Do State and Local Governments Offer Competitive Compensation?

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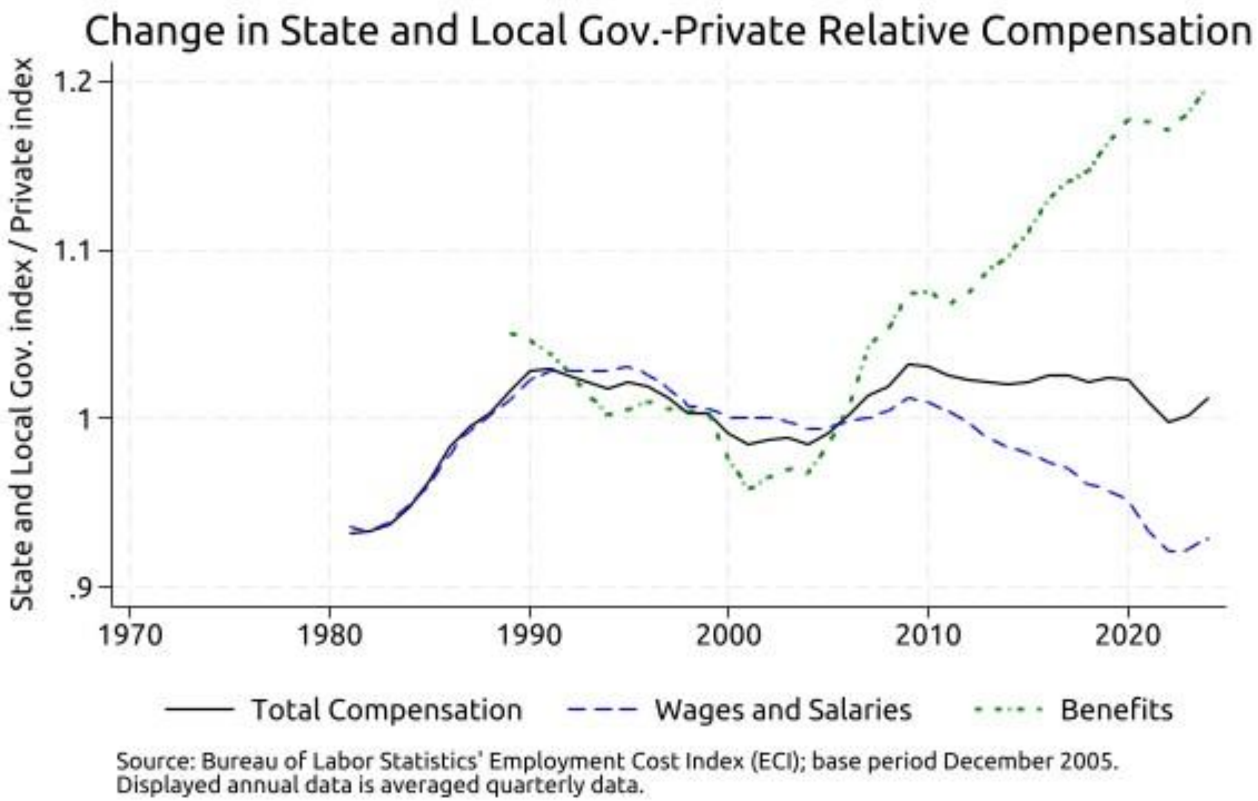
Disclaimer: The analysis and conclusions set forth are those of the authors and do not indicate concurrence by other members of the research staff or the Board of Governors.

Are S&L workers underpaid or overpaid?

- Topic received much attention around 2010, when tight budgets raised questions about S&L compensation.
  - Researchers disagreed about whether workers were overpaid or paid the same as in private sector.
- The issue hasn't been studied much since.
- Capacity is diminished to the extent that S&L compensation is relatively low. Examples include:
  - Inflation Reduction Act implementation delays
  - Flint water crisis
  - High infrastructure costs.
- On the other hand, if S&L workers are **overpaid**, realigning pay could yield budget savings and efficiency gains.

S&L Compensation using Employment Cost Index (ECI)

- ECI viewed as best measure of change in compensation over time because it holds composition of workforce fixed.
- ECI shows S&L relative compensation roughly flat over time: Reflects 10% fall in relative wages since 2005 offset by 20% rise in benefits.
- But ECI doesn't fully capture value of benefits:
  - DB pensions, retiree health, job stability
- We replace these ECI benefits with our own estimates to recalculate total S&L compensation.



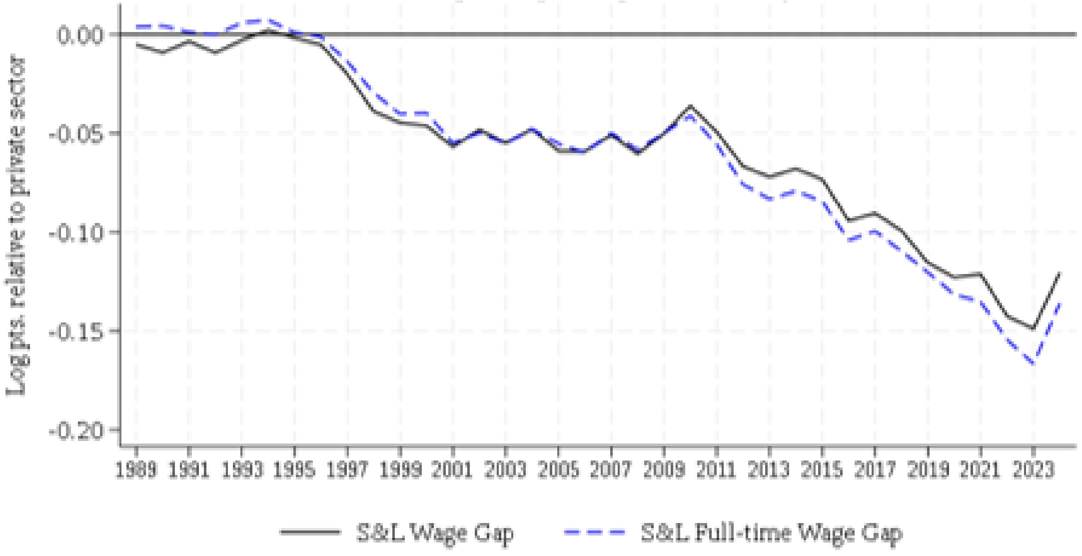
Our findings

- S&L relative compensation down 15 ppt since 2011.
- On average, S&L workers now earn 7% less than comparable private workers.
- College educated workers now earn 16% less than comparable private sector workers, high school educated workers earn 14% more.

