Financial Impact of Act 105 of 2019

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The Independent Fiscal Office (IFO) publishes this research brief in response to a request made during testimony before the House State Government Subcommittee on Public Pensions, Benefits and Risk Management (August 2021). The subcommittee requested that the IFO examine the financial impact from Act 105 of 2019. This research brief uses data from the affected entities to assess the immediate and long-term financial implications from that legislation.

Overview of Act 105

Introduced as House Bill 1982, Act 105 of 2019 allows certain employers that participate in the State Employees' Retirement System (SERS) to pre-fund (i.e., make advance payments) between 75% to 100% of their computed share of SERS' unfunded actuarial liability (UAL). Agreements to make advance payments must be (1) entered into with SERS by December 31, 2024 and (2) deposited into the fund by May 1, 2025. Pursuant to the agreement, SERS computes annual setoff credits that will be applied to the employer's computed contribution over the next 30 years. The annual setoff credit schedule is computed so that at the end of the 30-year period, the overall SERS UAL would be unaffected if all investments, including the advance payment, earned the assumed rate of return in effect at the time the advance payments were made.[1] The setoff credit schedule is unaffected by actual realized returns. The pre-funding option generally allows certain employers to lock in savings if they can borrow at a rate lower than the rate of return assumed by SERS because the assumed rate of return is used to compute the setoff credit schedule. The system can also benefit due to greater liquidity, a lower UAL and enhanced leverage.

As part of its statutory duties, the IFO and its contracted actuary (Milliman) provided an analysis of the legislation in an actuarial note transmitted November 19, 2019.[2] A simulation run by SERS assumed that an advance payment of $1.0 billion was made by a qualified employer in 2020 with annual setoff credits applied in fiscal year (FY) 2021-22. The IFO and Milliman confirmed that, if all assumptions were met, SERS would have roughly the same funded ratio and UAL once all annual setoff credits were applied, as compared to projections without a pre-funding mechanism.

The act did not specify which employers could make advance payments. However, due to the minimum threshold of 75% of employer UAL, employers would likely need to issue bonds to participate. Lack of cash flow, savings or current bond ratings effectively preclude many employers from issuing additional debt to allow the option of a one-time advance payment. The act excludes specific employers such as the Pennsylvania Turnpike Commission, the State Public School Building Authority and the Delaware River Basin Commission (among others). Because Act 120 of 2010 bars executive agencies from issuing pension obligation bonds, those agencies also cannot make advance payments.

Table 1 lists the five largest eligible employers (based on UAL value as of December 31, 2019), their UAL, the share of those UALs within SERS and the minimum contribution if they made an advance payment. If all five employers participated, then advance payments could range from $2.9 billion (75%) to $3.8 billion (100%).

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[1] Credits not used in a given fiscal year may rollover to the next fiscal year until the entire credit is used.

[2] See: IFO - File Download (state.pa.us).

Table 1: Top Five Eligible SERS Employers Based on UAL

Employer	Employer UAL	UAL Share	Minimum Contribution
The Pennsylvania State University	$1,366	5.9%	$1,024
PA State System of Higher Education	$1,100	4.8%	$825
Administrative Office of Pennsylvania Courts	$896	3.9%	$672
Pennsylvania House of Representatives	$281	1.2%	$211
Pennsylvania State Senate	$183	0.8%	$137
Total	**$3,826**	**16.6%**	**$2,870**

Note: Dollars in millions. UAL as of December 31, 2019.

Source: State Employees' Retirement System.

To date, two employers – The Pennsylvania State University (Penn State, PSU) and the Pennsylvania State System of Higher Education (PASSHE) – have entered into agreements with SERS and have made advance payments. Penn State made an advance payment of $1.061 billion in 2020 and PASSHE made an advance payment of $825 million in 2021. The sections that follow examine the financial impact from both agreements.

