



WASHINGTON STATE DEPARTMENT OF LABOR & INDUSTRIES

*Analysis of 2024 Rate Levels
Accident Fund, Medical Aid Fund and
Stay-at-Work Program*

Deloitte Consulting LLP
December 1, 2023



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December 1, 2023

Mr. Steve Wendling
Audit Manager
Washington State Auditor's Office
3200 Capitol Boulevard
P.O. Box 40031
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Dear Mr. Wendling:

Deloitte Consulting LLP is pleased to submit our actuarial report regarding an actuarial review of the Washington State Department of Labor & Industries' ("the Department") workers' compensation rate levels for the 2024 calendar year. The scope includes an independent analysis of the 2024 calendar year indicated rate level change for the Accident Fund and the Medical Aid Fund and review of the actuarial methodologies, processes, and assumptions used in determining the 2024 base pure premium rates per risk classification for the Accident Fund, the Medical Aid Fund, and the Stay-at-Work Program. This analysis is based on Deloitte Consulting's Analysis of Unpaid Loss and Loss Adjustment Expenses as of June 30, 2023, as well as a review of the Department's internal ratemaking processes and discussions with the Department's actuarial group.

Rod Morris, Michael Green, and Matthew Crotts are members of the Casualty Actuarial Society and the American Academy of Actuaries and meet the qualification standards to issue this actuarial report.

We have enjoyed working with the Department and the Washington State Auditor's Office ("SAO") on this review. If you, any member of the Department's management, or anyone from the SAO has any questions after reviewing this report, please do not hesitate to contact us.

Sincerely,

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Table of Contents

	Page
I. OVERVIEW _____	1
Background _____	1
Report Sections _____	8
II. SCOPE _____	9
III. CONDITIONS AND LIMITATIONS AND DISCLOSURES _____	11
Distribution and Use _____	11
Disclosures _____	13
Data Reliance _____	13
IV. RESULTS AND CONCLUSIONS _____	14
V. DEPARTMENT'S METHODOLOGY AND APPROACH _____	25
VI. DELOITTE CONSULTING'S METHODOLOGY AND APPROACH _____	31
VII. EXHIBITS _____	42

I. OVERVIEW

Deloitte Consulting LLP (“Deloitte Consulting”, “us”, “we”, or “our”) was retained by the Washington State Auditor’s Office (“SAO”) to perform a review of the Washington State Department of Labor and Industries’ (“the Department”) actuarial methodologies, processes, and assumptions used in determining the overall 2024 rate change for the Accident Fund, the Medical Aid Fund, and the Stay-at-Work Program. This review also includes an independent analysis of the 2024 calendar year indicated rate level change for the Accident Fund and the Medical Aid Fund.

All information presented in this report is based on data as of June 30, 2023 and displayed in thousands of US dollars unless otherwise stated.

BACKGROUND

Department of Labor & Industries

During the early 1900’s, state legislatures throughout the United States recognized the need for a system of workers’ compensation insurance. The Industrial Revolution had dramatically increased the number and severity of work-related injuries, and injured workers were unable to receive medical benefits and wage compensation. Civil lawsuits against employers took years to settle and employees often ended up dependent on welfare or the charity of others.

In 1911, the State of Washington’s “Workers’ Compensation Act” established the industrial insurance system which covered only those working in hazardous work environments. In 1923, Washington became the only state workers’ compensation fund where the employees pay a significant portion of the insurance premiums. In 1971, there was a major overhaul in the workers’ compensation system to expand coverage to virtually all workers and allowing large employers to self-insure.

The Department is the state agency responsible for administering the Washington State workers’ compensation system and providing medical and limited wage-replacement coverage to workers who suffer job-related injuries or illnesses. The Department operates as an exclusive state workers’ compensation fund, one of only four remaining in the U.S. The Department offers enforcement programs ensuring that workers are paid the amounts they are owed, limiting the work hours of children and teens,

and protecting consumers from unsound building practices. The Department also administers the workplace safety and health program within the state.

The State's workers' compensation funds (the "Funds") are administered by the Department. The Funds include the Accident Fund, Medical Aid Fund, Pension Reserve Fund, Supplemental Pension Fund, Second Injury Fund, the Self-Insured Employer Overpayment and Reimbursement Fund, and the Industrial Insurance Rainy Day Fund. The Accident, Medical Aid, and Pension Reserve Funds make up the Workers' Compensation Program Basic Plan and write approximately \$1.9 billion of premium annually. The Workers' Compensation Program Basic Plan Funds are required by law to be actuarially fully funded. However, the Supplemental Pension Fund is a pay-as-you-go fund.

A summary of the Funds within the Workers' Compensation Program Basic Plan and the Supplemental Pension Fund is included below.

- Accident Fund

This Fund pays compensation directly to the injured workers for lost wages related to temporary disability and permanent partial disability awards and for costs of retraining. In addition, the Fund pays the Pension Reserve Fund an amount equal to the present value of pensions awarded to survivors of fatally injured workers and to workers who are permanently and totally disabled. Revenues from this Fund are from employer-paid premiums. Lastly, retrospectively rated premium adjustments also are run through the Accident Fund.

- Medical Aid Fund

This Fund pays for the cost of medical and vocational rehabilitation services to injured workers. Revenues for this Fund come from equal contributions from employers and employees. Revenue and costs related to the Stay-At-Work program are run through the Medical Aid Fund.

- Pension Reserve Fund

This Fund pays survivor benefits to dependents of fatally injured workers and wage replacement and dependent benefits to all permanently total disabled pensioners, including pensioners from disabled employees of self-insured employers, their dependents, and survivors. Revenues from this Fund are generated from transfers from the Accident Fund and reimbursement payments from self-insured employers.

- Supplemental Pension Fund

This Fund provides for supplemental cost of living adjustments to injured workers and their dependents receiving disability payments. The Fund is run on a pay-as-you-go basis and is funded through assessments that are paid 50% by employers (both employers insured through State Fund and self-insured employers) and 50% through deductions from employees' wages. In Fiscal Year 2023, Supplemental Pension Fund premiums were approximately \$934 million.

In addition, the Department maintains three additional funds: Second Injury Fund, Self-Insured Employer Overpayment Reimbursement Fund, and the Industrial Insurance Rainy Day Fund. The Second Injury Fund was created for the purpose of making benefit payments to workers already partially disabled who subsequently experience a work related injury, which together, render them totally disabled. The Self-Insured Employer Overpayment Reimbursement Fund was established in 2008 to account for the reimbursements due to self-insured employers for workers' compensation benefits overpaid during the pendency of board or court appeals in which the self-insured employer prevails and has not recovered such amounts. The Industrial Insurance Rainy Day Fund, created in 2011, was intended to provide a tool to help minimize significant premium changes that may otherwise be needed during future difficult economic times. Furthermore, it requires that transfers to the Fund be considered whenever the Accident and Medical Aid Funds assets exceed ten percent of funded liabilities.

Washington State requires all employers, unless exempted, to secure coverage for job-related injuries and illnesses either by paying insurance premiums to the Department or by self-insuring. Direct private insurance is not authorized, although self-insurers are permitted to reinsure up to 80% of their obligations.

The Funds also participate in the Washington United States Longshore and Harbor Workers' Compensation Act Assigned Risk Plan ("WARP") which was established to provide United States Longshore and Harbor ("USL&H") workers' compensation insurance coverage for employers unable to purchase it through the normal private insurance market. The Funds pay assessments to WARP and participate in any underwriting losses or surpluses incurred by WARP.

Reinsurance Background

The Funds only write direct insurance business and does not assume any reinsurance. Use of ceded reinsurance is minimal and is limited to catastrophic events and terrorism coverage at high limits in older

years and once again purchased effective February 1, 2019 and subsequent. The current reinsurance program consists of two excess of loss contracts. The first excess of loss contract covers catastrophic or terrorism events that exceed \$200 million up to \$500 million per occurrence. The second excess of loss contract covers catastrophic or terrorism events that exceed \$500 million up to \$1.0 billion per occurrence. All reinsurers are rated A or better by AM Best. As of June 30, 2023, the Department has informed us that it is not aware of any catastrophic events that would trigger a reinsurance recovery. Therefore, there are currently no ceded reserves recorded as of June 30, 2023, and no reinsurance collectability problems. With respect to loss and loss adjustment expense reserves net of ceded reinsurance, we have not anticipated any contingent liability which could arise if any of the reinsurers prove unable to meet their loss and loss adjustment expense obligations under the terms and conditions of their contracts with the Funds. We note that in certain years the Funds have retained a portion of the losses within each layer of reinsurance but do not retain any liability within these layers in the reinsurance contracts over the past two years.

Claims Handling

The Department administers the workers' compensation claims arising out of its book of business internally. The Department establishes case reserves through the first seven years of the life of the claim. These case reserves are used almost exclusively for experience rating and retrospective rating adjustments. Since case reserves are not available for older fiscal-accident years, a complete case incurred triangle is not available. Therefore, we have not relied upon any actuarial methodologies utilizing case incurred losses to derive our estimates of the unpaid loss and LAE claims.

Loss Adjustment Expenses (LAE)

For the Department, most LAE represent typical unallocated loss adjustment expenses. These include costs such as the Washington State Assistant Attorneys General, internal legal services, Office of the Medical Director, Health Services Analysis, and internal vocational rehabilitation counselors. The one related cost which would fall under typical allocated loss adjustment expenses is the cost related to utilization review for medical treatments which can be allocated to specific claims.

Beginning in fiscal year 2020, the Department initiated a Workers' Compensation System Modernization (WCSM) project to update its policy, administration, and claim systems. It is estimated that a total of \$30.4 million has already been spent as of June 30, 2023 of which none has been currently allocated to CAE payments. The anticipated future cost of WCSM is approximately \$340.6 million over the next ten

fiscal years. The Department assumes that approximately 2/3 of the cost will be claims related and will expense the allocated State Fund costs (i.e. excluding costs allocated to self-insureds) through its claims administration expense (CAE). The CAE related cost has been distributed to both future and historical fiscal-accident years. The estimated amount allocated to fiscal-accident years 2023 and prior and included in the reserves as of June 30, 2023 totals \$51.2 million on a discounted basis and \$63.6 million on an undiscounted basis.

Case Law – Tobin Decision

On August 12, 2010, the State's Supreme Court confirmed the Court of Appeals decision in "Tobin v. Department of Labor & Industries", which concluded that "pain and suffering constitutes non-economic damages that workers' compensation statutes do not compensate for." The result of the decision is that future recoveries from injured workers due to their third party claim awards are expected to be significantly lower than historical recoveries since the amount of "pain and suffering" awarded can no longer be used to offset the past or future workers' compensation payments to that injured worker. The Department and Deloitte Consulting at this point have assumed that the impact is now reflected in the paid data and have removed additional explicit adjustments related to the Tobin Decision.

2011 Reforms – SSB 5801 and EHB 2123

During 2011, the State of Washington passed two bills (SSB 5801 and EHB 2123) that promote quality health care of injured workers, keep them engaged in the workforce, and implemented other changes that impacted costs.

The Department and Deloitte Consulting have assumed that the costs/benefits of these reforms are included in the data and have removed additional explicit adjustments related to the reforms.

Consistent with prior analyses, an additional breakout has been included in the actuarial analyses to separately track estimates of Voluntary Settlement costs.

Stay-at-Work Program

The Stay-at-Work Program was introduced as a part of EHB 2123 and launched in January 2012. This program supports quick and efficient return to work approaches through the provision of wage subsidies and other reimbursements to employers who bring workers back to light duty or modified jobs following an injury. Employers are reimbursed for a variety of costs including:

- Half of wages for up to 66 days within a 24-month period, and up to \$10,000
- Training fees or materials up to \$1,000 per claim
- Special tools or equipment up to \$2,500 per claim
- Clothing up to \$400 per claim

Per EHB 2123, employers will not be experience rated nor retrospectively rated based on losses or premiums from this program. For experience rating ("ER"), the Stay-at-Work Program premiums for an individual employer are adjusted by the ER factor calculated based on Accident Fund and Medical Aid Fund experience only, and the result is then split evenly between all employers and workers. The Stay-at-Work Program is administered with premium collections and benefit payments made through the Medical Aid Fund. However, premium collections and benefit payments will be accounted for separately from the remainder of the Medical Aid Fund. The overall rate is based on the actual experience and other industry assumptions. The overall rate is then allocated to each individual classification code as a percentage of the Accident Fund expected losses since the Department expects the reimbursement benefits to correlate with the Accident Fund losses. We have accepted the Department's estimates of its costs related to the Stay-at-Work Program.

Preferred Worker Program

The Preferred Worker Program is another return-to-work incentive program in which the Department certifies a worker with permanent medical restrictions as a preferred worker. This certification enables an employer to receive financial incentives and premium relief to eligible employers who create medically-appropriate, long-term jobs for these preferred workers. We have accepted the Department's estimates of its costs related to the Preferred Worker Program.

Other Reforms and Rule Changes

During 2018 and 2019, the State of Washington passed two bills (SSB 6214 and HB 1913) that relate to firefighters and police officers. SSB 6214 allows industrial insurance coverage for posttraumatic stress disorders (PTSD) affecting law enforcement officers and firefighters. HB 1913 adds medical conditions to the presumption of occupational diseases and extends the presumption to certain publicly employed firefighters, investigators, and law enforcement officers. To account for the expected fiscal impact of these two bills, the Department has added amounts to the underlying pure premiums for two class codes impacted: 6904 (County and City Fire Fighters-Salaried) and 6905 (County and City Law Enforcement

Officers). We note the Department is no longer making adjustments to the pure premiums for these codes since it is believed the underlying data now includes the impact of these changes.

Effective May 15, 2019, there was a rule change (WAC 296-20-1101) that caused an increase in the estimate of unpaid hearing loss claims. The new rule requires the replacement of hearing aids upon request five years after the issue date of the current hearing aid and battery replacement for the life of the hearing aid. Previously, the Department or self-insurer was only required to bear the cost of repairing or replacement of the hearing aid due to normal wear and tear at its discretion. The rule change caused the average hearing loss claims per active claim to increase more than expected as more claimants requested hearing aids rather than other (less expensive) services. In addition, the general injured worker population has become more aware of both the ability to request new hearing aids, and to request hearing aid replacements, as opposed to a repair.

During 2023, the State of Washington passed a bill (SB 5454) that relates to nursing. SB 5454 allows industrial insurance coverage for posttraumatic stress disorders affecting registered nurses. SB 5454 adds medical conditions to the presumption of occupational diseases and extends the presumption only to a direct care registered nurse who has posttraumatic stress disorder that develops or manifests itself after the individual has been employed on a fully compensated basis as a direct care registered nurse in Washington state for at least 90 consecutive days.

To account for the expected fiscal impact of this bill, the Department has added amounts to the underlying pure premiums for each class code impacted that is proportional to that codes nursing exposure. The eleven class codes impacted: 4906 (Colleges and Universities), 6105 (Hospitals, NOC), 6108 (Nursing and Convalescent Homes), 6109 (Physicians and Medical Clinics), 6110 (Home Health Services and Nursing Care, NOC), 6120 (Acute Care Hospitals with Safe Patient Handling), 6121 (Acute Care Hospitals without Safe Patient Handling), 6509 (Assisted Living, Adult Family Homes, Retirement Centers), 7111 (Temp. Help - Health Care Services), 7200 (State Acute Health Care Facilities w/Safe Patient Handling), and 7201 (State Patient and Health Care Personnel, NOC). We note these additions increase the calculated 2023 rates for the above classes by approximately 1% to 18% (or 15% after being capped, as shown in Step 9 above) depending on the class.

COVID-19 Impact

The classification rating process this year does not consider any potential direct or indirect effects of the COVID-19 pandemic. We note that the Department has made the decision to exclude all COVID-19 claims

from the data when performing the classification analysis. In addition, the data used in this analysis is as of June 30, 2023 and we believe that most of the indirect effects of the pandemic have stabilized. Therefore, we believe the impact of the COVID-19 pandemic is not material to this analysis. We also conclude that it is reasonable to exclude an estimate of the indirect effects of the pandemic and to exclude the actual COVID-19 claims when performing this classification analysis. We also note that this exclusion is consistent with the approach occurring in the broader insurance industry in other states.