Wages

- We calculate S&L wage differentials using the Current Population Survey, which allows us to examine wage declines by worker characteristics and to calculate levels of compensation.
- S&L workforce differs from private—older, more educated, more high-skill occupations, so we control for characteristics of workers.
- Level of S&L government cash wages has been lower than private since 1995 and has declined consistently since then.

S&L government wages relative to private sector

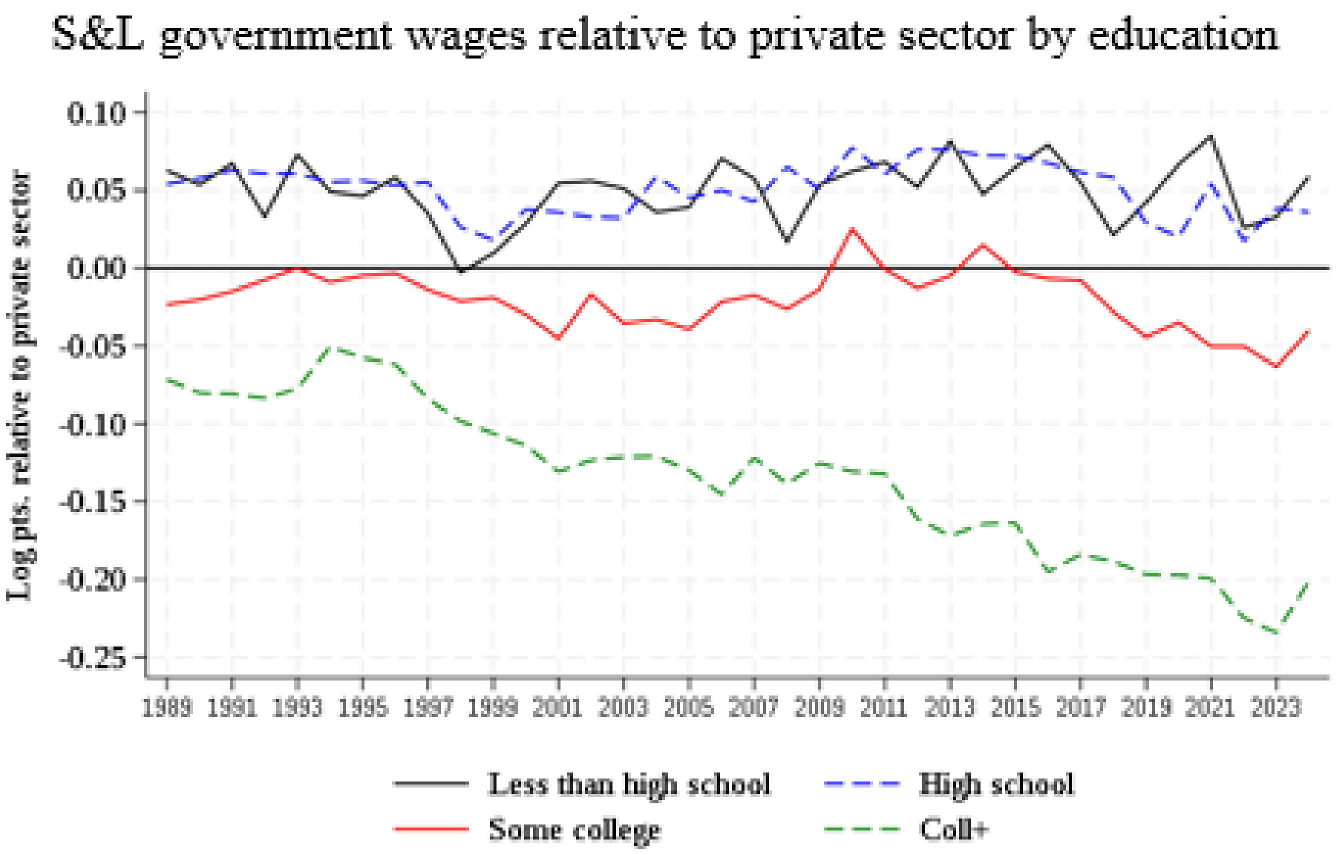


Gap in wages for S&L workers relative to private. Regressions are weighted and control for quartic in age, four education groups, metro status interacted with Census division, race interacted with gender, marital status, and major occupation. Full-time is defined as usually working 35 or more hours per week.

