Office of the State Actuary
"Supporting financial security for generations."

December 6, 2019

Mr. Jacob.White
Senior Research and Policy Manager
LEOFF Plan 2 Retirement Board
P.O. Box 40918
Olympia, Washington 98504-0918

SUBJECT: Interruptive Military Service

Dear Jacob:

As requested, we analyzed the potential impact to the Law Enforcement Officers' and Fire Fighters' (LEOFF) Plan 2 of modifying the pension benefits related to interruptive military service. At a high-level, it's our understanding that this benefit improvement redefines current law to include all past and future military conflicts defined by the United States Department of Defense such that members receive no-cost retirement service credit if they earn a campaign or expeditionary medal.

Also at your direction, we separately identified the estimated costs associated with the three numbered components of this proposal as outlined below. Please note that (a) this actuarial analysis is based on our understanding of the proposal discussed with you in person and via email, and (b) our office has not received or reviewed any draft bill language. Upon receipt of the final bill language and after we clarify the Department of Retirement Systems' (DRS) administrative interpretation, we anticipate the results of our actuarial fiscal note will likely vary from the analysis presented in this letter.

As a result, this analysis is intended to be used by the LEOFF 2 Board during the 2019 Interim only. If you have interest in pursuing a form of this proposal next legislative session, we will prepare a formal actuarial fiscal note including sensitivity and risk analysis based upon that bill language. The results shared in that communication may vary from those presented in this estimate.

One contextual item I wanted to share up front is that we don't currently have a demographic assumption related to interruptive military service credit as it exists under current law. From our preliminary *2013-18 Demographic Experience Study Report* (DEXTER), "we assume most of the free interruptive service that is granted for the named conflicts is already reflected in our census data." In essence, this means we don't have a prospective expectation that service will be granted for ongoing military conflicts, nor do we anticipate any retroactive service will be applied.

PO Box 40914 | Olympia, Washington 98504-0914 | state.actuary@leg.wa.gov | leg.wa.gov/osa
Phone: 360.786.6140 | Fax: 360.586.8135 | TDD: 711

Actuarial Results

1) Reimburse Past Member Contributions Related To Military Service Credit

We relied on data from DRS which as of June 2019 indicated LEOFF 2 members have paid approximately $0.23 million in past payments to receive partially subsidized military service credit. Because we cannot distinguish which of these members has the required medal under the proposal, we've provided the impact of reimbursing all members who paid for the partially subsidized credit. The actual costs may be less if some members are determined to not be eligible under this proposal.

In reimbursing these contributions, this component of the proposal would reduce plan assets and correspondingly increase the normal cost rate under the aggregate funding method as follows.

Impact on Contribution Rates	
System/Plan	**LEOFF 2**
Current Members	
Employee	0.0005%
Employer	0.0003%
State	0.0002%

In isolation, this does not result in a supplemental contribution rate in the first biennium. However, we have quantified the expected budget impact over the next 25 years as outlined in the table below.

Budget Impacts	
(Dollars in Millions)	**25-Year**
Total Employee	**$0.2**
General Fund-State	0.1
Local Government	0.1
Total Employer	**$0.2**

2) Provide No-Cost Military Service Credit On A Prospective Basis To Eligible Members

To estimate the impact of this benefit, we reviewed recent historical data from DRS on interruptive military service credit granted as both no-cost and partially subsidized. In total over the last eight years (2011-18), we're observing on average 0.8 years of service per member who received credit (recall that the total amount of military service credit that can be granted is limited to five years). For illustration purposes only, we assumed roughly this level of service credit would continue into the future.

We used this data to establish a load that we applied to the active employee annuity-based benefits in our valuation model. The load was estimated by taking (1) the portion of the population that applied for interruptive military service credit each year, times the ratio of

(2) average years of service granted per year per impacted member, divided by (3) average total years of service for current retirees.

1. 0.2 percent of actives impacted per year (= a / b).
    a. 36 people on average applied for interruptive military service credit.
    b. 17,100 active members on average during 8 year period.
2. 0.8 years of service granted per year per impacted member on average.
3. 23 years of service for current retirees on average.

