Workers' Compensation and Employer Liability Trust Board Regular Meeting

February 2, 2023 | 4:00 p.m.

Council Chambers Conference Room
88 E. Chicago St., Chandler, AZ
or Webex 1-415-655-0001
code 2590 110 5474 password 72JrpzuHSG8

Board Members

Chair Lily Longacre
Vice Chair Michael Bohnert
Secretary Jennifer Huppenthal
Board Member Terry Bond
Board Member Val Gale

Pursuant to Resolution No. 4464 of the City of Chandler and to A.R.S. § 38-431.02, notice is hereby given to the members of the Workers' Compensation and Employer Liability Trust Board and to the general public that the Workers' Compensation and Employer Liability Trust Board will hold a REGULAR MEETING open to the public on Thursday, February 2, 2023, at 4:00 p.m., at Council Chambers Conference Room, 88 E. Chicago Street, Chandler, AZ or via Webex by dialing 1-415-655-0001, Access Code 2590 110 5474, and password: 72JrpzuHSG8.

Persons with disabilities may request a reasonable modification or communication aids and services by contacting the City Clerk's office at (480) 782-2181(711 via AZRS). Please make requests in advance as it affords the City time to accommodate the request.

Agendas are available in the Office of the City Clerk, 175 S. Arizona Avenue.

Workers' Compensation and Employer Liability Trust Board
Regular Meeting Agenda - February 2, 2023

Call to Order/Roll Call

Scheduled/Unscheduled Public Appearances

Members of the audience may address any item not on the agenda. State Statute prohibits the Board or Commission from discussing an item that is not on the agenda, but the Board or Commission does listen to your concerns and has staff follow up on any questions you raise.

Consent Agenda

Items listed on the Consent Agenda may be enacted by one motion and one vote. If a discussion is required by members of the Board or Commission, the item will be removed from the Consent Agenda for discussion and determination will be made if the item will be considered separately.

1. **November 17, 2022 City of Chandler Workers' Compensation and Employer Liability Trust Board Minutes**
   Move to approve the Chandler Workers' Compensation and Employer Liability Trust Board minutes from November 17, 2022.

Briefing

2. **Actuarial Audit Report - Oliver Wyman**

3. **Financial Audit Report - Heinfeld Meech**

4. **Financial Statements - Management Services**

5. **Investment Report - Management Services**

6. **Rate Contribution and Reserve Recommendation - Management Services**

Action Agenda

7. **Resolution No. WC-010**
   Move to approve Resolution No. WC-010 for the City of Chandler Workers' Compensation and Employer Liability Trust Fund Board recommending Workers' Compensation Contribution and Reserve Level for Fiscal Year 2023-24.

Member Comments/Announcements

Calendar

8. The next meeting is scheduled for Thursday, June 15, 2023 (combined).

Informational Items - For Future Meeting Dates

9. Financial Statements

10. Investment Report

11. Excess Insurance Renewal

12. CorVel Contract Renewal

13. New Members and Election of Officers

Adjourn

ITEM 2

Workers' Compensation And Employer Liability Trust Board Human Resources Memo No.

Date: 02/02/2023
To: Workers' Compensation And Employer Liability Trust Board
From: Teresa Canjar, Management Assistant
Subject: **Actuarial Audit Report - Oliver Wyman**

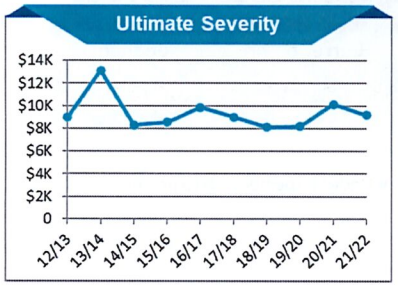
Attachments

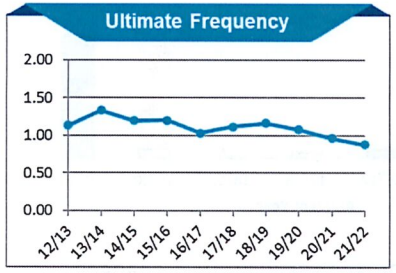
Executive Summary
Actuarial Analysis 6-30-22

OLIVER WYMAN

Workers Compensation Unpaid Losses & ALAE Executive Summary

City of Chandler
Data evaluated as of June 30, 2022





Trend Assumptions

- The selected frequency trend is -0.5%.
- The selected severity trend is 2.5%.
- The selected loss cost trend is 2.0%.
- The loss cost and severity trends are adjusted to the current benefit level.
- The loss cost and severity trends are shown at a per occurrence retention of $75,000.
- The combination of negative frequency trend and rising severity is not uncommon amongst municipalities and WC in general.

Key Findings

- Frequency has remained relatively stable, decreasing slightly, over the past 10 years, ranging from 0.9 to 1.3 claims per million dollars of payroll.
- Severity, with claims limited to $75,000, has ranged from $8,000 to $13,000, and is generally increasing.
- The loss cost, with claims limited to $75,000, has ranged from $8 to $17 per thousand dollars of payroll.

Reconciliation of Reserves

Beginning of Period Unpaid Losses as of 6/30/21	$10,458,761
Plus Estimated Ultimate Losses for (7/1/21-6/30/22)	$3,271,000
Plus Change in Ultimate Losses through 6/30/21	($1,103,100)
Less Actual Payments (7/1/21-6/30/22)	$2,122,299
End of Period Unpaid Losses as of 6/30/22	$10,504,362

Claim Changes Since Prior Report

Claimant	Date of Loss	Current Status	Current Incurred	Prior Incurred	Incurred Change	Current Paid
CN-12-0500139	4/19/2012	C	149,192	308,184	-158,992	149,192
CN-13-005252	5/2/2013	O	628,185	1,298,791	-670,606	577,842
CN-17-005633	4/20/2017	C	155,289	533,992	-378,703	155,289
CN-20-005223	1/27/2020	O	665,521	83,395	582,126	103,460
CN-22-005061	9/15/2021	O	137,002	0	137,002	28,603
CN-22-005123	12/3/2021	O	1,514,607	0	1,514,607	190,661
CN-22-005129	12/15/2021	O	112,721	0	112,721	5,342
CN-22-005133	1/8/2022	O	145,509	0	145,509	61,623

Your Actuarial Team

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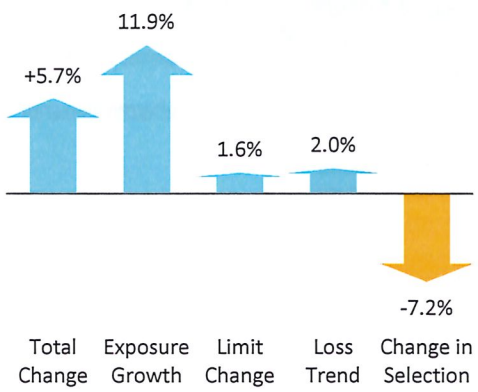
Workers Compensation Unpaid Losses & ALAE Executive Summary

City of Chandler
Data evaluated as of June 30, 2022

Unpaid Losses & ALAE as of 6/30/22:
$10,504,362

Unpaid Losses & ALAE as of 6/30/21:
$10,458,761

2021/2022 Ultimate Losses & ALAE as of 6/30/21
$2,700,000



2022/2023 Ultimate Losses & ALAE as of 6/30/22
$2,907,000

Scope of Analysis

- Estimated unpaid losses and allocated loss adjustment expense (ALAE) as of June 30, 2022 for accidents occurring between January 1, 2003 and June 30, 2022 at an actuarial central estimate and various probability levels
- Projected ultimate losses and ALAE for policy period July 1, 2022 – 2023 at an actuarial central estimate and various probability levels

Important Assumptions

- All estimates are limited to the City's self-insured retentions, which increased from $500,000 to $600,000 per-occurrence effective 7/1/12, to $1M for police / fire effective 7/1/15, to $1.25M for police / fire effective 7/1/18, to $750,000 / $2.25M effective 7/1/20, $1M / $3M effective 7/1/21 and to $1.5M / $3M effective 7/1/22.

Key Findings

- The unpaid estimate has increased by approximately $50K due to the addition of the 7/1/21-22 policy year (at an increased retention level, and already with a $1.5M claim), offset by decreases in prior periods
- The forecast for 22/23 is up 5.7% from the prior forecast due to increases in payroll and the retained limits offset by a reduction in our estimated base rate per payroll.

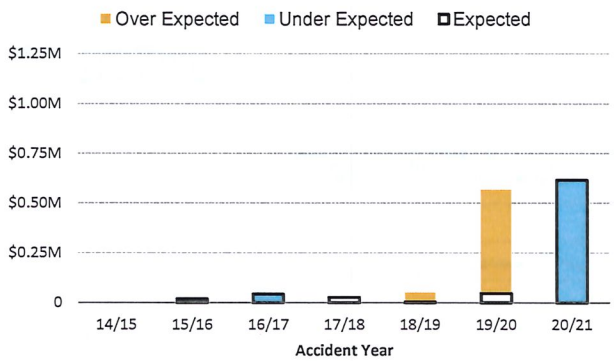
Actual vs. Expected Results

Reported Losses & ALAE 6/30/21 to 6/30/22

Actual	Expected	AvE
$46,113	$795,646	($749,533)

Ultimate Losses & ALAE 6/30/21 to 6/30/22

Prior	Current	Change
$38,294,116	$37,762,016	($532,100)



- Actual versus Expected results reflect changes in the claims from 6/30/21 to 6/30/22. The table will not fully display actual incurred of -$165k in 11/12 and -$427k in 16/17.

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ACTUARIAL ANALYSIS OF WORKERS' COMPENSATION UNPAID LOSSES & ALAE AS OF JUNE 30, 2022

CITY OF CHANDLER

September 30, 2022

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1. EXECUTIVE SUMMARY

Purpose and Scope

Oliver Wyman Actuarial Consulting, Inc. (Oliver Wyman) has been retained by the City of Chandler (the City) to provide actuarial consulting services. The purpose of this analysis is to estimate unpaid losses and allocated loss adjustment expense (ALAE) as well as claim cost projections for the City's workers' compensation (WC) exposures. The conclusions in this study are related to its stated purpose and may not be applicable for other purposes.

The analysis provides the following:

- Unpaid losses and ALAE as of June 30, 2022 for claims incurred through that same date.
- Projected ultimate losses and ALAE for policy period July 1, 2022-23.
- Estimates of the 70%, 80% and 90% probability levels of the unpaid losses and ALAE as well as the projected ultimate losses as of June 30, 2022.

The estimates are based on data evaluated as of June 30, 2022 and additional information provided to Oliver Wyman (and only that information provided) through August 4, 2022.

The estimates are prepared on a nominal basis only; that is, there is no consideration of the time value of money.

Estimates are presented as actuarial central estimates. An actuarial central estimate is defined as an expected value over the range of reasonably possible, as opposed to all conceivable, outcomes.

Additionally, estimates are provided at the 70%, 80% and 90% probability levels, meaning the estimates include a margin for potential adverse development over the long term average. These estimates represent the amount for which there is a 70%, 80% or 90% chance that the actual unpaid losses and ALAE or projected ultimate losses and ALAE will be less than or equal to this value.

Unless otherwise stated, all references to loss should be understood to include ALAE and be net of salvage and subrogation. Please note that ALAE is an insurance industry term which generally refers to costs that can be attributed to the settlement of individual claims. Fees paid to outside defense attorneys and medical management costs represent a major portion of this expense item. Also, please note that the terms unpaid losses, reserves and liabilities are used interchangeably throughout this report.

The scope of this project did not include the estimation of any expenses other than ALAE that are sometimes associated with insurance programs. Such expenses include unallocated loss adjustment expense (ULAE), reinsurance premiums, the costs of trustee, legal, administrative, risk management and actuarial services, taxes, fees and assessments, and costs for surety bonds or letters of credit pertaining to outstanding liabilities or capital requirements. ULAE is the insurance industry term generally used to refer to any claims-handling costs that cannot be attributed to individual claims. Fees paid to third party administrators (TPAs) and salaries paid to in-house claim adjusters and in-house defense attorneys represent examples of this type of expense.

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This report sets forth the results of Oliver Wyman's analysis and is accompanied by exhibits which should be considered integral parts of this report.

Actuarial Findings

Table 1 below summarizes the nominal unpaid losses & ALAE, at the appropriate self-insured retention (SIR) levels as of June 30, 2022. Estimates are presented both at an actuarial central estimate and the 70%, 80% and 90% probability levels.

***Table 1:* Estimated Unpaid Losses & ALAE**

Evaluation Date	Actuarial Central Estimate	Probability Levels		
		70th	80th	90th
As of June 30, 2022	**10,504,362**	**11,985,477**	**13,718,696**	**16,533,865**
As of June 30, 2021	**10,458,761**	**11,975,281**	**13,878,776**	**17,016,404**
Change	***45,601***	***10,195***	***(160,080)***	***(482,539)***

The estimate of approximately $10.5 million as of June 30, 2022 represents an increase of approximately $50K since the actuarial analysis performed as of June 30, 2021. This increase is driven by the inclusion of policy year 7/1/21 – 6/30/22 (which is at an increased retention level), largely offset by payments made and decreases in the estimated ultimates for previous policy periods driven by better than expected development. Actual incurred loss development over the last twelve months across policy years 7/1/20 – 6/30/21 and prior was $46K, significantly less than the expected $796K.

However, policy year 7/1/21 – 6/30/22 is impacted by a $1.5 million claim (CN-22-005123).

Projected Ultimate Losses and ALAE

The nominal losses and ALAE expected to be incurred during policy period 7/1/22– 6/30/23 by the City, with a self-insured retention of $3.0 million for police and fire employees and $1.5 million for all other employees, are as shown in Table 2 below.

Table 2: Projected Ultimate Losses and ALAE for Policy Period 22/23

Self-Insured Retention	Actuarial Central Estimate	Probability Levels		
		70th	80th	90th
1.5M / 3M	**2,907,000**	**3,319,794**	**3,819,798**	**4,642,479**

This forecast is based on Oliver Wyman's estimated loss costs (losses per unit of exposure) and the City's forecasted exposures of approximately $160 million. It should be noted that since the projected losses and ALAE are directly related to the forecasted exposures, if actual exposures differ from the forecast, the projected losses and ALAE should be adjusted accordingly.

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Relevant Comments

Unpaid losses and ALAE are composed of claims examiners' estimates and IBNR amounts. The claims examiners' estimates are established by individual claim adjusters on open claims. Claims examiners' estimates are based on the facts of a claim as they are known today; these estimates do not anticipate that a claim will change. The IBNR amounts are estimated by Oliver Wyman and include amounts for late reported and re-opened claims as well as development on known open claims. The fact that Oliver Wyman's IBNR amounts include a provision for development on known claims does not necessarily imply that there is a problem with the claim examiner estimates. The tendency is that, in aggregate, damages or injuries are worse than originally thought. Thus, an adequate provision for unpaid losses and ALAE should include a provision for upward development. Please note that Oliver Wyman's IBNR amounts are appropriate for all historical policy periods in aggregate but not necessarily for any one particular policy period.

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2. BACKGROUND

Founded on May 17, 1912, the City of Chandler is located in the Greater Phoenix Valley of Arizona, located 20 miles from the Phoenix Sky Harbor Airport.

The City began self-insuring its Workers' Compensation exposures on July 1, 2002 and has maintained a self-insured retention since inception. Prior to that date, the City's Workers' Compensation liabilities were covered through a guaranteed cost program.

The City's self-insured retentions since July 1, 2002 are as displayed below. All self-insured retentions are assumed to be on a per occurrence basis and eroded by loss and ALAE.

Policy Years	Self-Insured Retention	
	Police / Fire	All Other
7/1/02-03 to 7/1/11-12	500,000	
7/1/12-13 to 7/1/14-15	600,000	
7/1/15-16 to 7/1/17-18	1,000,000	600,000
7/1/18-19 to 7/1/19-20	1,250,000	600,000
7/1/20-21	2,250,000	750,000
7/1/21-22	3,000,000	1,000,000
7/1/22-23	3,000,000	1,500,000

3. DATA

For this study, Oliver Wyman relied on the accuracy and completeness of data and information provided by the City without independent audit. This actuarial analysis is based upon the review of this data and also insurance industry data, along with practical knowledge and training in actuarial theory, which together enable us to interpret the results of calculations. Throughout the process, the data played an important role. The accuracy and validity of the actuarial analysis are dependent on, among other things, the quality of the data used. If the underlying data are inaccurate or incomplete, the results of Oliver Wyman's analysis may likewise be inaccurate or incomplete.

Oliver Wyman has attempted to review the data used directly in this analysis for the purpose of identifying values that are questionable or relationships that are materially inconsistent. In cases where the data are incomplete, inaccurate, or not as appropriate as desired, Oliver Wyman has considered whether the use of such data may produce material biases in the results of this study, or whether the data are so inadequate that the data cannot be used to satisfy the purpose of this study.

Oliver Wyman has not, however, audited or verified this data since this is beyond the scope of the assignment. Also, it should be noted that Oliver Wyman's review of data may not always reveal imperfections and that there may be situations where it is impossible or impracticable to perform a sufficient review of the data. Neither has Oliver Wyman examined any insurance contracts covering the years applicable to this analysis.

Specifically, the data relied upon are as follows:

- Historical ground-up and unlimited detailed claims listings as June 30, 2022 provided by the City
- Historical estimated and audited (where applicable) payrolls by period provided by the City
- Oliver Wyman's prior study *Actuarial Analysis of Workers' Compensation Unpaid Loss and ALAE as of June 30, 2021* dated September 29, 2021
- Industry loss development factors, increased limit factors and benefit level changes from the 2020 and 2021 Annual Statistical Bulletins published by National Council on Compensation Insurance (NCCI)

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4. METHODOLOGY

The estimates in this report are developed in accordance with of the Casualty Actuarial Society and the applicable standards of the American Academy of Actuaries. Below is a discussion of the details underlying the actuarial methodologies and assumptions used by Oliver Wyman in the analysis. Oliver Wyman's projections for the City assumed that the patterns observed in historical policy periods will be applicable to future policy periods.

Oliver Wyman first selected ultimate losses limited to $75,000, which provides a more stable base for projections than the City's historical SIRs (or losses at statutory limits). Oliver Wyman then used the City's data supplemented with insurance industry data to bring the $75,000 limit estimates to the actual SIR by policy period.

To develop the estimates of limited ultimate losses, Oliver Wyman applied the following generally accepted actuarial techniques.

- Paid loss development method
- Incurred loss development method
- Paid Bornhuetter-Ferguson method
- Incurred Bornhuetter-Ferguson method
- Frequency / severity method
- Loss cost method

The following describes these methods in more detail:

Loss Development Method

This method involves estimating how losses will develop in the future. Historical patterns are identified by creating a loss triangle. The triangle presents paid or incurred losses over time at successive 12-month valuations. The triangle reveals how paid or incurred losses have changed over time. From this historical loss development experience, loss development factors (LDFs) are selected to represent Oliver Wyman's expectations of future loss development. If the Company's exposure is small and there is not enough historical data to determine its own patterns, or if the Company's own patterns are volatile, then insurance industry data may be used to help select appropriate loss development factors.

An accumulation of the selected LDFs provides a means of estimating how losses will develop up to the time that all losses have been settled. The calculated accumulated LDFs are applied directly to the latest paid or incurred losses to project ultimate losses.

An advantage of the paid loss development method is that its predictive accuracy is independent of case reserving practices and philosophies.

The advantages of the incurred loss development method are that incurred losses provide a larger statistical database than paid losses (since claims examiners' estimates are used in addition to payments) and that incurred losses provide more current information (since payments lag behind the establishment of claims examiners' estimates).

Bornhuetter-Ferguson Method

The Bornhuetter-Ferguson (B-F) method is a blending of the results of the loss development method with an *a priori* expectation of ultimate losses. Expected unpaid or unreported losses are added to cumulative paid or incurred losses to derive an estimate of ultimate losses. Expected unpaid or unreported losses are derived by applying the portion of ultimate losses that are estimated to be unpaid or unreported to the expected ultimate losses.

Please note that the preliminary ultimate losses are selected based on the loss development methods and the loss cost method (described below) for the more recent years. The loss development factors are the same as those used in the loss development method.

An advantage of the B-F method is that estimates of ultimate losses tend to be more stable than the usual loss development method. This is because estimates based on the B-F method are generally a weighted average between the estimate based on a loss development methodology and the preliminary estimates of ultimate losses.

Frequency / Severity Method

Under the frequency / severity method, the ultimate loss for each policy period is the product of the selected ultimate severity (i.e., average cost per claim) multiplied by the ultimate number of reported claims. The preliminary ultimate losses are based on the loss development methods.

The ultimate severity for the most recent policy period is judgmentally selected based on the historical severities trended to the current period's cost level. The ultimate severity for prior policy periods equals the selected current severity, detrended to the appropriate cost level.

Loss Cost Method

Under the loss cost method, an ultimate loss cost is judgmentally selected and multiplied by the exposure to obtain the ultimate loss estimate. Loss cost equals ultimate losses divided by exposure. Ultimate loss costs are judgmentally selected based on the City's historical loss cost, adjusted for inflation. The preliminary losses are based on the loss development methods.

This method can be useful for estimating ultimate losses for the most recent and for future policy periods. The advantages of using a loss cost method for the more recent policy periods are that it accounts for changes in exposure and is less affected by changes in closing and reserving practices than are the incurred and paid development methods.

Estimated Ultimate Number of Claims

Similar to the paid and incurred loss development factors, reported claim count development factors are calculated based on historical claims triangles created from the City's own experience. The selected count development factors are applied to the City's reported counts to determine an estimate of the ultimate number of claims.

A second estimate of the ultimate number of claims is developed based on a combination of the frequency and B–F methods. Oliver Wyman first trends the above-estimated ultimate counts by using a judgmentally

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selected frequency trend. Using the selected count development factors, the percentage of unreported claim counts is determined. Lastly, these unreported counts are then added to the reported counts to date to create a second estimate of ultimate number of claims. Oliver Wyman then judgmentally selects the ultimate number of claims based on the two estimates.

Estimated Unpaid Losses and ALAE at Retained Limits

To develop the estimates of retained ultimate losses, Oliver Wyman applied three generally accepted actuarial techniques: the Increased Limit Factor (ILF) Method, the LDF method, and the Excess Method.

In the ILF Method, Oliver Wyman used the City's data supplemented with insurance industry data to create ILFs, which is a ratio of expected losses at higher limits to expected losses the selected limit of $75,000. These selected ILFs were multiplied by the $75,000 limited ultimate loss estimates to bring these estimates to the actual SIR by policy period. This method can be useful for estimating ultimate losses for policy periods with a larger unknown. Typically, this is most useful for more recent or future policy periods and for policy periods with a significantly high SIR, where actual losses have not yet had time to develop into that layer. For policy years where there are multiple SIR's for different classes of employees, we calculated the average SIR assuming 70% of the incurred losses limited to $75,000 are police / fire (and thus subject to the higher SIR).

In the LDF Method, Oliver Wyman used internal data to adjust the selected limited loss development factors to reflect the incurred loss development pattern appropriate for the actual retention limit by policy period. These LDFs were then applied to the retained incurred losses. This method is useful when it is appropriate to assume that historical development patterns are representative of future development patterns, regardless of what has been reported so far in a given policy period.

In the Excess Method, Oliver Wyman used the aforementioned ILFs, LDFs at the $75,000 limits, and LDFs at the actual retention limit to calculate an estimate of IBNR excess of the $75,000 limit. This amount was then added to the limited ultimate losses and the excess incurred losses to estimate ultimate losses at the actual retention limit. This method is a blend of the ILF and LDF methods.

To estimate the unpaid losses at the City's retention limits, Oliver Wyman selected ultimate losses at the City's retention limits based on the three methods described above, and then subtracted the City's actual payments at the retention limits.

Estimates of Reserves at Various Probability Levels

Oliver Wyman provides estimates of loss and ALAE reserves as of June 30, 2022 at the actuarial central estimate and at various probability levels. A compound Poisson model was developed to gauge the volatility of potential losses. The parameters for the stochastic model were determined based on Oliver Wyman's analysis of the claim detail.

Oliver Wyman has assumed the loss and ALAE reserves follow a lognormal distribution with a coefficient of variation (CV) of 40%. The frequency and severity for the lognormal distribution were estimated based on the number of open and IBNR claims and based on the CV of the City's loss experience, respectively. Oliver Wyman has judgmentally introduced a variable to calculate any additional parameter risk involved.

These calculations assume Oliver Wyman has correctly measured the parameters of the model and do not include estimates of the additional variation which will be caused by misestimating the expected number of claims and the average claim cost.

A similar calculation is performed for the projected ultimate losses and ALAE in the future policy year.

Projection of Ultimate Losses and ALAE for Future Policy Periods

To project future losses at the SIR (assuming SIR remains unchanged in the upcoming period), Oliver Wyman adjusted historical ultimate losses limited to $75,000 to the projected cost and benefit levels and adjusted historical ultimate claim counts to the projected frequency levels.

Using the loss cost method, Oliver Wyman selected a projected loss cost, the result of which was multiplied by projected payroll. The results are estimated ultimate loss and ALAE, limited to $75,000, for calendar accident period 7/1/2022 – 6/30/2023. Using the frequency/severity method, Oliver Wyman selected a projected frequency and severity. The selected frequency was multiplied by projected payroll to arrive at an estimate of projected ultimate claim counts, which was then multiplied by the selected severity to arrive at a second indication of the estimate ultimate loss and ALAE, limited to $75,000, for calendar period 7/1/2022 – 6/30/2023. Oliver Wyman then judgmentally selects a projected ultimate loss and ALAE, limited to $75,000, based on these two indications and shows the resulting selected limited forecasted loss cost, limited to $75,000.

This selected limited forecasted loss cost was then multiplied by the projected payroll and an increased limit factor to bring the estimate up to the SIR.

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5. DISTRIBUTION AND USE

Usage and Responsibility of Client – Oliver Wyman prepared this report for the sole use of the client named herein for the stated purpose. This report includes important considerations, assumptions, and limitations and, as a result, is intended to be read and used only as a whole. This report may not be separated into, or distributed, in parts other than by the client to whom this report was issued, as needed, in the case of distribution to such client's directors, officers, or employees. All decisions in connection with the implementation or use of advice or recommendations contained in this report are the sole responsibility of the client named herein.

Third Party Reliance and Due Diligence – Oliver Wyman's consent to any distribution of this report (whether herein or in the written agreement pursuant to which we issued this report) to parties other than of the client named herein does not constitute advice by Oliver Wyman to any such third parties. Any distribution to third parties shall be solely for informational purposes and not for purposes of reliance by any such parties. Oliver Wyman assumes no liability related to third party use of this report or any actions taken or decisions made as a consequence of the results, advice or recommendations set forth herein. This report should not replace the due diligence on behalf of any such third party.

6. CONSIDERATIONS AND LIMITATIONS

Data Verification – For our analysis, we relied on data and information provided by the client named herein without independent audit. Though we have reviewed the data for reasonableness and consistency, we have not audited or otherwise verified this data. Our review of data may not always reveal imperfections. We have assumed that the data provided is both accurate and complete. The results of our analysis are dependent on this assumption. If this data or information is inaccurate or incomplete, our findings and conclusions might therefore be unreliable.

Prospective Policy / Accident Period Estimates – We estimated the prospective policy/accident period estimates developed in this analysis using estimated loss costs and the projected exposures. Prospective period loss and ALAE estimates are directly related to the projected exposures. Therefore, if actual exposures differ from the projection, we would need to adjust the prospective policy/accident period estimates accordingly.

Supplemental Data – Where historical data of the client named herein was either (i) not available, (ii) not appropriate or (iii) not sufficiently credible to develop our actuarial assumptions, we supplemented it with external information, as we deemed appropriate. Although we believe these external sources may be more predictive of future experience of the client named herein than any other data of which we are aware, the use of external data adds to the uncertainty associated with our projections.

Exclusion of Other Program Costs – The scope of the project does not include the estimation of any costs other than those described herein. Such ancillary costs may include unallocated loss adjustment expenses (ULAE); excess insurance premiums; the costs of trustee, legal, administrative, risk management and actuarial services; fees and assessments; and costs for surety bonds or letters of credit pertaining to claim liabilities.

Assumption of Valid Insurance / Reinsurance – We assumed that all insurance/reinsurance is valid and fully collectible. We made no assessment, and do not express any opinion, concerning the viability or collectability of any insurance or reinsurance. We have not evaluated the financial strength, claims-paying ability or any other factors with regard to the past, current, and prospective insurers/reinsurers of the client named herein.

Funding of Claim Payments – We have not examined any assets that may be supporting the liabilities, and have made no assumptions regarding the maturities and liquidity of these assets, should they exist. This examination is beyond the scope of our review.

Rounding and Accuracy – Our models may retain more digits than those displayed. Also, the results of certain calculations may be presented in the exhibits with more or fewer digits than would be considered significant. As a result, there may be rounding differences between the results of calculations presented in the exhibits and replications of those calculations based on displayed underlying amounts. Also, calculation results may not have been adjusted to reflect the precision of the calculation.

Unanticipated Changes – We developed our conclusions based on an analysis of the data of the client named herein and on the estimation of the outcome of many contingent events. We developed our estimates from the historical claim experience and covered exposure, with adjustments for anticipated changes. Our estimates make no provision for extraordinary future emergence of new types of losses not sufficiently represented in historical databases or which are not yet quantifiable. Also, we assumed that

the client named herein will remain a going concern, and we have not anticipated any impacts of potential insolvency, bankruptcy, or any similar event.

Internal / External Changes – The sources of uncertainty affecting our estimates are numerous and include factors internal and external to the client named herein. Internal factors include items such as changes in claim reserving or settlement practices. The most significant external influences include, but are not limited to, changes in the legal, social, or regulatory environment surrounding the claims process. Uncontrollable factors such as general economic conditions also contribute to the variability.

Uncertainty Inherent in Projections – While this analysis complies with applicable Actuarial Standards of Practice, users of this analysis should recognize that our projections involve estimates of future events and are subject to economic and statistical variations from expected values. We have not anticipated any extraordinary changes to the legal, social, or economic environment that might affect the frequency or severity of claims. For these reasons, we do not guarantee that the emergence of actual losses will correspond to the projections in this analysis.

Probability Levels – We have calculated estimates of the statistical uncertainty associated with the process risk inherent in our estimates. However, unless otherwise indicated, our probability level estimates do not address parameter or model risk. To the extent that the probability estimates do not address parameter risk or model risk, the true variability of results is greater than the range of outcomes presented. The client named herein may wish to consider this additional uncertainty in evaluating the estimates presented in this report.

Obamacare - The Patient Protection and Affordable Care Act (PPACA or "Obamacare") was signed into law in 2010 with the goals of increasing coverage, affordability, quality, and efficiency of the current health care system. Provisions to accomplish these intended goals were implemented in phases, with some provisions taking effect in 2014 and beyond. Our estimates do not account for any potential impact, including potential future revisions or repeal/replacement, the PPACA will have on any lines of business included in this analysis.

Workers' Compensation - The Medicare, Medicaid and SCHIP Extension Act of 2007 (the Act) was enacted in part to ensure that Medicare does not pay medical benefits for beneficiaries whose medical treatments arise out of a liability or work-related accident. While Medicare has always been a secondary payer of these benefits, Medicare's rights to reimbursement have not been frequently exercised in the past. New reporting requirements under the Act enable Medicare to enforce its liens against primary payers and effectuate the reimbursement process. The ability of liability and workers compensation insurers to procure full and final medical settlements may be diminished under this Act. The passage of this Act increases the uncertainty in any estimate of unpaid losses and we have not attempted to quantify the impact of this Act.

COVID-19 Pandemic We have included no explicit adjustments in this report for the effect of the COVID-19 pandemic on loss experience except as specifically noted in this report.

7. ACKNOWLEDGEMENT OF QUALIFICATIONS

Thank you for providing Oliver Wyman with the opportunity to develop this analysis for the City. We are prepared to discuss the results at your request.

I, Adam Hirsch, am a Principal with Oliver Wyman Actuarial Consulting, Inc. I am a Fellow of the Casualty Actuarial Society (FCAS), a Member of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to counsel on the results contained herein.

Oliver Wyman Actuarial Consulting, Inc.:

Adam Hirsch, FCAS, MAAA
633 West Fifth Street, Suite 1200
Los Angeles, CA 90071
(213) 346-5352

APPENDIX A. GLOSSARY

Accident Period

The period in which the event giving rise to a claim occurred, regardless of when the claim is actually reported.

Accounting Date

The point in time at which the estimate of unpaid claims and ALAE is evaluated.

Actuarial Central Estimate

An estimate that represents an expected value over the range of reasonably possible outcomes. Such range of reasonably possible outcomes may not include all conceivable outcomes.

Allocated Loss Adjustment Expense (ALAE)

Expense costs associated with the handling and settling of an individual claim that can be directly attributed to the particular claim. Fees paid to outside defense attorneys and investigation firms are examples of this expense cost.

Case Reserves

The unpaid claim estimates established by adjusters on an individual claim basis.

Claim

A demand for payment under the coverage provided by a plan or contract. As used throughout this Glossary, it also includes suits, potentially compensable events, notifications, and unasserted claims.

Claim Frequency

The number of claims that occur over a period of time per unit of exposure.

Claim Reporting Pattern

The rate at which claims are assumed to be reported over time.

Claim Severity

The average cost per claim.

Coefficient of Variation

A statistical measure of dispersion. The coefficient of variation is calculated as the standard deviation of the random process divided by the expected value (mean).

Confidence Level

The probability that the outcome of a random process will not exceed an associated estimate. For example, a 75% confidence level for an unpaid claim estimate of $10 million would indicate that there is a 75% probability that the actual claim payments will be less than or equal to $10 million. The estimate is defined in the context of the risks modeled in our analysis and may not consider all factors contributing to variability of outcomes.

Credibility

A measure of the predictive value of a body of data.

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Development

The change between valuation dates in the observed values of certain fundamental quantities that may be used in the unpaid claim estimation process.

For example, the number of reported claims associated with events occurring within a particular period will change from one valuation date to the next until all claims have been reported. In a similar fashion, the paid claim amounts for events occurring within a particular period will change from one valuation date to the next until all claims have been reported and closed. The change in the number of reported claims or the change in the paid claim amounts is referred to as development. The concept of development also applies to reported incurred losses.

Estimated Ultimate Incurred Losses

The estimated cost of claims during a period. Ultimate incurred losses represent the total of paid claim amounts, case reserves, and IBNR.

Event

The incident or activity that triggers potential for claim or allocated claim adjustment expense payment.

Exposure

A measure of the underlying potential for claim costs.

IBNR

The unpaid claim estimate for: (a) events that have occurred for which claims have not been reported as of the accounting date, (b) future development of the case reserves, (c) claims that have been reported but not yet recorded in the loss listing, and (d) claims that have been closed but that will be reopened.

Loss

The cost associated with a claim. The cost may or may not include loss adjustment expenses.

Loss Adjustment Expenses

The costs of administering, determining coverage for, settling, or defending claims. Loss adjustment expenses include allocated loss adjustment expenses and unallocated loss adjustment expenses.

Loss Cost

The loss amount per exposure unit.

Method

The systematic procedure for developing an actuarial estimate.

Model

A mathematical or empirical representation of a specified phenomenon.

Model Risk

The risk that the methods are not appropriate to the circumstances or the models are not representative of the specified phenomenon.

Paid Losses

The total aggregate dollar amount paid on all reported claims as of a certain date.

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Parameter Risk

The risk that the assumptions or parameters used in the methods or models are not representative of future outcomes.

Payment Pattern

The rate at which claims are paid over time.

Process Risk

The uncertainty associated with the projection of future contingencies that are inherently variable, even when the parameters are known with certainty.

Reported Incurred Loss Amount

The total of paid claim amounts and case reserves.

Subrogation

Recoveries from a third party responsible for the event for which a claim has already been paid.

Unallocated Loss Adjustment Expense (ULAE)

Loss adjustment expenses that cannot be attributed to an individual claim. Typically includes salaries, utilities, and rent apportioned to the claim adjustment expense function but not readily assignable to specific claims.

Unpaid Loss Estimate

The estimate of the obligation for future payments resulting from losses due to past events.

Valuation Date

The date through which transactions are included in the data used in the unpaid claim estimate analysis.