Wages: composition

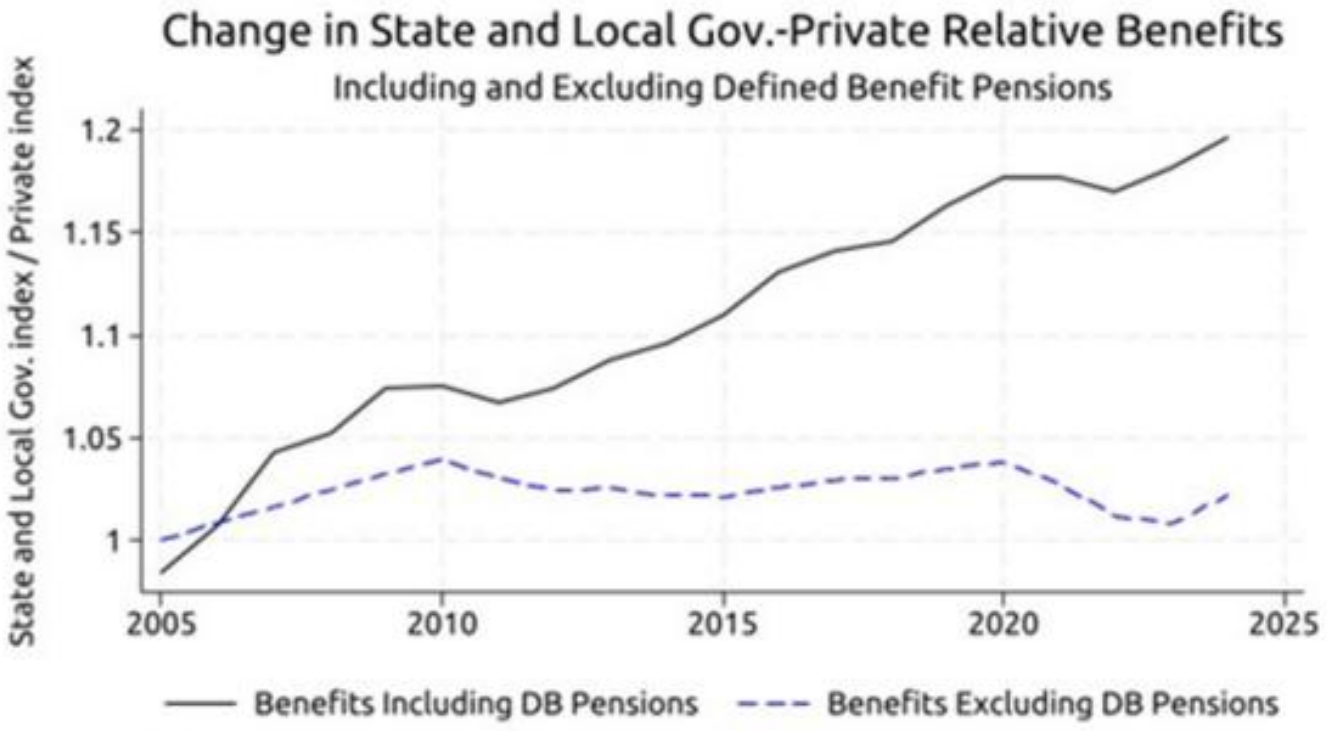
- Decline in wages since 2010 <u>only</u> for workers with at least some college

- Wage penalty for those with college degree now about 20%



Gap in wages for S&L workers relative to private. Regressions are run separately for each education group and are weighted and control for a quadratic in age, metro status interacted with nine Census divisions, race interacted with gender, marital status, and major occupation.

Benefits: ECI



Source: Bureau of Labor Statistics' (BLS) Employment Cost Index (ECI); base period December 2005. Note. Annual data averaged from quarterly data. Benefits excluding DB pensions based on unpublished data provided by the BLS; these data are interpolated from 2005 to 2010 and the series should be interpreted with care because they do not meet the BLS's standard publication criteria.

- According to ECI, benefits in S&L sector have increased 20% more than in private sector since 2005.
- All because of increase in Defined Benefit (DB) pensions.

Defined Benefit Pensions

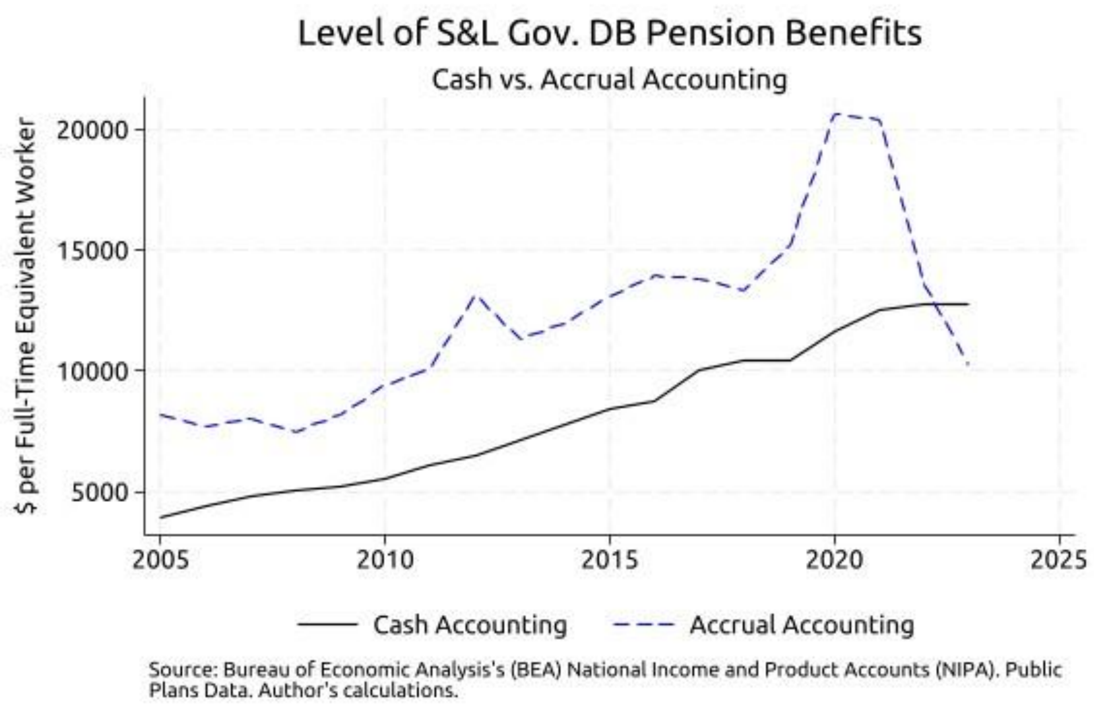
- The proper measure of the annual compensation value of DB pensions is the accrual value: the change in the present value of benefits from a year of service.

