BENEFIT INFLATION CONTROL

Following discussions on benefit inflation controls at its May meeting, the Board directed Staff to draft a legislative proposal for a benefit cap. Staffs' proposal is modeled after OPERS' Contribution Based Benefit Cap (CBBC) statute. The reasons for this approach include the following considerations: traditionally SERS, OPERS and STRS statutes have had a high degree of uniformity, the General Assembly is familiar with the OPERS statute, and the CBBC approach is objective and fair.

The key provision of legislation will be the formula for calculating the benefit cap.

- The Retirement Board determines a factor.
  - The factor will be a number that reflects the Board's determination of how much greater a member's formula benefit can be from a single life annuity that is the actuarial equivalent of the employee's contributions. ("annuity").
- When a member applies to retire the system calculates the member's capped benefit by multiplying the factor by the annuity.
- The member's capped benefit is compared to the member's formula benefit.
- If the member's formula benefit is greater than the member's capped benefit, the member's actual retirement allowance will be the capped benefit.

Other provisions for consideration:

- Conversion retirees (recipients of new disability who age off of disability and convert to a service retirement.)
  - OPERS does not apply the benefit cap to conversion retirees whose allowance is calculated using the years of service credit and years on disability but capped at 45% of their FAS (SERS' parallel calculation is set forth in R.C. 3309.381(B)(1)(b)).
  - Staff recommends that SERS seek a comparable provision.
    - Maintains uniformity
    - Due to the fact that the calculation involves years of service with no associated contributions the CBBC factor of this subcategory of retirees can be expected to be high. Imposing the benefit cap on a statutory benefit whose CBBC factor trends high due to the calculation's inclusion of years on disability is inconsistent with the intention of the conversion retirement formula.
- Members who received a disability benefit from SERS under the old plan for a period of time and who have now applied for age and service retirement.
  - When a member receives old disability benefits the amounts in their employee account are transferred to the annuity and pension reserve fund. When the disability is terminated, if the amount of the employee's contributions is greater than the amount of disability benefits paid the balance is transferred back to the employee's account.
  - OPERS' CBBC statute expressly states that any contributions used to fund an old disability benefit are to be counted when valuing the member's accumulated contributions.

    - If the member's employee contributions are not used when calculating their annuity they will have an artificially high CBBC factor.

- Total Contributions
    - The statute will need to address what will be included in the member's total contributions used when calculating the annuity. Either in the statute or by giving the Board the discretion to define by rule.
    - Scenarios that should be considered include purchased and restored service, and transferred service.
- Whether there should be a phased implementation
    - A delayed effectiveness date
    - A percentage cap on how much a formula benefit would be reduced for the first few years.

BENEFIT INFLATION CONTROL

The following Contribution Based Benefit Cap (CBBC) scenarios were developed to demonstrate how the CBBC prevents excessive spiking in a manner that provides a measure of equity. The CBBC benefit calculation does not replicate the Formula Benefit calculation (2.2% of FAS x Years of Service Credit); instead, it uses the following three components to determine the CBBC benefit:

- Accumulated contributions (the amount members paid into the system plus interest);
- Annuity factor: (age-based number that converts the accumulated contributions to an annuity payable over the retiree's expected remaining life); and
- CBBC factor (a figure that reflects the size of the gap between the Formula Benefit and the annuity payable based on the accumulated contributions).

In these scenarios, the CBBC benefit is reflected at a CBBC factor of 5 and 6. Based on the data reviewed, most SERS members have contribution histories that result in a CBBC factor that is less than 4.

