# TEXAS DEPARTMENT OF INSURANCE 

 DIVISION OF WORKERS' COMPENSATION ACTUARIAL ANALYSIS OFTHE TEXAS WORKERS' COMPENSATION SUBSEQUENT INJURY FUND AS OF AUGUST 31, 2022

MADISON CONSULTING GROUP, INC.

October 24, 2022

Mr. Blaise Gerstenlauer JD<br>Subsequent Injury Fund Administrator<br>Texas Department of Insurance<br>Division of Workers' Compensation<br>PO Box 12950<br>Austin, TX 78711

Re: Actuarial Analysis of the Texas Workers' Compensation Subsequent Injury Fund as of August 31, 2022.

Dear Mr. Gerstenlauer:
Madison Consulting Group, Inc. is pleased to enclose a copy of the above captioned report. We have enjoyed working on this project and hope you find it satisfactory. Please call if you have any questions or comments.

Sincerely,

## Mark Crawshaigitly signed by Mark

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$\mathrm{MC} / \mathrm{nc}$

# TEXAS DEPARTMENT OF INSURANCE DIVISION OF WORKERS' COMPENSATION ACTUARIAL ANALYSIS OF <br> THE TEXAS WORKERS' COMPENSATION <br> SUBSEQUENT INJURY FUND <br> AS OF AUGUST 31, 2022 

## INTRODUCTION

At the request of management of the Texas Department of Insurance, Division of Workers' Compensation Insurance (DWC), Madison Consulting Group (MCG) has performed an actuarial analysis of the Subsequent Injury Fund (SIF) as of August 31, 2022. The purpose of the review was to analyze the solvency of the SIF based on past, present, and future trends of income flow and to project future funding requirements for the SIF through fiscal year 2027, including assessments (if any) on insurance carriers to meet the SIF's obligations under the Texas Labor Code. This report describes our analysis and conclusions.

## ACKNOWLEDGEMENT OF QUALIFICATION

This report was prepared under the direction of Mark Crawshaw, Ph.D., FCAS, MAAA. Dr. Crawshaw is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

## DISTRIBUTION AND USE

This report has been prepared for the internal use of management at DWC to assist in their operation of the SIF. It is our understanding that this report will become a public document. It is requested that all distributions of this report be in its entirety including the attached exhibits and appendices.

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## ANALYSIS

## Overview of the SIF

The SIF was created by the State Legislature in 1947 to facilitate the employment of disabled persons, including many disabled WWII veterans. The original purpose of the SIF was to protect disabled workers against employment discrimination that might otherwise have arisen as an unintended consequence of placing the financial responsibility for work related disability on each employer through the workers' compensation system. As originally conceived, if an employee who had previously lost a leg, eye, or hand should lose a second leg, eye, or hand in a work-related accident, then the employer or insurance carrier would be liable only for the compensation payable for the second injury. The SIF would be liable for the remainder of any total permanent disability award to the injured employee.

Since its inception, the responsibilities of the SIF have expanded beyond its original purpose. In addition to its responsibility for payments in events of second injuries, the SIF is now responsible for claims not related to second injuries as follows:

- To reimburse carriers for payments made in accordance with DWC decisions/orders that are later reversed or modified resulting in an overpayment of a claim.
- To reimburse carriers for certain benefits that were paid due to a designated doctor opinion that is later reversed or modified resulting in an overpayment of a claim. (This is a change contained in SB 1169 and effective September 1, 2007).
- To reimburse carriers in situations where multiple employment causes an increase in benefits. SB 1169 extended the scope of this item to include reimbursement of death benefits in situations of multiple employments in addition to the previously authorized reimbursement of income benefits.

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- To reimburse carriers for pharmaceutical costs incurred on claims that are ultimately determined to be non-compensable. Recently adopted pharmacy formulary rule ( 28 TAC $\S 134.550$ ) extended the scope of this item to include reimbursement of drugs received through a medical interlocutory order that is later reversed or modified resulting in an overpayment of a claim.


## SIF's Accounting Conventions

The SIF operates on a fiscal year and appropriation year basis. Fiscal year 2022 refers to transactions made during the period September 1, 2021 through August 31, 2022. Appropriation year 2022 refers to all transactions assigned to funds appropriated for the period September 1, 2021 through August 31, 2022 and may include transactions made outside of this period. For example, payment orders signed no later than August 31, 2022 (last day of appropriation year 2022) may in fact be paid (with appropriation year 2022 funds) during fiscal year 2023. The reports SIF provided to us included amounts compiled from the various systems used by SIF to track payments. In some instances, these systems have differences in how they code payments to fiscal or appropriation year. Our analysis is based on data by fiscal year. The reports provided to us by SIF reconcile these amounts to the Uniform Statewide Accounting System (USAS).

Prior to September 1, 2005, the SIF was operated by the Texas Workers' Compensation Commission (TWCC). During this period, TWCC produced a separate financial statement for the SIF. Effective September 1, 2005, TWCC became part of the Texas Department of Insurance. At this time, the financial statement for the SIF changed and became part of the Annual Financial Report of the Texas Department of Insurance (TDI).

The financial reports that are routinely produced by TDI include an accounting of revenue and expenses of SIF on essentially a cash basis for the fiscal year (see Exhibit I). From an actuarial perspective, to evaluate the financial condition of the SIF, it is necessary to expand these financial reports to include estimates of all accrued revenue and expenses. To this end, Sheet 1 of Exhibit II of this report provides a summary of the
balance sheet of the SIF with full accruals for all revenues and expenses. In preparing Sheet 1 of Exhibit II, we have attempted to account for all revenue and expenses of the SIF associated with all claims occurring through the accounting date, regardless of when SIF will make the cash transaction or when SIF becomes aware of the underlying claim that results in the revenue or expense.

## The SIF's Revenue

The SIF is currently funded solely by death benefit payments from insurance carriers in situations where a compensable death occurs and there is no eligible beneficiary (or the claim for death benefits is not made in a timely manner). Prior to July 2003, the SIF was designated a special fund in the State Treasury and was credited interest on the account funds. However, since that time, interest has not accumulated to the benefit of the SIF. ${ }^{1}$ In the event that this funding is not enough, the SIF may assess insurance carriers.

Effective September 1, 2007, HB 724 expanded the definition of eligible beneficiaries to include "eligible parent." Effective September 1, 2009, HB 1058 clarified and somewhat expanded upon the previous legislation. These changes had the practical effect of reducing revenue to SIF from what it would have been otherwise.

## Projection of Revenue

Exhibit III summarizes the analysis of revenue to the SIF from no-dependent death cases. We projected future revenue (cash basis) based on the historical data, consideration of current economic activity, and a projected annual rate of growth of $4 \%$ per year (see Exhibit VI, Column (6)). This growth rate is unchanged from our previous projection.

We estimated the accrual for revenue receivable (see Exhibit II, Sheet 4, Row 1a) from the projected revenue (cash basis) (Exhibit I, Item 2a) assuming an average lag of twelve

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months from the time of a no-dependent fatality to the time the revenue is received by SIF.

## The SIF's Expenses

The SIF has six sources of expenses as follows:

1. Lifetime Income Benefits (LIB's)
2. Carrier Overpayment Reimbursement (including "medical interlocutory orders" and "designated doctor opinions")
3. Multiple Employment Reimbursement (including reimbursement for death benefits in multiple employment situations)
4. Pharmaceutical Reimbursement
5. Death Benefit Reimbursement
6. Healthcare Regional Network Assessment (historical only, not a prospective expense)

These items (excluding Healthcare Regional Network Assessment) are described in the following five sections:

## Expense Item 1: LIB's

The original purpose of the SIF was to facilitate the employment of handicapped persons by providing a mechanism for funding increased benefit costs arising from pre-existing injuries. This was, and continues to be, accomplished through lifetime income benefits (LIB's) paid to eligible injured workers. The eligibility criteria and benefit amounts vary depending on whether the injury is covered by the "old law" (i.e., accidents prior to January 1, 1991) or the "new law." Under either law, the benefits refer to indemnity benefits only and exclude medical benefits.

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Under the old law, if an employee who had previously lost a leg, eye or hand, was to lose a second leg, eye or hand, then the insurance carrier would be liable only for the second injury. The SIF would be liable for the remainder of any total and permanent disability award and pay to the injured worker the portion of workers' compensation benefits attributed to the previous disability or injury. Under the old law, the benefit awards were fixed weekly (or biweekly or monthly) amounts. There was no escalation in benefits.

Under the new law, if an employee had a previous injury, which when combined with a second injury results in a condition for which the injured employee is entitled to lifetime income benefits, the insurance carrier is liable for the second injury only to the extent that the first injury had not existed. The SIF is liable for the remainder of any lifetime income benefits. Under the new law, the benefit awards are subject to $3 \%$ escalation per annum.

The SIF determines the liability for known LIB awards using the 2001 Commissioners Standard Mortality Table (Appendix D). For benefits under the new law, the SIF includes an adjustment to reflect the $3 \%$ per year escalation in benefits specified in the law. The SIF calculates the liability at nominal value and does not adjust the liability to present value. This is reasonable considering that the SIF does not receive interest on its funds.

On Sheet 1 of Exhibit IV, we have estimated future LIB payments (cash basis) through 2025 based on the following assumptions (each of which is based on historical experience):

1. There will be 1.0 new LIB's awarded each year.
2. The new LIB's will be under the new law. The average benefit will be approximately $\$ 690$ per week in 2023 (see Sheet 2 of Exhibit IV) and will escalate at 3\% per year.
3. In the initial year of award, a lump sum of $\$ 50$ thousand is payable for accrued benefits.

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Appendix A documents the analysis of the number of LIB claims. Future claims are projected based on the expectation of an average number of claims per year of 1.2 and an assumed reporting pattern. The estimate of 1.0 claims per year, as well as the assumed reporting pattern, was based on a review of recent claims activity, discussion with DWC personnel and judgment. The estimate of 1.0 has decreased from 1.2 compared to our previous actuarial report at August 31, 2020.

In addition to estimating the LIB payments, we estimated the accrual (liability) for future payments associated with LIB claims that have occurred on or before the accounting date. This includes both the liability for known LIB awards, as well as the liability for unknown awards. In Appendix B of this report, we evaluated the liability for known LIB awards using a similar procedure to that used by the SIF. We also estimated the liability for LIB's that have not yet been awarded but where the underlying accident has occurred (also referred to as IBNR).

## Expense Item 2: Carrier Overpayment Reimbursement

The determination of the benefits due an injured employee in the Texas workers' compensation system often involves complex issues and a lengthy process. The process may involve a benefit review conference (an informal procedure in which a DWC benefit review officer can order payment of benefits), a contested case hearing (in which a DWC administrative law judge issues a decision and order), a DWC appeals panel (that reviews the record and may reverse the decision of the administrative law judge and render a new decision; or reverse the decision of the administrative law judge and remand the case to the administrative law judge for further consideration and development of evidence) and, finally, judicial review in the court system. In this process, previous decisions of DWC that ordered carriers to pay claimants may be reversed or modified. In these situations (whether, or not it involves a second injury), the SIF is required to reimburse carriers for overpayments they previously made to claimants. A similar situation, whereby SIF may have to reimburse carriers, exists for reversals or modifications of designated doctor opinions and medical interlocutory orders.