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City of Chandler
Workers' Compensation
Losses & ALAE Forecast for period 7/1/2022 to 6/30/2023
Based on Data as of June 30, 2022

(1)	Forecasted Loss Cost Limited to $75,000	8.53					
(2)	Projected Exposures ($1,000 Payroll)	159,979					
		75,000	*750k / 1M*	*750k / 1.25M*	*750k / 2.25M*	*1M / 3M*	*1.5M / 3M*
(3)	Increased Limit Factor from $75,000 to SIR	1.000	1.916	1.960	2.041	2.096	2.130
(4)	Forecasted Loss Cost Limited to SIR	8.53	16.35	16.72	17.41	17.88	18.17
(5)	Forecasted Ultimate Losses & ALAE *(Central Estimate)*	**1,365,000**	**2,616,000**	**2,675,000**	**2,786,000**	**2,861,000**	**2,907,000**
(6)	70th Percentile Losses & ALAE Multiplier	1.142					
(7)	Forecasted Ultimate Losses & ALAE *(70th Percentile Value)*	**1,558,830**	**2,987,472**	**3,054,850**	**3,181,612**	**3,267,262**	**3,319,794**
(8)	80th Percentile Losses & ALAE Multiplier	1.314					
(9)	Forecasted Ultimate Losses & ALAE *(80th Percentile Value)*	**1,793,610**	**3,437,424**	**3,514,950**	**3,660,804**	**3,759,354**	**3,819,798**
(10)	90th Percentile Losses & ALAE Multiplier	1.597					
(11)	Forecasted Ultimate Losses & ALAE *(90th Percentile Value)*	**2,179,905**	**4,177,752**	**4,271,975**	**4,449,242**	**4,569,017**	**4,642,479**

Notes:
(1) from Exhibit A, Page 3, Row (9)
(2) from City of Chandler
(3) from Appendix B, Page 1, Column (5), assuming 70% of losses limited to $75,000 correspond to public safety employees, (limit adjusted for trend,
(4) = (1) x (3)
(5) = (2) x (4); rounded
(6) from Exhibit A, Page 2
(7) = (5) x (6)
(8) from Exhibit A, Page 2
(9) = (5) x (8)
(10) from Exhibit A, Page 2
(11) = (5) x (10)

City of Chandler

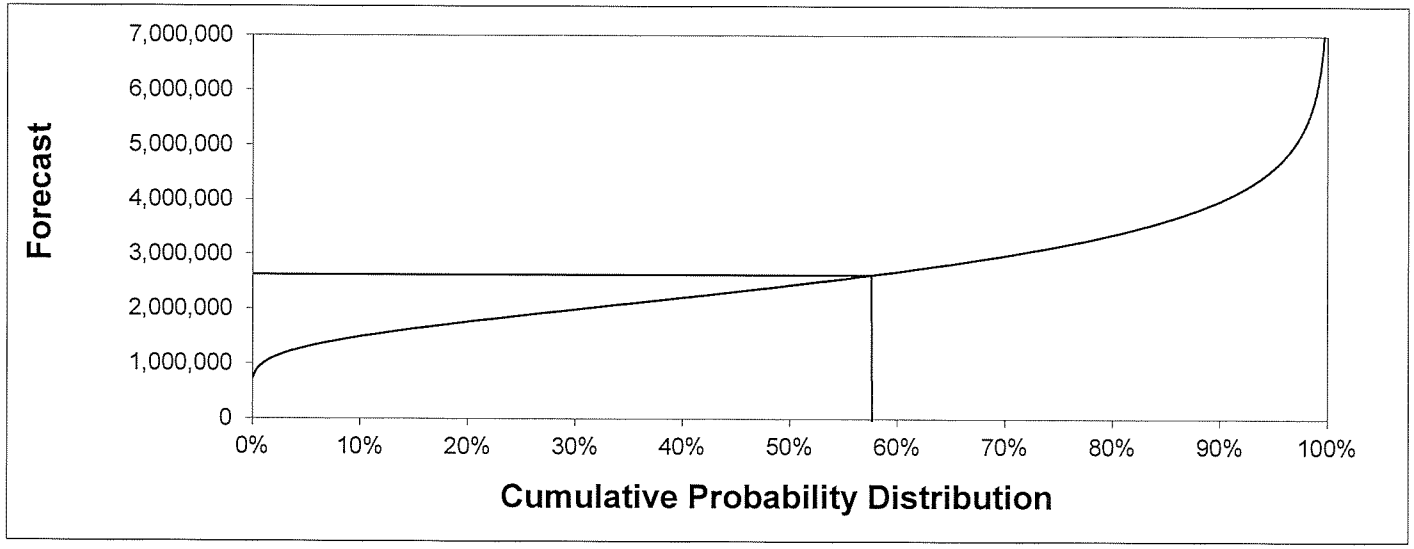
Workers' Compensation

Percentile Factor Calculation for Losses & ALAE Forecast for period 7/1/2022 to 6/30/2023 - Limited to $500,000

Based on Data as of June 30, 2022

Losses & ALAE CV	5.400
Claim Count Forecast	146
Parameter Risk	0.200
Forecast Losses & ALAE CV	0.400
s	0.385
s2	0.148
m	(0.074)
Losses & ALAE Forecast *(Central Estimate)*	2,616,000

Percentile	Selected Percentile Factor	Percentile Losses & ALAE Forecast
50.0%	0.906	2,370,096
60.0%	1.013	2,650,008
70.0%	1.142	2,987,472
80.0%	1.314	3,437,424
90.0%	1.597	4,177,752
95.0%	1.876	4,907,616
99.0%	2.543	6,652,488



Note:
based on a lognormal distribution and
including a variable for parameter risk

City of Chandler

Workers' Compensation

Losses & ALAE Forecast for period 7/1/2022 to 6/30/2023 - Limited to $75,000

Based on Data as of June 30, 2022

(1)	Selected Frequency for period 7/1/2022 to 6/30/2023	0.910
(2)	Projected Exposures ($1,000 Payroll)	159,979
(3)	Forecasted Ultimate Counts *(Central Estimate)*	**146**
(4)	Selected Loss Cost for period 7/1/2022 to 6/30/2023	8.60
(5)	Selected Severity for period 7/1/2022 to 6/30/2023	9,300
(6)	Estimated Ultimate Losses & ALAE *(Loss Cost Method)*	1,375,819
(7)	Estimated Ultimate Losses & ALAE *(Frequency/Severity Method)*	1,353,902
(8)	Forecasted Ultimate Losses & ALAE *(Central Estimate)*	**1,365,000**
(9)	Forecasted Loss Cost *(Central Estimate)*	8.53

Notes:

(1) from Exhibit A, Page 5, Column (8)
(2) from City of Chandler
(3) = (1) / 1,000 x (2)
(4) from Exhibit A, Page 4, Column (8)
(5) from Exhibit A, Page 5, Column (12)
(6) = (2) x (4)
(7) = (1) / 1,000 x (2) x (5)
(8) selected
(9) = (8) / (2)

City of Chandler

Workers' Compensation
Losses & ALAE Forecast Loss Cost Method - Limited to $75,000
Based on Data as of June 30, 2022

Policy Period	(1) Age in Months	(2) Ultimate	(3) Exposures ($1,000 Payroll)	(4) Ultimate Loss Cost	(5) Exposure Trend	(6) Benefit Level Factor	(7) Loss Cost Trend Factor	(8) Trended Ultimate Loss Cost
1/1/2003 to 6/30/2003	237	478,631	38,782	12.34	1.709	1.263	1.475	13.45
7/1/2003 to 6/30/2004	228	786,281	82,686	9.51	1.691	1.246	1.453	10.18
7/1/2004 to 6/30/2005	216	621,971	84,675	7.35	1.678	1.230	1.425	7.68
7/1/2005 to 6/30/2006	204	649,576	90,201	7.20	1.611	1.202	1.397	7.51
7/1/2006 to 6/30/2007	192	608,000	102,877	5.91	1.537	1.187	1.370	6.26
7/1/2007 to 6/30/2008	180	812,000	111,710	7.27	1.480	1.154	1.343	7.61
7/1/2008 to 6/30/2009	168	675,237	120,668	5.60	1.449	1.101	1.317	5.60
7/1/2009 to 6/30/2010	156	1,310,000	119,800	10.93	1.440	1.059	1.292	10.39
7/1/2010 to 6/30/2011	144	966,822	113,843	8.49	1.417	1.044	1.266	7.92
7/1/2011 to 6/30/2012	132	1,170,000	110,414	10.60	1.377	1.036	1.242	9.90
7/1/2012 to 6/30/2013	120	1,069,226	119,088	8.98	1.342	1.028	1.217	8.37
7/1/2013 to 6/30/2014	108	1,505,000	115,348	13.05	1.334	1.009	1.194	11.78
7/1/2014 to 6/30/2015	96	990,329	119,528	8.29	1.305	1.002	1.171	7.45
7/1/2015 to 6/30/2016	84	1,090,368	127,517	8.55	1.279	0.992	1.148	7.61
7/1/2016 to 6/30/2017	72	1,264,190	128,452	9.84	1.262	1.000	1.125	8.78
7/1/2017 to 6/30/2018	60	1,180,000	133,497	8.84	1.220	1.000	1.103	7.99
7/1/2018 to 6/30/2019	48	1,104,000	135,570	8.14	1.180	0.996	1.082	7.44
7/1/2019 to 6/30/2020	36	1,121,000	136,800	8.19	1.135	0.996	1.061	7.63
7/1/2020 to 6/30/2021	24	1,435,000	140,084	10.24	1.081	0.999	1.040	9.85
7/1/2021 to 6/30/2022	12	1,296,000	142,931	9.07	1.040	1.000	1.020	8.90
TOTALS		**20,133,631**	**2,274,469**					

Notes:
(1) = (average evaluation period) - (average policy period)
(2) from Exhibit C, Page 3, Column (12)
(3) from City of Chandler
(4) = (2) / (3)
(5) derived from the 2021 edition of NCCI Annual Statistical Bulletin
(6) based on information published by NCCI
(7) assumed 2.0% annual loss cost trend
(8) = (4) x (6) x (7) / (5)

Arithmetic Average	*8.61*
Weighted Average	*8.45*
Arithmetic Average Excluding Current Period	*8.60*
Weighted Average Excluding Current Period	*8.42*
5 Period Arithmetic Average	*8.36*
3 Period Arithmetic Average	*8.79*
Selected Loss Cost for period 7/1/2022 to 6/30/2023	***8.60***

City of Chandler
Workers' Compensation
Losses & ALAE Forecast Frequency / Severity Method - Limited to $75,000
Based on Data as of June 30, 2022

Policy Period	(1) Age in Months	(2) Exposures ($1,000 Payroll)	(3) Exposure Trend	(4) Ultimate Losses	(5) Ultimate Counts	(6) Ultimate Frequency (per $1M)	(7) Frequency Trend	(8) Trended Ultimate Frequency (per $1M)	(9) Ultimate Severity	(10) Benefit Level Factor	(11) Severity Trend Factor	(12) Trended Ultimate Severity
1/1/2003 to 6/30/2003	237	38,782	1.709	478,631	63	0.950	0.906	0.861	7,597	1.263	1.628	15,624
7/1/2003 to 6/30/2004	228	82,686	1.691	786,281	149	1.066	0.909	0.969	5,277	1.246	1.599	10,512
7/1/2004 to 6/30/2005	216	84,675	1.678	621,971	143	1.007	0.914	0.920	4,349	1.230	1.560	8,346
7/1/2005 to 6/30/2006	204	90,201	1.611	649,576	147	1.012	0.918	0.929	4,419	1.202	1.522	8,081
7/1/2006 to 6/30/2007	192	102,877	1.537	608,000	135	0.854	0.923	0.788	4,504	1.187	1.485	7,939
7/1/2007 to 6/30/2008	180	111,710	1.480	812,000	161	0.974	0.928	0.903	5,043	1.154	1.448	8,426
7/1/2008 to 6/30/2009	168	120,668	1.449	675,237	165	0.944	0.932	0.880	4,092	1.101	1.413	6,368
7/1/2009 to 6/30/2010	156	119,800	1.440	1,310,000	142	0.823	0.937	0.771	9,225	1.059	1.378	13,468
7/1/2010 to 6/30/2011	144	113,843	1.417	966,822	153	0.948	0.942	0.893	6,319	1.044	1.345	8,874
7/1/2011 to 6/30/2012	132	110,414	1.377	1,170,000	161	1.059	0.946	1.002	7,267	1.036	1.312	9,879
7/1/2012 to 6/30/2013	120	119,088	1.342	1,069,226	135	0.845	0.951	0.803	7,920	1.028	1.280	10,421
7/1/2013 to 6/30/2014	108	115,348	1.334	1,505,000	154	1.000	0.956	0.956	9,773	1.009	1.249	12,320
7/1/2014 to 6/30/2015	96	119,528	1.305	990,329	143	0.917	0.961	0.881	6,925	1.002	1.218	8,454
7/1/2015 to 6/30/2016	84	127,517	1.279	1,090,368	153	0.938	0.966	0.906	7,127	0.992	1.189	8,399
7/1/2016 to 6/30/2017	72	128,452	1.262	1,264,190	133	0.820	0.970	0.796	9,505	1.000	1.160	11,027
7/1/2017 to 6/30/2018	60	133,497	1.220	1,180,000	149	0.915	0.975	0.892	7,919	1.000	1.131	8,960
7/1/2018 to 6/30/2019	48	135,570	1.180	1,104,000	158	0.988	0.980	0.968	6,987	0.996	1.104	7,684
7/1/2019 to 6/30/2020	36	136,800	1.135	1,121,000	148	0.953	0.985	0.939	7,574	0.996	1.077	8,122
7/1/2020 to 6/30/2021	24	140,084	1.081	1,435,000	135	0.892	0.990	0.883	10,630	0.999	1.051	11,156
7/1/2021 to 6/30/2022	12	142,931	1.040	1,296,000	126	0.848	0.995	0.844	10,286	1.000	1.025	10,543
TOTALS		**2,274,469**		**20,133,631**	**2,853**							

Notes:
(1) = (average evaluation period) - (average policy period)
(2) from City of Chandler
(3) derived from the 2021 edition of NCCI Annual Statistical Bulletin
(4) from Exhibit C, Page 3, Column (12)
(5) from Exhibit D, Page 7, Column (12)
(6) = (5) / (2) x 1,000 / (3)
(7) assumed -0.5% annual frequency trend
(8) = (6) x (7)
(9) = (4) / (5)
(10) based on information published by NCCI
(11) assumed 2.5% annual severity trend
(12) = (9) x (10) x (11)

Arithmetic Average	*0.889*
Weighted Average	*0.888*
Arithmetic Average Excluding Current Period	*0.892*
Weighted Average Excluding Current Period	*0.891*
5 Period Arithmetic Average	*0.905*
3 Period Arithmetic Average	*0.889*
Selected Frequency for period 7/1/22 to 6/30/23	***0.910***

Arithmetic Average	*9,730*
Weighted Average	*9,507*
Arithmetic Average Excluding Current Period	*9,687*
Weighted Average Excluding Current Period	*9,459*
5 Period Arithmetic Average	*9,293*
3 Period Arithmetic Average	*9,940*
Selected Severity for period 7/1/22 to 6/30/23	***9,300***

City of Chandler

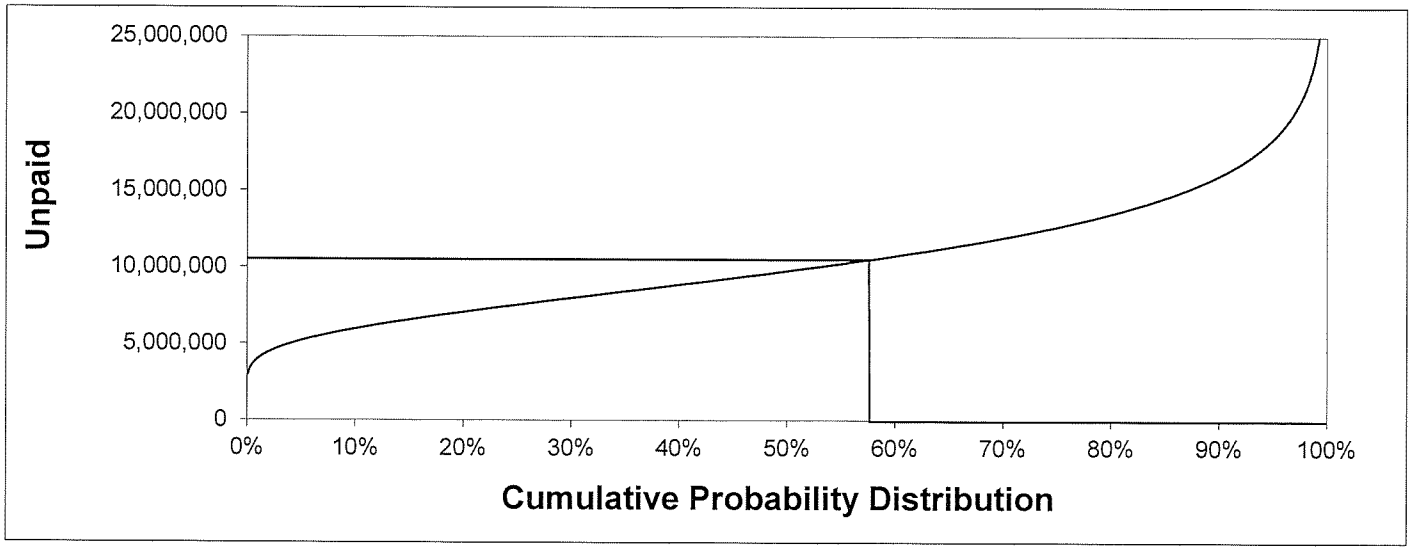
Workers' Compensation

Percentile Factor Calculation for Unpaid Losses & ALAE as of 6/30/2022 - Limited to Self-Insured Retention (SIR)

Based on Data as of June 30, 2022

Losses & ALAE CV	5.400
Open & IBNR Claim Count	118
Parameter Risk	0.150
Unpaid Losses & ALAE CV	0.400
s	0.385
s2	0.148
m	(0.074)
Unpaid Losses & ALAE *(Central Estimate)*	10,504,362

Percentile	Selected Percentile Factor	Percentile Unpaid Losses & ALAE
50.0%	0.913	9,590,482
60.0%	1.017	10,682,936
70.0%	1.141	11,985,477
80.0%	1.306	13,718,696
90.0%	1.574	16,533,865
95.0%	1.838	19,307,017
99.0%	2.459	25,830,225



Note:
based on a lognormal distribution and including a variable for parameter risk

City of Chandler

Workers' Compensation

Unpaid Losses & ALAE Reconciliation from 6/30/2021 to 6/30/2022 - Limited to Self-Insured Retention (SIR)

Based on Data as of June 30, 2022

(1)	Indicated Unpaid Losses & ALAE as of 6/30/2021	10,458,761
(2)	Estimated Ultimate Losses & ALAE for period 7/1/2021 to 6/30/2022	3,271,000
(3)	Payments for period 7/1/2021 to 6/30/2022	2,122,299
(4)	Change in Ultimate Losses & ALAE since 6/30/2021	(1,103,100)
(5)	Indicated Unpaid Losses & ALAE as of 6/30/2022	10,504,362

Notes:

(1) from Exhibit B, Page 3, Column (11)
(2) from Exhibit B, Page 3, Column (20)
(3) from Exhibit B, Page 3, Column (13)
(4) from Exhibit B, Page 3, Column (19)
(5) = (1) + (2) - (3) + (4)

City of Chandler
Workers' Compensation
Comparison of Losses & ALAE to Previous Analysis - Limited to Self-Insured Retention (SIR)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Based on Data as of June 30, 2022						Based on Data as of June 30, 2021					
Policy Period	Self-Insured Retention (SIR)	Paid Losses & ALAE	Case Reserves	Incurred Losses & ALAE	IBNR	Unpaid Losses & ALAE	Estimated Ultimates	Paid Losses & ALAE	Case Reserves	Incurred Losses & ALAE	IBNR	Unpaid Losses & ALAE	Estimated Ultimates
1/1/2003 to 6/30/2003	500,000	1,071,519	14,423	1,085,942	58	14,481	1,086,000	1,071,106	14,836	1,085,942	58	14,894	1,086,000
7/1/2003 to 6/30/2004	500,000	818,073	15,183	833,257	3,743	18,927	837,000	818,038	15,218	833,257	243	15,462	833,500
7/1/2004 to 6/30/2005	500,000	651,732	0	651,732	0	0	651,732	651,732	0	651,732	0	0	651,732
7/1/2005 to 6/30/2006	500,000	980,808	44,214	1,025,022	4,478	48,692	1,029,500	980,808	44,214	1,025,022	78	44,292	1,025,100
7/1/2006 to 6/30/2007	500,000	600,096	19,072	619,168	5,832	24,904	625,000	599,653	19,515	619,168	832	20,347	620,000
7/1/2007 to 6/30/2008	500,000	788,091	285,003	1,073,094	7,906	292,909	1,081,000	727,568	372,363	1,099,931	1,069	373,432	1,101,000
7/1/2008 to 6/30/2009	500,000	1,164,618	133,052	1,297,670	9,330	142,382	1,307,000	1,160,444	137,225	1,297,670	5,330	142,556	1,303,000
7/1/2009 to 6/30/2010	500,000	1,488,829	263,870	1,752,699	26,301	290,171	1,779,000	1,480,728	272,100	1,752,829	23,171	295,272	1,776,000
7/1/2010 to 6/30/2011	500,000	1,456,561	0	1,456,561	0	0	1,456,561	1,456,561	0	1,456,561	0	0	1,456,561
7/1/2011 to 6/30/2012	500,000	1,905,384	323,928	2,229,312	30,688	354,616	2,260,000	1,880,655	513,530	2,394,185	33,815	547,345	2,428,000
7/1/2012 to 6/30/2013	600,000	2,129,662	202,739	2,332,401	32,599	235,338	2,365,000	2,096,347	236,053	2,332,401	39,599	275,653	2,372,000
7/1/2013 to 6/30/2014	600,000	2,400,586	275,934	2,676,520	63,480	339,414	2,740,000	2,355,943	294,531	2,650,474	76,526	371,057	2,727,000
7/1/2014 to 6/30/2015	600,000	1,461,313	620,910	2,082,223	0	620,910	2,082,223	1,393,200	689,023	2,082,223	0	689,023	2,082,223
7/1/2015 to 6/30/2016	600k / 1M	2,655,922	881,996	3,537,918	86,082	968,078	3,624,000	2,530,046	1,007,866	3,537,912	98,088	1,105,954	3,636,000
7/1/2016 to 6/30/2017	600k / 1M	1,634,744	89,016	1,723,760	121,240	210,256	1,845,000	1,628,931	522,112	2,151,043	155,957	678,069	2,307,000
7/1/2017 to 6/30/2018	600k / 1M	1,691,843	1,054,406	2,746,249	176,751	1,231,157	2,923,000	1,606,123	1,112,092	2,718,215	215,785	1,327,877	2,934,000
7/1/2018 to 6/30/2019	600k / 1.25M	1,050,185	552,821	1,603,007	200,993	753,815	1,804,000	976,327	577,682	1,554,009	198,991	776,673	1,753,000
7/1/2019 to 6/30/2020	600k / 1.25M	1,169,315	746,044	1,915,358	194,642	940,685	2,110,000	1,048,235	300,850	1,349,085	637,915	938,765	1,987,000
7/1/2020 to 6/30/2021	750k / 2.25M	1,428,945	1,153,308	2,582,253	302,747	1,456,055	2,885,000	672,909	1,913,465	2,586,374	928,626	2,842,091	3,515,000
7/1/2021 to 6/30/2022	1M / 3M	709,428	1,916,439	2,625,867	645,133	2,561,572	3,271,000						
TOTALS		27,257,655	8,592,358	35,850,012	1,912,004	10,504,362	37,762,016	25,135,355	8,042,677	33,178,032	2,416,084	10,458,761	35,594,116

		(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
		Difference							
Policy Period	Self-Insured Retention (SIR)	Paid Losses & ALAE	Case Reserves	Incurred Losses & ALAE	IBNR	Unpaid Losses & ALAE	Estimated Ultimates	Estimated Ultimates Through 6/30/2021	Estimated Ultimates 7/1/2021 to 6/30/2022
1/1/2003 to 6/30/2003	500,000	413	(413)	0	0	(413)	0	0	0
7/1/2003 to 6/30/2004	500,000	35	(35)	0	3,500	3,465	3,500	3,500	0
7/1/2004 to 6/30/2005	500,000	0	0	0	0	0	0	0	0
7/1/2005 to 6/30/2006	500,000	0	0	0	4,400	4,400	4,400	4,400	0
7/1/2006 to 6/30/2007	500,000	443	(443)	0	5,000	4,557	5,000	5,000	0
7/1/2007 to 6/30/2008	500,000	60,523	(87,360)	(26,837)	6,837	(80,523)	(20,000)	(20,000)	0
7/1/2008 to 6/30/2009	500,000	4,173	(4,173)	0	4,000	(173)	4,000	4,000	0
7/1/2009 to 6/30/2010	500,000	8,100	(8,230)	(130)	3,130	(5,100)	3,000	3,000	0
7/1/2010 to 6/30/2011	500,000	0	0	0	0	0	0	0	0
7/1/2011 to 6/30/2012	500,000	24,729	(189,602)	(164,873)	(3,127)	(192,729)	(168,000)	(168,000)	0
7/1/2012 to 6/30/2013	600,000	33,315	(33,315)	0	(7,000)	(40,315)	(7,000)	(7,000)	0
7/1/2013 to 6/30/2014	600,000	44,643	(18,597)	26,046	(13,046)	(31,643)	13,000	13,000	0
7/1/2014 to 6/30/2015	600,000	68,113	(68,113)	0	0	(68,113)	0	0	0
7/1/2015 to 6/30/2016	600k / 1M	125,876	(125,870)	6	(12,006)	(137,876)	(12,000)	(12,000)	0
7/1/2016 to 6/30/2017	600k / 1M	5,813	(433,096)	(427,283)	(34,717)	(467,813)	(462,000)	(462,000)	0
7/1/2017 to 6/30/2018	600k / 1M	85,720	(57,686)	28,034	(39,034)	(96,720)	(11,000)	(11,000)	0
7/1/2018 to 6/30/2019	600k / 1.25M	73,859	(24,861)	48,998	2,002	(22,859)	51,000	51,000	0
7/1/2019 to 6/30/2020	600k / 1.25M	121,080	445,193	566,273	(443,273)	1,920	123,000	123,000	0
7/1/2020 to 6/30/2021	750k / 2.25M	756,037	(760,158)	(4,121)	(625,879)	(1,386,037)	(630,000)	(630,000)	0
7/1/2021 to 6/30/2022	1M / 3M	709,428	1,916,439	2,625,867	645,133	2,561,572	3,271,000	N/A	3,271,000
TOTALS		2,122,299	549,681	2,671,980	(504,080)	45,601	2,167,900	(1,103,100)	3,271,000

Notes:
(1) from City of Chandler
(2) from City of Chandler
(3) from City of Chandler
(4) = (6) - (3)
(5) = (6) - (1)
(6) from Exhibit C, Page 1, Column (7)
(7) to (12) from previous Oliver Wyman study
(13) = (1) - (7)
(14) = (2) - (8)
(15) = (3) - (9)
(16) = (4) - (10)
(17) = (5) - (11)
(18) = (6) - (12)
(19) = (6) - (12) at 6/30/2021
(20) derived from (6)

City of Chandler
Workers' Compensation
Summary - Limited to Self-Insured Retention (SIR)
Based on Data as of June 30, 2022

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
			Losses & ALAE @ SIR						Claim Counts (ex. CWOP)					
Policy Period	Self-Insured Retention (SIR)	Exposures ($1,000 Payroll)	Paid	Case Reserves	Incurred	IBNR	Unpaid	Selected Ultimate	Closed	Open	Reported	IBNR	Open & IBNR	Selected Ultimate
1/1/2003 to 6/30/2003	500,000	38,782	1,071,519	14,423	1,085,942	58	14,481	1,086,000	61	2	63	0	2	63
7/1/2003 to 6/30/2004	500,000	82,686	818,073	15,183	833,257	3,743	18,927	837,000	148	1	149	0	1	149
7/1/2004 to 6/30/2005	500,000	84,675	651,732	0	651,732	0	0	651,732	143	0	143	0	0	143
7/1/2005 to 6/30/2006	500,000	90,201	980,808	44,214	1,025,022	4,478	48,692	1,029,500	146	1	147	0	1	147
7/1/2006 to 6/30/2007	500,000	102,877	600,096	19,072	619,168	5,832	24,904	625,000	134	1	135	0	1	135
7/1/2007 to 6/30/2008	500,000	111,710	788,091	285,003	1,073,094	7,906	292,909	1,081,000	158	3	161	0	3	161
7/1/2008 to 6/30/2009	500,000	120,668	1,164,618	133,052	1,297,670	9,330	142,382	1,307,000	163	2	165	0	2	165
7/1/2009 to 6/30/2010	500,000	119,800	1,488,829	263,870	1,752,699	26,301	290,171	1,779,000	139	3	142	0	3	142
7/1/2010 to 6/30/2011	500,000	113,843	1,456,561	0	1,456,561	0	0	1,456,561	152	1	153	0	1	153
7/1/2011 to 6/30/2012	500,000	110,414	1,905,384	323,928	2,229,312	30,688	354,616	2,260,000	158	3	161	0	3	161
7/1/2012 to 6/30/2013	600,000	119,088	2,129,662	202,739	2,332,401	32,599	235,338	2,365,000	131	4	135	0	4	135
7/1/2013 to 6/30/2014	600,000	115,348	2,400,586	275,934	2,676,520	63,480	339,414	2,740,000	149	5	154	0	5	154
7/1/2014 to 6/30/2015	600,000	119,528	1,461,313	620,910	2,082,223	0	620,910	2,082,223	141	2	143	0	2	143
7/1/2015 to 6/30/2016	600k / 1M	127,517	2,655,922	881,996	3,537,918	86,082	968,078	3,624,000	149	4	153	0	4	153
7/1/2016 to 6/30/2017	600k / 1M	128,452	1,634,744	89,016	1,723,760	121,240	210,256	1,845,000	131	2	133	0	2	133
7/1/2017 to 6/30/2018	600k / 1M	133,497	1,691,843	1,054,406	2,746,249	176,751	1,231,157	2,923,000	145	4	149	0	4	149
7/1/2018 to 6/30/2019	600k / 1.25M	135,570	1,050,185	552,821	1,603,007	200,993	753,815	1,804,000	151	7	158	0	7	158
7/1/2019 to 6/30/2020	600k / 1.25M	136,800	1,169,315	746,044	1,915,358	194,642	940,685	2,110,000	136	12	148	0	12	148
7/1/2020 to 6/30/2021	750k / 2.25M	140,084	1,428,945	1,153,308	2,582,253	302,747	1,456,055	2,885,000	116	18	134	1	19	135
7/1/2021 to 6/30/2022	1M / 3M	142,931	709,428	1,916,439	2,625,867	645,133	2,561,572	3,271,000	84	31	115	11	42	126
TOTALS		2,274,469	27,257,655	8,592,358	35,850,012	1,912,004	10,504,362	37,762,016	2,735	106	2,841	12	118	2,853

		(14)	(15)	(16)	(17)	(18)	(19)	(20)
		(Losses & ALAE @ SIR) / (Claim Counts)						
Policy Period	Self-Insured Retention (SIR)	Paid per Closed	Case Reserves per Open	Incurred per Reported	Unpaid per Open & IBNR	Implied Ultimate Severity	Implied Ultimate Frequency (per $1M)	Implied Ultimate Loss Cost per Exposure
1/1/2003 to 6/30/2003	500,000	17,566	7,211	17,237	7,240	17,238	1.624	28.00
7/1/2003 to 6/30/2004	500,000	5,528	15,183	5,592	18,927	5,617	1.802	10.12
7/1/2004 to 6/30/2005	500,000	4,558		4,558		4,558	1.689	7.70
7/1/2005 to 6/30/2006	500,000	6,718	44,214	6,973	48,692	7,003	1.630	11.41
7/1/2006 to 6/30/2007	500,000	4,478	19,072	4,586	24,904	4,630	1.312	6.08
7/1/2007 to 6/30/2008	500,000	4,988	95,001	6,665	97,636	6,714	1.441	9.68
7/1/2008 to 6/30/2009	500,000	7,145	66,526	7,865	71,191	7,921	1.367	10.83
7/1/2009 to 6/30/2010	500,000	10,711	87,957	12,343	96,724	12,528	1.185	14.85
7/1/2010 to 6/30/2011	500,000	9,583	0	9,520	0	9,520	1.344	12.79
7/1/2011 to 6/30/2012	500,000	12,059	107,976	13,847	118,205	14,037	1.458	20.47
7/1/2012 to 6/30/2013	600,000	16,257	50,685	17,277	58,834	17,519	1.134	19.86
7/1/2013 to 6/30/2014	600,000	16,111	55,187	17,380	67,883	17,792	1.335	23.75
7/1/2014 to 6/30/2015	600,000	10,364	310,455	14,561	310,455	14,561	1.196	17.42
7/1/2015 to 6/30/2016	600k / 1M	17,825	220,499	23,124	242,020	23,686	1.200	28.42
7/1/2016 to 6/30/2017	600k / 1M	12,479	44,508	12,961	105,128	13,872	1.035	14.36
7/1/2017 to 6/30/2018	600k / 1M	11,668	263,601	18,431	307,789	19,617	1.116	21.90
7/1/2018 to 6/30/2019	600k / 1.25M	6,955	78,974	10,146	107,688	11,418	1.165	13.31
7/1/2019 to 6/30/2020	600k / 1.25M	8,598	62,170	12,942	78,390	14,257	1.082	15.42
7/1/2020 to 6/30/2021	750k / 2.25M	12,318	64,073	19,271	76,634	21,370	0.964	20.59
7/1/2021 to 6/30/2022	1M / 3M	8,446	61,821	22,834	60,990	25,960	0.882	22.89
TOTALS		9,966	81,060	12,619	89,020	13,236	1.254	16.60

Notes:
(1) from City of Chandler
(2) from City of Chandler
(3) from City of Chandler
(4) from City of Chandler
(5) = (7) - (4)
(6) = (3) + (5)
(7) from Exhibit C, Page 2, Column (16)
(8) from City of Chandler
(9) = (10) - (8)
(10) from City of Chandler
(11) = (13) - (10)
(12) = (9) + (11)
(13) from Exhibit D, Page 7, Column (12)
(14) = (2) / (8)
(15) = (3) / (9)
(16) = (4) / (10)
(17) = (6) / (12)
(18) = (7) / (13)
(19) = (13) / (1) x 1,000
(20) = (7) / (1)

City of Chandler
Workers' Compensation
Selected Ultimate Losses & ALAE - Limited to Self-Insured Retention (SIR)
Based on Data as of June 30, 2022

Policy Period	Self-Insured Retention (SIR)	(1) Age in Months	(2) Limited to $75,000 Incurred	(3) Ultimate	(4) Incurred LDFs	(5) Expected IBNR	(6) Limited to SIR Incurred	(7) ILFs to SIR	(8) Incurred LDFs	(9) Expected IBNR	(10) Excess Incurred	(11) Expected IBNR
1/1/2003 to 6/30/2003	500,000	237	478,631	478,631	1.000	28	1,085,942	1.613	1.001	562	607,311	533
7/1/2003 to 6/30/2004	500,000	228	786,281	786,281	1.000	185	833,257	1.616	1.003	3,697	46,975	3,512
7/1/2004 to 6/30/2005	500,000	216	621,971	621,971	1.000	210	651,732	1.620	1.003	3,394	29,762	3,184
7/1/2005 to 6/30/2006	500,000	204	649,576	649,576	1.001	347	1,025,022	1.623	1.005	4,775	375,446	4,428
7/1/2006 to 6/30/2007	500,000	192	607,316	608,000	1.001	459	619,168	1.626	1.006	5,511	11,852	5,053
7/1/2007 to 6/30/2008	500,000	180	811,227	812,000	1.001	751	1,073,094	1.629	1.006	8,213	261,867	7,463
7/1/2008 to 6/30/2009	500,000	168	675,237	675,237	1.002	1,048	1,297,670	1.631	1.010	10,498	622,433	9,449
7/1/2009 to 6/30/2010	500,000	156	1,305,287	1,310,000	1.002	2,671	1,752,699	1.632	1.012	24,575	447,411	21,904
7/1/2010 to 6/30/2011	500,000	144	966,822	966,822	1.003	2,664	1,456,561	1.635	1.014	22,425	489,739	19,760
7/1/2011 to 6/30/2012	500,000	132	1,164,313	1,170,000	1.003	3,638	2,229,312	1.641	1.015	28,527	1,064,999	24,889
7/1/2012 to 6/30/2013	600,000	120	1,069,226	1,069,226	1.004	4,167	2,332,401	1.715	1.020	36,466	1,263,175	32,299
7/1/2013 to 6/30/2014	600,000	108	1,496,818	1,505,000	1.005	7,301	2,676,520	1.721	1.025	63,034	1,179,702	55,734
7/1/2014 to 6/30/2015	600,000	96	990,329	990,329	1.006	6,234	2,082,223	1.727	1.033	54,277	1,091,893	48,043
7/1/2015 to 6/30/2016	600k / 1M	84	1,090,368	1,090,368	1.007	7,946	3,537,918	1.860	1.049	93,998	2,447,550	86,052
7/1/2016 to 6/30/2017	600k / 1M	72	1,264,190	1,264,190	1.010	12,966	1,723,760	1.869	1.060	133,881	459,570	120,914
7/1/2017 to 6/30/2018	600k / 1M	60	1,156,518	1,180,000	1.015	17,913	2,746,249	1.876	1.084	171,241	1,589,731	153,328
7/1/2018 to 6/30/2019	600k / 1.25M	48	1,078,690	1,104,000	1.020	22,169	1,603,007	1.934	1.102	198,132	524,317	175,963
7/1/2019 to 6/30/2020	600k / 1.25M	36	1,083,624	1,121,000	1.031	33,386	1,915,358	1.943	1.096	190,918	831,735	157,532
7/1/2020 to 6/30/2021	750k / 2.25M	24	1,374,718	1,435,000	1.051	70,037	2,582,253	2.080	1.103	279,840	1,207,536	209,803
7/1/2021 to 6/30/2022	1M / 3M	12	1,002,644	1,296,000	1.314	309,803	2,625,867	2.132	1.430	831,073	1,623,223	521,270
TOTALS			19,673,786	20,133,631		503,923	35,850,012			2,165,038	16,176,226	1,661,114

Policy Period	Self-Insured Retention (SIR)	(12) Limited to SIR Indicated Ultimate ILF Method	(13) LDF Method	(14) Excess Method	(15) Prior Ultimate	(16) Selected Ultimate
1/1/2003 to 6/30/2003	500,000	771,831	1,086,733	1,086,475	1,086,000	1,086,000
7/1/2003 to 6/30/2004	500,000	1,270,382	835,689	836,769	833,500	837,000
7/1/2004 to 6/30/2005	500,000	1,007,458	653,936	654,917	651,732	651,732
7/1/2005 to 6/30/2006	500,000	1,054,486	1,029,684	1,029,450	1,025,100	1,029,500
7/1/2006 to 6/30/2007	500,000	988,725	622,639	624,905	620,000	625,000
7/1/2007 to 6/30/2008	500,000	1,322,755	1,079,799	1,081,330	1,101,000	1,081,000
7/1/2008 to 6/30/2009	500,000	1,101,083	1,310,161	1,307,119	1,303,000	1,307,000
7/1/2009 to 6/30/2010	500,000	2,137,428	1,773,085	1,779,315	1,776,000	1,779,000
7/1/2010 to 6/30/2011	500,000	1,581,208	1,477,516	1,476,322	1,456,561	1,456,561
7/1/2011 to 6/30/2012	500,000	1,919,782	2,262,938	2,259,888	2,428,000	2,260,000
7/1/2012 to 6/30/2013	600,000	1,834,065	2,379,715	2,364,699	2,372,000	2,365,000
7/1/2013 to 6/30/2014	600,000	2,590,702	2,743,266	2,740,436	2,727,000	2,740,000
7/1/2014 to 6/30/2015	600,000	1,710,723	2,150,451	2,130,266	2,082,223	2,082,223
7/1/2015 to 6/30/2016	600k / 1M	2,028,021	3,709,870	3,623,970	3,636,000	3,624,000
7/1/2016 to 6/30/2017	600k / 1M	2,362,904	1,827,293	1,844,674	2,307,000	1,845,000
7/1/2017 to 6/30/2018	600k / 1M	2,213,560	2,976,512	2,923,059	2,934,000	2,923,000
7/1/2018 to 6/30/2019	600k / 1.25M	2,135,272	1,766,963	1,804,280	1,753,000	1,804,000
7/1/2019 to 6/30/2020	600k / 1.25M	2,177,864	2,099,398	2,110,267	1,987,000	2,110,000
7/1/2020 to 6/30/2021	750k / 2.25M	2,984,459	2,849,433	2,852,339	3,515,000	2,885,000
7/1/2021 to 6/30/2022	1M / 3M	2,762,558	3,755,717	3,440,494	2,700,000	3,271,000
TOTALS		35,955,270	38,390,796	37,970,971	38,294,116	37,762,016

Notes:
(1) = (average evaluation period) - (average policy period)
(2) from City of Chandler
(3) from Exhibit C, Page 3, Column (12)
(4) from Exhibit C, Page 2
(5) = (3) x [1 - 1 / (4)]
(6) from City of Chandler
(7) from Appendix B, Page 1
(limit adjusted for trend for prior years)
(8) from Exhibit C, Page 2
(9) = (3) x (7) x [1 - 1 / (8)]
(10) = (6) - (2)
(11) = (9) - (5)
(12) = (3) x (7)
(13) = (6) x (8)
(14) = (3) + (10) + (11)
(15) from previous Oliver Wyman study
(16) selected

City of Chandler
Workers' Compensation
Selected Ultimate Losses & ALAE - Limited to $75,000
Based on Data as of June 30, 2022

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Policy Period	Exposures ($1,000 Payroll)	Open & IBNR Claim Count	Paid	Incurred	Paid Development Method	Incurred Development Method	Loss Cost Method	Frequency / Severity Method	Paid Bornhuetter-Ferguson Method	Incurred Bornhuetter-Ferguson Method	Prior Ultimate	Selected Ultimate
1/1/2003 to 6/30/2003	38,782	2	478,631	478,631	482,814	478,659			482,778	478,659	478,631	478,631
7/1/2003 to 6/30/2004	82,686	1	775,127	786,281	782,878	786,466			782,912	786,466	786,281	786,281
7/1/2004 to 6/30/2005	84,675	0	621,971	621,971	629,486	622,181			629,396	622,181	621,971	621,971
7/1/2005 to 6/30/2006	90,201	1	649,576	649,576	658,877	649,923			658,745	649,922	649,576	649,576
7/1/2006 to 6/30/2007	102,877	1	588,244	607,316	598,111	607,775			598,270	607,775	608,000	608,000
7/1/2007 to 6/30/2008	111,710	3	750,292	811,227	764,889	811,978			765,788	811,978	812,000	812,000
7/1/2008 to 6/30/2009	120,668	2	675,237	675,237	690,466	676,287			690,130	676,285	675,237	675,237
7/1/2009 to 6/30/2010	119,800	3	1,299,526	1,305,287	1,333,019	1,307,954			1,332,389	1,307,954	1,310,000	1,310,000
7/1/2010 to 6/30/2011	113,843	1	966,822	966,822	996,522	969,494			995,637	969,486	966,822	966,822
7/1/2011 to 6/30/2012	110,414	3	1,160,847	1,164,313	1,202,386	1,167,945			1,201,791	1,167,998	1,170,000	1,170,000
7/1/2012 to 6/30/2013	119,088	4	1,069,226	1,069,226	1,115,476	1,073,410			1,113,559	1,073,393	1,069,226	1,069,226
7/1/2013 to 6/30/2014	115,348	5	1,493,243	1,496,818	1,570,917	1,504,114			1,567,614	1,504,114	1,493,000	1,505,000
7/1/2014 to 6/30/2015	119,528	2	990,329	990,329	1,051,450	996,603			1,047,897	996,563	990,329	990,329
7/1/2015 to 6/30/2016	127,517	4	1,040,350	1,090,368	1,115,604	1,098,372			1,113,902	1,098,314	1,090,362	1,090,368
7/1/2016 to 6/30/2017	128,452	2	1,264,190	1,264,190	1,369,191	1,277,291			1,361,139	1,277,156	1,264,190	1,264,190
7/1/2017 to 6/30/2018	133,497	4	1,108,047	1,156,518	1,218,081	1,174,345			1,216,106	1,174,677	1,198,000	1,180,000
7/1/2018 to 6/30/2019	135,570	7	994,592	1,078,690	1,109,760	1,100,795	1,251,643	1,354,856	1,124,484	1,103,824	1,117,000	1,104,000
7/1/2019 to 6/30/2020	136,800	12	970,464	1,083,624	1,104,495	1,116,888	1,239,817	1,301,524	1,120,916	1,120,549	1,142,000	1,121,000
7/1/2020 to 6/30/2021	140,084	19	1,148,306	1,374,718	1,437,588	1,445,255	1,229,338	1,212,958	1,395,682	1,434,717	1,654,000	1,435,000
7/1/2021 to 6/30/2022	142,931	42	593,767	1,002,644	1,375,195	1,317,613	1,229,203	1,159,200	1,292,238	1,296,479	1,318,000	1,296,000
TOTALS	2,274,469	118	18,638,786	19,673,786	20,607,205	20,183,346			20,491,373	20,158,492	20,414,625	20,133,631

Notes:

(1) from City of Chandler
(2) = Exhibit D, Page 7, Column (12) - closed claim counts with payment
(3) from City of Chandler
(4) from City of Chandler
(5) from Exhibit D, Page 1, Column (4)
(6) from Exhibit D, Page 2, Column (4)
(7) from Exhibit D, Page 3, Column (10)
(8) from Exhibit D, Page 4, Column (8)
(9) from Exhibit D, Page 5, Column (7)
(10) from Exhibit D, Page 6, Column (7)
(11) from previous Oliver Wyman study
(12) selected

City of Chandler

Workers' Compensation
Paid Losses & ALAE Development Method - Limited to $75,000
Based on Data as of June 30, 2022

Policy Period	(1) Age in Months	(2) Paid	(3) Cumulative Development Factors	(4) Ultimate
1/1/2003 to 6/30/2003	237	478,631	1.009	482,814
7/1/2003 to 6/30/2004	228	775,127	1.010	782,878
7/1/2004 to 6/30/2005	216	621,971	1.012	629,486
7/1/2005 to 6/30/2006	204	649,576	1.014	658,877
7/1/2006 to 6/30/2007	192	588,244	1.017	598,111
7/1/2007 to 6/30/2008	180	750,292	1.019	764,889
7/1/2008 to 6/30/2009	168	675,237	1.023	690,466
7/1/2009 to 6/30/2010	156	1,299,526	1.026	1,333,019
7/1/2010 to 6/30/2011	144	966,822	1.031	996,522
7/1/2011 to 6/30/2012	132	1,160,847	1.036	1,202,386
7/1/2012 to 6/30/2013	120	1,069,226	1.043	1,115,476
7/1/2013 to 6/30/2014	108	1,493,243	1.052	1,570,917
7/1/2014 to 6/30/2015	96	990,329	1.062	1,051,450
7/1/2015 to 6/30/2016	84	1,040,350	1.072	1,115,604
7/1/2016 to 6/30/2017	72	1,264,190	1.083	1,369,191
7/1/2017 to 6/30/2018	60	1,108,047	1.099	1,218,081
7/1/2018 to 6/30/2019	48	994,592	1.116	1,109,760
7/1/2019 to 6/30/2020	36	970,464	1.138	1,104,495
7/1/2020 to 6/30/2021	24	1,148,306	1.252	1,437,588
7/1/2021 to 6/30/2022	12	593,767	2.316	1,375,195
TOTALS		**18,638,786**		**20,607,205**

