Legacy Pension Liabilities for Pennsylvania SERS

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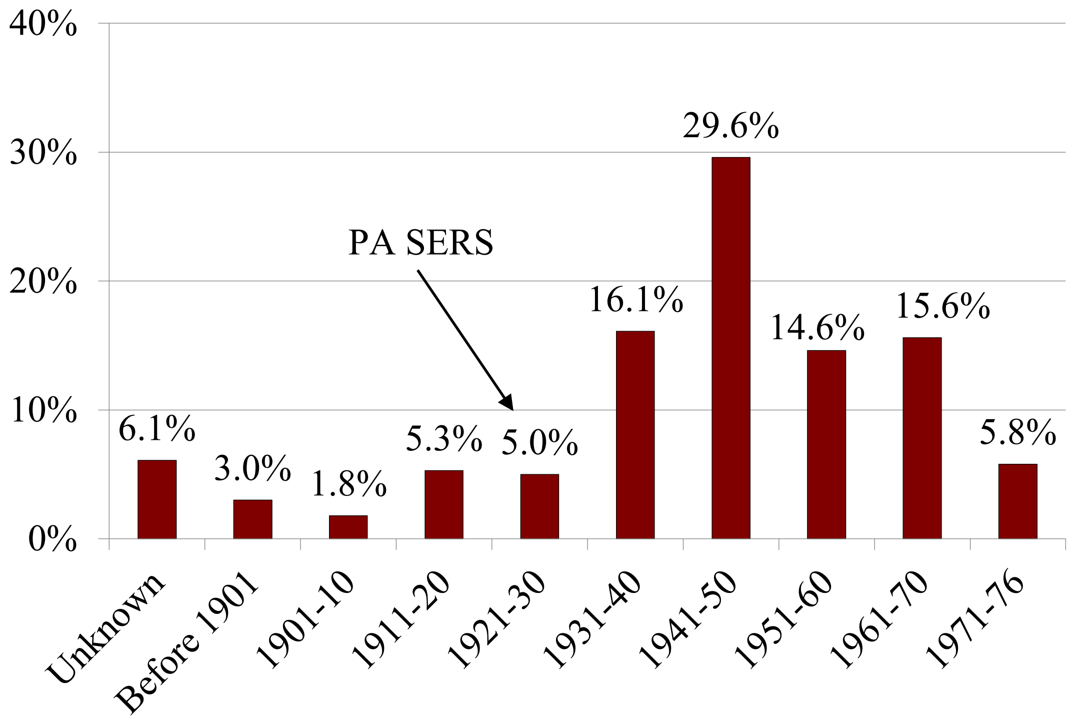
Looking back….

SERS was established in 1923, long before most retirement systems.

Percentage of State and Local Plans Established or Significantly Restructured, by Date



Sources: Various actuarial valuations for Pennsylvania SERS; *PENDAT* (1990-2000); and *Public Plans Database* (2001-2014).