We estimated these reimbursements (cash basis) based on recent experience and an assumed annual growth rate of $0 \%$ per year for "carrier overpayment" and "medical interlocutory orders", and a growth rate of $8 \%$ per year for "designated doctor," (see Exhibit I, Items 3 c through 3 e , and Exhibit VI). This latter growth rate is reduced from $10 \%$ projected in our previous report.

Because there is a lag between the time when a claim occurs, and the time SIF reimburses the insurance carrier, it is necessary to estimate an accrual (liability) for carrier overpayment reimbursements. Accordingly, we have included a liability for this item on Sheet 4 of Exhibit II assuming an average lag of two years in filing a request for reimbursements.

## Expense Item 3: Multiple Employment Reimbursement

In 2001, the Texas legislature provided benefits for employees with multiple employers and expanded the responsibilities of the SIF by requiring the SIF to reimburse carriers for income benefits when the benefits have been increased because of the claimant's wages at more than one employer. Effective September 1, 2007, SB 1169 expanded the scope of reimbursement to include death benefits. In the past, SIF paid the multiple employer reimbursement benefit one year in arrears. It is our understanding that, beginning in 2010, SIF has made its payments current.

Over the last few years, it has become apparent that SIF is incurring significant liabilities for multiple employment reimbursement benefits associated with death benefits and LIB benefits. Like the second injury LIBs that SIF has traditionally covered, these claims may involve lifetime benefits and payout over long periods of time. For this reason, we have analyzed the liability for these "long-term" claims using an approach similar to that for the "regular" LIB benefits for which SIF has traditionally been liable (see Appendix C).

In addition to the "long term" multiple-employment claims, we separately analyzed the "other" multiple employment claims. We projected payments for these claims assuming a 4\% annual growth rate (see Exhibit V, Sheet 2). Since these "other" claims involve
shorter time lags in the payment process, we included a liability for this item on Sheet 4 of Exhibit II assuming an average lag of one year in filing a request for_reimbursement (see also Exhibit V, Sheets 1 and 2).

## Expense Item 4: Pharmaceutical Reimbursement

In 2003, the Texas legislature expanded the responsibilities of the SIF by requiring the SIF to reimburse carriers for pharmaceutical services for the first seven days following an injury in situations where the injury is ultimately found to be non-compensable. We understand that, to date, there have been very few requests for pharmaceutical reimbursements with the exception of fiscal year 2022 where reimbursements totaled almost $\$ 100$ thousand.

## Expense Item 5: Death Benefit Reimbursement

As described earlier, the SIF's source of income is payments from insurance carriers in no-beneficiary death claims. In some situations, insurance carriers must provide payments to the SIF under the assumption that there is no beneficiary only to discover later that there is, in fact, an eligible beneficiary and that the carrier has overpaid the SIF. In these situations, the SIF is responsible for issuing a refund to the insurance carrier for the overpayment. Based on recent historical experience, we have estimated that these reimbursements average about $3 \%$ of the gross death benefits paid by carriers to the SIF. We used this $3 \%$ factor to project future (cash) reimbursements (see Row 3b of Exhibit I).

Because there is a lag between the time SIF receives a payment from an insurance carrier and the time it refunds a portion or all that payment back to the carrier, it is necessary to estimate an accrual (liability) for death benefit refunds. Accordingly, we have included a liability for this item on Sheet 4 of Exhibit II assuming an average lag of two years in making reimbursements.

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## Review of Experience

The revenue and expense payment projections in this report are based on historical trends. The historical and future revenue and expense payments are illustrated on Exhibit VII.

## Data Sources

Data for this analysis was provided by DWC as follows:

- copies of schedules of LIB claims, as well as multiple employment claims involving LIB or survivor benefit of August 31, 2022; and,
- copies of schedules prepared by DWC breaking out revenues and expenses into various categories.
- TDI (unaudited) financial statements through August 31, 2017.

This data was supplemented by the following:

- data underlying the 2001 Commissioners Standard Ordinary Mortality Table from the Texas Department of Insurance website; and,
- Data previously provided to us by DWC for earlier actuarial studies.

All the data were accepted for analysis without audit or verification. As part of our analysis, we have reviewed the data for reasonableness and consistency.

## Acknowledgment

We acknowledge the assistance of DWC in providing the data and answering questions on the operations of the SIF.

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## Inherent Variability

Any projection of financial results for the SIF involves the estimation of future contingent events. Actual results are likely to vary from projections. We have, however, utilized standard actuarial methods and considerations and believe the results are reasonable.

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## RESULTS AND CONCLUSIONS

Based on our analysis we have the following results and conclusions:

## Projected Cash Flows

Exhibit I provides a summary of the actual cash flows, as well as projected cash flows, through the end of fiscal year 2027. SIF's cash balance grew significantly through 2018 then dipped in 2019 due to a large spike in expenses resulting from a backlog for the 2017 and 2018 fiscal years. The cash balance continued to grow substantially in fiscal years 2020 and 2021 by $5 \%$ and $2 \%$ respectively as expenses returned to pre-backlog levels and revenue increased. In 2022, the cash balance increased by about $9 \%$ as revenue increases outpaced expense increases. We project that, the growth in cash balance will moderate in the near future.

## Projected Balance Sheet

Sheet 1 of Exhibit II provides a summary of SIF's estimated balance sheet at the end of fiscal years 2020 through 2027 on a full accrual basis. In addition, it provides a similar balance sheet at the end of fiscal year 2020 based on our previous actuarial report. Although an actuarial report was not provided in 2021, 2021 is also shown here, estimated with the benefit of hindsight. The balance sheet has been estimated based on the cash amounts on Exhibit I adjusted to reflect accruals for revenue and expenses associated with all claims occurring through the evaluation date. These accruals include:

1. An asset accrual for cash expected to be received from all deaths that occurred through the accounting date, regardless of when the SIF receives the money.
2. A liability accrual for all LIB's that are expected to arise from accidents occurring through the accounting date but awarded after the accounting date.
3. A liability accrual for all multiple employment benefits that are expected to arise from long-term claims (i.e., widow, children, dependent and non-dependent parents), as well as a liability for short-term claims.
4. A liability accrual for all the other reimbursements the SIF is required to make that reflects the time lag inherent in the reimbursement process.

The accrual items noted above result in a substantial reduction to the net assets of the SIF. However, for the upcoming years the net assets remain positive (though decreasing).

## Projected Income Statement (Accrual Basis)

Sheet 2 of Exhibit II provides a summary of SIF's projected income statement for fiscal years 2021 through 2027. This income statement is calculated on a full accrual basis similar to how the balance sheet was calculated on Sheet 1 of Exhibit II. This Sheet also includes the income for fiscal year 2021 and 2022 as implied by our current and prior actuarial reports.

## Potential for Activating the Maintenance Tax

In 2019, the SIF had -8\% cash flow, but since that time has strong positive growth due to higher than expected revenue and lower than expected expenses. Based on current trends, we project that, in the near future, revenue and expenses will come into approximate balance on a cash basis (Exhibit I). In addition, on a full accrual basis, the projected assets of SIF currently exceed the projected liabilities. However, based on current trends, we project this excess may erode in the next few years (we do note that despite this erosion, the fund should remain significantly positive through the next five years) (Exhibit II). It is not likely that the maintenance tax will be required in the near future.

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## Annuities

The liabilities for LIB's in the discussion above are based on nominal values and have not been reduced to reflect the time value of money. We understand the SIF is permitted to purchase annuities to satisfy LIB awards. If the SIF was to do this, the immediate effect would likely be to increase the net assets of the SIF. This is because annuities reflect the present value of future payments (i.e. payments discounted to reflect interest), whereas SIF's net assets are calculated on a nominal basis. We do, however, note the following:

1. The purchase of annuities would expose the SIF to a credit risk. We understand that the SIF would reassume responsibility of paying claims should the issuer of the annuity not fulfill its responsibilities.
2. Viewed from the narrow perspective of the SIF, there may be financial advantages in purchasing annuities. However, from the perspective of the State, this may be a disadvantage as it reduces interest income to the State.

To illustrate this issue, we have estimated that the discount, at a $3.5 \%$ interest rate, in the liability for LIB's at August 31, 2022 is about $\$ 2.4$ million for awarded LIB's and $\$ 5.5$ million for IBNR LIB's (see Appendix B, Sheet 1). Similarly, we have estimated the amount of discount for multiple employment claims as about $\$ 9.3$ million for known claims and $\$ 1.7$ million for IBNR claims (see Appendix C, Sheet 1). These estimated values provide an indication of the possible financial gain to the SIF from purchasing annuities.

## Comparison to Our Previous Analyses

We have previously performed similar analyses of the SIF at two-year intervals. We performed our last analysis of the SIF as of August 31, 2020. The methodology used in this current report is generally like that used in our previous report.

We have noted that the actual experience for 2021 and 2022 was more favorable than we projected at August 2020. On a paid basis, the revenue received by SIF was higher

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(about $\$ 6.6$ million) than we previously projected. Paid expenses were also lower (about $\$ 5.0$ million) than we previously projected. On a going forward basis, the overall register of open LIB claims has decreased by three (LIB undiscounted liabilities have decreased by $\$ 2.9$ million), while the overall register of open long-term multi-employment claims has increase by four (Multi-employment undiscounted liabilities have increased by $\$ 3.0$ million), resulting in slightly higher reserves overall (approximately $\$ 146$ thousand).

## GENERAL

Finally, to keep this report reasonably concise, we have not included any of the source documents. This information is available at the request of DWC.

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## TEXAS SUBSEQUENT INJURY FUND

SUMMARY OF ACTUAL AND PROJECTED CASH FLOWS BY FISCAL YEAR
(\$000'S)