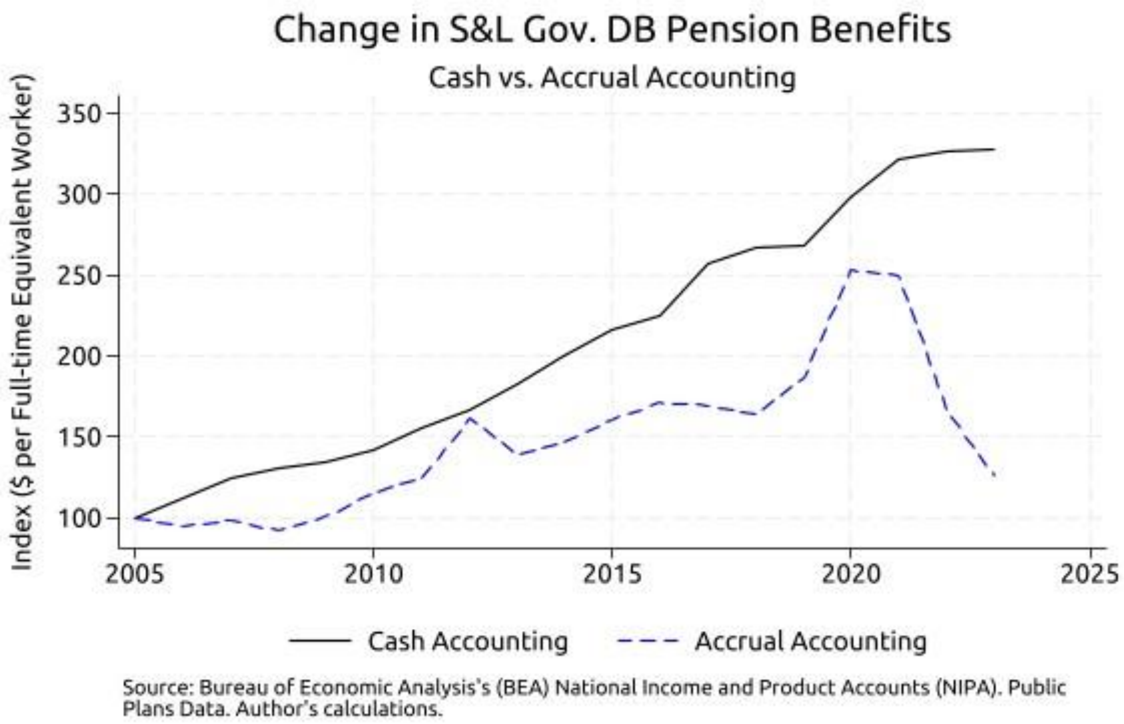
- The ECI uses employer <u>contributions</u> to pension plans to measure pension benefits.
  - Employers often underfund pensions, making contributions less than accruals, but the degree of underfunding can change.

- We calculate accruals using a large data base of pension plans and a model of a standard pension that helps us gauge how assumptions about interest rates affect accruals.

- We need this because we want to use a lower discount rate than plans do to measure the accrual value of benefits.
  - Plans discount future liabilities at rates that reflect expected return on their assets.
  - From finance theory perspective, liabilities should be discounted at rate that reflects their *risk*.
  - Because pension benefits have strong legal protections, literature suggests discount rate should be lower.
  - We use the rate on AAA 20-year bonds as the discount rate.