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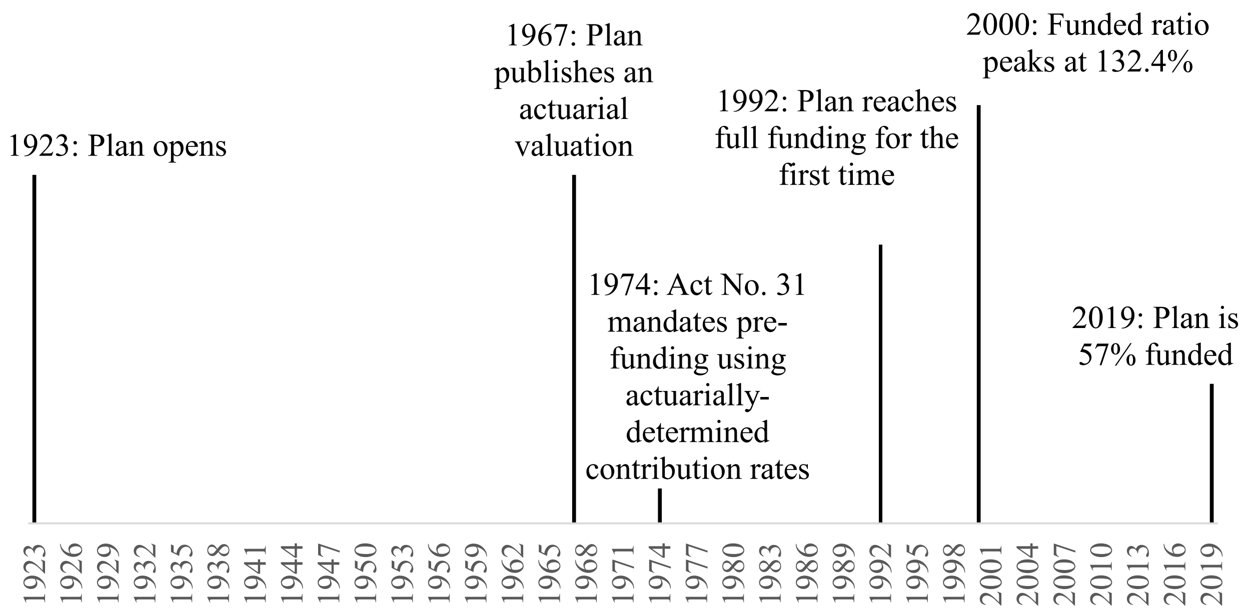
But, SERS did not start actuarially pre-funding benefits until the mid-1970s.

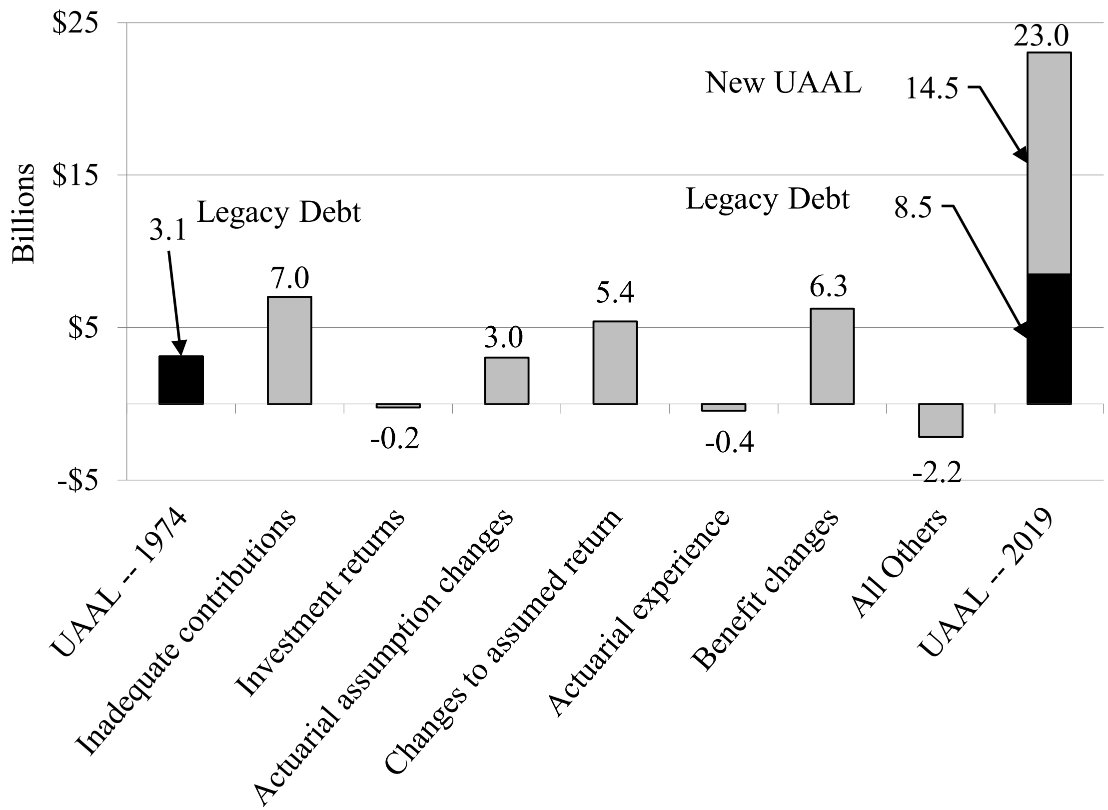
Timeline of Key Funding Events for Pennsylvania SERS, 1923 to 2019



Sources: Various actuarial valuations for Pennsylvania SERS

As a result, over a third of SERS' current unfunded liabilities stem from legacy liabilities.