Notes:

(1) = (average evaluation period) - (average policy period)
(2) from City of Chandler
(3) from Appendix A, Page 1
(4) = (2) x (3)

City of Chandler

Workers' Compensation
Incurred Losses & ALAE Development Method - Limited to $75,000
Based on Data as of June 30, 2022

Policy Period	(1) Age in Months	(2) Incurred	(3) Cumulative Development Factors	(4) Ultimate
1/1/2003 to 6/30/2003	237	478,631	1.000	478,659
7/1/2003 to 6/30/2004	228	786,281	1.000	786,466
7/1/2004 to 6/30/2005	216	621,971	1.000	622,181
7/1/2005 to 6/30/2006	204	649,576	1.001	649,923
7/1/2006 to 6/30/2007	192	607,316	1.001	607,775
7/1/2007 to 6/30/2008	180	811,227	1.001	811,978
7/1/2008 to 6/30/2009	168	675,237	1.002	676,287
7/1/2009 to 6/30/2010	156	1,305,287	1.002	1,307,954
7/1/2010 to 6/30/2011	144	966,822	1.003	969,494
7/1/2011 to 6/30/2012	132	1,164,313	1.003	1,167,945
7/1/2012 to 6/30/2013	120	1,069,226	1.004	1,073,410
7/1/2013 to 6/30/2014	108	1,496,818	1.005	1,504,114
7/1/2014 to 6/30/2015	96	990,329	1.006	996,603
7/1/2015 to 6/30/2016	84	1,090,368	1.007	1,098,372
7/1/2016 to 6/30/2017	72	1,264,190	1.010	1,277,291
7/1/2017 to 6/30/2018	60	1,156,518	1.015	1,174,345
7/1/2018 to 6/30/2019	48	1,078,690	1.020	1,100,795
7/1/2019 to 6/30/2020	36	1,083,624	1.031	1,116,888
7/1/2020 to 6/30/2021	24	1,374,718	1.051	1,445,255
7/1/2021 to 6/30/2022	12	1,002,644	1.314	1,317,613
TOTALS		**19,673,786**		**20,183,346**

Notes:
(1) = (average evaluation period) - (average policy period)
(2) from City of Chandler
(3) from Appendix A, Page 1
(4) = (2) x (3)

City of Chandler
Workers' Compensation
Losses & ALAE Cost Method - Limited to $75,000
Based on Data as of June 30, 2022

Policy Period	(1) Age in Months	(2) Preliminary Ultimate	(3) Exposures ($1,000 Payroll)	(4) Exposure Trend	(5) Benefit Level Factor	(6) Preliminary Ultimate Loss Cost	(7) Loss Cost Trend Factor	(8) Preliminary Trended Ult Loss Cost	(9) Adjusted Selected Loss Cost	(10) Ultimate
1/1/2003 to 6/30/2003	237	478,631	38,782	1.644	1.263	9.48	1.446	13.71	7.74	
7/1/2003 to 6/30/2004	228	786,281	82,686	1.627	1.246	7.28	1.425	10.38	7.88	
7/1/2004 to 6/30/2005	216	621,971	84,675	1.614	1.230	5.60	1.397	7.83	8.07	
7/1/2005 to 6/30/2006	204	649,576	90,201	1.549	1.202	5.59	1.370	7.65	8.09	
7/1/2006 to 6/30/2007	192	607,775	102,877	1.478	1.187	4.75	1.343	6.38	7.97	
7/1/2007 to 6/30/2008	180	811,978	111,710	1.423	1.154	5.89	1.317	7.76	8.06	
7/1/2008 to 6/30/2009	168	675,237	120,668	1.394	1.101	4.42	1.292	5.71	8.43	
7/1/2009 to 6/30/2010	156	1,307,954	119,800	1.385	1.059	8.35	1.266	10.57	8.88	
7/1/2010 to 6/30/2011	144	966,822	113,843	1.363	1.044	6.51	1.242	8.08	9.04	
7/1/2011 to 6/30/2012	132	1,185,165	110,414	1.324	1.036	8.40	1.218	10.22	9.03	
7/1/2012 to 6/30/2013	120	1,069,226	119,088	1.291	1.028	7.15	1.194	8.53	9.05	
7/1/2013 to 6/30/2014	108	1,504,114	115,348	1.284	1.009	10.25	1.171	12.00	9.34	
7/1/2014 to 6/30/2015	96	990,329	119,528	1.255	1.002	6.61	1.148	7.59	9.39	
7/1/2015 to 6/30/2016	84	1,090,368	127,517	1.230	0.992	6.89	1.125	7.76	9.48	
7/1/2016 to 6/30/2017	72	1,264,190	128,452	1.214	1.000	8.11	1.103	8.95	9.46	
7/1/2017 to 6/30/2018	60	1,196,213	133,497	1.174	1.000	7.63	1.082	8.26	9.33	
7/1/2018 to 6/30/2019	48	1,105,277	135,570	1.135	0.996	7.16	1.061	7.59	9.23	1,251,643
7/1/2019 to 6/30/2020	36	1,110,691	136,800	1.091	0.996	7.41	1.040	7.70	9.06	1,239,817
7/1/2020 to 6/30/2021	24	1,441,422	140,084	1.040	0.999	9.89	1.020	10.08	8.78	1,229,338
7/1/2021 to 6/30/2022	12	1,346,404	142,931	1.000	1.000	9.42	1.000	9.42	8.60	1,229,203
TOTALS		20,209,624	2,274,469							

Notes:
(1) = (average evaluation period) - (average policy period)
(2) based on Exhibit D, Page 1 and 2, Column (4) and actuarial judgment
(3) from City of Chandler
(4) derived from the 2021 edition of NCCI Annual Statistical Bulletin
(5) based on information published by NCCI
(6) = (2) x (5) / (3) / (4)
(7) assumed 2.0% annual loss cost trend
(8) = (6) x (7)
(9) = (Selected for period 7/1/2021 to 6/30/2022) x (4) / (5) / (7)
(10) = (3) x (9)

Arithmetic Average	*8.78*	*Excluding Current Period*
Weighted Average	*8.59*	
5 Period Arithmetic Average	*8.52*	
3 Period Arithmetic Average	*8.46*	
Prior Forecast	*9.20*	
Frequency x Severity	*8.92*	
Selected for period 7/1/2021 to 6/30/2022	***8.60***	

City of Chandler

Workers' Compensation

Frequency / Severity Method for Losses & ALAE - Limited to $75,000

Based on Data as of June 30, 2022

Policy Period	(1) Preliminary Ultimate	(2) Selected Ultimate Counts	(3) Benefit Level Factor	(4) Preliminary Ultimate Severity	(5) Severity Trend Factor	(6) Preliminary Trended Ultimate Severity	(7) Adjusted Selected Severity	(8) Ultimate
1/1/2003 to 6/30/2003	478,631	63	1.263	9,594	1.589	15,243	4,585	
7/1/2003 to 6/30/2004	786,281	149	1.246	6,576	1.560	10,256	4,734	
7/1/2004 to 6/30/2005	621,971	143	1.230	5,352	1.522	8,143	4,914	
7/1/2005 to 6/30/2006	649,576	147	1.202	5,311	1.485	7,884	5,156	
7/1/2006 to 6/30/2007	607,775	135	1.187	5,346	1.448	7,742	5,350	
7/1/2007 to 6/30/2008	811,978	161	1.154	5,818	1.413	8,220	5,644	
7/1/2008 to 6/30/2009	675,237	165	1.101	4,507	1.378	6,213	6,060	
7/1/2009 to 6/30/2010	1,307,954	142	1.059	9,755	1.345	13,119	6,459	
7/1/2010 to 6/30/2011	966,822	153	1.044	6,598	1.312	8,658	6,715	
7/1/2011 to 6/30/2012	1,185,165	161	1.036	7,627	1.280	9,763	6,937	
7/1/2012 to 6/30/2013	1,069,226	135	1.028	8,141	1.249	10,167	7,167	
7/1/2013 to 6/30/2014	1,504,114	154	1.009	9,859	1.218	12,012	7,480	
7/1/2014 to 6/30/2015	990,329	143	1.002	6,939	1.189	8,248	7,725	
7/1/2015 to 6/30/2016	1,090,368	153	0.992	7,066	1.160	8,194	8,001	
7/1/2016 to 6/30/2017	1,264,190	133	1.000	9,508	1.131	10,758	8,129	
7/1/2017 to 6/30/2018	1,196,213	149	1.000	8,028	1.104	8,862	8,335	
7/1/2018 to 6/30/2019	1,105,277	158	0.996	6,969	1.077	7,505	8,575	1,354,856
7/1/2019 to 6/30/2020	1,110,691	148	0.996	7,473	1.051	7,851	8,794	1,301,524
7/1/2020 to 6/30/2021	1,441,422	135	0.999	10,666	1.025	10,933	8,985	1,212,958
7/1/2021 to 6/30/2022	1,346,404	126	1.000	10,686	1.000	10,686	9,200	1,159,200
TOTALS	**20,209,624**	**2,853**						

Notes:

(1) based on Exhibit D, Page 1 and 2, Column (4) and actuarial judgment
(2) from Exhibit D, Page 7, Column (12)
(3) based on information published by NCCI
(4) = (1) / (2) x (3)
(5) assumed 2.5% annual severity trend
(6) = (4) x (5)
(7) = (Selected for period 7/1/2021 to 6/30/2022) / [(3) x (5)]
(8) = (2) x (7)

Arithmetic Average	*9,462*	*Excluding Current Period*
Weighted Average	*9,239*	
5 Period Arithmetic Average	*9,182*	
3 Period Arithmetic Average	*8,763*	
Prior Forecast	*9,340*	
Selected for period 7/1/2021 to 6/30/2022	***9,200***	

City of Chandler

Workers' Compensation
Paid Losses & ALAE Bornhuetter-Ferguson Method - Limited to $75,000
Based on Data as of June 30, 2022

Policy Period	(1) Age in Months	(2) Preliminary Ultimate	(3) Actual Paid	(4) Cumulative Development Factors	(5) Expected Paid	(6) Expected Unpaid	(7) Ultimate
1/1/2003 to 6/30/2003	237	478,631	478,631	1.009	474,484	4,147	482,778
7/1/2003 to 6/30/2004	228	786,281	775,127	1.010	778,496	7,785	782,912
7/1/2004 to 6/30/2005	216	621,971	621,971	1.012	614,546	7,425	629,396
7/1/2005 to 6/30/2006	204	649,576	649,576	1.014	640,406	9,170	658,745
7/1/2006 to 6/30/2007	192	607,775	588,244	1.017	597,749	10,026	598,270
7/1/2007 to 6/30/2008	180	811,978	750,292	1.019	796,482	15,496	765,788
7/1/2008 to 6/30/2009	168	675,237	675,237	1.023	660,344	14,893	690,130
7/1/2009 to 6/30/2010	156	1,307,954	1,299,526	1.026	1,275,090	32,864	1,332,389
7/1/2010 to 6/30/2011	144	966,822	966,822	1.031	938,007	28,815	995,637
7/1/2011 to 6/30/2012	132	1,185,165	1,160,847	1.036	1,144,221	40,944	1,201,791
7/1/2012 to 6/30/2013	120	1,069,226	1,069,226	1.043	1,024,894	44,333	1,113,559
7/1/2013 to 6/30/2014	108	1,504,114	1,493,243	1.052	1,429,744	74,371	1,567,614
7/1/2014 to 6/30/2015	96	990,329	990,329	1.062	932,761	57,568	1,047,897
7/1/2015 to 6/30/2016	84	1,090,368	1,040,350	1.072	1,016,817	73,551	1,113,902
7/1/2016 to 6/30/2017	72	1,264,190	1,264,190	1.083	1,167,241	96,949	1,361,139
7/1/2017 to 6/30/2018	60	1,196,213	1,108,047	1.099	1,088,155	108,058	1,216,106
7/1/2018 to 6/30/2019	48	1,251,643	994,592	1.116	1,121,752	129,892	1,124,484
7/1/2019 to 6/30/2020	36	1,239,817	970,464	1.138	1,089,365	150,452	1,120,916
7/1/2020 to 6/30/2021	24	1,229,338	1,148,306	1.252	981,962	247,376	1,395,682
7/1/2021 to 6/30/2022	12	1,229,203	593,767	2.316	530,732	698,471	1,292,238
TOTALS		**20,155,832**	**18,638,786**		**18,303,246**	**1,852,586**	**20,491,373**

Notes:

(1) = (average evaluation period) - (average policy period)
(2) based on Exhibit D, Page 1 and 2, Column (4) and actuarial judgment; most recent 4 periods from Exhibit D, Page 3, Column (10)
(3) from City of Chandler
(4) from Appendix A, Page 1
(5) = (2) x [1 / (4)]
(6) = (2) x [1 - 1 / (4)]
(7) = (3) + (6)

City of Chandler

Workers' Compensation

Incurred Losses & ALAE Bornhuetter-Ferguson Method - Limited to $75,000

Based on Data as of June 30, 2022

Policy Period	(1) Age in Months	(2) Preliminary Ultimate	(3) Actual Incurred	(4) Cumulative Development Factors	(5) Expected Incurred	(6) Expected IBNR	(7) Ultimate
1/1/2003 to 6/30/2003	237	478,631	478,631	1.000	478,603	28	478,659
7/1/2003 to 6/30/2004	228	786,281	786,281	1.000	786,096	185	786,466
7/1/2004 to 6/30/2005	216	621,971	621,971	1.000	621,761	210	622,181
7/1/2005 to 6/30/2006	204	649,576	649,576	1.001	649,229	347	649,922
7/1/2006 to 6/30/2007	192	607,775	607,316	1.001	607,316	458	607,775
7/1/2007 to 6/30/2008	180	811,978	811,227	1.001	811,227	751	811,978
7/1/2008 to 6/30/2009	168	675,237	675,237	1.002	674,188	1,048	676,285
7/1/2009 to 6/30/2010	156	1,307,954	1,305,287	1.002	1,305,287	2,667	1,307,954
7/1/2010 to 6/30/2011	144	966,822	966,822	1.003	964,157	2,664	969,486
7/1/2011 to 6/30/2012	132	1,185,165	1,164,313	1.003	1,181,480	3,685	1,167,998
7/1/2012 to 6/30/2013	120	1,069,226	1,069,226	1.004	1,065,059	4,167	1,073,393
7/1/2013 to 6/30/2014	108	1,504,114	1,496,818	1.005	1,496,818	7,297	1,504,114
7/1/2014 to 6/30/2015	96	990,329	990,329	1.006	984,095	6,234	996,563
7/1/2015 to 6/30/2016	84	1,090,368	1,090,368	1.007	1,082,422	7,946	1,098,314
7/1/2016 to 6/30/2017	72	1,264,190	1,264,190	1.010	1,251,223	12,966	1,277,156
7/1/2017 to 6/30/2018	60	1,196,213	1,156,518	1.015	1,178,054	18,160	1,174,677
7/1/2018 to 6/30/2019	48	1,251,643	1,078,690	1.020	1,226,510	25,134	1,103,824
7/1/2019 to 6/30/2020	36	1,239,817	1,083,624	1.031	1,202,892	36,925	1,120,549
7/1/2020 to 6/30/2021	24	1,229,338	1,374,718	1.051	1,169,339	60,000	1,434,717
7/1/2021 to 6/30/2022	12	1,229,203	1,002,644	1.314	935,368	293,835	1,296,479
TOTALS		**20,155,832**	**19,673,786**		**19,671,126**	**484,706**	**20,158,492**

Notes:

(1) = (average evaluation period) - (average policy period)
(2) based on Exhibit D, Page 1 and 2, Column (4) and actuarial judgment; most recent 4 periods from Exhibit D, Page 3, Column (10)
(3) from City of Chandler
(4) from Exhibit D, Page 6
(5) = (2) x [1 / (4)]
(6) = (2) x [1 - 1 / (4)]
(7) = (3) + (6)

City of Chandler
Workers' Compensation
Selected Ultimate Claim Counts - Excluding Closed Without Payments
Based on Data as of June 30, 2022

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Policy Period	Age in Months	Exposures ($1,000 Payroll)	Exposure Trend	Reported Counts	Cumulative Development Factors	Estimated Ultimate Counts	Preliminary Frequency (per $1M)	Frequency Trend	Preliminary Trended Frequency (per $1M)	Estimated Ultimate Counts	Prior Ultimate Counts	Selected Ultimate Counts	Selected Frequency (per $1M)
1/1/2003 to 6/30/2003	237	38,782	1.644	63	1.000	63	0.988	0.910	0.899	63	63	63	1.624
7/1/2003 to 6/30/2004	228	82,686	1.627	149	1.000	149	1.108	0.914	1.012	149	149	149	1.802
7/1/2004 to 6/30/2005	216	84,675	1.614	143	1.000	143	1.047	0.918	0.961	143	143	143	1.689
7/1/2005 to 6/30/2006	204	90,201	1.549	147	1.000	147	1.052	0.923	0.971	147	147	147	1.630
7/1/2006 to 6/30/2007	192	102,877	1.478	135	1.000	135	0.888	0.928	0.824	135	135	135	1.312
7/1/2007 to 6/30/2008	180	111,710	1.423	161	1.000	161	1.012	0.932	0.944	161	161	161	1.441
7/1/2008 to 6/30/2009	168	120,668	1.394	165	1.000	165	0.981	0.937	0.919	165	165	165	1.367
7/1/2009 to 6/30/2010	156	119,800	1.385	142	1.000	142	0.856	0.942	0.806	142	142	142	1.185
7/1/2010 to 6/30/2011	144	113,843	1.363	153	1.000	153	0.986	0.946	0.933	153	153	153	1.344
7/1/2011 to 6/30/2012	132	110,414	1.324	161	1.000	161	1.101	0.951	1.047	161	161	161	1.458
7/1/2012 to 6/30/2013	120	119,088	1.291	135	1.000	135	0.878	0.956	0.839	135	135	135	1.134
7/1/2013 to 6/30/2014	108	115,348	1.284	154	1.000	154	1.040	0.961	0.999	154	154	154	1.335
7/1/2014 to 6/30/2015	96	119,528	1.255	143	1.000	143	0.953	0.966	0.920	143	143	143	1.196
7/1/2015 to 6/30/2016	84	127,517	1.230	153	1.000	153	0.975	0.970	0.946	153	153	153	1.200
7/1/2016 to 6/30/2017	72	128,452	1.214	133	1.000	133	0.853	0.975	0.832	133	133	133	1.035
7/1/2017 to 6/30/2018	60	133,497	1.174	149	1.000	149	0.951	0.980	0.932	149	149	149	1.116
7/1/2018 to 6/30/2019	48	135,570	1.135	158	1.000	158	1.027	0.985	1.012	158	158	158	1.165
7/1/2019 to 6/30/2020	36	136,800	1.091	148	1.002	148	0.993	0.990	0.983	148	148	148	1.082
7/1/2020 to 6/30/2021	24	140,084	1.040	134	1.005	135	0.925	0.995	0.920	135	144	135	0.964
7/1/2021 to 6/30/2022	12	142,931	1.000	115	1.095	126	0.881	1.000	0.881	127	142	126	0.882
TOTALS		**2,274,469**		**2,841**		**2,853**				**2,854**	**2,878**	**2,853**	

Notes:
- *(1) = (average evaluation period) - (average policy period)*
- *(2) from City of Chandler*
- *(3) Arizona annual trend from 2021 edition of NCCI Annual Statistical Bulletin*
- *(4) from City of Chandler*
- *(5) from Appendix A, Page 1*
- *(6) = (4) x (5)*
- *(7) = (6) / (2) x 1,000 / (3)*
- *(8) assumed -0.5% annual frequency trend*
- *(9) = (7) x (8)*
- *(10) = { selected (9) x (2) / 1,000 x (3) / (8) x [1 - 1 / (5)] } + (4)*
- *(11) from previous Oliver Wyman study*
- *(12) selected*
- *(13) = (12) / (2) x 1,000*

Arithmetic Average	*0.932*	*Excluding Current Period*
Weighted Average	*0.931*	
5 Period Arithmetic Average	*0.936*	
3 Period Arithmetic Average	*0.972*	
Prior Forecast	*0.990*	
Selected for period 7/1/2021 to 6/30/2022	***0.970***	

City of Chandler

Workers' Compensation

Actual vs. Expected Paid Losses & ALAE between 7/1/2021 and 6/30/2022 - Limited to Self-Insured Retention (SIR)

Based on Data as of June 30, 2022

Policy Period	(1) Ultimate @ 6/30/2021	(2) Paid @ 6/30/2021	(3) Unpaid @ 6/30/2021	(4) Expected Period Paid %	(5) Expected Period Paid	(6) Actual Period Paid	(7) Difference
1/1/2003 to 6/30/2003	1,086,000	1,071,106	14,894	16.0%	2,383	413	(1,970)
7/1/2003 to 6/30/2004	833,500	818,038	15,462	14.3%	2,209	35	(2,173)
7/1/2004 to 6/30/2005	651,732	651,732	0	5.7%	0	0	0
7/1/2005 to 6/30/2006	1,025,100	980,808	44,292	4.1%	1,813	0	(1,813)
7/1/2006 to 6/30/2007	620,000	599,653	20,347	2.9%	587	443	(144)
7/1/2007 to 6/30/2008	1,101,000	727,568	373,432	3.2%	11,837	60,523	48,686
7/1/2008 to 6/30/2009	1,303,000	1,160,444	142,556	3.8%	5,388	4,173	(1,214)
7/1/2009 to 6/30/2010	1,776,000	1,480,728	295,272	3.2%	9,431	8,100	(1,331)
7/1/2010 to 6/30/2011	1,456,561	1,456,561	0	8.0%	0	0	0
7/1/2011 to 6/30/2012	2,428,000	1,880,655	547,345	3.8%	20,584	24,729	4,145
7/1/2012 to 6/30/2013	2,372,000	2,096,347	275,653	9.8%	27,037	33,315	6,278
7/1/2013 to 6/30/2014	2,727,000	2,355,943	371,057	9.1%	33,595	44,643	11,048
7/1/2014 to 6/30/2015	2,082,223	1,393,200	689,023	7.4%	50,861	68,113	17,252
7/1/2015 to 6/30/2016	3,636,000	2,530,046	1,105,954	5.5%	60,382	125,876	65,494
7/1/2016 to 6/30/2017	2,307,000	1,628,931	678,069	4.8%	32,547	5,813	(26,733)
7/1/2017 to 6/30/2018	2,934,000	1,606,123	1,327,877	5.1%	67,271	85,720	18,449
7/1/2018 to 6/30/2019	1,753,000	976,327	776,673	6.0%	46,234	73,859	27,625
7/1/2019 to 6/30/2020	1,987,000	1,048,235	938,765	5.2%	48,557	121,080	72,522
7/1/2020 to 6/30/2021	3,515,000	672,909	2,842,091	56.7%	1,612,192	756,037	(856,156)
TOTALS	**35,594,116**	**25,135,355**	**10,458,761**		**2,032,907**	**1,412,872**	**(620,035)**

Notes:

(1) from previous Oliver Wyman study
(2) from previous Oliver Wyman study
(3) = (1) - (2)
(4) based on paid loss development factors from previous Oliver Wyman study
(5) = (3) x (4)
(6) from City of Chandler
(7) = (6) - (5)

City of Chandler

Workers' Compensation

Actual vs. Expected Incurred Losses & ALAE between 7/1/2021 and 6/30/2022 - Limited to Self-Insured Retention (SIR)

Based on Data as of June 30, 2022

Policy Period	(1) Ultimate @ 6/30/2021	(2) Incurred @ 6/30/2021	(3) IBNR @ 6/30/2021	(4) Expected Period Incurred %	(5) Expected Period Incurred	(6) Actual Period Incurred	(7) Difference
1/1/2003 to 6/30/2003	1,086,000	1,085,942	58	100.0%	58	0	(58)
7/1/2003 to 6/30/2004	833,500	833,257	243	100.0%	243	0	(243)
7/1/2004 to 6/30/2005	651,732	651,732	0	100.0%	0	0	0
7/1/2005 to 6/30/2006	1,025,100	1,025,022	78	100.0%	78	0	(78)
7/1/2006 to 6/30/2007	620,000	619,168	832	100.0%	832	0	(832)
7/1/2007 to 6/30/2008	1,101,000	1,099,931	1,069	100.0%	1,069	(26,837)	(27,906)
7/1/2008 to 6/30/2009	1,303,000	1,297,670	5,330	100.0%	5,330	0	(5,330)
7/1/2009 to 6/30/2010	1,776,000	1,752,829	23,171	45.2%	10,468	(130)	(10,598)
7/1/2010 to 6/30/2011	1,456,561	1,456,561	0	28.2%	0	0	0
7/1/2011 to 6/30/2012	2,428,000	2,394,185	33,815	18.1%	6,108	(164,873)	(170,981)
7/1/2012 to 6/30/2013	2,372,000	2,332,401	39,599	18.6%	7,361	0	(7,361)
7/1/2013 to 6/30/2014	2,727,000	2,650,474	76,526	17.0%	13,034	26,046	13,012
7/1/2014 to 6/30/2015	2,082,223	2,082,223	0	12.3%	0	0	0
7/1/2015 to 6/30/2016	3,636,000	3,537,912	98,088	19.3%	18,893	6	(18,887)
7/1/2016 to 6/30/2017	2,307,000	2,151,043	155,957	27.5%	42,905	(427,283)	(470,188)
7/1/2017 to 6/30/2018	2,934,000	2,718,215	215,785	12.0%	25,981	28,034	2,053
7/1/2018 to 6/30/2019	1,753,000	1,554,009	198,991	1.0%	2,046	48,998	46,952
7/1/2019 to 6/30/2020	1,987,000	1,349,085	637,915	7.2%	46,166	566,273	520,108
7/1/2020 to 6/30/2021	3,515,000	2,586,374	928,626	66.3%	615,375	(4,121)	(619,496)
TOTALS	**35,594,116**	**33,178,032**	**2,416,084**		**795,947**	**46,113**	**(749,835)**

Notes:

(1) from previous Oliver Wyman study
(2) from previous Oliver Wyman study
(3) = (1) - (2)
(4) based on incurred loss development factors from previous Oliver Wyman study
(5) = (3) x (4)
(6) from City of Chandler
(7) = (6) - (5)

City of Chandler

Workers' Compensation

Actual vs. Expected Paid Losses & ALAE between 7/1/2021 and 6/30/2022 - Limited to $75,000

Based on Data as of June 30, 2022

Policy Period	(1) Ultimate @ 6/30/2021	(2) Paid @ 6/30/2021	(3) Unpaid @ 6/30/2021	(4) Expected Period Paid %	(5) Expected Period Paid	(6) Actual Period Paid	(7) Difference
1/1/2003 to 6/30/2003	478,631	478,631	0	16.0%	0	0	0
7/1/2003 to 6/30/2004	786,281	775,091	11,190	14.3%	1,599	35	(1,563)
7/1/2004 to 6/30/2005	621,971	621,971	0	13.5%	0	0	0
7/1/2005 to 6/30/2006	649,576	649,576	0	11.9%	0	0	0
7/1/2006 to 6/30/2007	608,000	587,801	20,199	10.6%	2,141	443	(1,698)
7/1/2007 to 6/30/2008	812,000	695,966	116,034	10.7%	12,406	54,326	41,920
7/1/2008 to 6/30/2009	675,237	675,237	0	10.5%	0	0	0
7/1/2009 to 6/30/2010	1,310,000	1,299,626	10,374	11.2%	1,162	(100)	(1,262)
7/1/2010 to 6/30/2011	966,822	966,822	0	15.7%	0	0	0
7/1/2011 to 6/30/2012	1,170,000	1,160,847	9,153	13.5%	1,234	0	(1,234)
7/1/2012 to 6/30/2013	1,069,226	1,069,226	0	17.6%	0	0	0
7/1/2013 to 6/30/2014	1,493,000	1,482,601	10,399	14.9%	1,548	10,642	9,094
7/1/2014 to 6/30/2015	990,329	990,329	0	15.6%	0	0	0
7/1/2015 to 6/30/2016	1,090,362	1,040,344	50,018	16.4%	8,209	6	(8,203)
7/1/2016 to 6/30/2017	1,264,190	1,264,190	0	16.0%	0	0	0
7/1/2017 to 6/30/2018	1,198,000	1,098,692	99,308	13.6%	13,487	9,356	(4,131)
7/1/2018 to 6/30/2019	1,117,000	947,621	169,379	15.1%	25,536	46,971	21,435
7/1/2019 to 6/30/2020	1,142,000	927,549	214,451	42.8%	91,698	42,915	(48,783)
7/1/2020 to 6/30/2021	1,654,000	589,321	1,064,679	64.1%	682,529	558,985	(123,544)
TOTALS	**19,096,625**	**17,321,440**	**1,775,185**		**841,549**	**723,580**	**(117,969)**

Notes:

(1) from previous Oliver Wyman study
(2) from previous Oliver Wyman study
(3) = (1) - (2)
(4) based on paid loss development factors from previous Oliver Wyman study
(5) = (3) x (4)
(6) from City of Chandler
(7) = (6) - (5)

City of Chandler

Workers' Compensation

Actual vs. Expected Incurred Losses & ALAE between 7/1/2021 and 6/30/2022 - Limited to $75,000

Based on Data as of June 30, 2022

Policy Period	(1) Ultimate @ 6/30/2021	(2) Incurred @ 6/30/2021	(3) IBNR @ 6/30/2021	(4) Expected Period Incurred %	(5) Expected Period Incurred	(6) Actual Period Incurred	(7) Difference
1/1/2003 to 6/30/2003	478,631	478,631	0	100.0%	0	0	0
7/1/2003 to 6/30/2004	786,281	786,281	0	100.0%	0	0	0
7/1/2004 to 6/30/2005	621,971	621,971	0	100.0%	0	0	0
7/1/2005 to 6/30/2006	649,576	649,576	0	100.0%	0	0	0
7/1/2006 to 6/30/2007	608,000	607,316	684	100.0%	684	0	(684)
7/1/2007 to 6/30/2008	812,000	811,227	773	100.0%	773	0	(773)
7/1/2008 to 6/30/2009	675,237	675,237	0	100.0%	0	0	0
7/1/2009 to 6/30/2010	1,310,000	1,305,417	4,583	50.0%	2,290	(130)	(2,420)
7/1/2010 to 6/30/2011	966,822	966,822	0	33.3%	0	0	0
7/1/2011 to 6/30/2012	1,170,000	1,164,313	5,687	25.0%	1,420	0	(1,420)
7/1/2012 to 6/30/2013	1,069,226	1,069,226	0	20.0%	0	0	0
7/1/2013 to 6/30/2014	1,493,000	1,483,450	9,550	16.6%	1,588	13,368	11,780
7/1/2014 to 6/30/2015	990,329	990,329	0	14.2%	0	0	0
7/1/2015 to 6/30/2016	1,090,362	1,090,362	0	29.9%	0	6	6
7/1/2016 to 6/30/2017	1,264,190	1,264,190	0	33.1%	0	0	0
7/1/2017 to 6/30/2018	1,198,000	1,148,254	49,746	24.8%	12,333	8,264	(4,069)
7/1/2018 to 6/30/2019	1,117,000	1,080,187	36,813	32.9%	12,122	(1,497)	(13,619)
7/1/2019 to 6/30/2020	1,142,000	1,040,193	101,807	39.2%	39,943	43,431	3,488
7/1/2020 to 6/30/2021	1,654,000	1,334,418	319,582	80.9%	258,489	40,299	(218,189)
TOTALS	**19,096,625**	**18,567,401**	**529,224**		**329,640**	**103,741**	**(225,899)**

Notes:

(1) from previous Oliver Wyman study
(2) from previous Oliver Wyman study
(3) = (1) - (2)
(4) based on incurred loss development factors from previous Oliver Wyman study
(5) = (3) x (4)
(6) from City of Chandler
(7) = (6) - (5)

City of Chandler
Workers' Compensation
Selected Loss Development Factors - Age to Ultimate
Based on Data as of June 30, 2022

	Paid Losses & ALAE								*Incurred Losses & ALAE*									*Reported Counts*
Age	75,000	500,000	600,000	880,000	1,000,000	1,055,000	1,800,000	2,400,000	75,000	500,000	600,000	880,000	1,000,000	1,055,000	1,800,000	2,400,000	Age	Excl. CWOP
12	***2.316***	2.542	2.553	2.584	2.597	2.598	2.611	2.616	***1.314***	1.399	1.403	1.414	1.419	1.419	1.427	1.430	12	1.095
24	***1.252***	1.332	1.336	1.348	1.352	1.353	1.358	1.359	***1.051***	1.090	1.092	1.097	1.099	1.100	1.103	1.105	24	1.005
36	***1.138***	1.226	1.231	1.244	1.249	1.250	1.255	1.257	***1.031***	1.080	1.083	1.092	1.096	1.096	1.102	1.105	36	1.002
48	***1.116***	1.237	1.244	1.265	1.274	1.275	1.284	1.287	***1.020***	1.078	1.082	1.096	1.102	1.102	1.112	1.116	48	1.000
60	***1.099***	1.254	1.264	1.295	1.309	1.310	1.324	1.329	***1.015***	1.064	1.069	1.084	1.090	1.091	1.102	1.106	60	1.000
72	***1.083***	1.233	1.244	1.281	1.296	1.298	1.314	1.320	***1.010***	1.043	1.047	1.060	1.065	1.066	1.075	1.079	72	1.000
84	***1.072***	1.223	1.236	1.279	1.297	1.299	1.318	1.325	***1.007***	1.034	1.037	1.049	1.053	1.054	1.062	1.065	84	1.000
96	***1.062***	1.206	1.220	1.267	1.287	1.289	1.310	1.318	***1.006***	1.029	1.033	1.046	1.051	1.051	1.060	1.064	96	1.000
108	***1.052***	1.183	1.196	1.243	1.262	1.264	1.285	1.293	***1.005***	1.022	1.025	1.037	1.042	1.043	1.051	1.054	108	1.000
120	***1.043***	1.164	1.177	1.224	1.243	1.245	1.267	1.274	***1.004***	1.017	1.020	1.032	1.037	1.038	1.046	1.049	120	1.000
132	***1.036***	1.150	1.163	1.208	1.227	1.228	1.249	1.257	***1.003***	1.015	1.018	1.029	1.033	1.034	1.041	1.044	132	1.000
144	***1.031***	1.140	1.152	1.196	1.214	1.216	1.236	1.243	***1.003***	1.014	1.017	1.028	1.032	1.033	1.040	1.043	144	1.000
156	***1.026***	1.127	1.139	1.179	1.197	1.198	1.217	1.223	***1.002***	1.012	1.014	1.023	1.027	1.028	1.034	1.036	156	1.000
168	***1.023***	1.119	1.130	1.169	1.185	1.187	1.204	1.211	***1.002***	1.010	1.012	1.020	1.023	1.024	1.030	1.032	168	1.000
180	***1.019***	1.111	1.121	1.158	1.174	1.175	1.192	1.198	***1.001***	1.006	1.008	1.014	1.016	1.016	1.020	1.022	180	1.000
192	***1.017***	1.104	1.113	1.149	1.163	1.165	1.180	1.186	***1.001***	1.006	1.007	1.013	1.015	1.015	1.019	1.021	192	1.000
204	***1.014***	1.096	1.105	1.138	1.152	1.153	1.168	1.173	***1.001***	1.005	1.006	1.011	1.013	1.013	1.017	1.018	204	1.000
216	***1.012***	1.088	1.096	1.127	1.140	1.141	1.155	1.160	***1.000***	1.003	1.004	1.009	1.010	1.011	1.013	1.014	216	1.000
228	***1.010***	1.080	1.088	1.116	1.128	1.129	1.142	1.146	***1.000***	1.003	1.004	1.008	1.010	1.010	1.012	1.013	228	1.000

Notes:

limited (bolded) paid LDFs based on Appendix A, Page 2
limited (bolded) incurred LDFs based on Appendix A, Page 3
other LDFs are adjusted using Oliver Wyman relativities
reported count factors based on Appendix A, Page 4

City of Chandler
Workers' Compensation
Paid Losses & ALAE - Limited to $75,000
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	247,026	565,212	621,763	661,178	715,176	720,556	722,269	722,205	722,300	725,697	725,697	725,655	725,655	725,875	739,755	749,083	774,870	775,091	775,127
7/1/2004	276,397	536,761	577,418	592,457	605,379	609,033	616,357	621,775	621,775	621,775	621,775	621,775	621,775	621,971	621,971	621,971	621,971	621,971	
7/1/2005	200,706	505,966	552,607	594,741	603,672	614,644	622,212	629,386	640,201	649,576	649,576	649,576	649,576	649,576	649,576	649,576	649,576		
7/1/2006	209,267	464,091	531,181	552,186	552,895	584,800	585,106	578,421	581,840	581,848	582,063	582,071	582,176	587,789	587,801	588,244			
7/1/2007	351,283	616,773	702,322	645,614	595,827	595,827	597,997	636,245	658,716	673,524	679,204	686,940	691,745	695,966	750,292				
7/1/2008	321,961	608,696	622,878	618,457	611,609	627,188	643,015	643,023	644,726	645,027	674,485	674,560	675,237	675,237					
7/1/2009	807,943	1,268,270	1,274,279	1,258,475	1,269,316	1,268,437	1,268,781	1,299,694	1,301,130	1,299,762	1,300,357	1,299,626	1,299,526						
7/1/2010	667,115	932,878	953,600	956,407	966,774	966,782	966,782	966,822	966,822	966,822	966,822	966,822							
7/1/2011	656,562	1,042,286	1,107,176	1,140,809	1,152,179	1,153,721	1,157,939	1,158,827	1,159,929	1,160,847	1,160,847								
7/1/2012	308,364	737,253	852,237	861,204	899,282	997,688	1,037,066	1,069,226	1,069,226	1,069,226									
7/1/2013	515,792	1,169,619	1,422,414	1,433,603	1,478,801	1,479,343	1,479,586	1,482,601	1,493,243										
7/1/2014	557,797	927,794	988,164	988,803	990,329	990,329	990,329	990,329											
7/1/2015	418,716	903,262	998,672	999,797	1,034,850	1,040,344	1,040,350												
7/1/2016	496,863	992,965	1,205,210	1,264,190	1,264,190	1,264,190													
7/1/2017	603,228	1,112,325	1,098,076	1,098,692	1,108,047														
7/1/2018	517,966	832,096	947,621	994,592															
7/1/2019	513,953	927,549	970,464																
7/1/2020	589,321	1,148,306																	
7/1/2021	593,767																		

Accident Period Beginning	12 to 24	24 to 36	36 to 48	48 to 60	60 to 72	72 to 84	84 to 96	96 to 108	108 to 120	120 to 132	132 to 144	144 to 156	156 to 168	168 to 180	180 to 192	192 to 204	204 to 216	216 to 228	228 to Ult
7/1/2003	2.288	1.100	1.063	1.082	1.008	1.002	1.000	1.000	1.005	1.000	1.000	1.000	1.000	1.019	1.013	1.034	1.000	1.000	
7/1/2004	1.942	1.076	1.026	1.022	1.006	1.012	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
7/1/2005	2.521	1.092	1.076	1.015	1.018	1.012	1.012	1.017	1.015	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
7/1/2006	2.218	1.145	1.040	1.001	1.058	1.001	0.989	1.006	1.000	1.000	1.000	1.000	1.010	1.000	1.001				
7/1/2007	1.756	1.139	0.919	0.923	1.000	1.004	1.064	1.035	1.022	1.008	1.011	1.007	1.006	1.078					
7/1/2008	1.891	1.023	0.993	0.989	1.025	1.025	1.000	1.003	1.000	1.046	1.000	1.001	1.000						
7/1/2009	1.570	1.005	0.988	1.009	0.999	1.000	1.024	1.001	0.999	1.000	0.999	1.000							
7/1/2010	1.398	1.022	1.003	1.011	1.000	1.000	1.000	1.000	1.000	1.000	1.000								
7/1/2011	1.587	1.062	1.030	1.010	1.001	1.004	1.001	1.001	1.001	1.000									
7/1/2012	2.391	1.156	1.011	1.044	1.109	1.039	1.031	1.000	1.000										
7/1/2013	2.268	1.216	1.008	1.032	1.000	1.000	1.002	1.007											
7/1/2014	1.663	1.065	1.001	1.002	1.000	1.000	1.000												
7/1/2015	2.157	1.106	1.001	1.035	1.005	1.000													
7/1/2016	1.998	1.214	1.049	1.000	1.000														
7/1/2017	1.844	0.987	1.001	1.009															
7/1/2018	1.606	1.139	1.050																
7/1/2019	1.805	1.046																	
7/1/2020	1.949																		
Average	1.936	1.094	1.016	1.012	1.016	1.008	1.011	1.006	1.004	1.006	1.001	1.001	1.003	1.019	1.003	1.011	1.000	1.000	
Wtd Avg	1.851	1.091	1.014	1.013	1.014	1.007	1.010	1.005	1.003	1.005	1.001	1.001	1.003	1.021	1.004	1.013	1.000	1.000	
5 Yr Avg	1.840	1.098	1.020	1.015	1.023	1.009	1.007	1.002	1.000	1.011	1.002	1.002	1.003						
3 Yr Avg	1.787	1.057	1.033	1.015	1.002	1.000	1.011	1.003	1.000	1.000	1.000	1.003	1.005	1.026	1.000				
Prior	1.850	1.110	1.020	1.015	1.015	1.013	1.010	1.008	1.008	1.005	1.005	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.011
Industry	1.793	1.180	1.086	1.052	1.025	1.019	1.014	1.009	1.008	1.007	1.005	1.005	1.003	1.003	1.003	1.002	1.002	1.002	Tail 1.010
Selected	1.850	1.100	1.020	1.015	1.015	1.010	1.010	1.009	1.008	1.007	1.005	1.005	1.003	1.003	1.003	1.002	1.002	1.002	1.010
Ultimate	2.316	1.252	1.138	1.116	1.099	1.083	1.072	1.062	1.052	1.043	1.036	1.031	1.026	1.023	1.019	1.017	1.014	1.012	1.010
Pattern	43.2%	36.7%	8.0%	1.8%	1.3%	1.4%	0.9%	0.9%	0.9%	0.8%	0.7%	0.5%	0.5%	0.3%	0.3%	0.3%	0.2%	0.2%	1.2%