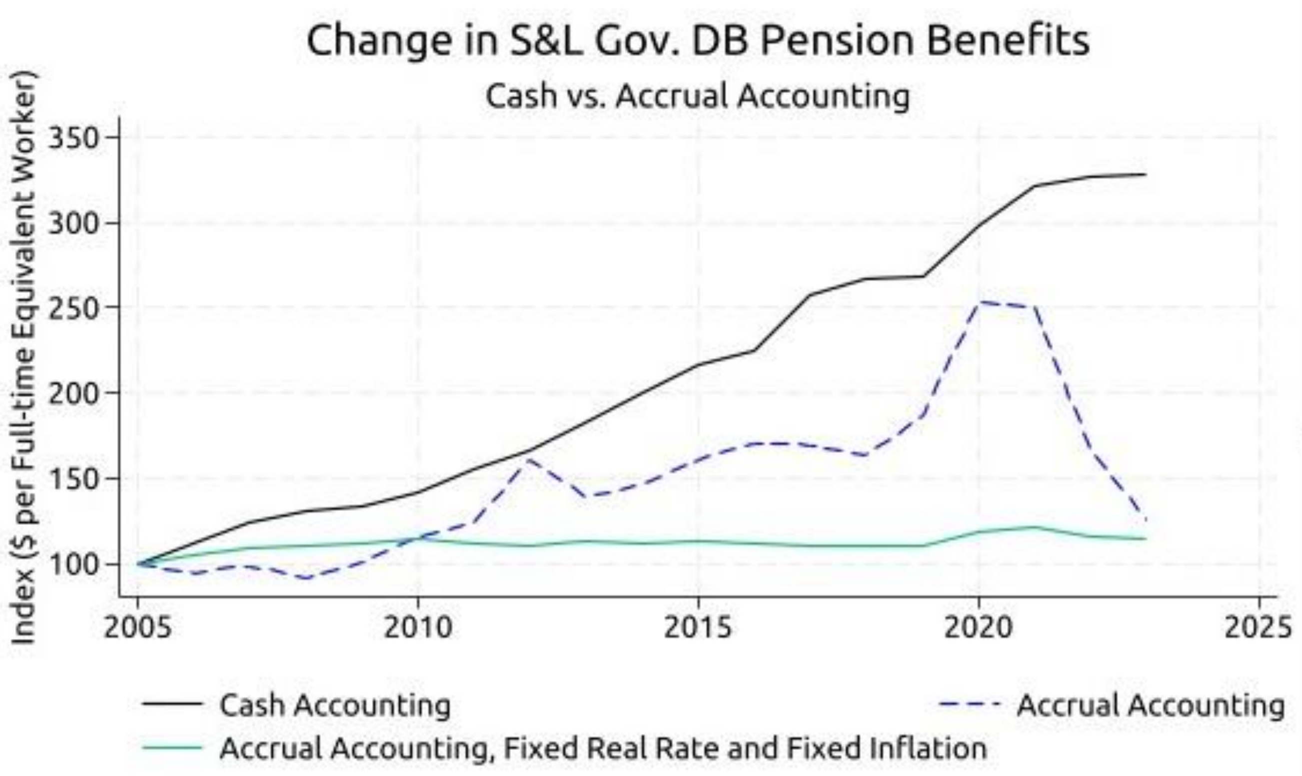
DB: Accrual vs. cash accounting





Accruals > Cash until very recently
But cash accounting vastly overstates **growth** in DB benefits

Rise in pension accruals through 2021 owes entirely to declining interest rates

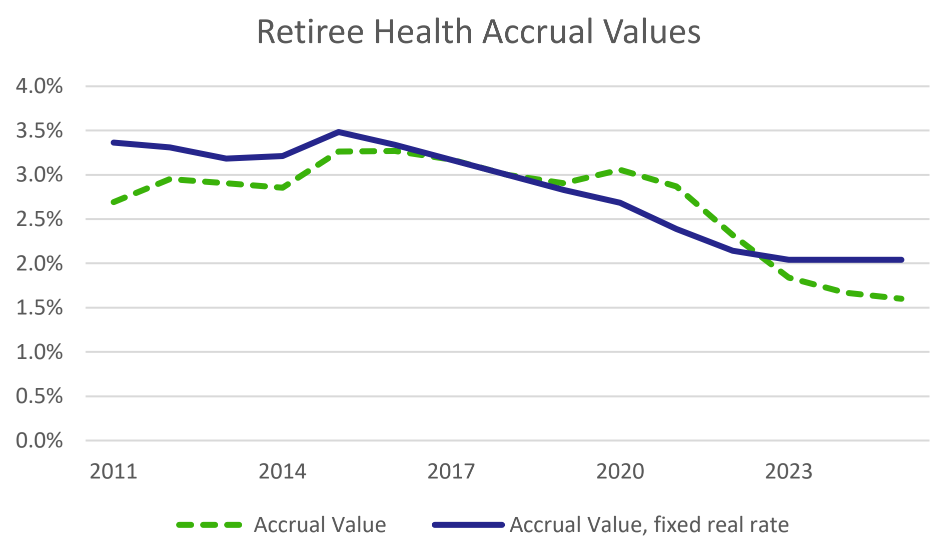


- Without changes in interest rates, no increase in nominal accrual value of pensions per FTE.
- Pension accruals as a share of wages would have been declining if not for interest rates.
- Accords with literature showing governments have been making plans less generous, particularly for new hires.

Retiree health insurance

- In 2024, about 65% of S&L workers had access to retiree health insurance; just 14% of private workers did.
- Benefit is largely unfunded and so is not captured at all by the ECI.
- Huge variation in generosity across governments—with just 12 states accounting for 80% of the liabilities (Pew, 2021).
- We measure the average value of benefit across <u>all</u> S&L workers.
- To do so, we use plan reports adjusted for the discount rate.

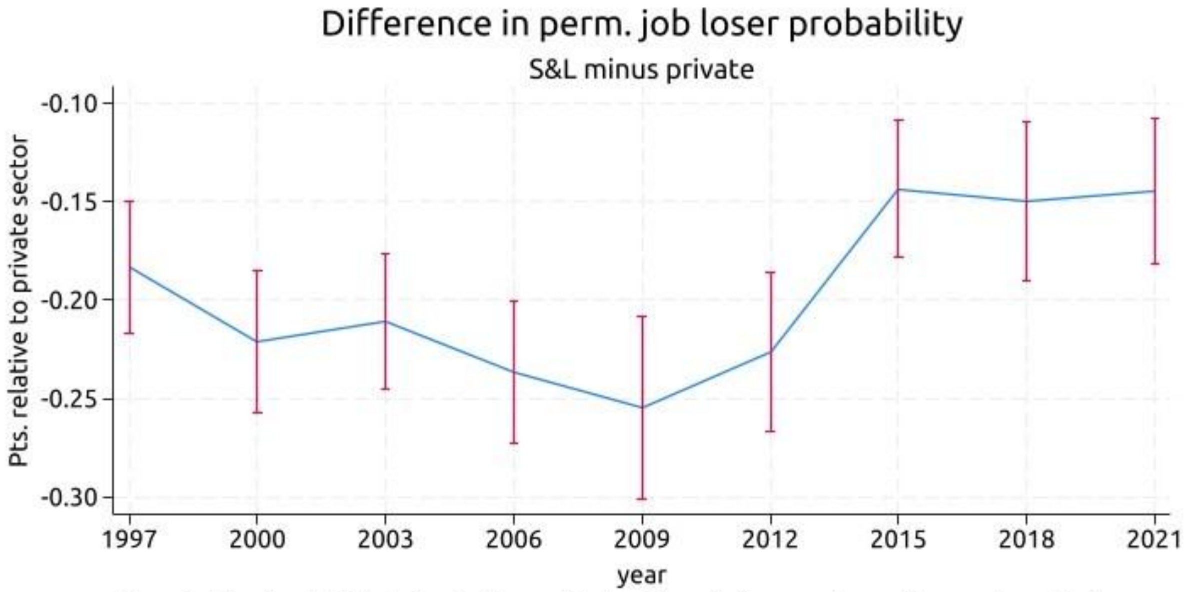
Retiree health insurance: What we find



- Accrual value as a share of wages roughly flat from 2011 to 2020, before declining as interest rates rose.
- But holding interest rates fixed, accrual value fell from 2015 through 2022, reflecting both decreasing generosity of plans and lower than expected health cost growth.

