Pensions in the Trenches
Are Rising Pension Costs Crowding Out Local Services?

Sarah Anzia
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Defusing Illinois' Pension bomb
"We’re looking at a Ponzi scheme that would make Bernie Madoff look like a Boy Scout"

October 22, 2011
“The Little State With a Big Mess”
By Mary Williams Walsh
The New York Times
CalPERS bill for California state worker pensions set to reach $7 billion next year
Wes Venteicher, Sacramento Bee, April 7, 2019

Jerry Brown predicts “fiscal oblivion” if pensions are off limits for government employers
Adam Ashton and Amy Chance, Sacramento Bee, December 21, 2018

California’s pension debt is harming teachers and students now—and it’s going to get worse
Cory Koedel, Brookings, May 3, 2019

Strike or no strike, pensions problematic for LA Schools
Christopher Weber, AP News, January 12, 2019
Pensions in the Trenches

Background: What is the problem, and how did it happen?

New data on the pension expenditures of 442 municipal and county governments across the U.S., 2005-2016:

1. How much do local governments spend on pensions, and how has that changed over time?
2. How are local governments responding to rising pension costs?
3. What are the implications for citizens, government employees, and policymakers?
Defined benefit plans versus defined contribution plans

- **Defined benefit** plan (traditional pension): The employer guarantees a level of retirement benefit to the employee based on a formula, for as long as the employee lives.

- **Defined contribution** plan (such as a 401(k)): The employee sets aside a portion of her salary into an individual account; usually, the employer matches the contributions. The level of payment in retirement depends on what is in the account.
Most state and local government employees are members of state-sponsored pension plans (like CalPERS, CalSTRS, UCRP), but there are also many locally-operated plans.

The benefits are supposed to be prefunded. The money to pay for benefits comes from employer contributions, employee contributions, and investment returns.

Officials use actuarial valuation to determine how much needs to be contributed today in order to pay for benefits in the future. This involves assumptions. Benefits must be paid even if assumptions are wrong.
Figure 1
State Pension Funding in 2017
Just 8 states were at least 90% funded while 24 were below 70% funded

Note: Numbers reflect the Governmental Accounting Standards Board reporting standards as of 2017.
Source: Comprehensive annual financial reports, actuarial reports and valuations, other public documents, or as provided by plan officials
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WHERE PENSION DEBT IS A LOOMING DANGER TO TAXPAYERS

PER HOUSEHOLD UNFUNDED GOVERNMENT PENSION LIABILITY

$2,144  $102,084

10 STATES WITH THE BIGGEST PER HOUSEHOLD UNFUNDED PENSION LIABILITIES

<table>
<thead>
<tr>
<th>State</th>
<th>Liability</th>
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<tbody>
<tr>
<td>ALASKA</td>
<td>$102,084</td>
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<tr>
<td>CALIFORNIA</td>
<td>$86,320</td>
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<tr>
<td>CONNECTICUT</td>
<td>$82,815</td>
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<td>ILLINOIS</td>
<td>$76,398</td>
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<td>ARKANSAS</td>
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<tr>
<td>OHIO</td>
<td>$61,873</td>
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<tr>
<td>NEW JERSEY</td>
<td>$59,651</td>
</tr>
<tr>
<td>NEVADA</td>
<td>$58,752</td>
</tr>
<tr>
<td>NEW MEXICO</td>
<td>$58,365</td>
</tr>
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MAP BY THE TEXAS PUBLIC POLICY FOUNDATION, DATA FROM PENSION TRACKER STANFORD INSTITUTE FOR ECONOMIC POLICY RESEARCH

Over time, governments have made public pension benefits more generous.

Governments have not contributed enough to fund the benefits that have been promised.

Today, governments have to pay for the more expensive benefits and make up for the shortfalls.
How did this happen?

- Over time, governments have made public pension benefits more generous.
- Governments have not contributed enough to fund the benefits that have been promised.
- Today, governments have to pay for the more expensive benefits and make up for the shortfalls.
It is very tempting for elected officials to increase pension benefits.

- Most voters don’t pay attention to public-employee pensions.
- Government employees and their unions do pay attention—and they support benefit increases.
- In the short run, elected officials can increase benefits without spending more money.
Number of news articles about state and local public pensions, by year

Figure 1: State pension legislation, 1999-2011

Percent voting "yes" on benefit increases

- Democrats, 1999-2008: 97%
- Republicans, 1999-2008: 92%
- Democrats, 2009-2011: 98%
- Republicans, 2009-2011: 66%

Over time, governments have made public pension benefits more generous.

Governments have not contributed enough to fund the benefits that have been promised.

