A Dignified Retirement for Teachers
How Inflation Erodes the Value of Public Employee Pensions
2023

The enclosed report provides an analysis of the current system of pension cost-of-living adjustments (COLA) for the Massachusetts Teachers' Retirement System (MTRS).

Its important findings include:

- ❖ Teachers and other public sector employees do not receive Social Security benefits through their employment and rely on their state pension to live in retirement. Cost of Living Adjustments (COLAs) for retirees are, under current state law, only applied to $13,000 of the pension benefit (the COLA base). This means that inflation erodes the value of the pension over time. For example, a 3 percent adjustment on $13,000 of a pension means roughly a .75 percent adjustment to an entire $50,000 pension.
- ❖ This has a real-world impact on the quality of life for retirees. As this report shows, a retiree who has earned a pension of $50,000 can see the value of that pension erode by 20 percent or more over 10 years under the current COLA system.
- ❖ The Commonwealth once protected the hard-earned pensions of retired teachers, but it has allowed that benefit to erode considerably over time. In 1971, the COLA base was 68 percent of the average teacher salary. In 1998, the COLA base was 28 percent of the average teacher salary. In 2022, it was down to only 15 percent.

The Massachusetts Teachers Association (MTA) is supporting legislation that would take meaningful steps toward addressing this problem. S.1638/H.2505, *An Act to provide fair and affordable public retiree benefits*, sponsored by state Senator Julian Cyr and state Representative Dan Donahue, would immediately increase the base on which the annual pension COLA is calculated for members of the state and teachers' retirement systems, from $13,000 to $18,000. This legislation would then further raise the base over time to align with Social Security's maximum benefit for an individual worker retiring at full retirement age ($43,524 in 2023).

Please note that the MTRS does not manage pensions for Education Support Professionals, as they are instead covered by local contributory retirement systems throughout the Commonwealth. In addition, the enclosed report does not specifically cover the Massachusetts State Employees' Retirement System (MSERS). However, state employees under the MSERS face the same challenges as MTRS members relative to inadequate pensions and are covered under the MTA's proposed legislation.

Please join the MTA in supporting S.1638/H.2505 to ensure that retired public employees' pensions are able to better keep pace with inflation and provide greater economic security to those who have provided invaluable service to the Commonwealth.

A Dignified Retirement for Teachers
How Inflation Erodes the Value of Public Employee Pensions

The pensions that Massachusetts public sector employees receive lose much of their value over time. Under existing law, a $50,000 pension earned by a retired public school teacher, for example, will lose 20 percent of its buying power over 10 years. This takes place because pensions are poorly adjusted for inflation.

Teachers and other public sector employees in Massachusetts are not covered by Social Security, but instead earn pensions through the Commonwealth's own retirement system. Public sector employees who have worked long enough under state requirements can receive a pension of up to 80 percent of the average of their salary for the three highest consecutive years. While this may appear to be a generous pension, it is only so if they don't live too long.

In Massachusetts, public sector employee pensions are not automatically adjusted for inflation. Section 102 of Chapter 32 sets the "base," or the maximum pension benefit that a COLA can be based on. It most recently was increased in 2011, from $12,000 to $13,000. Another section of Chapter 32 effectively sets a 3 percent cap on the COLA, which can be lifted by the Legislature as it was in the Fiscal Year 2022 budget. However, a 3 percent COLA adjustment is the typical increase.

Using these two laws the maximum increase is $390 per year, but the exact amount is established annually by the Legislature through the budget.

The Impact of the COLA Process and Alternatives

Let's consider the case of a retiree with an annual pension of $50,000. In the next year, that pension would grow to $50,390 with a 3 percent COLA applied to the $13,000 base. If, however, actual inflation seen over the next year is 3 percent, the retiree would need to have a $51,500 pension to maintain their buying power. They would have lost $1,110, or 2.2 percent, of their pension's buying power in just one year. Over time, this seemingly small loss becomes substantial, as you will see.

Table 1 below shows what will happen after 10 years to the pensions of people retiring at the end of 2023, who will start to receive pension payments in 2024. For the retiree who has a $50,000 pension, its value would rise to $53,900 in 2034, with the 3 percent adjustment on the first $13,000 each year.