We also note that including the COVID-19 claims would likely change the class relativities. For example, first responders and healthcare workers may have been significantly more exposed to COVID-19 claims versus other classes which would increase the relativity of first responder and healthcare workers. Although there may be changes to class relativities due to COVID-19 claims and the post-pandemic environment, we believe that attempting to estimate these differences would be difficult and may not be appropriate for a post pandemic environment.

REPORT SECTIONS

This report is comprised of the following sections:

- Overview – provides a general introduction and overview of the engagement;
- Scope – describes the work and reports that Deloitte Consulting has been performed and produced;
- Conditions and Limitations – details the limitations that apply to this engagement's work product, report, and results;
- Results and Conclusions – results of our independent pricing analysis and review of the Department's rate analysis;
- Department's Methodology and Approach – describes the approach underlying the Department's analysis;
- Deloitte Consulting's Methodology and Approach – describes the approach underlying the Deloitte Consulting analysis; and
- Exhibits – describes the contents of the exhibits included in this report.

II. SCOPE

In 2005, the Washington State Legislature passed a law (RCW 51.44.115) requiring the State Auditor's Office to conduct annual audits of the Department's workers' compensation program. A portion of the required audit includes a review the Department's actuarial methodologies, processes, and assumptions used in determining the overall 2024 rate change for the Accident Fund, the Medical Aid Fund, and the Stay-at-Work Program, including an independent analysis of the 2024 calendar year indicated rate level change for the Accident Fund and the Medical Aid Fund.

Deloitte Consulting serves as an independent consultant to the State Auditor's Office under an agreement between the State and Deloitte Consulting. Our role under such engagement includes a review of the actuarial methodologies, processes, and assumptions used in determining the 2024 base pure premium rates per risk classification for the Accident Fund, the Medical Aid Fund, and the Stay-at-Work Program.

This report has been created to present the results and conclusions of our review and independent analysis of the Accident Fund and the Medical Aid Fund indicated 2024 rate levels. Our intended measure of the Accident Fund and the Medical Aid Fund indicated 2024 rate levels has been prepared as a range of "actuarial central estimates." An actuarial central estimate is defined by actuarial literature as, "an estimate that represents an expected value over the range of reasonably possible outcomes." Therefore, the range presented in this report is intended to represent a "range of actuarial central estimates."

The rate level indications developed in this report are based on Deloitte Consulting's Analysis of Unpaid Loss and Loss Adjustment Expenses as of June 30, 2023 ("Reserve Review"), a review of the Department's internal ratemaking processes and assumptions, and discussions with the Department's Actuarial Team. For information regarding Deloitte Consulting's Analysis of Unpaid Loss and Loss Adjustment Expenses as of June 30, 2023, please refer to Deloitte Consulting's Report entitled, "Washington State Department of Labor and Industries, Report Supporting the Statement of Actuarial Opinion on the Loss and Loss Adjustment Expense Reserves as of June 30, 2023" dated November 16, 2023.

Rod Morris and Matthew Crotts are Fellows of the Casualty Actuarial Society ("FCAS") and Michael Green is an Associate of the Casualty Actuarial Society ("ACAS"). All are Members of the American Academy of Actuaries ("MAAA"). Mr. Morris and Mr. Crotts prepared and supervised the various analyses contained in this report. Mr. Green peer reviewed the work performed by the Deloitte Consulting team. All have met the qualification standards as promulgated by the American Academy of Actuaries to render Actuarial Opinions. Each has also attested compliance with the Casualty Actuarial Society's Continuing Education

Policy as of December 31, 2022 to perform actuarial services in 2023. These organizations have professional standards that, among other provisions, require an actuary perform only assignments for which he or she is qualified.

The services we performed in this actuarial analysis do not constitute an audit, review, examination, or other form of attestation as those terms are defined by the American Institute of Certified Public Accountants (AICPA). Any use of the word “review” within this presentation should be interpreted in the common use of that term, and not the definition of “review” promulgated by the AICPA.

III. CONDITIONS AND LIMITATIONS AND DISCLOSURES

We have relied upon Deloitte Consulting's own independent analysis of the loss and loss adjustment expense reserves as of June 30, 2023. Please note that we did not conduct an operational review of the claim functions, nor of any other company operating departments.

In order to opine on the prospective loss and LAE rates, it is necessary to project future indemnity, medical, and LAE costs in addition to future investment returns. As such, the methodologies and factors used in this report involve assumptions regarding future contingent events as estimated from historical experience. Unless specifically noted, we have assumed that historical trends will continue into the future. These trends include, but are not limited to: changes in inflation, interest rates, investment returns, claims administration procedures, medical costs and delivery, future legislative action and judicial proceedings. Further uncertainty exists as a result of legislative changes. It is certain that actual costs will not develop exactly as indicated and may, in fact, vary significantly from our estimates. No warranty is expressed or implied that such variance will not occur. Furthermore, Deloitte Consulting's estimates make no provision for the broadening of coverage by legislative action or judicial interpretation or for extraordinary future emergence of new classes of losses or types of losses not sufficiently represented in the Department's historical database or which are not yet quantifiable, and which might affect the claim experience. Deloitte Consulting believes, however, that the actuarial techniques and assumptions used in this analysis are reasonable.

The estimated ultimate loss and loss adjustment expense estimates stated in this report have been discounted using interest rates provided to Deloitte Consulting by the Department. The use of these interest rates does not imply that Deloitte Consulting is expressing an opinion on the appropriateness of these interest rates.

DISTRIBUTION AND USE

This study's conclusions are developed in the accompanying text and exhibits, which together comprise the report. This report is prepared solely for the internal use of the Washington State Auditor's Office and the Department in its evaluation of the indicated and adopted rate changes as of January 1, 2024. The report may be provided to other parties ("Recipient"), for the purpose of reviewing the adequacy of the January 1, 2024 rate if the following conditions are met:

- Deloitte Consulting is provided a list of Recipients to whom this report is provided.

- This report is being provided to the Recipient solely for its information and cannot and shall not be relied upon by the Recipient. The Recipient agrees that access to the report is not a substitute for the Recipient undertaking appropriate inquiries and procedures in relation to its assignment.
- The Recipient agrees not to reference or distribute the report to any other party.
- The Department is solely responsible for providing accurate and complete information requested by Deloitte Consulting, and Deloitte Consulting has no responsibility for the accuracy or completeness of the information provided by, or on behalf of, the Department, even if Deloitte Consulting had reason to know of or should have known of such incompleteness.
- Deloitte Consulting has no responsibility to advise the Recipient of other services or procedures that might be performed and makes no representation as to the sufficiency or appropriateness of this report for the purposes of the Recipient.
- The Recipient acknowledges that the Department and the SAO have participated in the preparation of this report and the information, including, without limitation, by reviewing and commenting on prior drafts of this report and the information, and such participation may have resulted in the addition, modification, or deletion of information which might be considered material by the Recipient.
- The Recipient acknowledges that Deloitte Consulting is currently providing and may in the future provide professional services to the Department, and the Recipient agrees that Deloitte Consulting and its personnel shall have no responsibility to the Recipient relating to such services nor any responsibility to use or disclose information that Deloitte Consulting possesses by reason of such services or otherwise, whether or not such information might be considered material by the Recipient.
- The Recipient acknowledges and agrees that the Recipient does not acquire any rights as a result of access to this report and Deloitte Consulting does not assume any duties or obligations as a result of access to this report.
- In the event that the Recipient is required by order of a court of competent jurisdiction, administrative agency or governmental body, or by any law, rule, regulation, subpoena, or any other administrative or legal process to disclose this report, the Recipient may disclose this report without liability hereunder, provided that the Recipient gives Deloitte Consulting prompt notice of any such requirement and, at our discretion, either (1) cooperates with us, at our expense, to prohibit such disclosure, or (2) uses all reasonable efforts to get confidential treatment of this report under a protective order or other appropriate mechanism. Furthermore, the Recipient

may reference or disclose this report without liability hereunder in the event that such reference or distribution is required by professional standards bodies.

- By retaining a copy of this report, the Recipient understands that such Recipient is deemed to have accepted these terms and conditions.

Deloitte Consulting shall have no liability, regardless of form, to any third parties (an entity other than the SAO and the Department) for any action taken or omitted to be taken by such parties in respect of this except for matters that are finally judicially determined to be caused by Deloitte Consulting's own bad faith or willful misconduct. Third parties should recognize that the furnishing of this report is not a substitute for their own diligence and should place no reliance on this report or data contained herein that would result in the creation of any duty or liability by Deloitte Consulting to the third party. Any release or distribution of this report to any third party must include the report in its entirety (with discussions and exhibits).

This report has been prepared for use by individuals who have a degree of technical competence in insurance matters. This report should be studied in its entirety before any judgments are made about the conclusions in the report. Deloitte Consulting personnel are available to discuss any questions or concerns regarding this report.

DISCLOSURES

Actuarial Standard of Practice No. 56: "Modeling" requires disclosure of certain information regarding the actuary's use of models when issuing actuarial reports for work performed on or after October 1, 2020. For this valuation, the rate level calculations were determined using Microsoft Excel based pricing models developed and maintained internally by Deloitte Consulting. The model was designed specifically for to test and measure of property & casualty indicated rate changes and the actuary has updated the applicable parameters for the specific coverages reviewed and assumptions selected for this valuation.

DATA RELIANCE

Deloitte Consulting has relied upon data provided by the Department for this review. A specific audit to verify the accuracy or completeness of the data is beyond the scope of this engagement. While we have reviewed the data with regard to its reasonableness and consistency for our review, we have relied on such data without audit or verification and our conclusions are based on the assumption that it is accurate and complete. If the underlying information provided is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

IV. RESULTS AND CONCLUSIONS

Break-Even Loss Ratio

The Department's actuarial rate analyses derive an indicated rate change by targeting a "break-even" result for the prospective policy year. The "break-even" result is defined by the Department as the loss ratio at which zero profits are expected to be generated on insured work exposure during the next calendar year and the Fund's contingency reserve will remain unchanged (i.e., will not grow or shrink). In other words, the indicated rate change is set such that the upcoming year's expected premiums plus the Fund's expected investment income will match the expected incurred losses and expenses related to the insured work exposure in that year. This method solves for the rate change such that the following occurs:

$$\text{Premium} = [\text{Discounted Expected Losses} + \text{Expected Expenses}] - \text{Extra Investment Income}^*$$

* Extra Investment Income represents the anticipated investment income on the Department's contingency reserve as well as on the assets backing the loss reserves in excess of what is implied by the loss reserve discount rate.

We note that this approach does not include a provision for adverse deviation for the potential that actual losses may ultimately be worse than expected or actual investment returns may be less than expected. In our experience, this methodology is not common in workers' compensation ratemaking. In general, an insurance company recognizes the potential for adverse results and includes a provision in its rate in order to collect enough revenue to sufficiently consider the potential for adverse results.

Though we have previously expressed reservations about the use of extra investment income in the ratemaking process, we have accepted the Department's overall process as reasonable and have adopted its use in our analysis. We note that if extra investment income is not included in the approach, then Deloitte Consulting's indicated point estimate rate change for the Accident Fund would be approximately 8.6 percentage points higher (the Departments' indicated rate change would be 5.8 percentage points higher) and Deloitte Consulting's indicated point estimate rate change for the Medical Aid Fund would be approximately 34.2 percentage points higher (the Departments' indicated rate change would be 25.0 percentage points higher).

We recognize that the targeted break-even rate change may not be the actuarial team's recommended rate change and is provided to the Director for informational purposes as a starting point for selecting the final rate change. We believe that it is critical that the final rate determination considers the uncertainty

inherent in workers' compensation ratemaking. In addition, we believe that it would be appropriate to consider the financial health / soundness of the Funds' contingency reserve in the final rate determination. For instance, if the Medical Aid Fund contingency reserve is found to be sufficient, then the Department may decide that the Fund's contingency reserve is at a reasonable level and there is no immediate need to grow the contingency reserve. In this case, the Department may recommend a rate change that does not include a provision for adverse deviation as a way to keep premium rates lower. On the other hand, if the Medical Aid Fund's contingency reserve is not considered sufficient, then the Department may decide that there is a need to grow the Fund's contingency reserve and include a provision for either adverse deviation or an explicit contingency reserve strengthening. If the Medical Aid Fund contingency reserve is found to be more than sufficient, then the Department may recommend a rate change that is less than the break-even rate as a way to keep premium rates lower.

We understand that there are discussions between the Director and the actuarial team regarding the break-even rate change after the initial indication is produced and alternative indications are provided taking into consideration such factors as the financial strength of each fund's contingency reserve and a provision for adverse deviation on prospective business, instead of only estimating the break-even rate change. We note that we have not reviewed any documentation regarding these discussions or recommendations on alternative rate indications provided by the actuarial team to the Director. We understand that the Department's process is to discuss options and recommendations with the Workers' Compensation Advisory Commission before the final rates are approved.

To be consistent with the Department, we took a similar approach and developed rate changes that would produce a similar break-even result for each Fund, although we have used our own assumption of the targeted overall investment returns. We note that Deloitte Consulting is not expressing an opinion on the appropriateness of the Department's selected investment returns. We note that in selecting the targeted overall investment return assumptions, the Department only considers expected return rates from its fixed income securities and assumes that equity return rates will be similar to the expected fixed income return rates. Deloitte Consulting's expectation of the overall investment returns considers historical returns, current market conditions, current yield on its fixed income securities, and an expected return on its equity portfolio. The range around our indicated range change considers the variation in the loss and LAE estimates as well as the variation surrounding the investment returns in the coming year.

The Department's Overall Indication

The following chart displays the Department's indicated overall rate change for the Accident Fund, the Medical Aid Fund, and the Stay-at-Work Program:

CALENDAR YEAR BREAK-EVEN PREMIUM RATE CHANGE			
	Selected Rate Change	Average 2023 Rate	Indicated Break-Even Rate
Accident Fund	12.5%	\$0.3377	\$0.3798
Medical Aid Fund	14.8%	\$0.1727	\$0.1982
Stay-at-Work Program	-5.1%	\$0.0054	\$0.0051

The overall indicated rate change for the Accident Fund of +12.5% is the result of several items as summarized below (as provided by the Department):

- The actuarial rate change indication last year for the Accident Fund was 19.0%. The adopted 2023 rate change was 5.9%. All things being equal, one would expect the rate change this year to be 12.3% given that the full actuarial indication was not adopted last year;
- The Department decreased their selected non-COVID lost-time claim frequency. This change in assumption has an incremental effect of -1.5% on the rate change from 2023 to 2024;
- The Department increased the targeted overall investment return from 3.02% last year to 3.44% this year. Additionally, we note that the projected investment to premium leverage ratio has also changed since last year. These changes in assumptions have an incremental effect of +1.7% on the rate change from 2023 to 2024;
- The Department increased the non-pension discount rate from 1.0% to 1.5%, which impacted the discounted loss ratio selection. This change in assumption has an incremental effect of -2.5% on the rate change from 2023 to 2024;
- The Department's expected 2024 increase to the state average weekly wage has an incremental effect of +4.3% on the rate change from 2023 to 2024;
- The remaining incremental difference of -1.8% is the result of the net combined effect of changes to actual loss and LAE experience and other small additional changes (e.g., average claim duration, claim frequency, retro adjustment ratio, fixed expense ratio, claims adjustment expenses, other income ratio, and discount rate change).

The overall indicated rate change for the Medical Aid Fund of +14.8% is the result of several items as summarized below (as provided by the Department):

- The actuarial rate change indication last year for the Medical Aid Fund was +19.8%. The adopted 2023 rate change was 1.0%. All things being equal, one would expect the rate change this year to be +18.6% given that the full actuarial indication was not adopted last year;
- The Department decreased their selected non-COVID lost-time claim frequency. This change in assumption has an incremental effect of -2.4% on the rate change from 2023 to 2024;
- The Department increased the targeted overall investment return from 2.80% last year to 3.45% this year. Additionally, we note that the projected investment to premium leverage ratio has also changed since last year. We further note the increase in discount rate mentioned above impacted the extra investment income. These changes in assumptions have an incremental effect of -4.2% on the rate change from 2023 to 2024;
- The Department's expected 2024 increase due to medical trend has an incremental effect of +4.5% on the rate change from 2023 to 2024;
- The remaining incremental difference of -1.5% is mainly the result of the net combined effect of other small additional changes (e.g., average claim duration, fixed expense ratio, claims adjustment expenses, other income ratio, discount rate change, and changes in medical growth).