Sources of Change to UAAL as a percent of the Total Change in UAAL from 1974 to 2019, in Billons



Source: Authors' calculations based on various actuarial valuations for Pennsylvania SERS.

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Of course, other factors have played a role.

Benefit Increases

- Act 2009-01 increased the accrual rate from 2 to 2.5 percent for most plan members (with an employee contribution increase from 5 to 6.25 percent).

Inadequate Contributions

- To offset the rise in contributions from benefit enhancements, SERS frontloaded the gains from being overfunded in 2000 and backloaded the costs associated with other actuarial losses.

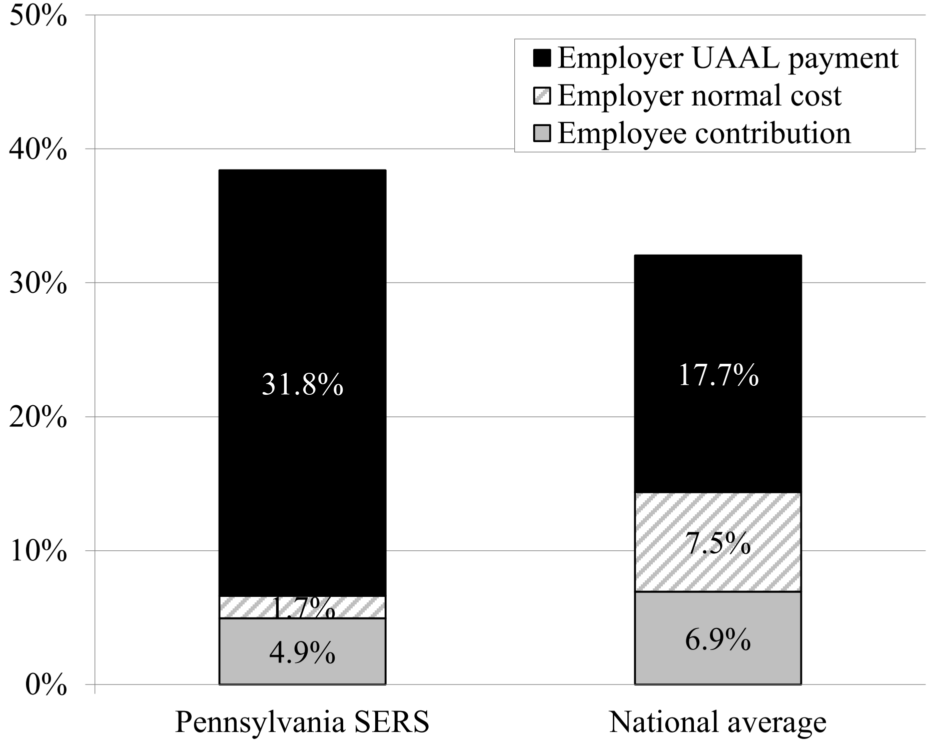
Investment Returns

- Like most other plans, SERS outperformed expectations prior to 2000 and underperformed them afterward.

Looking forward…

The key question going forward is how to deal with the existing UAAL.