Notes:

Industry development factors based on data from the 2020 edition of NCCI Annual Statistical Bulletin

City of Chandler
Workers' Compensation
Incurred Losses & ALAE - Limited to $75,000
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	405,319	615,533	658,303	716,149	753,179	744,414	746,126	745,968	745,968	746,550	746,550	746,507	746,507	757,007	770,294	770,294	786,281	786,281	786,281
7/1/2004	433,092	596,068	636,433	655,098	654,707	654,721	654,029	655,980	621,775	621,775	621,775	621,775	621,775	621,971	621,971	621,971	621,971	621,971	
7/1/2005	218,697	565,416	613,104	665,312	642,903	643,810	643,968	643,968	648,952	649,576	649,576	649,576	649,576	649,576	649,576	649,576	649,576		
7/1/2006	357,568	572,351	609,148	626,706	616,108	615,385	618,033	607,264	607,316	607,316	607,316	607,316	607,316	607,316	607,316	607,316			
7/1/2007	591,135	736,617	771,326	696,254	661,761	655,981	699,833	718,703	744,997	732,151	728,026	737,820	737,820	811,227	811,227				
7/1/2008	606,357	695,601	654,669	643,402	642,616	665,025	665,025	665,025	665,025	665,343	674,485	674,560	675,237	675,237					
7/1/2009	1,209,165	1,384,432	1,317,306	1,278,754	1,278,229	1,275,301	1,280,550	1,306,043	1,306,081	1,305,964	1,306,294	1,305,417	1,305,287						
7/1/2010	846,987	997,056	971,294	962,028	966,774	968,032	966,782	966,822	966,822	966,822	966,822	966,822							
7/1/2011	1,113,010	1,158,045	1,151,669	1,164,497	1,158,747	1,163,992	1,163,992	1,163,992	1,164,307	1,164,313	1,164,313								
7/1/2012	549,779	982,837	971,678	888,485	986,927	1,038,675	1,042,245	1,069,226	1,069,226	1,069,226									
7/1/2013	1,110,080	1,536,783	1,478,594	1,480,078	1,491,735	1,486,217	1,479,586	1,483,450	1,496,818										
7/1/2014	1,041,527	1,020,543	1,008,810	997,553	990,329	990,329	990,329	990,329											
7/1/2015	718,305	1,067,238	1,056,357	1,060,018	1,090,362	1,090,362	1,090,368												
7/1/2016	919,829	1,249,791	1,257,422	1,264,190	1,264,190	1,264,190													
7/1/2017	1,202,169	1,232,355	1,149,200	1,148,254	1,156,518														
7/1/2018	812,003	1,079,028	1,080,187	1,078,690															
7/1/2019	859,380	1,040,193	1,083,624																
7/1/2020	1,334,418	1,374,718																	
7/1/2021	1,002,644																		

Accident Period Beginning	12 to 24	24 to 36	36 to 48	48 to 60	60 to 72	72 to 84	84 to 96	96 to 108	108 to 120	120 to 132	132 to 144	144 to 156	156 to 168	168 to 180	180 to 192	192 to 204	204 to 216	216 to 228	228 to Ult
7/1/2003	1.519	1.069	1.088	1.052	0.988	1.002	1.000	1.000	1.001	1.000	1.000	1.000	1.014	1.018	1.000	1.021	1.000	1.000	
7/1/2004	1.376	1.068	1.029	0.999	1.000	0.999	1.003	0.948	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
7/1/2005	2.585	1.084	1.085	0.966	1.001	1.000	1.000	1.008	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
7/1/2006	1.601	1.064	1.029	0.983	0.999	1.004	0.983	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
7/1/2007	1.246	1.047	0.903	0.950	0.991	1.067	1.027	1.037	0.983	0.994	1.013	1.000	1.099	1.000					
7/1/2008	1.147	0.941	0.983	0.999	1.035	1.000	1.000	1.000	1.000	1.014	1.000	1.001	1.000						
7/1/2009	1.145	0.952	0.971	1.000	0.998	1.004	1.020	1.000	1.000	1.000	0.999	1.000							
7/1/2010	1.177	0.974	0.990	1.005	1.001	0.999	1.000	1.000	1.000	1.000	1.000								
7/1/2011	1.040	0.994	1.011	0.995	1.005	1.000	1.000	1.000	1.000	1.000									
7/1/2012	1.788	0.989	0.914	1.111	1.052	1.003	1.026	1.000	1.000										
7/1/2013	1.384	0.962	1.001	1.008	0.996	0.996	1.003	1.009											
7/1/2014	0.980	0.989	0.989	0.993	1.000	1.000	1.000												
7/1/2015	1.486	0.990	1.003	1.029	1.000	1.000													
7/1/2016	1.359	1.006	1.005	1.000	1.000														
7/1/2017	1.025	0.933	0.999	1.007															
7/1/2018	1.329	1.001	0.999																
7/1/2019	1.210	1.042																	
7/1/2020	1.030																		
Average	1.357	1.006	1.000	1.006	1.005	1.006	1.005	1.000	0.998	1.001	1.002	1.000	1.019	1.004	1.000	1.007	1.000	1.000	
Wtd Avg	1.250	0.996	0.996	1.008	1.004	1.004	1.006	1.001	0.999	1.001	1.001	1.000	1.021	1.004	1.000	1.008	1.000	1.000	
5 Yr Avg	1.191	0.994	0.999	1.007	1.010	1.000	1.006	1.002	1.000	1.002	1.003	1.000	1.020						
3 Yr Avg	1.190	0.992	1.001	1.012	1.000	0.999	1.009	1.003	1.000	1.000	1.000	1.000	1.033	1.000	1.000				
Prior	1.275	1.020	1.010	1.005	1.005	1.003	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
Industry	1.243	1.059	1.026	1.008	1.004	1.003	1.002	1.001	1.001	1.001	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.000	Tail 1.000
Selected	1.250	1.020	1.010	1.005	1.005	1.003	1.001	1.001	1.001	1.001	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000
Ultimate	1.314	1.051	1.031	1.020	1.015	1.010	1.007	1.006	1.005	1.004	1.003	1.003	1.002	1.002	1.001	1.001	1.001	1.000	1.000
Pattern	76.1%	19.0%	1.9%	1.0%	0.5%	0.5%	0.3%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%

Notes:
Industry development factors based on data from the 2020 edition of NCCI Annual Statistical Bulletin

City of Chandler
Workers' Compensation
Reported Claim Counts - Excluding Closed Without Payments
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	143	150	149	149	149	149	149	149	151	149	149	149	149	149	149	149	149	149	149
7/1/2004	135	141	142	142	142	142	143	143	143	143	143	143	143	143	143	143	143	143	
7/1/2005	120	147	147	147	147	147	155	147	147	147	147	147	147	147	147	147	147		
7/1/2006	104	135	135	135	135	139	135	135	135	135	135	135	135	135	135	135			
7/1/2007	154	159	160	160	167	160	160	160	161	161	161	161	161	161	161				
7/1/2008	164	165	166	177	165	165	165	165	165	164	165	165	165	165					
7/1/2009	140	144	147	144	144	144	144	143	142	142	142	142	142						
7/1/2010	148	161	153	153	153	154	153	153	153	153	153	153							
7/1/2011	167	161	161	161	161	161	161	161	161	161	161								
7/1/2012	128	133	134	135	135	135	135	135	135	135									
7/1/2013	146	154	154	154	154	154	154	154	154										
7/1/2014	138	140	142	143	143	143	143	143											
7/1/2015	137	153	153	153	153	153	153												
7/1/2016	125	131	132	133	133	133													
7/1/2017	145	150	150	149	149														
7/1/2018	145	159	158	158															
7/1/2019	126	147	148																
7/1/2020	128	134																	
7/1/2021	115																		

Accident Period Beginning	12 to 24	24 to 36	36 to 48	48 to 60	60 to 72	72 to 84	84 to 96	96 to 108	108 to 120	120 to 132	132 to 144	144 to 156	156 to 168	168 to 180	180 to 192	192 to 204	204 to 216	216 to 228	228 to Ult
7/1/2003	1.049	0.993	1.000	1.000	1.000	1.000	1.000	1.013	0.987	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/2004	1.044	1.007	1.000	1.000	1.000	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
7/1/2005	1.225	1.000	1.000	1.000	1.000	1.054	0.948	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
7/1/2006	1.298	1.000	1.000	1.000	1.030	0.971	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
7/1/2007	1.032	1.006	1.000	1.044	0.958	1.000	1.000	1.006	1.000	1.000	1.000	1.000	1.000	1.000					
7/1/2008	1.006	1.006	1.066	0.932	1.000	1.000	1.000	1.000	0.994	1.006	1.000	1.000	1.000						
7/1/2009	1.029	1.021	0.980	1.000	1.000	1.000	0.993	0.993	1.000	1.000	1.000	1.000							
7/1/2010	1.088	0.950	1.000	1.000	1.007	0.994	1.000	1.000	1.000	1.000	1.000								
7/1/2011	0.964	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000									
7/1/2012	1.039	1.008	1.007	1.000	1.000	1.000	1.000	1.000	1.000										
7/1/2013	1.055	1.000	1.000	1.000	1.000	1.000	1.000	1.000											
7/1/2014	1.014	1.014	1.007	1.000	1.000	1.000	1.000												
7/1/2015	1.117	1.000	1.000	1.000	1.000	1.000													
7/1/2016	1.048	1.008	1.008	1.000	1.000														
7/1/2017	1.034	1.000	0.993	1.000															
7/1/2018	1.097	0.994	1.000																
7/1/2019	1.167	1.007																	
7/1/2020	1.047																		
Average	1.075	1.001	1.004	0.998	1.000	1.002	0.995	1.001	0.998	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Wtd Avg	1.069	1.000	1.004	0.998	0.999	1.002	0.995	1.001	0.998	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
5 Yr Avg	1.079	1.002	1.002	1.000	1.000	1.000	1.000	0.999	0.999	1.001	1.000	1.000	1.000						
3 Yr Avg	1.103	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
Prior	1.090	1.003	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
																			Tail
Selected	1.090	1.003	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Ultimate	1.095	1.005	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Pattern	91.3%	8.2%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

City of Chandler
Workers' Compensation
Paid Losses & ALAE / Ultimate Losses & ALAE - Limited to $75,000
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	247,026	565,212	621,763	661,178	715,176	720,556	722,269	722,205	722,300	725,697	725,697	725,655	725,655	725,875	739,755	749,083	774,870	775,091	775,127
7/1/2004	276,397	536,761	577,418	592,457	605,379	609,033	616,357	621,775	621,775	621,775	621,775	621,775	621,775	621,971	621,971	621,971	621,971	621,971	
7/1/2005	200,706	505,966	552,607	594,741	603,672	614,644	622,212	629,386	640,201	649,576	649,576	649,576	649,576	649,576	649,576	649,576	649,576		
7/1/2006	209,267	464,091	531,181	552,186	552,895	584,800	585,106	578,421	581,840	581,848	582,063	582,071	582,176	587,789	587,801	588,244			
7/1/2007	351,283	616,773	702,322	645,614	595,827	595,827	597,997	636,245	658,716	673,524	679,204	686,940	691,745	695,966	750,292				
7/1/2008	321,961	608,696	622,878	618,457	611,609	627,188	643,015	643,023	644,726	645,027	674,485	674,560	675,237	675,237					
7/1/2009	807,943	1,268,270	1,274,279	1,258,475	1,269,316	1,268,437	1,268,781	1,299,694	1,301,130	1,299,762	1,300,357	1,299,626	1,299,526						
7/1/2010	667,115	932,878	953,600	956,407	966,774	966,782	966,782	966,822	966,822	966,822	966,822	966,822							
7/1/2011	656,562	1,042,286	1,107,176	1,140,809	1,152,179	1,153,721	1,157,939	1,158,827	1,159,929	1,160,847	1,160,847								
7/1/2012	308,364	737,253	852,237	861,204	899,282	997,688	1,037,066	1,069,226	1,069,226	1,069,226									
7/1/2013	515,792	1,169,619	1,422,414	1,433,603	1,478,801	1,479,343	1,479,586	1,482,601	1,493,243										
7/1/2014	557,797	927,794	988,164	988,803	990,329	990,329	990,329	990,329											
7/1/2015	418,716	903,262	998,672	999,797	1,034,850	1,040,344	1,040,350												
7/1/2016	496,863	992,965	1,205,210	1,264,190	1,264,190	1,264,190													
7/1/2017	603,228	1,112,325	1,098,076	1,098,692	1,108,047														
7/1/2018	517,966	832,096	947,621	994,592															
7/1/2019	513,953	927,549	970,464																
7/1/2020	589,321	1,148,306																	
7/1/2021	593,767																		

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	0.314	0.719	0.791	0.841	0.910	0.916	0.919	0.919	0.919	0.923	0.923	0.923	0.923	0.923	0.941	0.953	0.985	0.986	0.986
7/1/2004	0.444	0.863	0.928	0.953	0.973	0.979	0.991	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/2005	0.309	0.779	0.851	0.916	0.929	0.946	0.958	0.969	0.986	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
7/1/2006	0.344	0.763	0.874	0.908	0.909	0.962	0.962	0.951	0.957	0.957	0.957	0.957	0.958	0.967	0.967	0.968			
7/1/2007	0.433	0.760	0.865	0.795	0.734	0.734	0.736	0.784	0.811	0.829	0.836	0.846	0.852	0.857	0.924				
7/1/2008	0.477	0.901	0.922	0.916	0.906	0.929	0.952	0.952	0.955	0.955	0.999	0.999	1.000	1.000					
7/1/2009	0.617	0.968	0.973	0.961	0.969	0.968	0.969	0.992	0.993	0.992	0.993	0.992	0.992						
7/1/2010	0.690	0.965	0.986	0.989	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							
7/1/2011	0.561	0.891	0.946	0.975	0.985	0.986	0.990	0.990	0.991	0.992	0.992								
7/1/2012	0.288	0.690	0.797	0.805	0.841	0.933	0.970	1.000	1.000	1.000									
7/1/2013	0.343	0.777	0.945	0.953	0.983	0.983	0.983	0.985	0.992										
7/1/2014	0.563	0.937	0.998	0.998	1.000	1.000	1.000	1.000											
7/1/2015	0.384	0.828	0.916	0.917	0.949	0.954	0.954												
7/1/2016	0.393	0.785	0.953	1.000	1.000	1.000													
7/1/2017	0.511	0.943	0.931	0.931	0.939														
7/1/2018	0.469	0.754	0.858	0.901															
7/1/2019	0.458	0.827	0.866																
7/1/2020	0.411	0.800																	
7/1/2021	0.458																		

City of Chandler
Workers' Compensation
Incurred Losses & ALAE / Ultimate Losses & ALAE - Limited to $75,000
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	405,319	615,533	658,303	716,149	753,179	744,414	746,126	745,968	745,968	746,550	746,550	746,507	746,507	757,007	770,294	770,294	786,281	786,281	786,281
7/1/2004	433,092	596,068	636,433	655,098	654,707	654,721	654,029	655,980	621,775	621,775	621,775	621,775	621,775	621,971	621,971	621,971	621,971	621,971	
7/1/2005	218,697	565,416	613,104	665,312	642,903	643,810	643,968	643,968	648,952	649,576	649,576	649,576	649,576	649,576	649,576	649,576	649,576		
7/1/2006	357,568	572,351	609,148	626,706	616,108	615,385	618,033	607,264	607,316	607,316	607,316	607,316	607,316	607,316	607,316	607,316			
7/1/2007	591,135	736,617	771,326	696,254	661,761	655,981	699,833	718,703	744,997	732,151	728,026	737,820	737,820	811,227	811,227				
7/1/2008	606,357	695,601	654,669	643,402	642,616	665,025	665,025	665,025	665,025	665,343	674,485	674,560	675,237	675,237					
7/1/2009	1,209,165	1,384,432	1,317,306	1,278,754	1,278,229	1,275,301	1,280,550	1,306,043	1,306,081	1,305,964	1,306,294	1,305,417	1,305,287						
7/1/2010	846,987	997,056	971,294	962,028	966,774	968,032	966,782	966,822	966,822	966,822	966,822	966,822							
7/1/2011	1,113,010	1,158,045	1,151,669	1,164,497	1,158,747	1,163,992	1,163,992	1,163,992	1,164,307	1,164,313	1,164,313								
7/1/2012	549,779	982,837	971,678	888,485	986,927	1,038,675	1,042,245	1,069,226	1,069,226	1,069,226									
7/1/2013	1,110,080	1,536,783	1,478,594	1,480,078	1,491,735	1,486,217	1,479,586	1,483,450	1,496,818										
7/1/2014	1,041,527	1,020,543	1,008,810	997,553	990,329	990,329	990,329	990,329											
7/1/2015	718,305	1,067,238	1,056,357	1,060,018	1,090,362	1,090,362	1,090,368												
7/1/2016	919,829	1,249,791	1,257,422	1,264,190	1,264,190	1,264,190													
7/1/2017	1,202,169	1,232,355	1,149,200	1,148,254	1,156,518														
7/1/2018	812,003	1,079,028	1,080,187	1,078,690															
7/1/2019	859,380	1,040,193	1,083,624																
7/1/2020	1,334,418	1,374,718																	
7/1/2021	1,002,644																		

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	0.515	0.783	0.837	0.911	0.958	0.947	0.949	0.949	0.949	0.949	0.949	0.949	0.949	0.963	0.980	0.980	1.000	1.000	1.000
7/1/2004	0.696	0.958	1.023	1.053	1.053	1.053	1.052	1.055	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/2005	0.337	0.870	0.944	1.024	0.990	0.991	0.991	0.991	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
7/1/2006	0.588	0.941	1.002	1.031	1.013	1.012	1.017	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999			
7/1/2007	0.728	0.907	0.950	0.857	0.815	0.808	0.862	0.885	0.917	0.902	0.897	0.909	0.909	0.999	0.999				
7/1/2008	0.898	1.030	0.970	0.953	0.952	0.985	0.985	0.985	0.985	0.985	0.999	0.999	1.000	1.000					
7/1/2009	0.923	1.057	1.006	0.976	0.976	0.974	0.978	0.997	0.997	0.997	0.997	0.997	0.996						
7/1/2010	0.876	1.031	1.005	0.995	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000							
7/1/2011	0.951	0.990	0.984	0.995	0.990	0.995	0.995	0.995	0.995	0.995	0.995								
7/1/2012	0.514	0.919	0.909	0.831	0.923	0.971	0.975	1.000	1.000	1.000									
7/1/2013	0.738	1.021	0.982	0.983	0.991	0.988	0.983	0.986	0.995										
7/1/2014	1.052	1.031	1.019	1.007	1.000	1.000	1.000	1.000											
7/1/2015	0.659	0.979	0.969	0.972	1.000	1.000	1.000												
7/1/2016	0.728	0.989	0.995	1.000	1.000	1.000													
7/1/2017	1.019	1.044	0.974	0.973	0.980														
7/1/2018	0.736	0.977	0.978	0.977															
7/1/2019	0.767	0.928	0.967																
7/1/2020	0.930	0.958																	
7/1/2021	0.774																		

City of Chandler
Workers' Compensation
Rate of Paid Losses & ALAE to Exposure ($1,000 Payroll) - Limited to $75,000
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	247,026	565,212	621,763	661,178	715,176	720,556	722,269	722,205	722,300	725,697	725,697	725,655	725,655	725,875	739,755	749,083	774,870	775,091	775,127
7/1/2004	276,397	536,761	577,418	592,457	605,379	609,033	616,357	621,775	621,775	621,775	621,775	621,775	621,775	621,971	621,971	621,971	621,971	621,971	
7/1/2005	200,706	505,966	552,607	594,741	603,672	614,644	622,212	629,386	640,201	649,576	649,576	649,576	649,576	649,576	649,576	649,576	649,576		
7/1/2006	209,267	464,091	531,181	552,186	552,895	584,800	585,106	578,421	581,840	581,848	582,063	582,071	582,176	587,789	587,801	588,244			
7/1/2007	351,283	616,773	702,322	645,614	595,827	595,827	597,997	636,245	658,716	673,524	679,204	686,940	691,745	695,966	750,292				
7/1/2008	321,961	608,696	622,878	618,457	611,609	627,188	643,015	643,023	644,726	645,027	674,485	674,560	675,237	675,237					
7/1/2009	807,943	1,268,270	1,274,279	1,258,475	1,269,316	1,268,437	1,268,781	1,299,694	1,301,130	1,299,762	1,300,357	1,299,626	1,299,526						
7/1/2010	667,115	932,878	953,600	956,407	966,774	966,782	966,782	966,822	966,822	966,822	966,822	966,822							
7/1/2011	656,562	1,042,286	1,107,176	1,140,809	1,152,179	1,153,721	1,157,939	1,158,827	1,159,929	1,160,847	1,160,847								
7/1/2012	308,364	737,253	852,237	861,204	899,282	997,688	1,037,066	1,069,226	1,069,226	1,069,226									
7/1/2013	515,792	1,169,619	1,422,414	1,433,603	1,478,801	1,479,343	1,479,586	1,482,601	1,493,243										
7/1/2014	557,797	927,794	988,164	988,803	990,329	990,329	990,329	990,329											
7/1/2015	418,716	903,262	998,672	999,797	1,034,850	1,040,344	1,040,350												
7/1/2016	496,863	992,965	1,205,210	1,264,190	1,264,190	1,264,190													
7/1/2017	603,228	1,112,325	1,098,076	1,098,692	1,108,047														
7/1/2018	517,966	832,096	947,621	994,592															
7/1/2019	513,953	927,549	970,464																
7/1/2020	589,321	1,148,306																	
7/1/2021	593,767																		

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	2.99	6.84	7.52	8.00	8.65	8.71	8.74	8.73	8.74	8.78	8.78	8.78	8.78	8.78	8.95	9.06	9.37	9.37	9.37
7/1/2004	3.26	6.34	6.82	7.00	7.15	7.19	7.28	7.34	7.34	7.34	7.34	7.34	7.34	7.35	7.35	7.35	7.35	7.35	
7/1/2005	2.23	5.61	6.13	6.59	6.69	6.81	6.90	6.98	7.10	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20		
7/1/2006	2.03	4.51	5.16	5.37	5.37	5.68	5.69	5.62	5.66	5.66	5.66	5.66	5.66	5.71	5.71	5.72			
7/1/2007	3.14	5.52	6.29	5.78	5.33	5.33	5.35	5.70	5.90	6.03	6.08	6.15	6.19	6.23	6.72				
7/1/2008	2.67	5.04	5.16	5.13	5.07	5.20	5.33	5.33	5.34	5.35	5.59	5.59	5.60	5.60					
7/1/2009	6.74	10.59	10.64	10.50	10.60	10.59	10.59	10.85	10.86	10.85	10.85	10.85	10.85						
7/1/2010	5.86	8.19	8.38	8.40	8.49	8.49	8.49	8.49	8.49	8.49	8.49	8.49							
7/1/2011	5.95	9.44	10.03	10.33	10.44	10.45	10.49	10.50	10.51	10.51	10.51								
7/1/2012	2.59	6.19	7.16	7.23	7.55	8.38	8.71	8.98	8.98	8.98									
7/1/2013	4.47	10.14	12.33	12.43	12.82	12.83	12.83	12.85	12.95										
7/1/2014	4.67	7.76	8.27	8.27	8.29	8.29	8.29	8.29											
7/1/2015	3.28	7.08	7.83	7.84	8.12	8.16	8.16												
7/1/2016	3.87	7.73	9.38	9.84	9.84	9.84													
7/1/2017	4.52	8.33	8.23	8.23	8.30														
7/1/2018	3.82	6.14	6.99	7.34															
7/1/2019	3.76	6.78	7.09																
7/1/2020	4.21	8.20																	
7/1/2021	4.15																		

City of Chandler
Workers' Compensation
Rate of Incurred Losses & ALAE to Exposure ($1,000 Payroll) - Limited to $75,000
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	405,319	615,533	658,303	716,149	753,179	744,414	746,126	745,968	745,968	746,550	746,550	746,507	746,507	757,007	770,294	770,294	786,281	786,281	786,281
7/1/2004	433,092	596,068	636,433	655,098	654,707	654,721	654,029	655,980	621,775	621,775	621,775	621,775	621,775	621,971	621,971	621,971	621,971	621,971	
7/1/2005	218,697	565,416	613,104	665,312	642,903	643,810	643,968	643,968	648,952	649,576	649,576	649,576	649,576	649,576	649,576	649,576	649,576		
7/1/2006	357,568	572,351	609,148	626,706	616,108	615,385	618,033	607,264	607,316	607,316	607,316	607,316	607,316	607,316	607,316	607,316			
7/1/2007	591,135	736,617	771,326	696,254	661,761	655,981	699,833	718,703	744,997	732,151	728,026	737,820	737,820	811,227	811,227				
7/1/2008	606,357	695,601	654,669	643,402	642,616	665,025	665,025	665,025	665,025	665,343	674,485	674,560	675,237	675,237					
7/1/2009	1,209,165	1,384,432	1,317,306	1,278,754	1,278,229	1,275,301	1,280,550	1,306,043	1,306,081	1,305,964	1,306,294	1,305,417	1,305,287						
7/1/2010	846,987	997,056	971,294	962,028	966,774	968,032	966,782	966,822	966,822	966,822	966,822	966,822							
7/1/2011	1,113,010	1,158,045	1,151,669	1,164,497	1,158,747	1,163,992	1,163,992	1,163,992	1,164,307	1,164,313	1,164,313								
7/1/2012	549,779	982,837	971,678	888,485	986,927	1,038,675	1,042,245	1,069,226	1,069,226	1,069,226									
7/1/2013	1,110,080	1,536,783	1,478,594	1,480,078	1,491,735	1,486,217	1,479,586	1,483,450	1,496,818										
7/1/2014	1,041,527	1,020,543	1,008,810	997,553	990,329	990,329	990,329	990,329											
7/1/2015	718,305	1,067,238	1,056,357	1,060,018	1,090,362	1,090,362	1,090,368												
7/1/2016	919,829	1,249,791	1,257,422	1,264,190	1,264,190	1,264,190													
7/1/2017	1,202,169	1,232,355	1,149,200	1,148,254	1,156,518														
7/1/2018	812,003	1,079,028	1,080,187	1,078,690															
7/1/2019	859,380	1,040,193	1,083,624																
7/1/2020	1,334,418	1,374,718																	
7/1/2021	1,002,644																		

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	4.90	7.44	7.96	8.66	9.11	9.00	9.02	9.02	9.02	9.03	9.03	9.03	9.03	9.16	9.32	9.32	9.51	9.51	9.51
7/1/2004	5.11	7.04	7.52	7.74	7.73	7.73	7.72	7.75	7.34	7.34	7.34	7.34	7.34	7.35	7.35	7.35	7.35	7.35	
7/1/2005	2.42	6.27	6.80	7.38	7.13	7.14	7.14	7.14	7.19	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20		
7/1/2006	3.48	5.56	5.92	6.09	5.99	5.98	6.01	5.90	5.90	5.90	5.90	5.90	5.90	5.90	5.90	5.90			
7/1/2007	5.29	6.59	6.90	6.23	5.92	5.87	6.26	6.43	6.67	6.55	6.52	6.60	6.60	7.26	7.26				
7/1/2008	5.03	5.76	5.43	5.33	5.33	5.51	5.51	5.51	5.51	5.51	5.59	5.59	5.60	5.60					
7/1/2009	10.09	11.56	11.00	10.67	10.67	10.65	10.69	10.90	10.90	10.90	10.90	10.90	10.90						
7/1/2010	7.44	8.76	8.53	8.45	8.49	8.50	8.49	8.49	8.49	8.49	8.49	8.49							
7/1/2011	10.08	10.49	10.43	10.55	10.49	10.54	10.54	10.54	10.54	10.55	10.55								
7/1/2012	4.62	8.25	8.16	7.46	8.29	8.72	8.75	8.98	8.98	8.98									
7/1/2013	9.62	13.32	12.82	12.83	12.93	12.88	12.83	12.86	12.98										
7/1/2014	8.71	8.54	8.44	8.35	8.29	8.29	8.29	8.29											
7/1/2015	5.63	8.37	8.28	8.31	8.55	8.55	8.55												
7/1/2016	7.16	9.73	9.79	9.84	9.84	9.84													
7/1/2017	9.01	9.23	8.61	8.60	8.66														
7/1/2018	5.99	7.96	7.97	7.96															
7/1/2019	6.28	7.60	7.92																
7/1/2020	9.53	9.81																	
7/1/2021	7.01																		

City of Chandler
Workers' Compensation
Closed Claim Counts / Ultimate Claim Counts - Excluding Closed Without Payments
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	92	130	146	145	145	146	147	148	148	148	148	148	148	148	148	148	148	148	148
7/1/2004	76	138	139	139	140	140	141	141	143	143	143	143	143	143	143	143	143	143	
7/1/2005	117	144	144	145	146	146	146	146	145	145	145	145	145	145	145	146	146		
7/1/2006	93	124	129	132	133	132	133	133	133	133	134	134	134	134	134	134			
7/1/2007	106	149	153	154	153	157	155	155	156	158	159	159	159	158	158				
7/1/2008	116	155	159	158	162	161	161	161	161	161	163	163	163	163					
7/1/2009	103	126	126	139	138	140	139	138	139	138	139	139	139						
7/1/2010	101	132	149	151	151	151	151	151	151	151	152	152							
7/1/2011	93	142	152	153	155	156	156	156	157	157	158								
7/1/2012	71	108	119	129	129	129	130	131	131	131									
7/1/2013	62	112	139	145	147	148	149	149	149										
7/1/2014	62	122	132	140	141	141	141	141											
7/1/2015	63	139	148	147	148	149	149												
7/1/2016	56	108	123	126	128	131													
7/1/2017	95	129	141	144	145														
7/1/2018	94	137	144	151															
7/1/2019	79	124	136																
7/1/2020	73	116																	
7/1/2021	84																		

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	0.617	0.872	0.980	0.973	0.973	0.980	0.987	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993
7/1/2004	0.531	0.965	0.972	0.972	0.979	0.979	0.986	0.986	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/2005	0.796	0.980	0.980	0.986	0.993	0.993	0.993	0.993	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.993	0.993		
7/1/2006	0.689	0.919	0.956	0.978	0.985	0.978	0.985	0.985	0.985	0.985	0.993	0.993	0.993	0.993	0.993	0.993			
7/1/2007	0.658	0.925	0.950	0.957	0.950	0.975	0.963	0.963	0.969	0.981	0.988	0.988	0.988	0.981	0.981				
7/1/2008	0.703	0.939	0.964	0.958	0.982	0.976	0.976	0.976	0.976	0.976	0.988	0.988	0.988	0.988					
7/1/2009	0.725	0.887	0.887	0.979	0.972	0.986	0.979	0.972	0.979	0.972	0.979	0.979	0.979						
7/1/2010	0.660	0.863	0.974	0.987	0.987	0.987	0.987	0.987	0.987	0.987	0.993	0.993							
7/1/2011	0.578	0.882	0.944	0.950	0.963	0.969	0.969	0.969	0.975	0.975	0.981								
7/1/2012	0.526	0.800	0.881	0.956	0.956	0.956	0.963	0.970	0.970	0.970									
7/1/2013	0.403	0.727	0.903	0.942	0.955	0.961	0.968	0.968	0.968										
7/1/2014	0.434	0.853	0.923	0.979	0.986	0.986	0.986	0.986											
7/1/2015	0.412	0.908	0.967	0.961	0.967	0.974	0.974												
7/1/2016	0.421	0.812	0.925	0.947	0.962	0.985													
7/1/2017	0.638	0.866	0.946	0.966	0.973														
7/1/2018	0.595	0.867	0.911	0.956															
7/1/2019	0.534	0.838	0.919																
7/1/2020	0.541	0.859																	
7/1/2021	0.667																		

City of Chandler
Workers' Compensation
Reported Claim Counts / Ultimate Claim Counts - Excluding Closed Without Payments
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	143	150	149	149	149	149	149	149	151	149	149	149	149	149	149	149	149	149	149
7/1/2004	135	141	142	142	142	142	143	143	143	143	143	143	143	143	143	143	143	143	
7/1/2005	120	147	147	147	147	147	155	147	147	147	147	147	147	147	147	147	147		
7/1/2006	104	135	135	135	135	139	135	135	135	135	135	135	135	135	135	135			
7/1/2007	154	159	160	160	167	160	160	160	161	161	161	161	161	161	161				
7/1/2008	164	165	166	177	165	165	165	165	165	164	165	165	165	165					
7/1/2009	140	144	147	144	144	144	144	143	142	142	142	142	142						
7/1/2010	148	161	153	153	153	154	153	153	153	153	153	153							
7/1/2011	167	161	161	161	161	161	161	161	161	161	161								
7/1/2012	128	133	134	135	135	135	135	135	135	135									
7/1/2013	146	154	154	154	154	154	154	154	154										
7/1/2014	138	140	142	143	143	143	143	143											
7/1/2015	137	153	153	153	153	153	153												
7/1/2016	125	131	132	133	133	133													
7/1/2017	145	150	150	149	149														
7/1/2018	145	159	158	158															
7/1/2019	126	147	148																
7/1/2020	128	134																	
7/1/2021	115																		

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	0.960	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.013	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2004	0.944	0.986	0.993	0.993	0.993	0.993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/2005	0.816	1.000	1.000	1.000	1.000	1.000	1.054	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
7/1/2006	0.770	1.000	1.000	1.000	1.000	1.030	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
7/1/2007	0.957	0.988	0.994	0.994	1.037	0.994	0.994	0.994	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
7/1/2008	0.994	1.000	1.006	1.073	1.000	1.000	1.000	1.000	1.000	0.994	1.000	1.000	1.000	1.000					
7/1/2009	0.986	1.014	1.035	1.014	1.014	1.014	1.014	1.007	1.000	1.000	1.000	1.000	1.000						
7/1/2010	0.967	1.052	1.000	1.000	1.000	1.007	1.000	1.000	1.000	1.000	1.000	1.000							
7/1/2011	1.037	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000								
7/1/2012	0.948	0.985	0.993	1.000	1.000	1.000	1.000	1.000	1.000	1.000									
7/1/2013	0.948	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000										
7/1/2014	0.965	0.979	0.993	1.000	1.000	1.000	1.000	1.000											
7/1/2015	0.895	1.000	1.000	1.000	1.000	1.000	1.000												
7/1/2016	0.940	0.985	0.992	1.000	1.000	1.000													
7/1/2017	0.973	1.007	1.007	1.000	1.000														
7/1/2018	0.918	1.006	1.000	1.000															
7/1/2019	0.851	0.993	1.000																
7/1/2020	0.948	0.993																	
7/1/2021	0.913																		

City of Chandler
Workers' Compensation
Rate of Reported Count Frequency to Exposure (Payroll (per $1M)) - Excluding Closed Without Payments
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	143	150	149	149	149	149	149	149	151	149	149	149	149	149	149	149	149	149	149
7/1/2004	135	141	142	142	142	142	143	143	143	143	143	143	143	143	143	143	143	143	
7/1/2005	120	147	147	147	147	147	155	147	147	147	147	147	147	147	147	147	147		
7/1/2006	104	135	135	135	135	139	135	135	135	135	135	135	135	135	135	135			
7/1/2007	154	159	160	160	167	160	160	160	161	161	161	161	161	161	161				
7/1/2008	164	165	166	177	165	165	165	165	165	164	165	165	165	165					
7/1/2009	140	144	147	144	144	144	144	143	142	142	142	142	142						
7/1/2010	148	161	153	153	153	154	153	153	153	153	153	153							
7/1/2011	167	161	161	161	161	161	161	161	161	161	161								
7/1/2012	128	133	134	135	135	135	135	135	135	135									
7/1/2013	146	154	154	154	154	154	154	154	154										
7/1/2014	138	140	142	143	143	143	143	143											
7/1/2015	137	153	153	153	153	153	153												
7/1/2016	125	131	132	133	133	133													
7/1/2017	145	150	150	149	149														
7/1/2018	145	159	158	158															
7/1/2019	126	147	148																
7/1/2020	128	134																	
7/1/2021	115																		

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	1.729	1.814	1.802	1.802	1.802	1.802	1.802	1.802	1.826	1.802	1.802	1.802	1.802	1.802	1.802	1.802	1.802	1.802	1.802
7/1/2004	1.594	1.665	1.677	1.677	1.677	1.677	1.689	1.689	1.689	1.689	1.689	1.689	1.689	1.689	1.689	1.689	1.689	1.689	
7/1/2005	1.330	1.630	1.630	1.630	1.630	1.630	1.718	1.630	1.630	1.630	1.630	1.630	1.630	1.630	1.630	1.630	1.630		
7/1/2006	1.011	1.312	1.312	1.312	1.312	1.351	1.312	1.312	1.312	1.312	1.312	1.312	1.312	1.312	1.312	1.312			
7/1/2007	1.379	1.423	1.432	1.432	1.495	1.432	1.432	1.432	1.441	1.441	1.441	1.441	1.441	1.441	1.441				
7/1/2008	1.359	1.367	1.376	1.467	1.367	1.367	1.367	1.367	1.367	1.359	1.367	1.367	1.367	1.367					
7/1/2009	1.169	1.202	1.227	1.202	1.202	1.202	1.202	1.194	1.185	1.185	1.185	1.185	1.185						
7/1/2010	1.300	1.414	1.344	1.344	1.344	1.353	1.344	1.344	1.344	1.344	1.344	1.344							
7/1/2011	1.512	1.458	1.458	1.458	1.458	1.458	1.458	1.458	1.458	1.458	1.458								
7/1/2012	1.075	1.117	1.125	1.134	1.134	1.134	1.134	1.134	1.134	1.134									
7/1/2013	1.266	1.335	1.335	1.335	1.335	1.335	1.335	1.335	1.335										
7/1/2014	1.155	1.171	1.188	1.196	1.196	1.196	1.196	1.196											
7/1/2015	1.074	1.200	1.200	1.200	1.200	1.200	1.200												
7/1/2016	0.973	1.020	1.028	1.035	1.035	1.035													
7/1/2017	1.086	1.124	1.124	1.116	1.116														
7/1/2018	1.070	1.173	1.165	1.165															
7/1/2019	0.921	1.075	1.082																
7/1/2020	0.914	0.957																	
7/1/2021	0.805																		

City of Chandler
Workers' Compensation
Paid Losses & ALAE / Incurred Losses & ALAE - Limited to $75,000
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	0.609	0.918	0.944	0.923	0.950	0.968	0.968	0.968	0.968	0.972	0.972	0.972	0.972	0.959	0.960	0.972	0.985	0.986	0.986
7/1/2004	0.638	0.901	0.907	0.904	0.925	0.930	0.942	0.948	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/2005	0.918	0.895	0.901	0.894	0.939	0.955	0.966	0.977	0.987	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
7/1/2006	0.585	0.811	0.872	0.881	0.897	0.950	0.947	0.953	0.958	0.958	0.958	0.958	0.959	0.968	0.968	0.969			
7/1/2007	0.594	0.837	0.911	0.927	0.900	0.908	0.854	0.885	0.884	0.920	0.933	0.931	0.938	0.858	0.925				
7/1/2008	0.531	0.875	0.951	0.961	0.952	0.943	0.967	0.967	0.969	0.969	1.000	1.000	1.000	1.000					
7/1/2009	0.668	0.916	0.967	0.984	0.993	0.995	0.991	0.995	0.996	0.995	0.995	0.996	0.996						
7/1/2010	0.788	0.936	0.982	0.994	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000							
7/1/2011	0.590	0.900	0.961	0.980	0.994	0.991	0.995	0.996	0.996	0.997	0.997								
7/1/2012	0.561	0.750	0.877	0.969	0.911	0.961	0.995	1.000	1.000	1.000									
7/1/2013	0.465	0.761	0.962	0.969	0.991	0.995	1.000	0.999	0.998										
7/1/2014	0.536	0.909	0.980	0.991	1.000	1.000	1.000	1.000											
7/1/2015	0.583	0.846	0.945	0.943	0.949	0.954	0.954												
7/1/2016	0.540	0.795	0.958	1.000	1.000	1.000													
7/1/2017	0.502	0.903	0.956	0.957	0.958														
7/1/2018	0.638	0.771	0.877	0.922															
7/1/2019	0.598	0.892	0.896																
7/1/2020	0.442	0.835																	
7/1/2021	0.592																		