The overall indicated rate change for the Stay-at-Work Program of -5.1% is the result of several items as summarized below (as provided by the Department):

- The actuarial rate change indication last year for the Stay-at-Work Program was +0.7%. The adopted 2023 rate change was 0.7%. All things being equal, one would expect the rate change this year to be 0.0% given that the full actuarial indication was adopted last year;
- The Department's expected 2024 increase to the state average weekly wage has an incremental effect of +4.2% on the rate change from 2023 to 2024;
- The Department decreased their selected non-COVID lost-time claim frequency. This change in assumption has an incremental effect of -1.5% on the rate change from 2023 to 2024;
- The Department increased the non-pension discount rate from 1.0% to 1.5%, which impacted the discounted loss ratio selection. This change in assumption has an incremental effect of -2.5% on the rate change from 2023 to 2024;
- The remaining incremental difference of -5.3% is the result of the net combined effect of changes to actual loss and LAE experience and other small additional changes (e.g., average claim duration, fixed expense ratio, claims adjustment expenses, discount rate change, and extra investment income ratio).

Based on our review of the Department's methodologies and processes for determining the 2024 indicated rate change, and subject to the limitations and reliances discussed in the "Conditions and Limitations" section, we believe that the Department's actuarial ratemaking process is consistent with actuarial standards of practice as issued by the Actuarial Standards Board.

Additionally, we note that it is a leading practice to produce a formal document regarding a rate study and proposed rate indications. Such a document provides more detailed background information and support for the Director and the Workers' Compensation Committee. It is our understanding that the actuarial team has not yet completed such a document, but is planning to provide it to the Director after the new rates go into effect, consistent with last year.

Adopted 2024 Rate Level Change – Accident Fund

Based on our analysis, we estimate a reasonable range for the expected rate change required for the Accident Fund to achieve break-even results in 2024 to be a rate change of between +5.1% and +19.3%, with a point estimate of +10.4%. We understand that the Department has adopted a 2024 Accident Fund rate change of 6.5%, which, from a break-even perspective, falls between the low end and point of our indicated range. The back-up exhibits for our Accident Fund rate calculations are contained in Section 1 attached to this report.

The Department's actuarial team computed the indicated 2024 break-even rate change for the Accident Fund (based on data evaluated as of June 30, 2023) to be +12.5%. This indicated rate change falls between the point and high end of our indicated range from a break-even perspective. Therefore, we consider the Department's "indicated" rate change to be reasonable from a break-even perspective.

We note that the 2024 adopted 6.5% rate change for the Accident Fund is lower than the Department's estimated break-even rate indication. We understand the Department wants to recognize the toll the pandemic is taking on employers and workers in the state and has therefore adopted rates that are lower than indications to keep the increases minimal and avoid a large increase across all funds, and plan on using the contingency reserve to accomplish this. Revenues for this fund are from employer-paid premiums.

Adopted 2024 Rate Level Change – Medical Aid Fund

Based on Deloitte Consulting's analysis, we estimate a reasonable range for the expected rate change required for the Medical Aid Fund to achieve break-even results in 2024 to be a rate change of between

-11.4% and +10.6%, with a point estimate of -3.3%. We understand that the Department has adopted a 2024 Medical Aid Fund rate change of 4.7%, which, from a break-even perspective, falls between the low end and point of our indicated range. The back-up exhibits for our Medical Aid Fund rate calculations are contained in Section 2 attached to this report.

The Department's actuarial team computed the indicated 2024 break-even rate change for the Medical Aid Fund (based on data evaluated as of June 30, 2023) to be +14.8%. This indicated rate change falls above the high end of our indicated range from a break-even perspective. We note this is due to the Department selecting more conservative ultimate losses in the more recent years mostly due to selecting a higher future medical growth rate than ours.

We note that the 2024 adopted 4.7% rate change for the Medical Aid Fund is lower than the Department's estimated break-even rate indication. The Department may have considered the level of the contingency reserve for the Medical Aid Fund in proposing the rate that was adopted, which is lower than the break-even Department indicated rate change. We also understand the Department wants to recognize the toll the pandemic is taking on employers and workers in the state and has therefore adopted rates that are lower than indications to keep the increases minimal and avoid a large increase across all funds, and plan on using the contingency reserve to accomplish this. Revenues for this fund usually arise from equal contributions from employers and employees.

Adopted 2024 Rate Level Change – Stay-at-Work Program

The Department's actuarial team computed the indicated 2024 break-even rate change for the Stay-at-Work Program (based on data evaluated as of June 30, 2023) to be -5.1%. Based on our review, we consider the Department's "indicated" rate change to be reasonable from a break-even perspective. We note that the 2024 adopted 0.0% rate change for the Stay-at-Work Program is higher than the Department's indicated break-even rate.

The Stay-at-Work Program is administered with premium collections and reimbursement payments made through the Medical Aid Fund. However, premium collections and reimbursement payments are accounted for separately from the remainder of the Medical Aid Fund.

The Department calculates the ratio of the Stay-at-Work Program rate to the Accident Fund rate, and this ratio is used in the Department's classification rates analysis to adequately charge for the costs of the Stay-at-Work Program.

Adopted Rate Level - Accident Fund and Medical Aid Fund Combined (including the Stay-at-Work Program)

The following chart provides a summary of our estimated rate changes along with a comparison to the Department's adopted and actuarial indicated rate changes. Since we did not produce an independent estimate of the Stay-at-Work program, we have accepted the Department's actuarial indication for the low, point, and high end of our range:

WASHINGTON DEPARTMENT OF LABOR & INDUSTRIES SUMMARY OF 2024 BREAK-EVEN RATE LEVEL INDICATIONS

	Deloitte Consulting LLP			Department Adopted Rate Change	Department Indicated Rate Change**
	Indicated Rate Change*				
	Low	Point	High		
Accident Fund	5.1%	10.4%	19.3%	6.5%	12.5%
Medical Aid Fund	-11.4%	-3.3%	10.6%	4.7%	14.8%
Stay-At-Work Program	-5.1%	-5.1%	-5.1%	0.0%	-5.1%

* Deloitte Consulting LLP indications based on data evaluated as of June 30, 2023

** Department indication based on data evaluated as of June 30, 2023

In this report, we present our rate change indications as a range with a point estimate, which may not necessarily be the midpoint of the range. Our range is meant to portray a range of reasonableness for the expected rate changes. The endpoints of this range are not meant to be the "best" or "worst" case scenarios, but rather endpoints of a reasonable range for the indicated break-even rate changes.

The table below displays the rate level indications and adopted rate changes for the Accident Fund and Medical Aid Fund (including the Stay-at-Work Program) combined.

WASHINGTON DEPARTMENT OF LABOR & INDUSTRIES SUMMARY OF 2024 BREAK-EVEN RATE LEVEL INDICATIONS

	Deloitte Consulting LLP			Department Adopted Rate Change	Department Indicated Rate Change**
	Indicated Rate Change*				
	Low	Point	High		
Accident Fund + Medical Aid Fund (incl Stay-At-Work)	-0.5%	5.7%	16.2%	5.8%	13.1%

* Deloitte Consulting LLP indications based on data evaluated as of June 30, 2023

** Department indication based on data evaluated as of June 30, 2023

We understand that the Department has adopted a 2024 Accident Fund and Medical Aid Fund combined rate change of +5.8% (including the Stay-at-Work Program). The Department's actuarial team computed the indicated 2024 break-even rate change on a combined basis (based on data evaluated as of June 30, 2023) to be +13.1% (including the Stay-at-Work Program). The Department's indicated rate change falls between the point and high end of our indicated range, and the Department's adopted rate change falls between the point and high end of our indicated range on a combined basis. Therefore, we consider the Department's "indicated" rate change reasonable from a break-even perspective, and we consider the Department's "adopted" rate change reasonable from a break-even perspective. Therefore, we conclude that the Department's "adopted" rate change will be sufficient to maintain the current contingency reserve level. In addition, if claim expenses and investment returns occur as expected, the contingency reserve will increase during calendar year 2024 from approximately \$4.7 billion as of June 30, 2023 to approximately \$4.8 billion as of June 30, 2024, on a combined basis. For additional information and further insights into the future financial strength of the Funds under several different insurance rate level scenarios, please refer to Deloitte Consulting's Report entitled, "State of Washington Department of Labor and Industries, Financial Model as of June 30, 2023" dated December 1, 2023.

Extra Investment Income

As mentioned above, in this analysis we are not using the same targeted overall investment returns that the Department selected: 3.44% for the Accident Fund, and 3.45% for the Medical Aid Fund. In selecting the targeted overall investment return assumptions, the Department estimates the fixed income securities return in 2024 based on historical returns over the past year adjusting for current bond market rates and an assumed turnover ratio. In addition, the Department assumes that equity return rates will be similar to the expected fixed income return rates.

Deloitte Consulting calculates a targeted investment return by taking a weighted average of the risk-free rate (applied to cash), an estimate of the fixed income securities return, and an equities investment return based on historical average equity returns. The estimate of fixed income securities return for 2024 is based on the current yield achieved over the past year and a new money return based on current market bond yields. This approach produces a targeted overall investment return of 3.88% for the Accident Fund, and 4.26% for the Medical Aid Fund.

The overall investment return of 3.88% for the Accident Fund can be further broken down as follows:

Investment Security	Investment Allocation %	Annual Return
Corporate Bonds	85.50%	3.38%
Equities	12.50%	7.29%
Cash and Other	2.00%	4.30%
All Securities	100.00%	3.88%

The overall investment return of 4.26% for the Medical Aid Fund can be further broken down as follows:

Investment Security	Investment Allocation %	Annual Return
Corporate Bonds	78.00%	3.48%
Equities	20.00%	7.29%
Cash and Other	2.00%	4.30%
All Securities	100.00%	4.26%

There is variability in the investment returns over the next year. In addition, the significance of the targeted investment return assumption has increased over time as the contingency reserve and asset balances of the Accident Fund and Medical Aid Fund have grown. For these reasons, we believe that it is appropriate to include the variability of the targeted investment returns over the next year in our range of indicated break-even rate changes and have done so in our analysis. Details of the calculation of this range can be found in Section VI below.

Although the historical investment returns on all assets are not used to come up with our targeted investment return assumption, we believe it is informative to review and compare recent historical returns to the selected targeted investment return assumptions.

The recent historical investment return averages have been higher than the Department's selected returns. The Accident Fund investment return over the most recent five-year average investment return is 4.50% (ten-year average is 4.76%). The Medical Aid Fund investment return over the most recent five-year average investment return is 4.61% (ten-year average is 4.88%).

For the Accident Fund, the Department applies the excess investment income assumption to the Cash & Invested Assets of just the Accident Fund excluding the Pension Reserve Fund to be consistent with how the assumptions that they use are calculated. For example, the Department uses the average discount rate embedded in only the Accident Fund liabilities (2.91%). Deloitte Consulting applies the excess investment income assumption to the Cash & Invested Assets of the combined funds since the assumptions that we develop are based on the combined funds. For example, Deloitte Consulting uses the average discount rate embedded in the combined liabilities of the Accident Fund and the Pension Reserve Fund (3.88%) combined and also estimates the total investment return based on the results of

the combined funds. Since the contingency reserve of the Accident Fund ultimately depends on the results on a combined fund basis, we feel it is appropriate to estimate the extra investment income on a combined basis. We do not believe that this difference produces a material difference between our estimates of the extra investment income and the amount estimated by the Department.

Adopted 2024 Classification Rates

We have reviewed the Department's indicated 2024 classification code base rates for the Accident Fund and the Medical Aid Fund, though at the time of our initial review, the Department's overall rate levels had not yet been decided and, as such, a zero overall rate increase per fund was assumed in our review of the Department's analysis. As described in our letter dated August 25, 2023 ("Department of Labor & Industries' 2024 Classification Relativity Rate Change Process Analysis"), we believe the Department's classification ratemaking methodology appears reasonable and consequently the resulting classification relativities appear reasonable as well.

Subsequently, we have reviewed the calculation that the Department has done to apply the overall adopted rate change to the classification rates and believe that the calculation is reasonable. During our analysis we reviewed the average three-year change by classification to flag any individual outliers for review. The top ten classes with the largest positive three-year average rate change and the ten classes with the largest negative three-year average rate change are displayed below:

3-YEAR AVERAGE RATE CHANGE BY CLASS - TOP/BOTTOM 10		
Rate Change	Class Code	Description
-11.1%	701	Dam Construction
-8.9%	6707	Contact Sports, NOC
-6.9%	6903	Aerial Fire Fighting, Spraying, Seeding and Crop Dusting
-6.6%	540	Wallboard Installation - Discounted Rate
-6.3%	2008	Field Bonded Warehouses
-5.5%	3501	Brick and Clay Product Manufacturing, NOC
-4.7%	6809	Baseball, Basketball and Soccer Teams
-3.5%	403	Sign- Erection, Repair, Removal
-3.4%	217	Concrete Work - Foundations and Flatwork
-2.7%	2908	Factory Built Housing; Campers/Trailers Mfg.
10.2%	6905	County and City Law Enforcement Officers
10.3%	4806	Hand Harvesting: Berries, Nuts, Flowers
11.5%	7108	Temp. Help - Warehousing Services
11.6%	4813	Vineyards
12.2%	7116	Temp. Help - Flagging for Public Utility Construction
12.6%	519	Sheet Metal Siding, Gutter and Downspout Installation
13.8%	7200	State Acute Health Care Facilities w/Safe Patient Handling
13.8%	7400	State Acute Health Care Facilities w/o Safe Patient Handling
15.7%	3415	Factory Built Housing Dealers
30.3%	3903	Sugar Refining

We note that of the current 320 class codes, 126 classes have an average rate change larger than +/-5%, and 11 classes have an average rate change larger than +/-10%.

Additionally, we performed diagnostics on the 2024 adopted rates by class to compare the rates of similar classifications (e.g., 521 Painting: Buildings-Interior Work and 504 Painting: Building & Structures-Exterior Work) to verify that the relative rates between classifications are consistent with the relative risk. We note that there were no obvious outliers which required further review.

V. DEPARTMENT'S METHODOLOGY AND APPROACH

Process Overview – Overall Rate Changes for Accident Fund and Medical Aid Fund

Our process entailed reviewing the internal actuarial rate analyses / calculations for the indicated rate changes effective January 1, 2024, performed by the Department's actuarial group. The internal rate analysis was comprised of a series of Excel worksheets as well as a brief description of the Department's analyses and assumptions used. Both the internal ratemaking review work papers and write-up were provided to us directly by the Department.

In addition, we had discussions regarding the process used for estimating the overall rate level changes with Bill Vasek, the Department's chief actuary, and other members of the Department's actuarial and claims teams.

Lastly, we performed reasonability checks on the calculations / formulas displayed in the Department's rate analysis to evaluate the impact of certain assumptions on the final results of the Department's calculations.

The following chart displays a high-level summary of the Department's methodology used to estimate the overall rate changes for the Accident Fund and the Medical Aid Fund:

SUMMARY OF MAJOR STEPS - OVERALL L&I BASE RATE REVIEW

	Accident Fund	Medical Aid Fund
(1) Selected Loss Ratio for AY 2024	86.4%	107.1%
(2) CAE to Loss Incurred Ratio	7.4%	19.6%
(3) Loss + CAE Ratio	92.8%	128.1%
(4) Fixed Expenses Ratio	9.0%	10.4%
(5) 2024 AY Combined Expense Ratio	101.8%	138.5%
(6) Retro Adjustment Ratio	13.6%	0.0%
(7) Ceded Reinsurance Premium Ratio	0.7%	0.7%
(8) 2024 AY Combined Ratio - Net of Retro	118.9%	139.5%
(9) Other Income	0.7%	-0.3%
(10) Extra Investment Income	5.8%	25.0%
(11) Target Operating Ratio	100.0%	100.0%
(12) Change in Retro Adjustment due to combined AF+MAF indications	-0.1%	N/A
(13) Balancing 2024 Rate Change		
(13a) Including Extra Investment Income	12.5%	14.8%
(13b) Excluding Extra Investment Income	18.3%	39.8%
 (3) = (1) x [1 + (2)]		
(5) = (3) + (4)		
(8) = (5) / [1 - (6) - (7)]		
(13a) = (8) - (9) - (10) - (11) - (12)		
(13b) = (13a) + (10)		

A brief description of the major steps for the Accident Fund and the Medical Aid Fund is given below:

1. *Select a projected loss ratio for AY 2024*

The Department initially selects a projected AY 2024 loss ratio separately for the Accident and Medical Aid Funds based on the results of four commonly accepted actuarial techniques. We note that the projected loss ratios are discounted at the same interest rates as the reserve study: state fund tabular pension liabilities and the future total permanent disability and fatal pensions transferred to the Pension Reserve Fund are discounted at 4.0%, while the actual transfer payments of total permanent disability and fatal pensions, and all other Accident Fund and Medical Aid Fund payments are discounted at 1.5%.

