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November 8, 2022

Luke Masselink, ASA, EA, MAAA
Senior Actuary
Washington Office of the State Actuary
PO Box 40914
Olympia, WA 98504
Sent via email: luke.masselink@leg.wa.gov

Re: Feasibility Analysis – Portable Benefit Designs

Dear Luke:

Per your request, we modeled the impact of offering portable WA Cares Fund benefits to individuals after moving out of Washington to a different state in the US. Per conversations with OSA and DSHS, we modeled portable benefits under two general structures:

1. Portable Benefits with Premium Payments

Portable benefits would be available to individuals who move out of Washington after accumulating one or more years of vesting credits and elect to voluntarily pay a premium to maintain some coverage under WA Cares Fund. We assumed the premium would be equal to the last "in-state" premium assessed (adjusted for wage inflation) and paid until age 67.

2. Prorated, Portable Benefits

Prorated, portable benefits would be available to individuals who move out of Washington after accumulating three or more years of vesting credits. No additional premiums would be collected once individuals leave the state, but their benefit amount would be adjusted subject to the number of years an individual contributed the premium assessment before moving out of state. Per DSHS' request, we modeled a proration schedule where individuals who moved out of the state after three years would have access to 3/30 (or 10%) of the full benefit and only individuals with 30 or more years of contributing would have access to 30/30 (or 100%) of the full benefit.

We prepared the estimates in this letter to assist in evaluating the viability of selecting benefit features for WA Cares Fund. Any estimates around required program revenue are for feasibility purposes only and not intended, and should not be used, for setting the program premium assessment.

RESULTS SUMMARY

Figure 1 provides a high-level summary of the results of the portability alternatives. The starting Base Plan for this letter relies upon the 2022 Base Plan described in our [2022 WA Cares Fund Actuarial Study](#)¹ dated October 20, 2022 (2022 Actuarial Study). The 2022 Actuarial Study contains assumptions related to movement into and out of the state over the projection period to project the Washington State population in each year, but ultimately assumes only individuals living in state are eligible for WA Care Fund benefits. The analysis contained in this letter evaluates alternatives where some individuals who move out of state may be able to maintain some level of WA Cares Fund coverage.

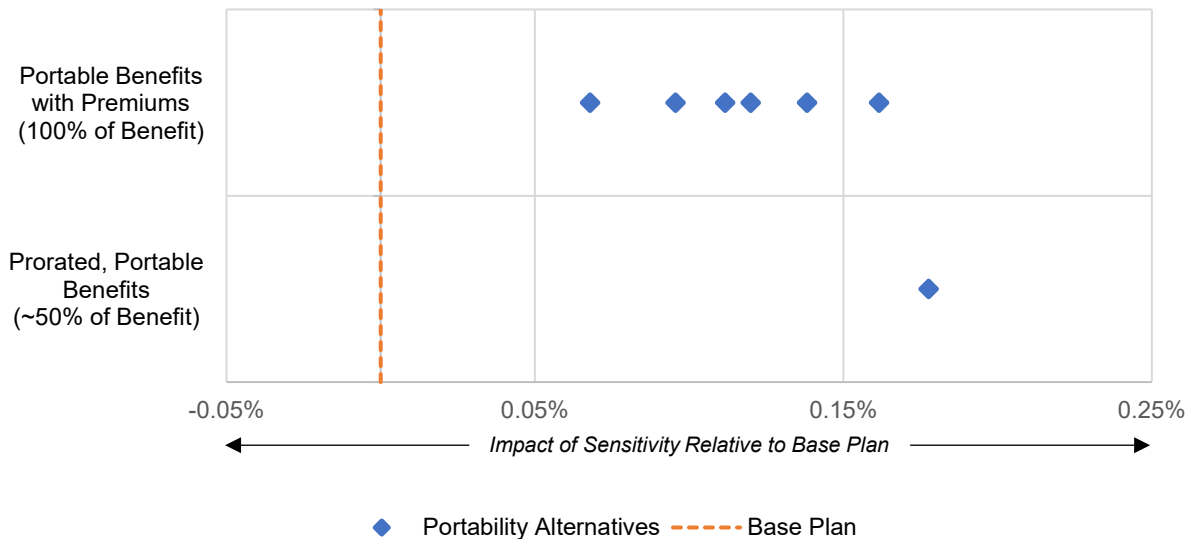
- We estimate that providing portable benefits with an out-of-state required premium may require an increase to the required premium assessment of up to 20 basis points. The range of results is based on performing various participation and adverse selection scenarios, since under this structure the portable benefits would