But with inflation averaging 3 percent per year over this 10-year period, the buying power of their pension would drop to about $40,106 (in 2024 prices), or a decline of nearly 20 percent. Even for a small pension of only $20,000 in 2024 (with $13,000 making up a much larger portion of the whole), the retiree would lose about $2,216 of buying power, or slightly more than 11 percent, over the decade.

Table 1: Impact of Pension's Buying Power Over a 10-Year Period, Various Pension Starting Levels in 2024, with 3% Annual Adjustment on the First $13,000 and an Average Annual Rate of Inflation of 3%

Pension in FY2024	Nominal Pension in FY2034	Buying Power of Pension in FY2034	Loss of Buying Power from FY2024 to FY2034	Percent Loss of Buying Power from 2024 to FY2034
$20,000	$23,900	$17,783.85	$2,216.15	11.08%
$30,000	$33,900	$25,224.79	$4,775.21	15.92%
$40,000	$43,900	$32,665.73	$7,334.27	18.34%
$50,000	$53,900	$40,106.67	$9,893.33	19.79%
$60,000	$63,900	$47,547.61	$12,452.39	20.75%
$70,000	$73,900	$54,988.56	$15,011.44	21.44%
$80,000	$83,900	$62,429.50	$17,570.50	21.96%
$90,000	$93,900	$69,870.44	$20,129.56	22.37%
$100,000	$103,900	$77,311.38	$22,688.62	22.69%

One way to understand what's going on is to recognize that a 3 percent adjustment on $13,000 of a pension means roughly a .75 percent adjustment to an entire $50,000 pension.

A complete solution — one that would maintain the buying power of a pension — would require that the full pension be adjusted by the actual rate of inflation each year. However, a meaningful improvement could be achieved by raising the COLA base from its $13,000 current level. For example, Tables 2 and 3 show what would happen if the portion of the pension that is adjusted by the COLA was increased from $13,000 to $18,000 and $25,000, respectively. In these tables, as in Table 1, the adjustment is 3 percent each year, and the annual average rate of inflation over the 10-year period is taken as 3 percent.

As can be seen from comparing the results of calculations shown in Tables 2 and 3 with those of Table 1, the impact of these improvements on small pensions would be quite large. Raising the portion adjusted to $25,000 would virtually eliminate the loss of buying power for a pension of $20,000. However, the larger the pension, the less these improvements would affect the percent loss of buying power. For these larger pensions, the larger COLA base is still a small share of the total pension.

Table 2: Impact of Pension's Buying Power Over a 10-Year Period, Various Pension Starting Levels in 2024, with 3% Annual Adjustment on the First $18,000 and an Average Annual Rate of Inflation of 3%

Pension in FY2024	Nominal Pension in FY2034	Buying Power of Pension in FY2034	Loss of Buying Power from FY2024 to FY2034	Percent Loss of Buying Power from FY2024 to FY2034
$20,000	$25,400	$18,899.99	$1,100.01	5.50%
$30,000	$35,400	$26,340.93	$3,659.07	12.20%
$40,000	$45,400	$33,781.87	$6,218.13	15.55%
$50,000	$55,400	$41,222.81	$8,777.19	17.55%
$60,000	$65,400	$48,663.76	$11,336.24	18.89%
$70,000	$75,400	$56,104.70	$13,895.30	19.85%
$80,000	$85,400	$63,545.64	$16,454.36	20.57%
$90,000	$95,400	$70,986.58	$19,013.42	21.13%
$100,000	$105,400	$78,427.52	$21,572.48	21.57%

Table 3: Impact of Pension's Buying Power Over a 10-Year Period, Various Pension Starting Levels in 2024, with 3% Annual Adjustment on the First $25,000 and an Average Annual Rate of Inflation of 3%

Pension in FY2024	Nominal Pension in FY2034	Buying Power of Pension in FY2034	Loss of Buying Power from FY2024 to FY2034	Percent Loss of Buying Power from 2024 to FY2034
$20,000	$26,835	$19,968.06	$31.94	0.16%
$30,000	$37,500	$27,903.53	$2,096.47	6.99%
$40,000	$47,500	$35,344.47	$4,655.53	11.64%
$50,000	$57,500	$42,785.41	$7,214.59	14.43%
$60,000	$67,500	$50,226.35	$9,773.65	16.29%
$70,000	$77,500	$57,667.29	$12,332.71	17.62%
$80,000	$87,500	$65,108.24	$14,891.76	18.61%
$90,000	$97,500	$72,549.18	$17,450.82	19.39%
$100,000	$107,500	$79,990.12	$20,009.88	20.01%