2. *Include a provision for claims adjustment expenses ("CAE")*

This provision provides for the allocated and unallocated loss adjustment expenses expected to be incurred for accidents occurring in calendar year 2024. The Department reviews the history of both the Paid CAE to Paid Loss ratios and the Incurred CAE to Incurred Loss ratios. In the calculation of the 2024 rates, the CAE assumption for the Accident Fund decreased from 7.8% to 7.4%, while the CAE assumption for the Medical Aid Fund was unchanged at 19.6%.

3. *Estimate the Loss & CAE combined ratio*

Final selected combined loss and CAE ratios are calculated by combining the provision for CAE with the selected loss ratios (step 1).

4. *Include a provision for fixed expenses*

This provision represents the fixed expenses expected to be incurred by the Department, including such items as overhead and general expenses.

5. *Estimate the 2024 Accident Year Combined Ratio*

The provision for fixed expenses (step 4) is added to the Loss & CAE ratio (step 3) to estimate the 2024 combined ratio.

6. *Adjust for estimated refunds on retrospectively rated policies (Accident Fund only)*

The State of Washington offers a retrospectively ("retro") rated program to qualifying employers. We understand that approximately 31% of employers participate in this program and that the retro program is priced in a manner that anticipates refunds over all participating employers. These refunds are estimated by the Department and then are "funded" through a loading in the overall rates (the "retro adjustment"). A four-year smoothed average of historical data is used when calculating the overall retro refund adjustment. The retro adjustment decreased from

14.3% to 13.6% in the calculation of the 2024 rates. We note a further adjustment to this ratio is discussed below (step 12).

7. Include a provision for ceded reinsurance premium

In this step, the provision for the reinsurance policy is included.

8. Estimate the Combined Ratio net of retro adjustment factor

In this step, the combined ratio (step 5) for the Accident Fund is increased to include the provision for the Department's estimated refunds for retrospectively rated policies (step 6) and the provision for the Department's ceded reinsurance premium ratio (step 7).

9. Include a provision for other income

Other income includes premium fees, penalties, and interest offset by bad debt. Provisions of 0.7% and -0.3% for the Accident Fund and the Medical Aid Fund, respectively, were calculated by the Department using a three-year average of the ratio of other income to premiums.

10. Adjust for extra investment income

Step 10 is a provision for investment income earned beyond what is anticipated by the amount of discount in the loss and LAE. The adjustment for extra investment income effectively anticipates future investment income on the current contingency reserve to reduce the 2024 rate indications. The Accident Fund provision decreased from 6.6% to 5.8%, while the Medical Aid Fund provision increased from 20.6% to 25.0%, in the calculation of the 2024 rates.

11. Target Combined Ratio

The targeted combined ratio for each fund is 100%. In other words, the premiums plus investment income are set equal to the expected losses and expenses, and the provision for profit and contingencies is 0%. We recommend that the Department evaluate the inclusion of both the extra investment income and the profit and contingencies factor in the ratemaking process, in conjunction with an evaluation of the potential need for a provision for adverse deviation, after considering the financial soundness of each fund's surplus.

12. Change in Retro Adjustment due to combined Accident Fund and Medical Aid Fund indications (Accident Fund only)

The initial rate changes impact the average Accident Fund and Medical Aid Fund rates. Therefore, a small adjustment is included to account for how the average rates influence the Retro adjustment. This additional retro adjustment decreased the overall total retro adjustment from 14.3% to 13.6% in the calculation of the 2024 rates.

13. Calculate the balancing 2024 rate change

The balancing 2024 rate change is calculated as the combined ratio (step 8) minus the sum of other income (step 9), extra investment income (step 10), the target break-even combined ratio of 100% (step 11), and the change in Retro adjustment (step 12). For review purposes, we have presented the balancing 2024 rate change with and without the inclusion of the extra investment income credit.

Process Overview – Overall Rate Change for Stay-at-Work Program

Our process entailed reviewing the internal actuarial rate analyses / calculations for the indicated rate changes effective January 1, 2024, performed by the Department's actuarial group. The internal rate analysis was comprised of a series of Excel worksheets as well as a brief description of the Department's analyses and assumptions used. Both the internal ratemaking review work papers and write-up were provided to us directly by the Department.

We performed reasonability checks on the calculations / formulas presented in the Department's Stay-at-Work Program rate analysis to evaluate the impact of certain assumptions on the final results of the Department's calculations.

The following chart displays a summary of the calculations performed to estimate the Stay-at-Work Program premium base rate for 2024:

SUMMARY OF MAJOR STEPS - STAY AT WORK PROGRAM		
(1)	Discounted AY 2024 Loss Ratio	73.6%
(2)	Ceded Reinsurance Premium Ratio	0.7%
(3)	Net Loss Ratio	74.1%
(4)	CAE to Loss (from Medical Aid Fund)	19.6%
(5)	Claims Admin Expense Incurred	14.5%
(6)	Fixed Expense Ratio	10.5%
(7)	AY 2024 Combined Ratio	99.2%
(8)	Target Operating Ratio	100.0%
(9)	Extra Investment Income	4.3%
(10)	AY 2024 Revenue Ratio Before Rate Change	104.3%
(11)	Balancing 2024 Rate Change	-5.1%
$(3) = (1) / [1 - (2)]$ $(5) = (3) \times (4)$ $(7) = (3) + (5) + (6)$ $(10) = (8) + (9)$ $(11) = (7) - (10)$		

A brief description of the major steps for the Stay-at-Work program is given below:

1. Select a projected loss ratio for AY 2024

The Department initially selects a projected discounted AY 2024 loss ratio using a three-year average, based on data and assumptions in the Department's actuarial reserving study.

2. Include a provision for ceded reinsurance premium

In this step, the provision for reinsurance policy is included.

3. Estimate the Net Loss Ratio

The provision for projected loss ratio (step 1) is added to the provision for ceded reinsurance premium (step 2) to estimate the net loss ratio.

4. Include a provision for CAE (from Medical Aid Fund)

This provision provides for the allocated and unallocated loss adjustment expenses expected to be incurred for accidents occurring in calendar year 2024. The Stay-at-Work assumption is set equal to the Medical Aid Fund assumption discussed above.

5. Claims Administrative Expense Incurred

Step 5 incorporates Step 3 and Step 4 to estimate the incurred claims administrative expense.

6. Include a provision for fixed expenses

This provision represents the fixed expenses expected to be incurred by the Department, including such items as overhead and general expenses. The Stay-at-Work assumption is set equal to the Medical Aid Fund assumption discussed above.

7. Estimate the Combined Ratio

The provision for fixed expenses (step 6) is added to the CAE ratio (step 5) and the net loss ratio (step 3) to estimate the 2024 combined ratio.

8. Target Combined Ratio

The targeted combined ratio is 100%. In other words, the premiums plus investment income are set equal to the expected losses and expenses, and the provision for profit and contingencies is 0%.

9. Adjust for extra investment income

Step 9 is a provision for investment income earned beyond what is anticipated by the amount of discount in the losses. The adjustment for extra investment income effectively anticipates future investment income on the current contingency reserve to reduce the 2024 rate indications. The provision increased from 2.9% to 4.3% in the calculation of the 2024 rates.

10. AY 2024 revenue ratio before rate change

The revenue ratio is calculated as the target break-even operating ratio (step 8) plus the extra investment income (step 9).

11. Calculate the balancing 2024 rate change

The balancing 2024 rate change is calculated as the combined ratio (step 7) minus the revenue ratio (step 10).

VI. DELOITTE CONSULTING'S METHODOLOGY AND APPROACH

Accident Fund & Medical Aid Fund Methodology

As discussed below, we have utilized a loss rate approach (i.e., loss cost per hours worked) and built that rate up for LAE and expenses and subsequently adjusted it for potential extra investment income over and above what is expected by the rate used to discount the liabilities. The resulting premium rate is then compared to the Department's estimated 2023 overall premium rate to compute the 2024 required rate change for a break-even result. The main components of the estimated premium rate are as follows:

- An initial loss rate is selected for each fund based on the estimated ultimate losses computed in Deloitte Consulting's Reserve Review as of June 30, 2023. These losses are adjusted for historical trends in both claim frequency and claim severity over time to bring them to current frequency and severity levels (i.e., estimated "on-level" ultimates). The frequency and severity trend factors include the result of inflation, utilization changes, benefit levels, and other changes. The on-level ultimates are then compared to historical actual hours worked to derive the initial loss rate.
- The LAE rate for each fund is based on a review of the historical ratio of paid LAE to paid losses. We have also considered the ratio of the incurred claims administration costs to incurred benefits in historical statutory financial statements as another indication to confirm the reasonableness of the selected ratio. The selected ratio is then applied to the proposed loss rate from the previous step.
- Each fund's expense provisions are derived from the historical actual expenses that are expressed as a ratio to hours worked. The expense ratios are developed from information contained in the Department's financial statements and cover such expense items as general and administrative expenses, premium administration expenses, and other administrative expenses.
- All income and expenses related to the self-insured fund are not included in our calculations.
- The extra investment income represents the anticipated investment income earned on the Department's contingency reserve as well as on the assets backing the liabilities in excess of what is implied by the reserve discount rate.

Premium Rate Range

A reasonable range of our expected premium rate is estimated by performing a Monte Carlo simulation of 100,000 iterations of loss, LAE, and investment income 2024. The low premium rate and high premium rate is based on the 35th and 75th percentile results of the Monte Carlo simulation, respectively. Please

refer to Deloitte Consulting's Report entitled, "State of Washington Department of Labor and Industries, Financial Model as of June 30, 2023" dated December 1, 2023 for details of how future frequency, severity and investment returns are simulated.

The next several paragraphs in this section provide more details and support behind our assumptions and why we used a particular assumption.

Loss Cost Approach

Our ratemaking analysis is based on a "loss cost" approach, that is, on the relationship of losses to an exposure base. The State of Washington regulations require that "hours worked" be used as the exposure basis for Washington workers' compensation premiums. Thus, we relied upon loss costs that are expressed as a ratio to hours worked.

We note that the Department's analysis is based on a loss ratio approach, which relate losses to on-level premiums (rather than hours worked). Loss ratio approaches are commonly used in ratemaking applications. However, for our analysis, we chose to use the loss cost approach rather than a loss ratio approach, as it allowed us to consider experience from prior years without the need to estimate the impact of factors that changed the premium volume from those prior years, such as rate changes. Loss cost and loss ratio approaches can produce the same rate level indications if there is consistency in assumptions on cost levels in the prospective year.

On-leveling Process

A key aspect of ratemaking is the analysis of historical loss experience brought to cost levels anticipated for the effective period of the rates, in this case calendar year 2024. We on-leveled (i.e., trended) the Accident Fund and Medical Aid Fund historical losses by splitting losses into two components and analyzing the trends in those components separately:

- frequency (number of compensable claims relative to hours worked)
- claim severity (average cost per compensable claim)

We find that splitting losses into its respective components provides a better understanding of underlying trend drivers. If losses are reviewed on a combined frequency/severity basis, there is a chance that the underlying claim frequency and claim severity trends are offsetting and the total can produce misleading results.

Claim Frequency Trend

Claim frequency is displayed in the table below:

**Washington Department of Labor & Industries
Frequency Trend
Based on Data Evaluated as of June 30, 2023**

Accident Period	Estimated Ultimate Compensable Claims*	Hours Worked (000's)	Compensable Claim Frequency Per 100 Hours Worked	Change in Compensable Claim Frequency
(1)	(2)	(3)	(4) = (2)/(3) x 100	(5)
7/1/10-11	23,911	3,095,477	0.772	
7/1/11-12	23,062	3,179,757	0.725	-6.1%
7/1/12-13	23,009	3,272,669	0.703	-3.1%
7/1/13-14	23,821	3,387,489	0.703	0.0%
7/1/14-15	23,689	3,539,833	0.669	-4.8%
7/1/15-16	23,712	3,683,303	0.644	-3.8%
7/1/16-17	23,687	3,827,116	0.619	-3.9%
7/1/17-18	23,556	3,925,915	0.600	-3.1%
7/1/18-19	23,004	4,006,618	0.574	-4.3%
7/1/19-20	20,749	3,940,025	0.527	-8.3%
7/1/20-21	21,555	3,887,370	0.554	5.3%
7/1/21-22	21,233	4,130,158	0.514	-7.3%
7/1/22-23	22,019	4,320,588	0.510	-0.9%

* Excludes COVID-19 claims

We have reviewed these historical claim frequencies to select an annual claim frequency trend for use in our analysis. Based on the table above, we have selected the indicated change in compensable claim frequency as our assumed trend for each respective accident period from 7/1/10-23. In order to on-level each accident year to calendar year 2024, we have assumed a future annual frequency trend of -1.0%.

Claim Severity Trend - General

We analyzed claim severity trend using results from Deloitte Consulting's Reserve Review as of June 30, 2023. For each accident period, we computed the indemnity (or medical) severity as the ratio of our selected ultimate loss estimate (at the midpoint of our range) divided by the number of compensable claims in that accident period. We term this ratio "ultimate loss severity".

For this analysis, the ultimate loss severity trend is based in part on the observed trend in the Fund's ultimate claim severity. Consideration is also given to broader industry workers' compensation severity

trends, based on information compiled and presented by the National Council on Compensation Insurance ("NCCI") in its "State of the Line" presentation. For the Accident Fund, consideration is also given to the state average weekly wage, which is the predominant underlying assumption which influences the severity.

Please note that the ultimate loss severity derived from our June 30, 2023 unpaid claims review implicitly includes an estimate of the impact of benefit level changes over time as well as all other inflationary factors. As such, we did not separately model benefit level adjustment factors in our analysis.

Severity Trend – Accident Fund

The indicated indemnity severity trend for the Accident Fund is displayed in the table below:

**Washington Department of Labor & Industries
Severity Trend - Accident Fund
Based on Data Evaluated as of June 30, 2023**

Accident Period	Accident Fund Ultimate Loss* (\$000's)	Estimated Ultimate Compensable Claims*	Accident Fund Ultimate Loss Severity	Accident Fund Change in Severity	NCCI - State of the Line Severity Trend
(1)	(2)	(3)	(4) = (2)/(3) x 1000	(5)	(6)
7/1/10-11	881,671	23,911	36,872		0.3%
7/1/11-12	822,377	23,062	35,659	-3.3%	-1.4%
7/1/12-13	845,099	23,009	36,729	3.0%	2.1%
7/1/13-14	869,310	23,821	36,494	-0.6%	0.4%
7/1/14-15	838,277	23,689	35,387	-3.0%	-0.4%
7/1/15-16	838,636	23,712	35,368	-0.1%	-0.1%
7/1/16-17	894,727	23,687	37,774	6.8%	4.8%
7/1/17-18	960,198	23,556	40,762	7.9%	3.3%
7/1/18-19	1,017,535	23,004	44,232	8.5%	3.8%
7/1/19-20	984,710	20,749	47,457	7.3%	2.9%
7/1/20-21	1,092,895	21,555	50,702	6.8%	-0.5%
7/1/21-22	1,202,438	21,233	56,631	11.7%	6.0%
7/1/22-23	1,299,121	22,019	58,999	4.2%	n/a

* Adjusted to exclude COVID-19 data

We have reviewed these historical loss severities to select an annual indemnity loss severity trend for use in our analysis. Based on the table above, we have assumed an annual indemnity loss severity trend of - 1.5% for accident periods 7/1/10-15, +5.0% for accident periods 7/1/15-22, and +4.5% for accident periods 7/1/22-24. In order to on-level each accident year to calendar year 2024, we have assumed a future annual indemnity severity trend of +4.5%.