| Item |  | Actual Amounts (a) |  |  |  |  |  |  |  |  |  | Projected Amounts |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2018 |  | 2019 |  | 2020 |  | 2021 |  | 2022 |  | 2023 |  | 2024 |  | 2025 |  | 2026 |  | 2027 |  |
| (1) | Begin Cash (b) | \$ | 82,279 | \$ | 88,565 | \$ | 81,735 | \$ | 85,449 | \$ | 90,725 | \$ | 98,947 | \$ | 100,753 | \$ | 102,141 | \$ | 103,351 | \$ | 104,193 |
| (2) | Revenue: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (2a) | Death Benefits Paid Into SIF (c) | \$ | 10,978 | \$ | 10,356 | \$ | 12,870 | \$ | 12,593 | \$ | 17,445 | \$ | 13,000 | \$ | 13,520 | \$ | 14,061 | \$ | 14,623 | \$ | 15,208 |
| (2b) | Interest (d) |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| (2c) | Other (e) |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| (2d) | Total | \$ | 10,978 | \$ | 10,356 | \$ | 12,870 | \$ | 12,593 | \$ | 17,445 | \$ | 13,000 | \$ | 13,520 | \$ | 14,061 | \$ | 14,623 | \$ | 15,208 |
| (3) | Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (3a) | LIB's [3801] (f) | \$ | 556 | \$ | 505 | \$ | 504 | \$ | 504 | \$ | 487 | \$ | 501 | \$ | 538 | \$ | 576 | \$ | 616 | \$ | 657 |
| (3b) | Death Benefit Reimbursement [3803](g) |  | - |  | 450 |  | 298 |  | 130 |  | 135 |  | 378 |  | 523 |  | 390 |  | 406 |  | 422 |
| (3c) | Carrier Overpayment [3802] (h) |  | 126 |  | 842 |  | 226 |  | 317 |  | 144 |  | 226 |  | 226 |  | 226 |  | 226 |  | 226 |
| (3d) | Medical Interlocutory [3807] (h) |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| (3e) | Designated Doctor [3808] (h) |  | 3,180 |  | 13,423 |  | 6,781 |  | 4,822 |  | 7,205 |  | 8,500 |  | 9,180 |  | 9,914 |  | 10,707 |  | 11,564 |
| (3f) | Multi-Employment [3805] (i) |  | 827 |  | 1,966 |  | 1,347 |  | 1,541 |  | 1,155 |  | 1,588 |  | 1,664 |  | 1,744 |  | 1,825 |  | 1,910 |
| (3g) | Pharmaceutical [3806] |  | - |  | - |  | - |  | 3 |  | 97 |  | 1 |  | 1 |  | 1 |  | 1 |  | 1 |
| (3h) | Health Care Regional Network |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| (3i) | Total | \$ | 4,689 | \$ | 17,186 | \$ | 9,156 | \$ | 7,317 | \$ | 9,223 | \$ | 11,194 | \$ | 12,132 | \$ | 12,851 | \$ | 13,781 | \$ | 14,780 |
| (4) | Net Revenue and Expense [(2d) - (3i)] |  | 6,289 |  | $(6,830)$ |  | 3,714 |  | 5,276 |  | 8,222 |  | 1,806 |  | 1,388 |  | 1,210 |  | 842 |  | 428 |
| (5) | Adjustments for Rounding, Timing, Miscellaneous (j) |  | (3) |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| (6) | Change In Cash [(4) + (5)] | \$ | 6,286 | \$ | $(6,830)$ | \$ | 3,714 | \$ | 5,276 | \$ | 8,222 | \$ | 1,806 | \$ | 1,388 | \$ | 1,210 | \$ | 842 | \$ | 428 |
| (7) | End Cash [(1) + (6)] (k) | \$ | 88,565 | \$ | 81,735 | \$ | 85,449 | \$ | 90,725 | \$ | 98,947 | \$ | 100,753 | \$ | 102,141 | \$ | 103,351 | \$ | 104,193 | \$ | 104,621 |
|  | Increase |  | 7.6\% |  | -7.7\% |  | 4.5\% |  | 2.4\% |  | 9.1\% |  | 1.8\% |  | 1.4\% |  | 1.2\% |  | 0.8\% |  | 0.4\% |

Notes: All actual amounts provided by DWC.
(a) For 2020 and Prior, see previous report.

Amounts for 2021 and 2022 are from 'revenue' and 'expense' reports provided by DWC
(b) Beginning cash for 2018 and Prior on previous report. All other amounts based on ending cash for previous year.
(c) Projected amounts are from Exhibit III.
(d) Projected amounts are $\$ 0$ since it is our understanding that interest no longer accrues to the benefit of the SIF
(e) Projected amount $\$ 0$.

Currently SIF does not have any "other" sources of revenue.
(f) Projected amounts are from Exhibit IV, Sheet 1.
(g) Projected amounts calculated as $3 \%$ of (2a) lagged by 2 years.
(h) Projected amounts based on trend factors from Exhibit VI.
(i) Projected amounts are from Exhibit V, Sheet 1.
(j) Forced amounts to ensure reconciliation to actual cash balance.
(k) 2022 and prior amounts balance to TDI Budget Reports.

## TEXAS SUBSEQUENT INJURY FUND

SUMMARY OF PROJECTED BALANCE SHEET BY FISCAL YEAR FULL ACCRUAL BASIS
(\$000'S)

|  |  | 2018 |  | 2019 |  | 2020 |  | 2021 |  | 2022 |  | 2023 |  | 2024 |  | 2025 |  | 2026 |  | 2027 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | Year Ending Cash (a) | \$ | 88,565 | \$ | 81,735 | , | 85,449 | \$ | 90,725 | \$ | 98,947 | \$ | 100,753 | \$ | 102,141 | \$ | 103,351 | \$ | 104,193 | \$ | 104,621 |
| (2) | Receivable for Unreported Claims (b) |  | 8,800 |  | 9,000 |  | 9,200 |  | 9,800 |  | 10,400 |  | 10,816 |  | 11,249 |  | 11,698 |  | 12,166 |  | 12,653 |
| (3) | Total ("Assets") [(1)+(2)] | \$ | 97,365 | \$ | 90,735 | \$ | 94,649 | \$ | 100,525 | \$ | 109,347 | \$ | 111,569 | \$ | 113,390 | \$ | 115,049 | \$ | 116,359 | \$ | 117,274 |
| (4) | Liability For Reported Claims |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (5) | LIB's (c) | \$ | 10,411 | \$ | 10,177 | \$ | 9,943 | \$ | 9,141 | \$ | 8,339 | \$ | 9,537 | \$ | 10,749 | \$ | 11,975 | \$ | 13,215 | \$ | 14,469 |
| (6) | Multiple-Employment (d) |  | 18,545 |  | 19,943 |  | 21,340 |  | 22,907 |  | 24,474 |  | 25,984 |  | 27,542 |  | 29,149 |  | 30,809 |  | 32,523 |
| (7) | Other |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| (8) | Subtotal $[(5)+(6)+(7)]$ | \$ | 28,956 | \$ | 30,120 | \$ | 31,283 | \$ | 32,048 | \$ | 32,813 | \$ | 35,521 | \$ | 38,291 | \$ | 41,124 | \$ | 44,024 | \$ | 46,992 |
| (9) | Liability For Unreported Claims |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (10) | LIB's IBNR (b) | \$ | 13,230 | \$ | 13,662 | \$ | 14,094 | \$ | 13,163 | \$ | 12,232 | \$ | 12,599 | \$ | 12,977 | \$ | 13,366 | \$ | 13,767 | \$ | 14,180 |
| (11) | Multiple-Employment IBNR (b) |  | 4,811 |  | 4,758 |  | 4,446 |  | 4,389 |  | 4,332 |  | 4,531 |  | 4,712 |  | 4,900 |  | 5,096 |  | 5,300 |
| (12) | Other (b) |  | 19,817 |  | 19,673 |  | 17,738 |  | 18,542 |  | 19,345 |  | 20,783 |  | 22,206 |  | 23,902 |  | 25,731 |  | 27,704 |
| (13) | Subtotal [(10)+(11)+(12)] | \$ | 37,858 | \$ | 38,093 | \$ | 36,278 | \$ | 36,094 | \$ | 35,909 | \$ | 37,913 | \$ | 39,895 | \$ | 42,168 | \$ | 44,594 | \$ | 47,184 |
| (14) | Liability For Reported and Unreported Claims |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (15) | LIB's [(5)+(10)] | \$ | 23,641 | \$ | 23,839 | \$ | 24,037 | \$ | 22,304 | \$ | 20,571 | \$ | 22,136 | \$ | 23,726 | \$ | 25,341 | \$ | 26,982 | \$ | 28,649 |
| (16) | Multiple-Employment [(6)+(11)] |  | 23,356 |  | 24,701 |  | 25,786 |  | 27,296 |  | 28,806 |  | 30,515 |  | 32,254 |  | 34,049 |  | 35,905 |  | 37,823 |
| (17) | Other [(7)+(12)] |  | 19,817 |  | 19,673 |  | 17,738 |  | 18,542 |  | 19,345 |  | 20,783 |  | 22,206 |  | 23,902 |  | 25,731 |  | 27,704 |
| (18) | Total ("Liabilities") [(15)+(16)+(17)] | \$ | $\mathbf{6 6 , 8 1 4}$ | \$ | 68,213 | \$ | 67,561 | \$ | 68,142 | \$ | 68,722 | \$ | 73,434 | \$ | 78,186 | \$ | 83,292 | \$ | 88,618 | \$ | $\mathbf{9 4 , 1 7 6}$ |
| (19) | Net Assets [(3) - (18)] | \$ | 30,551 | \$ | 22,523 | \$ | 27,088 | \$ | 32,383 | \$ | 40,625 | \$ | 38,135 | \$ | 35,204 | \$ | 31,757 | \$ | 27,741 | \$ | 23,098 |
| (20) | Change in Net Asset | \$ | 5,148 | \$ | $(8,029)$ | \$ | 4,566 | \$ | 5,295 | \$ | 8,242 | \$ | $(2,490)$ | \$ | $(2,931)$ | \$ | $(3,447)$ | \$ | $(4,016)$ | \$ | $(4,643)$ |

Notes: (a) Amount for 2020 is from prior actuarial report. Remaining values are from Exhibit I, Sheet 2.
(b) Amount for 2020 is from prior actuarial report. Remaining values are from Exhibit II, Sheet 4.
(c) Amount for 2020 is from prior actuarial report. Remaining values are from Exhibit IV, Sheet 1.
(d) Amount for 2020 is from prior actuarial report. Remaining values are from Exhibit V, Sheet 1.

## TEXAS SUBSEQUENT INJURY FUND

SUMMARY OF PROJECTED INCOME STATEMENT BY FISCAL YEAR
FULL ACCRUAL BASIS

| Actual Amounts |  |  |  |  |  |  |  |  |  | Projected Amounts |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2018 |  | 2019 |  | 2020 |  | 2021 |  | 2022 |  | 2023 |  | 2024 |  | 2025 |  | 2026 |  | 2027 |  |
| \$ | 10,978 | \$ | 10,356 | \$ | 12,870 | \$ | 12,593 | \$ | 17,445 | \$ | 13,000 | \$ | 13,520 | \$ | 14,061 | \$ | 14,623 | \$ | 15,208 |
|  | 400 |  | 200 |  | 200 |  | 600 |  | 600 |  | 416 |  | 433 |  | 449 |  | 468 |  | 487 |
| \$ | 11,378 | \$ | 10,556 | \$ | 13,070 | \$ | 13,193 | \$ | 18,045 | \$ | 13,416 | \$ | 13,953 | \$ | 14,510 | \$ | 15,091 | \$ | 15,695 |
| Claim Payments |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \$ | 556 | \$ | 505 | \$ | 504 | \$ | 504 | \$ | 487 | \$ | 501 | \$ | 538 | \$ | 576 | \$ | 616 | \$ | 657 |
|  | 827 |  | 1,966 |  | 1,347 |  | 1,541 |  | 1,155 |  | 1,588 |  | 1,664 |  | 1,744 |  | 1,825 |  | 1,910 |
|  | 3,306 |  | 14,715 |  | 7,305 |  | 5,272 |  | 7,581 |  | 9,105 |  | 9,930 |  | 10,531 |  | 11,340 |  | 12,213 |
| \$ | 4,689 | \$ | 17,186 | \$ | 9,156 | \$ | 7,317 | S | 9,223 | \$ | 11,194 | \$ | 12,132 | \$ | 12,851 | \$ | 13,781 | \$ | 14,780 |
| Change In Accrued Liability |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \$ | (291) | \$ | 198 | \$ | 198 | \$ | $(1,733)$ | \$ | $(1,733)$ | \$ | 1,565 | \$ | 1,590 | \$ | 1,615 | \$ | 1,641 | \$ | 1,667 |
|  | (442) |  | 1,345 |  | 1,086 |  | 1,510 |  | 1,510 |  | 1,709 |  | 1,739 |  | 1,795 |  | 1,856 |  | 1,918 |
|  | 2,271 |  | (144) |  | $(1,935)$ |  | 804 |  | 803 |  | 1,438 |  | 1,423 |  | 1,696 |  | 1,829 |  | 1,973 |
| \$ | 1,539 | \$ | 1,399 | \$ | (652) | \$ | 581 | \$ | 580 | \$ | 4,712 | \$ | 4,752 | \$ | 5,106 | \$ | 5,326 | \$ | 5,558 |
| Amount Incurred In Year |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \$ | 265 | \$ | 703 | \$ | 702 | \$ | $(1,229)$ | \$ | $(1,246)$ | \$ | 2,066 | \$ | 2,128 | \$ | 2,191 | \$ | 2,257 | \$ | 2,324 |
|  | 386 |  | 3,311 |  | 2,433 |  | 3,051 |  | 2,665 |  | 3,297 |  | 3,403 |  | 3,539 |  | 3,681 |  | 3,828 |
|  | 5,577 |  | 14,571 |  | 5,370 |  | 6,076 |  | 8,384 |  | 10,543 |  | 11,353 |  | 12,227 |  | 13,169 |  | 14,186 |
| \$ | 6,228 | \$ | 18,585 | \$ | 8,505 | \$ | 7,898 | \$ | 9,803 | \$ | 15,906 | \$ | 16,884 | \$ | 17,957 | \$ | 19,107 | \$ | 20,338 |
| \$ | 5,151 | \$ | $(8,029)$ | \$ | 4,566 | \$ | 5,295 | \$ | 8,242 | \$ | $(2,490)$ | \$ | $(2,931)$ | \$ | $(3,447)$ | \$ | $(4,016)$ | \$ | $(4,643)$ |
|  | (3) |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| \$ | 5,148 | \$ | $(8,029)$ | \$ | 4,566 | \$ | 5,295 | \$ | 8,242 | \$ | $(2,490)$ |  | $(2,931)$ | \$ | $(3,447)$ | \$ | $(4,016)$ | \$ | $(4,643)$ |

