Inflation's Impact on Earnings and Pensions

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The latest data from the U.S. Bureau of Labor Statistics (BLS) show a rapid deceleration of inflation as measured by the Consumer Price Index (CPI) for the Philadelphia metro region. In June 2022, year-over-year (YOY) inflation peaked at 8.8%, but since then has decelerated to 3.1% (June 2023). Most forecasters project that inflation will remain at current levels in the near-term, and then revert to the Federal Reserve target of 2.0% sometime in 2024. This research brief provides an update to an IFO analysis from October 2021 using recent hourly earnings and CPI data to quantify how unusually high inflation has impacted real earnings for Pennsylvania workers and pensions received by annuitants of the State Employees Retirement System (SERS) and Pennsylvania School Employees Retirement System (PSERS).

The **first table** reproduces the methodology used by the BLS to compute the growth of U.S. real average hourly earnings, but uses Pennsylvania average hourly earnings and CPI-U data.[1] The real average hourly earnings data are for all private workers (excludes government) and the leisure-hospitality, manufacturing, trade (wholesale and retail) and transportation, and professional-business services (e.g., accountants, lawyers, researchers) sectors. The figures represent the cumulative growth in real average hourly earnings for June 2023 relative to June 2019 (pre-COVID) and the three subsequent Junes. The comparison illustrates the importance of the base year used for the computation. Notable results include:

- Relative to June 2019, all private workers recorded modest real average hourly earnings gains (+0.7%), while workers in the leisure-hospitality sector recorded substantial gains (+11.3%).
- Relative to June 2020 and June 2021, real average hourly earnings contracted for all private workers due to unusually high inflation in 2022.
- Relative to June 2022, all private workers recorded moderate real gains (+1.2%) and the leisure-hospitality sector (+7.3%) recorded much higher gains. The retail/wholesale trades and transportation sector recorded real gains in the final year of the four-year period. That outcome is due to the rapid deceleration of inflation and an historically tight labor market, especially for jobs with lower hourly earnings. For June 2023, the Pennsylvania unemployment rate (3.8%) was the lowest on record.
- The figures represent cumulative real gains over the time period, and not average annual gains.

Cumulative Growth of Pennsylvania Real Average Hourly Earnings

Time Period	All Private Workers	Leisure-Hospitality	Manufact	Trade and Transport	Prof and Business
June 2019 to June 2023	0.7%	11.3%	3.6%	-5.4%	2.1%
June 2020 to June 2023	-3.9%	9.6%	-1.3%	-6.0%	-2.5%
June 2021 to June 2023	-2.5%	9.1%	-1.2%	-5.4%	1.9%
June 2022 to June 2023	1.2%	7.3%	0.4%	2.2%	2.6%

Note: Average hourly earnings deflated by Philadelphia CPI-U. Excludes self-employed and government workers.
Source: U.S. Bureau of Labor Statistics (data and methodology).

[1] See https://www.bls.gov/news.release/realer.htm for the latest BLS release and methodology.

High rates of inflation also impact public pensions because they are not indexed to inflation. The **second table** illustrates the impact for the average SERS or PSERS beneficiary who was retired in 2020 after achieving full benefits. The average annual benefit earned was $30,050 for SERS and $29,600 for PSERS.[2] The analysis uses an average benefit amount ($29,820) for the two systems. The table displays nominal payments through 2035 at five-year increments and outcomes under two inflation scenarios. The first scenario assumes inflation of 2.0% per annum, which reflects the Federal Reserve's target rate. The second scenario uses higher inflation for 2021 (4.0%), 2022 (7.9%), 2023 (4.2%) and 2024 (2.5%), prior to reversion to a long-run annual rate of 2.0%. For that scenario, the rates for 2021 and 2022 are the actual annual rates based on the Philadelphia CPI-U, while the rate for 2023 uses actual data through June 2023 and assumes 3.0% inflation for the remainder of the calendar year.

Constant inflation of 2.0% per annum erodes the real value of annual pension benefits by $2,810 for 2025 (-9.4%), $7,660 (-25.7%) for 2035 and $64,100 (-14.3%) over the entire 15-year period. Under the second inflation scenario, the erosion increases to $5,430 for 2025 (-18.2%), $9,810 for 2035 (-32.9%), and total erosion increases to $98,230 (-22.0%) over the entire 15-year period. The difference between the two scenarios is $34,130 of reduced purchasing power over the entire 15-year period, or -$2,275 per annum on average. The reduced purchasing power is largely due to elevated inflation during 2021 to 2023.

Higher Inflation Erodes Real Value of Public Pensions

	2020	2025	2030	2035	15 Year Total
Real Value of Average Benefit					
No Inflation	$29,820	$29,820	$29,820	$29,820	$447,300
2% Inflation	$29,820	$27,010	$24,470	$22,160	$383,200
Actual/Estimated Inflation	$29,820	$24,390	$22,090	$20,010	$349,070
Reduction in Real Value					
No Inflation vs 2% Inflation	$0	-$2,810	-$5,350	-$7,660	-$64,100
No Inflation vs Actual/Estimated	$0	-$5,430	-$7,730	-$9,810	-$98,230
Difference: Additional Erosion	$0	-$2,620	-$2,380	-$2,150	-$34,130

Note: Actual/Estimated Inflation scenario: 4.0% (2021), 7.9% (2022), 4.2% (2023), 2.5% (2024) and 2.0% for future years. Average benefits data from SERS and PSERS.

[2] These figures reflect an average beneficiary who achieves superannuation (i.e., maximum benefits). Upon retirement, approximately 70% withdraw their employee contributions to use for investment or other purposes. The figures represent a weighted average for a member who withdraws and does not withdraw employee contributions.