Severity Trend – Medical Aid Fund

The indicated medical severity trend for the Medical Aid Fund is displayed in the table below:

Washington Department of Labor & Industries
Severity Trend - Medical Aid Fund
Based on Data Evaluated as of June 30, 2023

Accident Period	Medical Aid Fund Ultimate Loss* (\$000's)	Estimated Ultimate Compensable Claims*	Medical Aid Fund Ultimate Loss Severity	Medical Aid Fund Change in Severity	NCCI - State of the Line Severity Trend
(1)	(2)	(3)	(4)= (2)/(3) x 1000	(5)	(6)
7/1/10-11	603,050	23,911	25,220		0.8%
7/1/11-12	585,500	23,062	25,388	0.7%	-1.2%
7/1/12-13	605,700	23,009	26,325	3.7%	1.1%
7/1/13-14	627,700	23,821	26,351	0.1%	2.7%
7/1/14-15	628,400	23,689	26,527	0.7%	-2.7%
7/1/15-16	641,300	23,712	27,045	2.0%	3.2%
7/1/16-17	667,050	23,687	28,161	4.1%	3.8%
7/1/17-18	691,900	23,556	29,372	4.3%	0.4%
7/1/18-19	701,250	23,004	30,483	3.8%	2.3%
7/1/19-20	660,300	20,749	31,823	4.4%	-0.7%
7/1/20-21	667,650	21,555	30,974	-2.7%	-1.5%
7/1/21-22	683,800	21,233	32,205	4.0%	5.0%
7/1/22-23	770,200	22,019	34,978	8.6%	n/a

* Adjusted to exclude COVID-19 data

We have reviewed these historical loss severities to select an annual medical loss severity trend for use in our analysis. Based on the table above, we have assumed an annual medical loss severity trend of +4.0% for accident periods 7/1/10-22 and +5.0% for accident periods 7/1/22-24. In order to on-level each accident year to calendar year 2024, we have assumed a future annual medical severity trend of +5.0%.

On-Level Loss Costs – Accident Fund

The frequency and severity trends described above are applied to historical loss costs in order to estimate on-level loss costs. As discussed earlier, on-level loss costs are estimates of past years' experience at cost levels for the 2024 calendar year. The on-level loss costs for the Accident Fund are displayed in the table below:

Washington Department of Labor & Industries
On-Level Loss Costs - Accident Fund
Based on Data Evaluated as of June 30, 2023

Accident Period	Hours Worked (000's)	Accident Fund Ultimate Loss* (\$000's)	Accident Fund On-Level Factor	Accident Fund On-Level Ultimate Loss (\$000's)	Accident Fund On-Level Loss Cost
(1)	(2)	(3)	(4)	(5) = (3) x (4)	(6) = (5) / (2)
7/1/10-11	3,095,477	881,671	1.029	907,239	0.293
7/1/11-12	3,179,757	822,377	1.113	915,305	0.288
7/1/12-13	3,272,669	845,099	1.166	985,386	0.301
7/1/13-14	3,387,489	869,310	1.183	1,028,394	0.304
7/1/14-15	3,539,833	838,277	1.262	1,057,905	0.299
7/1/15-16	3,683,303	838,636	1.250	1,048,295	0.285
7/1/16-17	3,827,116	894,727	1.238	1,107,673	0.289
7/1/17-18	3,925,915	960,198	1.216	1,167,600	0.297
7/1/18-19	4,006,618	1,017,535	1.210	1,231,217	0.307
7/1/19-20	3,940,025	984,710	1.226	1,207,255	0.306
7/1/20-21	3,887,370	1,092,895	1.109	1,212,021	0.312
7/1/21-22	4,130,158	1,202,438	1.078	1,296,228	0.314
7/1/22-23	4,320,588	1,299,121	1.053	1,367,975	0.317

* Adjusted to exclude COVID-19 data

Based on the on-level loss costs in column (6), we selected a range of 0.304 to 0.330, with a point estimate of 0.314. In selecting the Accident Fund expected loss cost, we relied upon a weighted average experience of the three most recent accident periods, 7/1/20-23. We believe that most of these indirect effects of the pandemic have stabilized and the more recent experience is more indicative of the expected loss performance of the upcoming year. Therefore, we have put more weight on those years in selecting the final loss cost for calendar year 2024.

On-Level Loss Costs – Medical Aid Fund

The on-level loss costs for the Medical Aid Fund are displayed in the table below:

Washington Department of Labor & Industries
On-Level Loss Costs – Medical Aid Fund
Based on Data Evaluated as of June 30, 2023

Accident Period	Hours Worked (000's)	Medical Aid Fund Ultimate Loss* (\$000's)	Medical Aid Fund On-Level Factor	Medical Aid Fund On-Level Ultimate Loss (\$000's)	Medical Aid Fund On-Level Loss Cost
(1)	(2)	(3)	(4)	(5) = (3) x (4)	(6) = (5) / (2)
7/1/10-11	3,095,477	603,050	1.211	730,294	0.236
7/1/11-12	3,179,757	585,500	1.240	726,020	0.228
7/1/12-13	3,272,669	605,700	1.230	745,011	0.228
7/1/13-14	3,387,489	627,700	1.182	741,941	0.219
7/1/14-15	3,539,833	628,400	1.195	750,938	0.212
7/1/15-16	3,683,303	641,300	1.194	765,712	0.208
7/1/16-17	3,827,116	667,050	1.194	796,458	0.208
7/1/17-18	3,925,915	691,900	1.184	819,210	0.209
7/1/18-19	4,006,618	701,250	1.190	834,488	0.208
7/1/19-20	3,940,025	660,300	1.218	804,245	0.204
7/1/20-21	3,887,370	667,650	1.112	742,427	0.191
7/1/21-22	4,130,158	683,800	1.091	746,026	0.181
7/1/22-23	4,320,588	770,200	1.060	816,412	0.189

* Adjusted to exclude COVID-19 data

Based on the on-level loss costs in column (6), we selected a range of 0.179 to 0.198, with a point estimate of 0.187. In selecting the Medical Aid Fund expected loss cost, we relied upon a weighted average experience of the three most recent accident periods, 7/1/20-23. Similar to the Accident Fund, we believe that the more recent experience for the Medical Aid Fund is also more indicative of the expected performance of the upcoming year. Therefore, we have placed more weight on those years to select the final loss cost for calendar year 2024.

Discounting

The interest rates used to discount the losses associated with the 2024 year were provided to Deloitte Consulting by the Department. The use of these rates does not imply that Deloitte Consulting is expressing an opinion on the appropriateness of the rates.

As part of our rate level review, we have estimated the impact of loss discount on both the Accident Fund and the Medical Aid Fund. We have selected discount factors of 0.932, and 0.900 for these Funds,

respectively. These factors, when applied to the undiscounted loss costs described above, produce our estimate of calendar-accident year loss costs discounted to September 30, 2024. Losses costs are discounted to this date to account for the delayed reporting of premium in the State of Washington. The Department requires quarterly reports and premium payments which are due on the last day of the month that follows the end of the quarter (e.g. premium related to hours worked between January 1 and March 31 is due April 30). To account for an additional one-week grace period and late payments, the Department assumes that premium is collected 45 days after the end of the quarter. Therefore, premium payments for calendar-accident year 2024 are assumed to be collected on May 15, 2024, August 15, 2024, November 15, 2024, and February 15, 2025, which indicates an average premium collection date of September 30, 2024.

We based these discount factors on the loss payment patterns developed in Deloitte Consulting's Reserve Review as of June 30, 2023. We note that workers' compensation discount rates are frequently based on yield rates for risk-free assets with similar durations to the losses. The annual interest rates selected by the Department are as follows:

- For the Medical Aid Fund, the interest rate is 1.5%.
- For "state fund pensions" within the Pension Reserve Fund, the Department's selected interest rate is 4.0%.
- For "self-insured pre-funded pensions" within the Pension Reserve Fund, the Department's selected interest rate is 5.6% according to the Washington administrative code rule WAC 296-14-8810. The rates selected for self-insured pre-funded pensions is allowed to be different from the rate selected for state fund pensions according to SB6393.
- For the Accident Fund, combinations of annual interest rates are used to discount the reserves. The future total permanent disability transfers made to the Pension Reserve Fund assume interest discounts based on an annual rate of 4.0%. The actual transfer payments and all other payments are discounted using a Department selected rate of 1.5%.
- The average combined interest rate for the Basic Plan is approximately 2.9%.

Adjustment to Benefit Level, Expenses, and Other Items

Rates are intended to provide for all costs to the insurer. The methodology, assumptions, and selections discussed to this point provide background on the loss portion of the rate. Losses represent the majority of costs for the Department, but there are additional adjustments to benefit level, expenses, and other income which need to be considered in the rate as well. These include the following:

- Loss adjustment expenses ("LAE")
- Other underwriting expenses
- Retro adjustment ratio (Accident Fund only)
- Other Income ratio
- "Extra investment income"

We independently estimated the expense provisions noted above. The LAE assumption is discussed in further detail below. The Extra Investment Income assumption is discussed in further detail in Section IV.

For other underwriting expenses, we calculated a fixed expense rate based on a review of the fixed expenses from the most recent five years and estimated 2024 hours worked. We estimate the fixed expense rates to be \$0.030 for the Accident Fund and \$0.020 for the Medical Aid Fund.

For retro adjustment ratio, we calculated the retrospective adjustment ratio based on a review of the retrospective rating adjustments and net earned premium from the most recent years. We estimate the retro adjustment to be 15.9% (for the Accident Fund only).

For other income, we calculated the other operating income rate based on a review of the other income from the most recent five years and estimated 2024 hours worked. We estimate the other operating income rates to be \$0.012 for the Accident Fund and \$0.001 for the Medical Aid Fund.

Loss Adjustment Expense

LAE actuarial assumptions are commonly expressed as a percentage of losses, based on a review of the historical relationship of LAE to loss. The Department relies on a ratio of LAE incurred to losses incurred based on the last three accident years. We chose to focus on the paid-to-paid ratio in order to derive our LAE assumption. We believe that the paid-to-paid ratio is a reasonable basis for the amount of LAE that L&I can expect to incur in relation to loss for accidents that occur during the 2024 calendar year.

We note that since the 2011 reforms have been implemented, the paid-to-paid ratio has started to increase. This is more apparent in the Medical Aid Fund where the long-term ratio for calendar periods 7/1/10-11 to 7/1/11-12 is 14.3% but during the past eleven fiscal years since the reforms were implemented the average has become 18.9%. We understand that there have been increased LAE costs due to hiring of additional staff to help implement the reforms. Calendar period LAE payments are increasing since the reform, while loss payments are generally flat, which will naturally cause the LAE to loss ratio to increase. We also understand there is additional hiring in the claims department that has

caused the ratios to jump over the past year. Therefore, we have relied upon the most recent two fiscal accident year paid-to-paid ratios for our selection for both the Medical Aid Fund and the Accident Fund. We also reviewed the implied ratio of incurred claims administration costs to incurred benefits in the historical financial statements to confirm that our selected ratio was reasonable.

We selected LAE to loss ratios of 8.3% for the Accident Fund and 21.8% for the Medical Aid Fund. The Department selected LAE to loss ratios of 7.4% for the Accident Fund and 19.6% for the Medical Aid Fund.

Deloitte Consulting Overall Rate Indication

Based on the selections described in the preceding sections, the overall rate indications are as follows for the Accident Fund:

**Washington Department of Labor & Industries
Summary of 2024 Break-Even Rate Level Indications - Accident Fund
Based on Data Evaluated as of June 30, 2023**

	Deloitte Consulting LLP Indicated Rate Change		
	Low	Point	High
Undiscounted Loss Cost (1)	\$0.304	\$0.314	\$0.330
Loss Discount Factor (2)	0.932	0.932	0.932
Estimated Total Discounted Indemnity Loss Rate (3) = (1) x (2)	\$0.283	\$0.293	\$0.308
LAE Cost (4)	\$0.025	\$0.026	\$0.027
LAE Discount Factor (5)	0.932	0.932	0.932
Discounted LAE Cost (6) = (4) x (5)	\$0.023	\$0.024	\$0.025
Discounted Loss & LAE Cost (7) = (3) + (6)	\$0.306	\$0.317	\$0.333
Estimated Fixed Expense Rate (8)	\$0.030	\$0.030	\$0.030
Other Income Rate (9)	-\$0.012	-\$0.012	-\$0.012
Variable Net Expense Loading (10)	0.833	0.833	0.833
Total 2024 Rate before Extra Inv Income (11) = [(7) + (8) + (9)] / (10)	\$0.389	\$0.402	\$0.421
Extra Investment Income (12)	-\$0.034	-\$0.029	-\$0.018
Total 2024 Rate after Extra Inv Income (13) = (11) + (12)	\$0.355	\$0.373	\$0.403
2023 Rate (14)	\$0.338	\$0.338	\$0.338
Indicated Break-Even Rate Change (15) = (13) / (14) -1	5.1%	10.4%	19.3%

Based on the selections described in the preceding sections, the overall rate indications are as follows for the Medical Aid Fund:

Washington Department of Labor & Industries
Summary of 2024 Break-Even Rate Level Indications - Medical Aid Fund
Based on Data Evaluated as of June 30, 2023

	Deloitte Consulting LLP Indicated Rate Change		
	Low	Point	High
Undiscounted Loss Cost (1)	\$0.179	\$0.187	\$0.198
Loss Discount Factor (2)	0.900	0.900	0.900
Estimated Total Discounted Medical Loss Rate (3) = (1) x (2)	\$0.161	\$0.168	\$0.178
LAE Cost (4)	\$0.039	\$0.041	\$0.043
LAE Discount Factor (5)	0.900	0.900	0.900
Discounted LAE Cost (6) = (4) x (5)	\$0.035	\$0.037	\$0.039
Discounted Loss & LAE Cost (7) = (3) + (6)	\$0.196	\$0.205	\$0.217
Estimated Fixed Expense Rate (8)	\$0.020	\$0.020	\$0.020
Other Income Rate (9)	-\$0.001	-\$0.001	-\$0.001
Variable Net Expense Loading (10)	0.993	0.993	0.993
Total 2024 Rate before Extra Inv Income (11) = [(7) + (8) + (9)] / (10)	\$0.217	\$0.226	\$0.238
Extra Investment Income (12)	-\$0.064	-\$0.059	-\$0.047
Total 2024 Rate after Extra Inv Income (13) = (11) + (12)	\$0.153	\$0.167	\$0.191
2023 Rate (14)	\$0.173	\$0.173	\$0.173
Indicated Break-Even Rate Change (15) = (13) / (14) - 1	-11.4%	-3.3%	10.6%

VII. EXHIBITS

Section:**Contents:**

Section 1:

Accident Fund

Section 2:

Medical Aid Fund

Washington Department of Labor & Industries

Accident Fund
Determination of Overall Base Rate Change

Rates Effective January 1, 2024
(Losses and LAE Discounted)

	Reasonable Expectation Optimistic	Baseline	Reasonable Expectation Conservative
(1) Selected Indemnity Loss Rate:	\$0.304	\$0.314	\$0.330
(2) Estimated Indemnity Loss Discount Factor:		0.932	
(3) Estimated Total Discounted Indemnity Loss Rate:	\$0.283	\$0.293	\$0.308
(4) Indemnity LAE Ratio (to Loss):		8.3%	
(5) Undiscounted Indemnity LAE Rate:	\$0.025	\$0.026	\$0.027
(6) Estimated Indemnity LAE Discount Factor:		0.932	
(7) Estimated Total Discounted LAE Rate:	\$0.023	\$0.024	\$0.025
(8) Estimated Total Discounted Indemnity Loss & LAE Rate:	\$0.306	\$0.317	\$0.333
(9) Estimated Fixed Expense Rate		\$0.030	
(10) Other Income Rate		-\$0.012	
(11) Retro Adjustment Ratio (% of premium):		15.9%	
(12) Ceded Reinsurance Premium Ratio (% of premium):		0.7%	
(13) Variable Net Expense Loading:		83.3%	
(14) Total Discounted Loss, LAE and Net Expense Rate:	\$0.389	\$0.402	\$0.421
(15) Credit for Extra Investment Income:	-\$0.034	-\$0.029	-\$0.018
(16) Estimated Required Loss, LAE & Expense Rate for CY 2024	\$0.355	\$0.373	\$0.403
(17) Current Loss, LAE & Expense Rate (for CY 2023)		\$0.338	
(18) Indicated Base Rate Level Change	5.1%	10.4%	19.3%

