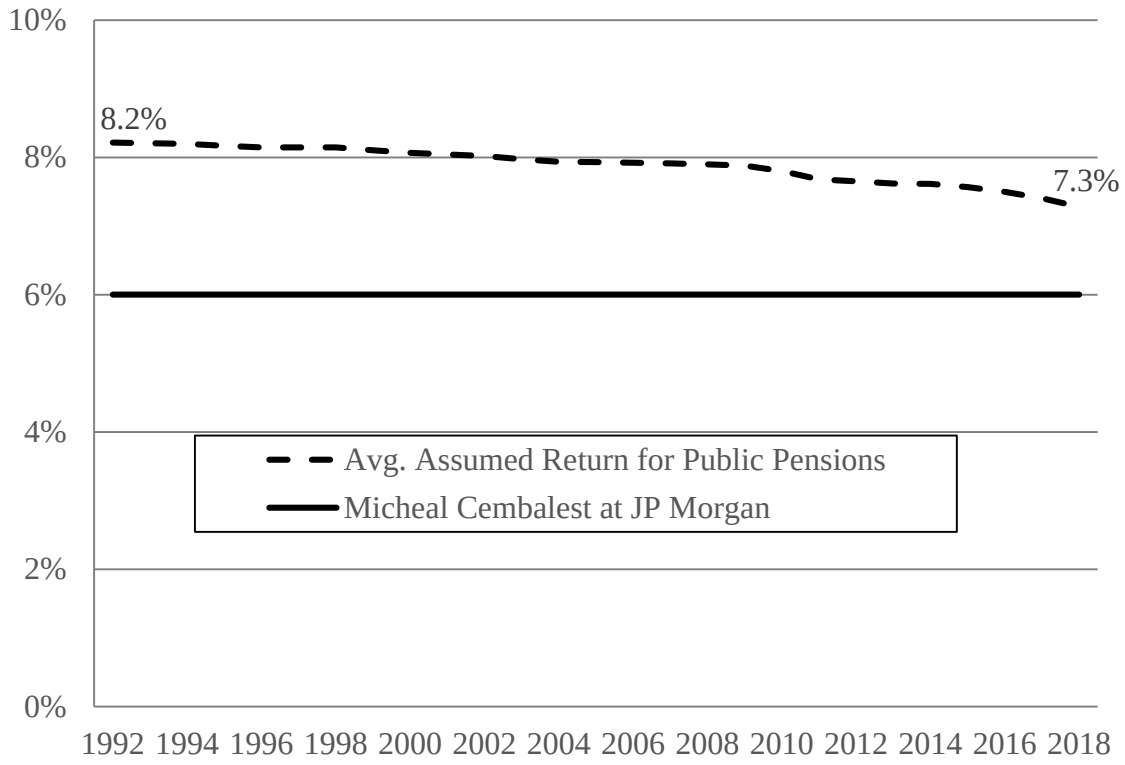
4. Then, we calculated the required payments for retirement plan liabilities, which involves:

- Selecting the expected rate of return, which serves as the discount rate.

- Determining the method for amortizing unfunded liabilities.

For the return, we follow Michael Cembalest of JP Morgan, who uses a 6-percent rate.

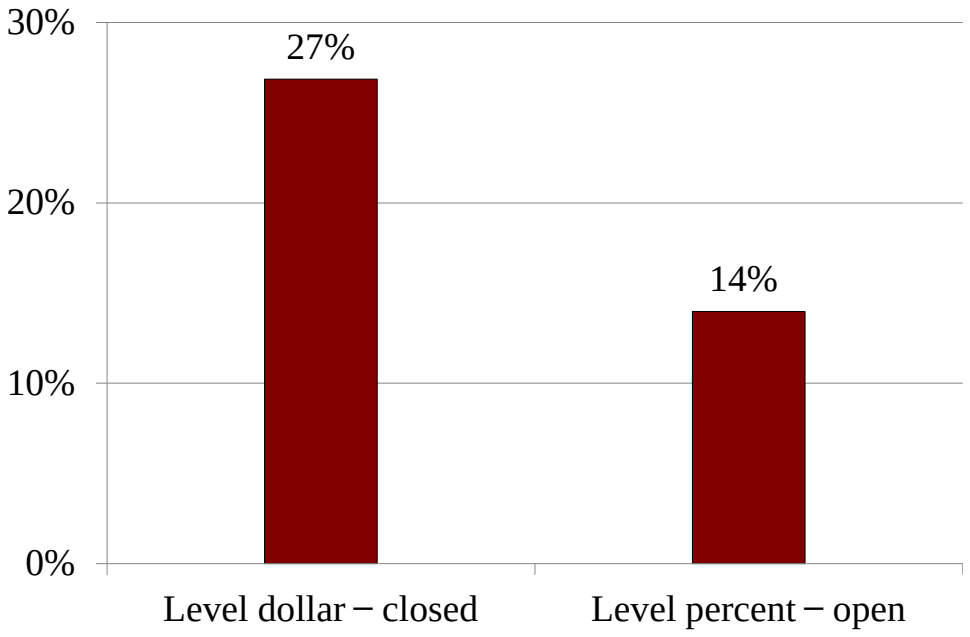
Public Plans' Average Assumed Return Compared to Assumption used by JP Morgan Analyst



