
First Draft of Study Report on Postretirement Adjustments (COLAs)

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I. Introduction

The 2018 Minnesota Legislature passed a comprehensive package of public pension reforms. The reforms included reductions in the postretirement adjustment rate for several of the statewide public pension plans and established a new method for determining the postretirement adjustment rate for the General and Local Government Correctional plans of the Public Employees Retirement Association ("PERA"). In addition to the reforms, the 2018 legislature mandated that the Legislative Commission on Pensions and Retirement conduct a study of postretirement adjustments for the statewide public pension plans and the St. Paul Teachers Retirement Fund Association ("SPTRFA").¹ Specifically, the legislature mandated that the study:

1. take into account the purpose of postretirement adjustments and whether governing statutes are consistent with the purpose of postretirement adjustments;
2. consider alternative methodologies for determining postretirement adjustments; and
3. evaluate PERA's new method for determining the postretirement adjustment rate.

A. Terminology

The following is a list of key terms and their meanings as used in this report.

"Cost of living adjustment" or "COLA" refers to a category of plan features that serve to alter (usually increase) a pension benefit after retirement. The term includes Minnesota's postretirement adjustment benefit but is used in this report only when meaning to include other benefits that have not been adopted in Minnesota.

"Postretirement adjustment" refers specifically to the plan features described in Minnesota Statutes, Section 356.415 and their predecessors.

"MSRS" means the Minnesota State Retirement System.

"PERA" means the Minnesota Public Employees Retirement Association.

"SPTRFA" means the St. Paul Teachers Retirement Fund Association, both the organization and the plan it administers.

"TRA" means the Minnesota Teachers Retirement Association, both the organization and the plan it administers.

"Statewide plans" means all of the pension plans administered by MSRS, PERA, and TRA; also includes the major local plan SPTRFA.f

"2018 Pension Reform Act" refers to Minnesota Laws 2018, Chapter 211.

¹ Minn. Laws 2018, Ch. 211, Art. 5, Sec. 14

B. Description of Study Process

[DESCRIPTION OF STUDY PROCESS TO BE COMPLETED FOLLOWING COMPLETION OF STUDY AND RECEIPT OF COMMENTS FROM THE PUBLIC]

C. Description of Report

[DESCRIPTION OF REPORT WILL GO HERE]

II. Postretirement Adjustments in Minnesota

This section provides history and current status of postretirement adjustments in Minnesota's public pension plans, starting with the Minnesota Adjustable Fixed Benefit Fund in 1969 and ending with the changes in the 2018 Pension Reform Act. No substantive changes have been made to postretirement adjustments since 2018.

A. History of Minnesota's Postretirement Adjustment

Minnesota Post Retirement Investment Fund, General Description

The Minnesota Post Retirement Investment Fund ("Post Fund") was shared by the three statewide retirement systems. Upon retirement of a member, the retirement system calculated the required reserves necessary to fund the lifetime benefit to be paid to the retiring member. The reserves were transferred to the Post Fund, which served as the storehouse to fund monthly payments for the remainder of the annuity stream selected.

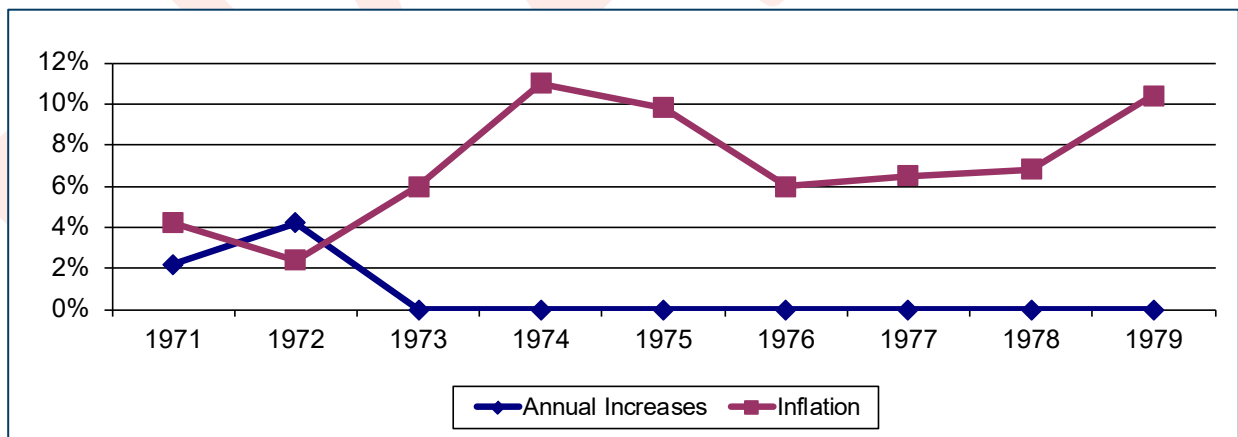
The required reserves at retirement were less than the total amount to be paid since the reserves were assumed to experience investment earnings while they resided within the Post Fund prior to their payment. For example, the total dollar value of annuity payments expected to be paid to a member over their lifetime might equal \$600,000 but the amount of the reserves transferred was less, say, \$350,000. The full lifetime benefit total did not need to be transferred because the annuity benefit was not paid out at once and the reserves transferred were expected to earn some amount of investment earnings each year prior to payment.

The Post Fund had its origins as the Minnesota Adjustable Fixed Benefit Fund ("MAFBF") and went through a number of changes before its dissolution. Beginning January 1, 2009, the Post Fund was closed to any new retirees and closed to new transfers of required reserves. Then, on June 30, 2009, the Post Fund was completely dissolved. Each system's proportionate share of the assets was transferred to respective retirement system.

1969-1979: Minnesota Adjustable Fixed Benefit Fund Created

- In 1969, the MAFBF was created to hold the assets for retirees of the 3 statewide systems. A separate fund for retiree assets was created due to concerns about the systems' low funding levels. At that time, some of the plans were only 50% funded.
- Retiree assets were transferred to the MAFBF, assuming a future earnings rate of 3.5%, later modified to 5.0%.
- Annual postretirement adjustment depended upon MAFBF funding ratio.
 - If the ratio was between 98-102%, no increase was paid.
 - If the ratio was over 102%, an annual increase equal to the "excess" over 100% was paid (e.g., if the ratio was 103%, a 3% increase was paid).
 - If the ratio was less than 98%, benefits could decrease but never below original benefit level determined at time of retirement.
- Despite high inflation during the 1970's, very low increases were paid under the MAFBF mechanism, mainly because of very poor financial markets. Increases were paid under this mechanism only twice during the 1971-79 period (January 1, 1971, and 1972). An ad hoc increase was paid in 1979.

Figure 1: Minnesota Adjustable Fixed Benefit Fund, 1971-1979

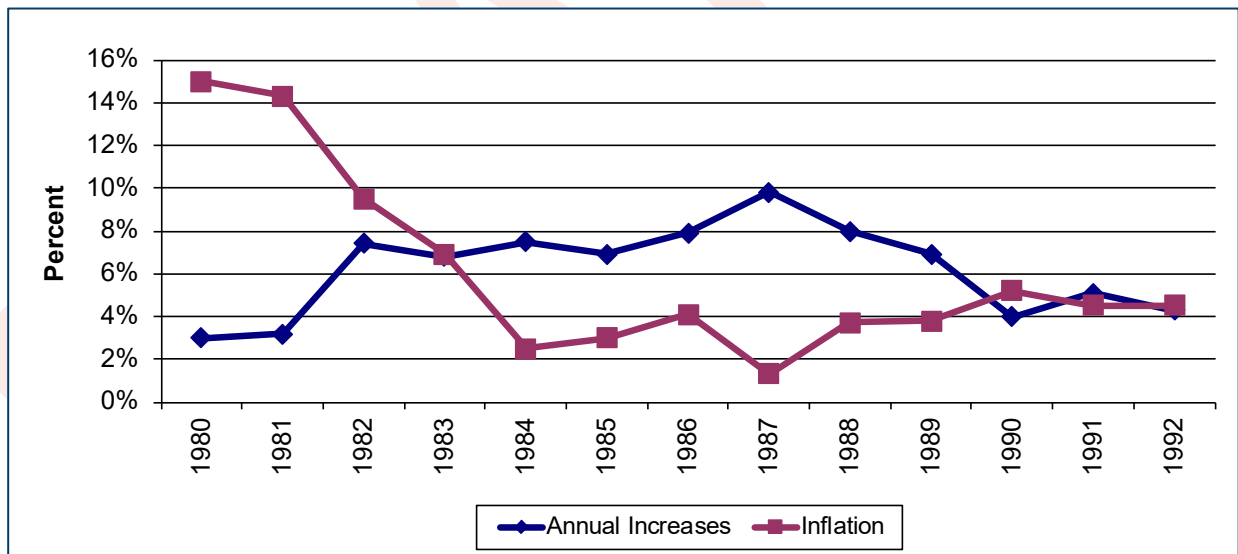


1980-1992: Minnesota Post Retirement Investment Fund created

- In 1980, MAFBF assets were transferred to the Minnesota Post Retirement Investment Fund ("Post Fund"), a newly created separate fund for retiree assets.
- Accounting principles at the time were such that the Post Fund assets were valued at cost, not market value. Cost value was equal to the actuarial liabilities in the Post Fund.

- For new retirements, assets were transferred from the active fund to the Post Fund using 5% earnings assumption.
- To ensure realized earnings would be adequate to support benefits, about half of the Post Fund assets were invested in a dedicated bond portfolio structured to produce 5% annual realized earnings plus excess earnings to support a target annual benefit increase of 3%. On a combined basis, the Post Fund had a target annual realized return of 8%.
- From 1980 to 1992, Post Fund increases equaled or exceeded inflation in eight of the 13 years. Large increases were possible because interest rates were high, boosting earnings of the Post Fund's bond portfolio.
- As high investment earnings provided large annual increases, the State Board of Investment ("SBI") moved more and more assets into bonds in order to generate the necessary realized returns. By 1992, 90% of the Post Fund was in bonds. As interest rates began to decline in the late 1980s, bonds became a far less attractive investment. It was clear a change in the structure was needed so that more of the fund could be invested in stocks, which had higher long-term return potential.

Figure 2: Post Fund, 1980-1992



1993 -1996: Post Fund restructured

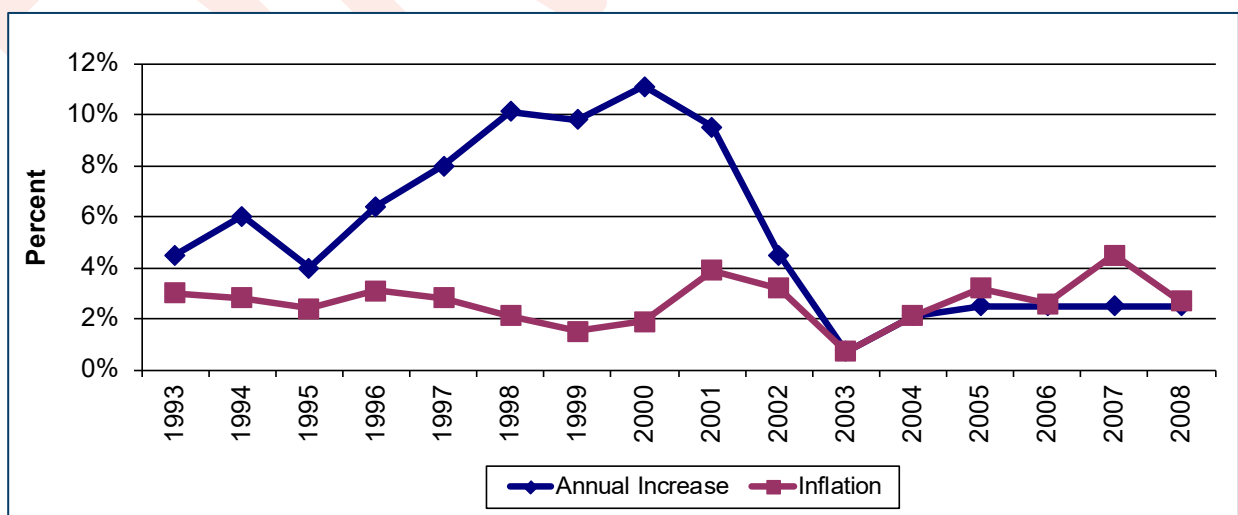
- The Post Fund was restructured and a new postretirement adjustment formula created.
- The investment earnings assumption was increased from 8% to 8.5%.
- The new postretirement adjustment formula had two components: (1) inflation up to 3.5% and (2) excess investment earnings above 8.5%.

- Due to excellent markets, the new formula produced very high benefit increases, especially in the late 1990s.

1997-2007: Post Fund adjusted

- In 1997, as part of an overall restructuring of retiree and active member benefits, the Post Fund formula was adjusted to lower the inflation component from 3.5% to 2.5%.
- To compensate for this lower future inflation component, retirees in the Post Fund were given an actuarially equivalent one-time boost in their benefit base. New retirees after June 30, 1997, received an increase in the benefit formula multiplier from 1.5% to 1.7%.
- This change was actuarially cost neutral but allowed the systems to pay retirees higher initial benefits in exchange for lower postretirement increases.
- Due to the large increases paid to retirees in the late 1990s, followed by a severe market downturn in 2000-2003, a large Post Fund deficit materialized between 2001-2003 and persisted until the fund was closed.
- In 2006, in order to prevent a recurrence of a large future Post Fund deficit, a five-percent cap on the combined inflation and investment component was enacted into law to be effective in 2010.
- An actuarial assumption change in 2007 adopted by the Legislative Commission on Pensions and Retirement ("LCPR") required the value of Post Fund assets to be set at fair market value, rather than at the cost (liability) value. The change had the effect of more fully measuring and disclosing the funding deficit that existed in the Post Fund since 2001.

Figure 3: Post Fund, 1993-2007



2008: Post Fund Reforms

The 2008 Legislature passed major pension reforms affecting the Post Fund:

- The Post Fund would be abolished if funding levels dropped to certain benchmark levels. Under this scenario, a reversion would occur, whereby assets and liabilities of the Post Fund would be transferred back to their respective active member funds. Benchmarks for a reversion: if the Post Fund funding ratio either dropped below 80% for one year, or below 85% for two consecutive years. As long as the Post Fund stayed above the 85% funding ratio, it would remain a separate fund and no reversion would occur.
- The annual postretirement benefit adjustment formula was modified, regardless of whether the Post Fund remained an independent fund or under a reversion. The previous investment-based component was removed and replaced with modified inflation-based provisions.
- If the Post Fund remained independent and was in a funding deficit, a postretirement increase equal to the rate of inflation up to 2.5% would be paid. If the Post Fund deficit was eliminated and a funding sufficiency developed, an added inflation component would be payable as actual inflation occurred and as excess funding allowed. The five-percent overall cap on benefit adjustments would still be applicable.
- If the Post Fund remained independent, an inflation equalizer component could occur. The inflation equalizer was designed to provide an additional adjustment to retirees whose benefits had lagged actual inflation since retirement to help restore lost purchasing power. For the inflation equalizer to be paid, inflation had to be less than 2.5%, the investment return had to exceed 8.5%, and the Post Fund funding ratio had to be greater than 90%.
- If a reversion of the Post Fund were to occur, a fixed postretirement adjustment of 2.5% annually would be payable, regardless of actual inflation. In a reversion, the inflation equalizer provision would be eliminated as a benefit adjustment component.

2009: Dissolution of the Post Fund

The dissolution of the Post Fund was triggered on June 30, 2008, when the funded ratio of the Fund was determined to be 79.7%. The assets and liabilities of the Post Fund were transferred back to the respective active member funds on June 30, 2009.

Figure 4: Post Fund Cost of Living Adjustments 1981-2009

Fiscal Year	Jan. 1 Increase	Actual Inflation (CPI-W)*	Investment Return
1981	3.2%	14.3%	5.5%
1982	7.4%	9.5%	3.0%
1983	6.8%	6.9%	38.8%
1984	7.5%	2.5%	-1.7%
1985	6.9%	3.0%	30.9%
1986	7.9%	4.1%	25.1%
1987	9.8%	1.3%	5.1%
1988	8.0%	3.7%	5.5%
1989	6.9%	3.8%	17.4%
1990	4.0%	5.2%	5.4%
1991	5.1%	4.5%	9.7%
1992	4.3%	4.5%	16.0%
1993	4.5%	3.0%	12.4%
1994	6.0%	2.8%	1.6%
1995	4.0%	2.4%	16.7%
1996	6.4%	3.1%	17.2%
1997	8.0%	2.8%	20.9%
1998	10.1%	2.1%	19.4%
1999	9.8%	1.5%	12.1%
2000	11.1%	1.9%	8.6%
2001	9.5%	3.9%	-6.9%
2002	4.5%	3.2%	-7.8%
2003	0.7%	0.7%	2.8%
2004	2.1%	2.1%	16.3%
2005	2.5%	3.2%	10.5%
2006	2.5%	2.6%	12.0%
2007	2.5%	4.5%	18.2%
2008	2.5%	2.67%	-5.2%
2009	2.5%	5.5%	-17.5%

* Inflation, as measured by CPI-W, is calculated for this comparison using inflation for the period July 1 to June 30 of the preceding fiscal year.