Notes: (1) Section 1, Exhibit 2, Items (8), (9), and (10)
 (2) From Section 1, Exhibit 6, Column (4)
 (3) = (1) x (2)
 (4) Section 1, Exhibit 10
 (5) = (1) x (4)
 (6) = (2)
 (7) = (5) x (6)
 (8) = (3) + (7)
 (9) Section 1, Exhibit 7, Item 11

(10) Section 1, Exhibit 8, Item 8
 (11) Section 1, Exhibit 11
 (12) Provided by the Department
 (13) = 100% - (11) - (12)
 (14) = [(8) + (9) + (10)] / (13)
 (15) Section 1, Exhibit 9, Item (7)
 (16) = (14) + (15)
 (17) Provided by the Department
 (18) = (16) / (17) - 1

Washington Department of Labor & Industries

Accident Fund
Calculation of Estimated Loss Rate

Rates Effective January 1, 2024
(Dollars Shown in 000's)

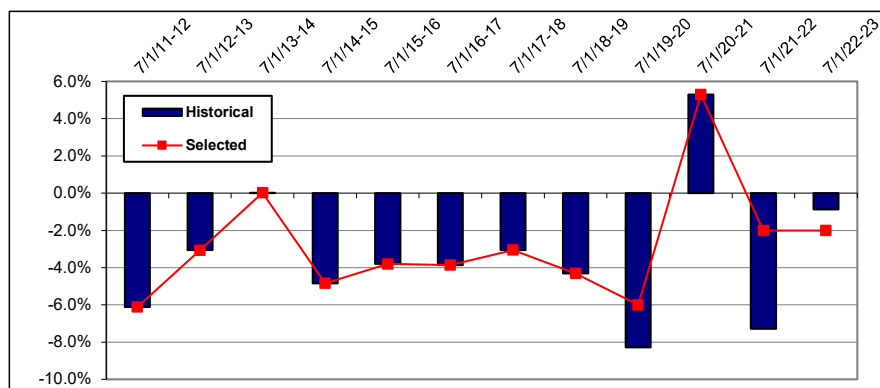
Accident Period	Hours Worked	Estimated Ultimate Acc Fund Losses	Cumulative Acc Fund Loss Trend Factor to AY 2024	Adjusted & Trended Ultimate	Indicated Unadjusted Loss Cost	Indicated On-Level Loss Cost
(1)	(2)	(3)	(4)	(5)	(6)	(7)
7/1/10-11	3,095,477	881,671	1.029	907,239	0.285	0.293
7/1/11-12	3,179,757	822,377	1.113	915,305	0.259	0.288
7/1/12-13	3,272,669	845,099	1.166	985,386	0.258	0.301
7/1/13-14	3,387,489	869,310	1.183	1,028,394	0.257	0.304
7/1/14-15	3,539,833	838,277	1.262	1,057,905	0.237	0.299
7/1/15-16	3,683,303	838,636	1.250	1,048,295	0.228	0.285
7/1/16-17	3,827,116	894,727	1.238	1,107,673	0.234	0.289
7/1/17-18	3,925,915	960,198	1.216	1,167,600	0.245	0.297
7/1/18-19	4,006,618	1,017,535	1.210	1,231,217	0.254	0.307
7/1/19-20	3,940,025	984,710	1.226	1,207,255	0.250	0.306
7/1/20-21	3,887,370	1,092,895	1.109	1,212,021	0.281	0.312
7/1/21-22	4,130,158	1,202,438	1.078	1,296,228	0.291	0.314
7/1/22-23	4,320,588	1,299,121	1.053	1,367,975	0.301	0.317
Total	\$48,196,319	\$12,546,995		\$14,532,493	\$0.260	\$0.302
All Year Weighted Average:						\$0.302
7/1/10-21 Weighted Avg:						0.299
7/1/14-21 Weighted Avg:						0.300
7/1/19-21 Weighted Avg:						0.309
7/1/19-22 Weighted Avg:						0.311
7/1/20-23 Weighted Avg:						0.314
7/1/21-23 Weighted Avg:						0.315
Prior Trended						0.314
(8) Selected Reasonable Expectation - Optimistic						0.304
(9) Selected Baseline						0.314
(10) Selected Reasonable Expectation - Conservative						0.330

Notes: (2) Provided by the Department
(3) From Deloitte Consulting's AF Reserve Analysis as of June 30, 2023
(4) From Section 1, Exhibit 5
(5) = (3) x (4)
(6) = (3) / (2)
(7) = (5) / (2)
(8) to (10) Selected by Deloitte Consulting

Washington Department of Labor & Industries

Accident Fund Estimated Claim Frequency Trend

Accident Period	Estimated Ultimate Number of Claims*	Hours Worked (000's)	Claim Frequency Per 100,000 Hours Worked	Change in Claim Frequency *	Selected Annual Indem Claim Frequency Trend	Cumulative Indem Claim Frequency Trend Factor to AY 2024
(1)	(2)	(3)	(4)	(5)	(6)	(7)
7/1/10-11	23,911	3,095,477	0.772			0.696
7/1/11-12	23,062	3,179,757	0.725	-6.1%	-6.1%	0.741
7/1/12-13	23,009	3,272,669	0.703	-3.1%	-3.1%	0.765
7/1/13-14	23,821	3,387,489	0.703	0.0%	0.0%	0.765
7/1/14-15	23,689	3,539,833	0.669	-4.8%	-4.8%	0.803
7/1/15-16	23,712	3,683,303	0.644	-3.8%	-3.8%	0.835
7/1/16-17	23,687	3,827,116	0.619	-3.9%	-3.9%	0.869
7/1/17-18	23,556	3,925,915	0.600	-3.1%	-3.1%	0.896
7/1/18-19	23,004	4,006,618	0.574	-4.3%	-4.3%	0.936
7/1/19-20	20,749	3,940,025	0.527	-8.3%	-6.0%	0.996
7/1/20-21	21,555	3,887,370	0.554	5.3%	5.3%	0.946
7/1/21-22	21,233	4,130,158	0.514	-7.3%	-2.0%	0.965
7/1/22-23	22,019	4,320,588	0.510	-0.9%	-2.0%	0.985
7/1/23-24					-1.0%	0.995
CY 2024					-0.5%	1.000



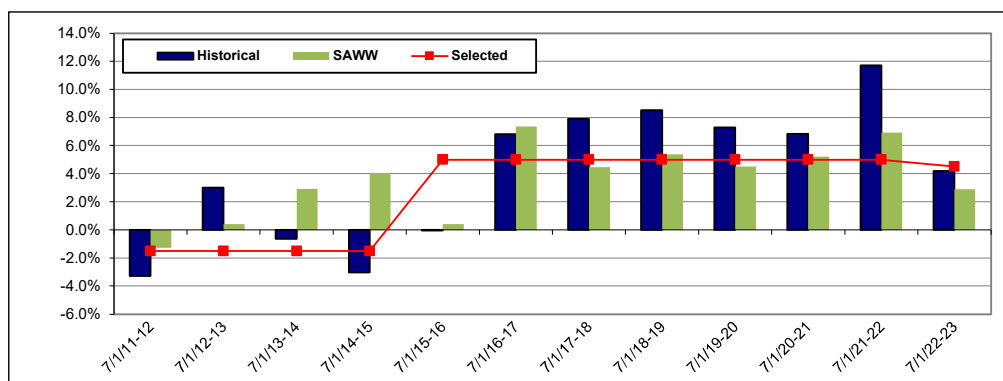
-3.5% 7/1/10-22 trend
-3.6% 7/1/14-21 trend
-3.6% 7/1/14-22 trend
-3.4% 7/1/16-21 trend
-3.5% 7/1/16-22 trend
-3.2% 7/1/17-21 trend
-3.4% 7/1/17-22 trend
-1.7% 7/1/18-21 trend
-1.2% 7/1/19-22 trend

Notes: (1) Fiscal Accident Year Beginning July 1, xxxx
(2) From Deloitte Consulting's AF Reserve Analysis as of June 30, 2023
(3) Provided by the Department
(4) = (2) / [(3) / 100]; Accident Year 7/1/19-20 frequency trends is -8.3% excluding COVID-19 claims
(5) = [(4) / (4) {AY X-1}] - 1
(6) Selected by Deloitte Consulting
(7) = [1 + (6)] x (7) {AY X+1}
* Excludes COVID-19 claims

Washington Department of Labor & Industries

Accident Fund Estimated Claim Severity Trend (Dollars Shown in 000's)

Accident Period	Estimated Ultimate Indemnity Loss*	Estimated Ultimate Number of Claims*	Estimated Ult Claim Severity	Change in Claim Severity	Change in State Average Weekly Wage	NCCI State of Line	Selected Annual Indem Claim Severity Trend	Cumulative Indemnity Claim Severity Trend Factor to AY 2024
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7/1/10-11	881,671	23,911	36,872		1.8%	0.3%	-1.5%	1.479
7/1/11-12	822,377	23,062	35,659	-3.3%	-1.3%	-1.4%	-1.5%	1.502
7/1/12-13	845,099	23,009	36,729	3.0%	0.4%	2.1%	-1.5%	1.524
7/1/13-14	869,310	23,821	36,494	-0.6%	2.9%	0.4%	-1.5%	1.548
7/1/14-15	838,277	23,689	35,387	-3.0%	4.1%	-0.4%	-1.5%	1.571
7/1/15-16	838,636	23,712	35,368	-0.1%	0.4%	-0.1%	5.0%	1.496
7/1/16-17	894,727	23,687	37,774	6.8%	7.4%	4.8%	5.0%	1.425
7/1/17-18	960,198	23,556	40,762	7.9%	4.5%	3.3%	5.0%	1.357
7/1/18-19	1,017,535	23,004	44,232	8.5%	5.4%	3.8%	5.0%	1.293
7/1/19-20	984,710	20,749	47,457	7.3%	4.5%	2.9%	5.0%	1.231
7/1/20-21	1,092,895	21,555	50,702	6.8%	5.2%	-0.5%	5.0%	1.172
7/1/21-22	1,202,438	21,233	56,631	11.7%	6.9%	6.0%	5.0%	1.117
7/1/22-23	1,299,121	22,019	58,999	4.2%	2.9%		4.5%	1.069
7/1/23-24							4.5%	1.023
CY 2024							2.3%	1.000



WA

-0.7%	7/1/10-16 trend
3.3%	7/1/10-21 trend
4.4%	7/1/10-23 trend
7.7%	7/1/16-21 trend
7.9%	7/1/17-23 trend
7.1%	7/1/18-21 trend
7.9%	7/1/20-23 trend

NCCI

0.8%	CY 2010-2016 trend
2.9%	CY 2015-2021 trend
3.4%	CY 2016-2021 trend
3.1%	CY 2017-2021 trend
3.1%	CY 2018-2021 trend

Notes: (1) Fiscal Accident Year Beginning July 1, xxxx
 (2), (3) From Deloitte Consulting's AF Reserve Analysis as of June 30, 2023
 (4) = [(2) / (3)] x 1,000
 (5) = [(4) / (4) {AY X-1}] - 1
 (6) Provided by the Department
 (7) From 2023 State of the Line Presentation by Donna Glenn, FCAS, MAAA, NCCI Chief Actuary
 (8) Selected by Deloitte Consulting
 (9) = [1 + (8)] x (9) {AY X+1}
 * Adjusted to exclude COVID-19 data

Washington Department of Labor & Industries
Accident Fund
Claim Frequency and Claim Severity Trend Summary

Accident Period	Cumulative Indem Claim Frequency Trend Factor to AY 2024	Cumulative Indem Claim Severity Trend Factor to AY 2024	Cumulative Indemnity Loss Trend Factor to AY 2024	Selected Hours Worked Trend	Selected Indemnity Claim Frequency Trend	Selected Indemnity Claim Severity Trend	Selected Indemnity Loss Cost Trend
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
7/1/10-11	0.696	1.479	1.029	0.0%			
7/1/11-12	0.741	1.502	1.113	0.0%	-6.1%	-1.5%	-7.5%
7/1/12-13	0.765	1.524	1.166	0.0%	-3.1%	-1.5%	-4.5%
7/1/13-14	0.765	1.548	1.183	0.0%	0.0%	-1.5%	-1.5%
7/1/14-15	0.803	1.571	1.262	0.0%	-4.8%	-1.5%	-6.3%
7/1/15-16	0.835	1.496	1.250	0.0%	-3.8%	5.0%	1.0%
7/1/16-17	0.869	1.425	1.238	0.0%	-3.9%	5.0%	0.9%
7/1/17-18	0.896	1.357	1.216	0.0%	-3.1%	5.0%	1.8%
7/1/18-19	0.936	1.293	1.210	0.0%	-4.3%	5.0%	0.5%
7/1/19-20	0.996	1.231	1.226	0.0%	-6.0%	5.0%	-1.3%
7/1/20-21	0.946	1.172	1.109	0.0%	5.3%	5.0%	10.6%
7/1/21-22	0.965	1.117	1.078	0.0%	-2.0%	5.0%	2.9%
7/1/22-23	0.985	1.069	1.053	0.0%	-2.0%	4.5%	2.4%
7/1/23-24	0.995	1.023	1.017	0.0%	-1.0%	4.5%	3.5%
CY 2024	1.000	1.000	1.000	0.0%	-0.5%	2.3%	1.7%

Notes: (1) Fiscal Accident Year Beginning July 1, xxxx
(2) From Section 1, Exhibit 3, Col. (7)
(3) From Section 1, Exhibit 4, Col. (9)
(4) = (2) x (3)
(5) Selected by Deloitte Consulting
(6) From Section 1, Exhibit 3, Col. (6)
(7) From Section 1, Exhibit 4, Col. (8)
(8) = [1 + (6)] x [1 + (7)] / [1 + (5)] - 1

Washington Department of Labor & Industries

Accident Fund

Calculation of Loss Discount Factor

(Assumes Annual Discount Rate of 1.5%)

Calendar-Accident Year 2024

Age to Ultimate	Cumulative LDF At Beg Period (1)	Age	Incremental Paid Loss % at each age (2)	PV of Increm Paid Loss % at 1.5% Discount (3)	Discount Factor (4)
12-Ult	10.951	12-24	9.13%	9.17%	0.932
24-Ult	4.195	24-36	14.70%	14.54%	
36-Ult	2.787	36-48	12.05%	11.74%	
48-Ult	2.138	48-60	10.88%	10.45%	
60-Ult	1.769	60-72	9.75%	9.22%	
72-Ult	1.552	72-84	7.91%	7.37%	
84-Ult	1.401	84-96	6.95%	6.38%	
96-Ult	1.300	96-108	5.57%	5.04%	
108-Ult	1.229	108-120	4.45%	3.97%	
120-Ult	1.178	120-132	3.50%	3.08%	
132-Ult	1.136	132-144	3.13%	2.71%	
144-Ult	1.107	144-156	2.34%	1.99%	
156-Ult	1.086	156-168	1.74%	1.46%	
168-Ult	1.067	168-180	1.58%	1.31%	
180-Ult	1.054	180-192	1.19%	0.97%	
192-Ult	1.043	192-204	1.02%	0.82%	
204-Ult	1.034	204-216	0.83%	0.65%	
216-Ult	1.028	216-228	0.58%	0.45%	
228-Ult	1.023	228-240	0.47%	0.36%	
240-Ult	1.019	240-252	0.40%	0.31%	
252-Ult	1.016	252-264	0.29%	0.22%	
264-Ult	1.013	264-276	0.28%	0.21%	
276-Ult	1.010	276-288	0.22%	0.16%	
288-Ult	1.009	288-300	0.18%	0.13%	
300-Ult	1.007	300-312	0.13%	0.09%	
312-Ult	1.006	312-324	0.10%	0.07%	
324-Ult	1.005	324-336	0.10%	0.07%	
336-Ult	1.005	336-348	0.08%	0.05%	
348-Ult	1.004	348-360	0.07%	0.04%	
360-Ult	1.003	360-372	0.06%	0.04%	
372-Ult	1.003	372-384	0.04%	0.02%	
384-Ult	1.003	384-396	0.03%	0.02%	
396-Ult		396-Ult	0.26%	0.15%	
Subtotal			100.0%	93.2%	