City of Chandler
Workers' Compensation
Closed Claim Counts / Reported Claim Counts - Excluding Closed Without Payments
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	0.643	0.867	0.980	0.973	0.973	0.980	0.987	0.993	0.980	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993
7/1/2004	0.563	0.979	0.979	0.979	0.986	0.986	0.986	0.986	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/2005	0.975	0.980	0.980	0.986	0.993	0.993	0.942	0.993	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.993	0.993		
7/1/2006	0.894	0.919	0.956	0.978	0.985	0.950	0.985	0.985	0.985	0.985	0.993	0.993	0.993	0.993	0.993	0.993			
7/1/2007	0.688	0.937	0.956	0.963	0.916	0.981	0.969	0.969	0.969	0.981	0.988	0.988	0.988	0.981	0.981				
7/1/2008	0.707	0.939	0.958	0.893	0.982	0.976	0.976	0.976	0.976	0.982	0.988	0.988	0.988	0.988					
7/1/2009	0.736	0.875	0.857	0.965	0.958	0.972	0.965	0.965	0.979	0.972	0.979	0.979	0.979						
7/1/2010	0.682	0.820	0.974	0.987	0.987	0.981	0.987	0.987	0.987	0.987	0.993	0.993							
7/1/2011	0.557	0.882	0.944	0.950	0.963	0.969	0.969	0.969	0.975	0.975	0.981								
7/1/2012	0.555	0.812	0.888	0.956	0.956	0.956	0.963	0.970	0.970	0.970									
7/1/2013	0.425	0.727	0.903	0.942	0.955	0.961	0.968	0.968	0.968										
7/1/2014	0.449	0.871	0.930	0.979	0.986	0.986	0.986	0.986											
7/1/2015	0.460	0.908	0.967	0.961	0.967	0.974	0.974												
7/1/2016	0.448	0.824	0.932	0.947	0.962	0.985													
7/1/2017	0.655	0.860	0.940	0.966	0.973														
7/1/2018	0.648	0.862	0.911	0.956															
7/1/2019	0.627	0.844	0.919																
7/1/2020	0.570	0.866																	
7/1/2021	0.730																		

City of Chandler
Workers' Compensation
Average Paid Losses & ALAE - Limited to $75,000 & Excluding Closed Without Payments
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	2,685	4,348	4,259	4,560	4,932	4,935	4,913	4,880	4,880	4,903	4,903	4,903	4,903	4,905	4,998	5,061	5,236	5,237	5,237
7/1/2004	3,637	3,890	4,154	4,262	4,324	4,350	4,371	4,410	4,348	4,348	4,348	4,348	4,348	4,349	4,349	4,349	4,349	4,349	
7/1/2005	1,715	3,514	3,838	4,102	4,135	4,210	4,262	4,311	4,415	4,480	4,480	4,480	4,480	4,480	4,480	4,449	4,449		
7/1/2006	2,250	3,743	4,118	4,183	4,157	4,430	4,399	4,349	4,375	4,375	4,344	4,344	4,345	4,386	4,387	4,390			
7/1/2007	3,314	4,139	4,590	4,192	3,894	3,795	3,858	4,105	4,223	4,263	4,272	4,320	4,351	4,405	4,749				
7/1/2008	2,776	3,927	3,917	3,914	3,775	3,896	3,994	3,994	4,005	4,006	4,138	4,138	4,143	4,143					
7/1/2009	7,844	10,066	10,113	9,054	9,198	9,060	9,128	9,418	9,361	9,419	9,355	9,350	9,349						
7/1/2010	6,605	7,067	6,400	6,334	6,402	6,403	6,403	6,403	6,403	6,403	6,361	6,361							
7/1/2011	7,060	7,340	7,284	7,456	7,433	7,396	7,423	7,428	7,388	7,394	7,347								
7/1/2012	4,343	6,826	7,162	6,676	6,971	7,734	7,977	8,162	8,162	8,162									
7/1/2013	8,319	10,443	10,233	9,887	10,060	9,996	9,930	9,950	10,022										
7/1/2014	8,997	7,605	7,486	7,063	7,024	7,024	7,024	7,024											
7/1/2015	6,646	6,498	6,748	6,801	6,992	6,982	6,982												
7/1/2016	8,873	9,194	9,798	10,033	9,876	9,650													
7/1/2017	6,350	8,623	7,788	7,630	7,642														
7/1/2018	5,510	6,074	6,581	6,587															
7/1/2019	6,506	7,480	7,136																
7/1/2020	8,073	9,899																	
7/1/2021	7,069																		

City of Chandler
Workers' Compensation
Average Incurred Losses & ALAE - Limited to $75,000 & Excluding Closed Without Payments
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	2,834	4,104	4,418	4,806	5,055	4,996	5,008	5,006	4,940	5,010	5,010	5,010	5,010	5,081	5,170	5,170	5,277	5,277	5,277
7/1/2004	3,208	4,227	4,482	4,613	4,611	4,611	4,574	4,587	4,348	4,348	4,348	4,348	4,348	4,349	4,349	4,349	4,349	4,349	
7/1/2005	1,822	3,846	4,171	4,526	4,373	4,380	4,155	4,381	4,415	4,419	4,419	4,419	4,419	4,419	4,419	4,419	4,419		
7/1/2006	3,438	4,240	4,512	4,642	4,564	4,427	4,578	4,498	4,499	4,499	4,499	4,499	4,499	4,499	4,499	4,499			
7/1/2007	3,839	4,633	4,821	4,352	3,963	4,100	4,374	4,492	4,627	4,548	4,522	4,583	4,583	5,039	5,039				
7/1/2008	3,697	4,216	3,944	3,635	3,895	4,030	4,030	4,030	4,030	4,057	4,088	4,088	4,092	4,092					
7/1/2009	8,637	9,614	8,961	8,880	8,877	8,856	8,893	9,133	9,198	9,197	9,199	9,193	9,192						
7/1/2010	5,723	6,193	6,348	6,288	6,319	6,286	6,319	6,319	6,319	6,319	6,319	6,319							
7/1/2011	6,665	7,193	7,153	7,233	7,197	7,230	7,230	7,230	7,232	7,232	7,232								
7/1/2012	4,295	7,390	7,251	6,581	7,311	7,694	7,720	7,920	7,920	7,920									
7/1/2013	7,603	9,979	9,601	9,611	9,687	9,651	9,608	9,633	9,720										
7/1/2014	7,547	7,290	7,104	6,976	6,925	6,925	6,925	6,925											
7/1/2015	5,243	6,975	6,904	6,928	7,127	7,127	7,127												
7/1/2016	7,359	9,540	9,526	9,505	9,505	9,505													
7/1/2017	8,291	8,216	7,661	7,706	7,762														
7/1/2018	5,600	6,786	6,837	6,827															
7/1/2019	6,820	7,076	7,322																
7/1/2020	10,425	10,259																	
7/1/2021	8,719																		

City of Chandler
Workers' Compensation
Average Open - Limited to $75,000
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	3,104	2,516	12,180	13,743	9,501	7,953	11,929	23,763	7,889	20,852	20,852	20,852	20,852	31,133	30,539	21,211	11,412	11,190	11,155
7/1/2004	2,656	19,769	19,672	20,880	24,664	22,844	18,836	17,103											
7/1/2005	5,997	19,817	20,166	35,285	39,231	29,166	2,417	14,581	4,376	0	0	0	0	0	0	0	0		
7/1/2006	13,482	9,842	12,994	24,840	31,607	4,369	16,464	14,422	12,738	12,734	25,254	25,246	25,140	19,527	19,515	19,072			
7/1/2007	4,997	11,984	9,858	8,440	4,710	20,051	20,367	16,492	17,256	19,542	24,411	25,440	23,037	38,420	20,312				
7/1/2008	5,925	8,691	4,542	1,313	10,336	9,459	5,502	5,500	5,075	6,772	0	0	0	0					
7/1/2009	10,844	6,453	2,049	4,056	1,486	1,716	2,354	1,270	1,650	1,551	1,979	1,931	1,921						
7/1/2010	3,827	2,213	4,424	2,811	0	417	0	0	0	0	0	0							
7/1/2011	6,168	6,093	4,944	2,961	1,095	2,054	1,211	1,033	1,094	867	1,155								
7/1/2012	4,235	9,823	7,963	4,547	14,607	6,831	1,036	0	0	0									
7/1/2013	7,075	8,742	3,745	5,164	1,848	1,146	0	170	715										
7/1/2014	6,365	5,153	2,065	2,917	0	0	0	0											
7/1/2015	4,049	11,713	11,537	10,037	11,102	12,504	12,504												
7/1/2016	6,130	11,166	5,801	0	0	0													
7/1/2017	11,979	5,716	5,680	9,912	12,118														
7/1/2018	5,765	11,224	9,469	12,014															
7/1/2019	7,350	4,898	9,430																
7/1/2020	13,547	12,578																	
7/1/2021	13,190																		

City of Chandler
Workers' Compensation
Average Unpaid Losses & ALAE - Limited to $75,000 & Excluding Closed Without Payments
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	9,461	11,635	54,839	31,276	17,776	21,908	32,006	64,076	63,981	60,584	60,584	60,627	60,627	60,407	46,527	37,199	11,412	11,190	11,155
7/1/2004	5,158	17,042	11,138	7,378	5,531	4,313	2,807	98											
7/1/2005	14,962	47,870	32,323	27,417	45,904	34,932	27,363	20,189	4,687	(0)	(0)	(0)	(0)	0	0	0	0		
7/1/2006	9,494	13,083	12,803	18,605	27,553	7,733	11,447	14,790	13,080	13,076	25,937	25,929	25,824	20,211	20,199	19,756			
7/1/2007	8,377	16,269	13,710	23,769	27,022	54,043	35,667	29,293	30,657	46,159	66,398	62,530	60,127	38,678	20,569				
7/1/2008	7,210	6,654	8,726	8,111	21,209	12,012	8,055	8,053	7,628	7,552	376	338	0	0					
7/1/2009	12,873	2,608	2,233	17,175	10,171	20,782	13,740	2,577	2,957	2,560	3,214	3,458	3,491						
7/1/2010	5,764	1,616	3,306	5,207	24	20	20	(0)	0	0	0	0							
7/1/2011	7,551	6,722	6,980	3,649	2,970	3,256	2,412	2,235	2,518	2,288	3,051								
7/1/2012	11,888	12,295	13,562	34,670	28,324	11,923	6,432	0	0	0									
7/1/2013	10,752	7,985	5,506	7,933	3,743	4,276	5,083	4,480	2,351										
7/1/2014	5,340	2,978	197	509	0	0	0	0											
7/1/2015	7,463	13,365	18,339	15,095	11,104	12,506	12,504												
7/1/2016	9,965	10,849	5,898	0	0	0													
7/1/2017	10,681	3,384	10,241	16,262	17,988														
7/1/2018	9,157	12,948	11,170	15,630															
7/1/2019	8,798	8,060	12,545																
7/1/2020	13,640	15,089																	
7/1/2021	16,720																		

City of Chandler
Workers' Compensation
IBNR / Case Reserve - Limited to $75,000
Based on Data as of June 30, 2022

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	2.41	3.39	3.50	1.28	0.87	1.75	1.68	1.70	1.70	1.91	1.91	1.91	1.91	0.94	0.52	0.75	0.00	0.00	0.00
7/1/2004	1.21	0.44	(0.25)	(0.53)	(0.66)	(0.72)	(0.85)	(0.99)											
7/1/2005	23.95	1.42	0.60	(0.22)	0.17	0.20	0.26	0.38	0.07										
7/1/2006	1.69	0.33	(0.01)	(0.25)	(0.13)	(0.24)	(0.30)	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04			
7/1/2007	0.92	0.63	0.59	2.29	2.28	2.59	1.10	1.13	0.78	1.36	1.72	1.46	1.61	0.01	0.01				
7/1/2008	0.24	(0.23)	0.65	1.28	1.05	0.27	0.46	0.46	0.50	0.49									
7/1/2009	0.25	(0.64)	(0.17)	1.54	3.56	5.05	2.50	0.62	0.79	0.65	0.62	0.79	0.82						
7/1/2010	0.67	(0.47)	(0.25)	0.85		(0.97)													
7/1/2011	0.12	0.10	0.41	0.23	1.71	0.58	0.99	1.16	1.30	1.64	1.64								
7/1/2012	2.15	0.35	0.82	6.63	0.94	0.75	5.21												
7/1/2013	0.66	(0.09)	0.47	0.54	1.03	2.73		25.37	2.29										
7/1/2014	(0.11)	(0.33)	(0.90)	(0.83)															
7/1/2015	1.24	0.14	0.59	0.50	0.00	0.00	0.00												
7/1/2016	0.81	0.06	0.13																
7/1/2017	(0.04)	(0.44)	0.60	0.64	0.48														
7/1/2018	0.99	0.10	0.18	0.30															
7/1/2019	0.76	0.72	0.33																
7/1/2020	0.13	0.27																	
7/1/2021	0.72																		

City of Chandler

Workers' Compensation

Increased Limit Factors - Losses & ALAE

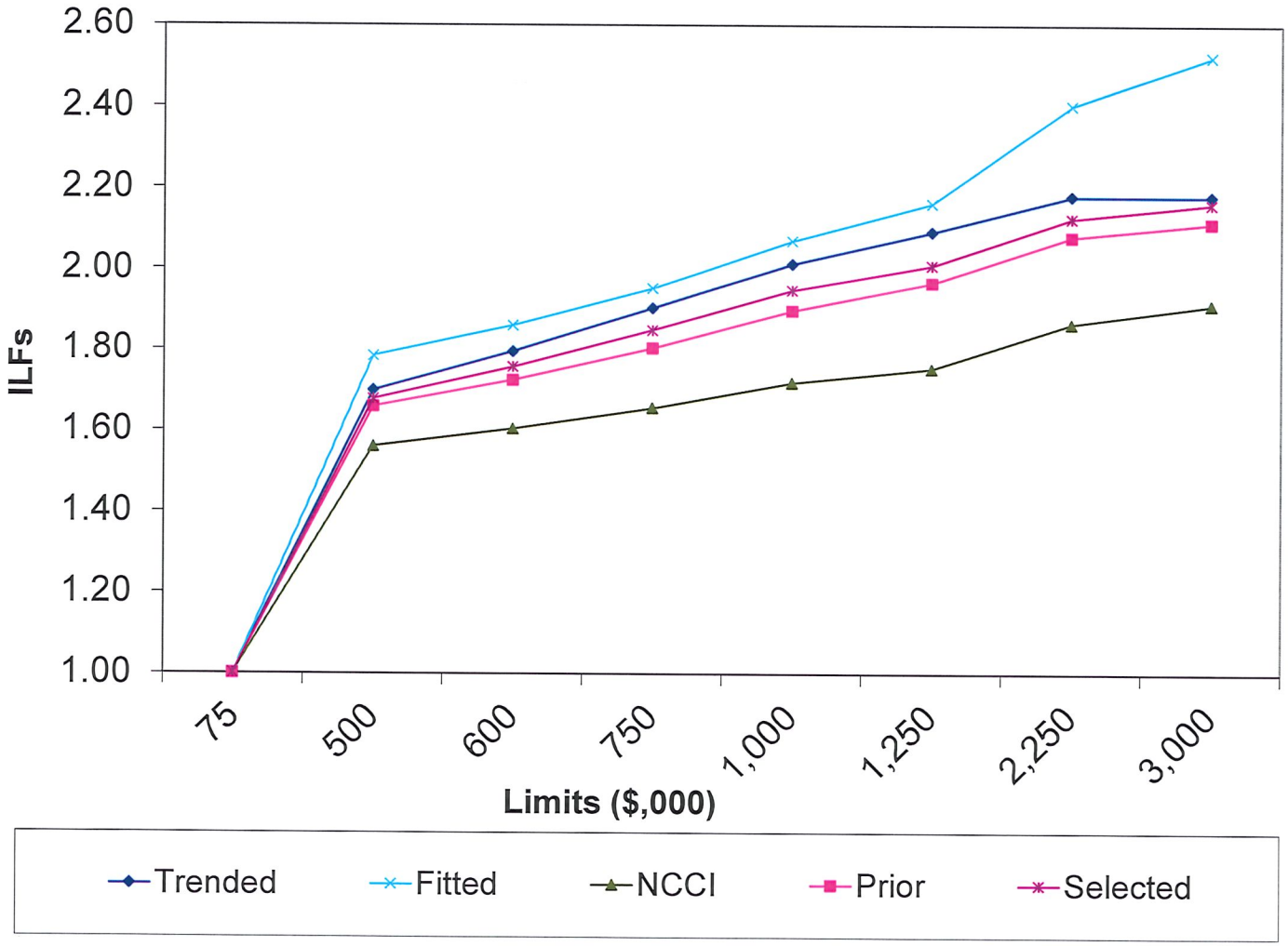
Based on Data as of June 30, 2022

	(1)	(2)	(3)	(4)	(5)
Limit	**Trended Incurred Losses**	**Fitted**	**NCCI**	**Prior**	**Selected**
75,000	1.000	1.000	1.000	1.000	**1.000**
500,000	1.698	1.783	1.560	1.659	**1.677**
600,000	1.794	1.858	1.604	1.724	**1.757**
750,000	1.902	1.950	1.655	1.803	**1.847**
1,000,000	2.011	2.069	1.718	1.896	**1.946**
1,250,000	2.091	2.161	1.753	1.965	**2.008**
2,250,000	2.179	2.404	1.863	2.079	**2.124**
3,000,000	2.179	2.522	1.910	2.114	**2.160**

Notes:

(1) assumed 2.5% annual severity trend
(2) fitted using a logarithmic distribution
(3) NCCI = National Council on Compensation Insurance
(4) from previous Oliver Wyman study
(5) selected

City of Chandler
Workers' Compensation
Increased Limit Factors - Losses & ALAE
Based on Data as of June 30, 2022



City of Chandler
Workers' Compensation
Data Summary
Based on Data as of June 30, 2022

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Exposures	Paid Losses & ALAE				Incurred Losses & ALAE				Claim Counts		
Policy Period	Self-Insured Retention (SIR) *	($1,000 Payroll)	Limited Paid to 75,000	Paid from Limit to SIR	Paid Excess of SIR	Unlimited Paid	Limited Incurred to 75,000	Incurred from Limit to SIR	Incurred Excess of SIR	Unlimited Incurred	Reported (ex. CWOP)	Closed With Payment	Closed Without Payment
1/1/2003 to 6/30/2003	500,000	38,782	478,631	592,888	75,256	1,146,775	478,631	607,311	283,030	1,368,972	63	61	10
7/1/2003 to 6/30/2004	500,000	82,686	775,127	42,947	0	818,073	786,281	46,975	0	833,257	149	148	11
7/1/2004 to 6/30/2005	500,000	84,675	621,971	29,762	0	651,732	621,971	29,762	0	651,732	143	143	7
7/1/2005 to 6/30/2006	500,000	90,201	649,576	331,232	0	980,808	649,576	375,446	0	1,025,022	147	146	12
7/1/2006 to 6/30/2007	500,000	102,877	588,244	11,852	0	600,096	607,316	11,852	0	619,168	135	134	7
7/1/2007 to 6/30/2008	500,000	111,710	750,292	37,799	0	788,091	811,227	261,867	0	1,073,094	161	158	6
7/1/2008 to 6/30/2009	500,000	120,668	675,237	489,381	0	1,164,618	675,237	622,433	0	1,297,670	165	163	15
7/1/2009 to 6/30/2010	500,000	119,800	1,299,526	189,303	0	1,488,829	1,305,287	447,411	0	1,752,699	142	139	5
7/1/2010 to 6/30/2011	500,000	113,843	966,822	489,739	602,601	2,059,163	966,822	489,739	1,253,417	2,709,979	153	152	12
7/1/2011 to 6/30/2012	500,000	110,414	1,160,847	744,537	0	1,905,384	1,164,313	1,064,999	347,758	2,577,070	161	158	12
7/1/2012 to 6/30/2013	600,000	119,088	1,069,226	1,060,436	0	2,129,662	1,069,226	1,263,175	28,185	2,360,586	135	131	19
7/1/2013 to 6/30/2014	600,000	115,348	1,493,243	907,343	0	2,400,586	1,496,818	1,179,702	370,014	3,046,534	154	149	8
7/1/2014 to 6/30/2015	600,000	119,528	990,329	470,984	0	1,461,313	990,329	1,091,893	334,213	2,416,436	143	141	9
7/1/2015 to 6/30/2016	600k / 1M	127,517	1,040,350	1,615,571	0	2,655,922	1,090,368	2,447,550	1,372,113	4,910,031	153	149	9
7/1/2016 to 6/30/2017	600k / 1M	128,452	1,264,190	370,554	0	1,634,744	1,264,190	459,570	0	1,723,760	133	131	9
7/1/2017 to 6/30/2018	600k / 1M	133,497	1,108,047	583,795	0	1,691,843	1,156,518	1,589,731	386,506	3,132,754	149	145	16
7/1/2018 to 6/30/2019	600k / 1.25M	135,570	994,592	55,593	0	1,050,185	1,078,690	524,317	0	1,603,007	158	151	8
7/1/2019 to 6/30/2020	600k / 1.25M	136,800	970,464	198,850	0	1,169,315	1,083,624	831,735	0	1,915,358	148	136	14
7/1/2020 to 6/30/2021	750k / 2.25M	140,084	1,148,306	280,639	0	1,428,945	1,374,718	1,207,536	0	2,582,253	134	116	5
7/1/2021 to 6/30/2022	1M / 3M	142,931	593,767	115,661	0	709,428	1,002,644	1,623,223	0	2,625,867	115	84	6
TOTALS		**2,274,469**	**18,638,786**	**8,618,868**	**677,857**	**27,935,512**	**19,673,786**	**16,176,226**	**4,375,235**	**40,225,248**	**2,841**	**2,735**	**200**

Notes:
(1) through (12) from City of Chandler
** Where two SIR's are displayed, the first is for non public safety employees and the second is for public safety employees.*

City of Chandler
Workers' Compensation
Large Loss Listing (Incurred ≥ $75,000)
Based on Data as of June 30, 2022

Claim Number	Accident Date	Claim Status	Self-Insured Retention (SIR)	(1) Limited Paid to 75,000	(2) Paid from Limit to SIR	(3) Paid Excess of SIR	(4) Unlimited Paid	(5) Unlimited Paid Change	(6) Limited Incurred to 75,000	(7) Incurred from Limit to SIR	(8) Incurred Excess of SIR	(9) Unlimited Incurred	(10) Unlimited Incurred Change
CN-03-0500003	1/3/2003	Closed	500,000	75,000	3,602	0	78,602	0	75,000	3,602	0	78,602	0
CN-03-0500013	2/12/2003	Open	500,000	75,000	425,000	75,256	575,256	44,276	75,000	425,000	283,030	783,030	24,013
CN-03-0500045	5/8/2003	Open	500,000	75,000	164,286	0	239,286	413	75,000	178,709	0	253,709	0
1/1/2003 to 6/30/2003 ; 3 claims ; 2 open				*225,000*	*592,888*	*75,256*	*893,144*	*44,689*	*225,000*	*607,311*	*283,030*	*1,115,341*	*24,013*
CN-04-0500041	10/2/2003	Closed	500,000	75,000	4,813	0	79,813	0	75,000	4,813	0	79,813	0
CN-04-0500099	3/8/2004	Open	500,000	63,845	0	0	63,845	35	75,000	4,028	0	79,028	0
CN-04-0500125	4/28/2004	Closed	500,000	75,000	38,134	0	113,134	0	75,000	38,134	0	113,134	0
7/1/2003 to 6/30/2004 ; 3 claims ; 1 open				*213,845*	*42,947*	*0*	*256,792*	*35*	*225,000*	*46,975*	*0*	*271,975*	*0*
CN-05-0500010	7/28/2004	Closed	500,000	75,000	29,762	0	104,762	0	75,000	29,762	0	104,762	0
7/1/2004 to 6/30/2005 ; 1 claim ; 0 open				*75,000*	*29,762*	*0*	*104,762*	*0*	*75,000*	*29,762*	*0*	*104,762*	*0*
CN-06-0500060	11/16/2005	Closed	500,000	75,000	85,341	0	160,341	0	75,000	85,341	0	160,341	0
CN-06-0500138	5/23/2006	Open	500,000	75,000	245,891	0	320,891	0	75,000	290,105	0	365,105	0
7/1/2005 to 6/30/2006 ; 2 claims ; 1 open				*150,000*	*331,232*	*0*	*481,232*	*0*	*150,000*	*375,446*	*0*	*525,446*	*0*
CN-07-0500083	2/22/2007	Closed	500,000	75,000	11,852	0	86,852	0	75,000	11,852	0	86,852	0
7/1/2006 to 6/30/2007 ; 1 claim ; 0 open				*75,000*	*11,852*	*0*	*86,852*	*0*	*75,000*	*11,852*	*0*	*86,852*	*0*
CN-08-0500045	9/7/2007	Open	500,000	75,000	13,791	0	88,791	6,197	75,000	213,920	0	288,920	0
CN-08-0500047	9/13/2007	Open	500,000	60,139	0	0	60,139	54,326	75,000	23,939	0	98,939	(26,837)
CN-08-0500153	5/16/2008	Closed	500,000	75,000	24,009	0	99,009	0	75,000	24,009	0	99,009	0
7/1/2007 to 6/30/2008 ; 3 claims ; 2 open				*210,139*	*37,799*	*0*	*247,939*	*60,523*	*225,000*	*261,867*	*0*	*486,867*	*(26,837)*
CN-09-0500034	9/3/2008	Closed	500,000	75,000	44,596	0	119,596	0	75,000	44,596	0	119,596	0
CN-09-0500085	12/18/2008	Open	500,000	75,000	343,899	0	418,899	3,591	75,000	397,998	0	472,998	0
CN-09-0500107	2/17/2009	Open	500,000	75,000	100,886	0	175,886	582	75,000	179,839	0	254,839	0
7/1/2008 to 6/30/2009 ; 3 claims ; 2 open				*225,000*	*489,381*	*0*	*714,381*	*4,173*	*225,000*	*622,433*	*0*	*847,433*	*0*
CN-10-0500009	7/17/2009	Open	500,000	75,000	30,160	0	105,160	3,290	75,000	178,998	0	253,998	0
CN-10-0500033	9/4/2009	Closed	500,000	75,000	7,866	0	82,866	0	75,000	7,866	0	82,866	0
CN-10-0500067	12/5/2009	Closed	500,000	75,000	35,293	0	110,293	0	75,000	35,293	0	110,293	0
CN-10-0500085	2/8/2010	Closed	500,000	75,000	18,413	0	93,413	0	75,000	18,413	0	93,413	0
CN-10-0500103	3/8/2010	Open	500,000	75,000	62,866	0	137,866	4,911	75,000	172,136	0	247,136	0
CN-10-0500104	3/11/2010	Closed	500,000	75,000	34,705	0	109,705	0	75,000	34,705	0	109,705	0
7/1/2009 to 6/30/2010 ; 6 claims ; 2 open				*450,000*	*189,303*	*0*	*639,303*	*8,200*	*450,000*	*447,411*	*0*	*897,411*	*0*
WC-001	7/28/2010	Open	500,000	75,000	425,000	602,601	1,102,601	31,945	75,000	425,000	1,253,417	1,753,417	0
CN-11-0500036	8/22/2010	Closed	500,000	75,000	37,715	0	112,715	0	75,000	37,715	0	112,715	0
CN-11-0500057	10/2/2010	Closed	500,000	75,000	1,945	0	76,945	0	75,000	1,945	0	76,945	0
CN-11-0500103	2/11/2011	Closed	500,000	75,000	25,079	0	100,079	0	75,000	25,079	0	100,079	0
7/1/2010 to 6/30/2011 ; 4 claims ; 1 open				*300,000*	*489,739*	*602,601*	*1,392,341*	*31,945*	*300,000*	*489,739*	*1,253,417*	*2,043,157*	*0*
CN-12-0500036	9/9/2011	Closed	500,000	75,000	246,800	0	321,800	0	75,000	246,800	0	321,800	0
CN-12-0500073	11/13/2011	Open	500,000	75,000	267,861	0	342,861	287	75,000	319,007	0	394,007	(5,881)
CN-10-000002	3/23/2012	Open	500,000	75,000	155,685	0	230,685	19,815	75,000	425,000	347,758	847,758	0
CN-12-0500139	4/19/2012	Closed	500,000	75,000	74,192	0	149,192	4,626	75,000	74,192	0	149,192	(158,992)
7/1/2011 to 6/30/2012 ; 4 claims ; 2 open				*300,000*	*744,537*	*0*	*1,044,537*	*24,729*	*300,000*	*1,064,999*	*347,758*	*1,712,757*	*(164,873)*

City of Chandler
Workers' Compensation
Large Loss Listing (Incurred ≥ $75,000)
Based on Data as of June 30, 2022

Claim Number	Accident Date	Claim Status	Self-Insured Retention (SIR)	(1) Limited Paid to 75,000	(2) Paid from Limit to SIR	(3) Paid Excess of SIR	(4) Unlimited Paid	(5) Unlimited Paid Change	(6) Limited Incurred to 75,000	(7) Incurred from Limit to SIR	(8) Incurred Excess of SIR	(9) Unlimited Incurred	(10) Unlimited Incurred Change
CN-13-005122	9/30/2012	Open	600,000	75,000	16,065	0	91,065	5,494	75,000	65,501	0	140,501	0
CN-13-005159	1/16/2013	Closed	600,000	75,000	65,458	0	140,458	0	75,000	65,458	0	140,458	0
CN-13-005205	3/19/2013	Open	600,000	75,000	147,548	0	222,548	15,133	75,000	254,972	0	329,972	0
CN-13-005252	5/2/2013	Open	600,000	75,000	502,842	0	577,842	12,432	75,000	525,000	28,185	628,185	(670,606)
CN-13-005314	5/8/2013	Closed	600,000	75,000	170,745	0	245,745	0	75,000	170,745	0	245,745	0
CN-13-005281	5/20/2013	Open	600,000	75,000	2,417	0	77,417	256	75,000	26,137	0	101,137	0
CN-13-005273	5/22/2013	Closed	600,000	75,000	155,360	0	230,360	0	75,000	155,360	0	230,360	0
7/1/2012 to 6/30/2013 ; 7 claims ; 4 open				*525,000*	*1,060,436*	*0*	*1,585,436*	*33,315*	*525,000*	*1,263,175*	*28,185*	*1,816,360*	*(670,606)*
CN-14-005049	8/20/2013	Closed	600,000	75,000	467	0	75,467	0	75,000	467	0	75,467	0
CN-14-005093	10/17/2013	Open	600,000	75,000	184,300	0	259,300	725	75,000	197,469	0	272,469	0
CN-14-005197	2/19/2014	Open	600,000	75,000	73,425	0	148,425	3,687	75,000	84,515	0	159,515	12,678
CN-14-005202	2/28/2014	Closed	600,000	75,000	38,249	0	113,249	0	75,000	38,249	0	113,249	0
CN-14-005319	5/12/2014	Open	600,000	75,000	143,941	0	218,941	15,411	75,000	334,002	0	409,002	0
CN-14-005344	6/13/2014	Open	600,000	75,000	466,961	0	541,961	14,178	75,000	525,000	370,014	970,014	0
7/1/2013 to 6/30/2014 ; 6 claims ; 4 open				*450,000*	*907,343*	*0*	*1,357,343*	*34,001*	*450,000*	*1,179,702*	*370,014*	*1,999,716*	*12,678*
CN-15-005102	10/1/2014	Closed	600,000	75,000	41,893	0	116,893	0	75,000	41,893	0	116,893	0
CN-15-005139	10/28/2014	Open	600,000	75,000	229,703	0	304,703	34,057	75,000	525,000	161,640	761,640	0
CN-15-005142	10/31/2014	Open	600,000	75,000	199,387	0	274,387	34,056	75,000	525,000	172,573	772,573	0
7/1/2014 to 6/30/2015 ; 3 claims ; 2 open				*225,000*	*470,984*	*0*	*695,984*	*68,113*	*225,000*	*1,091,893*	*334,213*	*1,651,106*	*0*
CN-16-005088	10/12/2015	Open	1,000,000	75,000	167,870	0	242,870	14,937	75,000	559,550	0	634,550	0
CN-16-005145	10/30/2015	Open	1,000,000	24,982	0	0	24,982	0	75,000	20,280	0	95,280	0
CN-16-005314	4/23/2016	Open	1,000,000	75,000	731,160	0	806,160	86,414	75,000	925,000	646,939	1,646,939	8,736
CN-16-005324	5/5/2016	Closed	1,000,000	75,000	17,720	0	92,720	0	75,000	17,720	0	92,720	0
CN-16-005347	5/18/2016	Open	1,000,000	75,000	698,821	0	773,821	24,519	75,000	925,000	725,174	1,725,174	79,043
7/1/2015 to 6/30/2016 ; 5 claims ; 4 open				*324,982*	*1,615,571*	*0*	*1,940,554*	*125,870*	*375,000*	*2,447,550*	*1,372,113*	*4,194,663*	*87,779*
CN-17-005049	8/16/2016	Open	1,000,000	75,000	21,773	0	96,773	2,030	75,000	43,014	0	118,014	0
CN-17-005102	9/29/2016	Closed	1,000,000	75,000	31,553	0	106,553	0	75,000	31,553	0	106,553	(12,630)
CN-17-005110	10/14/2016	Closed	600,000	75,000	1,270	0	76,270	0	75,000	1,270	0	76,270	0
CN-17-005137	11/9/2016	Open	1,000,000	75,000	75,584	0	150,584	3,783	75,000	143,358	0	218,358	0
CN-17-005202	12/29/2016	Closed	1,000,000	75,000	20,852	0	95,852	0	75,000	20,852	0	95,852	0
CN-17-005440	4/3/2017	Closed	1,000,000	75,000	119,323	0	194,323	0	75,000	119,323	0	194,323	(35,949)
CN-17-005633	4/20/2017	Closed	1,000,000	75,000	80,289	0	155,289	0	75,000	80,289	0	155,289	(378,703)
CN-17-005508	5/10/2017	Closed	1,000,000	75,000	19,912	0	94,912	0	75,000	19,912	0	94,912	0
7/1/2016 to 6/30/2017 ; 8 claims ; 2 open				*600,000*	*370,554*	*0*	*970,554*	*5,813*	*600,000*	*459,570*	*0*	*1,059,570*	*(427,283)*
CN-18-005172	9/28/2017	Closed	1,000,000	75,000	21,574	0	96,574	0	75,000	21,574	0	96,574	(2,770)
CN-18-005210	10/26/2017	Closed	1,000,000	75,000	2,131	0	77,131	0	75,000	2,131	0	77,131	0
CN-18-005237	11/9/2017	Closed	1,000,000	75,000	7,283	0	82,283	0	75,000	7,283	0	82,283	0
CN-18-005238	11/14/2017	Closed	1,000,000	75,000	40,763	0	115,763	0	75,000	40,763	0	115,763	0
CN-18-005344	12/8/2017	Open	1,000,000	40,106	0	0	40,106	5,854	75,000	18,086	0	93,086	0
CN-18-005439	3/6/2018	Open	1,000,000	75,000	147,714	0	222,714	39,355	75,000	574,894	0	649,894	22,540
CN-18-005455	3/6/2018	Open	1,000,000	75,000	364,330	0	439,330	37,009	75,000	925,000	386,506	1,386,506	0
7/1/2017 to 6/30/2018 ; 7 claims ; 3 open				*490,106*	*583,795*	*0*	*1,073,901*	*82,218*	*525,000*	*1,589,731*	*386,506*	*2,501,236*	*19,770*

City of Chandler
Workers' Compensation
Large Loss Listing (Incurred ≥ $75,000)
Based on Data as of June 30, 2022

Claim Number	Accident Date	Claim Status	Self-Insured Retention (SIR)	(1) Limited Paid to 75,000	(2) Paid from Limit to SIR	(3) Paid Excess of SIR	(4) Unlimited Paid	(5) Unlimited Paid Change	(6) Limited Incurred to 75,000	(7) Incurred from Limit to SIR	(8) Incurred Excess of SIR	(9) Unlimited Incurred	(10) Unlimited Incurred Change
CN-19-005032	7/20/2018	Open	600,000	75,000	18,762	0	93,762	110	75,000	26,367	0	101,367	0
CN-19-005106	9/4/2018	Closed	1,250,000	75,000	10,054	0	85,054	0	75,000	10,054	0	85,054	0
CN-19-005526	5/2/2019	Open	1,250,000	75,000	26,777	0	101,777	46,932	75,000	72,261	0	147,261	50,495
CN-19-005522	5/29/2019	Open	1,250,000	51,246	0	0	51,246	13,358	75,000	407,627	0	482,627	0
CN-19-005523	6/21/2019	Open	600,000	35,519	0	0	35,519	204	75,000	8,008	0	83,008	0
7/1/2018 to 6/30/2019 ; 5 claims ; 4 open				*311,765*	*55,593*	*0*	*367,358*	*60,604*	*375,000*	*524,317*	*0*	*899,317*	*50,495*
CN-20-005053	9/5/2019	Open	1,250,000	75,000	123,269	0	198,269	21,997	75,000	146,684	0	221,684	(26,909)
CN-20-005093	9/25/2019	Open	1,250,000	75,000	19,824	0	94,824	17,625	75,000	39,664	0	114,664	(34,289)
CN-20-005089	10/10/2019	Open	1,250,000	71,563	0	0	71,563	3,859	75,000	13,017	0	88,017	5,000
CN-20-005167	1/27/2020	Open	1,250,000	75,000	27,297	0	102,297	10,083	75,000	34,114	0	109,114	1,959
CN-20-005223	1/27/2020	Open	1,250,000	75,000	28,460	0	103,460	43,125	75,000	590,521	0	665,521	582,126
CN-22-005178	4/21/2020	Open	1,250,000	5,390	0	0	5,390	5,390	75,000	7,734	0	82,734	82,734
7/1/2019 to 6/30/2020 ; 6 claims ; 6 open				*376,953*	*198,850*	*0*	*575,804*	*102,079*	*450,000*	*831,735*	*0*	*1,281,735*	*610,621*
CN-21-005075	7/15/2020	Open	2,250,000	75,000	7,982	0	82,982	42,407	75,000	14,843	0	89,843	15,233
CN-21-005129	12/7/2020	Closed	2,250,000	75,000	84,398	0	159,398	810	75,000	84,398	0	159,398	(25,459)
CN-21-005148	12/27/2020	Open	2,250,000	75,000	188,259	0	263,259	239,457	75,000	1,085,690	0	1,160,690	54,654
CN-21-005168	2/11/2021	Open	2,250,000	30,284	0	0	30,284	14,295	75,000	2,048	0	77,048	444
CN-21-005173	2/19/2021	Open	2,250,000	73,166	0	0	73,166	33,143	75,000	6,044	0	81,044	32,907
CN-21-005190	3/11/2021	Open	2,250,000	72,048	0	0	72,048	13,380	75,000	14,513	0	89,513	(17,838)
7/1/2020 to 6/30/2021 ; 6 claims ; 5 open				*400,498*	*280,639*	*0*	*681,138*	*343,491*	*450,000*	*1,207,536*	*0*	*1,657,536*	*59,941*
CN-22-005061	9/15/2021	Open	2,250,000	28,603	0	0	28,603	28,603	75,000	62,002	0	137,002	137,002
CN-22-005123	12/3/2021	Open	2,250,000	75,000	115,661	0	190,661	190,661	75,000	1,439,607	0	1,514,607	1,514,607
CN-22-005129	12/15/2021	Open	2,250,000	5,342	0	0	5,342	5,342	75,000	37,721	0	112,721	112,721
CN-22-005133	1/8/2022	Open	2,250,000	61,623	0	0	61,623	61,623	75,000	70,509	0	145,509	145,509
CN-22-005221	4/20/2022	Open	2,250,000	38,787	0	0	38,787	38,787	75,000	13,385	0	88,385	88,385
7/1/2021 to 6/30/2022 ; 5 claims ; 5 open				*209,355*	*115,661*	*0*	*325,016*	*325,016*	*375,000*	*1,623,223*	*0*	*1,998,223*	*1,998,223*
TOTALS ; 88 claims ; 52 open				6,137,643	8,618,868	677,857	15,434,369	1,354,813	6,600,000	16,176,226	4,375,235	27,151,462	1,573,922

Notes:
(1) through (10) from City of Chandler

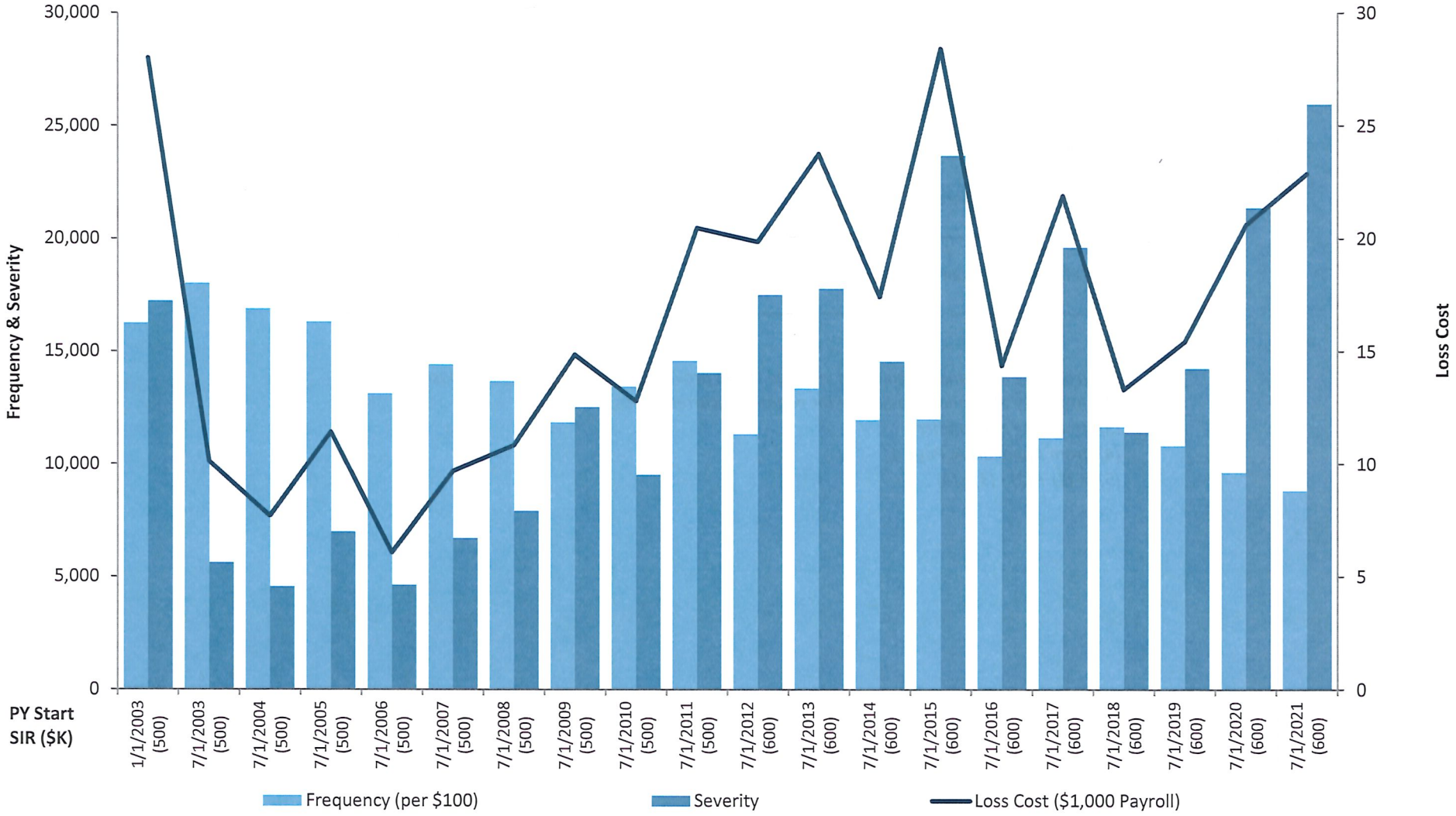
City of Chandler
Workers' Compensation
Losses & ALAE Reconciliation
Based on Data as of June 30, 2022