One might object to these hypothetical examples by stating that the rate of inflation is likely to average less than 3 percent over the next decade. It is, of course, difficult to forecast the rate of inflation over a 10-year period; indeed, recent experience makes it difficult to project what will happen for even a year or two! Nonetheless, a rate of less than 3 percent is possible. The appendix below assumes that the annual average rate of inflation will be 2.75 percent over the 10-year period. (The Federal Reserve has a target of 2 percent inflation, but this is unlikely to be reached and sustained over the decade.) The tables in the appendix, however, maintain the assumption that the rate of adjustment on the COLA base will be maintained at 3 percent. This combination of assumptions may be unlikely, but they provide an illustration of an alternative and more favorable outcome for the buying power of public sector employee pensions.

The Rate of Adjustment

In the examples above, it is assumed that the rate applied to the COLA base of a retiree's pension is the same as the rate of inflation. However, on average, between 1971 and 2022, the rate applied has been less than the rate of inflation. Between 1970 and 2022, the Consumer Price Index rose 765 percent. Yet, compounding the yearly rates that were used to adjust a portion of a retiree's pension in this period amounts to only a 553 percent increase. In other words, consider the theoretical case of a Massachusetts public sector employee who started receiving a pension of $10,000 in 1970. If that person's pension had in its entirety been increased by the rate of inflation, the pension would have been $76,500 in 2022. But using the rate actually approved by the Commonwealth, and applied to the whole pension, in 2022 the pension would have been $55,300. So even with the adjustment applied to the whole pension, by 2022, 28 percent of the pension's buying power would have been lost.

To underscore the point, in 2022 the Consumer Price Index was 7.2 percent higher than in 2021, but the rate of adjustment applied to pensions for 2023 is only 5 percent. And, as usual, it will be applied to only the first $13,000.

The Portion Adjusted – The COLA Base

The COLA base, the $13,000 figure, has remained constant since 2012. Prior to that, the figure had been raised periodically. It has, however, declined dramatically in inflation-adjusted dollars, and in relation to public employee pensions. Table 4 below shows the COLA base for 1971, the current year, and the years in between when the COLA base was raised. The figures are shown in current dollars and in November 2022 dollars.

For the years shown, the COLA base is compared to the average salary of public school teachers in Massachusetts. In terms of inflation-adjusted dollars, the COLA base fell 70 percent from 1971 to 2023, and by 43 percent from 1981 to 2023. As compared to the average teacher salary (which, we can assume, closely correlates with the value of pensions), the COLA base represented a decreasing share, falling from 68 percent in 1971 to 15 percent in 2022. (Data on the average size of pensions for these years are not available.)

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Table 4: COLA Base in Current and November 2022 Dollars, Average Salary of Massachusetts Public School Teachers in Current Dollars, 1971, 2022, and Years of Adoption of a New COLA Base

| | COLA Base | | (3) Average Salary MA public K-12 | |
	(1) Current Dollars	(2) November 2022 Dollars	Teachers, in Current Dollars	(1) as a percent of (3)
1971[1]	$6,000	$43,997	$8,764[2]	68%
1981	$7,000	$23,002	$17,253[3]	41%
1985	$8,000	$19,368	n.a.	--
1986	$9,000	$19,032	$26,800[4]	34%
1998	$12,000	$21,917	$42,874[5]	28%
2012	$13,000	$16,865	$70,340[6]	18%
Current	$13,000	$13,000	$86,315[7]	15%

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[1] The first and last years are the earliest and most recent for which data are available, and the years in between are years in which the COLA Base was increased. For example, the COLA Base stayed at $6,000 from 1971 until 1981. [2] 1969-70 [3] 1979-80 [4] 1985-86 [5] 996-97 [6] 2010-11 [7] 2020-21

The following tables assume a slightly lower rate of inflation — an annual average of 2.75 percent instead of 3 percent. The rate used for adjustment of public employee pensions, however, is maintained at 3 percent on the COLA base.