2009-2018: Triggers and Litigation

Following the dissolution of the Post Fund on June 30, 2009, postretirement adjustments for each statewide pension plan began being paid from that plan. The period that followed, to the effective date of the 2018 Pension Reform Act, saw the following changes:

- In addition to dissolving the Post Fund and repealing obsolete references to it in statute, the 2009 omnibus retirement bill established Minn. Stat. §356.415. This consolidated statutory references to postretirement adjustments payable under the plans administered by the statewide pension systems.
- In 2010, the Legislature enacted sustainability measures designed to improve the funded ratios of the statewide pension plans. This included reductions in postretirement adjustment rates for the MSRS plans (2.5% to 2%) and the PERA plans (2.5% to 1%). These systems also saw the addition of "triggers," which would have the postretirement benefits automatically increase upon the plans reaching 90% funding. Postretirement increases for retirees under TRA were suspended and not paid on January 1, 2011, and January 1, 2012.
- Retirees unsuccessfully challenged the 2010 reduction in the postretirement adjustment in Howard Swanson v. State of Minnesota (Ramsey District Court, 62-CV-10-05285, June 29, 2011). In his order denying motions for summary judgement, Ramsey District Court Judge Gregg Johnson found that the Legislature made a modest and reasonable alteration of postretirement adjustments in an attempt to find a balanced approach to address an unprecedented financial deterioration suffered by the retirement plans, and that this alteration was not an unconstitutional impairment of contract or taking of property without compensation. The plaintiffs did not appeal to a higher court.
- In 2012, TRA's procedure for prorating postretirement adjustments for recently retired annuitants was revised. Under the new language, those who retire within 18 months prior to the adjustment date (January 1) would receive prorated adjustments, rather than having prorating applying only to those retired within 12 months of the adjustment date.
- During the 2013 legislative session, reductions were made to the postretirement adjustments for the MSRS State Patrol Plan: effective January 1, 2014, the increases were reduced from 1.5% to 1%, until the fund was at least 85% funded, at which point they would increase to 1.5%, until the 90% funding trigger was reached and increased them to 2.5%. Previously, statute provided for a steady 1.5% annual increase until the plan reached 90% funding, at which point it would return to the 2008-2009 2.5% rate of increase. The Judges Plan postretirement adjustment was decreased, from 2% to 1.75%, until the fund reached 70% funding.
- The PERA General, Police & Fire, and Local Correctional plans postretirement adjustments were also amended in 2013. The rate was set at 1% annually until the applicable plan reached a 90% funded trigger. In addition, the Police & Fire postretirement adjustment was

suspended for retirees who began receiving their annuities after June 1, 2014, for at least 25 months for a partial adjustment or for at least 36 months for a full adjustment.

- In 2014, changes were made to specify that the statewide and major local retirement plans would have to meet or beat their funding triggers for two consecutive years, rather than for a single year, before postretirement adjustments would be increased.
- During the 2015 legislative session, the postretirement adjustment provisions were amended for most of the MSRS plans, to include an automatic trigger that would reduce the increase from 2.5% to 2% if the applicable plan's funding ratio fell below 85% for two consecutive actuarial valuations or below 80% for the most recent valuation. A similar trigger was added for the State Patrol Plan, to reduce the increase to 1% if the funding ratio fell below 80% for two consecutive valuations or below 75% for the most recent valuation.

Figure 5: Postretirement Cost of Living Adjustments 2010-2018

Fiscal Year	PERA General Jan. 1 Increase	MSRS General Jan. 1 Increase	TRA Jan. 1 Increase	Actual Inflation (CPI-W)*	Investment Return
2010	2.5%	2.5%	2.5%	1.053%	15.2%
2011	1.0%	2.0%	0.0%	3.559%	23.3%
2012	1.0%	2.0%	0.0%	1.664%	2.4%
2013	1.5%	2.0%	2.0%	1.754%	14.2%
2014	1.0%	2.0%	2.0%	2.072%	18.6%
2015	1.0%	2.0%	2.0%	0.124%	4.4%
2016	1.0%	2.0%	2.0%	1.006%	-0.1%
2017	1.0%	2.0%	2.0%	1.625%	15.1%
2018	1.0%	2.0%	2.0%	2.872%	10.3%

* Inflation, as measured by CPI-W, is calculated for this comparison using inflation for the period July 1 to June 30 of the preceding fiscal year.

B. Postretirement Adjustments, 2018 to Date

MSRS, TRA, SPTRFA

The 2018 Pension Reform Act (Ch. 211, S.F. 2620) amended the statutes setting forth the postretirement adjustments for all the state's pension plans. This summary will focus specifically on MSRS, TRA, and St. Paul Teachers.

Prior to the enactment of the 2018 Pension Reform Act, the respective MSRS, TRA, and SPTRFA statutory provisions all included a postretirement adjustment "trigger." This trigger mechanism provided for an automatic increase in the annual adjustment whenever the respective plan's funded ratio reached a specified threshold, such as 90%, and an automatic decrease in the

annual adjustment if the plan's funded ratio fell below a specified threshold for a period of time. However, the trigger mechanism made it difficult to make any improvement in the plan's funded status because any beneficial changes, such as benefit reforms, contribution increases, or positive investment returns, would result in speeding up the date as of which the trigger would be reached, triggering an increase in the postretirement adjustment, and a resulting increase in benefit liabilities. Therefore, the triggers were repealed for the MSRS General, Legislators, Correctional, State Patrol, and Unclassified Plans, TRA, and SPTRFA. The triggers for the Judges Plan remain in current statute.

The 2018 Pension Reform Act also reduced or froze postretirement adjustments for the MSRS, TRA, and SPTRFA plans. Postretirement adjustments for the MSRS General, Legislators, and Unclassified plans were reduced from 2% to 1% for five years. After five years, the rate will increase to 1.5%. The postretirement adjustment for the MSRS Correctional Plan was reduced from 2% to 1.5%. TRA's postretirement adjustment was reduced from 2% to 1% for five years. After five years, the rate will increase by 0.1% each year for five years, when it reaches 1.5% for 2028 and future years. Postretirement adjustments for SPTRFA were suspended for 2019 and 2020. Postretirement adjustments will resume at 1% for 2021 and future years.

Finally, the 2018 Pension Reform Act delayed the first year that a member could begin to receive a postretirement adjustment. Previously, once a member retired in any public pension plan, the member began to receive adjustments immediately. Under the new law, members who retire on or after January 1, 2024, will not begin to receive a postretirement adjustment until the member reaches the member's normal retirement age, either age 65 or 66, depending on when the member began public employment. The new law applies to the MSRS General, Legislators, and Unclassified Plans, TRA, and SPTRFA. The later commencement date does not apply to members who retire under the Rule of 90, disability benefit recipients, and survivor benefit recipients. These individuals will still receive a postretirement adjustment shortly after benefit commencement. Additionally, TRA and SPTRFA members who retire under the Age 62/30 Years of Service Rule are also able to begin receiving postretirement adjustments shortly after benefit commencement, and will not have to wait until normal retirement age.

C. PERA General and Correctional Plans – Post 2018 Experience

Background

The 2018 Pension Reform Act modified the provisions for postretirement adjustments in the PERA General and Local Government Correctional Plans to tie the rate of adjustment to the Consumer Price Index ("CPI"). These changes would impact the General Plan's approximately 87,000 retirees and the Local Government Correctional Plan's approximately 1,050 retirees. There was no change to the Police & Fire Plan where the annual postretirement adjustment remains fixed at 1.0%.

PERA's postretirement adjustment changes were intended to both provide more directly correlated inflation protection and to improve intergenerational equity. The PERA Board of Trustees considered the change after recognizing that previous statutes that tied increases to investment returns or funding status or imposed fixed rates had resulted in measurable intergenerational inequities across the PERA plans.

The use of a CPI-based postretirement adjustment serves as a way to measure progress on both the inflation protection and intergenerational equity goals. Ideally, if all current and future retirees always received an increase equal to 100% of CPI each year, both goals would be met. If full inflation protection (i.e., 100% of CPI each year) is not affordable, the goal of intergenerational equity may still be met if the annual increase percentage remains consistent each year. For example, if all members always receive an increase of 50% of CPI each year, then all members will be equally protected against inflation over their lifetimes. On the contrary, if postretirement increases are not consistent with CPI, then member protections may vary considerably depending on whether they are retired during a low inflation period or a high inflation period.

How it Works

Annual postretirement increases for PERA General Plan members are now tied to the same inflation measure that is used by the Social Security Administration ("SSA") to determine the annual Social Security benefits increase. General Plan retirees receive 50% of the Social Security increase, but not less than 1.0% or greater than 1.5%. Correctional Plan retirees receive 100% of the Social Security increase, but not less than 1.0% or greater than 2.5%. The Correctional Plan was able to provide full inflation protection (subject to a cap) because it is close to 100% funded.

The following chart summarizes actual experience since the 2018 law change.

Figure 6: PERA General and Correctional Plans Post-2018 Experience

Year	Social Security (CPI-W) Retiree Increase	General Plan Retiree Increase	Correctional Plan Retiree Increase
2019	2.8%	1.4%	2.5%
2020	1.6%	1.0%	1.6%
2021	1.3%	1.0%	1.3%

Had the changes not occurred, the General Plan retirees would have received 1.0% each year while the Correctional Plan retirees would have received 2.5% per year. Note that the General Plan minimum has resulted in greater than 50% CPI protection during this period. Also note that had the changes not been made, the previously fixed 2.5% Correctional Plan rate would have resulted in increases higher than CPI for the three-year period.

D. Cost of Postretirement Adjustments

It is important to consider the cost of postretirement adjustments. To provide some context, it is helpful to look at the cost and savings assessments done during the 2018 legislative session to inform the LCPR and the Legislature, generally, regarding proposed benefit changes, including reductions in the postretirement adjustments. As noted above, changes to the postretirement adjustment included in the 2018 Pension Reform Act are the following:

- For the MSRS General, Legislators, and Unclassified plans, the postretirement adjustment was reduced from 2% to 1% for five years; after five years, the rate is to increase to 1.5%.
- For the MSRS Correctional Plan, the postretirement adjustment was reduced from 2% to 1.5%.
- For TRA, the postretirement adjustment was reduced from 2% to 1% for five years; after five years, the rate is to increase by 0.1% each year for five years, until it reaches 1.5%, in 2028 and future years.
- For SPTRFA, postretirement adjustments were suspended for 2019 and 2020; after which, postretirement adjustments will be set at 1% for 2021 and future years.

The forgoing excludes the PERA plans for this analysis because their change from a fixed rate to postretirement adjustments tied to inflation makes the savings more complicated to measure and not as straightforward a comparison to the rate reductions made to the other plans.

Savings Due to Reductions in Postretirement Adjustments in the 2018 Pension Reform Act

Plan	Pre-2018 rate	Change in the 2018 Pension Reform Act	Savings for 2019-1 year (\$ millions)	Present value of 30 years of savings (\$ millions)
MSRS General	2%	Reduced by 1%, to 1%, for 5 years; then 1.5% thereafter	69.5	1,184
MSRS Correctional	2%	Reduced by 0.5%, to 1.5%	7.7	132
TRA	2%	Reduced by 1%, to 1%, for 5 year; then 0.1% increase each year, until 1.5%	141.2	2,338
St. Paul Teachers	1%	No postretirement adjustment for 2019 and 2020; then 1%	2.9	47

To emphasize what this means:

- The smallest plan, St. Paul Teachers, had, as of the fiscal year end preceding the 2018 Act, benefit liabilities of \$1,611.2 million, assets of \$1,032.2 million (market value), shortfall of

\$579 million, and was 64% funded. By not paying a 1% postretirement adjustment on its retirees' pension benefits for just the one year of 2019, St. Paul Teachers saved nearly \$3 million.

- Another relatively small plan, MSRS Correctional had, as of the fiscal year end preceding the 2018 Act, benefit liabilities of \$1,414.4 million, assets of 1,023.8 million (market value), shortfall of \$390 million, and was 72% funded. By paying a 1.5% postretirement adjustment, rather than a 2% adjustment for 2019 (a reduction of .5%), this plan saved \$7.7 million.
- TRA, on the other end of the spectrum in size, saved just over \$141 million by paying a 1% postretirement adjustment for 2019, rather than a 2% postretirement adjustment for 2019. TRA had, as of the fiscal year end preceding the 2018 Act, benefit liabilities of \$27.428 billion, assets of \$21.3 billion (market value), shortfall of \$6.13 billion, and was 77% funded.

III. COLAs and Protecting the Buying Power of Pensions

Pensions provide a defined benefit to fund living expenses during retirement. Since inflation eats away at the value of a pension over time, it is generally believed that providing a COLA will help maintain that value. In essence, a COLA protects the buying power of retirees' pension benefits.

As noted above, prior to 2007, Minnesota's Post Fund also served as a vehicle for sharing surplus investment returns. However, since 2007, the Legislature has modified Minnesota's postretirement adjustment, from a benefit designed to share surplus investment returns to a benefit designed to reduce the effects of increasing cost of living.

Based on the Legislature's modifications and the current state of postretirement adjustments in Minnesota's public pension plans, we conclude that the purpose of Minnesota's postretirement adjustments is to mitigate the decline in the value of a fixed monthly payment due to inflation. Inflation This section will seek to shed light on whether the current approach is satisfying that purpose and will examine the concept of inflation, its applicability to retirees, the experience of our plans, and future projections.

A. Inflation

Inflation occurs when the costs of goods and services increase across the economy. Another way to think about inflation is that inflation occurs when the value of money (that is, the amount of goods and services that money can be exchanged for) decreases across the economy. For example, a person with \$100 in 1990 might be able to buy groceries for a month, while a person with \$100 in 2020 might be lucky to have groceries for a week. In that way, the \$100 has more value in 1990 than in 2020. Similarly, a retirement annuity of \$1,000 per month can buy more groceries, gas, healthcare, and housing in 1990 than the same \$1000 will buy in 2020. If left unaddressed, inflation may lead to financial insecurity later in retirement, as the cost of living increases, but a monthly pension benefit does not.

Measuring Inflation

Measuring inflation is a first step to addressing inflation. Occasionally there is disagreement about how best to measure inflation.

The most common way to measure inflation is through the consumer price index ("CPI"), which is maintained by the federal Bureau of Labor Statistics ("BLS").² BLS surveys the prices of goods and services from across all sectors of the economy, in different cities and rural locations around the country. The prices for these goods and services are recorded and maintained in an index. The prices are weighted according to the percentage of total consumer spending spent on the type of good or service. The weighted average increase or decrease in these indexed prices from one year to the next is the year over year inflation rate.

BLS also maintains sub-indices that are made up of selected portions of the CPI. These sub-indices are the CPI-U (consumer price index for all urban consumers), which represents about 93% of the U.S. population, and the CPI-W (for all urban wage earners and clerical workers), which represents 29% of the U.S. population.³ BLS also maintains a third index called the chained consumer price index for all Urban Consumers ("C-CPI-U"). The C-CPI-U is notable for taking into account substitutions that consumers make when the price of a particular good increases.⁴ For example, if the price of beef goes up 50%, some part of consumer spending on beef will be spent on chicken or pork instead. This tends to produce slightly lower average year-over-year inflation figures.

Finally, BLS maintains a handful of unofficial indices, the most notable of which is the R-CPI-E for Americans 62 years of age and older.⁵ The R-CPI-E seeks to measure the consumer spending by Americans who are age 62 and older and may provide a more accurate measurement of the effect of inflation on retirees than either the CPI-U or CPI-W does. However, BLS publishes the R-CPI-E with a number of disclaimers. Chief among them is that because the R-CPI-E is a subset of CPI-U data, the index is not properly weighted for retiree expenditures. For example, retirees spend more money as a portion of their expenditures on healthcare than the rest of the urban population does, which means that increases in health care costs would be felt more by retirees. But the R-CPI-E does not account for this difference in retiree behavior, making it an imperfect measure of inflation for retirees.