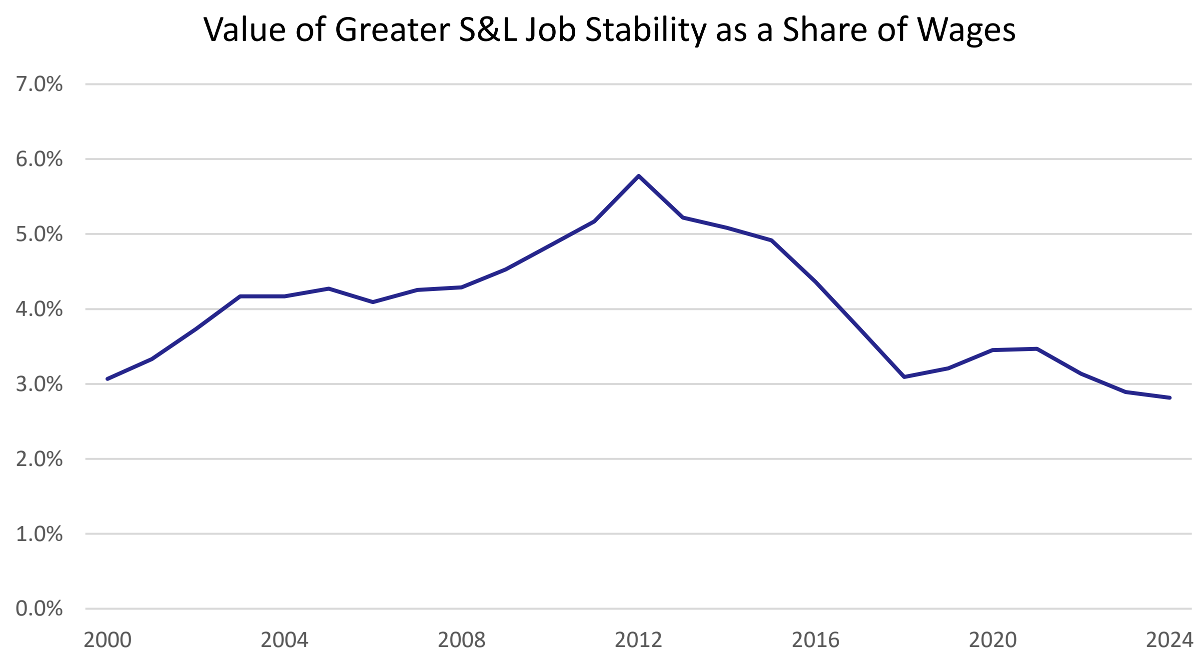
Job stability

- We use longitudinally-linked CPS data to calculate probabilities of transition from employment to permanent unemployment for private and S&L workers, controlling for same characteristics as in our wage equation.
- S&L workers have greater job stability, but advantage has decreased over time.
    - In 2009, S&L probability of permanent job loss 3 ppts per year lower than private.
    - By 2015, only 1.8 ppts lower.
- We value differences in job stability using estimates from the literature on the loss in lifetime earnings from job loss.



U(perm job loser) probability defined as the monthly transition rate from employment to unemployed due to permane
Gap in monthly non-employment probability is estimated from weighted regressions controlling for quartic in age, four education groups, metro status interacted with Census division, race interacted with gender, marital status, and major occupation. Excludes 2020.