		Paid	Incurred
(1)	Loss Run 1 - Unlimited	27,935,093	40,224,829
(2)	Manual Adjustment	419	419
(3)	Amounts Excess of SIR	677,857	4,375,235
(4)	OW Analysis - Retained	27,257,655	35,850,012
(5)	Difference - Retained	0	0

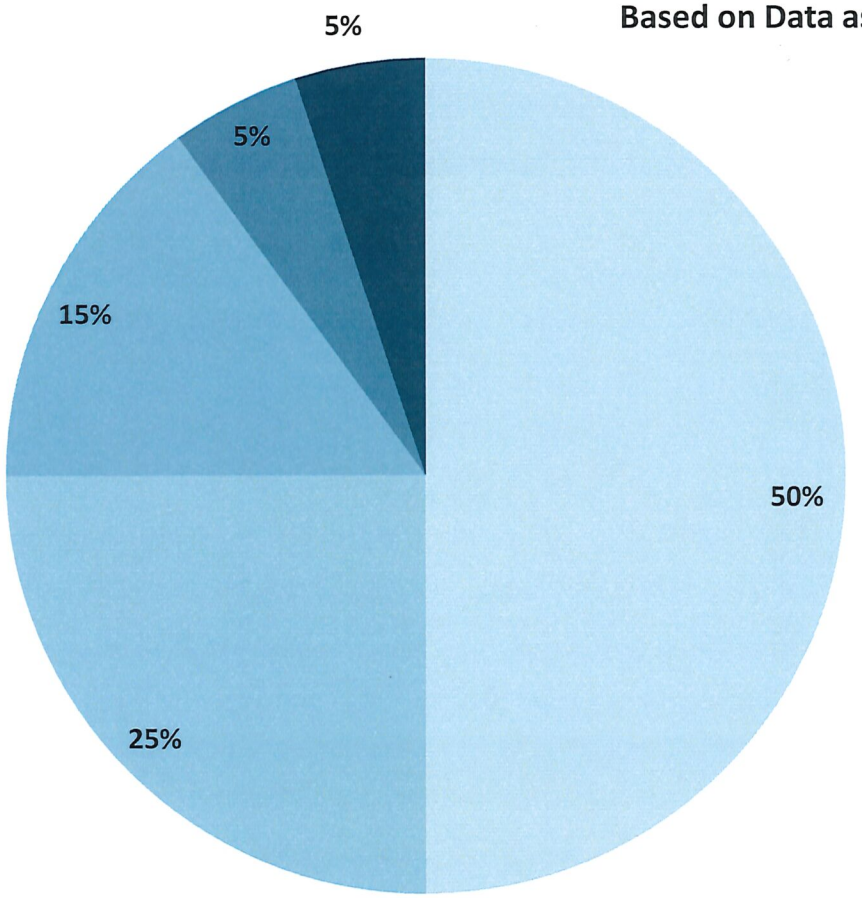
Notes:

(1) from City of Chandler; paid and incurred losses provided on a net of recoveries basis
(2) from City of Chandler; adjusted for negative incurred losses
(3) from City of Chandler
(4) from Appendix A, Page 1
(5) = (1) + (2) - (3) - (4)

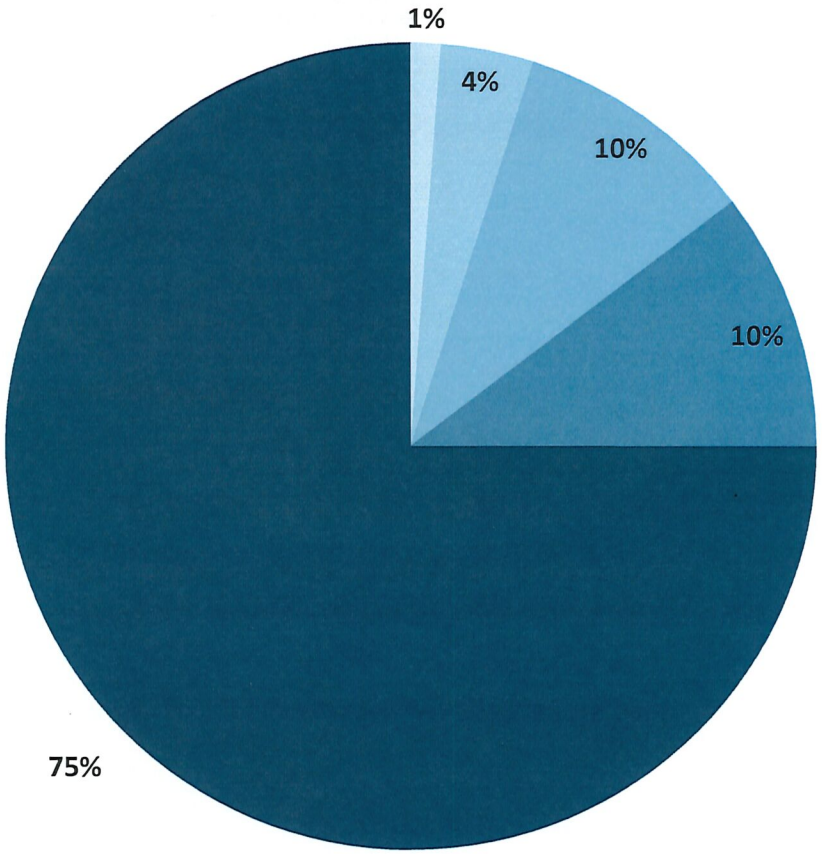
City of Chandler
Workers' Compensation
Ultimate Frequency, Severity & Loss Cost @ SIR
Based on Data as of June 30, 2022



City of Chandler
Workers' Compensation
Layer Distribution
Based on Data as of June 30, 2022



Reported Count Distribution



Unlimited Incurred Dollar Distribution

< 931 | 931 - 4,047 | 4,047 - 19,769 | 19,769 - 43,883 | > 43,883

OliverWyman

Oliver Wyman
633 West Fifth Street, Suite 1200
Los Angeles, CA 90071

Workers' Compensation And Employer Liability Trust Board Human Resources Memo No.

Date: 02/02/2023
To: Workers' Compensation And Employer Liability Trust Board
From: Teresa Canjar, Management Assistant
Subject: **Financial Audit Report - Heinfeld Meech**

Attachments

Financial Statements
Communication to Governance

Chandler Worker's Compensation and Employer Liability Trust
Financial Statements and
Report on Internal Control and on Compliance
Year Ended June 30, 2022

CHANDLER WORKER'S COMPENSATION
AND EMPLOYER LIABILITY TRUST
JUNE 30, 2022

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Report on Internal Control and on Compliance	20

Independent Auditor's Report

Board of Trustees
Chandler Worker's Compensation and Employer Liability Trust

Report on Audit of Financial Statements

Opinion

We have audited the accompanying financial statements of the Chandler Worker's Compensation and Employer Liability Trust (Trust), an internal service fund of the City of Chandler, Arizona, as of and for the year ended June 30, 2022, and the related notes to the financial statements, as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of the Chandler Worker's Compensation and Employer Liability Trust, as of June 30, 2022, and the changes in financial position and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are required to be independent of Chandler Worker's Compensation and Employer Liability Trust and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Emphasis of Matter – Fund Financial Statements

As discussed in Note 1A, the financial statements of the Chandler Worker's Compensation and Employer Liability Trust, an internal service fund of the City of Chandler, Arizona, are intended to present the financial position, the changes in financial position, and the cash flows of only that portion of the City of Chandler, Arizona, that is attributable to the transactions of the Chandler Worker's Compensation and Employer Liability Trust. They do not purport to, and do not present fairly the financial position of the City of Chandler, Arizona, as of June 30, 2022, the changes in its financial position, or, where applicable, its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Responsibilities of Management for the Financial Statements
Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities for the Audit of the Financial Statements
Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements. In performing an audit in accordance with generally accepted auditing standards and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Trust's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Other Matters
Required Supplementary Information
Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, as listed in the table of contents, be presented to supplement the financial statements. Such information is the responsibility of management and, although not a part of the financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 8, 2022, on our consideration of Chandler Worker's Compensation and Employer Liability Trust's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Chandler Worker's Compensation and Employer Liability Trust's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Chandler Worker's Compensation and Employer Liability Trust's internal control over financial reporting and compliance.

Heinfeld Meech & Co. PC

Heinfeld, Meech & Co, P.C.
Tucson, Arizona
December 8, 2022

MANAGEMENT'S DISCUSSION AND ANALYSIS (MD&A)
(Required Supplementary Information)

As management of the Chandler Worker's Compensation and Employer Liability Trust (Trust), we offer readers of the Trust's financial statements this narrative overview and analysis of the financial activities of the Trust for the year ended June 30, 2022. The management's discussion and analysis is presented as required supplementary information to provide additional explanation to the financial statements.

FINANCIAL HIGHLIGHTS

- The Trust's total net position increased $854,034 primarily due to a decrease of $1.2 million in claims and related adjustments incurred.
- Operating revenues of $4.4 million consist of employer premium contributions.
- The Trust had approximately $3.9 million in operating expenses, consisting primarily of $2.2 million of claims incurred, ($504,080) in claim adjustments attributable to the decreased IBNR liability, and $549,681 in claim adjustments attributable to an increase in case reserves.

OVERVIEW OF FINANCIAL STATEMENTS

This discussion and analysis are intended to serve as an introduction to the Trust's financial statements.

The statement of net position presents information on all of the Trust's assets, liabilities, and deferred inflows/outflows of resources with the difference reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Trust is improving or deteriorating.

The statement of revenues, expenses, and changes in net position presents information showing how the Trust's net position changed during the most recent fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future fiscal periods.

The statement of cash flows outlines the cash inflows and outflows related to the operation of the Trust for the year ended. As discussed more thoroughly in Note 1 to the financial statements, the operations of the Trust are accounted as an element of the City of Chandler's internal service funds. As a result, only the financial statements required for the financial activity of the Trust are presented.

OVERVIEW OF FINANCIAL STATEMENTS

Notes to the financial statements. The notes provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes to the financial statements can be found immediately following the financial statements.

FINANCIAL ANALYSIS

Net position may serve over time as a useful indicator of a government's financial position. In the case of the Trust, assets exceeded liabilities by $4.9 million at the current fiscal year end.

The following table presents a summary of the Trust's net position for the fiscal year ended June 30, 2022 and 2021.

	As of June 30, 2022	As of June 30, 2021
Current assets	$ 15,452,567	$ 14,606,949
Total assets	15,452,567	14,606,949
Current liabilities	4,294,445	4,330,221
Noncurrent liabilities	6,302,617	6,275,257
Total liabilities	10,597,062	10,605,478
Net position:		
Unrestricted	4,855,505	4,001,471
Total net position	$ 4,855,505	$ 4,001,471

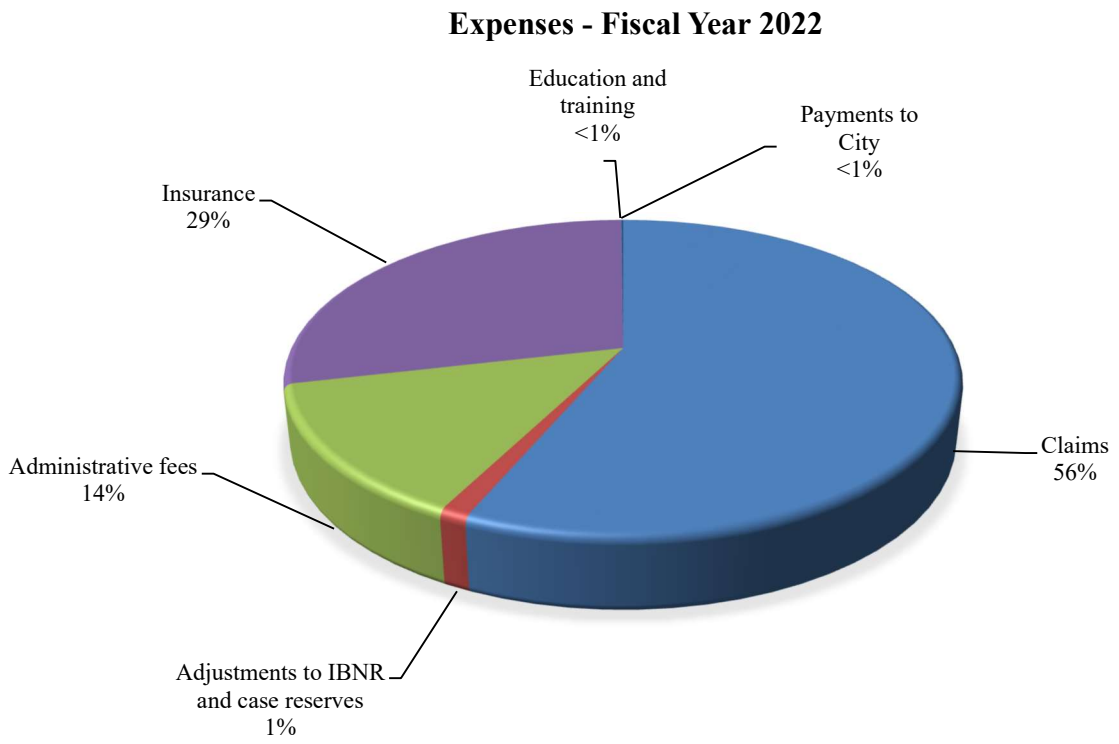
At the end of the current fiscal year, the Trust reported a positive balance in net position. The same situation held true for the prior fiscal year. The Trust's financial position is the product of several financial transactions, including the net results of activities. The increase in total assets of $845,618 is primarily due to larger cash balances as a result of decreased claims expenses and related adjustments. Total liabilities decreased $8,416.

FINANCIAL ANALYSIS

Changes in net position. The Trust's total revenues for the current fiscal year were $4.8 million. The total expenses were $3.9 million. The following table presents a summary of the changes in net position for the fiscal year ended June 30, 2022 and 2021.

	Fiscal Year Ended June 30, 2022	Fiscal Year Ended June 30, 2021
Revenues:		
Operating revenues:		
Contributions	$ 4,448,476	$ 4,581,388
Other		10,452
Nonoperating revenues:		
Cost reimbursement from Municipal Utilities	58,922	57,286
Funding assistance from City	676,429	
Investment income/loss	(422,867)	25,080
Total revenues	4,760,960	4,674,206
Expenses:		
Operating expenses:		
Claims	2,204,720	1,836,434
Adjustments to IBNR and case reserves	45,601	1,663,047
Administrative fees	538,103	494,762
Insurance	1,114,018	379,837
Education and training	639	503
Nonoperating expenses:		
Payments to City	3,845	3,845
Total expenses	3,906,926	4,378,428
Changes in net position	854,034	295,778
Net position, beginning	4,001,471	3,705,693
Net position, ending	$ 4,855,505	$ 4,001,471

FINANCIAL ANALYSIS



The following are significant current year transactions that had an impact on the change in net position:

- The funding contribution from the City of $676,429 used for the Municipal Firefighter Cancer Reimbursement Fund administered by the Industrial Commission of Arizona.
- Investment losses of $422,867 due to market conditions.
- The decrease in the IBNR liability of $504,080, and the increase in case reserves of $549,681.

CLAIMS PAYABLE

The actuarial analysis completed as of June 30, 2022 projected $1.9 million as claims incurred but not reported (IBNR) and $8.6 million as case reserves. Therefore as of June 30, 2022, the Trust had $10.5 million in total claims payable liability. Additional information on the Trust's claims payable can be found in Note 3.

ECONOMIC FACTORS, RESERVE LEVELS AND NEXT YEAR'S RATES

The Trust's Board reviews rates and reserve levels annually and considered many factors to develop the contribution rates for the fiscal year ended June 30, 2022. The primary factor was keeping rates affordable while ensuring reserves are sufficient to maintain the health of the Trust, which requires reviews of the claim history to determine ongoing obligations versus one-time payouts. While the Self Insured Retention (SIR) increased from $750,000 to $1.0 million and from $2.25 million to $3.0 million for public safety, the ongoing workers compensation contribution did not change for fiscal year 2022-23.

The Trust's governing document provides that the Trust Board shall set rates to maintain a restricted reserve at no less than the minimum (or nominal) amount recommended and attested by the actuarial analysis completed annually. This analysis helps measure that the Trust is funded to the appropriate level by projecting the unpaid loss and allocated loss adjustment expense (Loss+ALAE) for all prior self-funded fiscal years (beginning January 1, 2003) and the projected ultimate Loss+ALAE for the policy period 7/1/22-6/30/23. The Trust document requires the reserve to be no less than the minimum or nominal value. The actuarial analysis projected these levels as follows:

	Nominal "Central" Value
Estimated Unpaid Losses & ALAE	$10,504,362
Projected Ultimate Losses & ALAE	2,907,000
Reserve Goal Based on 6/30/22 Actuarial Report	$13,411,362

Note: The Reserve Goal includes the IBNR and case reserves that have been recognized in the audited financial statements.

In comparing the audited Net Position as of June 30, 2022 without the IBNR and case reserves (Estimated Unpaid Losses & ALAE) ($4,855,505 + $10,504,362 = $15,359,867) to the Nominal Value Reserve Goal based on the June 30, 2022 actuarial report, the Trust reserve level is $1,948,505 above the goal as of year-end. The Trust Board and City Council approved no change to the ongoing contribution for fiscal year 2022-23.

CONTACTING THE TRUST'S FINANCIAL MANAGEMENT

This financial report is designed to provide our citizens, taxpayers, and investors and creditors with a general overview of the Trust's finances and to demonstrate the Trust's accountability for the resources it receives. If you have questions about this report or need additional information, contact the Management Services Department, Chandler Worker's Compensation and Employer Liability Trust, 175 South Arizona Avenue, 3rd Floor, Chandler, Arizona 85225.

CHANDLER WORKER'S COMPENSATION
AND EMPLOYER LIABILITY TRUST
STATEMENT OF NET POSITION
JUNE 30, 2022

Assets	
Current assets:	
Cash and investments	$ 14,444,573
Due from City - premiums	983,185
Accrued investment income	24,809
Total assets	15,452,567
Liabilities	
Current liabilities:	
Claims payable, current	4,241,745
Accounts payable	6,225
Accrued payroll	16,334
Compensated absences payable	30,141
Total current liabilities	4,294,445
Noncurrrent liabilities:	
Claims payable, long term	6,302,617
Total noncurrent liabilities	6,302,617
Total liabilities	10,597,062
Net position	
Unrestricted	$ 4,855,505

The notes to the financial statements are an integral part of this statement.

CHANDLER WORKER'S COMPENSATION
AND EMPLOYER LIABILITY TRUST
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
FOR THE YEAR ENDED JUNE 30, 2022

Operating revenues:	
Contributions:	
Employer self insurance premiums	$ 4,448,476
Total operating revenues	4,448,476
Operating expenses:	
Claims	2,204,720
Adjustment to claims incurred but not reported	(504,080)
Adjustment to case reserves	549,681
Personnel services	476,173
Professional services	49,399
Operating supplies	12,214
Communication and transportation	317
Excess insurance	392,736
Premium insurance	44,853
Other insurance	676,429
Education and training	639
Total operating expenses	3,903,081
Operating income (loss)	545,395
Nonoperating revenues (expenses):	
Investment income (loss)	(422,867)
Payments to City	(3,845)
Funding assistance from City	676,429
Cost reimbursements from Municipal Utilities	58,922
Total nonoperating revenues (expenses)	308,639
Change in net position	854,034
Net position, beginning of year	4,001,471
Net position, end of year	$ 4,855,505

 The notes to the financial statements are an integral part of this statement.

CHANDLER WORKER'S COMPENSATION
AND EMPLOYER LIABILITY TRUST
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED JUNE 30, 2022

Increase/Decrease in Cash and Cash Equivalents

Cash flows from operating activities:	
Cash received for premiums	$ 4,159,535
Cash payments for claims	(2,199,262)
Cash payments to suppliers for other services	(1,241,685)
Cash payments to employees for services	(470,550)
Net cash provided by/used for operating activities	248,038
Cash flows from non-capital financing activities:	
Cash paid to City for technology replacement	(3,845)
Cash received from the City for other purposes	735,351
Net cash provided by/used for non-capital financing activities	731,506
Cash flows from investing activities:	
Investment income	(430,193)
Proceeds from sales of investments	2,258,121
Purchases of investments	(2,807,472)
Net cash provided by/used for investing activities	(979,544)
Net increase/decrease in cash and cash equivalents	-
Cash and cash equivalents, beginning of year	-
Cash and cash equivalents, end of year	$ -

Reconciliation of operating income/loss to cash provided by/used for operating activities:

Operating income/loss	$ 545,395
Adjustments to reconcile operating income/loss to net cash provided by/used for operating activities:	
Changes in assets and liabilities:	
Increase/decrease in due from City	(288,941)
Increase/decrease in claims payable	51,059
Increase/decrease in accounts payable	(12,350)
Increase/decrease in miscellaneous payables	(52,748)
Increase/decrease in accrued payroll	3,749
Increase/decrease in compensated absences	1,874
Net cash provided by/used for operating activities	$ 248,038

Reconciliation of Cash and Cash Equivalents to the Statement of Net Position:

Cash and cash equivalents	$ -
Investments	14,444,573
Cash and investments	$ 14,444,573

The notes to the financial statements are an integral part of this statement.

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The financial statements of the Chandler Worker's Compensation and Employer Liability Trust (Trust) have been prepared in conformity with accounting principles generally accepted in the United States of America as applied to government units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles.

The more significant of the Trust's accounting policies are described below.

A. Reporting Entity

The Trust is accounted for as an internal service fund of the City of Chandler, Arizona (City), and the ultimate financial accountability for the Trust remains with the City. General risk management is a responsibility of the City. Additional information about the City is reported in the City's Annual Comprehensive Financial Report.

The Trust was organized in February 2013 for the purpose of funding work-related injuries to eligible City employees and elected officials. The financial statements present only the Chandler Worker's Compensation and Employer Liability Trust as one of the internal service funds of the City of Chandler and are not intended to present the balances and activity of all City internal service funds or the City in its entirety.

The Chandler Worker's Compensation and Employer Liability Trust Board (Board) consists of five trustees. No Trustee may be a member of the City's Council and no more than one Trustee may be an employee of the City. No former member of the City's Council or former employee of the City shall be a Trustee.

B. Measurement Focus and Basis of Accounting

The financial statements are reported using the economic resources measurement focus and accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when incurred, regardless of the timing of related cash flows. Operating revenues and expenses are distinguished from nonoperating items. Operating revenues generally consist of employer premiums and other related revenues, while operating expenses are primarily the payment of claims and administration costs of operating the Trust. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

C. Cash and Investments

For purposes of the Statement of Cash Flows, the Trust considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents.

The Board adopted a resolution to cause the assets of the Trust to be invested, consistent with the City of Chandler Investment Policy. The Trust's investments are stated at fair value. Fair value is based on quoted market prices as of the valuation date.

Arizona statute requires a pooled collateral program for public deposits and a Statewide Collateral Pool Administrator (Administrator) in the State Treasurer's Office. The purpose of the pooled collateral program is to ensure that governmental entities' public deposits placed in participating depositories are secured with collateral of 102 percent of the public deposits, less any applicable deposit insurance. An eligible depository may not retain or accept any public deposit unless it has deposited the required collateral with a qualified escrow agent or the Administrator. The Administrator manages the pooled collateral program, including reporting on each depository's compliance with the program.

D. Compensated Absences

Vacation leave vests with the employee as it is earned dependent on accumulated time and the individual's vacation benefits. All employees may carry-forward only the amount of vacation benefits equal to the maximum allowable earned credits for the preceding calendar year. Upon termination or retirement, an employee will be compensated for accumulated vacation leave dependent on accumulated time and the individual's vacation benefits. Payment will be based on the individual's rate of pay at termination or retirement. Upon death, the same benefits shall be paid to the employee's beneficiary.

E. Claims Payable

The Trust establishes claims liabilities based on estimates of the ultimate cost of claims (including future claim adjustment expenses) that have been reported but not settled, and of claims that have been incurred but not reported. Adjustments to claim liabilities are charged or credited to expense in the periods in which they are made. A provision for inflation in the calculation of estimated future claims costs is implicit in the calculation because reliance is placed both on actual historical data that reflect past inflation and on other factors that are considered to be appropriate modifiers of past experience. Given the inherent uncertainty in the nature of such estimates, future losses will likely deviate, perhaps materially, from those estimates.

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

F. Deferred Outflows/Inflows of Resources

In addition to assets, the statement of financial position may report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net assets that applies to a future period and so will not be recognized as an outflow of resources (expense) until then.

In addition to liabilities, the statement of financial position may report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net assets that applies to a future period and so will not be recognized as an inflow of resources (revenue) until that time.

G. Contributions

The Trust agreement provides that the City contribute a specified amount to the Trust to fulfill the needs and purposes of the Trust. The City Council shall make an appropriation of funds to the Trust as part of the annual City budget.

H. Investment Income

Investment income is composed of interest, dividends, and net changes in the fair value of applicable investments.

I. Net Position Flow Assumption

In the financial statements, the Trust applies restricted resources first when outlays are incurred for purposes for which either restricted or unrestricted amounts are available.

J. Estimates

The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates.

K. Reinsurance

The Trust has entered into reinsurance contracts for excess coverage. Reinsurance coverage is for specific losses in excess of $1.0 million for non-public safety employees and $3.0 million for public safety employees, with a $2.0 million indemnity limit per occurrence.

NOTE 2 – CASH AND INVESTMENTS

The following summarizes amounts reported as cash equivalents and investments in the accompanying financial statements:

			Investment Maturities (in Years)			
Investment Type	Category	Fair Value	Less than 1	1-5	Concentration of Credit Risk %	Rating
Money Market Fund	N/A	$ 1,186,885	$ 1,186,885	$	8.2	AAAm/NR
U.S. Treasuries	Level 1	8,415,820	1,087,155	7,328,665	58.2	AA+/Aaa
Municipal Bond/Note						
Scottsdale, AZ TXBL GO Bonds	Level 2	50,975		50,975	0.4	AAA/Aaa
U.S. Agencies:						
Fannie Mae	Level 2	1,052,022	131,979	920,043	7.3	AA+/Aaa
Freddie Mac	Level 2	1,989,609	303,135	1,686,474	13.8	AA+/Aaa
Corporate Bonds:						
Adobe Inc Corp Note	Level 2	99,118	99,118		0.7	A+/A2
Amazon.com Inc Corp Notes	Level 2	166,452	99,906	66,546	1.2	AA/A1
Texas Instruments Inc Corp	Level 2	140,690		140,690	1.0	A+/Aa3
John Deere Captial Corp	Level 2	38,638		38,638	0.3	A/A2
Bank of America Corporation	Level 2	191,901		191,901	1.3	A-/A2
Caterpillar Financial Service	Level 2	93,449	93,449		0.6	A/A2
Hershey Company	Level 2	85,607	85,607		0.6	A/A1
JPMorgan Chase & Co. Corporate	Level 2	163,295		163,295	1.1	A-/A2
State Street Corp Corporate	Level 3	19,211		19,211	0.1	A/A1
Toyota Motor Credit Corp Corporate	Level 2	73,384		73,384	0.5	A+/A1
Certificate of Deposit:						
Credit Suisse New York CD	Level 2	344,355	344,355		2.4	A-1/P-1
Skandinav Enskilda Bank LT CD	Level 2	129,980	129,980		0.9	A-1/P-1
UBS Ag Stamford CT CD	Level 2	149,535	149,535		1.0	A-1/P-1
Subtotal		14,390,926	3,711,104	10,679,822		
Custodial Money Market	Level 1	53,647	53,647		0.4	AAAm/NR
Total		$ 14,444,573	$ 3,764,751	$ 10,679,822		

NOTE 2 – CASH AND INVESTMENTS

Fair Value Measurements. The Trust categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset.

- Level 1 inputs are quoted prices in active markets for identical assets
- Level 2 inputs are significant other observable inputs
- Level 3 inputs are significant unobservable inputs

Valuation Techniques. U.S. Treasuries and money market investments classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those investments. Governmental bonds, corporate bonds, other fixed income instruments, and international bonds classified in Level 2 of the fair value hierarchy are valued based on significant other observable inputs, which may include, but are not limited to, quoted prices for similar assets or liabilities in markets that are active, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the assets or liabilities (such as interest rates, yield curves, volatilities, prepayment speeds, loss severities, credit risks and default dates) or other market corroborated inputs. All investments in which the fair value hierarchy is applicable are measured at fair value on a recurring basis.

Interest Rate Risk. In accordance with the City's investment policy, the Trust manages its exposure to declines in fair value limiting the maturities of its investment portfolio to five years.

Credit Risk. In accordance with the City's investment policy, the Trust allows for investments in obligations guaranteed by the full faith and credit of the United States of America, government sponsored enterprises, government bonds with minimum credit ratings of AA+ or Aaa, commercial paper with a minimum short term rating of P1 or A1, negotiable certificates of deposit, corporate bonds carrying a minimum credit rating of A-, repurchase agreements, and the Local Government Investment Pool. The Trust's investments in U.S. Agencies, Corporate Bonds and Money Market Funds were rated no lower than AA+, A- and AAAm by Standard & Poor's, respectively, as of June 30, 2022.

Custodial Credit Risk - Investments. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the Trust will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. To limit its exposure and in accordance with the City's investment policy, the Trust requires all security transactions that are exposed to custodial credit risk to be processed on a delivery versus payment (DVP) basis with the underlying investments held by a third party acting as the Trust's agent separate from where the investment was purchased or by the trust department of the bank where purchased, in the Trust's name.

NOTE 2 – CASH AND INVESTMENTS

Concentration of Credit Risk. In accordance with the City's investment policy, the Trust does not allow for an investment in any one issuer that is in excess of five percent of the total investments. Securities issued by the United States of America or its agencies are exempt from this provision.

NOTE 3 – CLAIMS PAYABLE

As discussed in Note 1, the Trust establishes a liability for both reported and unreported claims costs, which includes estimates of future claim payments and related claim adjustment expenses. The following represents changes in those aggregate liabilities for the Trust during the period ended June 30, 2022 and June 30, 2021.

	2022	2021
Unpaid claims and claim adjustments, beginning, as restated	$ 10,493,303	$ 8,798,989
Incurred claims and claim adjustments	2,250,321	3,499,481
Claims payments	(2,199,262)	(1,805,167)
Unpaid claims and claim adjustments, ending	$ 10,544,362	$ 10,493,303

REPORT ON INTERNAL CONTROL AND ON COMPLIANCE

Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

Independent Auditor's Report

Board of Trustees
Chandler Worker's Compensation and Employer Liability Trust

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Chandler Worker's Compensation and Employer Liability Trust, an internal service fund of the City of Chandler, Arizona, as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise Chandler Worker's Compensation and Employer Liability Trust's financial statements, and have issued our report thereon dated December 8, 2022. Our report included an emphasis of matter paragraph regarding the financial statements not representing the entire City of Chandler, Arizona.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered Chandler Worker's Compensation and Employer Liability Trust's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Chandler Worker's Compensation and Employer Liability Trust's internal control. Accordingly, we do not express an opinion on the effectiveness of Chandler Worker's Compensation and Employer Liability Trust's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that have not been identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether Chandler Worker's Compensation and Employer Liability Trust's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Heinfeld Meech & Co. PC

Heinfeld, Meech & Co., P.C.
Tucson, Arizona
December 8, 2022

December 12, 2022

Board of Trustees
Chandler Worker's Compensation and Employer Liability Trust

We have audited the financial statements Chandler Worker's Compensation and Employer Liability Trust (Trust), an internal service fund of the City of Chandler, Arizona, for the year ended June 30, 2022. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards, *Government Auditing Standards* as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our engagement letter provided to you during the planning phase of the audit. Professional standards also require that we communicate to you the following matters related to our audit.

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by Chandler Worker's Compensation and Employer Liability Trust are described in Note 1 to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during the year. We noted no transactions entered into by the Trust during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected.

The most sensitive estimates affecting the financial statements are management's estimates of the insurance claims incurred but not reported (IBNR) and case reserves, which are based on information provided by the entity's third party administrator and subsequent claims activity.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Audit Adjustments
Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that we believe are trivial, and communicate them to the appropriate level of management. During the course of the audit we did not identify any misstatements which require communication.

In addition, as part of the professional services we provided to the Trust we assisted with the preparation of the financial statements and the notes to financial statements. In providing these services we prepared adjusting journal entries (if necessary) to convert the accounting records to the basis of accounting required by generally accepted accounting principles. If applicable, those adjusting journal entries have been provided to management who reviewed and approved those entries and accepted responsibility for them.

Disagreements with Management
For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations
We have requested certain written representations from management, which are included in the management representation letter provided to us at the conclusion of the audit.

Management Consultations with Other Independent Accountants
In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the Trust's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants regarding auditing and accounting matters.

Discussions with Management
We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management throughout the course of the year. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention as the Trust's auditors.

Compliance with Ethics Requirements Regarding Independence
The engagement team, others in our firm, and as appropriate, our firm, have complied with all relevant ethical requirements regarding independence. Heinfeld, Meech & Co., P.C. continually assesses client relationships to comply with relevant ethical requirements, including independence, integrity, and objectivity, and policies and procedures related to the acceptance and continuance of client relationships and specific engagements. Our firm follows the "Independence Rule" of the AICPA Code of Professional Conduct and the rules of state boards of accountancy and applicable regulatory agencies. It is the policy of the firm that all employees be familiar with and adhere to the independence, integrity, and objectivity rules, regulations, interpretations, and rulings of the AICPA, U.S. Government Accountability Office (GAO), and applicable state boards of accountancy.

Responsibility for Fraud

It is important for both management and the members of the governing body to recognize their role in preventing, deterring, and detecting fraud. One common misconception is that the auditors are responsible for detecting fraud. Auditors are required to plan and perform an audit to obtain reasonable assurance that the financial statements do not include material misstatements caused by fraud. Unfortunately most frauds which occur in an organization do not meet this threshold.

The attached document prepared by the Association of Certified Fraud Examiners (ACFE) is provided as a courtesy to test the effectiveness of the fraud prevention measures of your organization. Some of these steps may already be in place, others may not. Not even the most well-designed internal controls or procedures can prevent and detect all forms of fraud. However, an awareness of fraud related factors, as well as the active involvement by management and the members of the governing body in setting the proper "tone at the top", increases the likelihood that fraud will be prevented, deterred and detected.

Other Important Communications Related to the Audit

Attached to this letter are a copy of the signed engagement letter provided to us at the initiation of the audit, and a copy of the management representation letter provided to us at the conclusion of the audit. If there are any questions on the purpose or content of these letters please contact the engagement partner identified in the attached engagement letter.

Restriction on Use

This information is intended solely for the use of the members of the Board of Trustees and management of Chandler Worker's Compensation and Employer Liability Trust and is not intended to be, and should not be, used by anyone other than these specified parties.

Very truly yours,

Heinfeld Meech & Co. PC

Heinfeld, Meech & Co., P.C.
Tucson, Arizona

Fraud Prevention Checklist

The most cost-effective way to limit fraud losses is to prevent fraud from occurring. This checklist is designed to help organizations test the effectiveness of their fraud prevention measures.

1. **Is ongoing anti-fraud training provided to all employees of the organization?**
   - Do employees understand what constitutes fraud?
   - Have the costs of fraud to the company and everyone in it — including lost profits, adverse publicity, job loss and decreased morale and productivity — been made clear to employees?
   - Do employees know where to seek advice when faced with uncertain ethical decisions, and do they believe that they can speak freely?
   - Has a policy of zero-tolerance for fraud been communicated to employees through words and actions?

2. **Is an effective fraud reporting mechanism in place?**
   - Have employees been taught how to communicate concerns about known or potential wrongdoing?
   - Is there an anonymous reporting channel available to employees, such as a third-party hotline?
   - Do employees trust that they can report suspicious activity anonymously and/or confidentially and without fear of reprisal?
   - Has it been made clear to employees that reports of suspicious activity will be promptly and thoroughly evaluated?
   - Do reporting policies and mechanisms extend to vendors, customers and other outside parties?

3. **To increase employees' perception of detection, are the following proactive measures taken and publicized to employees?**
   - Is possible fraudulent conduct aggressively sought out, rather than dealt with passively?
   - Does the organization send the message that it actively seeks out fraudulent conduct through fraud assessment questioning by auditors?
   - Are surprise fraud audits performed in addition to regularly scheduled audits?
   - Is continuous auditing software used to detect fraud and, if so, has the use of such software been made known throughout the organization?

4. **Is the management climate/tone at the top one of honesty and integrity?**
    - Are employees surveyed to determine the extent to which they believe management acts with honesty and integrity?
    - Are performance goals realistic?
    - Have fraud prevention goals been incorporated into the performance measures against which managers are evaluated and which are used to determine performance-related compensation?
    - Has the organization established, implemented and tested a process for oversight of fraud risks by the board of directors or others charged with governance (e.g., the audit committee)?

5. **Are fraud risk assessments performed to proactively identify and mitigate the company's vulnerabilities to internal and external fraud?**

6. **Are strong anti-fraud controls in place and operating effectively, including the following?**
    - Proper separation of duties
    - Use of authorizations
    - Physical safeguards
    - Job rotations
    - Mandatory vacations

7. **Does the internal audit department, if one exists, have adequate resources and authority to operate effectively and without undue influence from senior management?**

8. **Does the hiring policy include the following (where permitted by law)?**
    - Past employment verification
    - Criminal and civil background checks
    - Credit checks
    - Drug screening
    - Education verification
    - References check

9. **Are employee support programs in place to assist employees struggling with addictions, mental/ emotional health, family or financial problems?**

10. **Is an open-door policy in place that allows employees to speak freely about pressures, providing management the opportunity to alleviate such pressures before they become acute?**

11. **Are anonymous surveys conducted to assess employee morale?**

HeinfeldMeech

Tucson • Scottsdale • Flagstaff
HeinfeldMeech.com

August 1, 2022

Board of Trustees and Management
Chandler Worker's Compensation and Employer Liability Trust
P. O. Box 4008
Chandler, AZ 85244-4008

We are pleased to confirm our understanding of the services we are to provide for Chandler Worker's Compensation and Employer Liability Trust (Trust) for the year ended June 30, 2022. We encourage you to read this letter carefully as it includes important information regarding the services we will be providing to the Trust. If there are any questions on the content of the letter, or the services we will be providing, we would welcome the opportunity to meet with you to discuss this information further.

Audit Scope and Objectives

We will audit the financial statements and the related notes to the financial statements of Chandler Worker's Compensation and Employer Liability Trust as of and for the year ended June 30, 2022.

Accounting standards generally accepted in the United States provide for certain required supplementary information (RSI) to supplement the Trust's financial statements. Such information, although not part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to the Trust's RSI in accordance with auditing standards generally accepted in the United States of America. These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We will not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance. The following RSI is required by generally accepted accounting principles and will be subjected to certain limited procedures, but will not be audited:

1. Management's discussion and analysis

The objectives of our audit are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and issue an auditor's report that includes our opinion about whether your financial statements are fairly presented, in all material respects, in conformity with accounting principles generally accepted in the United States of America. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with auditing standards generally accepted in the United States of America will always detect a material misstatement when it exists. Misstatements, including omissions, can arise from fraud or error and are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment of a reasonable user made based on the financial statements.

An important aspect to our expression of opinions on the financial statements is understanding the concept of materiality. Our determination of materiality is a matter of professional judgment and is affected by our perception of the financial information needs of users of the financial statements. In this context, it is reasonable for us to assume that users –

1. have a reasonable knowledge of business and economic activities and accounting principles, and a willingness to study the information in the financial statements with reasonable diligence;
2. understand that financial statements are prepared, presented, and audited to levels of materiality;
3. recognize the uncertainties inherent in the measurement of amounts based on the use of estimates, judgment, and the consideration of future events; and
4. make reasonable economic decisions on the basis of the information in the financial statements.

Auditor's Responsibilities for the Audit of the Financial Statements

We will conduct our audit in accordance with auditing standards generally accepted in the United States of America and the standards for financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of the United States, and will include tests of your accounting records and other procedures we consider necessary to enable us to express such opinions. As part of an audit in accordance with auditing standards generally accepted in the United States of America, we exercise professional judgment and maintain professional skepticism throughout the audit.