Notes: (1) From Deloitte Consulting's AF Reserve Analysis as of June 30, 2023
(2) = $[1 / (1)] - [1 / (1) \{ \text{prior age} \}]$
(3) Discounted at 1.5% to 3 months after end of Year 1; payments assumed at mid-year
Average quarterly premium payment occurs on average 45 days after the end of each quarter
(4) = sum of (3)

Washington Department of Labor & Industries

Accident Fund
Determination of Fixed Expenses
(Dollars Shown in 000's)

		From Filed Statutory Financial Statements					Selected
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
(1)	Hours Worked (000's)	4,006,618	3,940,025	3,887,370	4,130,158	4,320,588	
(2)	Premium Admin Expenses	24,365	23,671	23,653	22,917	23,885	
(3)	Operating Transfers Out	0	0	0	0	0	
(4)	General Insurance Admin Expenses	17,367	16,894	17,124	16,934	18,655	
(5)	Other Agencies Insurance Expenses Incurred	12,475	11,909	12,350	11,955	12,245	
(6)	Other Administrative	52,561	60,376	66,623	60,608	75,808	
(7)	Total Fixed Expenses	106,768	112,850	119,750	112,414	130,593	
(8)	Selected Annual Fixed Expense Trend	2.0%	2.0%	2.0%	2.0%	2.0%	
(9)	On-Level Trend Factor to CY 2024	1.115	1.093	1.072	1.051	1.030	
(10)	On-Level Fixed Expenses	119,053	123,368	128,344	118,119	134,530	
(11)	Fixed Income Rate	\$0.030	\$0.031	\$0.033	\$0.029	\$0.031	\$0.030

Notes: (1) From Deloitte Consulting's AF Reserve Analysis as of June 30, 2023
(2) through (6) From Filed Statutory Financial Statements - Income Statement
(7) = (2) + (3) + (4) + (5) + (6)
(8) Selected by Deloitte Consulting
(9) = $[1 + (8)] \times (9) \{FY X+1\}$; FY 2023 = $[1 + (8)]^{1.5}$
(10) = (7) x (9)
(11) = (10) / (1)

Washington Department of Labor & Industries

Accident Fund
Determination of Other Operating Income
(Dollars Shown in 000's)

		From Filed Statutory Financial Statements					Selected
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
(1)	Hours Worked (000's)	4,006,618	3,940,025	3,887,370	4,130,158	4,320,588	
(2)	Fines, Penalties, and Interest	38,248	40,926	22,546	34,837	40,895	
(3)	Other Income	9,067	8,080	8,690	7,947	8,855	
(4)	Total Other Operating Income	47,315	49,006	31,236	42,784	49,750	
(5)	Selected Annual Other Operating Income Trend	2.0%	2.0%	2.0%	2.0%	2.0%	
(6)	On-Level Trend Factor to CY 2024	1.115	1.093	1.072	1.051	1.030	
(7)	On-Level Other Operating Income	52,759	53,574	33,478	44,955	51,250	
(8)	Other Operating Income as a Rate	\$0.013	\$0.014	\$0.009	\$0.011	\$0.012	\$0.012

Notes: (1) From Deloitte Consulting's AF Reserve Analysis as of June 30, 2023
 (2), (3) From Filed Statutory Financial Statements - Cash Flow and Income Statement
 (4) = (2) + (3)
 (5) Selected by Deloitte Consulting
 (6) = $[1 + (5)] \times (6) \{FY X+1\}$; FY 2023 = $[1 + (5)] ^ 1.5$
 (7) = (4) x (6)
 (8) = (7) / (1)

Washington Department of Labor & Industries
Accident Fund
Determination of Extra Investment Income Credit

	From Filed Statutory Financial Statements
(1) Actual Cash & Invested Assets - June 30, 2023 *	13,310,781
(2) Contingency Reserve - June 30, 2023 *	1,442,438
(3) Targeted Overall Investment Return for CY 2024	3.88%
(4) Annual Discount Rate Embedded in Liabilities *	3.30%
(5) Estimated CY 2024 Extra Investment Income	125,752
(6) Estimated CY 2024 Hours Worked (000's)	4,320,588
(7) Estimated CY 2024 Extra Investment Income Credit	0.029

Notes: * Accident Fund combined with Pension Reserve Fund
(1), (2) From Filed Statutory Financial Statement - Balance Sheet
(3), (4) Selected by Deloitte Consulting
(5) = [(1) x (3)] - [(1) - (2)] x (4)
(6) From Deloitte Consulting's AF Reserve Analysis as of June 30, 2023
(7) = (5) / (6)

Washington Department of Labor & Industries

Accident Fund
Development of LAE to Loss Ratio
(Dollars Shown in 000's)

Calendar Period	Paid Loss	Paid LAE	LAE / Loss Ratio	Cumulative LAE / Loss Ratio	Financial Statement Incurred Loss	Financial Statement Incurred LAE	LAE / Loss Ratio	Cumulative LAE / Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7/1/07-08	810,363	51,148	6.3%	6.3%				
7/1/08-09	865,748	54,347	6.3%	6.3%	1,345,991	72,412		
7/1/09-10	856,849	55,952	6.5%	6.4%	1,226,527	60,947	5.0%	5.2%
7/1/10-11	846,448	54,894	6.5%	6.4%	678,156	62,937	9.3%	6.0%
7/1/11-12	826,165	56,732	6.9%	6.5%	930,642	73,845	7.9%	6.5%
7/1/12-13	941,998	59,642	6.3%	6.5%	979,705	49,148	5.0%	6.2%
7/1/13-14	873,500	58,378	6.7%	6.5%	1,140,856	60,222	5.3%	6.0%
7/1/14-15	868,182	59,416	6.8%	6.5%	1,125,291	77,576	6.9%	6.2%
7/1/15-16	835,005	60,121	7.2%	6.6%	979,331	76,341	7.8%	6.3%
7/1/16-17	842,077	57,648	6.8%	6.6%	631,775	57,187	9.1%	6.5%
7/1/17-18	783,368	63,355	8.1%	6.8%	1,379,056	70,434	5.1%	6.3%
7/1/18-19	811,361	66,245	8.2%	6.9%	739,809	116,889	15.8%	7.0%
7/1/19-20	851,077	74,107	8.7%	7.0%	1,188,886	94,116	7.9%	7.1%
7/1/20-21	837,619	72,758	8.7%	7.1%	1,424,125	103,364	7.3%	7.1%
7/1/21-22	854,807	70,271	8.2%	7.2%	1,223,724	80,473	6.6%	7.0%
7/1/22-23	957,531	73,400	7.7%	7.2%	1,359,793	77,505	5.7%	6.9%
Selected Ratio:			8.3%					
L&I Selected Ratio:			7.4%					

- Notes: (1) Fiscal Calendar Year Beginning July 1, xxxx
(2) From Deloitte Consulting's AF Reserve Analysis as of June 30, 2023
(3) From Deloitte Consulting's AF Reserve Analysis as of June 30, 2023
(4) = (3) / (2)
(5) = (3) / (2); Cumulative through end of respective year
(6) From historical financial statements
(7) From historical financial statements
(8) = (6) / (7)
(9) = (6) / (7); Cumulative through end of respective year

Washington Department of Labor & Industries

**Accident Fund
Determination of Retrospective Adjustment Ratio
(Dollars Shown in 000's)**

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Selected
(1) Earned Premiums	1,344,650	1,328,685	1,199,507	1,341,841	1,410,988	
(2) Retrospective Adjustments	238,629	204,941	262,982	217,198	203,774	
(3) Retrospective Adjustment Ratio	17.7%	15.4%	21.9%	16.2%	14.4%	15.9%

Notes: (1), (2) From Filed Statutory Financial Statements - Income Statement
(3) = (2) / (1)

Washington Department of Labor & Industries

Medical Aid Fund
Determination of Overall Base Rate Change

Rates Effective January 1, 2024
(Losses and LAE Discounted)

	Reasonable Expectation Optimistic	Baseline	Reasonable Expectation Conservative
(1) Selected Medical Loss Rate:	\$0.179	\$0.187	\$0.198
(2) Estimated Medical Loss Discount Factor:		0.900	
(3) Estimated Total Discounted Medical Loss Rate:	\$0.161	\$0.168	\$0.178
(4) Medical LAE Ratio (to Loss):		21.8%	
(5) Undiscounted Medical LAE Rate:	\$0.039	\$0.041	\$0.043
(6) Estimated Medical LAE Discount Factor:		0.900	
(7) Estimated Total Discounted LAE Rate:	\$0.035	\$0.037	\$0.039
(8) Estimated Total Discounted Medical Loss & LAE Rate:	\$0.196	\$0.205	\$0.217
(9) Estimated Fixed Expense Rate		\$0.020	
(10) Other Income Rate		-\$0.001	
(11) Retro Adjustment Ratio (% of premium):		0.0%	
(12) Ceded Reinsurance Premium Ratio (% of premium):		0.7%	
(13) Variable Net Expense Loading:		99.3%	
(14) Total Discounted Loss, LAE and Net Expense Rate:	\$0.217	\$0.226	\$0.238
(15) Credit for Extra Investment Income:	-\$0.064	-\$0.059	-\$0.047
(16) Estimated Required Loss, LAE & Expense Rate for CY 2024	\$0.153	\$0.167	\$0.191
(17) Current Loss, LAE & Expense Rate (for CY 2023)		\$0.173	
(18) Indicated Base Rate Level Change	-11.4%	-3.3%	10.6%

Notes: (1) Section 2, Exhibit 2, Items (8), (9), and (10)
 (2) From Section 2, Exhibit 6, Column (3)
 (3) = (1) x (2)
 (4) Section 2, Exhibit 10
 (5) = (1) x (4)
 (6) = (2)
 (7) = (5) x (6)
 (8) = (3) + (7)
 (9) Section 2, Exhibit 7, Item 11

(10) Section 2, Exhibit 8, Item 8
 (11) Provided by the Department
 (12) Provided by the Department
 (13) = 100% - (11) - (12)
 (14) = [(8) + (9) + (10)] / (13)
 (15) Section 2, Exhibit 9, Item (7)
 (16) = (14) + (15)
 (17) Provided by the Department
 (18) = (16) / (17) - 1

Washington Department of Labor & Industries

Medical Aid Fund
Calculation of Estimated Loss Rate

Rates Effective January 1, 2024
(Dollars Shown in 000's)

Accident Period	Hours Worked	Estimated Ultimate Medical Losses	Cumulative Medical Loss Trend Factor to AY 2024	Adjusted & Trended Ultimate	Indicated Unadjusted Loss Cost	Indicated On-Level Loss Cost
(1)	(2)	(3)	(4)	(5)	(6)	(7)
7/1/10-11	3,095,477	603,050	1.211	730,294	0.195	0.236
7/1/11-12	3,179,757	585,500	1.240	726,020	0.184	0.228
7/1/12-13	3,272,669	605,700	1.230	745,011	0.185	0.228
7/1/13-14	3,387,489	627,700	1.182	741,941	0.185	0.219
7/1/14-15	3,539,833	628,400	1.195	750,938	0.178	0.212
7/1/15-16	3,683,303	641,300	1.194	765,712	0.174	0.208
7/1/16-17	3,827,116	667,050	1.194	796,458	0.174	0.208
7/1/17-18	3,925,915	691,900	1.184	819,210	0.176	0.209
7/1/18-19	4,006,618	701,250	1.190	834,488	0.175	0.208
7/1/19-20	3,940,025	660,300	1.218	804,245	0.168	0.204
7/1/20-21	3,887,370	667,650	1.112	742,427	0.172	0.191
7/1/21-22	4,130,158	683,800	1.091	746,026	0.166	0.181
7/1/22-23	4,320,588	770,200	1.060	816,412	0.178	0.189
Total	\$48,196,319	\$8,533,800		\$10,019,182	\$0.177	\$0.208

All Year Weighted Average: \$0.208
7/1/10-17 Weighted Avg: 0.219
7/1/10-20 Weighted Avg: 0.215
7/1/14-21 Weighted Avg: 0.206
7/1/18-21 Weighted Avg: 0.201
7/1/19-22 Weighted Avg: 0.192
7/1/20-23 Weighted Avg: 0.187
7/1/21-23 Weighted Avg: 0.185
Prior Trended 0.200

(8) Selected Reasonable Expectation - Optimistic

(9) Selected Baseline

(10) Selected Reasonable Expectation - Conservative

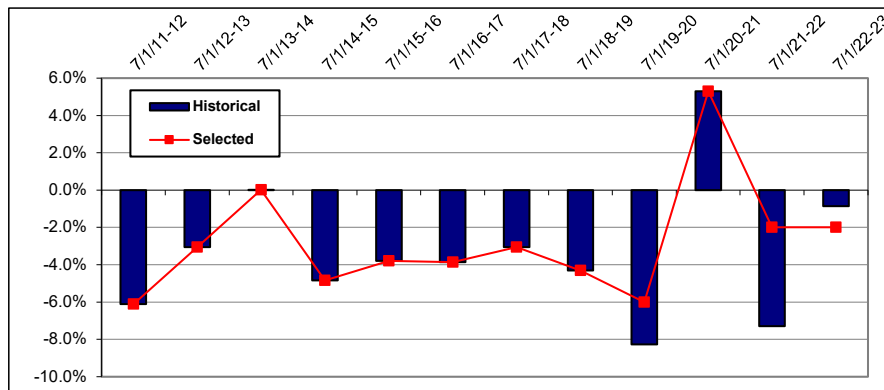
0.179
0.187
0.198

- Notes: (2) Provided by the Department
(3) From Deloitte Consulting's MAF Reserve Analysis as of June 30, 2023
(4) From Section 2, Exhibit 5
(5) = (3) x (4)
(6) = (3) / (2)
(7) = (5) / (2)
(8) - (10) Selected by Deloitte Consulting

Washington Department of Labor & Industries

Medical Aid Fund Estimated Claim Frequency Trend

Accident Period	Estimated Ultimate Number of Claims*	Hours Worked (000s)	Claim Frequency Per 100,000 Hours Worked	Change in Claim Frequency	Selected Annual Medical Claim Frequency Trend	Cumulative Medical Claim Frequency Trend Factor to AY 2024
(1)	(2)	(3)	(4)	(5)	(6)	(7)
7/1/10-11	23,911	3,095,477	0.772			0.696
7/1/11-12	23,062	3,179,757	0.725	-6.1%	-6.1%	0.741
7/1/12-13	23,009	3,272,669	0.703	-3.1%	-3.1%	0.765
7/1/13-14	23,821	3,387,489	0.703	0.0%	0.0%	0.765
7/1/14-15	23,689	3,539,833	0.669	-4.8%	-4.8%	0.803
7/1/15-16	23,712	3,683,303	0.644	-3.8%	-3.8%	0.835
7/1/16-17	23,687	3,827,116	0.619	-3.9%	-3.9%	0.869
7/1/17-18	23,556	3,925,915	0.600	-3.1%	-3.1%	0.896
7/1/18-19	23,004	4,006,618	0.574	-4.3%	-4.3%	0.936
7/1/19-20	20,749	3,940,025	0.527	-8.3%	-6.0%	0.996
7/1/20-21	21,555	3,887,370	0.554	5.3%	5.3%	0.946
7/1/21-22	21,233	4,130,158	0.514	-7.3%	-2.0%	0.965
7/1/22-23	22,019	4,320,588	0.510	-0.9%	-2.0%	0.985
7/1/23-24 CY 2024					-1.0%	0.995
					-0.5%	1.000