Impact on The Pennsylvania State University

Penn State was the largest employer eligible to participate under Act 105. As of FY 2020-21, about one-third of its employees were SERS members. In April 2020, Penn State made an advance payment of $1.061 billion, 78% of its computed UAL, and 4.6% of SERS' UAL (2019 valuation). To finance the payment, Penn State issued 30-year taxable revenue bonds at a true interest cost rate of 2.7% (i.e., average effective interest rate). Over the 30-year period, Penn State projected savings of $585 million. Because Penn State will repay the bond at a fixed rate and SERS computed a neutral setoff credit schedule that assumed a return of 7.125%, Penn State effectively locks in those projected savings, regardless of SERS' actual realized return in all future years.

Table 2: PSU Pre-Funding Savings Projections

FYE	Baseline Contribution	Setoff Credit	Net Contribution	Debt Service	Net Cost/ (Savings)
2021-2025	$636	-$466	$170	$229	-$238
2026-2030	580	-466	114	259	-207
2031-2035	593	-466	126	259	-207
2036-2040	623	-466	157	259	-208
2041-2045	339	-220	119	259	39
2046-2050	265	-74	191	258	184
2051	57	0	57	52	52
Total	**3,093**	**-2,159**	**934**	**1,574**	**-585**

Note: Dollars in millions. Baseline contributions are pre-setoff cost estimates calculated by the IFO based on a simulation performed by SERS. Setoff schedule from official SERS-PSU agreement.

Table 2 displays the projected setoff schedule and bond repayments in five-year increments. Under the schedule, Penn State realizes all savings in the first 20 years of the agreement. However, from FY 2042-43 to FY 2050-51, the agreement results in negative cash flow for Penn State as scheduled debt service exceeds setoff credits. Although the pre-funding agreement allows Penn State to lock in $585 million in (nominal) projected savings, the amount they will contribute to SERS will vary based on the actual future experience of the system.

Impact on the Pennsylvania State System of Higher Education

PASSHE was the second-largest employer eligible under Act 105, and 40% of its employees are members of SERS. In April 2021, PASSHE made an advance payment of $825 million, 75% of its computed UAL, and approximately 3.6% of the overall system UAL (2019 valuation). To finance the payment, PASSHE issued 20-year taxable revenue bonds at a true interest cost rate of 2.6%.

Table 3: PASSHE Pre-Funding Savings Projections

FYE	Baseline Contribution	Setoff Credit	Net Contribution	Debt Service	Net Cost/ (Savings)
2022-2026	$517	-$400	$117	$275	-$125
2027-2031	472	-400	72	317	-82
2032-2036	488	-347	141	265	-82
2037-2041	492	-279	213	196	-82
2042-2046	235	-67	168	6	-61
2047-2051	221	-16	205	0	-16
Total	**2,424**	**-1,508**	**916**	**1,059**	**-449**

Note: Dollars in millions. Baseline contributions are pre-setoff cost estimates calculated by the IFO based on a simulation performed by SERS. Setoff schedule from official SERS-PASSHE agreement.

Table 3 shows the pattern of the nearly $450 million in net savings to PASSHE. The PASSHE savings schedule follows a different pattern than Penn State because PASSHE issued bonds that mature in 20 years, while Penn State issued 30-year bonds. For PASSHE, bond payments drop to $5.6 million in FY 2041-42, the final year of repayment. However, setoff credits do not expire until after FY 2050-51, so that PASSHE projects $60.5 million in savings after the bond is fully repaid. Under the agreement, PASSHE locks in the projected $449 million of nominal savings over 30 years.

Impact on the State Employees' Retirement System

As noted in this brief and the actuarial note transmitted for Act 105, there is no negative actuarial impact on SERS if all actuarial assumptions hold. If actuarial assumptions do not hold, then SERS will adjust employer and potentially employee (due to risk sharing provisions) contribution rates based on actual experience. SERS has noted several benefits to the system from the act: (1) increased fund liquidity, (2) increased investment leverage and (3) increased financial solvency.[3] SERS also noted that the Commonwealth could benefit because credit rating agencies consider public pension system funding ratios in their rating assessments.

[3] See: 2020-05-Act 2019-105.pdf (pa.gov).