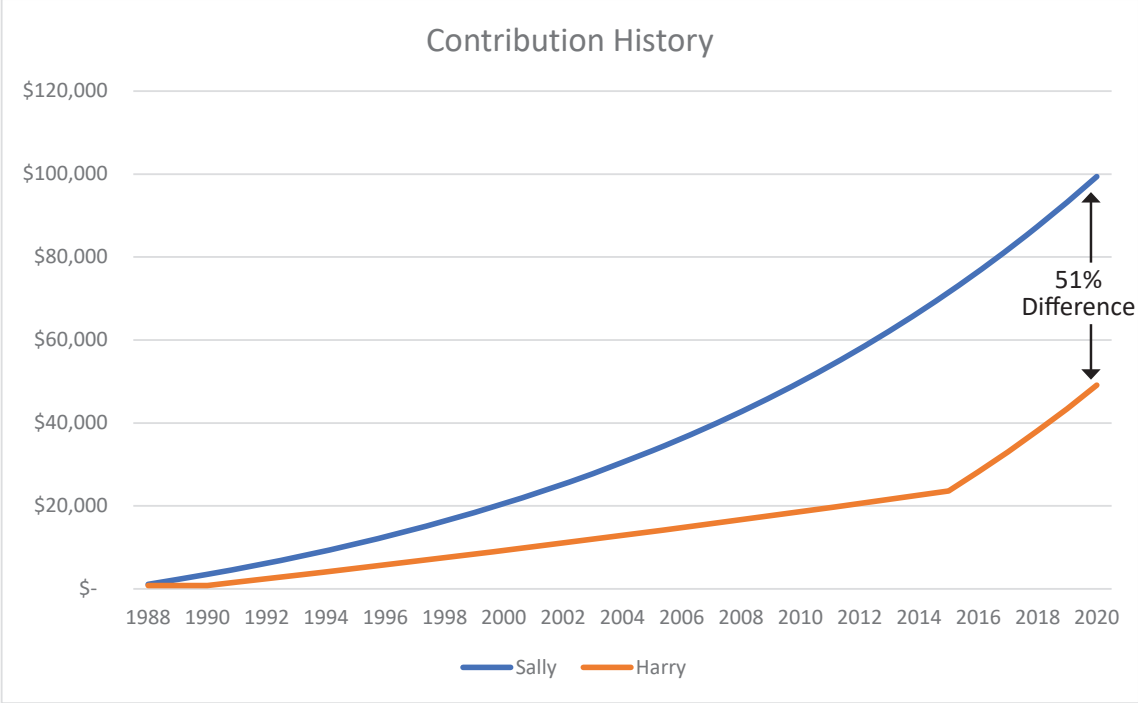
However, as demonstrated below, some members contribute in such a way that their CBBC factor is greater than 5 (i.e., their Formula Benefit is at least 5 times greater than their contribution-based annuity). With a high annuitized contribution to Formula Benefit ratio, it is the system that subsidizes the Formula Benefits for these members since contributions and investment returns may not adequately fund their benefit. The higher a member's CBBC factor, the greater the likelihood and extent of subsidization by SERS. The CBBC serves as a limit on how much the System will tolerate as to an individual Formula Benefit.

Of great importance is the CBBC factor the Board decides to use – a CBBC factor that is too low may capture too many members, while a CBBC that is too high may unfairly reward members whose contributions have not adequately funded their Formula Benefit. The Board will need to decide where the equity line should be drawn.

CBBC Scenarios

Scenario A

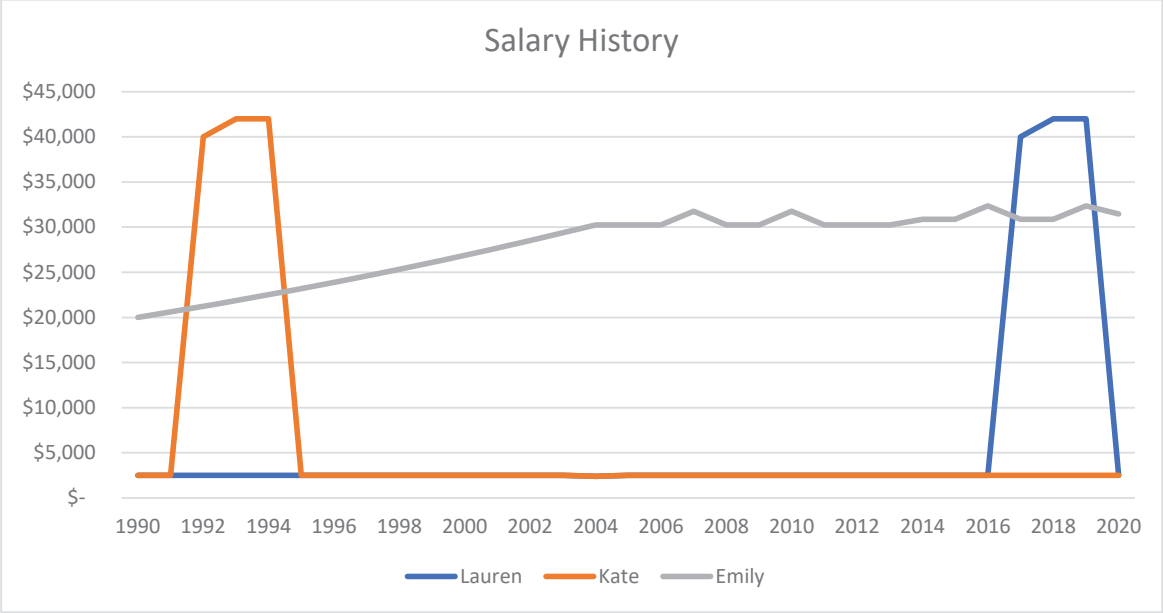

Salary History
$60,000.0
$50,000.0
$40,000.0
$30,000.0
$20,000.0
$10,000.0
$-
1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020
Sally
Harry