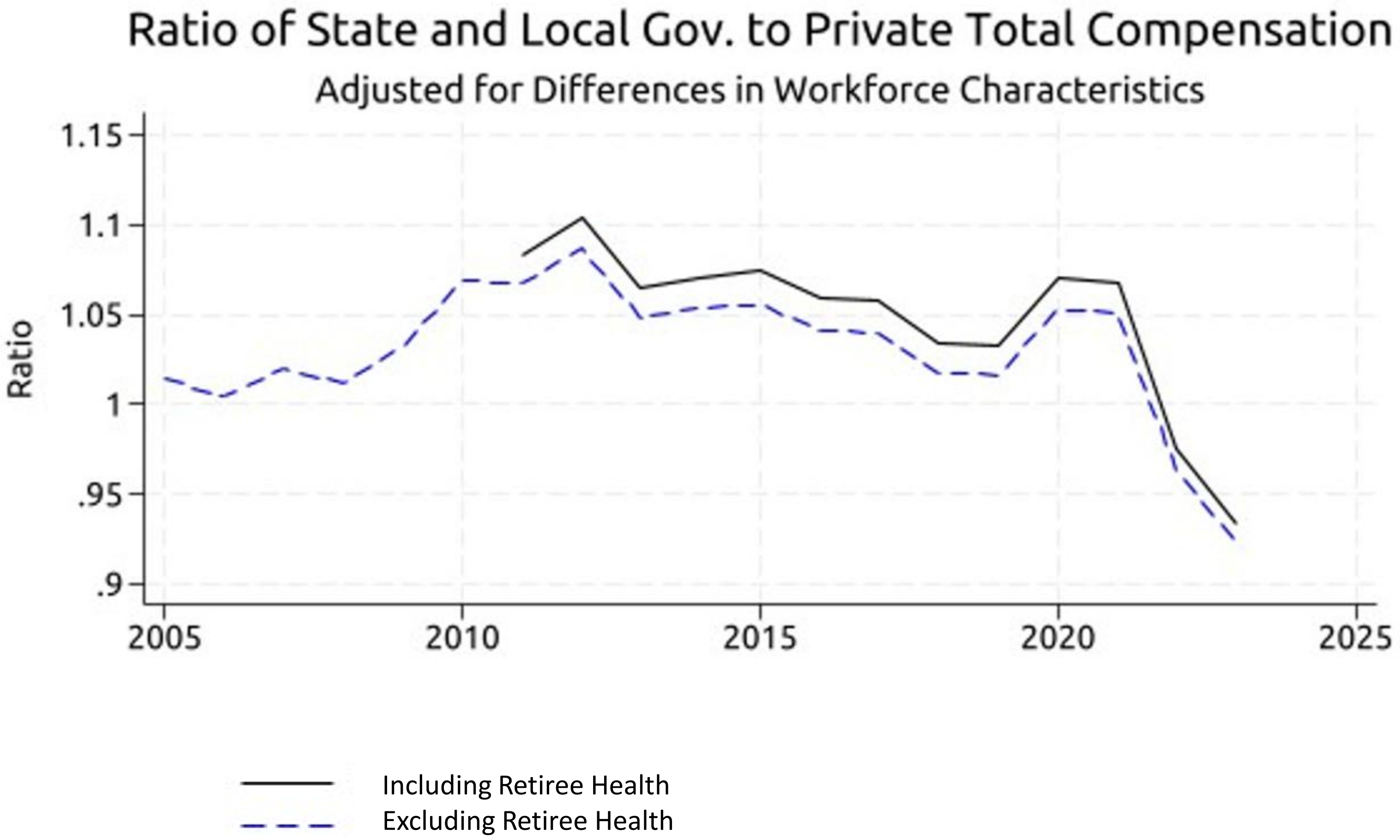
Value of job stability



We estimate that the higher job stability of the state and local sector was worth 2.8% of wages in 2024.

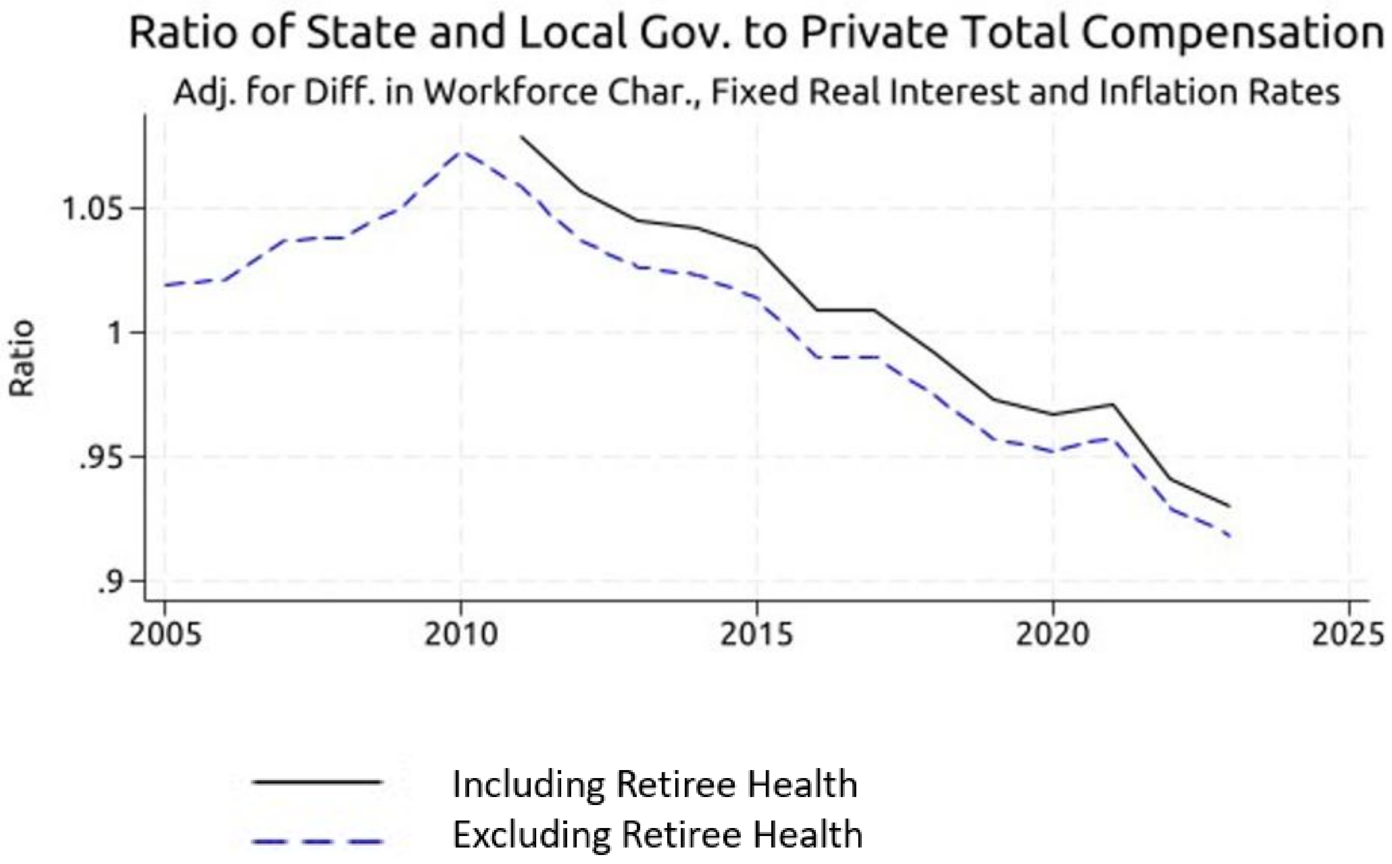
This is down from 5.8% of wages at the peak value of job stability in 2012.