Based on preliminary computations, system employers received a substantial benefit from the two pre-funding agreements due to very strong market returns the past two years. In 2020 (actual return 11.11%) and 2021 (preliminary 17.24%), SERS exceeded the actuarially assumed net rate of return (7.125% in 2020; 7.00% in 2021). When actual returns exceed assumptions, projected employer contribution rates and amounts decline. **Table 4** displays projected employer contribution rates and employer contributions with and without the advance payments. The savings projected in the table are based on actual (2020) or preliminary (2021) returns and the assumed rate of return (7.00%) for all future years. The results should not be combined with any figures from preceding tables.

Table 4: Impact of Pre-Funding Agreements (Investment Returns Through 2021)

	Advance Payments	No Payments	Difference	Setoff Credit	Change[1]
Employer Contribution Rate (%)					
2022-23	33.84	33.87	-0.03	--	-0.03
2023-24	31.87	31.97	-0.11	--	-0.11
2024-25	29.19	29.36	-0.18	--	-0.18
2025-26	27.27	27.52	-0.24	--	-0.24
Average 30-Year[2]	**18.06**	**18.21**	**-0.15**	--	**-0.15**
Employer Contributions ($)					
2022-23	2,178	2,353	-176	173	-2
2023-24	2,109	2,289	-181	173	-7
2024-25	1,982	2,168	-186	173	-13
2025-26	1,903	2,095	-191	173	-18
Total 30-Year[2]	**48,658**	**52,648**	**-3,990**	**3,667**	**-323**

Note: Dollars in millions.

Source: SERS data, calculations by the IFO. Out-year projections based on 7.00% net rate of investment return.

1 Employer contributions adjusted for setoff credits.

2 Fiscal Year 2021-22 to Fiscal Year 2050-51, including $93 million in credits issued to Penn State in Fiscal Year 2020-21.

Due to strong returns, the advance payments are projected to reduce employer contributions for all employers by $41 million (includes Penn State and PASSHE) from FY 2022-23 to FY 2025-26, and by $323 million over the life of the agreements (if the assumed 7.00% rate of return is realized). Of that $323 million, the IFO estimates that $290 million (90%) would flow to employers other than Penn State and PASSHE. Estimates of employer contributions will change year-to-year based on system performance and actuarial assumptions.

However, the increased asset base from the advance payments could result in a negative impact if projected returns are not achieved. **Table 5** (next page) illustrates this possibility by considering a hypothetical scenario in which SERS did not realize its assumed rate of return in 2021 but did in all future years.

Table 5: Impact of Pre-Funding Agreements (Hypothetical 0% Return in 2021)					
	Advance Payments	No Payments	Difference	Setoff Credit	Change[1]
Employer Contribution Rate (%)					
2022-23	35.08	35.06	0.02	--	0.02
2023-24	34.36	34.35	0.01	--	0.01
2024-25	32.90	32.92	-0.02	--	-0.02
2025-26	32.19	32.22	-0.03	--	-0.03
Average 30-Year[2]	**21.84**	**21.85**	**-0.01**	--	**-0.01**
Employer Contributions ($)					
2022-23	2,263	2,435	-172	173	1
2023-24	2,285	2,458	-173	173	0
2024-25	2,252	2,427	-175	173	-2
2025-26	2,271	2,446	-175	173	-2
Total 30-Year[2]	**59,615**	**63,219**	**-3,604**	**3,667**	**63**

Note: Dollars in millions.

Source: SERS data, simulations conducted by Milliman upon request by IFO. Out-year projections based on 7.00% net rate of investment return.

1 Employer contributions adjusted for setoff credits.

2 Fiscal Year 2021-22 to Fiscal Year 2050-51, including $93 million in credits issued to Penn State in Fiscal Year 2020-21.

The IFO requested that its contracted actuary, Milliman, conduct a simulation in which the net investment return for 2021 was 0.00%, instead of the realized 17.24% and then reverted to 7.00% for all future years. In this simulation, advance payments are projected to increase employer costs by $63 million over the 30-year period. Of that $63 million, approximately $56 million would be allocated to SERS employers other than Penn State and PASSHE.

The two scenarios offer insights into the benefits and risks associated with advance payments. In both cases, the pre-funding agreements enabled Penn State and PASSHE to lock in a combined $1.0 billion in total savings over 30 years; however, actual system performance and actuarial assumptions over this time period will affect all SERS employers, as illustrated in Tables 4 and 5.

Staff Acknowledgements

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