Contribution History
$120,000
$100,000
$80,000
$60,000
$40,000
$20,000
$-
1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020
51%
Difference
Sally
Harry

	Sally	Harry
Scenario	5% annual increase	No annual increase plus 35K five years prior to retirement
Age	62	62
Years of Service Credit	32	32
3-Yr FAS	$ 49,958	$ 49,958
Accumulated Contributions	$ 99,399	$ 49,121
Formula Benefit	$ 35,170	$ 35,170
CBBC Cap - 5	**$ 44,833**	**$ 22,156**
CBBC Cap - 6	**$ 53,800**	**$ 26,587**

This scenario reflects two members who are the same age, the same years of service, the same final average salary, and the same formula benefit. However, the earnings history results in Sally having 51% more accumulated contributions.

Scenario B

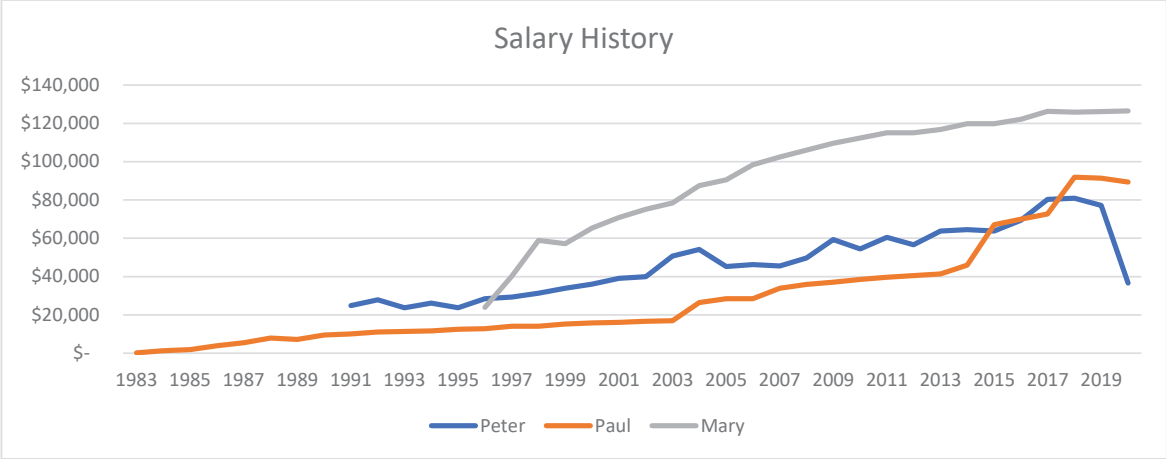


	Lauren	Kate	Emily
Age	65	65	65
Years of Service Credit	30	30	30
3-Yr FAS	$ 41,333	$ 41,333	$ 32,063
Accumulated Contributions	$ 20,907	$ 24,263	$ 99,929
Formula Benefit	$ 27,280	$ 27,280	$ 21,161
CBBC Cap - 5	**$ 10,093**	**$ 11,713**	**$ 48,242**
CBBC Cap - 6	**$ 12,112**	**$ 14,056**	**$ 57,890**

In this scenario, we have three members of the same age and same length of service. Lauren and Kate have the same Final Average Salary based on their earnings history. However, Kate's highest years of service occur early in her career versus Lauren's which occur in the last years of service. Because Kate's highest contribution years are earlier, her total accumulated contributions are higher as more interest accumulates on those contributions. As a reminder, accumulated contributions are a component in the calculation of an annuity for purposes of the CBBC.

Emily's career reflects steady increases of 3% for the first half of her career. The second half of her career reflects years of no increase with occasional lump sum payments in lieu of an annual increase.