Source: Authors' calculations based on *Public Plans Database* and *The ARC and the Covenant 2.0* (2018).

To amortize unfunded liabilities, we used level-dollar payments over the next 30 years.

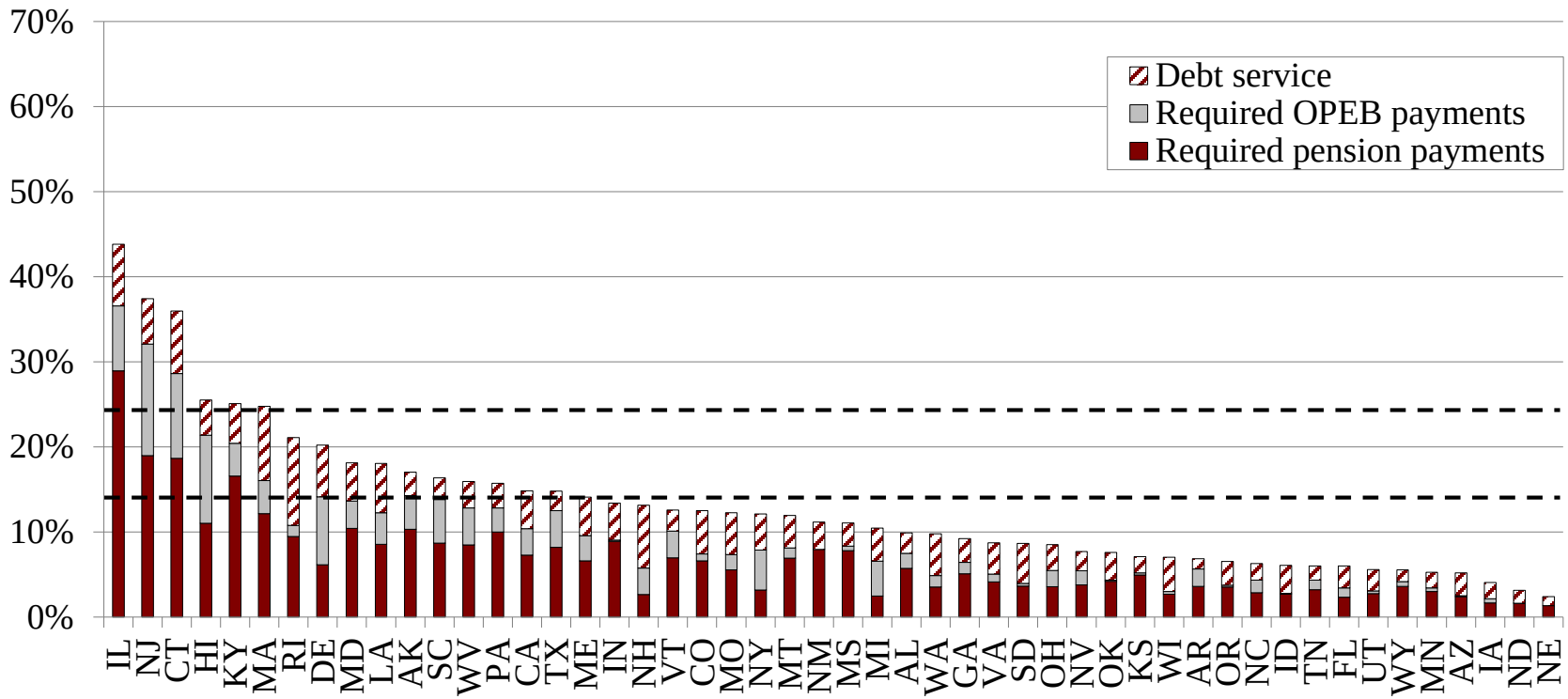
Percentage-Point Increase in State/Local Funded Ratios
Starting from 73 Percent, After Paying Full ARC for 30 Years



Source: Authors' calculations.