We will evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management. We will also evaluate the overall presentation of the financial statements, including the disclosures, and determine whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation. We will plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the Trust or to acts by management or employees acting on behalf of the Trust. Because the determination of abuse is subjective, *Government Auditing Standards* do not expect auditors to perform specific procedures to detect waste or abuse in the financial statements nor do they expect auditors to provide reasonable assurance of detecting waste or abuse.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, there is an unavoidable risk that some material misstatements may not be detected by us, even though the audit is properly planned and performed in accordance with auditing standards generally accepted in the United States of America and *Government Auditing Standards*. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements. However, we will inform the appropriate level of management of any material errors, fraudulent financial reporting, or misappropriation of assets that comes to our attention. We will also inform the appropriate level of management of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential. We will include such matters in the report the *Government Auditing Standards* report on internal control over financial reporting and on compliance and other matters. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

We will obtain an understanding of the Trust and its environment, including internal control relevant to the audit, sufficient to identify and assess the risks of material misstatement of the financial statements, whether due to error or fraud, and to design and perform audit procedures responsive to those risks and obtain evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentation, or the override of internal control. Tests of controls may be performed to test the effectiveness of certain controls that we consider relevant to preventing and detecting errors and fraud that are material to the financial statements and to preventing and detecting misstatements resulting from illegal acts and other noncompliance matters that have a direct and material effect on the financial statements. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to *Government Auditing Standards*.

An audit is not designed to provide assurance on internal control or to identify deficiencies in internal control. Accordingly, we will express no such opinion. However, during the audit, we will communicate to you and those charged with governance internal control related matters that are required to be communicated under professional standards.

We will also conclude, based on the audit evidence obtained, whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Trust's ability to continue as a going concern for a reasonable period of time.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts. Our procedures will also include, as deemed necessary, tests of the physical existence of inventories, and direct confirmation of receivables and certain assets and liabilities by correspondence with selected individuals, funding sources, creditors, and financial institutions. We will also request, if deemed necessary, written representations from the Trust's attorneys as part of the engagement, and they may bill you for responding to this inquiry.

An audit is not designed to provide assurance on internal control or to identify significant deficiencies or material weaknesses. Accordingly, we will express no such opinion in our report on internal control issued pursuant to *Government Auditing Standards*. However, during the audit, we will communicate to management and those charged with governance internal control related matters that are required to be communicated under AICPA professional standards and *Government Auditing Standards*.

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of the Trust's compliance with applicable laws, regulations, contracts, and agreements, including grant agreements. However, the objective of those procedures will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to *Government Auditing Standards.*

Reporting

We will issue a written report upon completion of our audit of Chandler Worker's Compensation and Employer Liability Trust's financial statements. Our report will be addressed to the Governing Board of the Trust. Circumstances may arise in which our report may differ from its expected form and content based on the results of our audit. Depending on the nature of these circumstances, it may be necessary for us to modify our opinion or add an emphasis-of-matter or other-matter paragraph to our auditor's report, or if necessary, withdraw from this engagement. If our opinion is other than unmodified, we will discuss the reasons with you in advance. If, for any reason, we are unable to complete the audit or are unable to form or have not formed an opinion, we may decline to express an opinion or withdraw from this engagement.

We will issue a written report on Internal control over financial reporting and compliance with provisions of laws, regulations, contracts, and award agreements, noncompliance with which could have a material effect on the financial statements in accordance with *Government Auditing Standards.* The *Government Auditing Standards* report on internal control over financial reporting and on compliance and other matters will include a paragraph that states that (1) the purpose of the report is solely to describe the scope of testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance, and (2) the report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance.

Nonaudit Services

As part of the audit, we will assist with preparation of your financial statements and notes to the financial statements. You have expressed your intention to use these nonaudit services within the scope of your request for proposal for audit services. These nonaudit services do not constitute an audit and such services will not be conducted in accordance with *Government Auditing Standards*.

Upon engagement of the audit we will utilize the general ledger, accounting records, Trust prepared schedules and other information provided by Trust personnel in order to prepare the necessary year-end adjusting journal entries and to prepare drafts of the financial statements and notes to the financial statements. You are responsible for the information provided by the Trust and for assuming all management responsibilities related to the financial statements, notes to the financial statements, and the nonaudit services we provide. You are also responsible for designing, implementing, and maintaining internal controls over the financial statements process. Prior to their issuance you will be required to acknowledge in the management representation letter that you have reviewed and approved the financial statements and acknowledge that you have accepted responsibility for them. Further, you are required to designate an individual with suitable skill, knowledge, or experience to oversee the nonaudit services we provide; evaluate the adequacy and results of these nonaudit services; and accept responsibility for the nonaudit services.

As the Trust's independent auditor, professional standards place specific requirements on our provision of certain nonaudit services. We are strictly prohibited from assuming management responsibilities or making management decisions; therefore, the nonaudit services we provide are limited to those indicated above. We, in our sole professional judgment, reserve the right to refuse to perform any procedure or take any action that could be construed as assuming management responsibilities or making management decisions. Accordingly, to maintain our independence it is imperative that management understand its responsibilities and is capable of fulfilling these responsibilities. If there are any questions or concerns regarding management's responsibilities or ability to fulfill these responsibilities we request that you immediately contact us so that we may assess the circumstance and our continued independence with respect to providing audit services.

Responsibilities of Management for the Financial Statements

Our audit will be conducted on the basis that you acknowledge and understand your responsibility for designing, implementing, and maintaining internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error, including monitoring ongoing activities; for the selection and application of accounting principles; and for the preparation and fair presentation of the financial statements in conformity with accounting principles generally accepted in the United States of America.

Management is also responsible for making all financial records, and related information available to us and for the accuracy and completeness of that information (including information from outside of the general and subsidiary ledgers). You are also responsible for providing us with (1) access to all information of which you are aware that is relevant to the preparation and fair presentation of the financial statements, such as records, documentation, identification of all related parties and all related-party relationships and transactions, and other matters; (2) additional information that we may request for the purpose of the audit; (3) other information as needed to perform an audit under *Government Auditing Standards*; (4) and unrestricted access to persons within the Trust from whom we determine it necessary to obtain audit evidence. At the conclusion of our audit, we will require certain written representations from you about the financial statements; compliance with laws, regulations, contracts, and grant agreements; and other responsibilities required by generally accepted auditing standards.

Management's responsibilities also include adjusting the financial statements to correct material misstatements and confirming to us in the representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

Management is responsible for the financial statements and all accompanying information as well as all representations contained therein. Management is also responsible for identifying government award programs and understanding and complying with the compliance requirements.

Management is responsible for (1) designing, implementing, establishing and maintaining effective internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error, including internal controls over federal awards, and for evaluating and monitoring ongoing activities, to help ensure that appropriate goals and objectives are met; (2) following laws and regulations; (3) ensuring that there is reasonable assurance that government programs are administered in compliance with compliance requirements; and (4) ensuring that management is reliable and financial information is reliable and properly reported.

Management is responsible for informing us about all known or suspected fraud affecting the government involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the government received in communications from employees, former employees, grantors, regulators, or others.

Management is also responsible for implementing systems designed to achieve compliance with applicable laws, regulations, contracts, and grant agreements. You are also responsible for the selection and application of accounting principles; for the preparation and fair presentation of the financial statements, and all accompanying information in conformity with accounting principles generally accepted in the United States of America; and for compliance with applicable laws and regulations (including federal statutes) and the provisions of contracts and grant agreements (including award agreements). Your responsibilities also include identifying significant contractor relationships in which the contractor has responsibility for program compliance and for the accuracy and completeness of that information.

Management is required to disclose in the financial statements the date through which subsequent events have been evaluated and whether that date is the date the financial statements were issued or were available to be issued. You agree that you will not date the subsequent event note earlier than the date of your management representation letter.

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying and providing report copies of previous financial audits, attestation engagements, performance audits or studies related to the objectives discussed in the Audit Objectives section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits or studies. You are also responsible for providing management's views on our current findings, conclusions, and recommendations, as well as your planned corrective actions, for the report, and for the timing and format for providing that information.

With regard to the electronic dissemination of audited financial statements, including financial statements published electronically on your website, management understands that electronic sites are a means to distribute information and, therefore, we are not required to read the information contained in these sites or to consider the consistency of other information in the electronic site with the original document.

Planned Scope and Timing of the Audit

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve judgment about the number of transactions to be examined and the areas to be tested. Our tests will not include a detailed check of all transactions for the period.

We have identified the following significant risks of material misstatement as part of our audit planning:

1. Management override of controls
2. Improper revenue recognition

Our audit will include obtaining an understanding of the entity and its environment, including internal control, sufficient to assess the risks of material misstatement of the financial statements and to design the nature, timing, and extent of further audit procedures. Material misstatements may result from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the entity or to acts by management or employees acting on behalf of the entity. We will generally communicate our significant findings at the conclusion of the audit. However, some matters could be communicated sooner, particularly if significant difficulties are encountered during the audit where assistance is needed to overcome the difficulties or if the difficulties may lead to a modified opinion. We will also communicate any internal control related matters that are required to be communicated under professional standards.

We expect to begin our audit in August 2022 and conclude audit procedures and date our report in December 2022.

Our audit of the financial statements does not relieve you of your responsibilities outlined in the *Responsibilities of Management for the Financial Statements* section of this letter.

Use of Third-Party Service Providers

We maintain internal policies, procedures, and safeguards to protect the confidentiality of your information. We may, depending on the circumstances, use third-party service providers in providing our professional services. The following service providers may be utilized in the completion of our engagement:

- Capital Confirmation, Inc. – electronic bank and account balance confirmation service
- Citrix ShareFile – web-based application service to transfer files
- CCH Engagement Organizer – web-based application service to transfer files
- Harvest Investments, Ltd. – investment portfolio valuation service

You hereby consent and authorize us to use the above service providers, if deemed necessary, to complete the professional services outlined in this letter.

Engagement Administration, Fees, and Other

Mike Hoerig is the engagement partner and is responsible for supervising the engagement and signing the reports or authorizing another individual to sign them.

We will provide copies of our reports to the Trust; however, management is responsible for distribution of the reports and the financial statements.

The audit documentation for this engagement is the property of Heinfeld, Meech & Co., P.C., and constitutes confidential information. However, we may be requested to make certain audit documentation available to a cognizant or oversight agency or its designee, a federal agency providing direct or indirect funding, the U.S. Government Accountability Office, or other authorized governmental agency for the purposes of a quality review of the audit, to resolve audit findings, or to carry out oversight responsibilities. We will notify you of any such request. If requested, access to such audit documentation will be provided under the supervision of Heinfeld, Meech & Co., P.C., personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend, or decide, to distribute the copies or information contained therein to others, including other governmental agencies.

The audit documentation for this engagement will be retained for a minimum of seven (7) years after the report release date, or for any additional period requested by a regulator, cognizant agency, oversight agency for audit, or pass-through entity. Upon expiration of the seven year period, or any additional period, we will commence the process of destroying the contents of our engagement files. If we are aware that a federal awarding agency, pass-through entity, or auditee is contesting an audit finding, we will contact the party(ies) contesting the audit finding for guidance prior to destroying the audit documentation.

In the event we are required to respond to a subpoena, court order or other legal process for the production of documents and/or testimony relative to information we obtained and/or prepared during the course of this engagement, you agree to compensate us at our hourly rates, for the time we expend in connection with such response, and to reimburse us for all of our out-of-pocket costs incurred in that regard.

Any disagreement, controversy, or claim ("dispute") that may arise from any aspect of our services, including this engagement or any prior engagement, will be submitted to mediation. The parties will engage in the mediation process in good faith once a written request to mediate has been given by any party. Any mediation initiated as a result of this engagement shall be administered by The American Arbitration Association, according to its mediation rules before resorting to litigation. The results of any such mediation shall be binding only upon agreement of each party to be bound. Each party will bear its own costs in the mediation. The fees and expenses of the mediator will be shared equally.

The nature of our services makes it difficult, with the passage of time, to gather and present evidence that fully and fairly establishes the facts underlying any dispute that may arise between us. The parties agree that, notwithstanding any statute or law of limitations that might otherwise apply to a dispute, including one arising out of this agreement or the services performed under this agreement, for breach of contract or fiduciary duty, tort, fraud, misrepresentation or any other cause of action or remedy, any

action or legal proceeding by you against us must be commenced within twenty-four (24) months ("limitation period") after the date when we deliver our final audit report under this agreement to you, regardless of whether we do other services for you relating to the audit report, or you shall be forever barred from commencing a lawsuit or obtaining any legal or equitable relief or recovery. The limitation period applies and begins to run even if you have not suffered any damage or loss, or have not become aware of the existence or possible existence of a dispute.

Professional standards prohibit auditors from agreeing to indemnify attest clients for damages, losses or costs arising from lawsuits, claims or settlements that relate, directly or indirectly, to the client's acts. As such, professional standards will prevail for indemnification clauses included in audit contracts. In addition, we are unable to obtain waivers on our professional liability insurance policy for certain provisions, including indemnification provisions, provisions requiring the firm to name the Trust as an additional insured party, and a waiver of subrogation rights.

Professional standards require us to be independent with respect to you in the performance of these services. Any discussion that you have with our personnel regarding potential employment with you could impair our independence with respect to this engagement. Therefore, we request that you inform us prior to any such discussions so that we can implement appropriate safeguards to maintain our independence and objectivity. Further, any employment offers to any staff members working on this engagement without our prior knowledge may require substantial additional procedures to ensure our independence. You will be responsible for any additional costs incurred to perform these procedures.

Our fee for these services will be $7,150. We exercised care in estimating the fee and believe it accurately indicates the scope of the work. Our invoices for these fees will be rendered each month as work progresses and are payable on presentation.

Our fees are based on anticipated cooperation from your personnel, timely receipt of information, and the assumption that unexpected circumstances will not be encountered during the audit, including factors beyond our control, such as new accounting pronouncements or legal requirements, additional consultation, and assistance in correcting errors in your financial records. We will plan the engagement based on the assumption that your personnel will prepare and provide us with the items listed in our request for audit information, including preparing requested schedules, retrieving supporting documents, and preparing confirmations. If, for whatever reason, your personnel are unavailable to provide the necessary assistance in a timely manner, it may substantially increase the work we have to do to complete the engagement within the established deadlines, resulting in an increase in fees over our original fee estimate. If significant additional time is necessary, we will discuss it with you and arrive at a new fee estimate before we incur the additional costs. Additional fees incurred will be billed at the following hourly rates: Partner - $292; Manager - $213; Senior - $168; Staff - $118.

If any term or provision of this agreement is determined to be invalid or unenforceable, such term or provision will be deemed stricken, and all other terms and provisions will remain in full force and effect.

Government Auditing Standards require that we provide you with a copy of our most recent external peer review report and any letter of comment, and any subsequent peer review reports and letters of comment received during the period of the contract. Our 2021 peer review report accompanies this letter.

We appreciate the opportunity to be of service to you and believe this letter accurately summarizes the significant terms of our engagement. Please feel free to contact us at any time if you have any questions or concerns. If you have any questions regarding this letter, please let us know. If you agree with the terms of our engagement as described in this letter, please sign the enclosed copy and return it to us.

Very truly yours,

Heinfeld Meech & Co. PC

Heinfeld, Meech & Co., P.C.
Tucson, Arizona

cc: Dawn Lang, Deputy City Manager | CFO
Kristi Smith, Accounting Manager

RESPONSE

Please indicate the name of the individual responsible for overseeing the nonaudit services of preparing the year-end adjusting journal entries and the preparation of the financial statements:

Name: Kristi Smith

This letter correctly sets forth the understanding of Chandler Worker's Compensation and Employer Liability Trust.

Printed Name: Dawn Lang

Title: Deputy City Manager/CFO

Signature: Dawn Lang

Date: 09/06/2022

Grant Bennett Associates
A PROFESSIONAL CORPORATION

Proud Member of AlliottGlobalAlliance™

Report on the Firm's System of Quality Control

August 31, 2021

To Heinfeld, Meech & Co., P.C. and the Peer Review Committee of the California Society of CPAs

We have reviewed the system of quality control for the accounting and auditing practice of Heinfeld, Meech & Co., P.C. (the firm) in effect for the year ended May 31, 2021. Our peer review was conducted in accordance with the Standards for Performing and Reporting on Peer Reviews established by the Peer Review Board of the American Institute of Certified Public Accountants (Standards).

A summary of the nature, objectives, scope, limitations of, and the procedures performed in a System Review as described in the Standards may be found at www.aicpa.org/prsummary. The summary also includes an explanation of how engagements identified as not performed or reported in conformity with applicable professional standards, if any, are evaluated by a peer reviewer to determine a peer review rating.

Firm's Responsibility
The firm is responsible for designing a system of quality control and complying with it to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. The firm is also responsible for evaluating actions to promptly remediate engagements deemed as not performed or reported in conformity with professional standards, when appropriate, and for remediating weaknesses in its system of quality control, if any.

Peer Reviewer's Responsibility
Our responsibility is to express an opinion on the design of the system of quality control and the firm's compliance therewith based on our review.

Required Selections and Considerations
Engagements selected for review included engagements performed under *Government Auditing Standards*, including compliance audits under the Single Audit Act and an audit of an employee benefit plan.

As a part of our peer review, we considered reviews by regulatory entities as communicated by the firm, if applicable, in determining the nature and extent of our procedures.

Opinion
In our opinion, the system of quality control for the accounting and auditing practice of Heinfeld, Meech & Co., P.C. in effect for the year ended May 31, 2021, has been suitably designed and complied with to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Firms can receive a rating of *pass*, *pass with deficiency(ies)* or *fail*. Heinfeld, Meech & Co., P.C. has received a peer review rating of *pass*.

Grant Bennett Associates

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CHANDLER arizona
Community of Innovation

Heinfeld, Meech & Co., P.C.
CPAs and Business Consultants
10120 N. Oracle Road
Tucson, AZ 85704

This representation letter is provided in connection with your audit of the financial statements of Chandler Worker's Compensation and Employer Liability Trust (Trust), an internal service fund of the City of Chandler, Arizona, which comprises the financial position as of June 30, 2022, and the respective changes in financial position and cash flows for the period then ended, and the disclosures (collectively the "financial statements"), for the purpose of expressing opinions as to whether the financial statements are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP).

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information that, in light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement. An omission or misstatement that is monetarily small in amount could be considered material as a result of qualitative factors.

We confirm, to the best of our knowledge and belief, as of the date of our signature, the following representations made to you during your audit.

Financial Statements

1. We have fulfilled our responsibilities, as set out in the terms of the audit engagement letter, including our responsibility for the preparation and fair presentation of the financial statements in accordance with U.S. GAAP.

2. The financial statements referred to above are fairly presented in conformity with U.S. GAAP and include all properly classified financial information required by generally accepted accounting principles to be included in the financial reporting entity.

3. We acknowledge our responsibility for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

4. We acknowledge our responsibility for the design, implementation, and maintenance of internal control to prevent and detect fraud.

5. Significant assumptions we used in making accounting estimates, including those measured at fair value, are reasonable.

6. Related party relationships and transactions, including revenues, expenditures/expenses, loans, transfers, leasing arrangements, and guarantees, and amounts receivable from or payable to related parties have been appropriately accounted for and disclosed in accordance with U.S. GAAP.

7. Adjustments or disclosures have been made for all events, including instances of noncompliance, subsequent to the date of the financial statements that would require adjustment to or disclosure in the financial statements or in the schedule of findings and responses.

8. The effects of all known actual or possible litigation, claims, and assessments have been evaluated, and if necessary, have been accounted for and disclosed in accordance with U.S. GAAP.

9. Guarantees, whether written or oral, under which the Trust is contingently liable, if any, have been properly recorded or disclosed.

Information Provided

10. We have provided you with:

    a. Access to all information, of which we are aware, that is relevant to the preparation and fair presentation of the financial statements, such as records (including information obtained from outside of the general and subsidiary ledgers), documentation, and other matters and all audit or relevant monitoring reports, if any, received from funding sources.

    b. Additional information that you have requested from us for the purpose of the audit.

    c. Unrestricted access to persons within the Trust from whom you determined it necessary to obtain audit evidence.

    d. Minutes of the meetings of the Board of Trustees or summaries of actions of recent meetings for which minutes have not yet been prepared.

11. All material transactions have been recorded in the accounting records and are reflected in the financial statements.

12. We have disclosed to you the results of our assessment of the risk that the financial statements may be materially misstated as a result of fraud.

13. We have no knowledge of any fraud or suspected fraud that affects the Trust and involves:
    - Management,
    - Employees who have significant roles in internal control, or
    - Others where the fraud could have a material effect on the financial statements.

14. We have no knowledge of any allegations of fraud or suspected fraud affecting the Trust's financial statements communicated by employees, former employees, grantors, regulators, or others.

15. We have no knowledge of any instances of noncompliance or suspected noncompliance with provisions of laws, regulations, contracts, or grant agreements, or waste or abuse, whose effects should be considered when preparing financial statements.

16. We have disclosed to you all known actual or possible litigation, claims, and assessments whose effects should be considered when preparing the financial statements.

17. We have disclosed to you the identity of the Trust's related parties and all the related party relationships and transactions, including any side agreements.

Government-specific

18. There have been no communications from regulatory agencies concerning noncompliance with, or deficiencies in, financial reporting practices.

19. If applicable we have taken timely and appropriate steps to remedy fraud, noncompliance with provisions of laws, regulations, contracts, and grant agreements that you have reported to us.

20. We have a process to track the status of audit findings and recommendations.

21. We have identified and communicated to you any previous audits, attestation engagements, and other studies related to the audit objectives and whether related recommendations have been implemented.

22. We have identified to you any investigations or legal proceedings that have been initiated with respect to the period under audit.

23. If applicable, we have provided our views on reported findings, conclusions, and recommendations, as well as our planned corrective actions, for the report.

24. The Trust has no plans or intentions that may materially affect the carrying value or classification of assets, liabilities, deferred outflows/inflows of resources, and net position.

25. We are responsible for compliance with the laws, regulations, and provisions of contracts and grant agreements applicable to us, including tax or debt limits and debt contracts, and legal and contractual provisions for reporting specific activities in separate funds.

26. We have identified and disclosed to you all instances of identified fraud and suspected fraud that we believe have a material effect on the financial statements or other financial data significant to the audit objectives, and any other instances that warrant the attention of those charged with governance.

27. We have identified and disclosed to you all instances of identified noncompliance with provisions of contracts and grant agreements that we believe have a material effect on the determination of financial statement amounts or other financial data significant to the audit objectives.

28. We have identified and disclosed to you all instances of identified abuse that could be quantitatively or qualitatively material to the financial statements or other financial data significant to the audit objectives.

29. There are no violations or possible violations of budget ordinances, laws and regulations (including those pertaining to adopting, approving, and amending budgets), provisions of contracts and grant agreements, tax or debt limits, and any related debt covenants whose effects should be considered for disclosure in the financial statements, or as a basis for recording a loss contingency, or for reporting on noncompliance.

30. In addition to your audit, you assisted with preparation of the financial statements and notes to the financial statements. We acknowledge our responsibility as it relates to those nonaudit services, including that
    - we assume all management responsibilities;
    - oversee the nonaudit services by designating an individual, preferably within senior management, who possesses suitable skill, knowledge, or experience;
    - evaluate the adequacy and results of the nonaudit services performed;
    - and accept responsibility for the results of the nonaudit services.

31. We have reviewed, approved, and accepted responsibility for the financial statements, and notes to the financial statements.

32. The Trust has satisfactory title to all owned assets, and there are no liens or encumbrances on such assets nor has any asset been pledged as collateral.

33. The Trust has complied with all aspects of contractual agreements that would have a material effect on the financial statements in the event of noncompliance.

34. We have followed all applicable laws and regulations in adopting, approving, and amending budgets.

35. If applicable, the financial statements include all component units, appropriately present majority equity interest in legally separate organizations and joint ventures with an equity interest, and properly disclose all other joint ventures and other related organizations.

36. The financial statements include all fiduciary activities required by U.S. GAAP.

37. The financial statements properly classify all funds and activities in accordance with U.S. GAAP.

38. Components of net position are properly classified and, if applicable, approved.

39. Investments are properly valued.

40. With regard to investments and other instruments reported at fair value:
    - The underlying assumptions are reasonable and they appropriately reflect management's intent and ability to carry out its stated courses of action.
    - The measurement methods and related assumptions used in determining fair value are appropriate in the circumstances and have been consistently applied.
    - The disclosures related to fair values are complete, adequate, and in conformity with U.S. GAAP.
    - There are no subsequent events that require adjustments to the fair value measurements and disclosures included in the financial statements.

41. If applicable, provisions for uncollectible receivables have been properly identified and recorded.

42. Expenses have been appropriately classified in the statement of revenues, expenses and changes in net position; and allocations have been made on a reasonable basis.

43. Revenues are appropriately classified in the statement of revenues, expenses and changes in net position.

44. Special and extraordinary items, if any, are appropriately classified and reported.

45. Deposits and investment securities are properly classified as to risk and are properly disclosed.

46. We have appropriately disclosed the Trust's policy regarding whether to first apply restricted or unrestricted resources when an expense is incurred for purposes for which both restricted and unrestricted net position is available and have determined that net position is properly recognized under the policy.

47. We have identified and disclosed to you all contracts, agreements, and transactions that result in leases for financial reporting purposes. We have evaluated and determined leases are not material, both individually and in the aggregate, to the financial statements.

48. We have disclosed to you all significant estimates and material concentrations known to management that are required to be disclosed. Significant estimates are estimates at the balance sheet date that could change materially within the next year. Concentrations refer to volumes of business, revenues, available sources of supply, or markets or geographic areas for which events could occur that would significantly disrupt normal finances within the next year.

49. We acknowledge our responsibility for the required supplementary information (RSI). The RSI is measured and presented within prescribed guidelines and the methods of measurement and presentation have not changed from those used in the prior period. We have disclosed to you any significant assumptions and interpretations underlying the measurement and presentation of the RSI.

We have reviewed the drafts of the financial statements and related notes and believe the amounts are properly presented based on the books and records of our Trust. We hereby take responsibility for the financial statements and authorize Heinfeld, Meech & Co., P.C. to issue the reports in final form and to distribute to those parties as outlined in the contract.

We understand that at the conclusion of the audit Heinfeld, Meech & Co, P.C. will submit to the Board of Trustees a communication to those charged with governance that will include a copy of this representation letter and a copy of the engagement letter.

Dawn Lang

Dawn Lang, Deputy City Manager | CFO
Chandler Worker's Compensation and Employer Liability Trust

Dec. 8, 2022
Date

ITEM 4

Workers' Compensation And Employer Liability Trust Board Human Resources Memo No.

Date: 02/02/2023
To: Workers' Compensation And Employer Liability Trust Board
From: Teresa Canjar, Management Assistant
Subject: **Financial Statements - Management Services**

Attachments

Financial Statements for the Quarter Ending December 31, 2022

CITY OF CHANDLER
Chandler Worker's Compensation and Employer Liability Trust
Statement of Net Position
December 31, 2022

ASSETS	
Cash and investments	$ 13,925,019
Accrued interest	50,193
Due from City	2,724,374
Total assets	16,699,586
LIABILITIES	
Claims payable	40,000
Total current liabilities	40,000
NET POSITION	
Unrestricted	16,659,586
Total net position [1]	$ 16,659,586

Notes:

[1] Net Position as compared to Reserve Goal:	Nominal "Central" Value
Estimated Unpaid Losses & ALAE, as of 6/30/22	$ 10,504,362
Weighted Projected Ultimate Losses & ALAE	2,907,000
Reserve Goal Based on 6/30/22 Actuarial Report	$ 13,411,362

CITY OF CHANDLER
Chandler Worker's Compensation and Employer Liability Trust
Statement of Revenues, Expenses and Changes in Net Position
For the Six Months Ended December 31, 2022

	FY 2022-23 Budget	FY 2022-23 Budget Prorated	Actuals	Budget to Actual Difference
OPERATING REVENUES				
Contributions:				
Employer self insurance premiums	$ 4,383,700	$ 2,191,850	$ 2,352,609	$ 160,759
Total operating revenues	4,383,700	2,191,850	2,352,609	160,759
OPERATING EXPENSES				
Personnel services	525,840	262,920	255,480	(7,440)
Professional services	261,175	130,588	19,830	(110,758)
Operating supplies and maintenance	9,200	4,600	5,894	1,294
Communication and transportation	2,100	1,050	456	(594)
Insurance and taxes:				-
Excess insurance	700,000	700,000	492,354	(207,646)
Premium insurance	70,000	35,000	17,256	(17,744)
Other insurance	676,429	676,429	719,159	42,730
Claims paid	3,000,000	1,500,000	779,279	(720,721)
Other:				
Education and training	2,100	1,050	350	(700)
Computer Software	6,389	3,195	-	(3,195)
Fiduciary Liability Insurance	-	-	-	-
Total operating expenses	5,253,233	3,314,831	2,290,058	(1,024,773)
OPERATING INCOME (LOSS)	(869,533)	(1,122,981)	62,551	1,185,532
NONOPERATING REVENUES (EXPENSES):				
Miscellaneous Revenue	-	-	4,596	4,596
Interest income (loss)	87,000	43,500	55,148	11,648
Transfers out to technology fund	(3,845)	(3,845)	(3,845)	-
Transfers in from City	676,429	676,429	676,429	-
Transfers in from Municipal Utilities for Safety Position	61,446	30,723	30,723	-
Total nonoperating revenues (expenses)	821,030	746,807	763,051	16,244
Change in net position	(48,503)	(376,174)	825,602	1,201,776
NET POSITION:				
Total net position, as of July 1, 2022	15,833,984	15,833,984	15,833,984	-
Total net position, as of December 31, 2022	$ 15,785,481	$ 15,457,810	$ 16,659,586	$ 1,201,776

CITY OF CHANDLER
Chandler Worker's Compensation and Employer Liability Trust
Statement of Cash Flows
For the Six Months Ended December 31, 2022

CASH FLOWS FROM OPERATING ACTIVITIES:	
Cash received for premiums	$ 611,420
Cash payments for claims	(739,279)
Cash payments to suppliers for other services	(1,301,524)
Cash payments to employees for services	(255,480)
Net cash provided (used) by operating activities	(1,684,863)
CASH FLOWS FROM CAPITAL FINANCING ACTIVITIES:	
Cash paid to City for technology replacement	(3,845)
Net cash provided (used) by capital financing activities	(3,845)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:	
Miscellaneous Revenues	4,596
Cash received from the City	707,152
Net cash provided (used) by noncapital financing activities	711,748
CASH FLOWS FROM INVESTING ACTIVITIES:	
Investment Income	29,764
Net cash used from investing activites	29,764
Net increase (decrease) in cash and cash equivalents	(947,196)
CASH AND CASH EQUIVALENTS:	
Beginning of year	14,872,215
As of December 31, 2022	$ 13,925,019
RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES:	
Operating income (loss)	$ 62,551
(Increase) decrease in due from City	(1,741,189)
Increase (decrease) in claims payable	40,000
Increase (decrease) in accounts payable	(6,225)
Increase (decrease) in miscellaneous payables	(40,000)
Total adjustments	(1,747,414)
Net cash provided (used) by operating activities	$ (1,684,863)

ITEM 5

Workers' Compensation And Employer Liability Trust Board Human Resources Memo No.

Date: 02/02/2023
To: Workers' Compensation And Employer Liability Trust Board
From: Teresa Canjar, Management Assistant
Subject: Investment Report - Management Services

Attachments

Investment Report for the Quarter Ending December 31, 2022

pfm asset management

CITY OF CHANDLER
WORKERS COMP & EMPLOYER TRUST

Investment Performance Review
For the Quarter Ended December 31, 2022

Client Management Team

Paulina Woo, Managing Director
Luke Schneider, CFA, Managing Director
Annette Gaston, Senior Managing Consultant

PFM Asset Management LLC

1201 South Alma School Rd.
Suite 3000
Mesa, AZ 85210
415-470-7815

213 Market Street
Harrisburg, PA 17101-2141
717-232-2723

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Agenda

- Market Update
- Account Summary
- Portfolio Review

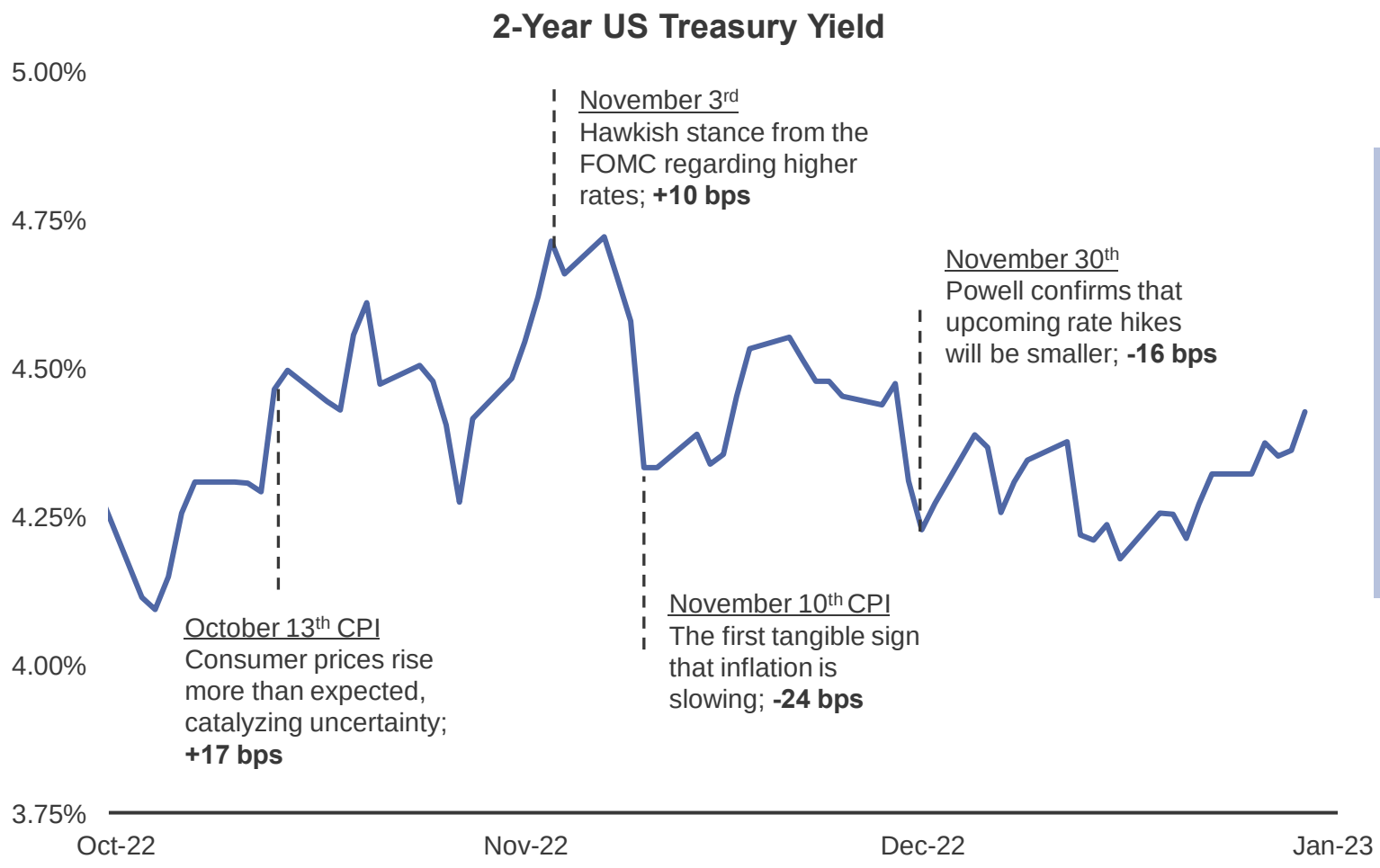
Current Market Themes

- The U.S. economy is characterized by:
  - High inflation that shows signs of slowing
  - Continued strong labor market
  - Potentially declining health of U.S. household finances
  - Expectations for a modest yet broad economic downturn

- The Federal Reserve is expected to wrap up their normalization process
  - Slowing pace of rate hikes
  - Fed projecting short-term fed funds rate to reach 5.00% to 5.25% by year-end, with markets expecting rate cuts in the second half of 2023
  - Fed officials reaffirm that restoring price stability is the utmost priority, despite risks of overtightening

- Volatile markets potentially calming
  - Treasury yields in the belly of the curve (3-7 years) ended the quarter slightly lower, while shorter and longer maturities ended higher
  - Yield curve inversion has deepened further since last quarter
  - While still elevated, volatility and liquidity challenges have begun subsiding

Rates Remain Sensitive to Fed and Inflation

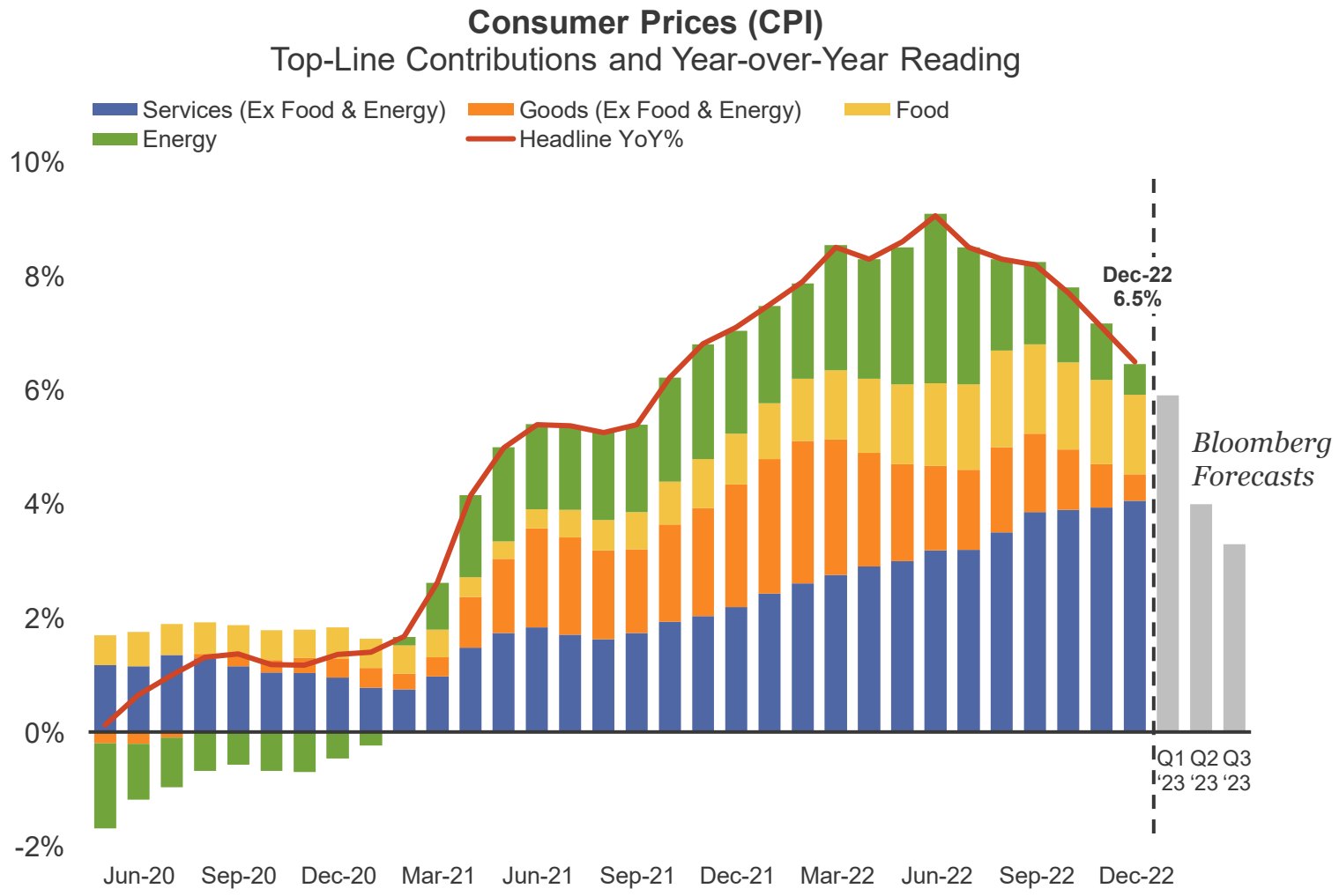


The 2-year Treasury is commonly used to gauge market reactions and near-term policy expectations

Source: Bloomberg, as of 12/31/2022.