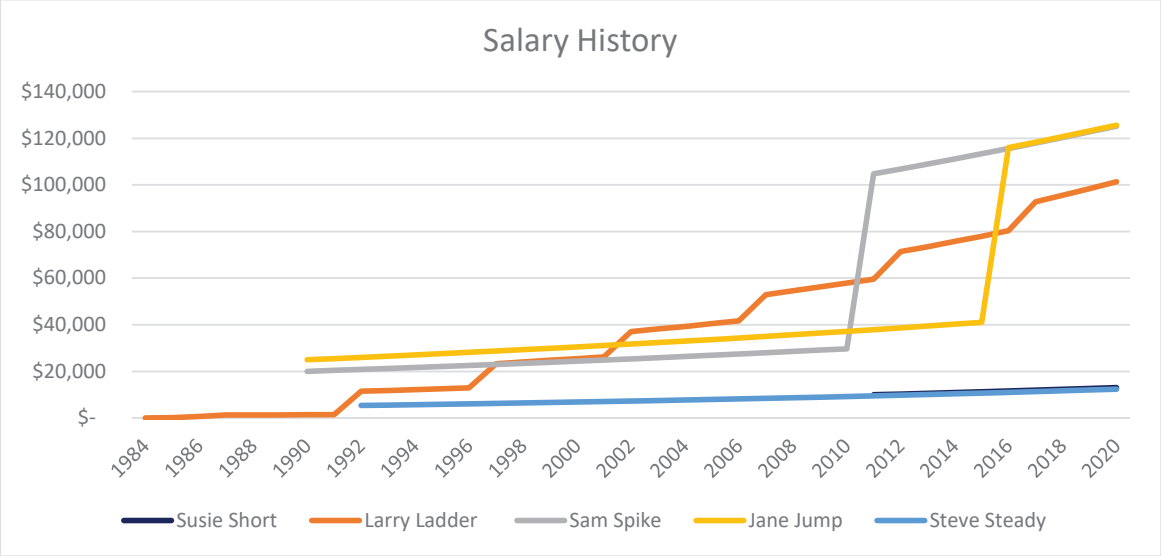
Scenario C



	Peter	Paul	Mary
Age	60	60	60
Years of Service Credit	30	30	25
3-Yr FAS	$ 79,451	$ 90,848	$ 126,180
Accumulated Contributions	$ 160,549	$ 120,732	$ 264,446
Formula Benefit	$ 52,438	$ 59,960	$ 69,399
CBBC Cap - 5	**$ 70,168**	**$ 53,131**	**$ 116,513**
CBBC Cap - 6	**$ 84,202**	**$ 63,757**	**$ 139,815**

In this scenario, we have three members of the same age with various years of service. Peter's salary history reflects a 30-year career with varying changes in salary including periods of steady increases, no increases, various bonuses, and above market salary increases. Paul's salary history reflects a 38-year career with part-time service in the early part of his career, transition to full-time years of service and larger salary increases in the last part of his career. Mary's career, while shorter, reflects steady salary increases.