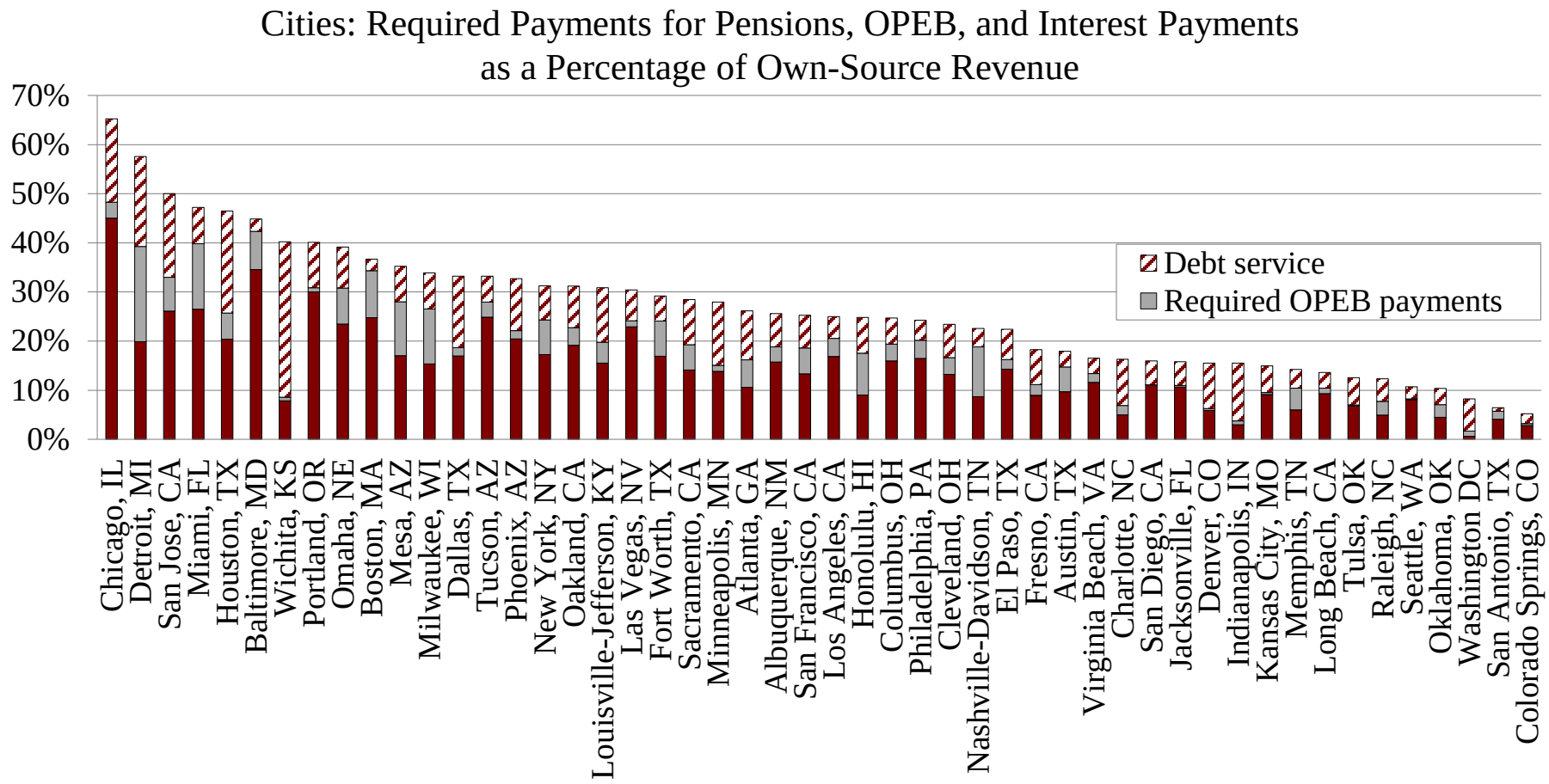
Now the results: the required payments for state governments vary substantially.

States: Required Payments for Pensions, OPEB, and Interest Payments as a Percentage of Own-Source Revenue



Sources: Authors' calculations based on various FY 2014 plan and government financial reports and actuarial valuations; and U.S. Census Census Bureau (2014).

And the comparable results for major cities vary even more.



Sources: Authors' calculations based on various FY 2014 plan and government financial reports and actuarial valuations; and U.S. Census Bureau (2014).

In the worst cases, unfunded liabilities cannot be paid off with conventional methods.