A comparison of CPI-U, CPI-W, and R-CPI-E can be seen in Figure 7, which shows that over the last 20 years CPI-W tends to produce the lowest measurement of inflation and R-CPI-E tends to produce the highest measurement of inflation. However, despite some disparity in specific years, over the last 20 years, the three indices produce very similar results and appear to be

² Bureau of Labor Statistics, U.S. Department of Labor, "Consumer Price Index," www.bls.gov/cpi

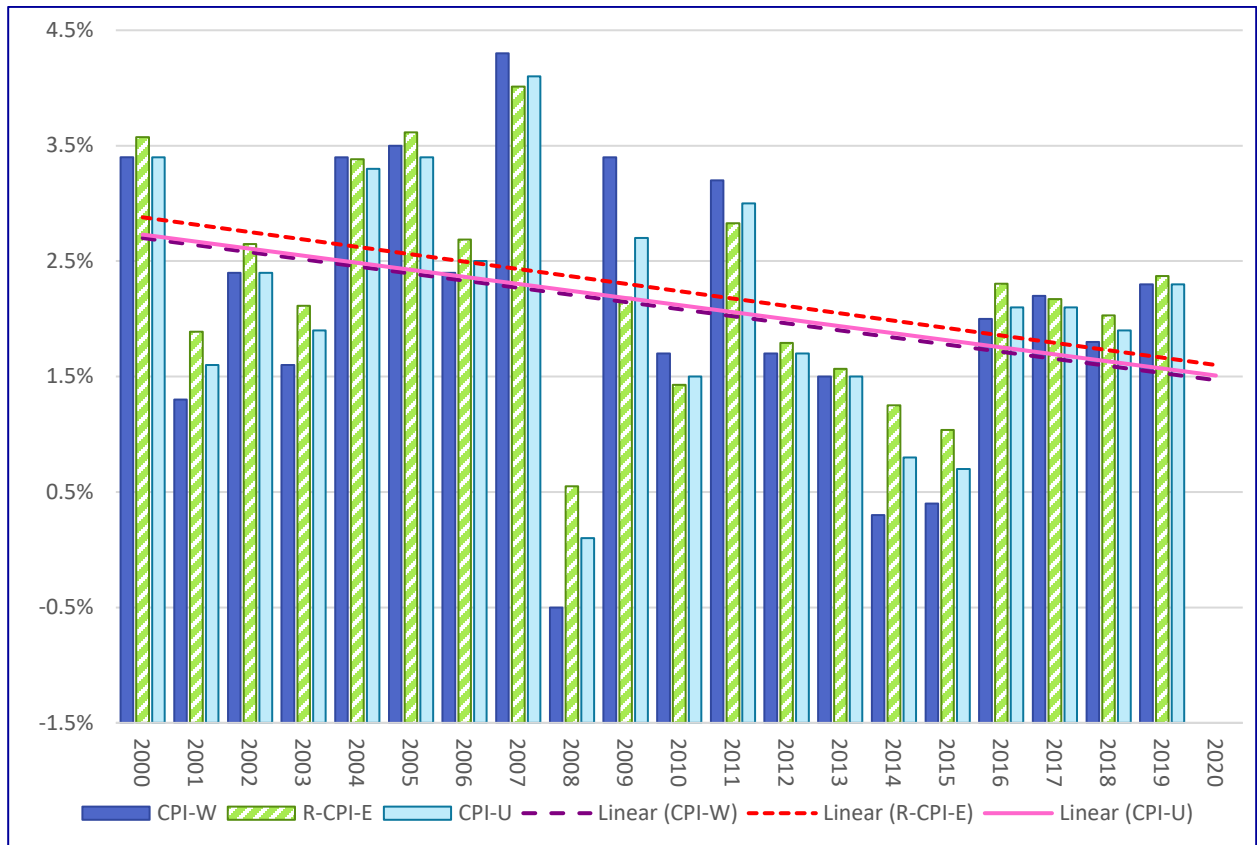
³ Bureau of Labor Statistics, U.S. Department of Labor, "Consumer Price Index Frequently Asked Questions," www.bls.gov/cpi/questions-and-answers.htm

⁴ Bureau of Labor Statistics, U.S. Department of Labor, "Chained Consumer Price Index For All Urban Consumers," www.bls.gov/cpi/additional-resources/chained-cpi.htm

⁵ Bureau of Labor Statistics, U.S. Department of Labor, "R-CPI-E Homepage," www.bls.gov/cpi/research-series/r-cpi-e-home.htm

trending towards convergence. This suggests that use of any of the three indices would produce very similar outcomes for individuals.

Figure 7: 20-Year Comparison of CPI-W, R-CPI-E, and CPI-U



The Legislature has not expressed a clear preference for how to measure inflation for retired public employees. However, there are two factors that suggest a preference for the CPI-W. The first is that the PERA General and Local Government Correctional Plans have postretirement adjustments that are indirectly tied to the CPI-W because the plans use the Social Security Administration's COLA to set their postretirement increase. As noted above, the Social Security Administration uses the CPI-W to set its COLA. The second factor is that the LCPR has historically used the CPI-W to measure inflation for in its publications and analysis. In other policy areas, where the legislature has specified a measurement of inflation it has tended to use the CPI-U or the CPI-U for the Minneapolis-St. Paul Metropolitan area.⁶

Predicting Inflation

Pension plans have to make predictions about future inflation in order to make sure they have enough money on hand to pay benefits when they come due. This means that each of the statewide pension plans has an inflation assumption that is updated every four to six years.

⁶ For example, Minn. Stat. § 43A.17, Subd. 9 (regulating inflation based increases in state aid for local governments); Minn. Stat. § 60A.201, Subd. 2 (regulating insurance coverage at certain home values adjusted for inflation).

Currently all of the statewide plans and the SPTRFA use an inflation assumption of 2.5%. To arrive at these assumptions, each plan's actuary considers past experience as well as forward-looking economic data. In the most recent experience studies for the MSRS General and PERA General Plans, the plans' actuary recommended a reduction to 2.25% because forward-looking economic data predicts lower inflation, especially for the next 10 years.⁷ For the analysis presented in this report we have used 2.5% because that is the current assumption adopted by all of the plans.

B. Retiree Cost of Living and Spending Patterns

Inflation reduces purchasing power and is of particular concern for retirees who may not be able to make up this shortfall through employment during their retirement years. As prices for the same goods and services increase, the value of a dollar is reduced, and the fixed incomes that many retirees rely on can become insufficient to meet their needs and wants.

Health Care Costs

The non-elective nature of medical treatment collides with aging so that seniors need to and do participate more in health care spending than younger Americans. This means that their purchasing power is more significantly impacted by increasing costs in this sector.

It is estimated that a greater cross-section of Americans will reach these later, more expensive years of retirement as life expectancy in the U.S. improves. By 2060, the overall life expectancy is projected to lengthen six years over its 2017 age, from 79.7 to 85.6 years.⁸ If that longevity experience is overlaid onto current cost trends, healthcare will remain a subject of key importance to retirees.

Health care costs have risen over the past several decades. As measured by the Bureau of Labor Statistics, inflation in this sector has regularly outpaced the overall average inflation rate. In particular, prices for medical and hospital care rose at a greater rate in each year between 2009 and 2016 than all other goods and services tracked by the consumer price index.⁹ On a household level, an analysis of consumer spending habits found that, adjusted for inflation, Americans spent twice as much on health care in 2018 as they did in 1984.¹⁰

The implications of these rising costs follow Americans into retirement, when many begin living on fixed incomes. According to Fidelity's annual Retiree Health Care Cost Estimate, a healthy American couple retiring in 2020 at age 65 will spend about \$295,000 on health care

⁷ See MSRS 2014-2018 Experience Study; and PERA 2014-2018 Experience Study, <https://www.lcpr.leg.mn/experience.htm>.

⁸ Lauren Medina, Shannon Sabo, and Jonathan Vespa, US Census Bureau, "Living Longer: Historical and Projected Life Expectancy in the United States, 1960 to 2060" www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1145.pdf (Accessed September 11, 2020).

⁹ Bureau of Labor Statistics, U.S. Department of Labor, "Inflation & Prices: All Urban Consumers, Consumer Price Index," www.bls.gov/data (accessed September 7, 2020).

¹⁰ Juliette Cubanski, Tricia Neuman, Anthony Damico, and Karen Smith. "Medicare Beneficiaries' Out-of-Pocket Health Care Spending as a Share of Income Now and Projections for the Future" Kaiser Family Foundation. January 26, 2018.

over the course of their retirements. This assumes that both are covered by Medicare but excludes premiums for long-term care, prescription medications, vision, and dental treatments.¹¹ This amount is a 3.5% increase over the 2019 projection and an 18% increase since 2010.¹² The Kaiser Family Foundation found that health care costs accounted for 14% of Medicare recipients' total budgets, although those who are older spend more. Compare this with working households, which spend closer to 5% of their budgets on medical care.¹³

Health care expenditures during retirement do not stay stagnant as individuals age. Generally, the older one gets, the more medical care the individual needs to treat developing and compounding chronic conditions.¹⁴ In another study, the Kaiser Family Foundation found that Americans on Medicare who were 85 or older spent more than twice as much as those aged 65-74 on medical costs, in part because of long-term care.¹⁵

Retiree spending patterns

If we assume that the primary purpose of a postretirement adjustment (or COLA) is to protect the buying power of retirees' pension benefits, does the need for a COLA decline if retirees consume less as they age? Put another way, does the need to protect buying power stay constant throughout retirement or is less protection needed as retirees age because they are buying less?

We looked at several papers published on this topic in the last five years. Probably the most relevant is a research report published on October 3, 2019, by the Employee Benefit Research Institute ("EBRI") that answers the question: "How Do Retirees' Spending Patterns Change Over Time?"

EBRI analyzed data in the "Health and Retirement Study (2004-2016)" ("HRS"), published by the University of Michigan, which is a biennial survey of a representative sample of people in the U.S. over the age of 50, sponsored by the National Institute on Aging and the Social Security Administration. EBRI describes this study as "the most comprehensive survey of older Americans in the nation." EBRI supplemented this data with data in the "Consumption and Activities Mail Survey" ("CAMS"), which surveys a subset of the sample surveyed in the HRS, every two years, and collects information on 32 categories of spending.

¹¹ Fidelity, "How to Plan For Rising Health Care Costs" www.fidelity.com/viewpoints/personal-finance/plan-for-rising-health-care-costs (accessed September 7, 2020).

¹² American Society of Pension Professionals and Actuaries, "Health Care Costs in Retirement Might Make You Reconsider an HSA" www.asppa-net.org/news/health-care-costs-retirement-might-make-you-reconsider-hsa (accessed September 7, 2020).

¹³ Kaiser Family Foundation, Health Care on a Budget: The Financial Burden of Health Spending by Medicare Households, 2014.

¹⁴ Tyler Bond and Dan Doonan. National Institute on Retirement Security "The Growing Burden of Retirement: Rising Costs and More Risk Increase Uncertainty" September 2020.

¹⁵ Juliette Cubanski, Tricia Neuman, Anthony Damico, and Karen Smith. "Medicare Beneficiaries' Out-of-Pocket Health Care Spending as a Share of Income Now and Projections for the Future" Kaiser Family Foundation. January 26, 2018.

The data was examined for 2005-2017 among these age groups:

50-64
65-74
75-older

The report's conclusions are as follows:

- Average annual spending is lower in older age groups than in younger age groups. For 2005-2017, average annual household spending by age groups:
 - 50-64 year olds: never below \$49,000
 - 65-74 year olds: rarely above \$46,000
 - 75 or older: never exceeded \$39,000
- Housing is the largest spending category for every age group, but the percentage of the budget spent on housing was smaller for older groups.
- Older groups spent less on food, entertainment, and work-related expenses, such as transportation and clothing.
- The share of budgets allocated to gifts and contributions increased with age.
- The share of budgets allocated to health care costs increased with age.
- In all age groups, low-income households spent a larger portion of their budgets on housing and food compared with high-income households. Low-income is defined as those with a total income less than the median for their age group and survey year; high-income is defined as those with a total income more than the median for their age group and survey year.
- Median total income was lower and median spending to income ratios were higher for households in older age groups. Income includes all sources, including earnings from employment, Social Security benefits, dividend and interest, distributions from 401(k) and similar plans, and pensions.
- The fraction of households who spent more than their income increased with age, while the amount of the overspending was lower for older age groups than compared with younger age groups.
- Median non-housing wealth increased with age, but leveled off and declined as households reached ages 75 or older. Non-housing wealth is defined as vehicles, IRAs, stocks, savings, CDs, bonds, any other assets, but not including any employer provided retirement plan, less debt. This suggests that as earnings decline with age, retirees draw down more from these sources of income, thereby reducing non-housing wealth.

What is not clear, however, from this report is whether the change in expenditures (i.e., consumption) is by choice or by need. Is the reason average expenditures decrease because the average retiree did not save enough for retirement and is therefore forced to reduce consumption not out of want, but out of need?

A working paper published by Morningstar¹⁶ attempts to answer that question. The working paper used the CAMS data (see description of CAMS above) and applied filters, including a minimum of \$10,000 for annual spending and no more than a 50% change in spending from year to year, to create a dataset that they believe was a more reliable indicator of actual retirees. This left a dataset of 591 households, or 11% of the total number of households in the CAMS series. Morningstar then further refined this sample into four groups, based on consumption and total household net worth. The approximate median consumption in the sample was \$30,000 per year and the approximate net worth was approximately \$400,000.¹⁷

Households were categorized as follows:

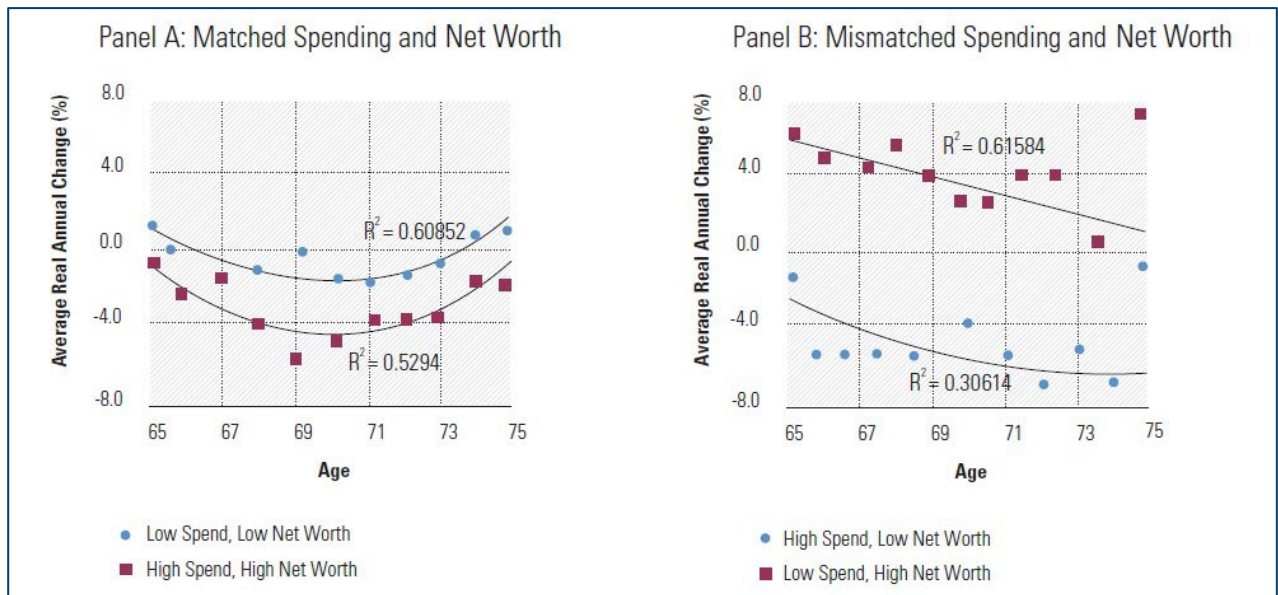
- "Low Spend, Low Net Worth": household consumption of less than \$30,000 and a net worth below \$400,000 in an initial year
- "High Spend, High Net Worth": household consumption greater than \$30,000 and a net worth above \$400,000 in an initial year
- "Low Spend, High Net Worth": household consumption of less than \$30,000 and a net worth above \$400,000 in an initial year
- "High Spend, Low Net Worth": household consumption greater than \$30,000 and a net worth below \$400,000 in an initial year

As explained by Morningstar, breaking down the households into these four groups would help to better understand how consumption changes for a household given both its level of consumption and its available resources. Households in which spending and net worth are the same, either Low/Low and High/High would roughly be considered to be consuming optimally, i.e., their consumption is roughly consistent with their resources. In contrast, households where spending and net worth are not the same, either High/Low or Low/High, would be consuming sub-optimally, either too much (High/Low) or not enough (Low/High). Morningstar showed the changes in spending habits of these two groups in these graphs (Figure 6 on page 14 of the Morningstar paper):

¹⁶ David Blanchett. "Estimating the True Cost of Retirement" Morningstar Investment Management November 5, 2013.

¹⁷ Net worth included any secondary residence and the estimated total value of pensions and Social Security received by the household. The value of pensions and Social Security was determined by calculating the mortality-weighted net present value of the future payments, in which a discount rate of 2% was assumed for Social Security benefits (since these are assumed to increase with inflation) and a 4% discount rate for pensions (which are assumed to be nominal).

Figure 8: The Impact of the Amount of Consumption and Net Worth on the Average Real Change in Consumption



The "matched" groups with similar levels of spending and net worth had relatively similar average real changes in expenditures from ages 65 to 75. The lower spending households tended to see lower decreases in spending over time. Morningstar speculated that this may be due to the fact that a higher percentage of household spending is on nondiscretionary items for the lower income household when compared to the higher income household. The working paper also noted that households with lower levels of consumption (Low Spend, Low Net Worth) tended to have real increases in spending that are greater than households with higher levels of consumption.

For the mismatched households, the working paper noted that there is a much greater difference in the change in real spending. Households that were overfunded and not spending optimally (the "Low Spend, High Net Worth" group) tended to increase consumption as they moved from age 65 to age 75, but at a decreasing rate, with the real increase for these households approaching 0% by age 75. In contrast, households that were underfunded and spending too much tended to see considerable declines in consumption. Morningstar acknowledged that, while there are a number of different potential explanations for this spending decline, it may have been brought on by the realization that the household spending was not expected to be sustainable over the lifetime of that household.

This analysis in the Morningstar working paper suggests that households that start retirement spending consistent with their net worth have relatively similar average changes in expenditures from ages 65 to 75. Lower spending households see not only lower decreases in spending over time, but also greater increases in spending than households with higher levels of consumption. Contrast this chart with the mismatched households: the overfunded households increase consumption as they age, until age 75, when consumption levels off; the underfunded households see significant decline in consumption, at increasing rates as they age.