Today, governments have to pay for the more expensive benefits and make up for the shortfalls.
Pension boards of trustees

- Ex-officio trustees (e.g., the governor)
- Employer trustees, usually appointed
- Other appointed trustees (private citizens, taxpayers)
- Active or retired employee trustees, usually elected or chosen by employees
  - 95% of the major state pension boards have them
  - They typically have 50% or more of board seats
Trustees have incentives to underfund

- Elected officials and political appointees gain by promising generous benefits today and not setting aside sufficient funds to pay for them.

- Government employee trustees and public-sector unions also have incentives to underfund public pensions:
  - Their benefits are backed by legal protections.
  - They have an interest in making their pensions look affordable.
  - Large government contributions to pensions mean less funding for other priorities (salaries, jobs).
Average discount rate in 2001

Discount rate, 2001

- 0%: 7.86%
- 1-24%: 8.00%
- 25-49%: 8.07%
- 50-74%: 8.16%
- 75%+: 8.29%

Elected employee trustee share of board
Do the boards/legislatures pay the required amount?

- Paid required amount: 57%
- Did not pay required amount: 43%

N=1,526
Did the board/legislature make the required contribution?

- **% Elected employee trustees**: 31% (Yes) 37% (No)
- **% Government employees in unions**: 36% (Yes) 41% (No)

N=1,526
How did this happen?

- Over time, governments have made public pension benefits more generous.
- Governments have not contributed enough to fund the benefits that have been promised.
- Today, governments have to pay for the more expensive benefits *and* make up for the shortfalls.
Are pension costs rising everywhere? Are they crowding out government services?

- “What we are experiencing is the onset of the New Fiscal Ice Age, a period in which a given level of state and local tax revenue purchases a considerably lower level of current services.” (Kiewiet and McCubbins 2014, p. 106)

- “The question is whether cities across the country are about to topple like dominoes. And whether pensions are the problem. The answer appears to be ‘no’ on both fronts.” (Munnell et al. 2013, p. 5)
Existing data don’t allow us to answer these questions.

- There are existing data on state- and plan-level quantities, such as funding ratios and actuarial assumptions (e.g., the discount rate).

- But answering questions about the experiences of individual governments requires data at the level of the government—and those data don’t exist.
I collected the CAFRs of roughly 800 municipal, county, school district, and special district governments, 2005-2016.

For each, I collected the dollar amount contributed to each of the government’s retirement plans in each year.

Notes on these data:

- Values represent what governments are spending, not necessarily what they should be spending.
- Values represent employer contributions only—no EPMC.
- Except for a few cases, expenditures on OPEB are excluded.
- Costs of servicing POBs are not included.
Pension expenditures per FTE employee in 2007 (in 2016 dollars)

N=409 cities and counties
Pension expenditures per FTE employee in 2007 (in 2016 dollars)

18 of the 26 CA cities and counties in the dataset were in the top 10%.

- 10th percentile: $898
- 20th percentile: $2,175
- 30th percentile: $3,049
- 40th percentile: $3,938
- 50th percentile: $4,901
- 60th percentile: $5,991
- 70th percentile: $7,238
- 80th percentile: $8,534
- 90th percentile: $11,704

N=409 cities and counties
Median local government pension expenditures per FTE employee in 2007 (in 2016 dollars)

- < 50% union membership: $3,938
- > 50% union membership: $6,581
- No duty to bargain: $4,083
- Duty to bargain: $5,841
Pension expenditures as % of local general revenue in 2007

N=410 cities and counties
% Change in pension expenditures, 2005-2016

Median for all of the cities and counties: 56%
Median for the CA cities and counties: 77%
Change in pension expenditures per FTE employee, 2007-2016

Median for all of the cities and counties: $1,216
Median for the CA cities and counties: $7,022
Change in pension expenditures as a proportion of general revenue, 2005-2016

Median for all of the cities and counties: 0.008
Median for the CA cities and counties: 0.027
Median within-government change in pension expenditures per FTE employee, 2007-2016

- < 50% union membership: $740
- > 50% union membership: $2,950
- > 50% union membership, excluding CA: $2,377
Possible responses to rising pension costs

- Increase revenue
- Decrease costs elsewhere
- Increase debt (such as by issuing POBs)
- Decrease pension costs

Note: Different cities and counties might reasonably respond in different ways. I am exploring whether there are discernable *trends* in how they respond.
Dependent variables: Log general revenue per capita, log employment per thousand residents

Main independent variable: Log pension expenditures per employee, lagged by one year

Other independent variables: Log per capita income, log population, % urban, % homeowner, % black, % Asian, % Hispanic

Fixed effects for local government and year

Standard errors clustered by state
Effect of a 1% increase in pension expenditures per employee
Consider a city of 100,000 people with a pension cost increase of 25%. The model predicts a 1.63% decrease in employment, or the loss of about 17 employees.