Notes:
(a) Based on Exhibit I.
(b) Based on amounts on Exhibit II, Sheet 1, Row (2).
(c) From Exhibit I
(d) Based on amounts on Exhibit II, Sheet 1, Row (15)
(e) Based on amounts on Exhibit II, Sheet 1, Row (16).
(f) Based on amounts on Exhibit II, Sheet 1, Row (17)

Exhibit II
Sheet 3 of 4

## TEXAS SUBSEQUENT INJURY FUND

## RECONCILLIATION OF NET ASSETS AT 8/31/2020 AND 8/31/2022 <br> FULL ACCRUAL BASIS (\$000'S)

| Item |  | cted $2020 \text { (a) }$ |  | Actual (b) |  | Variance $[(3)-(2)]$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | (2) |  | (3) |  |  | (4) |
| Net Assets at 8/31/2020 | \$ | 27,088 | \$ | 27,088 | \$ | - |
| Revenue Received |  | 23,460 |  | 30,038 | \$ | 6,578 |
| Change in Accrued Revenue |  | 750 |  | 1,200 |  | 450 |
| Expenses Paid |  | $(21,528)$ |  | $(16,540)$ |  | 4,988 |
| Change in Accrued Expenses |  | $(13,560)$ |  | $(1,161)$ |  | 12,399 |
| Timing Adjustment (c) |  | - |  | - |  | - |
| Net Assets at 8/31/2022 | \$ | 16,210 | \$ | 40,625 | \$ | 24,415 |
| Incurred Amounts |  |  |  |  |  |  |
| LIBS | \$ | 4,996 | \$ | $(2,475)$ | \$ | 7,471 |
| Multi- Employment |  | 9,472 |  | 5,716 |  | 3,756 |
| Other |  | 20,620 |  | 14,460 |  | 6,160 |
| Total | \$ | 35,088 | \$ | 17,701 | \$ | 17,387 |
| Difference in Revenue |  |  |  |  |  | 7,028 |
| Change in Net Assets based on Updated FS |  |  |  |  |  | - |
| Timing Difference |  |  |  |  |  | - |
| Total |  |  |  |  | \$ | 24,415 |

Notes:
(a) From prior actuarial report as of $8 / 31 / 2020$.
(b) Based on Sheet 2 of Exhibit II.
(c) Based on Exhibit I.

MADISON CONSULTING GROUP, INC.

## TEXAS SUBSEQUENT INJURY FUND

## SUMMARY OF ACCRUALS FOR UNREPORTED CLAIMS (\$000'S)

| Item |  | 8/31/2022 |  | 8/31/2023 |  | 8/31/2024 |  | 8/31/2025 |  | 8/31/2026 |  | 8/31/2027 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | Gross Assets: |  |  |  |  |  |  |  |  |  |  |  |  |
| (1a) | Accrual For Death Benefits Due SIF(a) | \$ | 10,400 | \$ | 10,816 | \$ | 11,249 | \$ | 11,698 | \$ | 12,166 | \$ | 12,653 |
| (1b) | Other |  | - |  | - |  | - |  | - |  | - |  | - |
| (1c) | Total | \$ | 10,400 | \$ | 10,816 | \$ | 11,249 | \$ | 11,698 | \$ | 12,166 | \$ | 12,653 |
| (2) | Liabilities: |  |  |  |  |  |  |  |  |  |  |  |  |
| (2a) | LIB's (IBNR) (b) | \$ | 12,232 | \$ | 12,599 | \$ | 12,977 | \$ | 13,366 | \$ | 13,767 | \$ | 14,180 |
| (2b) | Death Benefit Reimbursement (c) |  | 1,213 |  | 1,237 |  | 1,133 |  | 1,179 |  | 1,226 |  | 1,275 |
| (2c) | Carrier Overpayment (d) |  | 452 |  | 452 |  | 452 |  | 452 |  | 452 |  | 452 |
| (2d) | Medical Interlocutory (d) |  | - |  | - |  | - |  | - |  | - |  | - |
| (2e) | Designated Doctor (d) |  | 17,680 |  | 19,094 |  | 20,621 |  | 22,271 |  | 24,053 |  | 25,977 |
| (2f) | Multi-Employment (e) |  | 4,332 |  | 4,531 |  | 4,712 |  | 4,900 |  | 5,096 |  | 5,300 |
| (2g) | Pharmaceutical |  | - |  | - |  | - |  | - |  | - |  | - |
| (2h) | Health Care Regional Network |  | - |  | - |  | - |  | - |  | - |  | - |
| (2i) | Other |  | - |  | - |  | - |  | - |  | - |  | - |
| (2j) | Total | \$ | 35,909 | \$ | 37,913 | \$ | 39,895 | \$ | 42,168 | \$ | 44,594 | \$ | 47,184 |

Notes:
(a) Estimated as $80 \%$ of the payment made in the subsequent year from Exhibit III.
(b) Amounts at $8 / 31 / 2022$ from Appendix B, Sheet 1. Other amounts based on $3 \%$ escalation.
(c) Estimated as $3.0 \%$ of (1a) plus $100 \%$ of the next two years payments from Exhibit I.
(d) Estimated as $100 \%$ of the next two years payments from Exhibit I.
(e) From Exhibit V, Sheet 1.

## TEXAS SUBSEQUENT INJURY FUND

DEVELOPMENT OF PROJECTED NO-DEPENDENT DEATH BENEFITS PAID TO THE SUBSEQUENT INJURY FUND (\$000'S)
(1) Death Benefits Paid To SIF (a)
(2) Trend Adjustment (b)
(3) SB1169 Adjustment (c)
(4) Revenue Adjusted to 2023 Level $[(1) \mathrm{x}(2) \mathrm{x}(3)]$
(1) Death Benefits Paid To SIF (a)
(2) Trend Adjustment (b)
(3) SB1169 Adjustment (c)
(4) Revenue Adjusted to 2023 Level [(1)x(2)x(3)]
(5) Average 2008-2022
(6) Average 2016-2022
(7) Selected

| 2008 |  | 2009 |  | 2010 |  | 2011 |  | 2012 |  | 2013 |  | 2014 |  | 2015 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 5,400 | \$ | 7,946 | \$ | 4,980 | \$ | 7,506 | \$ | 6,179 | \$ | 7,402 | \$ | 11,416 | \$ | 11,081 |
|  | 1.79 |  | 1.72 |  | 1.65 |  | 1.59 |  | 1.53 |  | 1.47 |  | 1.41 |  | 1.36 |
|  | 1.00 |  | 1.00 |  | 1.00 |  | 1.00 |  | 1.00 |  | 1.00 |  | 1.00 |  | 1.00 |
| \$ | 9,666 | \$ | 13,667 | \$ | 8,217 | \$ | 11,935 | \$ | 9,454 | \$ | 10,881 | \$ | 16,097 | \$ | 15,070 |
| 2016 |  | 2017 |  | 2018 |  | 2019 |  | 2020 |  | 2021 |  | 2022 |  | Total |  |
| \$ | 11,403 | \$ | 13,520 | \$ | 10,978 | \$ | 10,356 | \$ | 12,870 | \$ | 12,593 | \$ | 17,445 | \$ | 151,075 |
|  | 1.31 |  | 1.26 |  | 1.21 |  | 1.16 |  | 1.12 |  | 1.08 |  | 1.04 |  |  |
|  | 1.00 |  | 1.00 |  | 1.00 |  | 1.00 |  | 1.00 |  | 1.00 |  | 1.00 |  |  |
| \$ | 14,938 | \$ | 17,035 | \$ | 13,283 | \$ | 12,013 | \$ | 14,414 | \$ | 13,600 | \$ | 18,143 | \$ | 198,413 |
| \$ | 13,228 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \$ | 14,775 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \$ | 13,000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

(8) Projected Revenue (b)


Notes:
(a) Provided by DWC.
(b) Reflects annual trend factor of $4.0 \%$ (see Exhibit VI).
(c) Estimated impact of SB1169 from prior actuarial report.

MADISON CONSULTING GROUP, INC

## TEXAS SUBSEQUENT INJURY FUND

DEVELOPMENT OF LIB'S FUTURE LIABILITY AND PAYMENTS FOR KNOWN CLAIMS (\$000'S)


Notes:
(a) Liability at $8 / 31 / 2022$ is from Appendix B, Sheet 1 . Remaining liabilities are calculated by deducting estimated payments. Estimated payments are based on actual periodic payments adjusted to account for mortality.
(b) Amounts for 2023 based on 1 claim multiplied by amounts for a single claim on Sheet 2 Other years based on 3\% trend from Exhibit VI.
(c) From Appendix A, Sheet 3.

## TEXAS SUBSEQUENT INJURY FUND

DEVELOPMENT OF PROJECTED PAYMENTS AND LIABILITIES FOR
A LIB CLAIM EMERGING IN 2023
(\$000'S)


Notes:
(a) Estimated based on judgment and review of historical weekly payments from Appendix B, Sheet 2 (average-new law).
(b) It is assumed that claim emerges at midpoint of 2023.
(c) Lump sum payment based on judgment and discussion of historical experience with DWC.
(d) $\quad(4)=(1) \times(2)+(3)$
(e) Discount factor for mortality.
(f) $(6)=(4) \times(5)$
(g) Liability at beginning of 2023 based on undiscounted average reserve on Appendix B, Sheet 2. We assume that there are no deaths in the projection period.