IV. Minnesota’s Postretirement Adjustments and Protection Against Inflation

The primary purpose of Minnesota’s postretirement adjustments is to mitigate the negative effects of increasing cost of living due to inflation. This section will analyze the amount of inflation protection the statewide pension plans have provided for current retirees and how much inflation protection can be reasonably expected in the future.

A. How well are current retirees protected from inflation?

Retirees in the MSRS and PERA General Plans and TRA

To understand how well current retirees are protected from inflation we looked at a pension benefit in each of the last 30 years and increased them by actual postretirement adjustments to today (January 1, 2021). We compared that amount to the same pension benefit in each year increased by CPI-W for each of the following 30 years until today. This allows us to compare purchasing power for retirees retired in each of the last 30 years. For example, Figure 9 shows that a retiree from the MSRS General Plan who retired in 1998 is currently (as of January 1, 2021) receiving a benefit that has a purchasing power that is about 120% of the retiree’s initial benefit. A retiree who retired in 2010 from the PERA General Plan currently has a benefit with a purchasing power that is about 92% of the retiree’s starting benefit.

Figure 9: Retiree Benefits in the MSRS and PERA General Plans and TRA as a Percentage of Purchasing Power by Year Retired

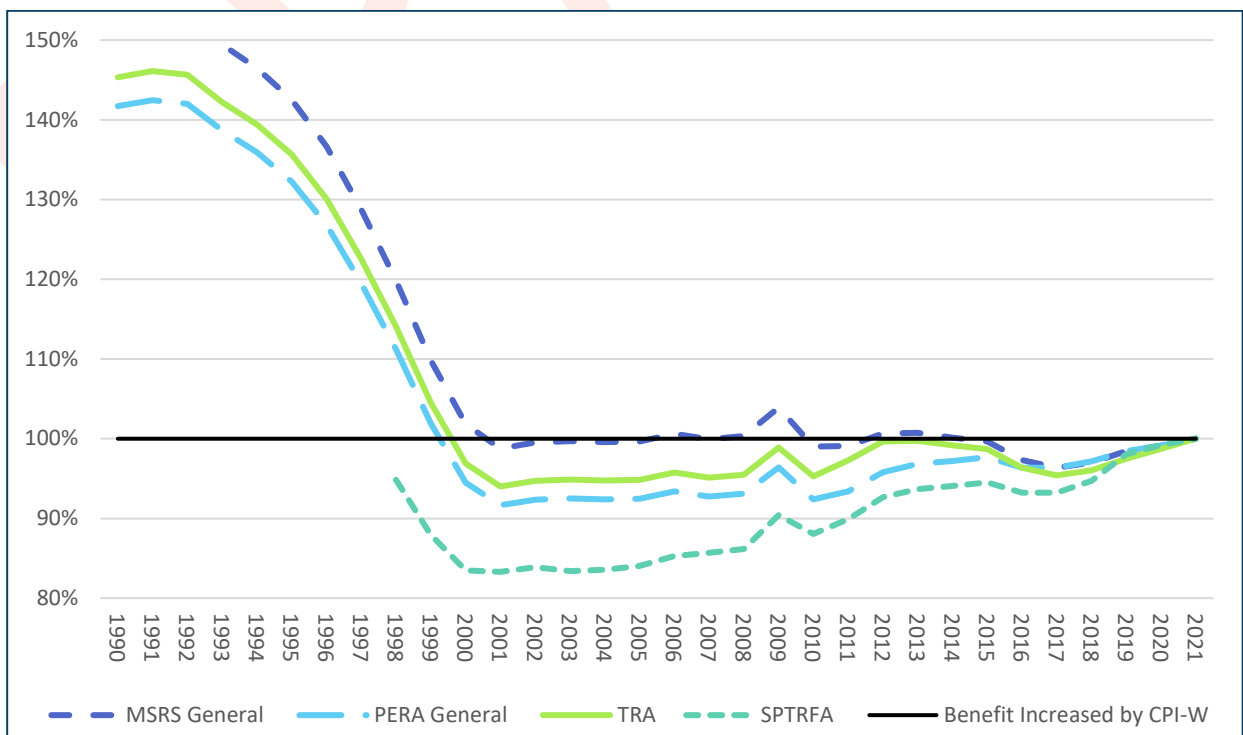


Figure 9 illustrates some important data related to the MSRS and PERA General Plans and TRA. First, the differences in purchasing power for retirees depends on which plan a retiree is in. This is because, following the dissolution of the Post Fund in 2008, each of the plans independently amended their postretirement adjustment to make up for funding deficiencies. For example, TRA suspended its postretirement adjustment for 2 years, while MSRS General decreased its postretirement adjustment to 2%, and PERA General decreased its postretirement adjustment to 1%. The result of these changes, along with others, is that the plans are generally ordered from largest postretirement adjustment to smallest as follows: MSRS General, TRA, PERA General, and SPTRFA. A keen eye will note that PERA General retirees have benefited from the 1.4% benefit increase granted in 2019 when the other plans were provided either no increase or a 1% increase as a result of the 2018 Pension Reform Act.

Another trend illustrated by Figure 9 is that retirees who retired before the year 2000 are generally receiving benefits with greater purchasing power, as a percentage of their initial benefit, than those who retired after 2000. This is because retirees participating in the Post Fund received significantly larger increases during the 1990s, with the last of the large increases occurring in 2001. Retirees who retired prior to the year 2000 currently make up less than 25% of the plans' total number of retirees. Retirees in 2000 and later were not eligible to receive any of those increases.

Notably, retirees in the SPTRFA were not part of the Post Fund and, prior to 1998, paid retirees a "13th check" as a postretirement adjustment. A 13th check means that the pension plan, which pays retirees a monthly annuity, or 12 checks each year, paid retirees an extra check each year to help retirees with the rising cost of living.

Figure 9 also illustrates how macroeconomic events affecting inflation can have a long-lasting and arbitrary effect on a benefit's purchasing power. In each of the plans, retirees who retired in 2009 are better off than those who retired in either 2008 or 2010. This occurred because 2009 is a rare instance in which price *deflation* occurred. As a result, those who retired just prior to this short deflationary period experienced an immediate increase in the purchasing power of their benefit. Compounding causes a magnification of early changes and thus 2009 stands out on Figure 9. It should be noted that retirees who retired prior to 2009 benefited as well from the deflation in 2009, but Figure 9 does not illustrate that fact.

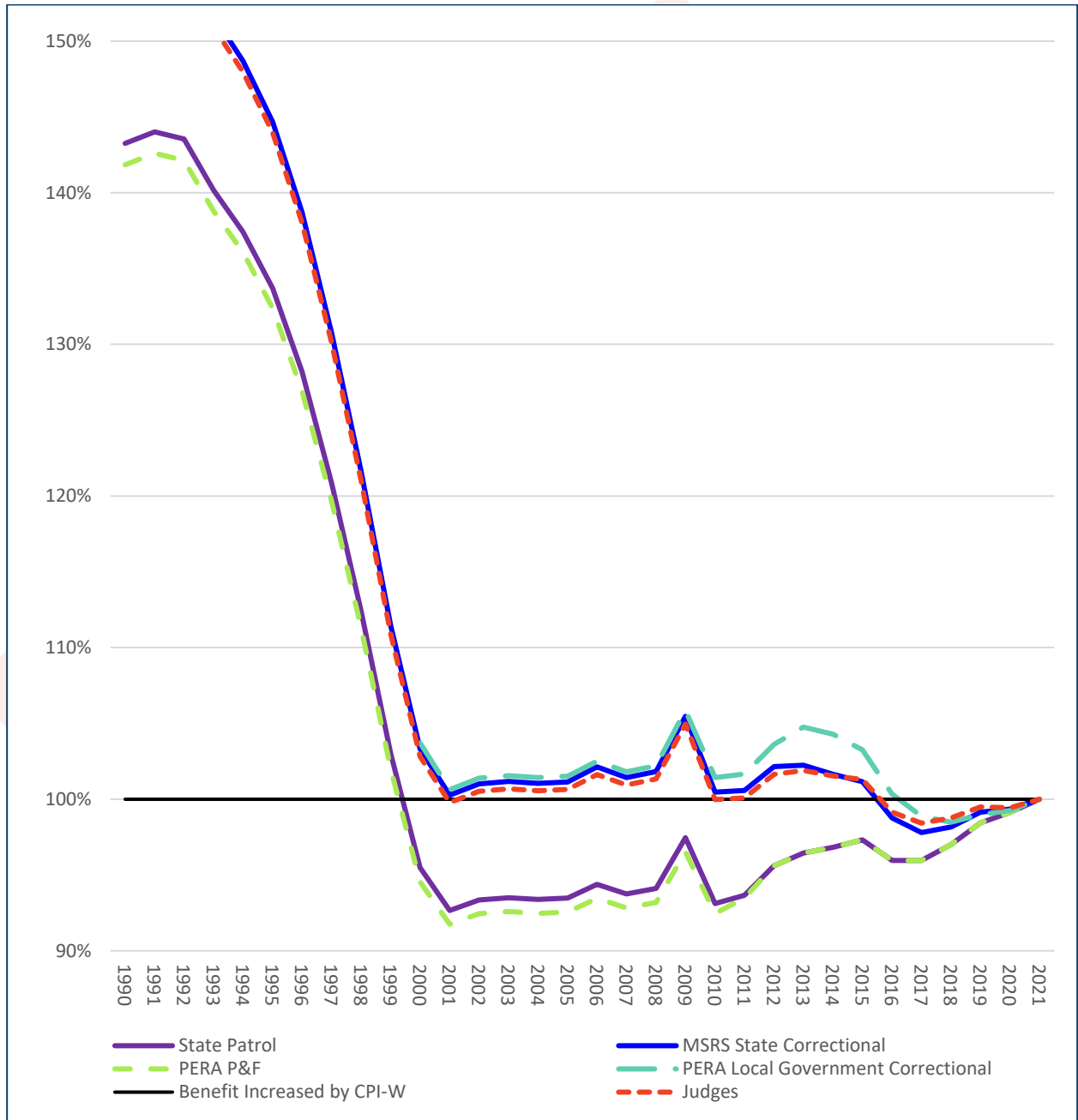
Perhaps the most important takeaway from Figure 9 is that all of the retirees from the State's three largest retirement plans have maintained purchasing power that is better than 90% of inflation. This outcome is despite having postretirement adjustments that are not tied to inflation since 2009. Practically, this means that a member whose initial monthly benefit was \$2,000 per month has a purchasing power that is better than \$1,800 per month today.

Retirees in the Public Safety and Judges Plans

We did a similar analysis for the public safety plans and the Judges Plan. We looked at how retiree benefits have maintained purchasing power depending on the year retired. Figure 10 shows that members of the public safety plans and Judges Plan are very similarly situated as

those in the general and teacher plans. One minor difference is that the State Patrol Plan and PERA Police & Fire Plan are nearly identical.¹⁸ Perhaps more notably, retirees in the two correctional plans and the Judges Plan have maintained benefits that are at or above 100% of the purchasing power of their starting benefit. This is due to having maintained higher postretirement adjustment rates than the other statewide plans.

Figure 10: Public Safety and Judges Plan Retiree Benefits as a Percentage of Purchasing Power by Year Retired



¹⁸ In 2011 and 2012 the PERA P&F Plan had a 1.0% postretirement increase, while the State Patrol Plan had a 1.5% increase.

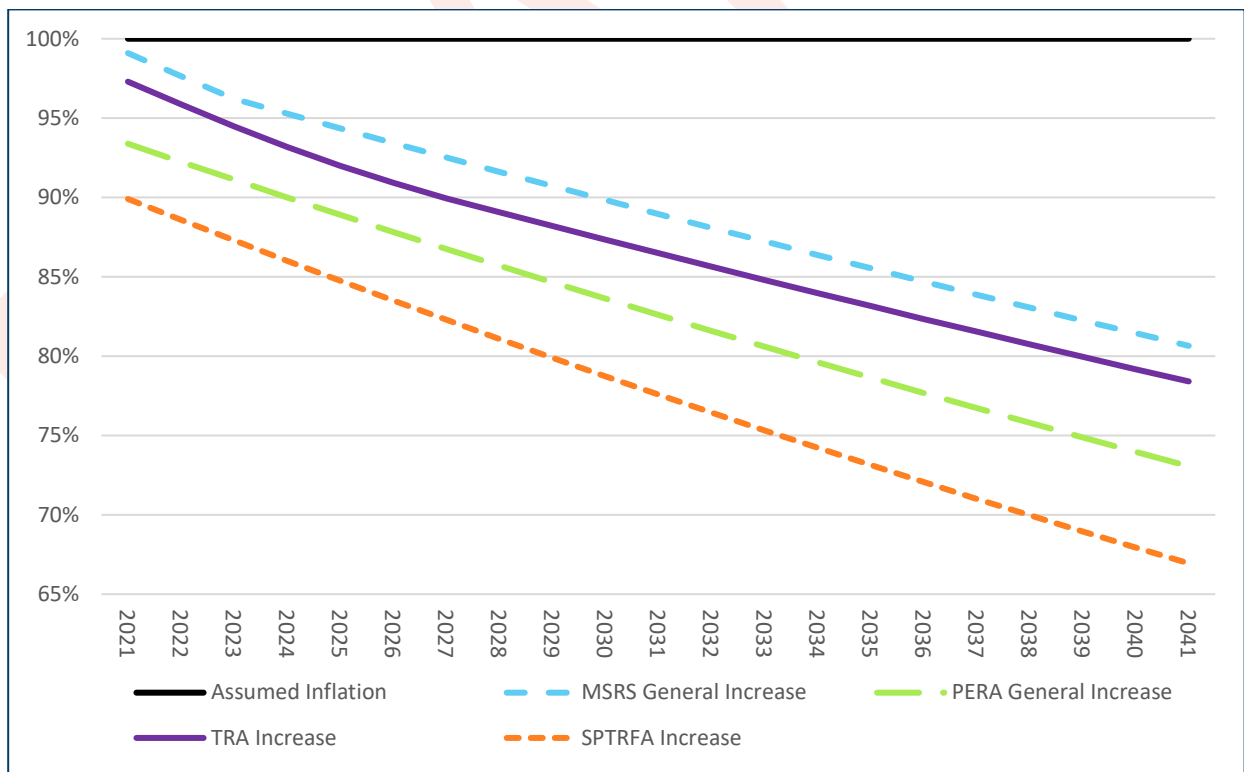
B. How well will current postretirement adjustments protect against inflation in the future?

Retirees in the MSRS and PERA General Plans and TRA

This section will make some projections about what will happen in the future in certain scenarios.

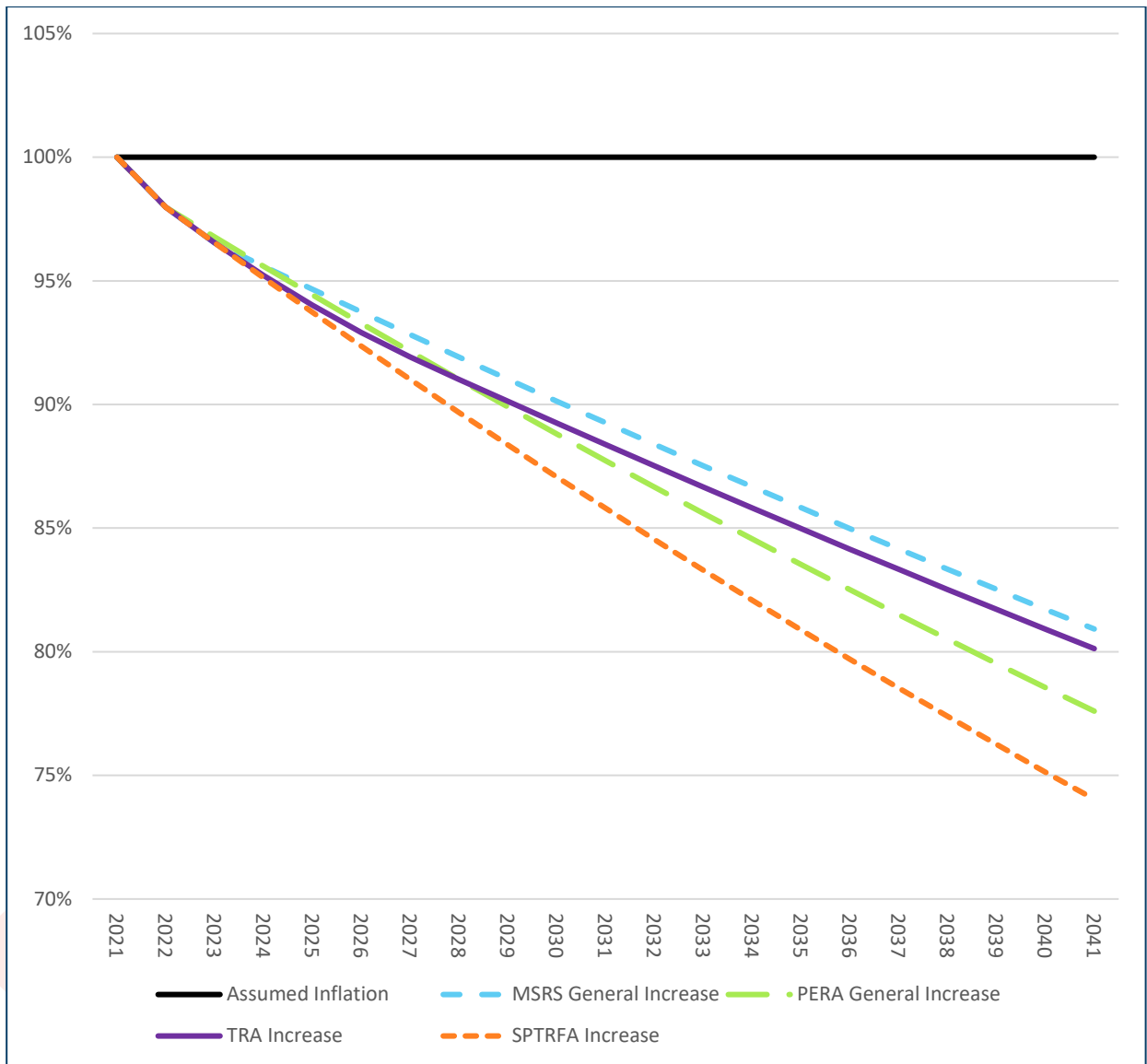
In Figures 11 and 12, we assumed that inflation is 2.5% for each of the next 20 years.¹⁹ Figure 11 looks just at retirees who retired in 2011 and projects how the purchasing power of their benefit will be effected based on the current postretirement adjustments in law and assuming 2.5% inflation. For example, a person who retired in 2011 and received a benefit from TRA has a benefit in 2021 with a purchasing power that is 97% of the retiree’s initial starting benefit. If inflation is 2.5% for each of the next 20 years and the TRA retiree receives the current postretirement increases, then in 20 years, the retiree’s benefit will have a purchasing power that is about 78% of the initial benefit. Figure 12 does the same analysis except that it looks at retirees who retire in 2021.