¹ Giese, C. et al. (October 20, 2022). 2022 WA Cares Fund Actuarial Study. Milliman Report. Retrieved November 1, 2022, from <https://leg.wa.gov/osa/additionalservices/Documents/Report01-2022WACaresFundActuarialStudy.pdf>

be a voluntary feature. Additional details surrounding the scenarios modeled and results can be found in "Portable Benefits with Premium Payments" section of this letter.

- We estimate that providing prorated, portable benefits may require an increase to the required premium assessment of approximately up to 20 basis points. Under the prorated structure, participation would be automatic and mandatory; therefore, we did not perform sensitivities related to participation (as participation was assumed to be 100%) and the impact is shown as a single point estimate in Figure 1.

Figure 1: Impact of Portability Sensitivities Relative to Base Plan



PORTABLE BENEFITS WITH PREMIUM PAYMENTS

We analyzed the cost of providing portable benefits to individuals who move out of Washington after accumulating one or more years of vesting credits and elect to voluntarily pay a premium to maintain some coverage under WA Cares Fund. Per DSHS' and OSA's request, we modeled the portable benefit consistent with the features outlined in Figure 2 below. We relied upon feedback from OSA and DSHS to determine the parameters to model.

Figure 2 Washington Office of the State Actuary Portable Benefits with Premium Payments Modeling Specifications for Portable Benefit	
Specification	Portability Structure Assumption
Qualified Individuals / "Vesting"	Anyone with at least one year of premiums paid in-state will be eligible to "buy-in" portability coverage
Out-of-State Premium Amount	Last "in-state" premium assessed, adjusted for wage inflation (assumed to be 3.5% per year); To be paid until normal retirement age (age 67)
Benefit Structure	Reimbursement (same as in-state)
Benefit Eligibility Trigger	Medicaid definition proxy (same as in-state)
Benefit Amount	\$36,500, indexed to CPI (same as in-state)

As shown in Figure 2, we assumed individuals would have to pay an annual premium (calculated as the last in-state premium assessed, adjusted for 3.5% wage inflation) until age 67 to maintain coverage. Since individuals who move out-of-state will be required to “opt in” by paying a premium, this benefit will be fully voluntary. Anytime choice or a voluntary aspect to participation is introduced into a program, unpredictability related to participation rates and adverse selection can make rate modeling challenging. Given this, we modeled the cost of the portable benefit under a number of participation and selection scenarios, shown in Figure 3.

As seen in Figure 3, we expect that providing portable benefits with a requirement to pay premiums until age 67 would require an increase to the premium assessment rate of up to 20 basis points, depending on the percentage of individuals that elect to participate and the potential adverse selection associated with the participating population. The incremental premium assessment change presented in Figure 3 is relative to a “baseline” where benefits are not portable.

Please note, given we have not sensitivity tested all key assumptions that may affect this initial viability analysis, we show our modeling results as ranges. The ranges are based on an explicit adjustment of plus or minus 25% of the point estimate incremental premium change. The ranges are shown for illustration only and should not be interpreted as bounds.

Figure 3 Washington Office of the State Actuary Portable Benefits with Premium Payments Additional Premium Cost of Providing Portable Benefit	
Premium Participation Scenario	Incremental Premium Assessment Change Compared to 2022 Base Plan
Average Risk Scenarios*	
100%	0.09% to 0.15%
75%	0.08% to 0.13%
50%	0.05% to 0.09%
Adverse Selection Scenarios**	
75%	0.12% to 0.20%
50%	0.11% to 0.18%
25%	0.08% to 0.14%

* “Average Risk Scenario” means that the same percentage of both benefits and claims is included. For example, “75% Premium Participation” means 75% of premiums and 75% of claims for the population of out-migrants expected to have enough vesting to qualify are assumed to be added to the program’s cash flows. Lower participation scenarios are not shown, as we estimate some adverse selection will be present when participation is low.