## TEXAS SUBSEQUENT INJURY FUND

## DEVELOPMENT OF FUTURE LIABILITY AND PAYMENTS FOR <br> MULTI-EMPLOYMENT CLAIMS <br> (\$000'S)

| Item | Evaluation Date / Year Ending |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8/31/2022 |  | 8/31/2023 |  | 8/31/2024 |  | 8/31/2025 |  | 8/31/2026 |  | 8/31/2027 |  |
| (1) | (2) |  | (3) |  | (4) |  | (5) |  | (6) |  | (7) |  |
| Estimated Unpaid Liabilities at Evaluation Date |  |  |  |  |  |  |  |  |  |  |  |  |
| Known Long-Term Claims (a) | \$ | 24,474 | \$ | 25,984 | \$ | 27,542 | \$ | 29,149 | \$ | 30,809 | \$ | 32,523 |
| Unreported - Long-Term (b) |  | 3,702 |  | 3,850 |  | 4,004 |  | 4,164 |  | 4,331 |  | 4,504 |
| Unreported - Other (c) |  | 630 |  | 681 |  | 708 |  | 736 |  | 765 |  | 796 |
| Total | \$ | 28,806 | \$ | 30,515 | \$ | 32,254 | \$ | 34,049 | \$ | 35,905 | \$ | 37,823 |
| Estimated Paid In Year |  |  |  |  |  |  |  |  |  |  |  |  |
| Long-Term Claims (a) |  |  | \$ | 958 | \$ | 1,009 | \$ | 1,063 | \$ | 1,117 | \$ | 1,174 |
| Other Claims (c) |  |  |  | 630 |  | 655 |  | 681 |  | 708 |  | 736 |
| Total |  |  | \$ | 1,588 | \$ | 1,664 | \$ | 1,744 | \$ | 1,825 | \$ | 1,910 |

Notes:
(a) See Exhibit V, Sheet 3.
(b) Based on IBNR from Appendix C, Sheet 1 trended at 4\% per annum.
(c) See Exhibit V, Sheet 2.

MADISON CONSULTING GROUP, INC.

Exhibit V

## TEXAS SUBSEQUENT INJURY FUND

## DEVELOPMENT OF FUTURE LIABILITY AND PAYMENTS FOR KNOWN CLAIMS MULTI-EMPLOYMENT "OTHER" CLAIMS <br> (\$000'S)

| Fiscal Year | Paid Amounts All Multi-Employment Claims (a) |  |  |  |  |  | Trend <br> To 2022 <br> Factor (b) | Other <br> Trended $[(4) \times(5)]$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  | Long-Term |  | Other [(2)-(3)] |  |  |  |  |
| (1) |  |  |  |  |  |  | (5) |  |  |
| 2004 | \$ | 58 | \$ | - | \$ | 58 | 2.028 | \$ | 118 |
| 2005 |  | 152 |  | - |  | 152 | 1.950 |  | 296 |
| 2006 |  | 184 |  | - |  | 184 | 1.875 |  | 345 |
| 2007 |  | 140 |  | - |  | 140 | 1.803 |  | 252 |
| 2008 |  | 484 |  | - |  | 484 | 1.734 |  | 839 |
| 2009 |  | 577 |  | 70 |  | 507 | 1.667 |  | 845 |
| 2010 |  | 1,190 |  | 75 |  | 1,115 | 1.603 |  | 1,787 |
| 2011 |  | 928 |  | 122 |  | 806 | 1.541 |  | 1,242 |
| 2012 |  | 1,303 |  | 163 |  | 1,140 | 1.482 |  | 1,689 |
| 2013 |  | 1,132 |  | 425 |  | 707 | 1.425 |  | 1,007 |
| 2014 |  | 1,306 |  | 687 |  | 619 | 1.370 |  | 848 |
| 2015 |  | 1,067 |  | 651 |  | 417 | 1.317 |  | 549 |
| 2016 |  | 1,241 |  | 614 |  | 627 | 1.266 |  | 794 |
| 2017 |  | 1,065 |  | 678 |  | 388 | 1.217 |  | 472 |
| 2018 |  | 827 |  | 741 |  | 86 | 1.170 |  | 101 |
| 2019 |  | 1,966 |  | 743 |  | 1,224 | 1.125 |  | 1,376 |
| 2020 |  | 1,347 |  | 744 |  | 603 | 1.082 |  | 652 |
| 2021 |  | 1,541 |  | 811 |  | 731 | 1.040 |  | 760 |
| 2022 |  | 1,155 |  | 877 |  | 278 | 1.000 |  | 278 |
| 3-Average (ex 2022) |  |  |  |  |  |  |  | \$ | 563 |
| 5-Average (ex 2022) |  |  |  |  |  |  |  |  | 633 |
| 7 -Average (ex 2022) |  |  |  |  |  |  |  |  | 633 |
| Selected |  |  |  |  |  |  |  |  | 630 |
| Projected Future Payments - "Other Claims" Only (c) |  |  |  |  |  |  |  |  |  |
| 2023 |  |  |  |  |  |  |  | \$ | 630 |
| 2024 |  |  |  |  |  |  |  |  | 655 |
| 2025 |  |  |  |  |  |  |  |  | 681 |
| 2026 |  |  |  |  |  |  |  |  | 708 |
| 2027 |  |  |  |  |  |  |  |  | 736 |
| 2028 |  |  |  |  |  |  |  |  | 765 |
| 2029 |  |  |  |  |  |  |  |  | 796 |

Projected Unpaid Liabilities at Year End - "Other Claims" Only (d)

| 2022 | $\$$ |
| :--- | ---: |
| 2023 | 630 |
| 2024 | 681 |
| 2025 | 708 |
| 2026 | 736 |
| 2027 | 765 |

Notes:
(a) Total amount for all years provided by DWC.

Long-term amounts based on Exhibit VIII.
(b) Trend rate of $4 \%$ per year estimated by MCG based on judgment.
(c) Selected value trended at $4 \%$ per year.
(d) Estimated based on an assumed lag of one year in claim payments.

## TEXAS SUBSEQUENT INJURY FUND

DEVELOPMENT OF FUTURE LIABILITY AND PAYMENTS FOR KNOWN CLAIMS MULTI-EMPLOYMENT LONG-TERM CLAIMS
(\$000'S)


Notes:
(a) Liability at $8 / 31 / 2022$ is from Appendix C, Sheet 1 . Remaining liabilities are calculated by deducting estimated payments. Estimated payments are based on actual periodic payments adjusted to account for mortality.
(b) Amounts for 2023 based on 2 claims multiplied by amounts for a single claim on Sheet 4. Other years based on $3 \%$ trend.
(c) See Appendix C, Sheet 3.

## TEXAS SUBSEQUENT INJURY FUND

## DEVELOPMENT OF PROJECTED PAYMENTS AND LIABILITIES FOR

## A MULTI-EMPLOYMENT CLAIM WITH LONG-TERM BENEFITS EMERGING IN 2023

(\$000'S)

|  | Item | Fiscal Year |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2023 |  | 2024 |  | 2025 |  | 2026 |  | 2027 |  |
| (1) | Average Weekly Payment (a) | \$ | 0.550 | \$ | 0.553 | \$ | 0.556 | \$ | 0.559 | \$ | 0.562 |
| (2) | Number of Weeks (b) |  | 26 |  | 52 |  | 52 |  | 52 |  | 52 |
| (3) | Lump Sum Payment (c) |  | - |  | - |  | - |  | - |  | - |
| (4) | Total Nominal Payments (d) | \$ | 14 | \$ | 29 | \$ | 29 | \$ | 29 | \$ | 29 |
| (5) | Mortality Discount (e) |  | 1.0000 |  | 0.9900 |  | 0.9801 |  | 0.9703 |  | 0.9606 |
| (6) | Total Discounted Payments (f) | \$ | 14 | \$ | 29 | \$ | 28 | \$ | 28 | \$ | 28 |
| Liability For Unpaid Claims (Undiscounted) |  |  |  |  |  |  |  |  |  |  |  |
| (7a) | Start of Fiscal Year (g) | \$ | 1,234 | \$ | 1,220 | \$ | 1,191 | \$ | 1,163 | \$ | 1,135 |
| (7b) | End of Fiscal Year (g) |  | 1,220 |  | 1,191 |  | 1,163 |  | 1,135 |  | 1,107 |

Notes:
(a) Estimated based on judgment and review of historical weekly payments from Appendix C, Sheet 2 (average).
(b) It is assumed that the claim emerges at midpoint of 2023.
(c) Lump sum payment based on judgment and discussion of historical experience with DWC.
(d) $(4)=(1) \times(2)+(3)$
(e) Discount factor for mortality.
(f) $\quad(6)=(4) \times(5)$
(g) Liability at beginning of 2023 based on undiscounted average claim severity on appendix C, Sheet 2. We assume that there are no deaths or remarriages in the projection period.

## TEXAS SUBSEQUENT INJURY FUND

SUMMARY OF SELECTED FUTURE REVENUE AND EXPENSE TRENDS
AS OF AUGUST 31, 2022

| Time Period | LIB | Carrier Overpayment | Designated Doctor | Multi- <br> Employment | Revenue |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | (2) | (3) | (4) | (5) | (6) |
| Long Term (a) | 1.6\% | -10.3\% | 21.8\% | 13.2\% | 5.5\% |
| Last 4 Years (b) | -3.0\% | 14.5\% | 5.7\% | 14.9\% | 6.3\% |
| Previous Selected (c) | 3.0\% | 0.0\% | 10.0\% | 4.0\% | 4.0\% |
| Selected (Future) (d) | 3.0\% | 0.0\% | 8.0\% | 4.0\% | 4.0\% |

## Notes:

(a) Based on available data from Exhibit I.

Details available upon request.
(b) Based on data for 2018-2021 from Exhibit I, Sheet 2. Details available upon request.
(c) From corresponding Exhibit from 8/31/2020 report.
(d) Selected future trend for Carrier Overpayment and Designated Doctor based on historical experience judgment.

MADISON CONSULTING GROUP, INC.

# TEXAS SUBSEQUENT INJURY FUND 



Death Benefit Reimbursement


Source: Exhibit I.

# TEXAS SUBSEQUENT INJURY FUND 

## SUMMARY OF ACTUAL AND PROJECTED PAYMENTS AS OF AUGUST 31, 2022 (CASH BASIS) (\$000'S)

## Carrier Overpayment, Designated Doctor, Medical Interlocutory



Source: Exhibit I.

MADISON CONSULTING GROUP, INC.

# TEXAS SUBSEQUENT INJURY FUND 

## SUMMARY OF ACTUAL AND PROJECTED PAYMENTS AS OF AUGUST 31, 2022 (CASH BASIS) (\$000'S)

Multi-Employment



Source: Exhibit I.

## TEXAS SUBSEQUENT INJURY FUND

SUMMARY OF ACTUAL AND PROJECTED EXPENSES AND REVENUE AS OF AUGUST 31, 2022 (CASH BASIS) (\$000'S)


Source: Exhibit I.

# TEXAS SUBSEQUENT INJURY FUND 

## SUMMARY OF MULTI-EMPLOYMENT ANNUAL PAID AMOUNTS <br> LONG-TERM CLAIMS (\$000'S)

Paid Amounts All Multi-Employment Claims

| Fiscal Year |  | Annual |  |
| :---: | :---: | :---: | :---: |
|  |  | $(2)$ |  |
| 2009 | $\$$ |  | 70 |
| 2010 |  | 75 |  |
| 2011 |  | 122 |  |
| 2012 |  | 163 |  |
| 2013 |  | 425 |  |
| 2014 |  | 687 |  |
| 2015 |  | 651 |  |
| 2016 |  | 614 |  |
| 2017 |  | 678 |  |
| 2018 |  | 741 |  |
| 2019 |  | 743 |  |
| 2020 |  | 744 |  |
| 2021 |  | 811 |  |
| 2022 |  | 877 |  |

Notes:
Annual paid amounts for 2011, 2012, 2014, 2016, 2018, 2020 and 2022
provided by DWC.
Annual paid amounts for 2013, 2015, 2017, 2019 and 2021 estimated based on averages.
Annual paid amounts for 2009 and 2010 based on prior reports.

