## Calculation Process for Full Cost Past Service

Step 1 - Using age at hire and plan provisions, calculate the normal retirement age both with and without the additional service.

Example: Hired at age 30, plan retirement at 25 years of service would mean that without additional service, normal retirement is at age 55. If purchasing 3 years of service then the retirement age is reduced to age 52 .

Step 2 - Project the years of service as of that retirement age.
Example: In both cases in the first example, the member will have 25 years of service at retirement.

Step 3 - Project salary from purchase date to retirement age, using the $2.25 \%$ annual growth assumption.
Example: If salary as of the purchase date is $\$ 100,000$ and the member is age 40 as of the purchase date then the projected salary at the first retirement age of 55 would be $\$ 139,621$ ( $\$ 100,000 \times 1.0225^{\wedge} 15$ ). After purchase of 3 years of service the projected retirement age is 52 and projected salary at that time would be $\$ 130,605$ ( $\$ 100,000 \times 1.0225^{\wedge} 12$ ).

Step 4 - Translate the salary at retirement into an estimated final average salary.
Example: Using the $2.25 \%$ salary growth factor, the final 3 -year average would be equal to 0.9782 and so the final average salary at age 55 would be $\$ 136,571(\$ 139,621 \times 0.9782)$. The final average salary at age 52 would be $\$ 127,752$ ( $\$ 130,605 \times 0.9782$ ).

Step 5 - Calculate the benefit payable at both of the projected retirement ages, using the appropriate plan provisions for the System under which the purchase is being made.

Example: If member is participating under Police Plan B the benefit is equal to $2.8 \% \mathrm{x}$ final average salary x years of service $\times 1.03$. So for the age 55 retirement date the benefit would be $\$ 98,468(\$ 136,571 \times 2.8 \% \times 25 \times 1.03)$ and for the age 52 retirement date the benefit would be $\$ 92,109$ ( $\$ 127,752 \times 2.8 \% \times 25 \times 1.03$ ).

Step 6 - Apply the appropriate present value factor to the projected benefits at each retirement age.
Example: For the no service purchase calculation the present value factor at age 40, for retirement at age 55 is 5.7398 . The present value before purchase is therefore $\$ 565,216(\$ 98,468 \times 5.7398)$. After receiving 3 years of service the present value factor at age 40 , for a retirement age of 52 is 7.3682 and so the present value has increased to $\$ 678,712$ ( $\$ 92,109 \times 7.3682$ )

Step 7 - The cost to provide the additional service is the difference between the two present value amounts.

Example: The cost of providing 3 years of service to a member of the Police Plan B who is age 40 at the purchase, has 10 years of service and is earning $\$ 100,000$ in salary would be $\$ 113,496$ (\$678,712-\$565,216).

## URS Supplemental Benefits

URS plan pays supplemental benefits in addition to the base benefits. Depending on the plan the supplement is either $0.2 \%$ or $0.3 \%$ times the lesser of final average salary or the Social Security Covered Compensation amount, times years of service. The benefit is paid (without COLA) from retirement through the member's Social Security Normal Retirement Age (SSNRA). This age varies in accordance with the member's date of birth. For a member who is currently age 40 , the SSNRA is age 67 . The SSCC amount for 2024 for someone born in 1984 is $\$ 162,768$. This amount is also projected with $2.25 \%$ growth to future retirement dates.

A URS Plan D member purchasing 3-years of military service at age 40, who has 10 years of service and a salary of $\$ 100,000$ the calculation of the supplemental benefit cost (in addition to the base benefit cost) would be to follow steps 5-7 above, but using the supplemental factors instead of the base plan retirement factors (which include COLA and assume the benefit is payable for life).

Step 5(S) - Calculate the amount of supplement payable at both of the projected retirement ages, using the appropriate plan provisions for the System under which the purchase is being made.

Example: If member is participating under Uniformed Plan D the supplement is equal to $0.3 \% \mathrm{x}$ final average salary x years of service x 1.03 . So for the age 55 retirement date the benefit would be $\$ 10,550(\$ 136,571 \times 0.3 \% \times 25 \times 1.03)$ and for the age 52 retirement date the benefit would be $\$ 9,869(\$ 127,752 \times 0.3 \% \times 25 \times 1.03)$.

Step 6(S) - Apply the appropriate present value factor for supplements to the projected benefits at each retirement age.

Example: For the no service purchase calculation the present value factor as of age 40 of a supplement payable from age 55 to age 67 with no COLA is 2.9797 . The present value before purchase is therefore $\$ 31,436(\$ 10,550 \times 2.9797)$. After receiving 3 years of service the present value factor at age 40 , for a supplement from retirement age of 52 to SSNRA of 67 is 4.2026 and so the present value has increased to $\$ 41,475$ ( $\$ 9,869 \times 4.2026$ )

Step 7(S) - The cost to provide the additional service is the difference between the two present value amounts.

Example: The cost impact on the supplemental benefit of providing 3 years of service to a member of the Uniformed Plan D who is age 40 at the purchase, has 10 years of service and is earning $\$ 100,000$ in salary would be $\$ 10,039(\$ 41,475-\$ 31,436)$.

Note that for this member the cost impact of the Base Benefit would be an additional \$101,336 (calculated similar to the Police Plan C member above but suing the Uniformed Plan D multiplier of 2.5\% instead of $2.8 \%$ ) for a total cost of $\$ 111,375(\$ 101,336+\$ 10,039)$.

Plan provision grid:

| Plan | PORS A\&B | PORS C | URS B | URS D | URS E | URS F |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hired before |  |  |  |  |  |  |  | $7 / 1 / 19$ | N/A | $4 / 1 / 98$ | $1 / 1 / 13$ | $7 / 1 / 19$ | N/A |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Service only | 25 | 25 | 25 | 25 | 25 | 25 |  |  |  |  |  |  |  |
| Age and Service | $55 / 5$ | $55 / 5$ | $55 / 5$ | $55 / 5$ | $55 / 5$ | $55 / 5$ |  |  |  |  |  |  |  |
| Benefit Provisions |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Multiplier | $2.8 \%$ | $2.8 \%$ | $2.0 \%$ | $2.5 \%$ | $2.5 \%$ | $2.5 \%$ |  |  |  |  |  |  |  |
| Sick Leave | Uncaped/Capped | Capped | Uncapped | Uncapped | Capped | Capped |  |  |  |  |  |  |  |
| 3\% Increase | Yes | No | Yes | Yes | Yes | No |  |  |  |  |  |  |  |
| Per YOS <br> Supplement | None | None | $0.2 \%$ | $0.3 \%$ | $0.3 \%$ | None |  |  |  |  |  |  |  |
| PIA related <br> Supplement | None | None | Yes | None | None | None |  |  |  |  |  |  |  |

Note that the URS per year of service supplement factor is applied to the lesser of the final average salary or the Social Security Covered Compensation amount for the year of retirement.