** For “Adverse Selection Scenario,” we assume 25% higher claims are added relative to premium participation. This would imply that claims are higher than average for those who elect to participate and / or premiums are lower than average for those who elect to participate. For example, if 25% of individuals in this population contribute to premiums, we assume 50% of claims are added to the program’s cash flows. While the exact magnitude of adverse selection is unknown, we do expect there to be some level of adverse selection to be present given the voluntary nature of the portable benefit.

Portability Benefit with Premium Payment Alternatives

To the extent a portable benefit followed a structure different than what is outlined in Figure 2, we would expect the premium assessment impact to vary as well. DSHS requested modeling of several alternatives to this structure to understand the resulting premium impacts. We modeled the scenarios in Figures 4 and 5 assuming 100% participation only to allow for easier comparison in highlighting the estimated premium impact of different alternatives.

[“Vesting” Alternatives](#)

For the results in Figure 3, we assume that individuals need to contribute to the program a minimum of one year in-state before being eligible to pay premiums out-of-state and remain vested in the program. In Figure 4, we test the impact of increasing the requirement of the number of years of contributions in-state before an individual is eligible to opt into the out-of-state benefits. Since fewer people will be eligible for benefits under a scenario where more years of in-state vesting are required, the required premium assessment is decreased under these scenarios.

Figure 4 Washington Office of the State Actuary Portable Benefits with Premium Payments Results by Vesting Requirement – 100% Participation	
Scenario	Premium Assessment Impact
1-year in-state vesting requirement	0.09% to 0.15%
3-year in-state vesting requirement	0.08% to 0.14%
10-year in-state vesting requirement	0.08% to 0.13%

[Benefit Eligibility Trigger Alternative](#)

To model the results in Figure 3, we assumed the benefit eligibility trigger for out-of-state benefits was consistent with the in-state benefit trigger. Since it may be more feasible for the program to administer an out-of-state benefit using a more universally understood trigger, we were requested to model a scenario where individuals out-of-state would need to meet the Health Insurance Portability and Accountability Act (HIPAA) eligibility trigger, defined as needing assistance with two or more activities of daily living (ADLs), where the individual is expected to meet the definition for at least 90 days, or severe cognitive impairment. Since the HIPAA trigger is expected to be more restrictive than the modeled Base Plan, we expect this scenario to cost less.

Figure 5 Washington Office of the State Actuary Portable Benefits with Premium Payments Results by Benefit Eligibility Trigger – 100% Participation	
Scenario	Premium Assessment Impact
Medicaid definition proxy (same as in-state)	0.09% to 0.15%
HIPAA eligibility trigger	0.08% to 0.13%

[Benefit Amount Alternatives](#)

DSHS relayed that the Portability Workgroup would be interested in portable benefit structures that increased the overall premium assessment by 0.10% or less. One option for decreasing the cost of a portable benefit is to make the portable benefit a “reduced” benefit amount relative to the in-state benefit. Figure 6 shows the percentage of the reduced benefit relative to the full benefit to achieve a 0.10% premium assessment increase. For example, under a situation where 100% of out-migrants elect to pay for the portable benefit, the portable benefit amount would need to be 68% to 100% of the full benefit in order for the required premium assessment for everyone to be no more than 0.10% higher than the required premium assessment when no portable benefit is available. We calculate the reduced benefit under each participation and adverse selection scenario included in Figure 3.

Note, given we have not sensitivity tested all key assumptions that may affect this initial viability analysis, we show our modeling results as ranges. The ranges are based on an explicit adjustment of plus or minus 25% of the point estimate incremental premium change. The ranges are shown for illustration only and should not be interpreted as bounds.

Figure 6
Washington Office of the State Actuary
Portable Benefits with Premium Payments
Benefit Levels Needed for 10 bps Premium Increase or Less

Premium Participation Scenario	% of Full Benefits to Achieve 10 bps Premium Increase or Less*
Average Risk Scenarios	
100%	68% to 100%
75%	75% to 100%
50%	90% to 100%
Adverse Selection Scenarios	
75%	56% to 94%
50%	60% to 100%
25%	68% to 100%

** Percentages represent level of out-of-state benefits versus in-state, "full" benefits. For example, 80% means out-of-state benefits need to be set to 80% of in-state benefits to achieve no more than a 10 basis points (bps) increase in the premium assessment.*

[Additional Participation Testing](#)

Per DSHS and OSA's request, we also modeled participation scenarios where we vary participation rates by age (unlike the high-level tests shown in Figure 3, where we were assume the participation rate does not vary by age). Figure 7 below presents the results from our portability modeling under two discrete participation scenarios (described below). The incremental impact presented in Figure 7 is the premium assessment impact relative to a "baseline" where benefits are not portable. The overall participation rate refers to the percentage of those eligible that we assume to participate. To be eligible, we assume an individual must: (1) have contributed to the premium assessment in-state for at least one year, and (2) be able to achieve "vested" status through a combination of in-state premium assessment contributions and out-of-state premium payments.