Figure 11: Projected Purchasing Power Over 20 Years for 2011 Retirees and Assuming 2.5% Inflation



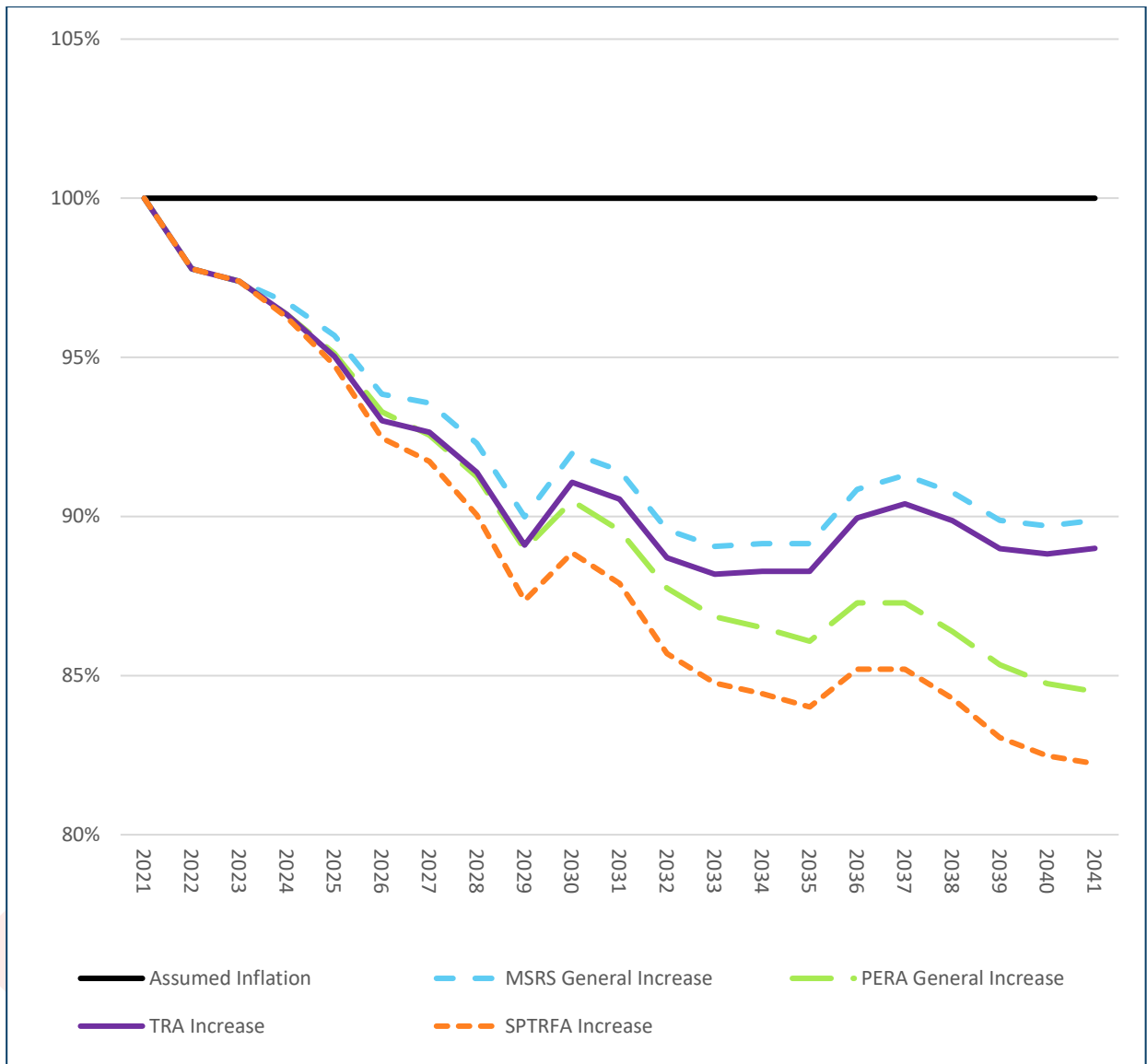
¹⁹ 2.5% is the assumed rate of inflation for each of the statewide plans except for the PERA General and MSRS General plans which changed their assumption from 2.5% to 2.25% during the 2020 legislative session.

Figure 12: Projected Purchasing Power Over 20 Years for 2021 Retirees and Assuming 2.5% Inflation



While using a flat 2.5% inflation assumption reflects the plans’ assumptions, in reality, inflation changes from year to year. We project how that might look in Figure 13, in which we do the same projection assuming we experience inflation at the same annual rates as was experienced during the past 20 years. This scenario would result in slightly more favorable outcomes for retirees over the next 20 years, in part, because the average inflation rate over the last 20 years has been 2.04%.

Figure 13: Projected Purchasing Power Over 20 Years for 2021 Retirees and Assuming Last 20 Years Inflation Experience



Generally, these graphs show that current retirees should expect continued erosion of their benefits' purchasing power over the next 20 years, because the postretirement adjustments in law are less than the assumed rate of inflation. The MSRS and PERA General Plans and TRA retirees under the postretirement adjustment changes in the 2018 Pension Reform Act can similarly expect that within 20 years their benefits' purchasing power will have eroded to between 10% and 25% of their starting benefit depending on the retiree's specific plan and on actual inflation experience. If we were to experience a period of higher than expected inflation, retirees' purchasing power will likely be significantly reduced.

Retirees in the Public Safety and Judges Plans

We performed the same analysis for the public safety plans and the Judges Plan (Figures 14, 15, and 16).

Figure 14: Projected Purchasing Power Over 20 Years for 2011 Retirees and Assuming 2.5% Inflation

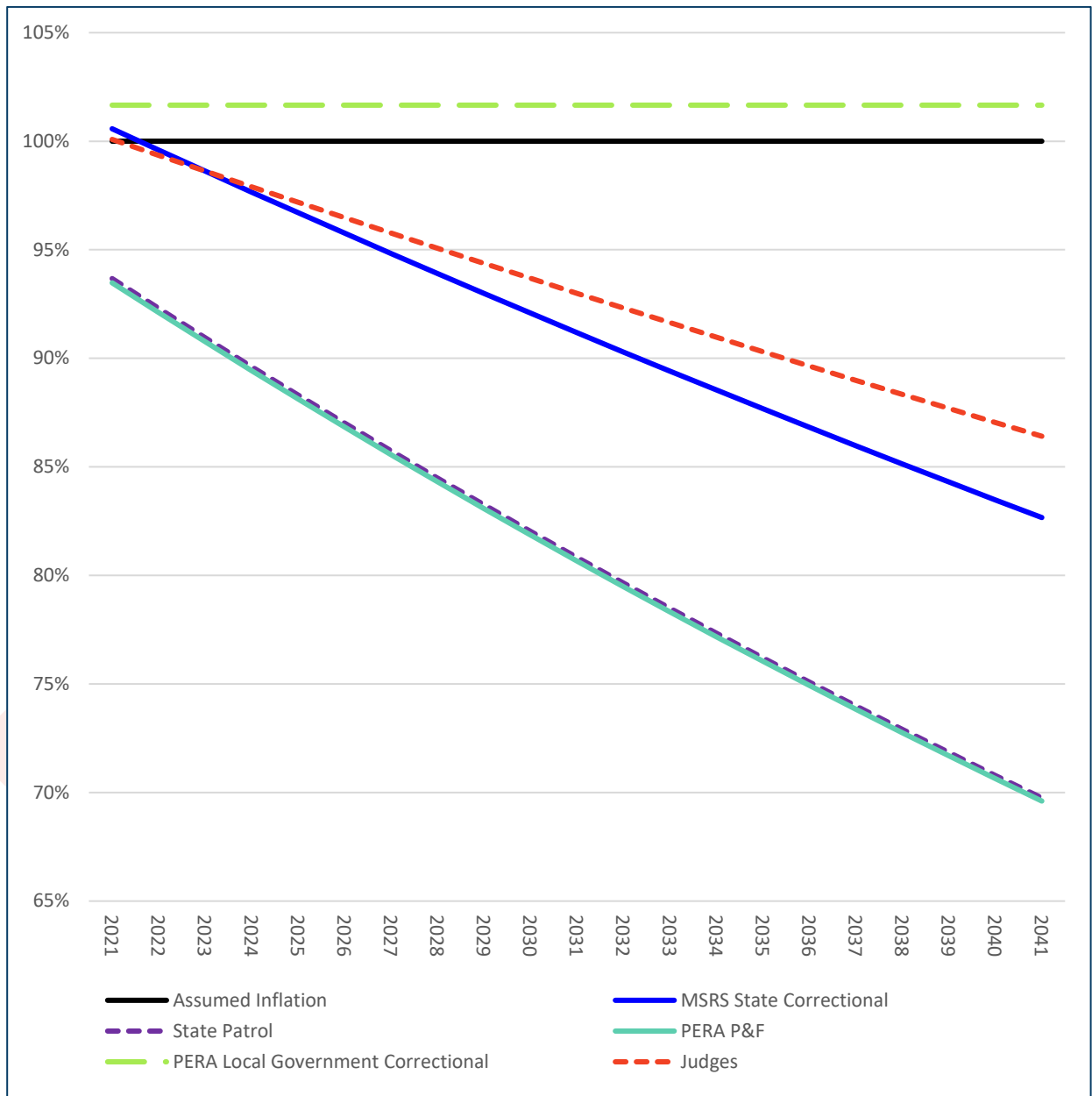


Figure 15: Projected Purchasing Power Over 20 Years for 2021 Retirees and Assuming 2.5% Inflation

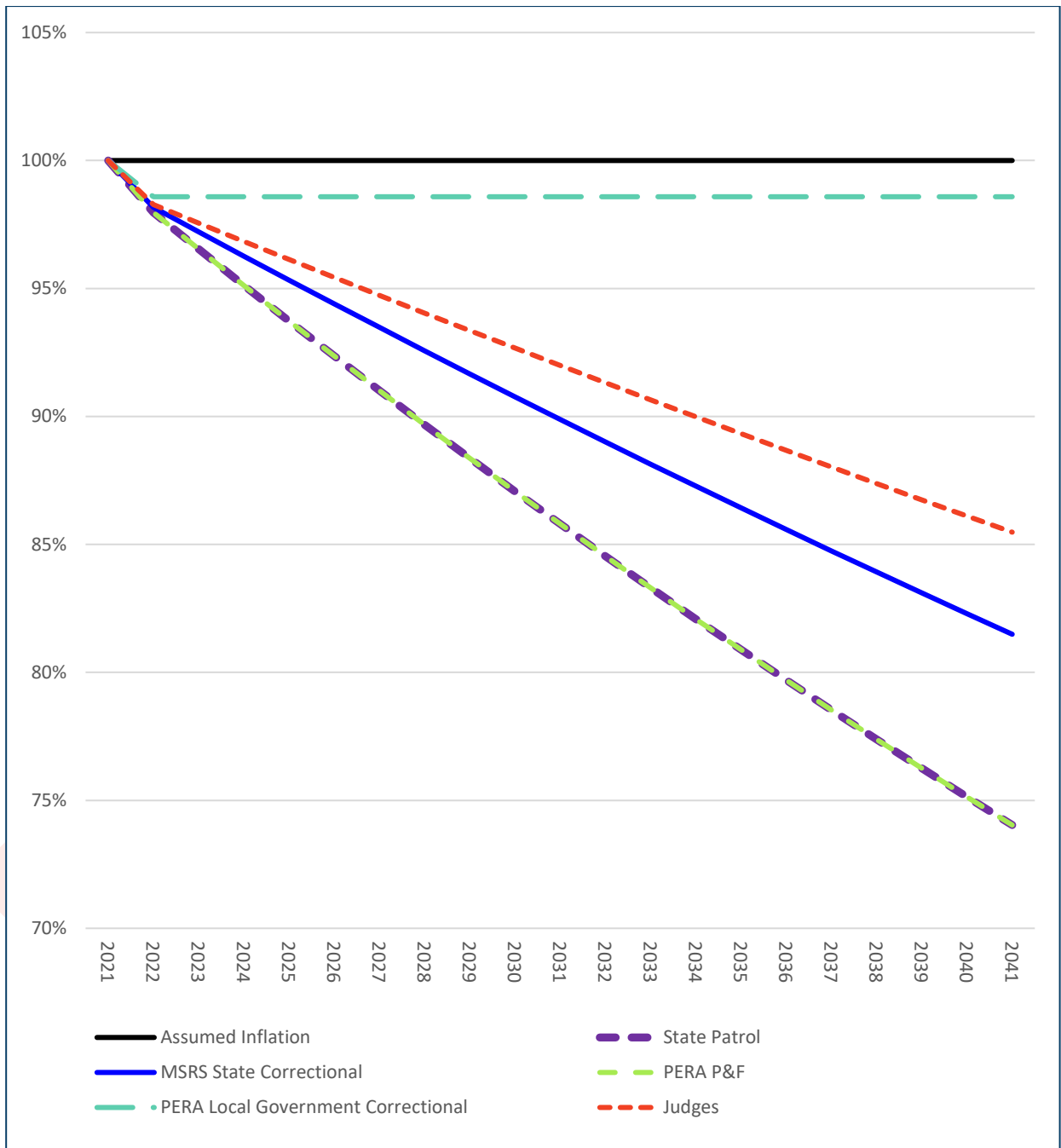
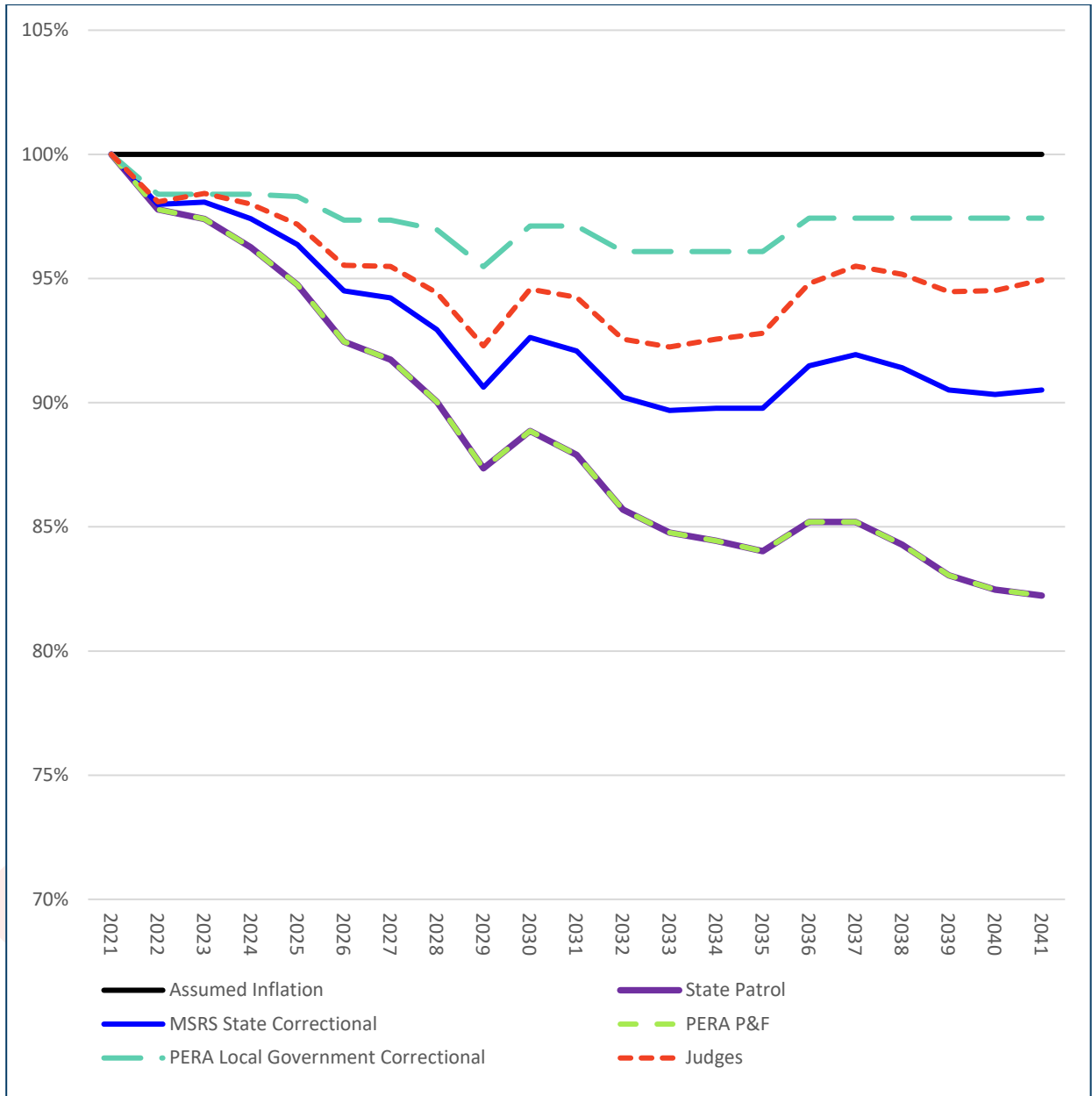


Figure 16: Projected Purchasing Power Over 20 Years for 2021 Retirees and Assuming Last 20 Years Inflation Experience



Figures 14 through 16 show similar results as for the General Plans and TRA. One difference is that, unlike any of the other plans, the PERA Local Government Correctional Plan maintains rough parity with inflation. This remains true as long as inflation remains on average at or below 2.5% over the next 20 years. The graphs also show that the State Patrol and Police & Fire Plans are likely to lag the furthest behind inflation. Because those plans are not coordinated with Social Security, members of the State Patrol and Police & Fire Plans may be particularly vulnerable to the effects of inflation. This issue is addressed in greater depth in the next section.