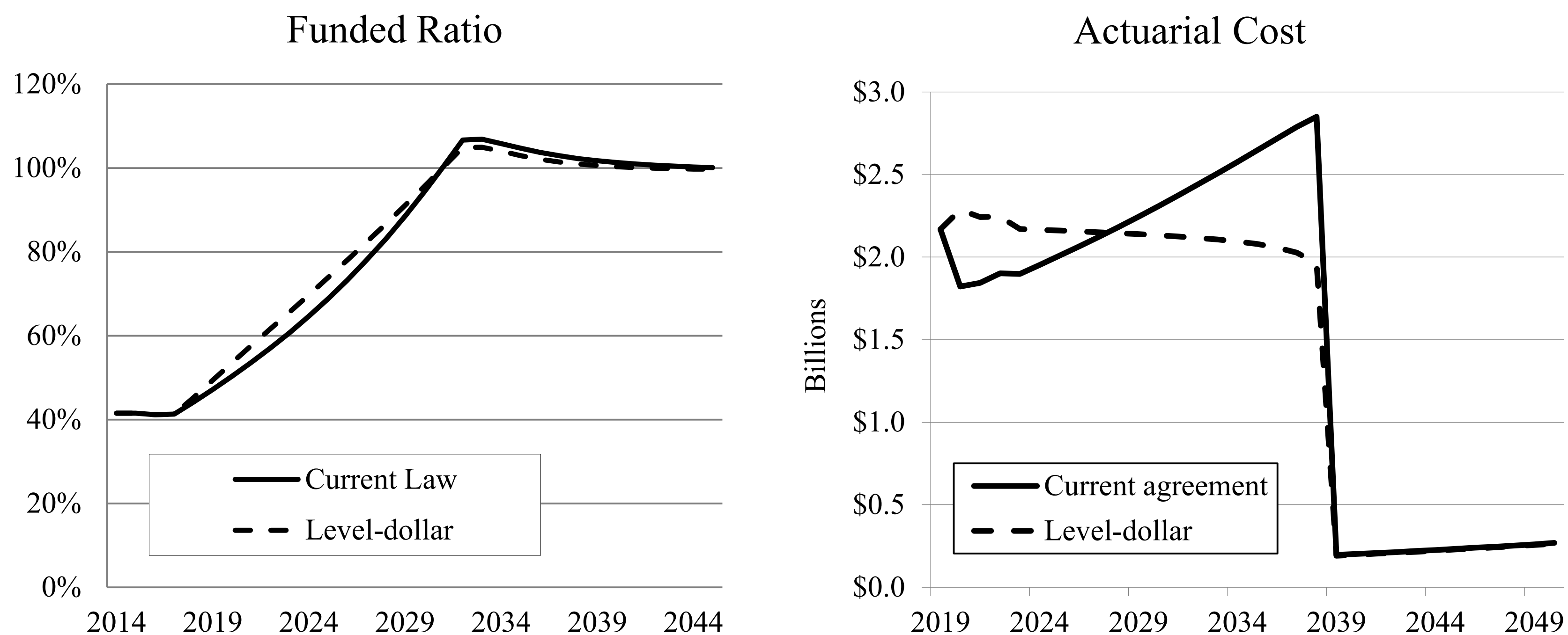
2019 Actuarial Costs as a Percent of Payroll, by Element



Sources: Actuarial valuation for Pennsylvania SERS; and *Public Plans Database (*2014).

One way forward is to stick with the current actuarial framework…

SERS *Projected* Funded Ratio and Actuarial Cost under Various Scenarios, 2019-2049



Source: Authors' calculations based on various actuarial valuations for Pennsylvania SERS.