Scenario D



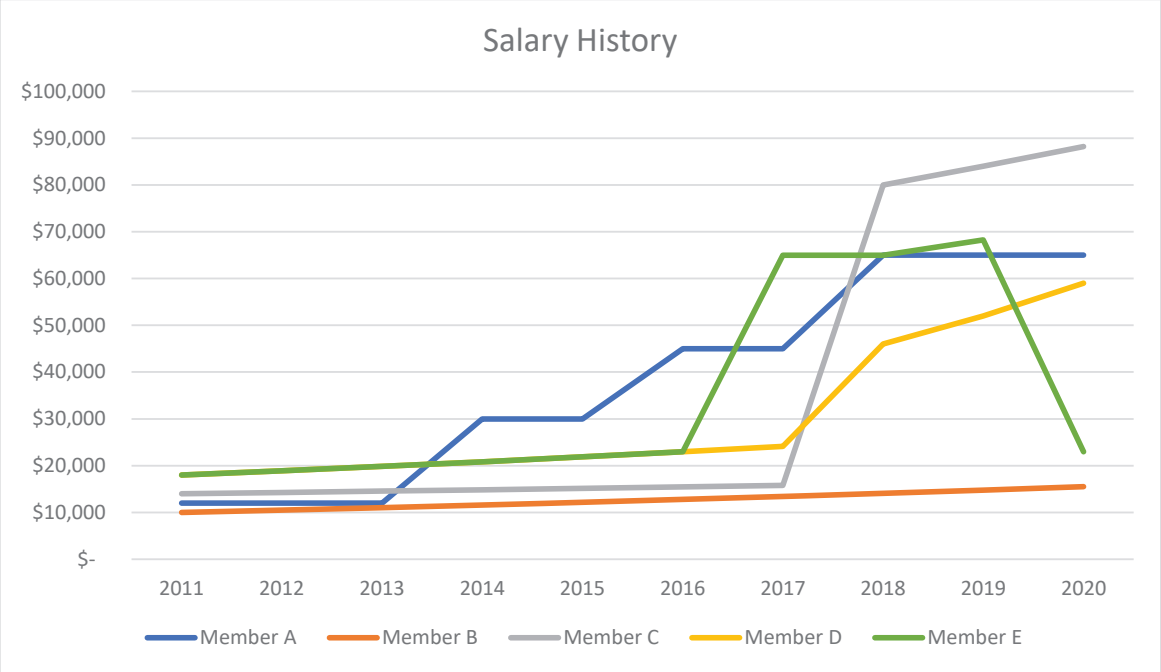
	Susie Short	Larry Ladder	Sam Spike	Jane Jump	Steve Steady
Scenario	3% annual increase	3% annual increase plus 10K every five years	2% annual increase plus 75K increase 10 years prior to retirement	2% annual increase plus 75K five years prior to retirement	3% annual increase
Age	67	67	67	67	67
Years of Service Credit	10	31	30	30	28
3-Yr FAS	$ 12,671	$ 98,413	$ 122,711	$ 123,132	$ 11,998
Accumulated Contributions	$ 11,976	$ 158,175	$ 182,379	$ 160,987	$ 27,603
Formula Benefit	$ 2,788	$ 67,117	$ 80,189	$ 81,267	$ 7,391
CBBC Cap - 5	**$ 5,992**	**$ 79,146**	**$ 91,257**	**$ 80,544**	**$ 13,812**
CBBC Cap - 6	**$ 7,191**	**$ 94,976**	**$ 109,509**	**$ 96,652**	**$ 16,574**

Scenario E

	Max
Age	65
Years of Service Credit	20
3-Yr FAS	$255,000
Accumulated Contributions	$ 119,684
Formula Benefit	$ 112,200
CBBC Cap - 5	**$ 57,779**
CBBC Cap - 6	**$ 69,335**

Max contributes on a salary in the low to mid-20's his first seventeen years of service, but Max's salary increases drastically during his last three years of service to over a quarter-million dollars. This results in a Formula Benefit for Max that nearly exceeds his accumulated contributions in one year. The CBBC ensures Max's benefit is more consistent with his earnings history.

Scenario F



	Member A	Member B	Member C	Member D	Member E
Scenario	Above market increase every 2-3 years	5% annual increase	2% annual increase with $65K jump 3 years prior to retirement	5% annual increase with $22K increase 3 years prior to retirement	5% annual increase with $43K increase in 2nd half of career
Age	65	65	65	65	65
Years of Service Credit	10	10	10	10	10
3-Yr FAS	$ 65,000	$ 14,786	$ 84,067	$ 52,333	$ 66,083
Accumulated Contributions	$ 39,630	$ 13,227	$ 36,856	$ 31,669	$ 35,566
Formula Benefit	$ 14,300	$ 3,253	$ 18,495	$ 11,513	$ 14,538
CBBC Cap - 5	**$ 19,132**	**$ 6,385**	**$ 17,793**	**$ 15,288**	**$ 17,170**
CBBC Cap - 6	**$ 22,958**	**$ 7,663**	**$ 21,351**	**$ 18,346**	**$ 20,604**