- For the first scenario, we assume **0% participation for those who move out of state under age 67 and 100% participation for those who move out of the state at age 67 or older**. We assume 100% participation for people leaving the state at age 67 or greater since their WA Cares Fund coverage can be thought of as effectively "paid-in-full" since out-of-state premiums are only required to be paid until age 67.
- For the second scenario, we add **graded participation for those who move out of state under 67** (2% at age 30 grading up to 30% at age 60). The participation rates under age 67 were provided by DSHS and add approximately 10% to the percentage of the eligible population assumed to participate.

Figure 7
Washington Office of the State Actuary
Portability Modeling – Impact to 2022 Base Plan Premium Assessment

	Incremental Change Compared to 2022 Base Plan	Overall Participation Rate from Eligible Population
Baseline Migration Distribution		
0% Participation Under 67, 100% Participation 67+	0.08%	28%
Graded Participation Under 67, 100% Participation 67+	0.11%	38%
Alternative Migration Distribution		
0% Participation Under 67, 100% Participation 67+	0.05%	16%
Graded Participation Under 67, 100% Participation 67+	0.07%	23%

Note, per our 2022 Actuarial Study, we assume the age-gender distribution of the individuals moving in and out of Washington to and from another U.S. state in any year will resemble the projected age-gender distribution of all Washingtonians living in the state in that year. To the extent this assumption varies from what was assumed, we would assume the impact of a portable benefit to also vary (especially scenarios where participation varies by age as is presented in Figure 7). To illustrate the potential impact of an alternative age-gender mix for out-migrants that is skewed toward younger individuals, we also present the results in Figure 7 assuming an alternative distribution. The alternative migration distribution assumed with a younger population leaving the state lowers the incremental change by 0.03% to 0.04%. This test helps highlight the sensitivity of the premium impact depending on the assumed age distribution for out-migrants.

The results in Figure 7 are generally consistent with the high-level testing presented in Figure 3. Note that when individual choice or a voluntary aspect to participation is introduced into a program (such as a voluntary portability benefit), unpredictability related to participation rates and adverse selection can make the evaluation of a program's rates and fund balance challenging.

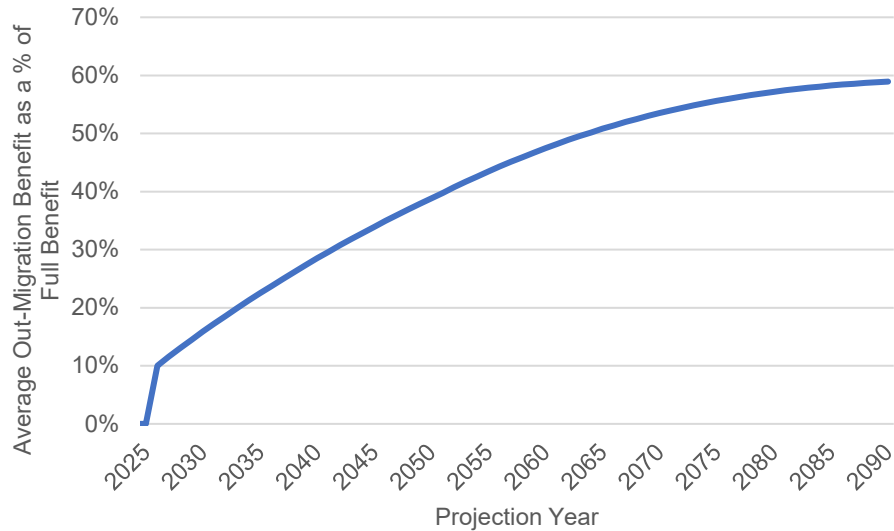
PRORATED, PORTABLE BENEFITS

We analyzed the cost of providing prorated, portable benefits to individuals who move out of Washington after accumulating three or more years of vesting credits. Under the prorated structure, no additional premiums would be required after leaving the state and participation would be automatic. Benefits, however, would be reduced per the proration schedule provided by DSHS as follows:

- Individuals who paid the premium assessment in-state for three years before leaving the state would be eligible for 3/30th of the full benefit
- Individuals who paid the premium assessment in-state for 30 years or more before leaving the state would be eligible for 30/30th (or 100%) of the full benefit
- The proration schedule uses uniform increases between the requirements for starting partial benefits and the requirements for full benefits (e.g., an individual with 20 years of premium payments would be eligible for 20/30th of the benefit)

As a result of the above proration schedule, the average percentage of benefits available to beneficiaries in the out-migration population is lower at the beginning of the projection (since, using program year three as an example, individuals at most will have three years of work history and be eligible for at most 3/30th, or 10%, of the full benefit) and grows as more individuals have the opportunity to accumulate years of work history. The following figure shows the average prorated benefit for the out-migration population as a percentage of full benefits by projection year.

Figure 8: Average Prorated Benefit for Out-Migration Population as Percentage of Full Benefits



We estimate that providing prorated, portable benefits would require an increase to the premium assessment rate of 18 basis points. The incremental premium assessment impact is relative to a “baseline” where benefits are not portable.

Prorated, Portability Benefit Alternatives

To the extent a portable, prorated benefit followed a structure different than what is outlined above, we would expect the premium assessment impact to vary as well. DSHS requested modeling of several alternatives to understand the resulting premium impacts.

“Vesting” Alternative

For the results described above, we assume that individuals need to contribute to the program a minimum of three years in-state before moving out of state. In Figure 9, we test the impact of increasing the requirement of the number of years of contributions in-state to receive any level of portable benefits. Since fewer people will be eligible for benefits under a scenario where more years of in-state vesting are required, the required premium assessment is lower for the 10-year requirement than the 3-year requirement.

Figure 9 Washington Office of the State Actuary Prorated, Portable Benefits Results by Vesting Requirement	
Scenario	Premium Assessment Impact
3-year in-state vesting requirement	0.18%
10-year in-state vesting requirement	0.16%

See Figure 10 in Methodology and Assumptions for the proration schedule associated with each of the scenarios presented in Figure 9.

[Portability Start Year Alternative](#)

For the results described above, we assume that portable benefits would be available after individuals would have enough years of work history to meet the 3-year in-state vesting requirement without any additional delay. DSHS also requested we model a scenario where the earliest portable benefits are paid in 2030. Given the estimated level of benefit payments before 2030 (i.e., where at most individuals would be eligible for $(2030 - 2023) / 30 = 23\%$ of the benefits), this alternative also produced a premium assessment impact of 18 basis points similar to the base design modeled.

[Benefit Amount Alternative](#)

DSHS relayed that the Portability Workgroup would be interested in portable benefit structures that increased the overall premium assessment by 0.10% or less. One option for decreasing the cost of a prorated, portable benefit is to develop a proration schedule that reduces the benefit further than the structure tested above (10% of full benefits after three years of premiums grading up to 100% of full benefits after 30 years of premiums).

Figure 8 above shows the average prorated benefit for the out-migration population as a percentage of full benefits by projection year, which resulted in an estimated increase to the premium assessment of 18 basis points. To achieve an overall 10 basis point increase instead, the average prorated benefit would need to be reduced further by roughly 45% ($= 1 - 10 \text{ bps} / 18 \text{ bps}$) each year or in composite over the 75-year projection (ignoring expenses for illustration). Using calendar year 2065 as an example, the average prorated benefit would be reduced to be no more than roughly 28% of full benefits ($= 50\% \times (1 - 45\%)$).

METHODOLOGY AND ASSUMPTIONS

The information in this letter should be considered along with the sources and methodology used in our [2022 WA Cares Fund Actuarial Study](#) dated October 20, 2022 (2022 Actuarial Study). All other plan features, methodology, and assumptions are consistent with the modeling of the Base Plan in our 2022 Actuarial Study unless indicated otherwise. The results in this letter should be considered in their entirety in combination with our 2022 Actuarial Study.