A comparison of these appendix tables with the previous ones illustrates that a lower rate of inflation along with the increase in the COLA base would substantially reduce the loss of buying power in public pensions. This is particularly true for smaller pensions. For example, the combination of the lower inflation rate and raising the COLA base to $25,000 would result in an actual increase of buying power for the lowest level pension in the table, the $20,000 starting pension.

Even for the high-level pensions, the reduction in the assumed rate of inflation along with the increase of the COLA base would make a substantial difference. For example, with a $50,000 starting pension, the combined impact of the lower rate of inflation and the increase of the COLA base to $25,000 would change the percent loss of buying power from nearly 20 percent to slightly more than 10 percent. For the highest-level pensions in the tables, $100,000, the percent reduction in loss of buying power would not be as great but would still be substantial.

Table A1: Impact of Pension's Buying Power Over a 10-Year Period, Various Pension Starting Levels in 2024, with 3% Annual Adjustment on the First $13,000 and an Average Annual Rate of Inflation of 2.75%

Pension in FY2024	Nominal Pension in FY2034	Buying Power of Pension in FY2034	Loss of Buying Power from FY2024 to FY2034	Percent Loss of Buying Power from 2024 to FY2034
$20,000	$23,900	$18,221.31	$1,778.69	8.89%
$30,000	$33,900	$25,845.29	$4,154.71	13.85%
$40,000	$43,900	$33,469.27	$6,530.73	16.33%
$50,000	$53,900	$41,093.25	$8,906.75	17.81%
$60,000	$63,900	$48,717.23	$11,282.77	18.80%
$70,000	$73,900	$56,341.21	$13,658.79	19.51%
$80,000	$83,900	$63,965.19	$16,034.81	20.04%
$90,000	$93,900	$71,589.17	$18,410.83	20.46%
$100,000	$103,900	$79,213.14	$20,786.86	20.79%

Table A2: Impact of Pension's Buying Power Over a 10-Year Period, Various Pension Starting Levels in 2024, with 3% Annual Adjustment on the First $18,000 and an Average Annual Rate of Inflation of 2.75%

Pension in FY2024	Nominal Pension in FY2034	Buying Power of Pension in FY2034	Loss of Buying Power from FY2024 to FY2034	Percent Loss of Buying Power from 2024 to FY2034
$20,000	$25,400	$19,364.91	$635.09	3.18%
$30,000	$35,400	$26,988.89	$3,011.11	10.04%
$40,000	$45,400	$34,612.87	$5,387.13	13.47%
$50,000	$55,400	$42,236.85	$7,763.15	15.53%
$60,000	$65,400	$49,860.82	$10,139.18	16.90%
$70,000	$75,400	$57,484.80	$12,515.20	17.88%
$80,000	$85,400	$65,108.78	$14,891.22	18.61%
$90,000	$95,400	$72,732.76	$17,267.24	19.19%
$100,000	$105,400	$80,356.74	$19,643.26	19.64%

Table A3: Impact of Pension's Buying Power Over a 10-Year Period, Various Pension Starting Levels in 2024, with 3% Annual Adjustment on the First $25,000 and an Average Annual Rate of Inflation of 2.75%

Pension in FY2024	Nominal Pension in FY2034	Buying Power of Pension in FY2034	Loss of Buying Power from FY2024 to FY2034	Percent Loss of Buying Power from FY2023 to Fy2034
$20,000	$26,835	$20,963.76	-$963.76	-4.82%
$30,000	$37,500	$29,294.93	$705.07	2.35%
$40,000	$47,500	$37,106.91	$2,893.09	7.23%
$50,000	$57,500	$44,918.89	$5,081.11	10.16%
$60,000	$67,500	$52,730.87	$7,269.13	12.12%
$70,000	$77,500	$60,542.85	$9,457.15	13.51%
$80,000	$87,500	$68,354.84	$11,645.16	14.56%
$90,000	$97,500	$76,166.82	$13,833.18	15.37%
$100,000	$107,500	$83,978.80	$16,021.20	16.02%