PENSION SUSTAINABILITY

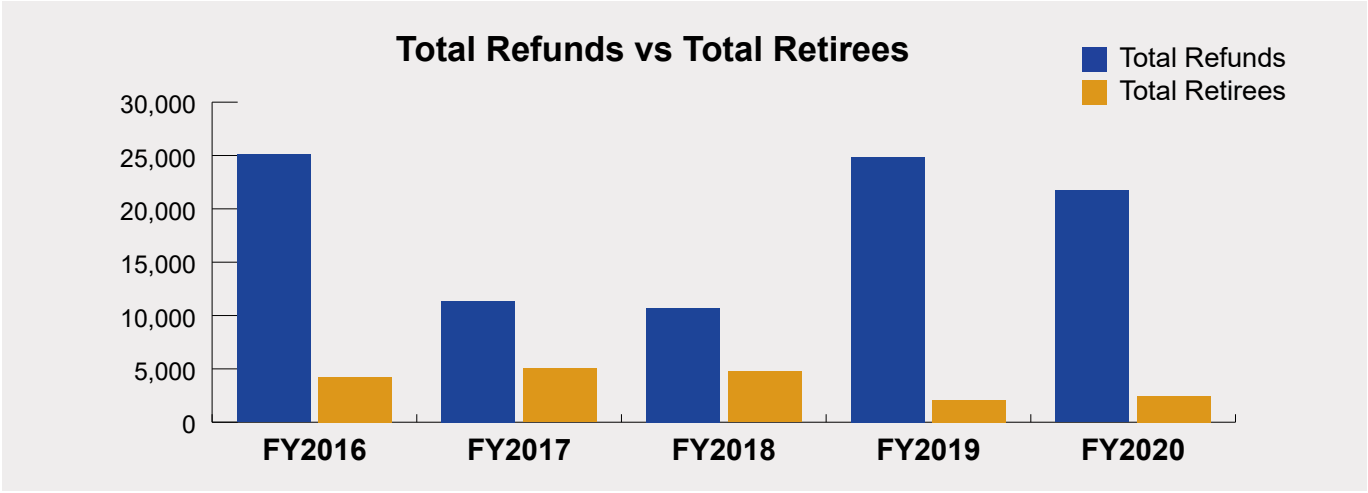
Comparison of Refunds vs. Service Retirees

Refunds

FY	Total Refunds	Refunded with 10 years of service or more	Avg. Year of Service
2016	25,085	494	1.560
2017	11,371	499	2.467
2018	10,686	485	2.427
2019	24,855	545	1.607
2020	21,717	498	1.693

Service Retirees

FY	Total Retirees	Retired with 10–14 years
2016	4,233	494
2017	5,010	499
2018	4,771	485
2019	2,069	545
2020	2,478	498



Ratio of Refunded Members to Service Retirees

FY2016	FY2017	FY2018	FY2019*	FY2020*
5.93:1	2.27:1	2.24:1	12.01:1	8.76:1

*The increase in these reflects expansion of Required Minimum Distribution mailings to inactive members.

FORMULA FACTORS

Multiplier Examples

All examples provided are prospective and would not apply to existing benefit recipients.

REVISED BENEFIT FORMULAS

(Fixed Formula for Years of Service)

30 Years of Service						
	FAS $	2.2%	2.1%	% Change	2.0%	% Change
Retiree A	30,000	19,800	18,900	-4.5%	18,000	-9.1%
Retiree B	50,000	33,000	31,500		30,000	
Retiree C	75,000	49,500	47,250		45,000	
Retiree D	100,000	66,000	63,000		60,000	

2.2% Replacement Ratio

2.1% Replacement Ratio

2.0% Replacement Ratio

25 Years of Service						
	FAS $	2.2%	2.1%	% Change	2.0%	% Change
Retiree A	30,000	16,500	15,750	-4.5%	15,000	-9.1%
Retiree B	50,000	27,500	26,250		25,000	
Retiree C	75,000	41,250	39,375		37,500	
Retiree D	100,000	55,000	52,500		50,000	

2.2% Replacement Ratio

2.1% Replacement Ratio

2.0% Replacement Ratio

20 Years of Service						
	FAS $	2.2%	2.1%	% Change	2.0%	% Change
Retiree A	30,000	13,200	12,600	-4.5%	12,000	-9.1%
Retiree B	50,000	22,000	21,000		20,000	
Retiree C	75,000	33,000	31,500		30,000	
Retiree D	100,000	44,000	42,000		40,000	

2.2% Replacement Ratio

2.1% Replacement Ratio

2.0% Replacement Ratio

LADDERED CALCULATION FORMULA

(A different formula factor used for years of service grouped in tiers, with later years of service having a higher factor, and added together at retirement)

30 Years of Service					
FAS $		**30,000**	**50,000**	**75,000**	**100,000**
Year 1 - 10	**1.9%**	5,700	9,500	14,250	19,000
Year 11 - 20	**2.0%**	6,000	10,000	15,000	20,000
Year 21 - 25	**2.1%**	3,150	5,250	7,875	10,500
Year 26 - 30	**2.2%**	3,300	5,500	8,250	11,000
Year 30+	**2.3%**	-	-	-	-
With Laddered No Bump Formula		18,150	30,250	45,375	60,500
With Current 2.2% Formula		19,800	33,000	49,500	66,000

Change in Benefit Amount

Ladder Replacement Ratio

VS.