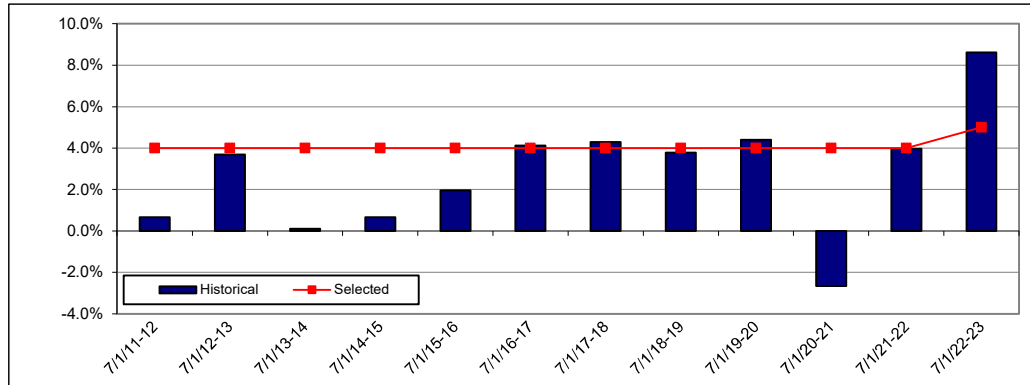
-3.5% 7/1/10-22 trend
-3.6% 7/1/14-21 trend
-3.6% 7/1/14-22 trend
-3.4% 7/1/16-21 trend
-3.5% 7/1/16-22 trend
-3.2% 7/1/17-21 trend
-3.4% 7/1/17-22 trend
-1.7% 7/1/18-21 trend
-1.2% 7/1/19-22 trend

Notes: (1) Fiscal Accident Year Beginning July 1, xxxx
(2) From Deloitte Consulting's MAF Reserve Analysis as of June 30, 2023
(3) Provided by the Department
(4) = (2) / [(3) / 100]; Accident Year 7/1/19-20 frequency trends is -5.3% excluding COVID-19 claims
(5) = [(4) / (4) {AY X-1}] - 1
(6) Selected by Deloitte Consulting
(7) = [1 + (6)] x (7) {AY X+1}
* Excludes COVID-19 claims

Washington Department of Labor & Industries

Medical Aid Fund
Estimated Claim Severity Trend
(Dollars Shown in 000's)

Accident Period (1)	Estimated Ultimate Medical Loss* (2)	Estimated Ultimate Number of Claims* (3)	Estimated Ult Claim Severity (4)	Change in Claim Severity (5)	NCCI State of Line (6)	Selected Annual Medical Claim Severity Trend (7)	Cumulative Medical Claim Severity Trend Factor to AY 2024 (8)
7/1/10-11	603,050	23,911	25,220		0.8%	4.0%	1.740
7/1/11-12	585,500	23,062	25,388	0.7%	-1.2%	4.0%	1.673
7/1/12-13	605,700	23,009	26,325	3.7%	1.1%	4.0%	1.608
7/1/13-14	627,700	23,821	26,351	0.1%	2.7%	4.0%	1.547
7/1/14-15	628,400	23,689	26,527	0.7%	-2.7%	4.0%	1.487
7/1/15-16	641,300	23,712	27,045	2.0%	3.2%	4.0%	1.430
7/1/16-17	667,050	23,687	28,161	4.1%	3.8%	4.0%	1.375
7/1/17-18	691,900	23,556	29,372	4.3%	0.4%	4.0%	1.322
7/1/18-19	701,250	23,004	30,483	3.8%	2.3%	4.0%	1.271
7/1/19-20	660,300	20,749	31,823	4.4%	-0.7%	4.0%	1.222
7/1/20-21	667,650	21,555	30,974	-2.7%	-1.5%	4.0%	1.175
7/1/21-22	683,800	21,233	32,205	4.0%	5.0%	4.0%	1.130
7/1/22-23	770,200	22,019	34,978	8.6%		5.0%	1.076
7/1/23-24 CY 2024						2.5%	1.025 1.000



WA

1.4%	7/1/10-16 trend
2.4%	7/1/10-21 trend
2.6%	7/1/10-23 trend
2.7%	7/1/16-21 trend
2.9%	7/1/17-23 trend
0.8%	7/1/18-21 trend
6.3%	7/1/20-23 trend

NCCI

1.1%	CY 2010-2016 trend
1.8%	CY 2015-2021 trend
1.6%	CY 2016-2021 trend
1.1%	CY 2017-2021 trend
1.3%	CY 2018-2021 trend

Notes: (1) Fiscal Accident Year Beginning July 1, xxxx
 (2), (3) From Deloitte Consulting's MAF Reserve Analysis as of June 30, 2023
 (4) = [(2) / (3)] x 1,000
 (5) = [(4) / (4) {AY X-1}] - 1
 (6) From 2023 State of the Line Presentation by Donna Glenn, FCAS, MAAA, NCCI Chief Actuary
 (7) Selected by Deloitte Consulting
 (8) = [1 + (7)] x (8) {AY X+1}
 * Adjusted to exclude COVID-19 data

Washington Department of Labor & Industries
Medical Aid Fund
Claim Frequency and Claim Severity Trend Summary

Accident Period	Cumulative Medical Claim Frequency Trend Factor to AY 2024	Cumulative Medical Claim Severity Trend Factor to AY 2024	Cumulative Medical Loss Trend Factor to AY 2024	Selected Hours Worked Trend	Selected Medical Claim Frequency Trend	Selected Medical Claim Severity Trend	Selected Medical Loss Cost Trend
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
7/1/10-11	0.696	1.740	1.211	0.0%			
7/1/11-12	0.741	1.673	1.240	0.0%	-6.1%	4.0%	-2.4%
7/1/12-13	0.765	1.608	1.230	0.0%	-3.1%	4.0%	0.8%
7/1/13-14	0.765	1.547	1.182	0.0%	0.0%	4.0%	4.0%
7/1/14-15	0.803	1.487	1.195	0.0%	-4.8%	4.0%	-1.0%
7/1/15-16	0.835	1.430	1.194	0.0%	-3.8%	4.0%	0.0%
7/1/16-17	0.869	1.375	1.194	0.0%	-3.9%	4.0%	0.0%
7/1/17-18	0.896	1.322	1.184	0.0%	-3.1%	4.0%	0.8%
7/1/18-19	0.936	1.271	1.190	0.0%	-4.3%	4.0%	-0.5%
7/1/19-20	0.996	1.222	1.218	0.0%	-6.0%	4.0%	-2.2%
7/1/20-21	0.946	1.175	1.112	0.0%	5.3%	4.0%	9.5%
7/1/21-22	0.965	1.130	1.091	0.0%	-2.0%	4.0%	1.9%
7/1/22-23	0.985	1.076	1.060	0.0%	-2.0%	5.0%	2.9%
7/1/23-24	0.995	1.025	1.020	0.0%	-1.0%	5.0%	4.0%
CY 2024	1.000	1.000	1.000	0.0%	-0.5%	2.5%	2.0%

Notes: (1) Fiscal Accident Year Beginning July 1, xxxx
(2) From Section 2, Exhibit 3, Col. (7)
(3) From Section 2, Exhibit 4, Col. (8)
(4) = (2) x (3)
(5) Selected by Deloitte Consulting
(6) From Section 2, Exhibit 3, Col. (6)
(7) From Section 2, Exhibit 4, Col. (7)
(8) = $[1 + (6)] \times [1 + (7)] / [1 + (5)] - 1$

Washington Department of Labor & Industries

Medical Aid Fund

Calculation of Loss Discount Factor

(Assumes Annual Discount Rate of 1.5%)

Calendar-Accident Year 2024

Age to Ultimate	Cumulative LDF At Beg Period	Age	Incremental Paid Loss % at each age (1)	PV of Increm Paid Loss % at 1.5% Discount (2)	Discount Factor (3)
12-Ult	3.130	12-24	31.95%	32.07%	0.900
24-Ult	1.771	24-36	24.53%	24.26%	
36-Ult	1.545	36-48	8.25%	8.03%	
48-Ult	1.451	48-60	4.18%	4.02%	
60-Ult	1.398	60-72	2.60%	2.46%	
72-Ult	1.362	72-84	1.92%	1.79%	
84-Ult	1.333	84-96	1.57%	1.44%	
96-Ult	1.309	96-108	1.36%	1.23%	
108-Ult	1.291	108-120	1.10%	0.98%	
120-Ult	1.276	120-132	0.93%	0.82%	
132-Ult	1.263	132-144	0.81%	0.70%	
144-Ult	1.252	144-156	0.66%	0.56%	
156-Ult	1.243	156-168	0.62%	0.52%	
168-Ult	1.234	168-180	0.54%	0.45%	
180-Ult	1.227	180-192	0.49%	0.40%	
192-Ult	1.220	192-204	0.47%	0.38%	
204-Ult	1.214	204-216	0.42%	0.33%	
216-Ult	1.208	216-228	0.38%	0.30%	
228-Ult	1.202	228-240	0.39%	0.30%	
240-Ult	1.197	240-252	0.36%	0.27%	
252-Ult	1.192	252-264	0.35%	0.26%	
264-Ult	1.187	264-276	0.35%	0.26%	
276-Ult	1.182	276-288	0.37%	0.27%	
288-Ult	1.177	288-300	0.33%	0.24%	
300-Ult	1.173	300-312	0.31%	0.22%	
312-Ult	1.169	312-324	0.28%	0.19%	
324-Ult	1.166	324-336	0.24%	0.16%	
336-Ult	1.161	336-348	0.37%	0.25%	
348-Ult	1.156	348-360	0.38%	0.25%	
360-Ult	1.150	360-372	0.43%	0.28%	
372-Ult	1.145	372-384	0.37%	0.24%	
384-Ult	1.140	384-396	0.41%	0.26%	
396-Ult		396-Ult	12.28%	5.85%	
Subtotal			100.0%	90.0%	

Notes: (1) From Deloitte Consulting's MAF Reserve Analysis as of June 30, 2023, excludes Hearing Loss and Voc Rehab
(2) = $[1 / (1)] - [1 / (1) \text{ prior age}]$
(3) Discounted at 1.5% to 3 months after end of Year 1; payments assumed at mid-year
Average quarterly premium payment occurs on average 45 days after the end of each quarter
(4) = sum of (3)

Washington Department of Labor & Industries

Medical Aid Fund
Determination of Fixed Expenses
(Dollars Shown in 000's)

		From Filed Statutory Financial Statements					Selected
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
(1)	Hours Worked (000's)	4,006,618	3,940,025	3,887,370	4,130,158	4,320,588	
(2)	Premium Admin Expenses	24,945	24,085	23,567	23,428	24,057	
(3)	Operating Transfers Out	0	0	0	0	0	
(4)	General Insurance Admin Expenses	11,061	7,881	9,663	7,176	9,957	
(5)	Other Agencies Insurance Expenses Incurred	12,631	12,446	12,092	11,783	12,563	
(6)	Other Administrative	23,979	29,819	33,306	27,115	37,031	
(7)	Total Fixed Expenses	72,616	74,231	78,628	69,502	83,608	
(8)	Selected Annual Fixed Expense Trend	2.0%	2.0%	2.0%	2.0%	2.0%	
(9)	On-Level Trend Factor to CY 2024	1.115	1.093	1.072	1.051	1.030	
(10)	On-Level Fixed Expenses	80,972	81,150	84,271	73,029	86,129	
(11)	Fixed Income Rate	\$0.020	\$0.021	\$0.022	\$0.018	\$0.020	\$0.020

Notes: (1) From Deloitte Consulting's MAF Reserve Analysis as of June 30, 2023
(2) through (6) From Filed Statutory Financial Statements - Income Statement
(7) = (2) + (3) + (4) + (5) + (6)
(8) Selected by Deloitte Consulting
(9) = $[1 + (8)] \times (9) \{FY X+1\}$; FY 2023 = $[1 + (8)]^{1.5}$
(10) = (7) x (9)
(11) = (10) / (1)

Washington Department of Labor & Industries

Medical Aid Fund
Determination of Other Operating Income
(Dollars Shown in 000's)

		From Filed Statutory Financial Statements					Selected
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
(1)	Hours Worked (000's)	4,006,618	3,940,025	3,887,370	4,130,158	4,320,588	
(2)	Fines, Penalties, and Interest	1,163	1,080	1,058	1,021	1,081	
(3)	Other Income	1,969	1,787	2,469	1,741	1,935	
(4)	Total Other Operating Income	3,132	2,867	3,527	2,762	3,016	
(5)	Selected Annual Other Operating Income Trend	2.0%	2.0%	2.0%	2.0%	2.0%	
(6)	On-Level Trend Factor to CY 2024	1.115	1.093	1.072	1.051	1.030	
(7)	On-Level Other Operating Income	3,492	3,134	3,780	2,902	3,107	
(8)	Other Operating Income as a Rate	\$0.001	\$0.001	\$0.001	\$0.001	\$0.001	\$0.001

Notes: (1) From Deloitte Consulting's MAF Reserve Analysis as of June 30, 2023
 (2), (3) From Filed Statutory Financial Statements - Cash Flow and Income Statement
 (4) = (2) + (3)
 (5) Selected by Deloitte Consulting
 (6) = $[1 + (5)] \times (6) \{FY X+1\}$; FY 2023 = $[1 + (5)] ^ 1.5$
 (7) = (4) x (6)
 (8) = (7) / (1)

Washington Department of Labor & Industries
Medical Aid Fund
Determination of Extra Investment Income Credit

	From Filed Statutory Financial Statements
(1) Actual Cash & Invested Assets - June 30, 2023	7,464,247
(2) Contingency Reserve - June 30, 2023	3,256,252
(3) Targeted Overall Investment Return for CY 2024	4.26%
(4) Annual Discount Rate Embedded in Liabilities	1.50%
(5) Estimated CY 2024 Extra Investment Income	254,567
(6) Estimated CY 2024 Hours Worked (000's)	4,320,588
(7) Estimated CY 2024 Extra Investment Income Credit	0.059

Notes: (1), (2) From Filed Statutory Financial Statement - Balance Sheet
 (3), (4) Selected by Deloitte Consulting
 $(5) = [(1) \times (3)] - [(1) - (2)] \times (4)$
 (6) From Deloitte Consulting's MAF Reserve Analysis as of June 30, 2023
 $(7) = (5) / (6)$

Washington Department of Labor & Industries

Medical Aid Fund
Development of LAE to Loss Ratio
(Dollars Shown in 000's)

Calendar Period	Paid Loss	Paid LAE	LAE / Loss Ratio	Cumulative LAE / Loss Ratio	Financial Statement Incurred Loss	Financial Statement Incurred LAE	Financial LAE / Loss Ratio	Financial Cumulative LAE / Loss Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7/1/10-11	583,000	80,506	13.8%	13.8%	646,455	96,704	15.0%	15.0%
7/1/11-12	564,568	83,592	14.8%	14.3%	758,699	111,033	14.6%	14.8%
7/1/12-13	569,394	92,704	16.3%	15.0%	896,426	100,670	11.2%	13.4%
7/1/13-14	560,719	92,696	16.5%	15.3%	678,064	105,809	15.6%	13.9%
7/1/14-15	562,705	99,138	17.6%	15.8%	487,767	127,734	26.2%	15.6%
7/1/15-16	561,841	99,335	17.7%	16.1%	704,355	136,413	19.4%	16.3%
7/1/16-17	572,066	95,647	16.7%	16.2%	397,100	108,210	27.3%	17.2%
7/1/17-18	580,335	105,628	18.2%	16.5%	302,885	165,848	54.8%	19.5%
7/1/18-19	575,962	109,605	19.0%	16.7%	710,492	198,494	27.9%	20.6%
7/1/19-20	582,640	118,163	20.3%	17.1%	876,824	159,443	18.2%	20.3%
7/1/20-21	552,758	118,132	21.4%	17.5%	501,910	157,809	31.4%	21.1%
7/1/21-22	541,247	118,395	21.9%	17.8%	431,781	127,322	29.5%	21.6%
7/1/22-23	566,354	124,693	22.0%	18.1%	574,306	132,915	23.1%	21.7%
Selected Ratio:				21.8%				
L&I Selected Ratio:				19.6%				

- Notes: (1) Fiscal Calendar Year Beginning July 1, xxxx
(2) From Deloitte Consulting's MAF Reserve Analysis as of June 30, 2023
(3) From Deloitte Consulting's MAF Reserve Analysis as of June 30, 2023
(4) = (3) / (2)
(5) = (3) / (2); Cumulative through end of respective year
(6) From historical financial statements
(7) From historical financial statements
(8) = (6) / (7)
(9) = (6) / (7); Cumulative through end of respective year