V. Coordinated and Basic Plans

A "basic" plan is a plan in which the members do not contribute to Social Security from their covered salary and their covered salary is not counted when determining any social security benefit. The State Patrol and Police and Fire plans are the only two all basic plans and the vast majority of active basic members are in one of those plans.

Some other statewide plans still have members entitled basic benefits including members in the: PERA-General, former Minneapolis Employees Retirement Fund ("MERF"), TRA, SPTRFA, and Legislators plans. As of July 1, 2018, the other statewide plans had a total of 113 active or deferred basic members and 14,292 benefit recipients.²⁰ Basic members in the other statewide plans were first hired before the plan became coordinated with Social Security (generally before 1980). Basic members receive a higher formula (bigger benefit) and make larger contributions than they would if they were coordinated with Social Security.

When it comes to protecting retirees from inflation, coordinated members have an advantage over basic members because Social Security benefits are adjusted for inflation by an annual COLA. If, for example, inflation increases by 3% in 2022, then a coordinated member of TRA would see their TRA benefit increase by 1% and their Social Security benefit increase by 3%. Thus the Social Security portion of the coordinated benefit is fully protected from inflation and the coordinated member's total protection from inflation is greater than just the TRA postretirement adjustment amount. Basic members, on the other hand, do not receive the Social Security COLA and thus receive less inflation protection.

²⁰ LCPR, Minnesota Public Employee Pension Plan Basic Member Information, (February 12, 2019) https://www.lcpr.leg.mn/documents/backgrounddocs/Basic_Member_Information.pdf.

Figure 17: Projected Benefit of Coordinated vs Basic Benefit; Assuming 2.5% inflation, 1% Post Retirement Adjustment, Starting benefit of \$3,400 (\$1,900-plan, \$1,500 SSA)

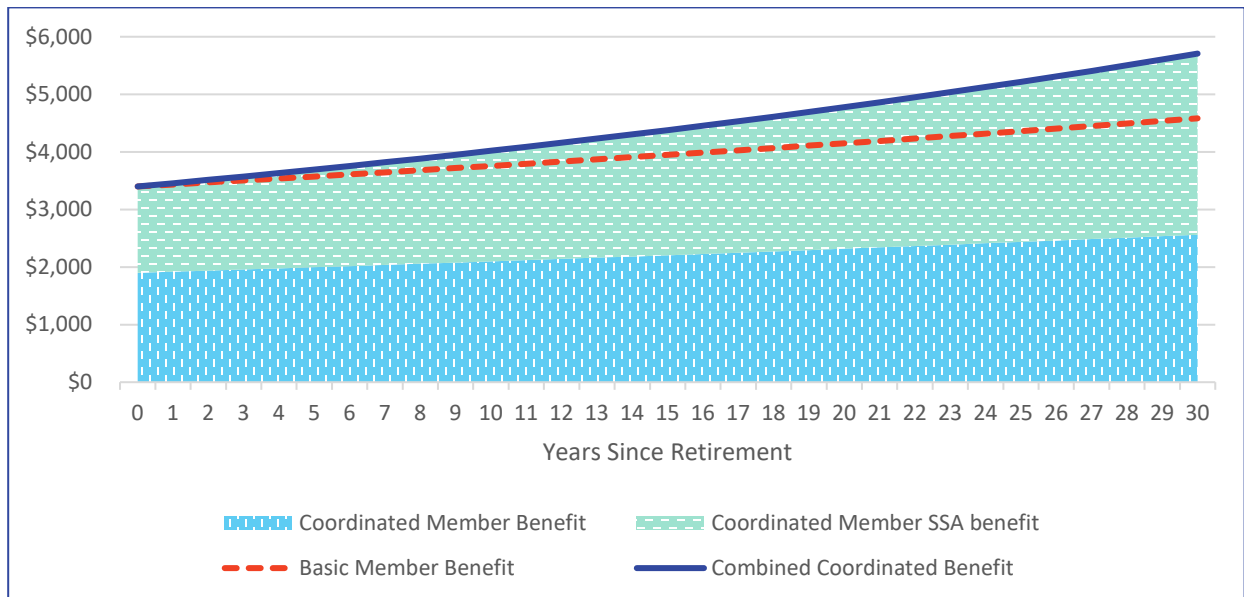


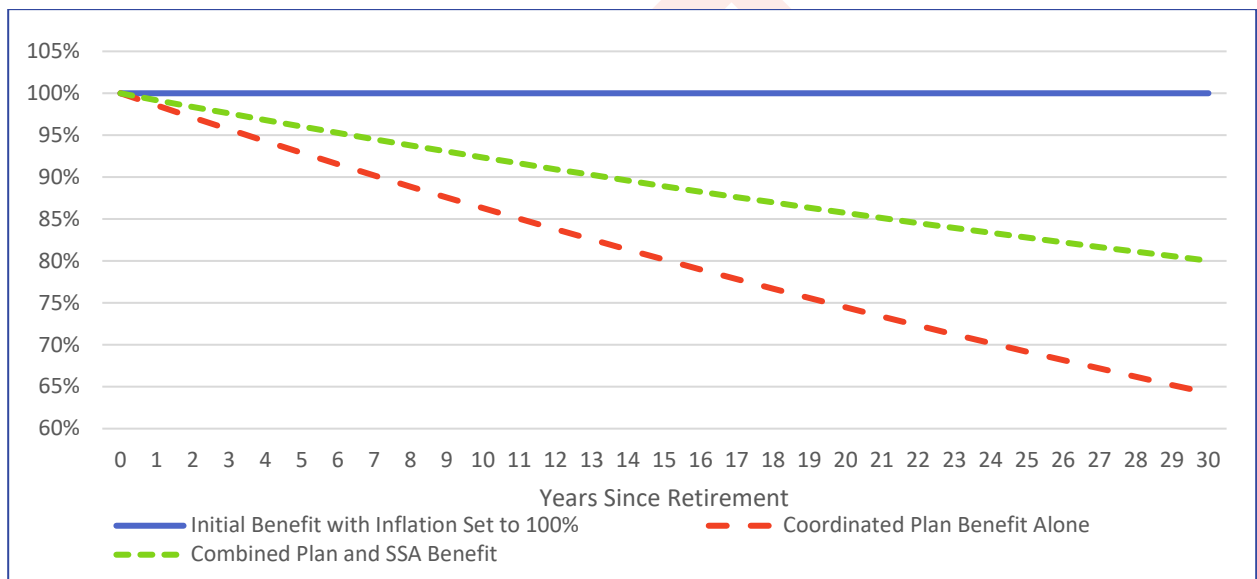
Figure 17 compares a coordinated plan member with a basic plan member. The coordinated member and the basic member both receive a 1% COLA over 30 years from their pension plan but actual inflation is 2.5%. The Coordinated member also receives a 2.5% increase on the Social Security portion of their retirement. The coordinated member receives a starting benefit of \$1,900/month from the member's pension plan (approximately an average starting benefit for a general or teacher plan) and \$1,500/month from Social Security (the 2020 average Social Security starting benefit was \$1,514) for a total of \$3,400. The basic member receives an equal initial benefit of \$3,400. After 20 years, the coordinated member's benefit is \$630 more per month. After 30 years, the coordinated member's benefit is \$1,125 per month more than the basic member's benefit.

As Figure 17 illustrates, basic members receive smaller increases over time than coordinated members when including social security. Basic members are thus more vulnerable to a loss of purchasing power due to inflation. Furthermore, members of the public safety plans, especially the State Patrol or Police and Fire plans, may be especially vulnerable to inflation because they have an earlier normal retirement age. Thus, the average public safety plan member is expected to collect a benefit as much as 10 years longer than the average general or teacher plan member and has as much as 10 more years of inflation. Moreover, the State Patrol and Police and Fire plans currently pay a postretirement adjustment of 1%, which is tied (along with the SPTRFA) for the lowest postretirement adjustment rate. These factors make the State Patrol and Police and Fire plans the most vulnerable of the statewide plans to a loss of purchasing power due to inflation. Any future modification of the State Patrol and Police and Fire plans' postretirement adjustment, should give consideration to the plans' vulnerability to inflation and other factors affecting benefit sufficiency including: pre-career and post-career employment patterns and the average initial benefit as a percent of salary.

Implications for Coordinated Plans

Since Social Security provides coordinated plan members with protection against inflation, it makes sense to consider how much protection is provided to the average coordinated member when considering the two benefits together. Figure 18 illustrates the same scenario as Figure 17 but this time looking only at the coordinated benefits and as a percentage of purchasing power. In the scenario, the member is receiving \$1,500 from Social Security increased at the rate of inflation and \$1,900 from the pension plan increased at 1%.

Figure 18: Comparing Coordinated Plan Benefit with and without Social Security as a percentage of Inflation at 2.5%



If looking at only the pension benefit, at 20 years after retirement, the pension benefit has a purchasing power of 74% of the initial benefit and at 30 years – 64%. But if considering the combined pension and Social Security benefit, at 20 years after retirement, the combined benefit has a purchasing power of 86% of the initial combined benefit and at 30 years – 80%. In short, Social Security provides a significant mitigating effect to loss of purchasing power especially in later years.

Not shown in Figure 18 is the fact that the amount of protection attributable to Social Security is not consistent from person to person. This is because the way that Social Security benefits are calculated is different from the way pension benefits are calculated. Social Security has a maximum benefit of around \$3,000 per month in 2020. This means that high-earning public employees will have a smaller percentage of their combined benefit that is fully protected from inflation. Furthermore, Social Security calculates its benefits using a lifetime average salary calculation, whereas the pension plans use a highest 5-year average salary. This means that differences between individuals' career progressions are reflected in the Social Security benefit but typically only the last – and highest paid – position is reflected in the pension plan benefit. Thus, while Social Security benefits meaningfully offset some of the effects of inflation, the amount of inflation protection provided is different from person to person.

VI. Fixed vs. Tied, Is the new PERA method better than the old method?

The 2018 Pension Reform Act changed PERA’s method for calculating its postretirement benefit from a fixed percentage increase (1% for the PERA General and 2.5% for the PERA–Correctional plans) to an increase that is tied to inflation. The full changes are detailed in Section II and summarized in Figure 19.

Figure 19: PERA General and Correctional Fixed vs. Tied COLA

	Pre-2018 (Old) Method	Post-2018 (New) Method
PERA-General	1% Annual Increase	½ of Social Security increase; between 1% and 1.5%
PERA-Correctional	2.5% Annual Increase	Equal to social security increase; between 1% and 2.5%.

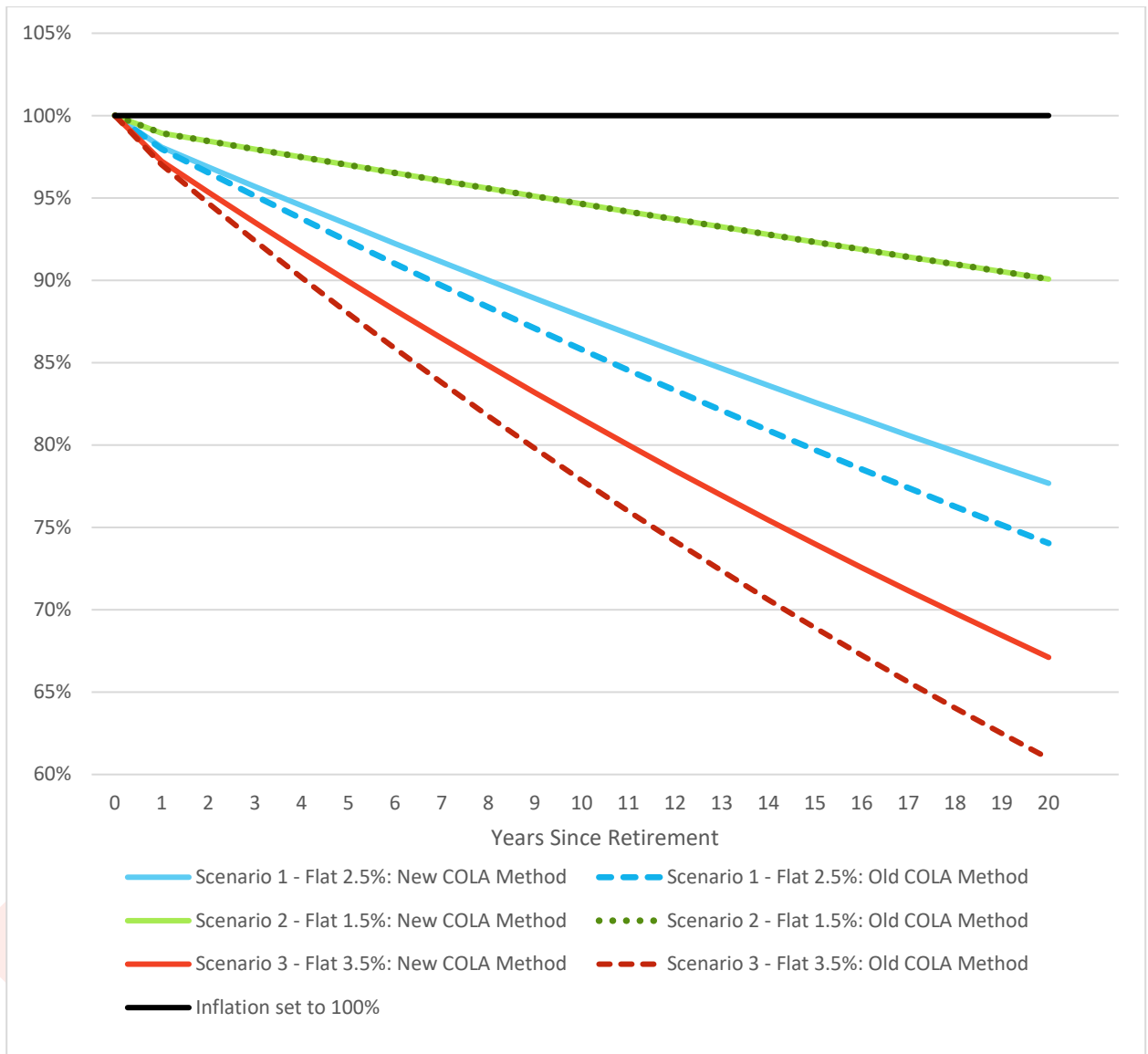
This section analyses whether the 2018 changes were an improvement and briefly examines To judge whether the 2018 changes improved the plan we considered two factors: (1) whether the new method makes benefits less vulnerable to inflation; and (2) whether the new method improves intergenerational inequity.

A. Vulnerability to Inflation.

The 2018 Pension Reform Act made minor changes to how vulnerable to inflation both the PERA General and Correctional plans are. In the case of PERA-General, the new model provides slightly better inflation protection. In the case of PERA-Correctional, the new model provides slightly worse inflation protection. The effect of the changes are shown in Figures 20 and 21. Ultimately, the amount of the postretirement benefit has a much larger effect on the degree of inflation protection than the method of calculating has.