2.2% Replacement Ratio

25 Years of Service					
FAS $		**30,000**	**50,000**	**75,000**	**100,000**
Year 1 - 10	**1.9%**	5,700	9,500	14,250	19,000
Year 11 - 20	**2.0%**	6,000	10,000	15,000	20,000
Year 21 - 25	**2.1%**	3,150	5,250	7,875	10,500
Year 26 - 30	**2.2%**	-	-	-	-
Year 30+	**2.3%**	-	-	-	-
With Laddered No Bump Formula		14,850	24,750	37,125	49,500
With Current 2.2% Formula		16,500	27,500	41,250	55,000

Change in Benefit Amount

Ladder Replacement Ratio

VS.

2.2% Replacement Ratio

20 Years of Service					
FAS $		**30,000**	**50,000**	**75,000**	**100,000**
Year 1 - 10	**1.9%**	5,700	9,500	14,250	19,000
Year 11 - 20	**2.0%**	6,000	10,000	15,000	20,000
Year 21 - 25	**2.1%**	-	-	-	-
Year 26 - 30	**2.2%**	-	-	-	-
Year 30+	**2.3%**	-	-	-	-
With Laddered No Bump Formula		11,700	19,500	29,250	39,000
With Current 2.2% Formula		13,200	22,000	33,000	44,000

Change in Benefit Amount

Ladder Replacement Ratio

VS.

2.2% Replacement Ratio

LADDERED CALCULATION FORMULA

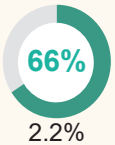
(A different formula factor used for year of service grouped in tiers, with later years of service having a higher factor, but all previous YOS are calculated on highest tier reached)

30 Years of Service					
FAS $		**30,000**	**50,000**	**75,000**	**100,000**
Year 1 - 10	**1.9%**	5,700	9,500	14,250	19,000
Year 11 - 15	**2.0%**	3,000	5,000	7,500	10,000
Year 16 - 20	**2.1%**	3,150	5,250	7,875	10,500
Year 21 - 30	**2.2%**	6,600	11,000	16,500	22,000
Year 31+	**2.3%**	-	-	-	-
With Laddered No Bump Formula		18,450	30,750	46,125	61,500
With Current 2.2% Formula		19,800	33,000	49,500	66,000

Change in Benefit Amount

Ladder Replacement Ratio

VS.



2.2% Replacement Ratio

25 Years of Service					
FAS $		**30,000**	**50,000**	**75,000**	**100,000**
Year 1 - 10	**1.9%**	5,700	9,500	14,250	19,000
Year 11 - 15	**2.0%**	3,000	5,000	7,500	10,000
Year 16 - 20	**2.1%**	3,150	5,250	7,875	10,500
Year 21 - 30	**2.2%**	3,300	5,500	8,250	11,000
Year 31+	**2.3%**	-	-	-	-
With Laddered No Bump Formula		15,150	25,250	37,875	50,500
With Current 2.2% Formula		16,500	27,500	41,250	55,000

Change in Benefit Amount

Ladder Replacement Ratio

VS.

2.2% Replacement Ratio

20 Years of Service					
FAS $		**30,000**	**50,000**	**75,000**	**100,000**
Year 1 - 10	**1.9%**	5,700	9,500	14,250	19,000
Year 11 - 15	**2.0%**	3,000	5,000	7,500	10,000
Year 16 - 20	**2.1%**	3,150	5,250	7,875	10,500
Year 21 - 30	**2.2%**	-	-	-	-
Year 31+	**2.3%**	-	-	-	-
With Laddered No Bump Formula		11,850	19,750	29,625	39,500
With Current 2.2% Formula		13,200	22,000	33,000	44,000

Change in Benefit Amount

Ladder Replacement Ratio

VS.

2.2% Replacement Ratio

LADDERED CALCULATION FORMULA

With Service Years Bump (Option 1)

A different formula factor used for years of service grouped in tiers, with later years of service having a higher factor, but all previous years of service are calculated on highest tier reached.