Putting it all together – wages, pensions, retiree health, and job stability



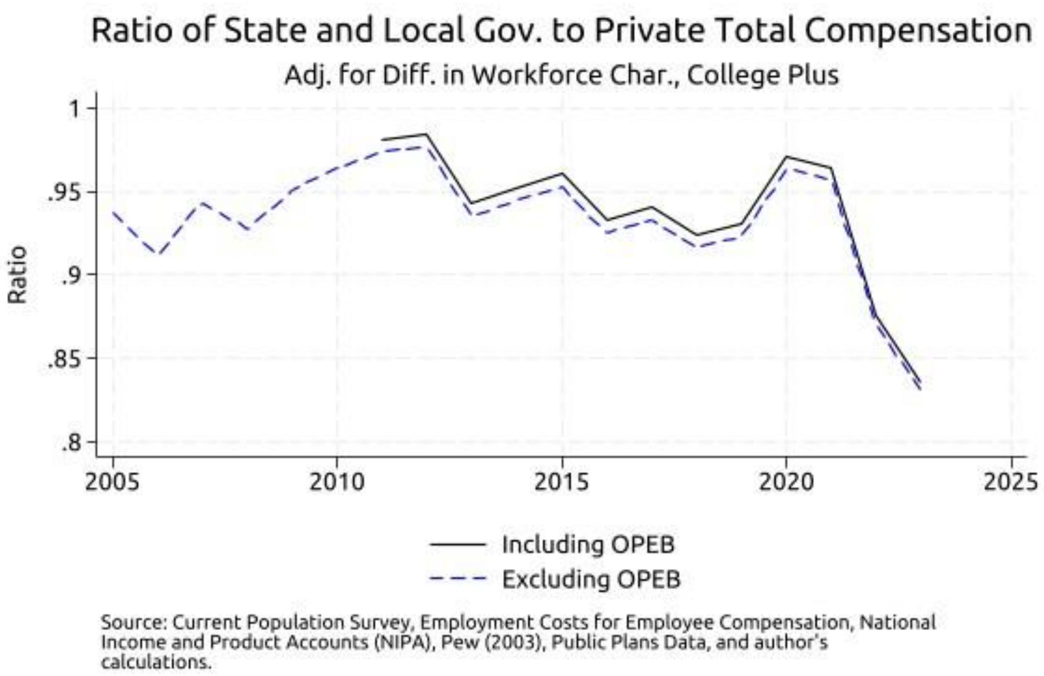
- Compensation premium of 8% in 2011.
- Turned into a 7% penalty by 2024.

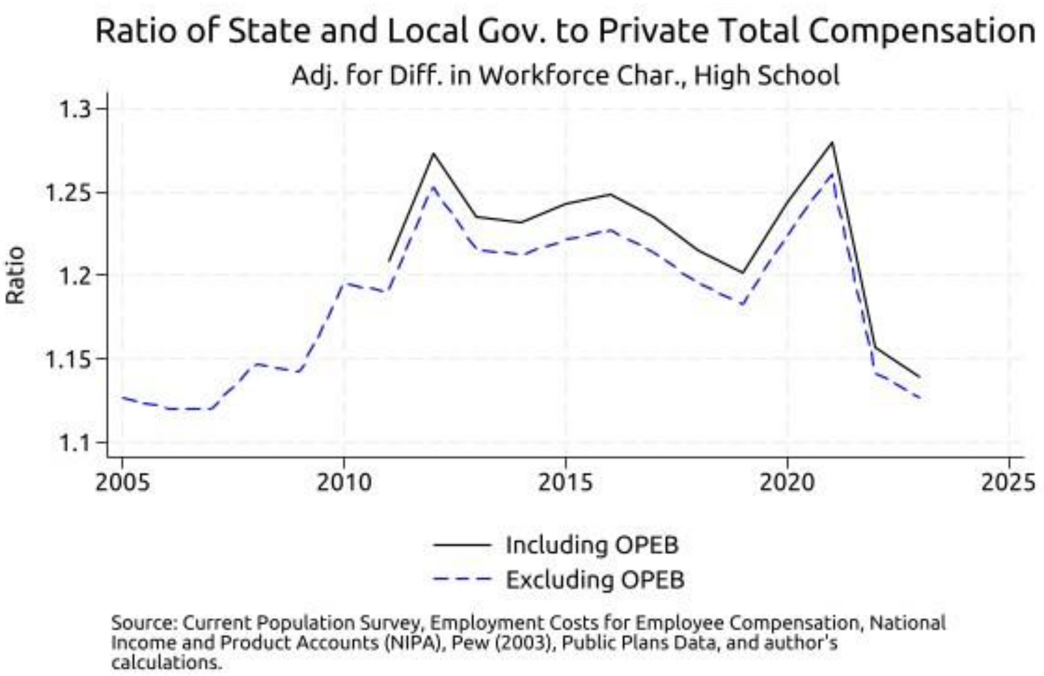
Putting it all together holding interest rates fixed



- Holding real rates and inflation fixed, compensation in the state and local sector has declined steadily since 2011.
- The very low rates of interest in recent years boosted the value of pensions, retiree health, and job stability.
    - Do state and local workers really do this type of calculation?
    - Will current higher interest rates persist, or will they return to pre-pandemic lows?

Total compensation by education





S&L workers with college+ education face 16% compensation penalty in 2024, down from just 2% in 2011.

S&L workers with only high school education enjoy 14% bonus, down from 21% in 2011.

Conclusions

- Significant erosion in S&L compensation relative to private over past 14 years.
  - What was a compensation premium looks to be a small penalty now.
  - For college-educated workers, there is now a very large penalty.
- Non-accrual measurement of pension benefits in the ECI masks this decline.
- <u>Wages</u> are well below the private sector for those with any college.
- More research needed to understand implications of these pay changes for quality of S&L workforce.
  - Some evidence that pay decline hurts recruitment—low pay during pandemic made vacancies hard to fill, educational attainment of new teachers has declined, morale among teachers very low.