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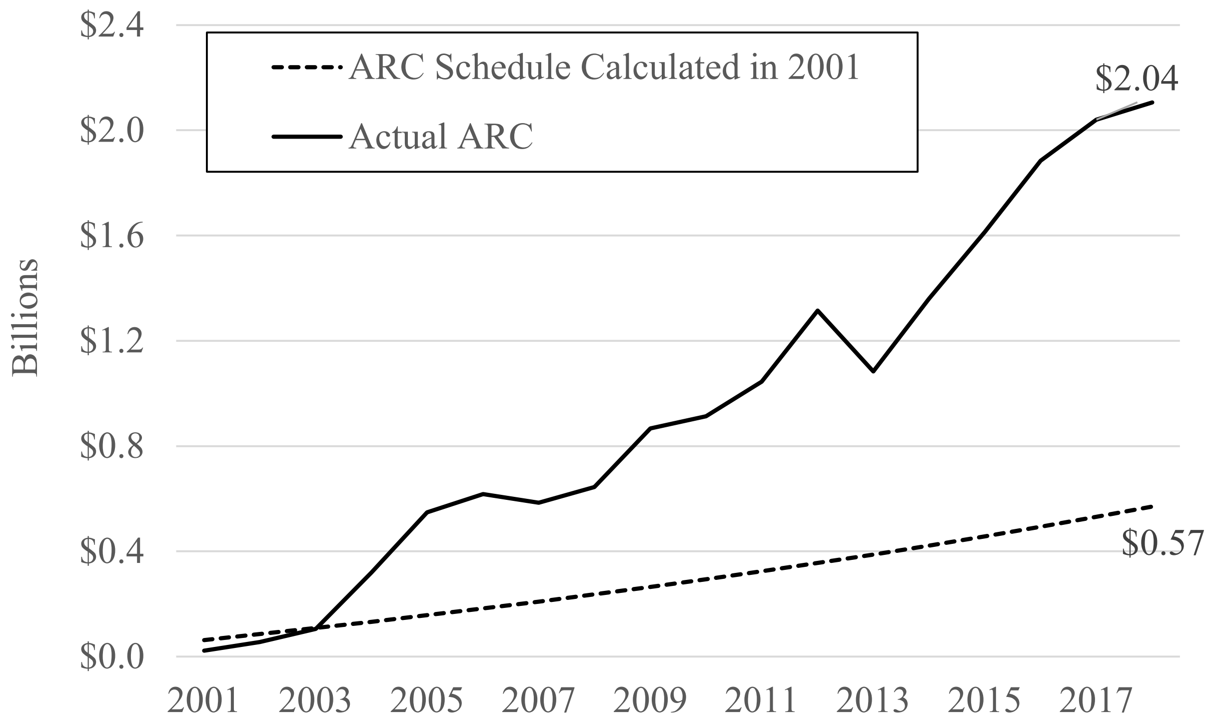
But SERS' recent history raises doubts about the likelihood for future success.

SERS' *Projected* ARC as of 2001 Compared to the *Actual* ARC



Source: Authors' calculations based on various actuarial valuations for Pennsylvania SERS.

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And, actuarial funding is not well suited for managing SERS' legacy unfunded liabilities.

- Legacy liabilities stem from an earlier era of pay-go financing and their costs cannot be allocated to those who should have funded the benefit.
- Because the cost of legacy liabilities has already spilled over to future generations, the actuarial standard of amortizing liabilities within 20-30 years to limit generational spillover is much less compelling.
- At this point, choosing any single generation to bear the full cost of legacy liabilities is arbitrary (or, worse, unfair).
- And, the high cost of doing so may be promoting other undesirable pension practices, such as using artificially high actuarially assumed investment returns to value future benefits and set actuarially required contributions.

Another option is to separate legacy liabilities from more recent pension liabilities.

1) Apply market interest rates to value all liabilities.

2) Separate legacy liabilities from other pension liabilities so that the legacy costs can be appropriately spread over multiple generations, and;

3) Look to the private-sector for methods of funding the remaining current and future pension liabilities

So, how would it work, exactly?

First, a separate account/trust would be established for the legacy liability.

- The government could create two systems – the "Legacy System" and "Pension System" – each with their own trust