On a yearly basis, the historical load ranged from 0.004 percent to 0.011 percent for LEOFF 2. We also reviewed data provided by the State's Human Resource Management System (HRMS) which showed slightly higher loads for the Public Employees' Retirement System Plan 2 when compared to the DRS data; on average 0.0020 percent for HRMS vs. 0.0018 percent for DRS over the same time period. This suggests a slightly higher assumption than what we're observing in the DRS data for LEOFF 2 may be reasonable. However, we decided we could not completely rely on the HRMS data because it appears the reported hours/days could include any form of military service leave (including national guard duty, etc.), some of which may not qualify for retirement service credit.

Given the level of uncertainty in future no-cost military service credit for eligible LEOFF 2 members, we selected a load assumption of 0.010 percent for purposes of this illustration. The assumption we chose for this estimate may not match the best estimate assumption we ultimately use as part of an actuarial fiscal note next legislative session.

After running our valuation model, we estimate that the present value of future benefits (i.e., the liabilities) would increase by approximately $1.0 million. The accrued liability would also increase by $0.7 million, which would reduce the funded status by less than 0.1 percent.

In providing this no-cost military service credit prospectively, this component of the proposal would increase plan liabilities and correspondingly increase the normal cost rate under the aggregate and entry age funding methods as follows.

Impact on Contribution Rates	
System/Plan	**LEOFF 2**
Current Members	
Employee	0.0023%
Employer	0.0014%
State	0.0009%
Future Entrants*	
Employee	0.0008%
Employer	0.0005%
State	0.0003%

**Rate change applied to future new entrant payroll and used to determine budget impacts only. Current members and new entrants pay the same contribution rate.*

By itself, this does not result in a supplemental contribution rate in the first biennium. However, we have quantified the expected budget impact over the next 25 years as outlined in the table below.

Budget Impacts	
(Dollars in Millions)	**25-Year**
Total Employee	**$1.3**
General Fund-State	0.5
Local Government	0.8
Total Employer	**$1.3**

The actual amount of no-cost interruptive military service credit granted in the future is heavily dependent on the levels of troop engagement in unknown conflicts down the road, and potential medals created for these conflicts. As a result, the cost of this proposal could be significantly higher (or lower) than assumed. For context, we anticipate the annual amount of no-cost military service credit would have to at least double the assumption we used in order to impact rounded contribution rates in LEOFF 2.

3) Provide No Cost Military Service Credit On A Retroactive Basis

We anticipate the actual costs for this component of the proposal will emerge from members who performed military service in the past, but chose not to pay for the partially subsidized service credit. Unfortunately, we're not aware of a data source that can reliably quantify how many people might be in this position.

As a result, the cost associated with this aspect of the proposal is indeterminate. That said, considering our comments related to the preliminary DEXTER as noted above, we anticipate these retroactive costs could be fairly limited. Compared to the prospective component of this pricing, we expect the cost of this retroactive benefit will be smaller overall.

Disclosures

We believe the data supplied by DRS is appropriate for the purposes of this pricing; while we did not audit the data, we found it to be reasonable. We assumed an effective date of July 1, 2020, for this proposal when preparing this analysis.

Unless otherwise noted above, we used the same data, assets, assumptions, and methods as disclosed in our *June 30, 2018, Actuarial Valuation Report*. We performed this analysis consistent with the Actuarial Standards of Practice. The undersigned meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Please let us know if we can be of any further assistance.

Best Regards,

Michael Harbour

Michael T. Harbour, ASA, MAAA
Actuary

cc: Steve Nelson, Executive Director
LEOFF Plan 2 Retirement Board
Lisa Won, ASA, FCA, MAAA
Deputy State Actuary
Kaitlyn Donahoe, MPA
Associate Policy Analyst
Mitch DeCamp,
Senior Actuarial Analyst

O:\LEOFF 2 Board\2019\2019.Interruptive.Military.Service.Letter.docx