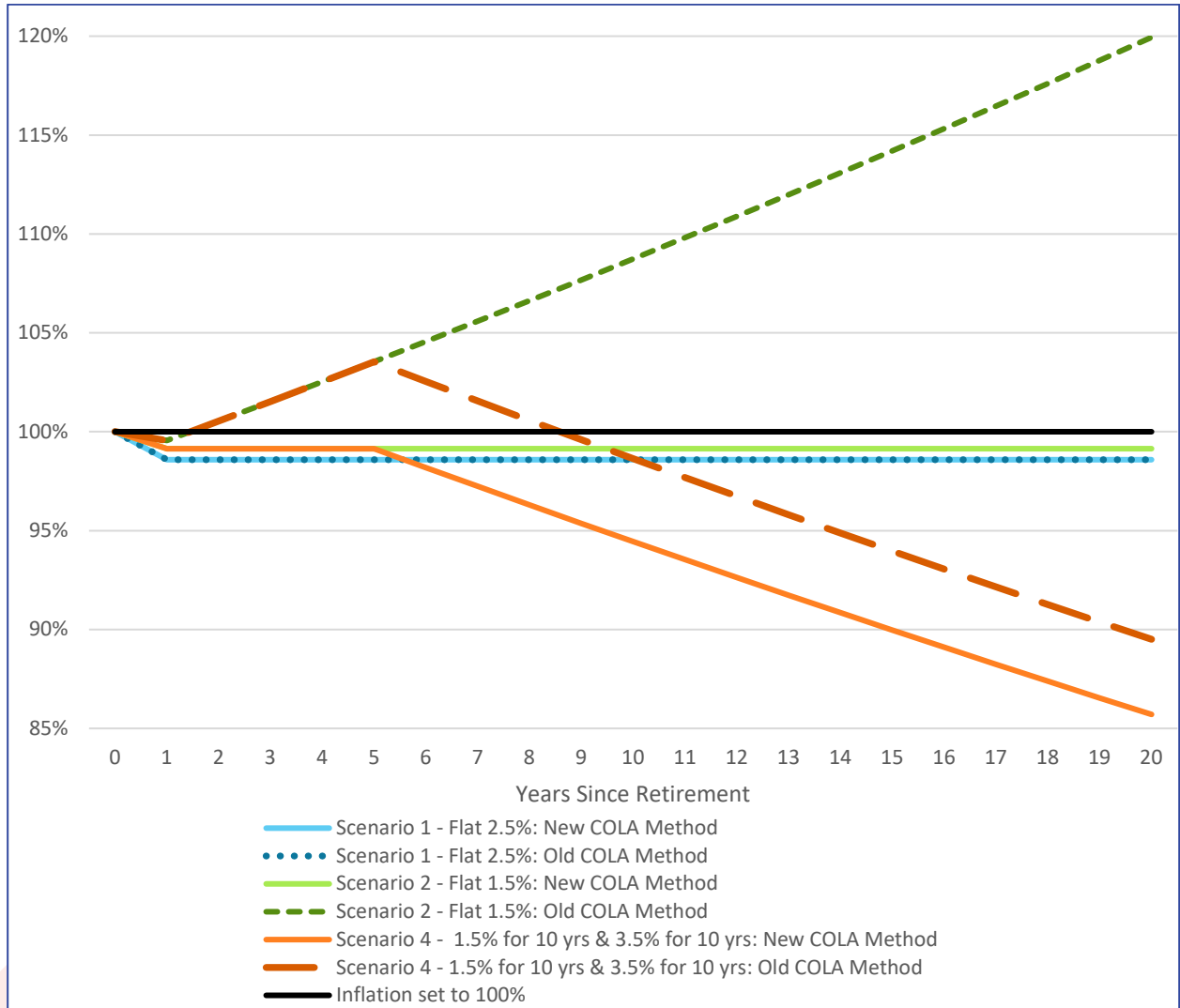
The 2018 changes make the PERA General Plan less vulnerable to the effects of inflation. Under the new method, if inflation is at or below 2%, the plan pays a 1% postretirement increase, which is equal to the postretirement increase that would have been paid under the old method. If, however, inflation is greater than 2%, then the postretirement increase will be greater than 1% and will offer a somewhat improved protection against inflation. Figure 20 shows three scenarios based on different inflation rates. In the first scenario, inflation increases at 2.5%, the second – 1.5%, and the third – 3.5%. In all three, member’s purchasing power was maintained or improved under the new method.

Figure 20: PERA General, Comparing Purchasing Power for the Old Method and New Method



PERA’s actuary assumes that the average future postretirement increase will be 1.25% which is based on running a number of scenarios but assumes a long-term inflation rate of 2.5%.²¹ This assumption may be adjusted in the 2020 valuation because the Commission approved adoption of a lower inflation assumption during the 2020 session. Regardless of actual future inflation, members of the PERA General Plan will be the same or better off under the new model.

²¹ PERA General Employees Retirement Plan Actuarial Valuation Report (2019), p4, <https://www.lcpr.leg.mn//documents/valuations/2019/2019.valuation.pera.general.pdf>.

Figure 21: PERA Correctional Purchasing Power of New Model vs Old Model

PERA's new model does not improve protection from inflation for members of the Correctional Plan because the maximum postretirement increase amount remains at 2.5%. The PERA-Correctional Plan was already well protected from moderate inflation because, under the old model, it had a relatively high postretirement increase (fixed at 2.5%) and is coordinated with Social Security. However, under the new model it is likely that members would receive less protection from inflation during certain periods. This can occur any time there is a period of lower than expected inflation followed by a period of higher than expected inflation. One example of this can be seen in Scenario 4 shown in Figure 21, which shows what might happen if the plan experienced five years of less than expected inflation followed by 15 years of greater than expected inflation. PERA's actuary assumes that the plan will pay an average increase of 2% per year, based on simulations assuming a 2.5% inflation assumption.²²

²² PERA General Employees Retirement Plan Actuarial Valuation Report (2019), p4, <https://www.lcpr.leg.mn//documents/valuations/2019/2019.valuation.pera.correctional.pdf>.

B. Intergenerational Equity.

Intergenerational equity is the idea that members in a plan should receive benefits commensurate with the contributions made during their own service and not have to pay for earlier or subsequent generations of employees. The large postretirement increases paid in the 1990s led to generational inequity. For example, all else being equal, a retiree from a statewide plan who retired in 1998, has a benefit that's worth about 20% more than if that same retiree had lived, worked, and retired 20 years later in 2018. In this example, the 2018 retiree also paid higher contribution rates for the lower benefit because the employer and employee contribution rates were raised (in part) to pay off the earlier generation's postretirement increases.

In 2018, PERA Executive Director Doug Anderson advocated for changing the method of calculating the postretirement adjustment. One reason he provided for making the change was that the new method reduces intergenerational inequity. For this study, PERA provided a comparative analysis of the new and old methods of calculating postretirement adjustments.

PERA's analysis compares two cohorts that retired 10 years apart. For the comparison, PERA used three inflation scenarios. The old method (in this case, modified to a fixed 1.25%) and new method are applied to both cohorts with the focus on measuring the difference in purchasing power protected between the two cohorts after 10 years of receiving a benefit and after 20 years of receiving a benefit.²³ The difference (or gap) is a measurement of the intergenerational inequity between the two cohorts. The results of this analysis are shown in Figure 22.

Figure 22: Measuring Generational Inequity

	PERA General (New Method) Cohort Gap		Fixed 1.25 (Old Method) Cohort Gap		PERA Correctional (New Method) Cohort Gap	
	10-Year	20-year	10-Year	20-year	10-Year	20-year
	Fixed 2.25 % Inflation	0%	0%	0%	0%	0%
Higher Inflation Scenario	2%	6%	2%	9%	1%	4%
Lower Inflation Scenario	6%	6%	7%	9%	4%	4%

The analysis shows that the new method of tying the postretirement increase to inflation with a floor and cap produces more equitable outcomes between generations. Unsurprisingly, the Correctional plan, with its higher cap and lack of the 50% of inflation rule, does a better job of mitigating intergenerational inequity.

²³ The old method is fixed at 1.25% because that is the amount of fixed benefit that would cost the same to the PERA General plan if assumptions are met.

C. Conclusion

The changes in the 2018 pension bill resulted in better inflation protection for the PERA General plan, but only as a result of the potential for higher than 1% increases. Similar results could have been obtained with a fixed 1.25% postretirement increase. For the PERA-Correctional plan, the change actually made members slightly more vulnerable to inflation.

Perhaps the more interesting question is whether the structure of tying the increase to inflation is a more equitable approach. The analysis shows that it produces somewhat more equitable benefits between generational cohorts.

The obvious follow up question is whether the improvement in intergenerational equity is a reason for other statewide plans to adopt a similar model for their postretirement benefits. While the improvements in intergeneration equity are demonstrable and measurable, we don't believe they are significant except perhaps for plans with a postretirement adjustment that is close to the inflation assumption. Currently the only plan that applies to is the PERA Correctional plan. Ultimately, whether the relatively minor improvement in intergenerational equity is a sufficient reason to adopt this type of structure in other statewide plans is a policy question for the legislative process.

VII. Variations on COLA Design.

Minnesota's postretirement adjustment benefit belongs to a family of pension benefits that are generally referred to as a Cost-of-Living Adjustment or COLA. There are far too many variations in COLA benefits to provide an analysis of every possible combination. Instead, this section sets forth a description of common COLA policies found in the United States, including a handful of specific case studies outlining particularly interesting approaches in other states. This section also takes a brief look at trends in both the public and private sector pension plans and what lessons can be drawn from those experiences. This section is intended as a resource to allow policy makers to draw on the information in this section to produce creative and well-tailored policies that address the Minnesota's specific needs.

A. COLAs, Generally.

Traditionally, the basic purpose of COLA benefits is to reduce or eliminate the erosion of pension benefits' purchasing power due to inflation. Perhaps the most well-known example of a COLA benefit comes from Social Security. Under federal law enacted in 1972,²⁴ the Social Security Administration increases the previous years' benefit by a percentage equal to the increase in inflation measured by the Consumer Price Index for Urban Wage Earners and Clerical Workers ("CPI-W"). For example, if a retiree received \$1,000 per month last year and the amount being paid by consumers for a number of goods and services as measured by CPI-W increases by 3%, then Social Security will increase the retiree's benefit by 3% to \$1,030 per

²⁴ Social Security Amendments of 1972, Public Law 92-603.

month. As a result of the COLA benefit, a retiree can expect the retiree's Social Security benefit to allow the retiree to purchase roughly the same amount of goods and services for the rest of the retiree's life.

Around the country, COLA benefits are commonly found in public employee pension plans. A survey of statewide public pension plans published in 2020 by The National Association of State Retirement Administrators ("NASRA") found that of the 100 systems surveyed, 72 provided some type of automatic COLA benefit.

Although COLA benefits are common plan features, the way in which they are structured and function varies considerably from state to state. Despite significant variation, COLA benefits can be generally categorized as follows: 1) inflation based, 2) investment performance based, 3) fixed, or 4) ad hoc.

1. An inflation-based COLA is an annual increase where the amount of the increase is determined by inflation. There are often limits on the amount of the increase, such as the increase might be capped at 5% or limited to one-half of inflation. For example, the PERA General and Local Government Correctional plans currently have postretirement increase benefits that are inflation-based in that the benefit for the PERA General plan is one-half of inflation (as determined by the Social Security Administration) or, in the case of the PERA Local Government Correctional plan, equal to inflation.²⁵ Like many pension plans in other states, the PERA General and Local Government Correctional plans also further limit the percentage increase to at least 1% and, for the General plan no more than 1.5% and for the Correctional plan no more than 2.5%.
2. An investment-performance-based COLA is arguably not a COLA at all but rather a method of sharing excess investment returns. Because an investment-performance-based COLA is not tied to inflation, it may yield benefit increases that differ significantly from inflation. Perhaps the most well-known examples of an investment-performance-based COLA comes from the Wisconsin Retirement System, which adjusts its member's annuities, either up or down, depending on whether and by how much the investment performance exceeded or fell short of expected performance. The Wisconsin structure results in benefit increases in years where strong investment performance is realized (in 2019, annuities were increased by 1.7%); it also results in decreases in years where negative investment performance is realized (following the great recession, in 2012, annuities were reduced by 9.6%).²⁶ A more detailed description of Wisconsin's COLA structure is described in the Case Study section.
3. A fixed COLA is a COLA where the amount of the COLA is set by law. Several of Minnesota's statewide public pension plans have a postretirement adjustment that falls into this

²⁵ Minn. Stat. 2019 §356.415, Subd. 1b and 1g.

²⁶ WISCONSIN RETIREMENT SYSTEM, Annual Returns, Rates and Adjustments, etf.wi.gov/wrs-performance/annual-returns-rates-and-adjustments, Accessed 10/30/2020.

category. For example, Minnesota law requires the Minnesota Teacher's Retirement Association to increase eligible member's annuities by 1% in 2022.²⁷

4. An ad hoc COLA exists where the legislature has granted authority to the retirement system's governing board or other entity to determine whether to pay a COLA in a particular year. The Legislature may also grant authority to determine how much of an increase will be payable or may place various restrictions on when and how large of an increase may be granted. For example, the North Carolina Local Government Plan Board of Trustees has discretion to approve a COLA up to a maximum of 4% provided the increase does not exceed the year-over-year increase in inflation and that the increase is paid for by investment gains.

Finally, in practice, the proceeding four types of COLAs are often combined into a hybrid of two or more types. The North Carolina Local Government Plan is an example of an ad hoc COLA (because the board has discretion) as well as an example of an inflation-based COLA (because the board cannot grant a COLA greater than inflation) and perhaps even as an example of an investment-performance-based COLA (because the board is also limited to excess investment returns).

B. Common COLA Features

Ad hoc and Automatic COLAs.

All types of postretirement benefit increases may be classified as being either provided automatically or on an ad hoc basis. Automatic increases occur without action and are typically predetermined by a formula or set of parameters. An ad hoc increase requires a governing body to actively approve a postretirement benefit increase. Plans that have not had any postretirement benefit increases for an extended period of time, such as the North Dakota PERS or Iowa PERS, would be considered ad hoc plans.

The following chart was provided in the National Association of State Retirement Administrators ("NASRA") Issue Brief on Cost-of-Living Adjustments:

Figure 23: Select Public Plans by COLA type

	Linked to inflation	Linked to Investment or funding condition	Fixed percentage or other factor	Total
Automatic	47	14	11	72
Ad hoc	5	0	23	28
Total	52	14	34	100

²⁷ Minn. Stat. 2019 § 356.415, Subd. 1d

Figure 23 includes the PERA General Employees Retirement Plan (linked to inflation), the MSRS State Employees Retirement System (Fixed Percentage), and the TRA Plan (Fixed Percentage). In prior years, the Minnesota plans may have been classified as linked to investment or funding conditions.

The variety and complexity of approaches has increased over time. Simple formulas are less frequent, and the approach used by some plans is difficult to categorize or fits into multiple categories. For example, it is not clear how to categorize the South Dakota SERS approach, which provides an automatic increase tied to inflation but is also dependent on the funding condition. The NASRA Issue Brief includes a summary of the provisions applicable to each plan and demonstrates how unique many of the approaches have become.

Importantly, automatic postretirement increases must be included when determining the actuarial accrued liability for each plan. Inclusion of those expected increases helps to ensure the cost of those future increases is included in the actuarially determined contribution. Ad hoc increases are typically not included in liability measurements because they are not certain. However, actuarial standards require that even the slightest pattern of recurring ad hoc increases are considered in plan costs. A plan sponsor can't avoid recording liabilities by classifying recurring increases as ad hoc unless they truly are ad hoc in nature.

Delayed onset or minimum age.

Another feature embedded in many COLA plans is a delayed onset or minimum age requirement. Under this approach, benefit recipients do not qualify for an annual COLA until they meet a threshold age requirement, which typically aligns with the plan's normal retirement age. This feature is found principally in plans that allow members to elect to draw a benefit prior to reaching the NRA.

Early retirements can have a meaningfully negative impact on a plan unless care is taken to make appropriate adjustments. For example, early retirements typically truncate employer and employee contributions during what is likely the member's highest-earning years. Early retirement also typically means that the plan must make payments to the benefit recipient for years longer than would have been the case had the recipient waited to draw a benefit until reaching normal retirement age. Adding to the negative economic impact of early retirement is the cost of awarding a COLA in each year of early retirement, particularly in the case of a compounding COLA.

To adjust for the negative impact of early retirement, plans typically adopt a discount structure that progressively reduces benefits every year a member is further out from the normal retirement age. Additionally, for the same reason, many plans either reduce or eliminate the availability of a COLA adjustment until normal retirement age. For example, in Minnesota, a delayed onset feature was adopted under the 2018 Omnibus Pension Bill.

Like many things, there are pros and cons to this approach. One obvious detractor is that from the commencement of early retirement to normal retirement age, the plan offers its member

no protection against inflation. And, in the case of a compounding COLA, that negative impact could be meaningful (especially if the member retires as early as age 55).

On the other hand, many factors make the delayed onset/minimum age COLA feature a logical and beneficial choice for both members and Plans. From a policy perspective, one role that a defined benefit plan serves is to attract and retain a high-quality workforce. To the extent beneficiaries routinely chose to retire early, that goal is compromised, and the economic and policy objectives are misaligned. As well, because early retirements are costly for pension systems, they can lead to 1) higher contribution rates for active members and employers and 2) a less financially stable plan for all members. Increasingly, early retirement is a benefit accessed by a limited subset of members, which means that the broader population effectively subsidizes the benefit feature for the few. In particular, as healthcare costs have grown over time, fewer members can afford to retire before qualifying for Medicare benefits. Those that can typically have another source of income or are leaving the system to continue working elsewhere. Where Plans must allocate scarce resources, there is a strong policy argument for preserving financial protection for those working to their normal retirement age.

Limited Benefit Basis.