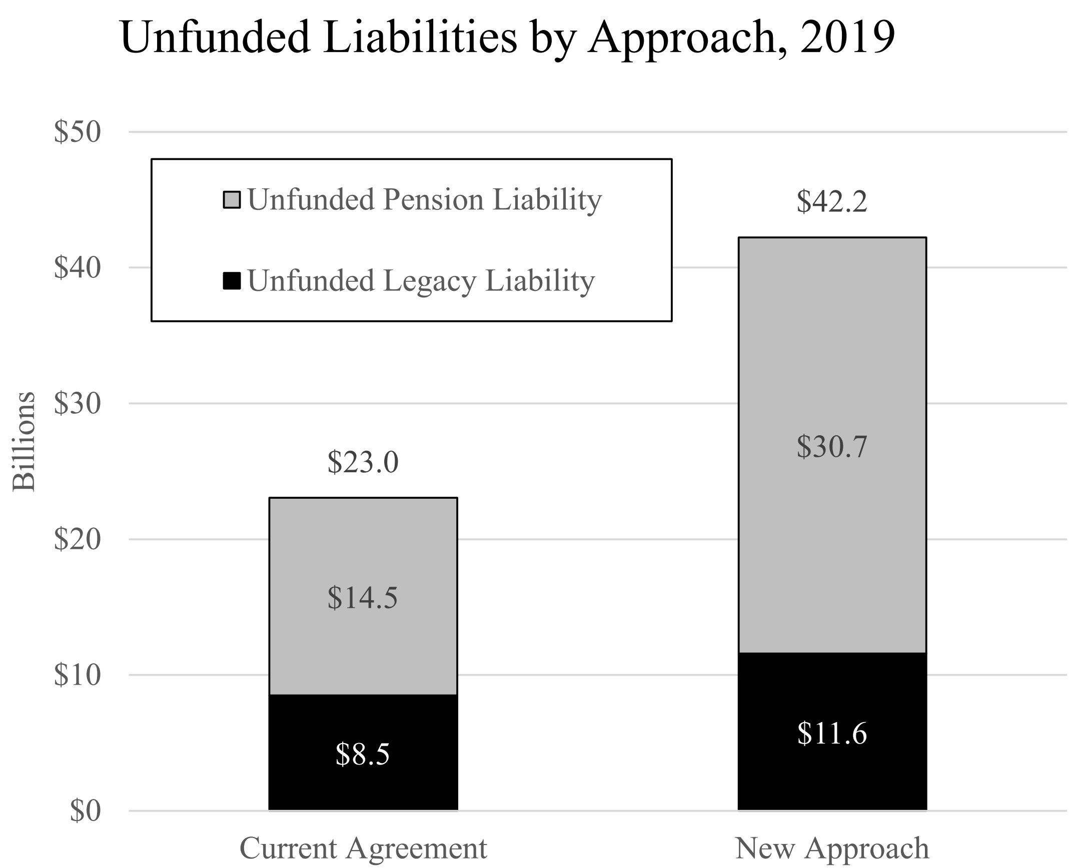
- The Legacy System would require a new trust, with no assets and a liability equal to the legacy liability.

- The Pension System would utilize the existing trust, with all of SERS' assets and a liability equal to SERS' total accrued liability minus the legacy liability.

So, how would it work, exactly? – Pt. 2

- To incrementally reduce the Legacy liability over time, the government makes annual payments into the Legacy Trust Fund only slightly above the liability interest rate.
- The government also contributes to the Pension Trust Fund the employer normal cost and the amount to amortize the more recent unfunded pension liabilities (based on the market interest rate, not the long-term expected return).
- Retirement benefits are paid first from assets in the Legacy Fund and then from assets in the Pension Fund.
- Legacy Fund assets are held in cash or short-term liquidity to immediately pay benefits, while Pension Fund assets are invested like those of a large private-sector plan.

Properly valuing benefit promises would increase the reported liabilities.



Source: Authors' calculations based on various actuarial valuations for Pennsylvania SERS.