Cost Measures under Various Options for Making Required Contributions

	Increase in Liability Payments		Options for making increased liability payments				
Government	Current Payments	Required Payments	Increase government revenue by:		Increase employee contributions by:		Achieve pension return of:
Illinois	26%	51%	25%	or	689%	or	11.50%
New Jersey	17%	38%	22%	or	521%	or	No solution
Hawaii	21%	37%	16%	or	117091%	or	11.30%
Connecticut	22%	35%	12%	or	408%	or	10.50%
Kentucky	12%	28%	16%	or	427%	or	No solution

Sources: JP Morgan, ARC and the Covenant 4.0 (2018)

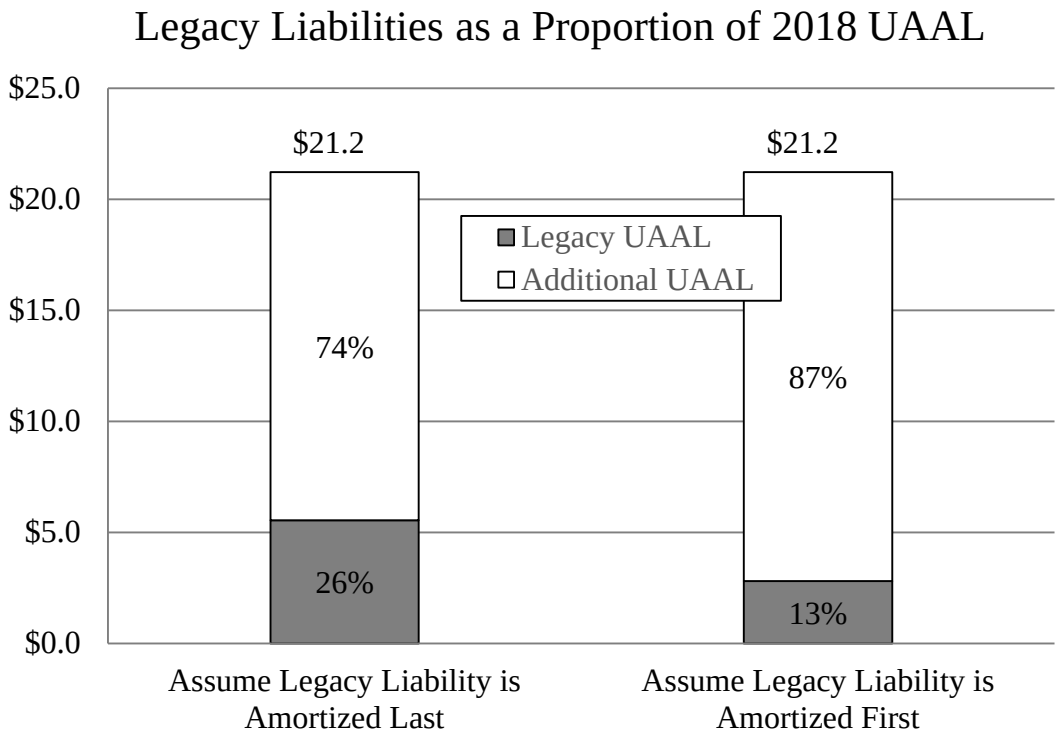
Many of these governments struggle with large legacy liabilities in their pension plans.

Pension Plan Inception Date and 2001 Funded Ratio for the Highest Cost States

Government Entity	Legacy Costs	
	Inception Date of Oldest Plan	2001 Aggregate Funded Ratio
State Government		
Connecticut	1939	67.4%
Illinois	1939	63.5%
Hawaii	1926	90.6%
Kentucky	1940	108.5%
Massachusetts	1911	84.9%
Rhode Island	1936	77.6%
Public Plan Average	1944	97.1%

Sources: Authors' calculations based on *Public Plans Database*.

Legacy liabilities could account for a quarter of the Connecticut's unfunded liability.



Sources: Authors' calculations based on Connecticut SERS Actuarial Valuations *(1969 – 2018)*

Governments might consider amortizing legacy liabilities differently.

- Legacy liabilities often stem from a large initial unfunded liability due to a history of promised benefits that were not pre-funded.
- Most plans can muddle along without contributing the full amount required to amortize legacy liabilities in 30 years
- So, why should one generation bear the burden of paying down legacy liabilities in 30 years?

And, separately addressing legacy liabilities would clarify the *current* cost of benefits.

- Separating legacy liabilities would disentangle the cost of current employee benefits from those associated with historical underfunding.

- Plans could then introduce more risk-sharing in their future pension promises to current employees so that we don't end up here again.

Conclusion

- A full analysis on the burden of employee retirement costs should consider all jurisdictions and all major liabilities.
- While many governments are managing the costs just fine, some face an alarming burden.
- Many governments with high retirement costs are struggling with large legacy liabilities in their pension plans.
- Going forward, separating legacy liabilities from ongoing pension costs and introducing greater risk-sharing both merit serious consideration.