# Office of the State Actuary

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## Actuarial Certification Letter
## Actuarial Valuation Report
## As of June 30, 2018

September 2019

This report documents the results of an actuarial valuation of the retirement plans defined under Chapters 41.26, 41.32, 41.35, 41.37, 41.40, and 43.43 of the Revised Code of Washington. The primary purpose of this valuation is to determine contribution requirements for the retirement plans based on a June 30, 2018, measurement date, consistent with the prescribed funding policies. These contribution requirements are purely informational since, according to state law, this "off-cycle" valuation is not used to determine contribution rates. This valuation also provides information on the funding progress and developments in the plans over the past year. This valuation report should not be used for other purposes. Please replace this report with a more recent report when available.

Future actuarial measurements may differ significantly from the current measurements presented in this report if plan experience differs from that anticipated by the assumptions, or if changes occur in the methods, assumptions, plan provisions, or applicable law. We have not performed analysis of the potential range of such future measurements for the purposes of this valuation. However, we do provide stochastic analysis of possible future outcomes on the Risk Assessment page of our website. We also provide additional risk education on the Commentary on Risk page of our website.

The valuation results summarized in this report involve calculations that require assumptions about future economic and demographic events. We believe that the assumptions and methods used in the underlying valuation are reasonable and appropriate for the primary purpose stated above. However, the use of another set of assumptions and methods could also be reasonable and could produce materially different results. Actual results may vary from our expectations.

For all plans with the exception of the Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF) Plan 2, the assumptions used in this valuation for investment return, inflation, salary growth[1], and membership growth were prescribed by the Pension Funding Council (PFC) and are subject to revision by the Legislature. For LEOFF Plan 2, these assumptions are prescribed by the LEOFF Plan 2 Retirement Board. Please see our *2017 Economic Experience Study* report for further information on economic assumptions. We developed the demographic assumptions used in this valuation during the *2007-2012 Demographic Experience Study*. The Legislature prescribed the actuarial cost and asset valuation methods. In our opinion, all methods, assumptions, and calculations are reasonable and are in conformity with generally accepted actuarial principles and standards of practice as of the date of this publication.

[1]*The PFC did not prescribe the one-year TRS salary growth increase that resulted from higher than expected salary increases provided under collective bargaining agreements adopted in the summer of 2018. OSA selected that assumption based on reviewing salary data collected from DRS and our professional judgment. The actual growth may be more or less than assumed and will be reflected in next year's valuation.*

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The Department of Retirement Systems (DRS) provided us with audited member and beneficiary data. We checked the data for reasonableness as appropriate based on the purpose of the valuation. The Washington State Investment Board (WSIB) and DRS provided audited financial and asset information. We relied on all the information provided as complete and accurate, however we did adjust the LEOFF Plan 2 assets to reflect an expected future transfer to the LEOFF 2 Benefit Improvement Account. In our opinion, this information is adequate and substantially complete for purposes of this valuation.

The asset smoothing method adopted during the 2003 Legislative Session (Chapter 11, Laws of 2003, E1) was intended to address the volatility of contribution rates under the aggregate funding method when used in combination with the existing asset allocation policy of WSIB. The combination of the current asset smoothing method with any other funding method or asset allocation policy may not be appropriate. The Legislature may need to revisit the application of the current asset smoothing method with the Plan 1 funding method as the duration of liabilities in those plans becomes shorter.

Under legislation enacted in 2009 (Chapter 561, Laws of 2009), the Unfunded Actuarial Accrued Liability (UAAL) in the Public Employees' Retirement System (PERS) and the Teachers' Retirement System (TRS) Plans 1 must be amortized over a rolling ten-year period, as a level percentage of projected system payroll. The projected payroll includes pay from current members of PERS and TRS Plans 2/3, as well as projected payroll from future new members. For PERS, the projected payroll also includes current and projected payroll from retirement systems previously covered under PERS. As a result of this method, all employers of PERS, School Employees' Retirement System (SERS), and Public Safety Employees' Retirement System (PSERS) contribute to the PERS 1 UAAL. All employers of TRS contribute to the TRS 1 UAAL. This is a non-standard amortization method since it includes payroll outside the plan. Additionally, the funding method includes minimum contribution rates effective at the beginning of the 2015-17 Biennium. All contributions required under this method are necessary to fully amortize the UAAL in these plans. Failure to make all future required contributions may result in premature plan insolvency.

The Plan 1 funding method for PERS 1 and TRS 1 is also non-standard in its use of the employer normal cost rate from the Plans 2/3 instead of the underlying Plan 1 employer normal cost rate. However, we find this method reasonable and appropriate given the limited remaining future salary in Plan 1 and the relatively short period for amortizing the UAAL. Furthermore, Plan 1 member normal cost rates are fixed in statute at 6 percent and the use of the Plan 2/3 employer normal cost for Plan 1 allows the Legislature to charge all employers the same contribution rate regardless of the plan in which employees hold membership (except for LEOFF).

The undersigned, with actuarial credentials, meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. While this report is intended to be complete, we are available to offer extra advice and explanations as needed.

Sincerely,

Luke Masselink, ASA, EA, MAAA
Senior Actuary

Matthew M. Smith, FCA, EA, MAAA
State Actuary