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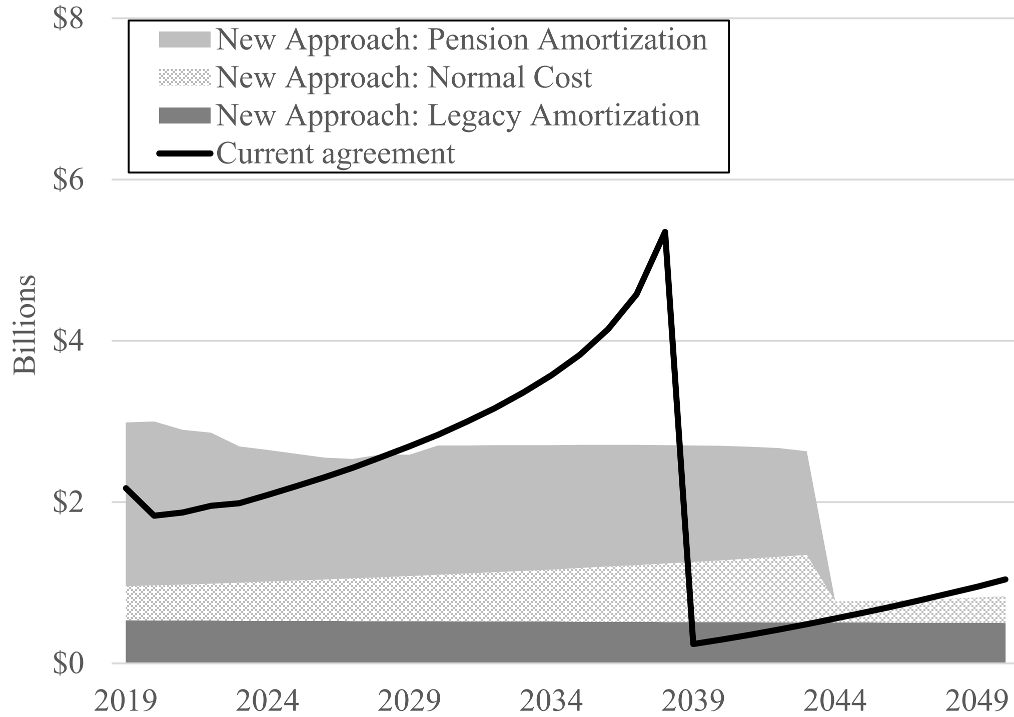
But, lengthening the amortization of legacy liabilities would mitigate much of the impact.

Projected Contributions for SERS under New Pension Accounting, 2019-2050



Source: Authors' calculations based on various actuarial valuations for Pennsylvania SERS.