MADISON CONSULTING GROUP, INC

## TEXAS SUBSEQUENT INJURY FUND

## SUMMARY OF NUMBER OF LIB'S <br> AS OF AUGUST 31, 2022

| Fiscal Year Ending: | Number of Deceased LIB's (a) | Number of Open LIB's (a) | Estimated Number <br> Not Yet Awarded (b) | Estimated Total Number of LIB's $[(2)+(3)+(4)]$ |
| :---: | :---: | :---: | :---: | :---: |
| (1) | (2) | (3) | (4) | (5) |
| Prior (c) | 25.0 | 17.0 | - | 42.0 |
| 2002 | - | - | - | - |
| 2003 | - | 1.0 | - | 1.0 |
| 2004 | 2.0 | 2.0 | 0.1 | 4.1 |
| 2005 | - | - | 0.1 | 0.1 |
| 2006 | - | - | 0.2 | 0.2 |
| 2007 | - | 1.0 | 0.2 | 1.2 |
| 2008 | - | - | 0.2 | 0.2 |
| 2009 | 2.0 | - | 0.2 | 2.2 |
| 2010 | - | - | 0.2 | 0.2 |
| 2011 | - | - | 0.2 | 0.2 |
| 2012 | - | - | 0.2 | 0.2 |
| 2013 | - | - | 0.2 | 0.2 |
| 2014 | - | - | 0.2 | 0.2 |
| 2015 | - | - | 0.3 | 0.3 |
| 2016 | - | - | 0.4 | 0.4 |
| 2017 | - | - | 0.5 | 0.5 |
| 2018 | - | - | 0.6 | 0.6 |
| 2019 | - | - | 0.7 | 0.7 |
| 2020 | - | - | 0.8 | 0.8 |
| 2021 | - | - | 0.9 | 0.9 |
| 2022 | - | - | 1.0 | 1.0 |
| Total | 29.0 | 21.0 | 7.2 | 57.2 |
| Avg - All |  |  |  | 1.3 |
| Avg-10 Yr |  |  |  | 0.6 |

Notes:
(a) Provided by DWC.
(b) See Appendix A, Sheet 2.
(c) Fiscal Years Ending 1982-2002.

Appendix A
Sheet 2 of 3

## TEXAS SUBSEQUENT INJURY FUND

# DEVELOPMENT OF ESTIMATED LIB'S NOT YET AWARDED AS OF AUGUST 31, 2022 

| Fiscal Year Ending: | Estimated \% <br> Unreported | Initial <br> Estimated LIB's | Estimated Number Not Yet Awarded $[(2) \times(3)]$ |
| :---: | :---: | :---: | :---: |
| (1) | (2) | (3) | (4) |
| 2002 | 0\% | 1.0 | - |
| 2003 | 0\% | 1.0 | - |
| 2004 | 5\% | 1.0 | 0.1 |
| 2005 | 10\% | 1.0 | 0.1 |
| 2006 | 15\% | 1.0 | 0.2 |
| 2007 | 20\% | 1.0 | 0.2 |
| 2008 | 20\% | 1.0 | 0.2 |
| 2009 | 20\% | 1.0 | 0.2 |
| 2010 | 20\% | 1.0 | 0.2 |
| 2011 | 20\% | 1.0 | 0.2 |
| 2012 | 20\% | 1.0 | 0.2 |
| 2013 | 20\% | 1.0 | 0.2 |
| 2014 | 20\% | 1.0 | 0.2 |
| 2015 | 30\% | 1.0 | 0.3 |
| 2016 | 40\% | 1.0 | 0.4 |
| 2017 | 50\% | 1.0 | 0.5 |
| 2018 | 60\% | 1.0 | 0.6 |
| 2019 | 70\% | 1.0 | 0.7 |
| 2020 | 80\% | 1.0 | 0.8 |
| 2021 | 90\% | 1.0 | 0.9 |
| 2022 | 100\% | 1.0 | 1.0 |
| Total |  |  | 7.2 |

Note:
Columns (2) and (3) estimated based on review of historical experience and judgment.

MADISON CONSULTING GROUP, INC.

## TEXAS SUBSEQUENT INJURY FUND

REVIEW OF NEW LIB'S

| Fiscal Accident | Date LIB's Awarded |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ending: | 9/1/02-8/31/04 | 9/1/04-8/31/06 | 9/1/06-8/31/08 | 9/1/08-8/31/10 | 9/1/10-8/31/12 | 9/1/12-8/31/14 | 9/1/14-8/31/16 | 9/1/16-8/31/18 | 9/1/18-8/31/20 | 9/1/20-8/31/22 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |

1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Total
$(12)$
$(13)$
$(14)$

Source: Based on information provided by DWC.

## M̌

MADISON CONSULTING GROUP, INC.

## TEXAS SUBSEQUENT INJURY FUND

SUMMARY OF OUTSTANDING RESERVE FOR LIB'S
AS OF AUGUST 31, 2022

| Law | Open Awards |  | IBNR |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Outstanding Claims (a) |  |  |  |  |  |  |
| Old |  | 12.0 |  | - |  | 12.0 |
| New |  | 9.0 |  | 7.2 |  | 16.2 |
| Total |  | 21.0 |  | 7.2 |  | 28.2 |
| Undiscounted Reserve (b) |  |  |  |  |  |  |
| Old | \$ | 1,943,189 | \$ | - | \$ | 1,943,189 |
| New |  | 6,395,587 |  | 12,232,036 |  | 18,627,623 |
| Total | \$ | 8,338,776 | \$ | 12,232,036 | \$ | 20,570,812 |
| Discounted Reserve (b) |  |  |  |  |  |  |
| Old | \$ | 1,434,343 | \$ | - | \$ | 1,434,343 |
| New |  | 4,520,172 |  | 6,701,731 |  | 11,221,903 |
| Total | \$ | 5,954,515 | \$ | 6,701,731 | \$ | 12,656,246 |
| Total Discount (c) | \$ | 2,384,261 | \$ | 5,530,305 | \$ | 7,914,566 |

Notes:
(a) See Appendix A, Sheet 1.
(b) Open Awards details available upon request. IBNR from Appendix B, Sheet 2.
(c) [ Total Undiscounted Reserve - Total Discounted Reserve ]

MADISON CONSULTING GROUP, INC

## TEXAS SUBSEQUENT INJURY FUND

CALCULATION OF LIABILITY FOR IBNR LIB'S CLAIMS
AS OF AUGUST 31, 2022

| Fiscal Year | State <br> Average <br> Wage (a) | Estimated <br> Average <br> Nominal <br> Weekly LIB <br> Payment (b) | $\begin{aligned} & \text { Time To } \\ & 8 / 31 / 22 \\ & \hline \end{aligned}$ | Average <br> Time From 8/31/2018 <br> To Award (c) | Time For Escalation $[(4)+(5)]$ | Escalation <br> Factor (d) | Discount <br> Factor (e) | Average Age <br> At Award (f) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 2002 | \$ 536 | \$ 375 | 21.0 | 0.50 | 21.5 | 1.888 | 0.983 | 68 |
| 2003 | 536 | 375 | 20.0 | 0.50 | 20.5 | 1.833 | 0.983 | 67 |
| 2004 | 537 | 376 | 19.0 | 0.50 | 19.5 | 1.780 | 0.983 | 66 |
| 2005 | 539 | 377 | 18.0 | 0.50 | 18.5 | 1.728 | 0.983 | 65 |
| 2006 | 540 | 378 | 17.0 | 0.50 | 17.5 | 1.677 | 0.983 | 64 |
| 2007 | 674 | 472 | 16.0 | 0.50 | 16.5 | 1.629 | 0.983 | 63 |
| 2008 | 712 | 498 | 15.0 | 0.50 | 15.5 | 1.581 | 0.983 | 62 |
| 2009 | 750 | 525 | 14.0 | 0.50 | 14.5 | 1.535 | 0.983 | 61 |
| 2010 | 773 | 541 | 13.0 | 0.50 | 13.5 | 1.490 | 0.983 | 60 |
| 2011 | 766 | 536 | 12.0 | 0.50 | 12.5 | 1.447 | 0.983 | 59 |
| 2012 | 787 | 551 | 11.0 | 0.50 | 11.5 | 1.405 | 0.983 | 58 |
| 2013 | 818 | 573 | 10.0 | 0.50 | 10.5 | 1.364 | 0.983 | 57 |
| 2014 | 850 | 595 | 9.0 | 1.00 | 10.0 | 1.344 | 0.966 | 56 |
| 2015 | 861 | 603 | 8.0 | 1.50 | 9.5 | 1.324 | 0.950 | 56 |
| 2016 | 895 | 627 | 7.0 | 2.00 | 9.0 | 1.305 | 0.934 | 55 |
| 2017 | 913 | 639 | 6.0 | 2.50 | 8.5 | 1.286 | 0.918 | 55 |
| 2018 | 913 | 639 | 5.0 | 3.00 | 8.0 | 1.267 | 0.902 | 54 |
| 2019 | 938 | 656 | 4.0 | 3.50 | 7.5 | 1.248 | 0.887 | 54 |
| 2020 | 971 | 679 | 3.0 | 4.00 | 7.0 | 1.230 | 0.871 | 53 |
| 2021 | 1,007 | 705 | 2.0 | 4.50 | 6.5 | 1.212 | 0.857 | 53 |
| 2022 | 1,058 | 741 | 1.0 | 5.00 | 6.0 | 1.194 | 0.842 | 52 |
|  | Life |  |  |  |  | Estimated | Indicated | Reserve |
| Fiscal | Expectancy | Reserve Factor | At Award (g) | Cost per | Case (h) | IBNR | Undiscounted | Discounted |
| Year | At Award (g) | Undiscounted | Discounted | Undiscounted | Discounted | Count (i) | [(13) x (15)] | [(14) x (15)] |
| (1) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) |
| 2002 | 14.68 | 19.44 | 14.07 | \$ 765,703 | \$ 559,195 | - | \$ | \$ |
| 2003 | 15.37 | 20.61 | 14.71 | 786,674 | 566,849 | - | - | - |
| 2004 | 16.08 | 21.83 | 15.36 | 809,740 | 575,480 | 0.1 | 80,974 | 57,548 |
| 2005 | 16.80 | 23.10 | 16.02 | 832,529 | 583,463 | 0.1 | 83,253 | 58,346 |
| 2006 | 17.54 | 24.42 | 16.69 | 854,959 | 590,802 | 0.2 | 170,992 | 118,160 |
| 2007 | 18.29 | 25.80 | 17.38 | 1,081,540 | 733,077 | 0.2 | 216,308 | 146,615 |
| 2008 | 19.06 | 27.24 | 18.08 | 1,165,249 | 777,640 | 0.2 | 233,050 | 155,528 |
| 2009 | 19.85 | 28.75 | 18.79 | 1,254,783 | 824,018 | 0.2 | 250,957 | 164,804 |
| 2010 | 20.64 | 30.31 | 19.51 | 1,320,495 | 853,892 | 0.2 | 264,099 | 170,778 |
| 2011 | 21.45 | 31.94 | 20.23 | 1,338,165 | 852,022 | 0.2 | 267,633 | 170,404 |
| 2012 | 22.27 | 33.62 | 20.96 | 1,403,409 | 879,423 | 0.2 | 280,682 | 175,885 |
| 2013 | 23.10 | 35.36 | 21.70 | 1,487,092 | 916,933 | 0.2 | 297,418 | 183,387 |
| 2014 | 23.94 | 37.17 | 22.44 | 1,595,653 | 951,404 | 0.2 | 319,131 | 190,281 |
| 2015 | 23.94 | 37.17 | 22.44 | 1,593,125 | 935,024 | 0.3 | 477,938 | 280,507 |
| 2016 | 24.79 | 39.04 | 23.19 | 1,711,083 | 971,571 | 0.4 | 684,433 | 388,628 |
| 2017 | 24.79 | 39.04 | 23.19 | 1,718,226 | 959,680 | 0.5 | 859,113 | 479,840 |
| 2018 | 25.65 | 40.99 | 23.95 | 1,775,674 | 959,479 | 0.6 | 1,065,404 | 575,687 |
| 2019 | 25.65 | 40.99 | 23.95 | 1,795,017 | 954,380 | 0.7 | 1,256,512 | 668,066 |
| 2020 | 26.52 | 43.01 | 24.72 | 1,917,874 | 985,072 | 0.8 | 1,534,299 | 788,058 |
| 2021 | 26.52 | 43.01 | 24.72 | 1,961,017 | 991,292 | 0.9 | 1,764,915 | 892,163 |
| 2022 | 27.40 | 45.10 | 25.48 | 2,124,925 | 1,037,046 | 1.0 | 2,124,925 | 1,037,046 |
| Total |  |  |  |  |  | 7.2 | \$ 12,232,036 | \$ 6,701,731 |
|  |  |  |  |  |  | verage: | \$ 1,698,894 | \$ 930,796 |