If the same city of 100,000 saw pension costs double, the model predicts a corresponding 6.4% decrease in employment, or the loss of about 65 employees.
Effect of a 1% increase in pension expenditures on full-time employment

By collective bargaining status

Without CB: 26% union (CO)
With CB: 62% union (CA)

By public-sector union membership

26% union (CO) 62% union (CA)
Effect of a 1% increase in pension expenditures, municipal employment

[Graph showing the effect of a 1% increase in pension expenditures on police protection, fire protection, and non-safety categories with and without collective bargaining.]
Effect of a 1% increase in pension expenditures, county employment

- Police protection
- Corrections
- Non-safety

Without collective bargaining
With collective bargaining

- Green circle: Without collective bargaining
- Orange circle: With collective bargaining
Key findings

- Local governments vary dramatically in how much they spend per employee on pensions. Cities and counties in California spend more than those in most other parts of the U.S.

- Since 2005, local pension costs have risen almost everywhere, but growth has been more pronounced in California than most other places.

- Larger pension cost increases are not linked to greater revenue increases, but they are linked to larger reductions in government employment.
Discussions about public pensions typically focus on quantities that are debatable and hard to understand (discount rate, value of unfunded liabilities), but local government is being affected now—and in ways that are not hard to understand (fewer employees).

The findings highlight important tradeoffs faced by government employees and their unions.

Rising pension costs will almost certainly continue to eat into local government—which will affect all citizens, but especially those most dependent on local government services.
Example: What is the net present value of $100 million that has to be paid in a lump sum in 20 years?

NPV = Amount / (1 + discount rate)^years

The answer depends on the discount rate: $21 million with an 8% discount rate, but $46 million with a 4% discount rate.
Most finance experts today argue that public pension plans’ discount rates are too high (see Novy-Marx and Rauh 2011).

This makes pension liabilities look smaller than they actually are—and makes funding ratios look better than they actually are.

This, in turn, allows governments to contribute less than they otherwise would.
“An Illinois Pension Bailout?”

Wall Street Journal, Review & Outlook, September 20, 2012

 “[T]he Democrats who are running Illinois into the ground can’t bring themselves to oppose union demands...It’s no surprise that many of the states deepest in the red are public union strongholds. For decades, Democrats have bought union support in elections by using surplus revenue during good times to pad pension and retiree health-care benefits.”
71% of boards have ex-officio members, but usually only one or two

~50% of the boards have employer trustees, but they’re not a large contingent

~2/3 of the plans have a small share of seats for “other” trustees, but they’re a small contingent

103 of the 109 boards have employee trustees, and they make up a large share of the board
Government employee trustees on pension boards (2014)

Number of Boards

<table>
<thead>
<tr>
<th>% of Total Trustees</th>
<th>Number of Boards</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>6</td>
</tr>
<tr>
<td>1-24%</td>
<td>3</td>
</tr>
<tr>
<td>25-49%</td>
<td>43</td>
</tr>
<tr>
<td>50-74%</td>
<td>53</td>
</tr>
<tr>
<td>75-100%</td>
<td>4</td>
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Number of Trustees by Type:
All 109 State Plans in 2014

- Ex-officio trustees: 172
- Appointed employer trustees: 154
- Citizen or other trustees: 231
- Appointed employee trustees: 158
- Elected employee trustees: 390
Figure 1.3  **Historical asset allocation for fixed income and equity**

Federal Reserve Flow of Funds, various years.

Illinois 2001
H.B. 250, Public Act 92-0014
Illinois increased the retirement benefits formula for alternative plan members (i.e., police and other public safety state employees) to a flat rate of 2.5% for each year of service for coordinated employees, and 3.0% for noncoordinated employees. The maximum allowable pension increases from 75 to 80% of final average compensation.
Wisconsin 2011
AB 11, Act 10
The bill requires that members of the Milwaukee County and City Employees Retirement Systems pay all of the employee required contribution. The bill also prohibits any local governmental unit from establishing a defined benefit pension plan for its employees unless the plan requires the employees to pay half of all actuarially required contributions for funding plan benefits. It also prohibits the local governmental unit from paying, on behalf of an employee, any of the employee’s share of the actuarially required contributions.
The board of trustees shall consist of eight members as follows:

(1) The director of finance of the State, *ex officio*;

(2) Four members of the system, *two of whom shall be general employees, one of whom shall be a teacher, and one of whom shall be a retirant to be elected by the members and retirants of the system under rules adopted by the board governing the election to serve for terms of six years each, one of the terms to expire on January 1 of each even-numbered year; provided that, if after the close of filing of petitions for candidacy, a member is unopposed for election to a trustee position, the member shall be deemed and declared to be duly and legally elected to the position of trustee without an election; and

(3) *Three citizens of the State who are not employees*, two of whom shall have at least three years of experience providing financial services, including investments, to public, corporate, or private institutional clients, to be appointed by the governor, with the advice and consent of the senate, to serve for a term of six years each, one of the terms to expire January 1 of each odd-numbered year.