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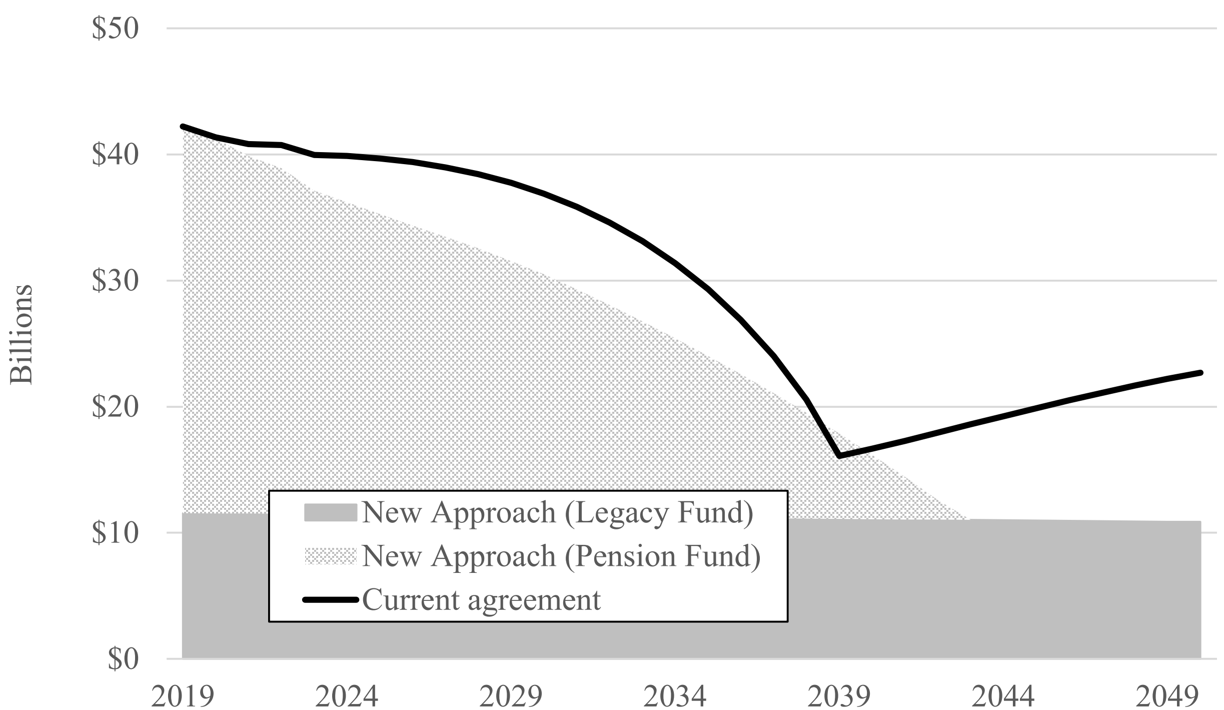
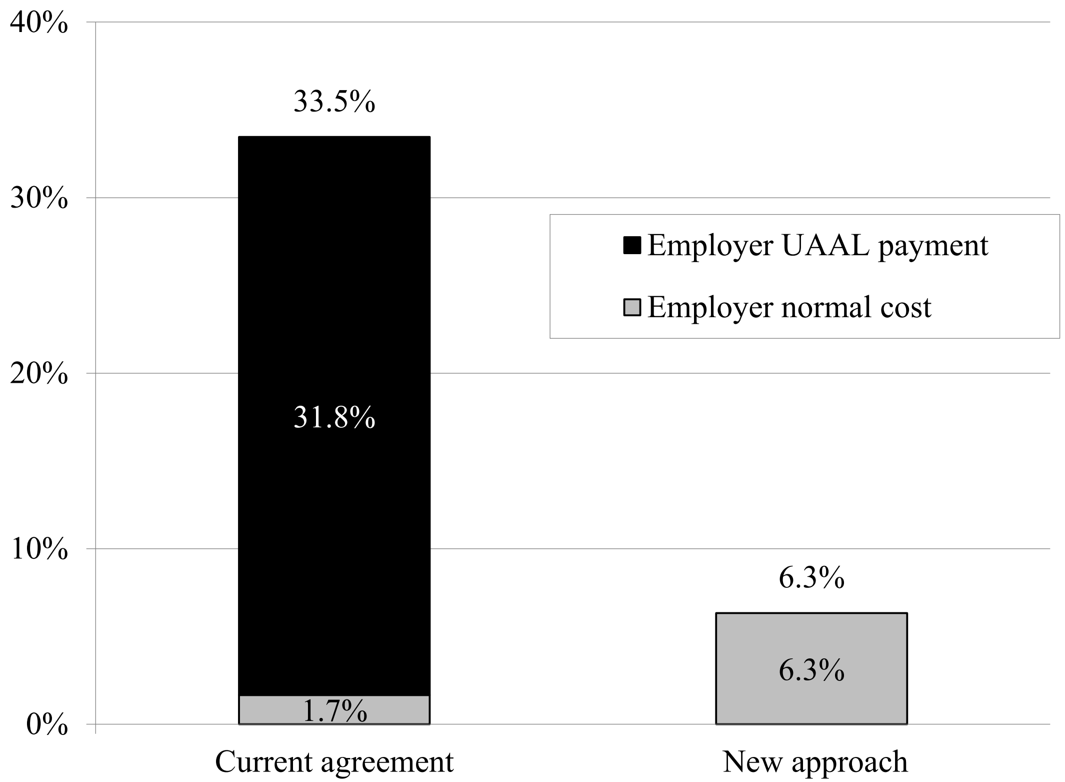
Under the new approach, liabilities would be truly reduced.

Projected Contributions for SERS under New Pension Accounting, 2019-2050



Source: Authors' calculations based on various actuarial valuations for Pennsylvania SERS.

And, legacy and pension unfunded liabilities would no longer be part of the employee fringe rate.



Source: Authors' calculations based on various actuarial valuations for Pennsylvania SERS.

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Conclusion

- Looking forward, SERS' biggest issue is how to manage its existing unfunded liabilities.
- Importantly, over a third of SERS' current unfunded liabilities stem from legacy liabilities – i.e. benefits earned prior to 1974.
- SERS could continue with its current actuarial approach and hope for the best, but recent history raises doubts.
- And, the actuarial approach is not well-suited for legacy costs.
- Another option is to separate legacy liabilities from the current pension system and pay them down over a longer period.
- Without the legacy burden, the pension system could shift to funding methods that better align with current best practices.

Thank you

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