[Portable Benefits with Premium Payments](#)

To model the “Portable Benefits with Premium Payments” scenarios outlined in this letter, we took the following steps:

1. Projected the annual premium payment for individuals who move out of the state using average annual Washington wages by age (for the year before they move out-of-state), adjusted for inflation. We assume the premium rates would inflate by 3.5% each year.
2. Assumed premiums are to be paid until age 67 with no voluntary lapse.
3. Projected the benefit payments that would be incurred from the out-migration population, given the one, three, or 10 years in-state payment requirement.
4. Carved in the additional premium and benefit payments, assuming different participation and adverse selection scenarios, to our in-state model. With the exception of the results presented in Figure 7, for all other tests we assumed the participation rates would not vary by age (e.g., for the 75% participation test we assumed, of those eligible to participate to receive portable benefits, 75% of eligible individuals at each age would elect to participate).
5. Calculated ranges to our point estimates to produce the values illustrated in this letter.

Note, this alternative continues to assume administrative expenses to be 3.5% of premiums and 3.5% of benefits, consistent with the assumptions used to project our Base Plan in our 2020 Study. If the program expenses as a percentage of premiums or claims vary from the assumed levels above, the estimated premium assessment for the program would also vary.

[Prorated, Portable Benefits](#)

To model the “Prorated, Portable Benefits” scenarios outlined in this letter, we took the following steps:

1. Projected the distribution of years having paid premium upon leaving the state by age at the time of leaving the state and applied the proration benefit schedule to this distribution. Figure 10 below shows the proration schedule for several sample work histories.

Figure 10 Washington Office of the State Actuary Prorated, Portable Benefits Proration Schedule		
Years Paying In-State Premium Assessment Before Leaving WA	Prorated Benefit %	
	3-year in-state vesting requirement scenario	10-year in-state vesting requirement scenario
1	0	0
3	10%	0
10	33%	33%
15	50%	50%
20	67%	67%
25	83%	83%
30	100%	100%
35	100%	100%

2. Used the vesting rate weighted by level of benefit calculated in Step 1 to project prorated benefit payments that would be incurred by the out-migration population.
3. Modified the expenses for the out-migration population in the following way:
 - Instead of assuming administrative expenses are 3.5% of prorated benefit payments, we assumed administrative expenses would be 3.5% of benefit payments if 100% of the full benefit payments were available to all beneficiaries.
 - Instead of assuming administrative expenses are 3.5% of premiums (since in this scenario the out-migration population does not pay premiums, therefore, this component of expenses would be zero for this population), we projected hypothetical premiums for this population as if they remained in-state assuming a 0.58% premium assessment and assumed administrative expenses would be 3.5% of the hypothetical premiums.

If the program expenses as a percentage of premiums or claims vary from the assumed levels above, the estimated premium assessment for the program would also vary.

CAVEATS AND LIMITATIONS

This information is intended for the internal use of the Washington State Office of the State Actuary (OSA) and Washington State Department of Social and Health Services (DSHS) and it should not be distributed, in whole or in part, to any external party without the prior written permission of Milliman, subject to the following exception:

- This report shall be a public record that shall be subject to disclosure to the State Legislature and its committees, persons participating in legislative reviews and deliberations, and parties making a request pursuant to the Washington Public Records Act

We do not intend this information to benefit or create a legal liability to any third party even if we permit the distribution of our work product to such third party. This communication must be read in its entirety.



This information provides the cost of offering portable benefits relative to the 2022 Base Plan presented in the 2022 WA Cares Fund Actuarial Study provided on October 20, 2022, which should be read in its entirety with this letter. In completing this analysis, we relied on information provided by ESD, OSA, DSHS, SIB, and publicly available data. We accepted without audit, but reviewed the information for general reasonableness. Our summary may not be appropriate if this information is not accurate.

Many assumptions were used to construct the estimates in this letter. Actual results will differ from the projections in this letter. Experience should be monitored as it emerges, and corrective actions should be taken when necessary.

Milliman has developed certain models to estimate the values included in this letter. The intent of the models is to estimate required revenue for alternative program features of the Washington Cares Fund. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice.

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. Chris Giese and Annie Gunnlaugsson are members of the American Academy of Actuaries, and meet the qualification standards for performing the analyses in this letter.

The terms of the Personal Services Contract with Washington State OSA effective December 2, 2021, apply to this information.



Please contact me if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Christopher J. Giese".

Christopher J. Giese, FSA, MAAA
Principal and Consulting Actuary

CJG/jf