Some retirement systems use a limited benefit basis to provide a COLA. Under this methodology the COLA is calculated for a specified portion of a retired member's benefit rather than the entire benefit amount, like Minnesota's public pension plan currently does. For example, a 2% COLA is applied to the first \$20,000 of a member's annual benefit. The threshold benefit amount is likely impacted by whether the member's benefit is coordinated, i.e., member receives a Social Security benefit, or is basic, i.e., member does not also receive a Social Security benefit. Basic benefits are typically larger than coordinated benefits to compensate for a member not receiving a Social Security benefit, so the threshold amount might also be larger.

Based on research provided by the National Association of State Retirement Administrators ("NASRA") in its published "NASRA Issue Brief: Cost-of-Living Adjustments" (June 2020), at least 11 state retirement systems currently administer a COLA using a limited benefit basis. For some, the COLA can also be tied to another external factor, like CPI or have a delayed onset.

Below is an excerpt from a table found in the NASRA Issue Brief. The excerpt summarizes the 13 state retirement systems' current COLA structure with regards to use of a limited benefit basis (other elements of the COLA may not be included the chart):

Figure 24: COLA Provisions by State

Retirement System	COLA Details
Louisiana SERS	COLA applies only to first \$60,000 of benefit, indexed to CPI, among other factors. Amount of COLA depends on plan's funded ratio.
Louisiana Teachers	COLA applies only to first \$60,000 of benefit, indexed to CPI, among other factors. Amount of COLA depends on plan's funded ratio.
Massachusetts SERS	Ad hoc, typically based on CPI up to 3% applied to first \$13,000 of benefit, subject to legislative approval and enactment.
Massachusetts Teachers	Ad hoc, typically based on CPI up to 3% applied to first \$13,000 of benefit, subject to legislative approval and enactment.
Maine State and Teacher	COLA is based on the CPI up to 3% applicable to the first \$20,000 of benefit, indexed for inflation beginning in 2011.
New Mexico PERA	FY 20 retirees earning \$20,000 or less receive a COLA of 2.5%. Effective FY 24, an annual COLA of 2.5% will be provided to those who retire with at least 25 years of service and an annual pension benefit below \$25,000, retirees who have attained at least 75 years of age as of 7/1/20, and disability retirees
New York State Teachers	Automatic, based on one-half of the increase in the annual CPI, applied to first \$18,000 of annual pension, compounded.
New York State & Local ERS and Police & Fire	Automatic, based on one-half of the increase in the annual CPI, applied to first \$18,000 of annual pension, compounded.
Oregon PERS	Automatic, based on CPI, up to 2.0%, compounded, for benefits earned as of 10/1/13 or earlier. Automatic, based on CPI up to 1.25% on the first \$60,000 in benefits and 0.15% on amounts above \$60,000 for benefits earned after 10/1/13.
Rhode Island ERS	The COLA produced by the sum of these elements is subject to a floor of 0% and a cap of 3.5% and is applied to the first \$25,855 of retirement benefit.

Optional Self-Funded COLA.

Self-funded COLAs are offered through elective annuity options. Under this design, retiring members elect to receive an actuarially reduced monthly benefit in exchange for a fixed-rate, automatic annual COLA. Some public plans, such as the Nebraska State and County plan and those sponsored by the Kansas Public Employees Retirement System, offer self-funded COLAs as a feature of their newer cash balance plans.²⁸

²⁸ "NASRA Issue Brief: Cost-of-Living Adjustments." June 2020.
www.nasra.org/files/Issue%20Briefs/NASRACOLA%20Brief.pdf

Other traditional pension plans provide self-funded COLAs as add-ons to standard annuity options. For example, the Wyoming Public Employee Pension Plan's option provides a guaranteed fixed COLA of 1%, 2%, or 3%, commencing after the two-year anniversary of a member's retirement date. The actuarial reduction is adjusted accordingly for the higher COLA percentages.²⁹

This COLA design places the cost burden onto electing members. And when considering their election, retirees should consider how long they must collect until their annuity payment becomes higher than it would have been under an unreduced benefit. Retirees may nonetheless appreciate the opportunity to receive a COLA, particularly as they age into the statistically more expensive retirement years when health care and long-term care costs rise.

C. Case studies of the COLA experience of Wisconsin, South Dakota, and Colorado

The COLA Study work group interviewed representatives from the Wisconsin Department of Employee Trust Fund ("ETF"), the South Dakota Retirement System ("SDRS"), and the Public Employees' Retirement Association ("PERA") of Colorado. The questions, answers, and notes from the interviews are attached to this Report as Appendix A.

The interviews allowed the work group to ask questions about different approaches and gain a better understanding of the motivation and context for COLA reforms.

Wisconsin Retirement System

The work group interviewed Matt Stohr, Administrator, Division of Retirement Services, Wisconsin Department of Employee Trust Funds ("ETF"). Wisconsin was selected because (1) it is consistently ranked at the top nationally in lists of the best funded public pension plans, (2) it is a neighboring state, and (3) it is similar in size to Minnesota as to public pension fund assets and public employee workforce. The Wisconsin Retirement System ("WRS") is part of the ETF.

Instead of a COLA, the WRS has a risk-sharing dividend adjustment mechanism for retirees based on investment returns and is designed to maintain full funding. These adjustments are referred to as "annuity adjustments". Annuity adjustments are yearly changes in a retiree's monthly pension payment amount for the next 12 months. Payments may increase or decrease based on investment returns. Annuity adjustments are based on investment performance and actuarial factors and are paid from surpluses in the WRS annuity reserves.

Annuity adjustment rates are based on an assumed rate of return on investments of 5%. The annuity adjustment may be higher or lower, depending on whether actual fund performance is above or below 5%. Wisconsin law requires the ETF Board to distribute dividends whenever annuity reserve balances exceed the assumed investment rate of return by at least 0.5%. An

²⁹ "Pension Payout Options" Wyoming Retirement System. Accessed online September 28, 2020. retirement.state.wy.us/Members/Pension-Payout-Options

annuity adjustment is automatic and is not subject to the legislature or ETF Board, but is a calculation done by the fund's actuary. The annuity adjustment can be negative, but not below the base benefit, which is the monthly amount determined using the formula based on final average pay, years of service, and a multiplier.

South Dakota Retirement System

The work group interviewed Doug Fiddler, Senior Actuary, South Dakota Retirement System ("SDRS). South Dakota was selected because (1) it is consistently ranked at the top nationally in lists of the best funded public pension plans, (2) it is a neighboring state, and (3) it changed from a fixed COLA to a COLA that is linked to CPI-W, with minimums and maximums, similar to the recent change in PERA's COLA.

Until 2009, SDRS paid a fixed 3.1% COLA, which constituted about 25% of the annual cost of the system and was determined to be too costly to be sustainable. The legislature adopted a new approach in 2009, which linked the COLA to CPI-W, with a minimum and maximum of 2.1% and 3.1%, respectively. In 2017, the minimum and maximum were adjusted to 0.5% and 3.5%, respectively. The maximum adjusts if the system's funding ratio changes from the current 100% to ensure that the system remains at 100% funded.

Public Employees Retirement Association ("PERA") of Colorado

The work group interviewed Ron Baker, Executive Director, Colorado PERA. Colorado was selected because (1) it is at the opposite end of the funding spectrum from Wisconsin and South Dakota, but, similar to Minnesota, it took action in 2018 to fix chronic underfunding, and (2) is similar in size to Minnesota as to public pension fund assets and public employee workforce.

In 2018, the legislature suspended the COLA, which is called an "annual increase" or "AI", for 2018 and 2019. Beginning in 2020, retirees will not begin receiving an AI until 3 years after retirement date. In addition, a cost-sharing mechanism was added, which requires automatic adjustments each July 1, as determined by the actuary, to the AI and employer and employee contributions, so retirees, active employees, and employers share equally, in equal dollar amounts (not percentages).

Each member has 1% of pay deducted and deposited in the "annual increase reserve fund." The AI each year is the lesser of CPI-W, 1.25%, or 10% of the AI reserve fund, but cannot be less than 0.5%. The 1.25% cap automatically increases, up to 2%, after a good investment year.

D. Trends in Public Sector COLAs

Like other plan features, cost-of-living adjustments within public pension plans have been subject to design and calculation changes. Recent reform trends during the last decade have seen COLA benefits become more conservative and their designs more complex. These

changes were made as plan administrators implemented stabilization measures in the wake of nearly universal funding challenges that followed the Great Recession.

Between late 2007 and 2009, public pension plans nationally lost nearly a third of their value, or \$1 trillion.³⁰ The magnitude of this crisis was felt by small and large pension plans alike as their reduced assets translated into rising unfunded liabilities. According to the National Association of State Retirement Administrators ("NASRA"), nearly every state implemented tailored pension benefit reforms between 2009 and 2018.³¹ Amidst challenging market conditions and relatively low inflation rates, and in an attempt to distribute unfavorable stabilization measures across plan membership groups, many plan administrators included COLA adjustments in these changes: six states adjusted COLAs prospectively for future employees, seven states changed future COLAs for currently active employees, and 18 changed COLAs for current retirees.³²

COLA Changes Affecting New Employees

Prospective COLA reforms by public pensions in Arizona, Michigan, Mississippi, Nebraska, Nevada, and Utah created tiers of COLA benefits in order to reduce future costs. The differences between these benefit tiers vary because of multiple factors, but the general trend was a reduction in benefits for newer employees. For example, while all members of the Nebraska School Retirement System receive a compounded COLA that is based on CPI and is subject to a cap, this cap is 2.5% for members hired before July 1, 2013, while it is 1% for members hired after that date. The Utah Public Employees Noncontributory Retirement System made a similar change, whereby the CPI-based COLA is capped at 4% for employees hired before July 1, 2011, and 2.5% for those hired after June 30, 2011.³³

The Mississippi Public Employee Retirement System applies a combination of simple and compounded COLAs to their retirees' benefits, but the age at which the COLA goes from simple to compound was pushed back by 2011 legislation. Employees who were hired before July 1, 2011, receive an automatic, 3% simple COLA until they reach age 55, at which point the COLA becomes compounded. Those in the second tier, who were hired on or after July 1, 2011, receive the same 3% COLA, but it does not get compounded until age 60.³⁴ This reform therefore changed the impact of the COLA on retirees' benefits but not the COLA itself.

Michigan Public Schools removed its COLA altogether for employees hired after June 30, 2010, who participate in a hybrid retirement plan rather than a traditional pension. Pre-July 1, 2010

³⁰ www.federalreserve.gov/releases/z1/20090611/z1.pdf

³¹ Brainard, Keith and Alex Brown "Spotlight on Significant Reforms to State Retirement Systems" December 2018. www.nasra.org/files/Spotlight/Significant%20Reforms.pdf

³² "NASRA Issue Brief: Cost-of-Living Adjustments." June 2020. www.nasra.org/files/Issue%20Briefs/NASRACOLA%20Brief.pdf

³³ "NASRA Issue Brief: Cost-of-Living Adjustments." June 2020. Appendix A: COLA Provisions by State-Level Plan and Recent Changes. www.nasra.org/files/Issue%20Briefs/NASRACOLA%20Brief.pdf

³⁴ "NASRA Issue Brief: Cost-of-Living Adjustments." June 2020. Appendix A: COLA Provisions by State-Level Plan and Recent Changes. www.nasra.org/files/Issue%20Briefs/NASRACOLA%20Brief.pdf

employees who are in the pension will receive an automatic 3%, simple COLA on their retirement benefits.³⁵

COLA Changes Affecting Current Employees

Between 2009 and 2018, public retirement systems in Connecticut, Florida, Kansas, Maryland, Montana, Oregon, and Virginia lowered COLAs for current (and in some cases also former) employees. Several systems (such as Oregon Public Employee Retirement System and Maryland PERS and Teachers) created tiers of service credit onto which different increases are applied. Maryland's COLA also became tied to investment returns.³⁶

Effective January 1, 2013, the Virginia Retirement System reduced the COLA cap for non-vested members, from 5% to 3%, and required that early retirees within their system wait at least one year until they receive an increase.³⁷

Other states went further and suspended or completely eliminated COLAs for active employees. Beginning in 2011, Maine PERS suspended its COLA for three years and applied a lower cap to future adjustments,³⁸ and the Connecticut State Employees Retirement System suspended its COLA for 2018, 2019, and 2020.³⁹

The Florida Retirement System terminated its automatic, compounded three-percent COLA for all service credit earned after July 1, 2011. The Montana PERS and Teachers systems passed legislation in 2011 to reduce automatic increases for new hires, active members, and retirees and tie it to the plans' funded ratios. These reforms were challenged in court, however, and only prospectively applied reductions were allowed to stand after a 2015 ruling.⁴⁰

COLA Changes Affecting Current Retirees

Minnesota was one of the 18 states that passed reforms to current retiree COLAs between 2009 and 2018. In Washington, the Public Employee Retirement System and Teachers Plan 1 went so far as to eliminate the COLA in 2011. Other states reduced their existing COLAs or changed the metrics by which they were determined. The legality of these reductions was challenged in many cases and upheld in most.⁴¹

³⁵ "NASRA Issue Brief: Cost-of-Living Adjustments." June 2020. Appendix A: COLA Provisions by State-Level Plan and Recent Changes. www.nasra.org/files/Issue%20Briefs/NASRACOLA%20Brief.pdf

³⁶ "NASRA Issue Brief: Cost-of-Living Adjustments." June 2020. Appendix A: COLA Provisions by State-Level Plan and Recent Changes. www.nasra.org/files/Issue%20Briefs/NASRACOLA%20Brief.pdf

³⁷ "NASRA Issue Brief: Cost-of-Living Adjustments." June 2020. Appendix A: COLA Provisions by State-Level Plan and Recent Changes. www.nasra.org/files/Issue%20Briefs/NASRACOLA%20Brief.pdf

³⁸ www.ncsl.org/research/fiscal-policy/lb-recent-reductions-in-public-pension-colas.aspx

³⁹ www.ohsers.org/retirees/while-youre-receiving/cost-of-living-adjustment-cola/

⁴⁰ "NASRA Issue Brief: Cost-of-Living Adjustments." June 2020. Appendix A: COLA Provisions by State-Level Plan and Recent Changes. www.nasra.org/files/Issue%20Briefs/NASRACOLA%20Brief.pdf

⁴¹ www.nasra.org/files/Spotlight/Significant%20Reforms.pdf

Increased Complexity

As COLA benefits in many public retirement systems were reformed between 2009 and 2018, the complexity of COLA designs increased. Greater sophistication was developed in the nuances of COLA calculation, such as tying the increase to actual rates of inflation. The United States has experienced a relatively low average inflation rate during the last 20 or so years, and the practice of linking COLAs to a measurement of consumer inflation (such as the CPI-W) has become more common.⁴² According to NASRA's most recent survey of the 100 largest public pension plans, of the 72 plans with automatic COLAs, 47 are now linked to a reported inflation rate.⁴³

On top of this base measurement tool, caps and floors are sometimes applied to limit the COLA spread, parameters are placed on the benefit amount that is subject to a COLA, and/or the application of an adjustment is made subject to funding or rate-of-return benchmarks. Some plans use a combination of multiple COLA features to calculate and apply an increase. For example, the South Dakota Retirement System's three-tiered COLA includes a fixed percentage for one group of members, and two calculations that are tied to CPI-W, with different minimum and maximums for each of the other two groups. The cap is also designed to adjust if the plan's funded ratio drops below 100%.⁴⁴

Overall, changes to public sector COLAs have occurred broadly during the last decade as plan sponsors worked to increase the sustainability of their pensions. This has led to the creation of COLA benefit tiers, some suspensions, some eliminations, and a lot more complexity in the calculation and application of postretirement adjustments.

VIII. Conclusion

[This first draft is a summary of the research, discussion, and analysis performed by the LCPR staff and the work group over the last several months. Producing this draft is a part of the study process. The draft is intended to communicate the factual findings of the study so far and to allow members of the public to have some input on the final Report through a public comment process.

At this point in the process, we (LCPR staff) have drawn the following tentative conclusions regarding Minnesota's postretirement adjustment:

- The purpose of Minnesota's postretirement adjustment is to mitigate the loss of purchasing power experienced by retirees due to inflation.

⁴² www.nasra.org/files/Issue%20Briefs/NASRACOLA%20Brief.pdf

⁴³ NASRA Issue Brief: "Cost-of-Living Adjustments" November 2019. - Appendix A: COLA Provisions by State-Level Plan and Recent Changes

⁴⁴ Interview with Doug Fiddler, Senior Actuary, South Dakota Retirement System (SDRS), on Thursday, August 13, 2020

- For the statewide plans other than the PERA Correctional plan it is unlikely that the postretirement adjustments will fully cover retiree's loss of purchasing power and retirees will experience an erosion of their benefits' purchasing power.
- The degree of protection provided by the postretirement adjustment varies by plan.
- The plans most vulnerable to a loss of purchasing power are the Police and Fire and State Patrol plans because they are not coordinated with Social Security.
- The methods of calculating the postretirement adjustment for the PERA General and Correctional plans enacted in the 2018 Pension Reform Act are likely to result in improved generational equity for members of those plans.
- There are a wide range of possible changes that could be made to Minnesota's postretirement adjustment. However, changes that meaningfully improve protection from a loss of purchasing power will involve tradeoffs.

We will review public comments before the finalizing a draft for consideration by Commission members. We may decide to make significant changes to the report if warranted by public comment, or our own further review.]

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