Notes:
(a) Provided by DWC (and from TDI website).
(b) Estimated as $70 \%$ of average weekly wage.
(c) Based on judgment
(d) Reflects $3 \%$ escalation from date of injury based on time period in (6).
(e) Reflects present value adjustment at $3.5 \%$ interest rate based on time period in (5)
(f) Assumes average age at injury is 45 based on judgment.
(g) Based on 2001 CSO Mortality and 3\% benefit escalation
(h) Calculations assume that award will include immediate $\$ 50,000$ for accrued benefits.

Undiscounted $=[(11) x(3) x(7) x 52+50 \mathrm{~K}]$. Discounted $=[(12) x(3) x(7) x(8) \times 52+50 \mathrm{~K}]$.
(i) See Appendix A, Sheet 2

MADISON CONSULTING GROUP, INC.

Appendix C
Sheet 1 of 3

# TEXAS SUBSEQUENT INJURY FUND 

# SUMMARY OF OUTSTANDING RESERVE <br> LONG-TERM MULTI-EMPLOYMENT CLAIMS <br> AS OF AUGUST 31, 2022 

Open Awards $\quad$ IBNR $\quad$ Total

Number of Outstanding Claims (a)
Total
30
3

Undiscounted Reserve (b)

| Total | $\$$ | $24,474,360$ | $\$$ | $3,702,270$ | $\$$ | $28,176,630$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Discounted Reserve (b) |  |  |  |  |  |
| Total | $\$$ | $15,211,298$ | $\$$ | $1,959,672$ | $\$$ | $17,170,970$ |  |
| Total Discount (c) | $\$$ | $9,263,062$ | $\$$ | $1,742,598$ | $\$$ | $11,005,660$ |  |

Notes:
(a) Open Awards details available upon request. IBNR estimated based Sheet 3.
(b) Open Awards details available upon request. IBNR based on average severity from Appendix C, Sheet 2 multiplied by estimated number of claims.
(c) [ Total Undiscounted Reserve - Total Discounted Reserve ]

MADISON CONSULTING GROUP, INC.

# TEXAS SUBSEQUENT INJURY FUND 

DEVELOPMENT OF AVERAGE CLAIM SEVERITY<br>LONG-TERM MULTI-EMPLOYMENT CLAIMS<br>AS OF AUGUST 31, 2022

| $(1)$ | Estimated Average Age of Beneficiary At Time of Injury (a) | 46 |
| :--- | :--- | ---: |
| (2) | Undiscounted Reserve Factor - w/o Escalation (b) | 36.36 |
| (3) | Undiscounted Reserve Factor- With Escalation (b) | 70.29 |
| (4) | Undiscounted Reserve Factor - Selected [80\% x (2) + 20\% x (3)] (c) | 43.15 |
| (5) | Discounted Reserve Factor - w/o Escalation (b) | 20.27 |
| (6) | Discounted Reserve Factor- With Escalation (b) | 33.12 |
| (7) | Discounted Reserve Factor - Selected [80\% x (2)+20\% x (3)] (c) | 22.84 |
| $(8)$ | Estimated Average Annual Payment (a) | $\$$ |
| $(9)$ | Average Claim Severity - Undiscounted [(4) x (8)] | 28,600 |
| $(10)$ | Average Claim Severity - Discounted [(7) x (8)] | $\$$ |

Notes:
(a) Details available upon request.
(b) Based on CSO 2001 mortality table (Female).
(c) Assumes $20 \%$ of payments attributed to LIBS and $80 \%$ to death benefits, based on historical claims experience.

MADISON CONSULTING GROUP, INC

## TEXAS SUBSEQUENT INJURY FUND

SUMMARY OF CLAIM COUNTS<br>LONG-TERM MULTI-EMPLOYMENT CLAIMS

| Injury Year | Reported (a) | IBNR (b) | Total [(2) + (3)] |
| :---: | :---: | :---: | :---: |
| (1) | (2) | (3) | (4) |
| 2002 | 1 | - | 1 |
| 2003 | - | - | - |
| 2004 | - | - | - |
| 2005 | - | - | - |
| 2006 | - | - | - |
| 2007 | - | - | - |
| 2008 | 2 | - | 2 |
| 2009 | 2 | - | 2 |
| 2010 | 1 | - | 1 |
| 2011 | 6 | - | 6 |
| 2012 | 2 | - | 2 |
| 2013 | 11 | - | 11 |
| 2014 | 3 | - | 3 |
| 2015 | - | - | - |
| 2016 | 2 | - | 2 |
| 2017 | 3 | - | 3 |
| 2018 | 1 | - | 1 |
| 2019 | - | - | - |
| 2020 | 1 | - | 1 |
| 2021 | - | 1 | 1 |
| 2022 | - | 2 | 2 |
| Total | 35 | 3 | 38 |
| Average Last 10 |  |  | 2 |
| Prior Selected |  |  | 3 |
| Selected |  |  | 2 |

Notes:
(a) Based on multi-employer claims data provided by DWC.
(b) Estimated based on judgment and review of historical experience.

MADISON CONSULTING GROUP, INC.

Appendix D
Sheet 1 of 2

## TEXAS WORKERS COMPENSATION COMMISSION

2001 COMMISSIONERS STANDARD ORDINARY MORTALITY TABLE

| Age | USED FOR RESERVING UNDER OLD LAW |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male <br> Mortality <br> Per 1000 | Male <br> Expectancy <br> Years | Female <br> Mortality <br> Per 1000 | Female Expectancy Years | Age | Male <br> Mortality <br> Per 1000 | Male <br> Expectancy <br> Years | Female <br> Mortality <br> Per 1000 | Female Expectancy Years |
| 0 | 0.97 | 76.62 | 0.48 | 80.84 | 50 | 3.76 | 29.18 | 3.08 | 32.69 |
| 1 | 0.56 | 75.69 | 0.35 | 79.88 | 51 | 4.06 | 28.28 | 3.41 | 31.79 |
| 2 | 0.39 | 74.74 | 0.26 | 78.91 | 52 | 4.47 | 27.40 | 3.79 | 30.90 |
| 3 | 0.27 | 73.76 | 0.20 | 77.93 | 53 | 4.93 | 26.52 | 4.20 | 30.01 |
| 4 | 0.21 | 72.78 | 0.19 | 76.95 | 54 | 5.50 | 25.65 | 4.63 | 29.14 |
| 5 | 0.21 | 71.80 | 0.18 | 75.96 | 55 | 6.17 | 24.79 | 5.10 | 28.27 |
| 6 | 0.22 | 70.81 | 0.18 | 74.97 | 56 | 6.88 | 23.94 | 5.63 | 27.41 |
| 7 | 0.22 | 69.83 | 0.21 | 73.99 | 57 | 7.64 | 23.10 | 6.19 | 26.57 |
| 8 | 0.22 | 68.84 | 0.21 | 73.00 | 58 | 8.27 | 22.27 | 6.80 | 25.73 |
| 9 | 0.23 | 67.86 | 0.21 | 72.02 | 59 | 8.99 | 21.45 | 7.39 | 24.90 |
| 10 | 0.23 | 66.88 | 0.22 | 71.03 | 60 | 9.86 | 20.64 | 8.01 | 24.08 |
| 11 | 0.27 | 65.89 | 0.23 | 70.05 | 61 | 10.94 | 19.85 | 8.68 | 23.27 |
| 12 | 0.33 | 64.91 | 0.27 | 69.07 | 62 | 12.25 | 19.06 | 9.39 | 22.47 |
| 13 | 0.39 | 63.93 | 0.30 | 68.08 | 63 | 13.71 | 18.29 | 10.14 | 21.68 |
| 14 | 0.47 | 62.95 | 0.33 | 67.10 | 64 | 15.24 | 17.54 | 10.96 | 20.90 |
| 15 | 0.61 | 61.98 | 0.35 | 66.13 | 65 | 16.85 | 16.80 | 11.85 | 20.12 |
| 16 | 0.74 | 61.02 | 0.39 | 65.15 | 66 | 18.47 | 16.08 | 12.82 | 19.36 |
| 17 | 0.87 | 60.07 | 0.41 | 64.17 | 67 | 20.09 | 15.37 | 13.89 | 18.60 |
| 18 | 0.94 | 59.12 | 0.43 | 63.20 | 68 | 21.85 | 14.68 | 15.07 | 17.86 |
| 19 | 0.98 | 58.17 | 0.46 | 62.23 | 69 | 23.64 | 13.99 | 16.36 | 17.12 |
| 20 | 1.00 | 57.23 | 0.47 | 61.26 | 70 | 25.77 | 13.32 | 17.81 | 16.40 |
| 21 | 1.00 | 56.29 | 0.48 | 60.28 | 71 | 28.15 | 12.66 | 19.47 | 15.69 |
| 22 | 1.02 | 55.34 | 0.50 | 59.31 | 72 | 31.32 | 12.01 | 21.30 | 14.99 |
| 23 | 1.03 | 54.40 | 0.50 | 58.34 | 73 | 34.62 | 11.39 | 23.30 | 14.31 |
| 24 | 1.05 | 53.45 | 0.52 | 57.37 | 74 | 38.08 | 10.78 | 25.50 | 13.64 |
| 25 | 1.07 | 52.51 | 0.54 | 56.40 | 75 | 41.91 | 10.18 | 27.90 | 12.98 |
| 26 | 1.12 | 51.57 | 0.56 | 55.43 | 76 | 46.08 | 9.61 | 30.53 | 12.34 |
| 27 | 1.17 | 50.62 | 0.60 | 54.46 | 77 | 50.92 | 9.05 | 33.41 | 11.71 |
| 28 | 1.17 | 49.68 | 0.63 | 53.49 | 78 | 56.56 | 8.50 | 36.58 | 11.10 |
| 29 | 1.15 | 48.74 | 0.66 | 52.53 | 79 | 63.06 | 7.98 | 40.05 | 10.50 |
| 30 | 1.14 | 47.79 | 0.68 | 51.56 | 80 | 70.14 | 7.49 | 43.86 | 9.92 |
| 31 | 1.13 | 46.85 | 0.73 | 50.60 | 81 | 78.19 | 7.01 | 49.11 | 9.35 |
| 32 | 1.13 | 45.90 | 0.77 | 49.63 | 82 | 86.54 | 6.57 | 54.95 | 8.81 |
| 33 | 1.15 | 44.95 | 0.82 | 48.67 | 83 | 95.51 | 6.14 | 60.81 | 8.29 |
| 34 | 1.18 | 44.00 | 0.88 | 47.71 | 84 | 105.43 | 5.74 | 67.27 | 7.79 |
| 35 | 1.21 | 43.05 | 0.97 | 46.75 | 85 | 116.57 | 5.36 | 74.45 | 7.32 |
| 36 | 1.28 | 42.11 | 1.03 | 45.80 | 86 | 128.91 | 5.00 | 80.99 | 6.87 |
| 37 | 1.34 | 41.16 | 1.11 | 44.84 | 87 | 142.35 | 4.66 | 90.79 | 6.43 |
| 38 | 1.44 | 40.21 | 1.17 | 43.89 | 88 | 156.73 | 4.35 | 101.07 | 6.02 |
| 39 | 1.54 | 39.27 | 1.23 | 42.94 | 89 | 171.88 | 4.07 | 112.02 | 5.64 |
| 40 | 1.65 | 38.33 | 1.30 | 42.00 | 90 | 187.66 | 3.81 | 121.92 | 5.29 |
| 41 | 1.79 | 37.39 | 1.38 | 41.05 | 91 | 202.44 | 3.57 | 126.85 | 4.96 |
| 42 | 1.96 | 36.46 | 1.48 | 40.11 | 92 | 217.83 | 3.35 | 136.88 | 4.61 |
| 43 | 2.15 | 35.53 | 1.59 | 39.17 | 93 | 234.04 | 3.15 | 151.64 | 4.26 |
| 44 | 2.39 | 34.61 | 1.72 | 38.23 | 94 | 251.14 | 2.96 | 170.31 | 3.93 |
| 45 | 2.65 | 33.69 | 1.87 | 37.29 | 95 | 269.17 | 2.78 | 193.66 | 3.63 |
| 46 | 2.90 | 32.78 | 2.05 | 36.36 | 96 | 285.64 | 2.62 | 215.66 | 3.38 |
| 47 | 3.17 | 31.87 | 2.27 | 35.43 | 97 | 303.18 | 2.47 | 238.48 | 3.18 |
| 48 | 3.33 | 30.97 | 2.50 | 34.51 | 98 | 321.88 | 2.32 | 242.16 | 3.02 |
| 49 | 3.52 | 30.07 | 2.78 | 33.60 | 99 | 341.85 | 2.19 | 255.23 | 2.82 |