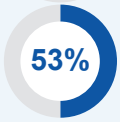
25 Years of Service		No Bump	W/Bump
FAS $		**50,000**	**50,000**
Year 1 - 10	**1.9%**	9,500	-
Year 11 - 20	**2.0%**	10,000	-
Year 21 - 25	**2.1%**	5,250	26,250
Year 26 - 30	**2.2%**	-	-
Year 30+	**2.3%**	-	-
Laddered Formula		24,750	26,250
With Current 2.2% Formula		27,500	27,500

2.2% Replacement Ratio **VS.**

Change in Benefit Amount

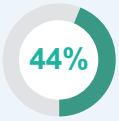
Ladder W/No Bump Replacement Ratio

Change in Benefit Amount

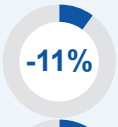


Ladder Replacement Ratio

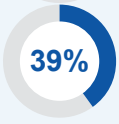
20 Years of Service		No Bump	W/Bump
FAS $		**50,000**	**50,000**
Year 1 - 10	**1.9%**	9,500	-
Year 11 - 20	**2.0%**	10,000	20,000
Year 21 - 25	**2.1%**	-	-
Year 26 - 30	**2.2%**	-	-
Year 30+	**2.3%**	-	-
Laddered Formula		19,500	20,000
With Current 2.2% Formula		22,000	22,000



2.2% Replacement Ratio **VS.**



Change in Benefit Amount

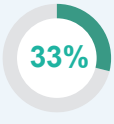


Ladder W/No Bump Replacement Ratio

Change in Benefit Amount

Ladder Replacement Ratio

15 Years of Service		No Bump	W/Bump
FAS $		**50,000**	**50,000**
Year 1 - 10	**1.9%**	9,500	-
Year 11 - 20	**2.0%**	5,000	15,000
Year 21 - 25	**2.1%**	-	-
Year 26 - 30	**2.2%**	-	-
Year 30+	**2.3%**	-	-
Laddered Formula		14,500	15,000
With Current 2.2% Formula		16,500	16,500



2.2% Replacement Ratio **VS.**

Change in Benefit Amount

Ladder W/No Bump Replacement Ratio

Change in Benefit Amount

Ladder Replacement Ratio

LADDERED CALCULATION FORMULA

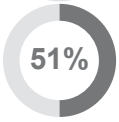
With Service Years Bump (Option 2)

A different formula factor used for years of service grouped in tiers, with later years of service having a higher factor, but all previous years of service are calculated on highest tier reached.

25 Years of Service		No Bump	W/Bump
FAS $		**50,000**	**50,000**
Year 1 - 10	**1.9%**	9,500	-
Year 11 - 15	**2.0%**	5,000	-
Year 16 - 20	**2.1%**	5,250	-
Year 21 - 30	**2.2%**	5,500	26,250
Year 31+	**2.3%**	-	-
Laddered Formula		25,250	26,250
With Current 2.2% Formula		27,500	27,500

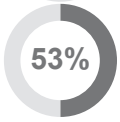
2.2% Replacement Ratio **VS.**

Change in Benefit Amount



Ladder W/No Bump Replacement Ratio

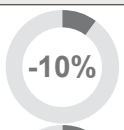
Change in Benefit Amount



Ladder Replacement Ratio

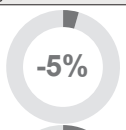
20 Years of Service		No Bump	W/Bump
FAS $		**50,000**	**50,000**
Year 1 - 10	**1.9%**	9,500	-
Year 11 - 15	**2.0%**	5,000	-
Year 16 - 20	**2.1%**	5,250	21,000
Year 21 - 30	**2.2%**	-	-
Year 31+	**2.3%**	-	-
Laddered Formula		19,750	21,000
With Current 2.2% Formula		22,000	22,000

2.2% Replacement Ratio **VS.**

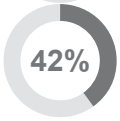


Change in Benefit Amount

Ladder W/No Bump Replacement Ratio



Change in Benefit Amount



Ladder Replacement Ratio

15 Years of Service		No Bump	W/Bump
FAS $		**50,000**	**50,000**
Year 1 - 10	**1.9%**	9,500	-
Year 11 - 15	**2.0%**	5,000	15,000
Year 16 - 20	**2.1%**	-	-
Year 21 - 30	**2.2%**	-	-
Year 31+	**2.3%**	-	-
Laddered Formula		14,500	15,000
With Current 2.2% Formula		16,500	16,500

2.2% Replacement Ratio **VS.**

Change in Benefit Amount

Ladder W/No Bump Replacement Ratio

Change in Benefit Amount

Ladder Replacement Ratio