MADISON CONSULTING GROUP,INC

Appendix D
Sheet 2 of 2
TEXAS WORKERS COMPENSATION COMMISSION
2001 COMMISSIONERS STANDARD ORDINARY MORTALITY TABLE

| Age | USED FOR RESERVING UNDER NEW LAW (3\% ESCALATION) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male <br> Mortality Per 1000 | Male <br> Escalated Factor | Female <br> Mortality <br> Per 1000 | Female <br> Escalated <br> Factor | Age | Male <br> Mortality Per 1000 | Male <br> Escalated Factor | Female <br> Mortality <br> Per 1000 | Female <br> Escalated <br> Factor |
| 0 | 0.97 | 314.75 | 0.48 | 360.96 | 50 | 3.76 | 49.50 | 3.08 | 59.32 |
| 1 | 0.56 | 304.91 | 0.35 | 349.65 | 51 | 4.06 | 47.26 | 3.41 | 56.80 |
| 2 | 0.39 | 295.22 | 0.26 | 338.61 | 52 | 4.47 | 45.10 | 3.79 | 54.36 |
| 3 | 0.27 | 285.77 | 0.20 | 327.86 | 53 | 4.93 | 43.01 | 4.20 | 52.00 |
| 4 | 0.21 | 276.55 | 0.19 | 317.41 | 54 | 5.50 | 40.99 | 4.63 | 49.73 |
| 5 | 0.21 | 267.58 | 0.18 | 307.25 | 55 | 6.17 | 39.04 | 5.10 | 47.53 |
| 6 | 0.22 | 258.87 | 0.18 | 297.38 | 56 | 6.88 | 37.17 | 5.63 | 45.41 |
| 7 | 0.22 | 250.41 | 0.21 | 287.80 | 57 | 7.64 | 35.36 | 6.19 | 43.36 |
| 8 | 0.22 | 242.20 | 0.21 | 278.51 | 58 | 8.27 | 33.62 | 6.80 | 41.39 |
| 9 | 0.23 | 234.23 | 0.21 | 269.48 | 59 | 8.99 | 31.94 | 7.39 | 39.49 |
| 10 | 0.23 | 226.49 | 0.22 | 260.72 | 60 | 9.86 | 30.31 | 8.01 | 37.65 |
| 11 | 0.27 | 218.97 | 0.23 | 252.21 | 61 | 10.94 | 28.75 | 8.68 | 35.87 |
| 12 | 0.33 | 211.68 | 0.27 | 243.95 | 62 | 12.25 | 27.24 | 9.39 | 34.16 |
| 13 | 0.39 | 204.61 | 0.30 | 235.94 | 63 | 13.71 | 25.80 | 10.14 | 32.50 |
| 14 | 0.47 | 197.76 | 0.33 | 228.16 | 64 | 15.24 | 24.42 | 10.96 | 30.90 |
| 15 | 0.61 | 191.12 | 0.35 | 220.62 | 65 | 16.85 | 23.10 | 11.85 | 29.36 |
| 16 | 0.74 | 184.69 | 0.39 | 213.30 | 66 | 18.47 | 21.83 | 12.82 | 27.87 |
| 17 | 0.87 | 178.47 | 0.41 | 206.19 | 67 | 20.09 | 20.61 | 13.89 | 26.43 |
| 18 | 0.94 | 172.45 | 0.43 | 199.30 | 68 | 21.85 | 19.44 | 15.07 | 25.04 |
| 19 | 0.98 | 166.62 | 0.46 | 192.61 | 69 | 23.64 | 18.32 | 16.36 | 23.71 |
| 20 | 1.00 | 160.95 | 0.47 | 186.11 | 70 | 25.77 | 17.23 | 17.81 | 22.42 |
| 21 | 1.00 | 155.45 | 0.48 | 179.80 | 71 | 28.15 | 16.19 | 19.47 | 21.18 |
| 22 | 1.02 | 150.10 | 0.50 | 173.68 | 72 | 31.32 | 15.19 | 21.30 | 19.99 |
| 23 | 1.03 | 144.91 | 0.50 | 167.73 | 73 | 34.62 | 14.23 | 23.30 | 18.85 |
| 24 | 1.05 | 139.86 | 0.52 | 161.96 | 74 | 38.08 | 13.33 | 25.50 | 17.76 |
| 25 | 1.07 | 134.96 | 0.54 | 156.35 | 75 | 41.91 | 12.46 | 27.90 | 16.71 |
| 26 | 1.12 | 130.20 | 0.56 | 150.91 | 76 | 46.08 | 11.64 | 30.53 | 15.70 |
| 27 | 1.17 | 125.57 | 0.60 | 145.63 | 77 | 50.92 | 10.85 | 33.41 | 14.74 |
| 28 | 1.17 | 121.09 | 0.63 | 140.50 | 78 | 56.56 | 10.10 | 36.58 | 13.82 |
| 29 | 1.15 | 116.73 | 0.66 | 135.52 | 79 | 63.06 | 9.39 | 40.05 | 12.93 |
| 30 | 1.14 | 112.49 | 0.68 | 130.69 | 80 | 70.14 | 8.73 | 43.86 | 12.09 |
| 31 | 1.13 | 108.36 | 0.73 | 126.00 | 81 | 78.19 | 8.11 | 49.11 | 11.28 |
| 32 | 1.13 | 104.35 | 0.77 | 121.45 | 82 | 86.54 | 7.53 | 54.95 | 10.52 |
| 33 | 1.15 | 100.46 | 0.82 | 117.03 | 83 | 95.51 | 6.98 | 60.81 | 9.81 |
| 34 | 1.18 | 96.67 | 0.88 | 112.74 | 84 | 105.43 | 6.47 | 67.27 | 9.14 |
| 35 | 1.21 | 93.00 | 0.97 | 108.58 | 85 | 116.57 | 6.00 | 74.45 | 8.51 |
| 36 | 1.28 | 89.43 | 1.03 | 104.55 | 86 | 128.91 | 5.56 | 80.99 | 7.92 |
| 37 | 1.34 | 85.96 | 1.11 | 100.64 | 87 | 142.35 | 5.15 | 90.79 | 7.35 |
| 38 | 1.44 | 82.60 | 1.17 | 96.85 | 88 | 156.73 | 4.78 | 101.07 | 6.83 |
| 39 | 1.54 | 79.34 | 1.23 | 93.16 | 89 | 171.88 | 4.44 | 112.02 | 6.35 |
| 40 | 1.65 | 76.17 | 1.30 | 89.59 | 90 | 187.66 | 4.14 | 121.92 | 5.91 |
| 41 | 1.79 | 73.10 | 1.38 | 86.12 | 91 | 202.44 | 3.86 | 126.85 | 5.50 |
| 42 | 1.96 | 70.13 | 1.48 | 82.76 | 92 | 217.83 | 3.60 | 136.88 | 5.07 |
| 43 | 2.15 | 67.25 | 1.59 | 79.49 | 93 | 234.04 | 3.37 | 151.64 | 4.65 |
| 44 | 2.39 | 64.46 | 1.72 | 76.33 | 94 | 251.14 | 3.15 | 170.31 | 4.27 |
| 45 | 2.65 | 61.76 | 1.87 | 73.26 | 95 | 269.17 | 2.95 | 193.66 | 3.92 |
| 46 | 2.90 | 59.15 | 2.05 | 70.29 | 96 | 285.64 | 2.77 | 215.66 | 3.64 |
| 47 | 3.17 | 56.62 | 2.27 | 67.41 | 97 | 303.18 | 2.60 | 238.48 | 3.40 |
| 48 | 3.33 | 54.17 | 2.50 | 64.63 | 98 | 321.88 | 2.44 | 242.16 | 3.21 |
| 49 | 3.52 | 51.80 | 2.78 | 61.93 | 99 | 341.85 | 2.29 | 255.23 | 2.99 |

MADISON CONSULTING GROUP, INC


[^0]:    ${ }^{1}$ It is noted that the SIF's earlier financial statements show small amounts of income in addition to death benefits described above. We understand these items relate to reversals of items that have previously been expensed rather than external sources of income.