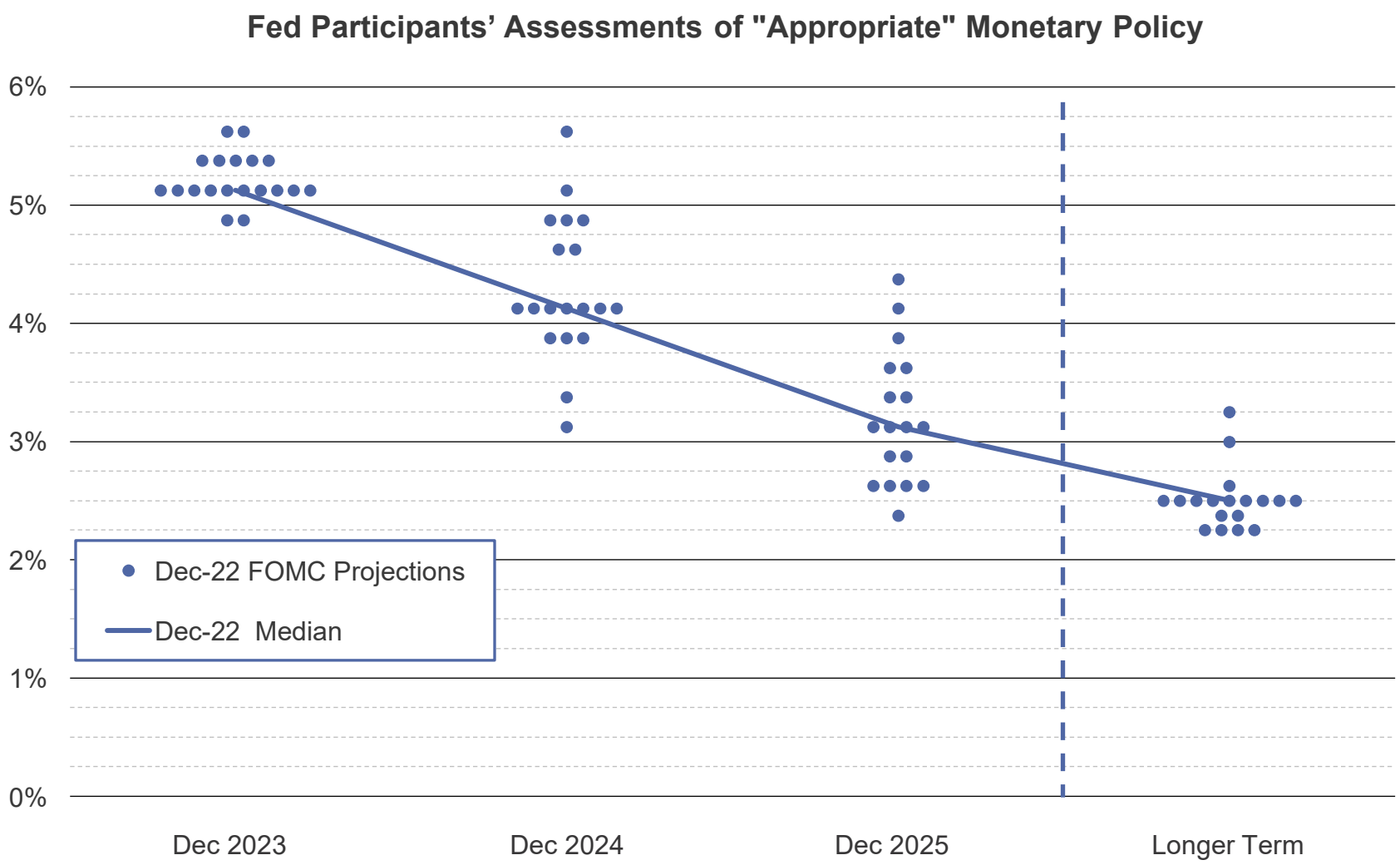
Inflation Now Trending Lower

Lower energy and goods prices help to offset increases in wage-driven services costs



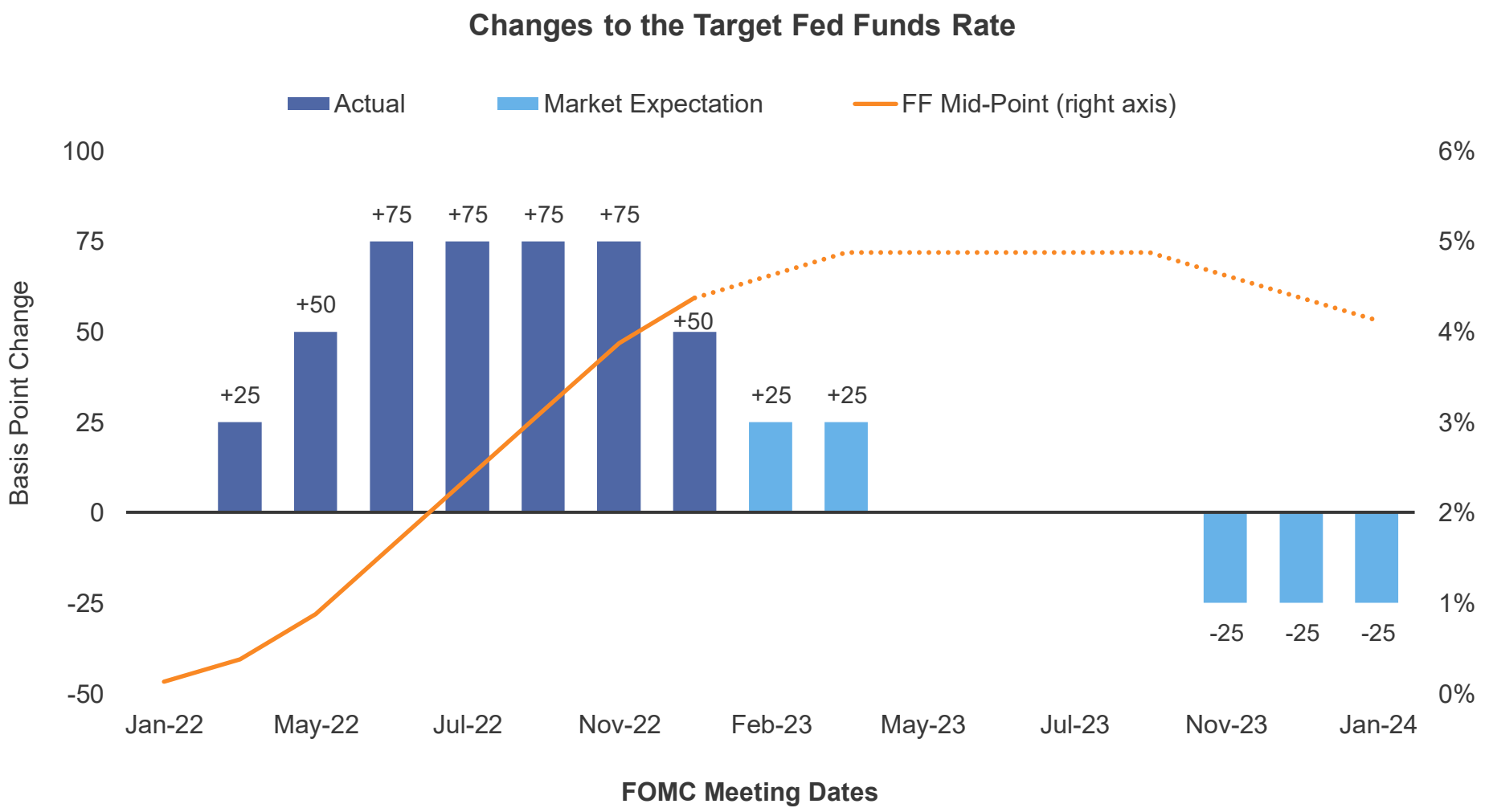
Source: Bloomberg, as of December 2022.

Fed's "Dot Plot" Suggests Expectations for a Drawn Out Normalization of Policy



Source: Federal Reserve and Bloomberg. Individual dots represent each Fed members' judgement of the midpoint of the appropriate target range for the federal funds rate at each year-end.

What Could the Fed's Pivot Look Like?



Source: Bloomberg WIRP Interest Rate Probability as of 1/9/2023.

The Year in Review

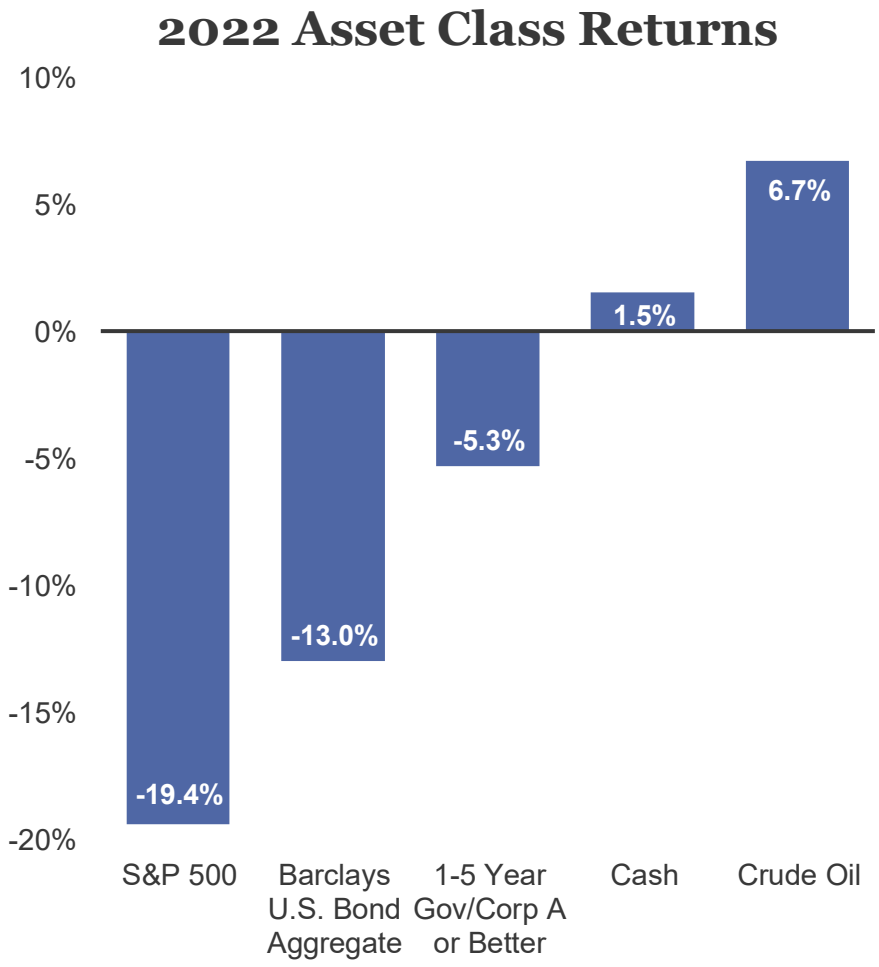
Beginning in March, the Fed hiked rates by 425 basis points in 2022

- The 2-year treasury yield rose just 370 bps through 2022

2022 saw an uncommon phenomenon of both stocks and bonds posting negative returns

Consumer spending remained resilient despite price pressures and extended credit levels

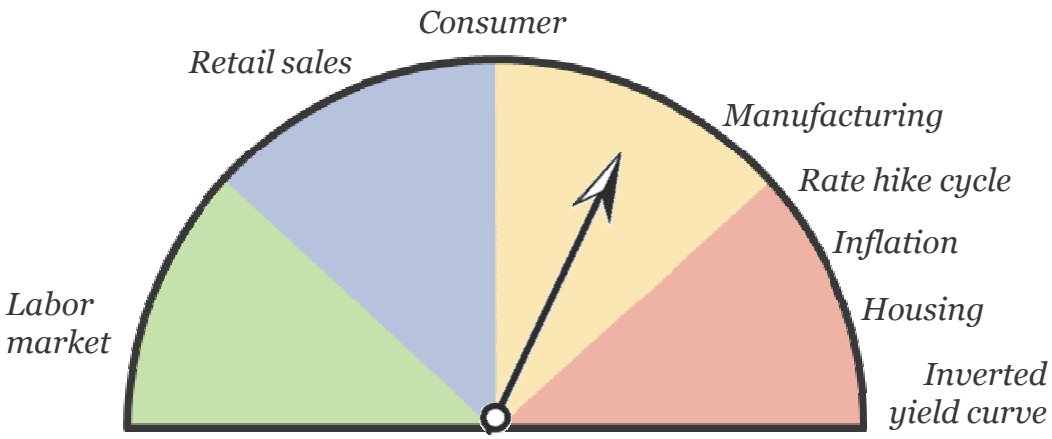
Energy prices surged due to uncertainty, geopolitical conflict (war in Ukraine), and storage challenges



Source: Bloomberg, as of 12/31/2022.

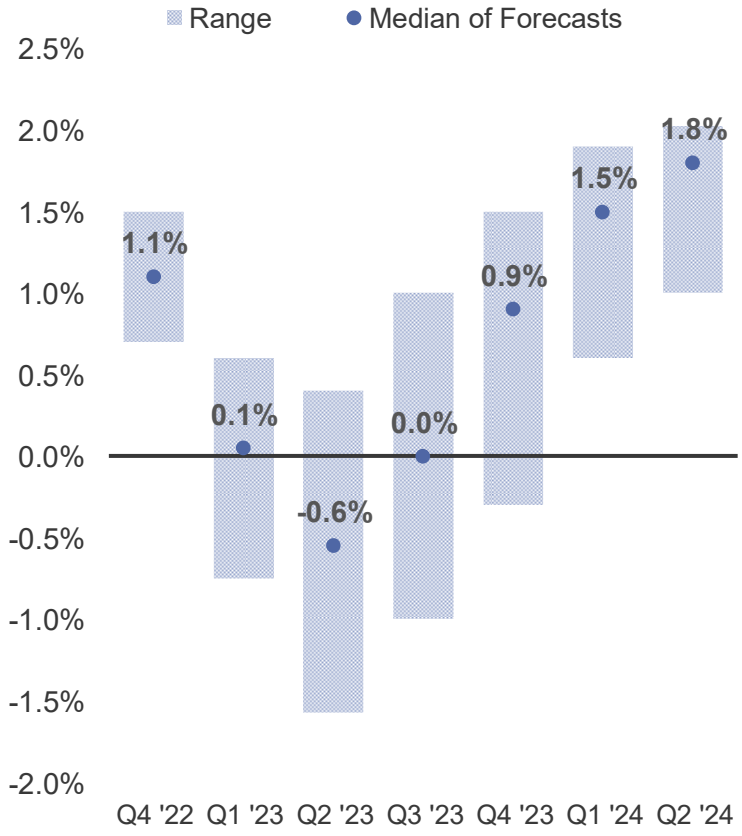
Recession Gauge Flashing Yellow, but GDP Expected to Grow by End of Year

Recession Risk



U.S. GDP Forecasts

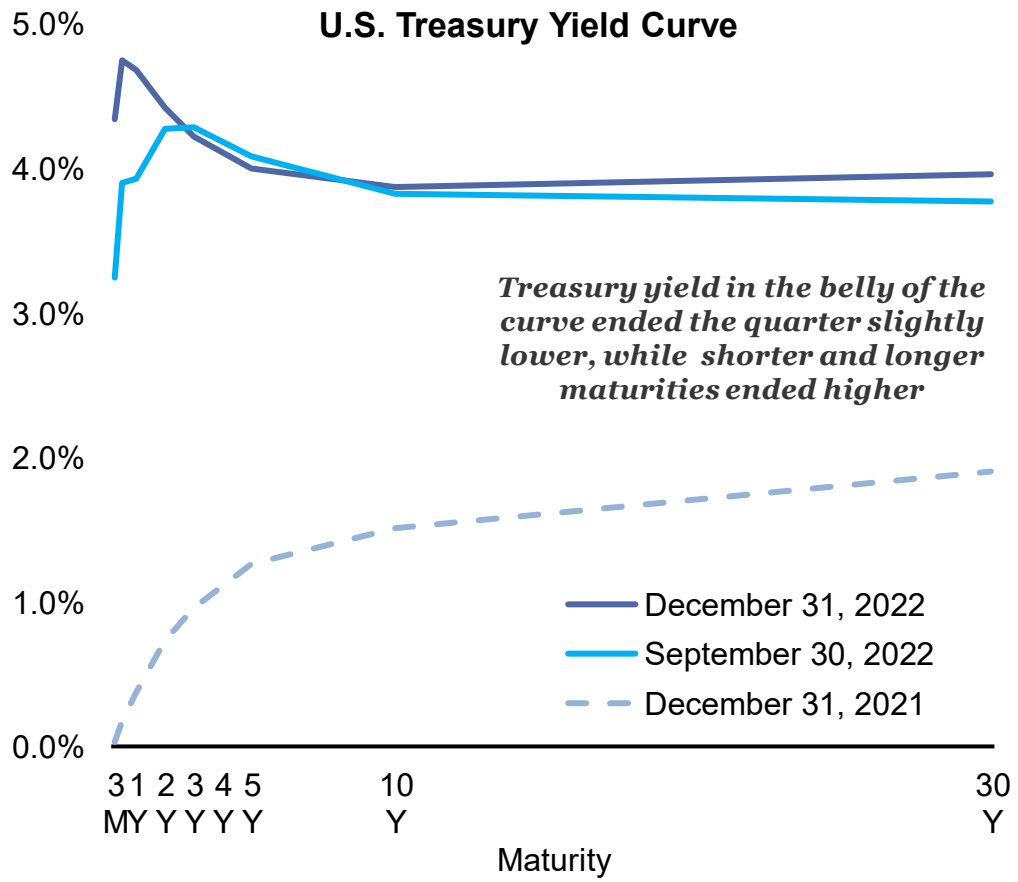
Annualized Rate



Source: Bloomberg, Economist Forecasts. Recession risk based on most recent economic data as of 1/9/2023.

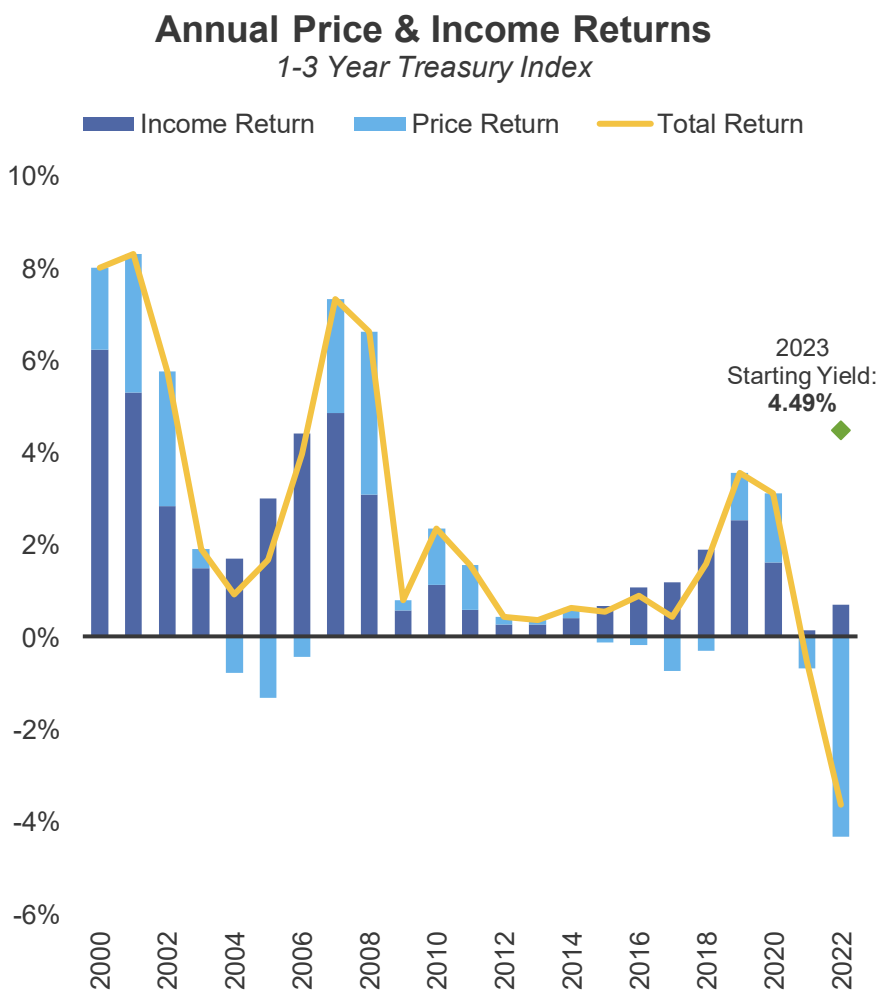
Yield Curve Inversion Deepens

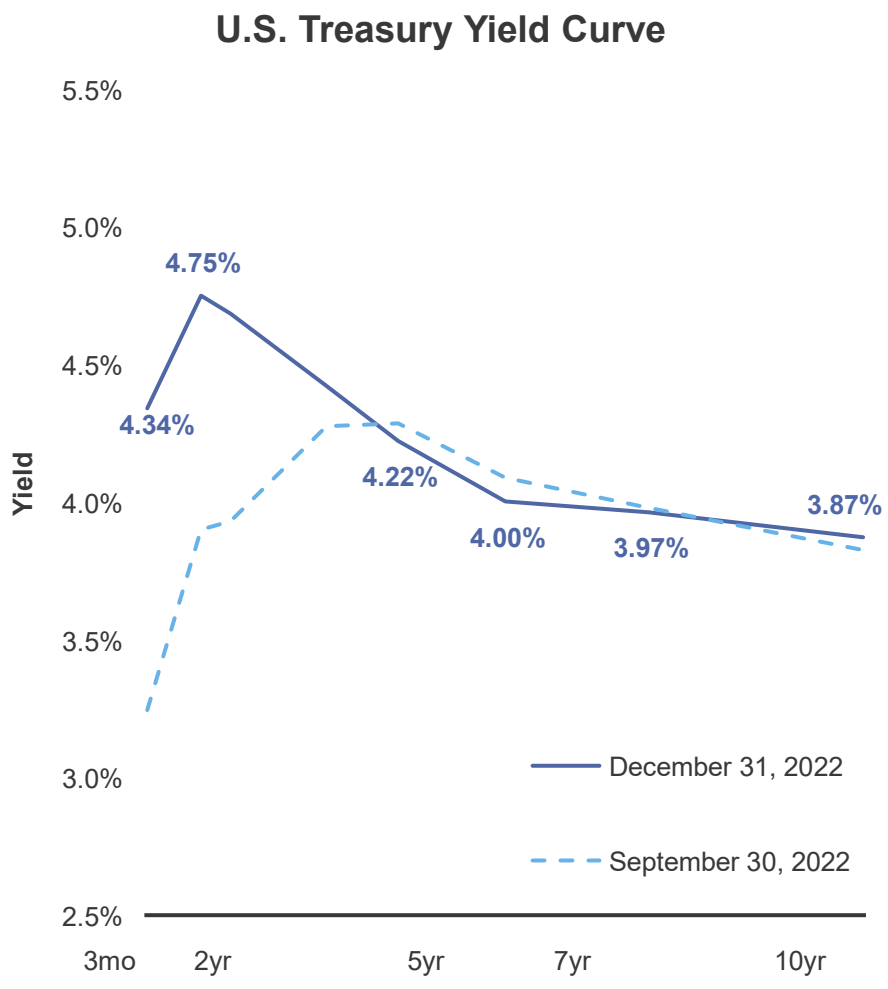
	4Q2022 12/31/22	3Q2022 09/30/22	QoQ Change
3-month	**4.34%**	**3.25%**	+1.10%
1-year	**4.69%**	**3.93%**	+0.75%
2-year	**4.43%**	**4.28%**	+0.15%
3-year	**4.22%**	**4.29%**	-0.06%
5-year	**4.00%**	**4.09%**	-0.09%
10-year	**3.87%**	**3.83%**	+0.05%
30-year	**3.96%**	**3.78%**	+0.19%



Source: Bloomberg, as of December 2022.

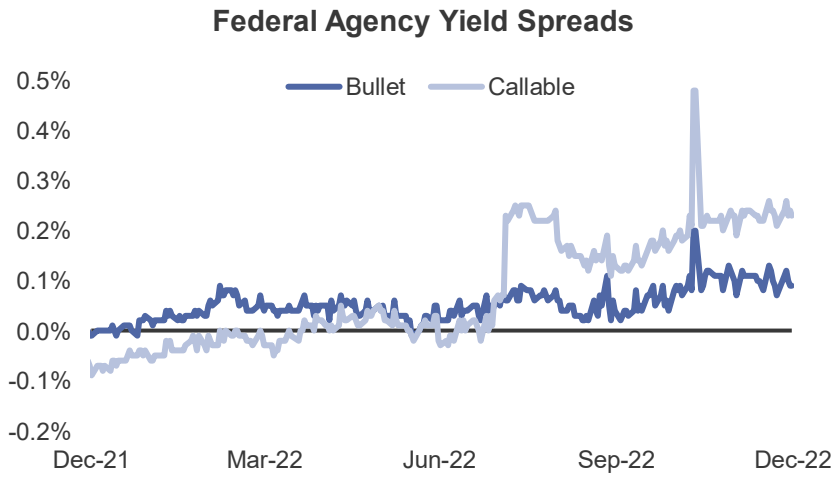
Higher Yields Can Offset Some of the Price Depreciation Woes

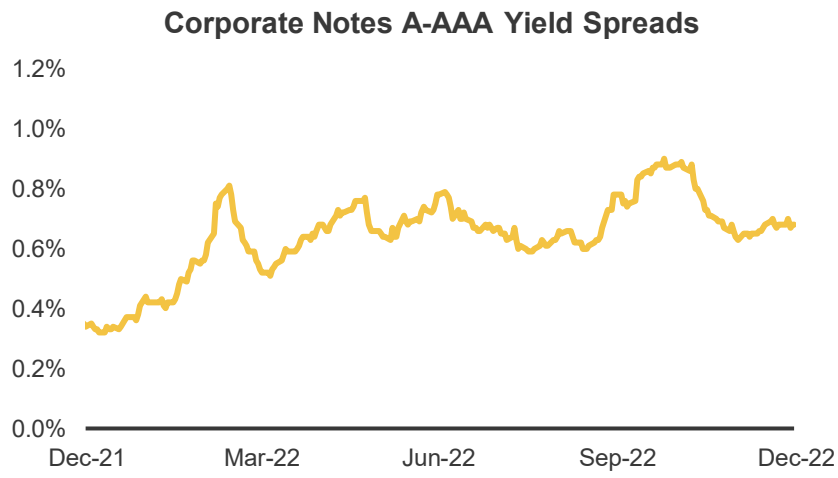


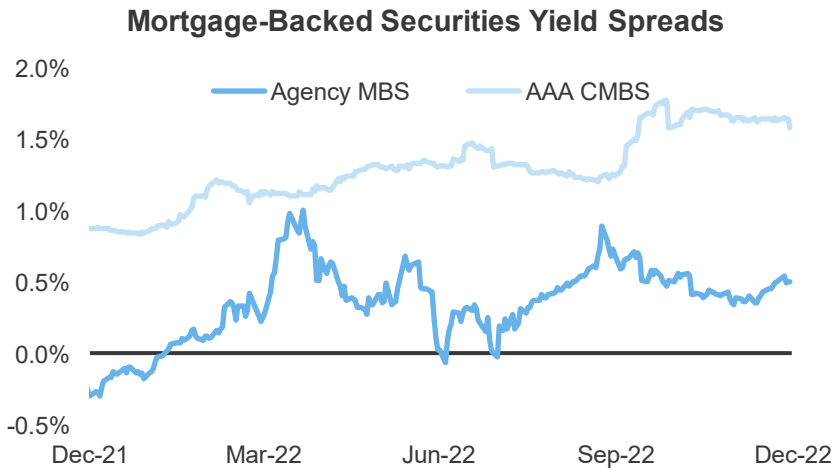


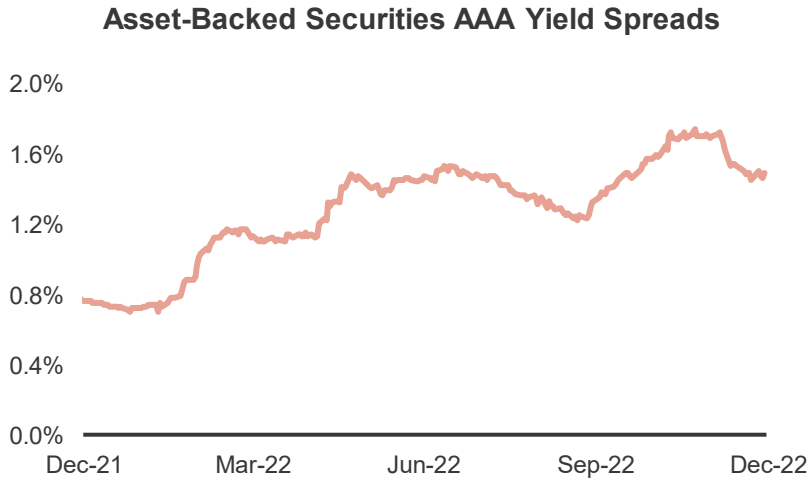
Source: ICE BofAML Indices via Bloomberg, as of 12/31/2022. PFMAM Calculations. Income return represents the yield of the benchmark index, as of the end of the prior calendar year, respective to the year of performance shown.

Sector Yield Spreads



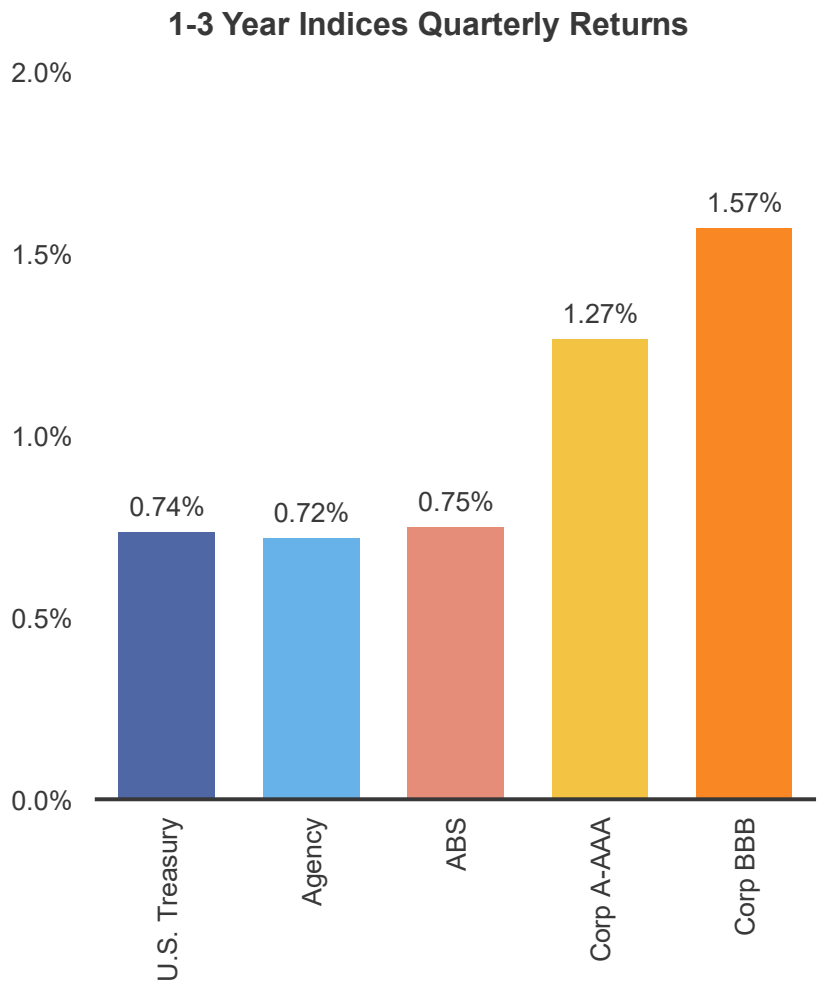


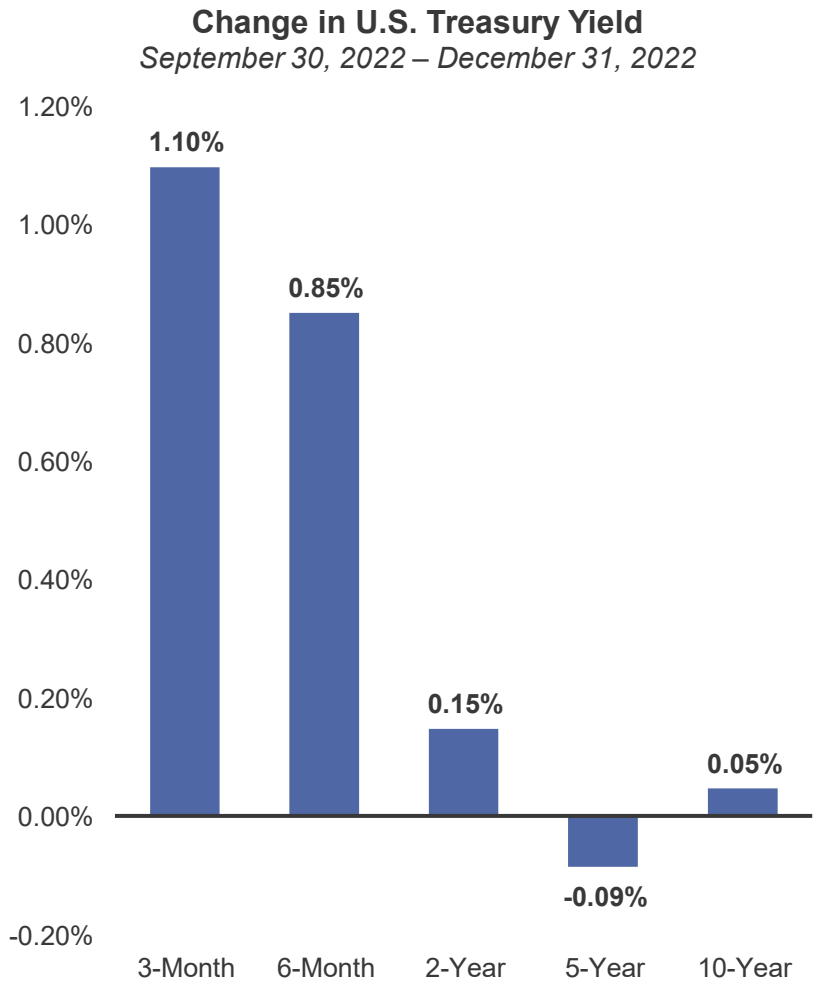




Source: ICE BofAML 1-3 year Indices via Bloomberg, MarketAxess and PFMAM as of 12/31/2022. Spreads on ABS and MBS are option-adjusted spreads of 0-3 year indices based on weighted average life; spreads on agencies are relative to comparable maturity Treasuries.
CMBS is Commercial Mortgage-Backed Securities.

Fixed-Income Markets in Q4 2022





Source: ICE BofAML Indices. ABS indices are 0-3 year, based on weighted average life. As of 12/31/2022.
Right Chart: Generic US Treasury securities via Bloomberg, change in yield from 9/30/2022 to 12/31/2022.

Account Summary

Fixed-Income Sector Commentary – 4Q 2022

- **U.S. Treasury** yields settled into a wide range after surging for the first three quarters of the year. The result of more stable yields was generally positive returns for the quarter.
- **Federal agency** bullet spreads finally broke single digits and climbed to the widest levels in the past 12 months for certain maturities. Callable structures were attractive early in the quarter as new issues came to market at wide levels on the heels of historically high bond volatility.
- **Supranational** issuance fell notably short of expectations in Q4 limiting new investment opportunities. Liquidity was better than that of federal agencies, which provided some ability to swap into other sectors which were more attractive.
- **Investment-Grade Corporate** yield spreads fluctuated in Q4 underscoring the historic levels of volatility experienced throughout the year. After reaching post-pandemic wides in late October, credit spreads reversed, ending the quarter modestly tighter. The sector generated strong excess returns in Q4 and buoyed portfolio returns relative to benchmarks.
- **Asset-Backed** yield spreads lagged the narrowing move in the corporate sector for much of Q4 but rallied into year end, ending the quarter only modestly wider than where they began. ABS and IG corporate spreads diverged markedly in November, growing to the widest margin since 2020 and leading to a year-end rally which brought performance just shy of matched-duration U.S. Treasuries.
- **Mortgage-Backed Securities** reversed course in Q4 after the dreadful negative returns for the first three quarters of 2022. Although still negative for the year, excess returns on MBS were near top-of-class amongst investment-grade options in Q4.
- **Taxable Municipal** issuance remained underwhelming as deals were heavily oversubscribed, dragging spreads lower, while secondary inventory at attractive levels was sparse.
- The **short-term credit** (commercial paper and CDs) yield curve was notably steep throughout the quarter as the market priced the expectation for further Fed rate increases. The aggressive pace of those rate hikes created valuable opportunities in floating-rate securities.

Account Summary

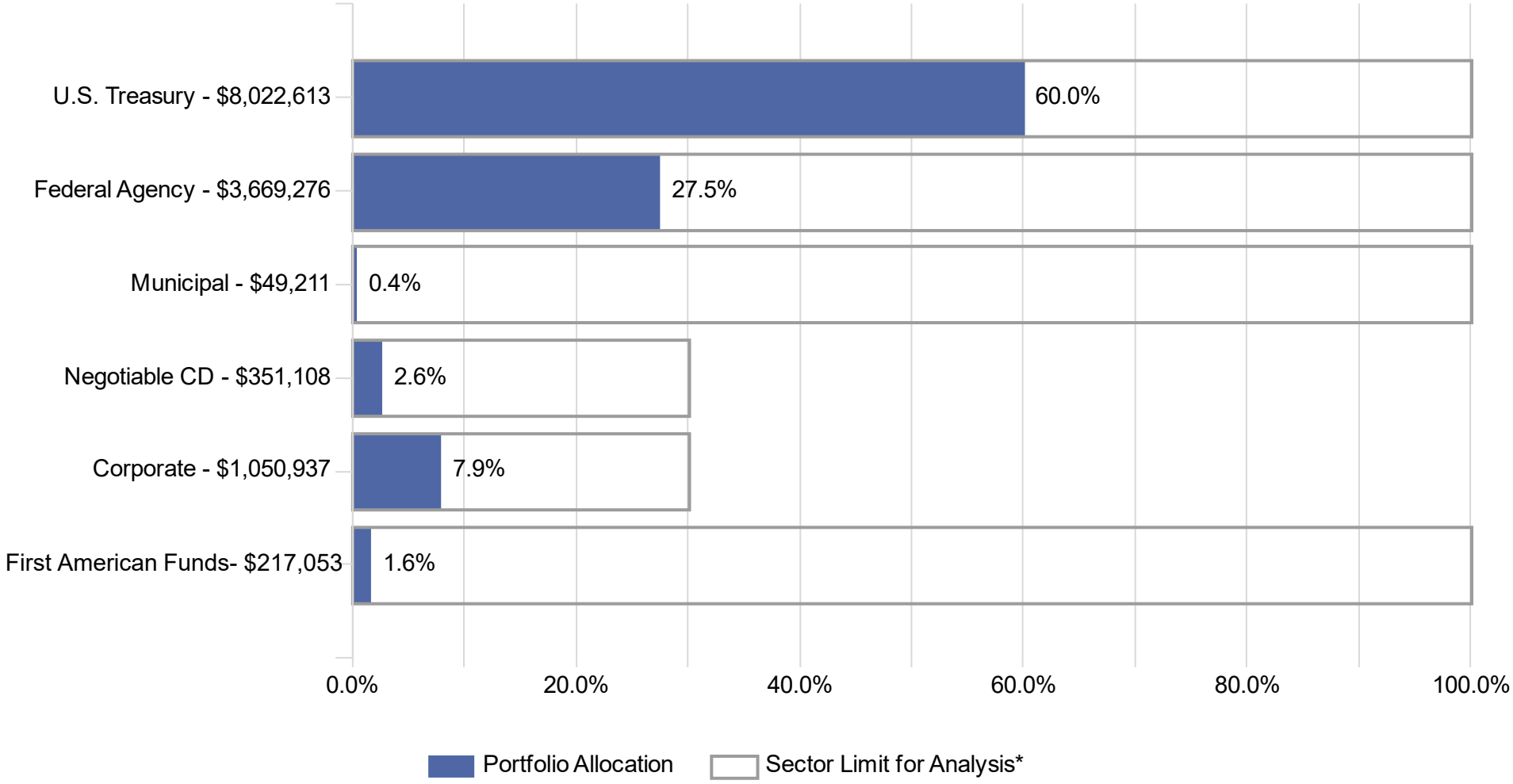
CHANDLER WORKERS COMP & EMPLOYER TRUST

Portfolio Values	December 31, 2022
PFMAM Managed Account	$13,092,953
Amortized Cost	$13,645,979
Market Value	$13,092,953
Accrued Interest	$50,193
Cash	$61,987

Analytics[1]	December 31, 2022
Yield at Market	4.64%
Yield on Cost	1.40%
Portfolio Duration	1.33

1. Yield at market, yield on cost, and portfolio duration only include investments held within the separately managed account(s), excludes balances invested in overnight funds.

Sector Allocation Analytics



For informational/analytical purposes only and is not provided for compliance assurance. Includes accrued interest.
**Sector Limit for Analysis is as derived from our interpretation of your most recent Investment Policy as provided.*

Issuer Diversification

Security Type / Issuer	Market Value (%)	S&P / Moody's / Fitch
U.S. Treasury	**61.0%**	
UNITED STATES TREASURY	61.0%	AA / Aaa / AAA
Federal Agency	**27.9%**	
FANNIE MAE	8.0%	AA / Aaa / AAA
FEDERAL HOME LOAN BANKS	6.5%	AA / Aaa / NR
FREDDIE MAC	13.4%	AA / Aaa / AAA
Municipal	**0.4%**	
CITY OF SCOTTSDALE	0.4%	AAA / Aaa / AAA
Negotiable CD	**2.7%**	
CREDIT SUISSE GROUP RK	2.7%	BBB / A / BBB
Corporate	**8.0%**	
ADOBE INC	0.8%	A / A / NR
AMAZON.COM INC	0.5%	AA / A / AA
BANK OF AMERICA CO	1.5%	A / A / AA
CATERPILLAR INC	0.7%	A / A / A
DEERE & COMPANY	0.3%	A / A / A
HERSHEY COMPANY	0.6%	A / A / NR
JP MORGAN CHASE & CO	1.2%	A / A / AA
STATE STREET CORPORATION	0.1%	A / A / AA
TEXAS INSTRUMENTS INC	1.1%	A / Aa / NR
TOYOTA MOTOR CORP	0.6%	A / A / A
WAL-MART STORES INC	0.6%	AA / Aa / AA
Total	**100.0%**	

Ratings shown are calculated by assigning a numeral value to each security rating, then calculating a weighted average rating for each security type / issuer category using all available security ratings, excluding Not-Rated (NR) ratings. For security type / issuer categories where a rating from the applicable NRSRO is not available, a rating of NR is assigned. Includes accrued interest and excludes balances invested in overnight funds.

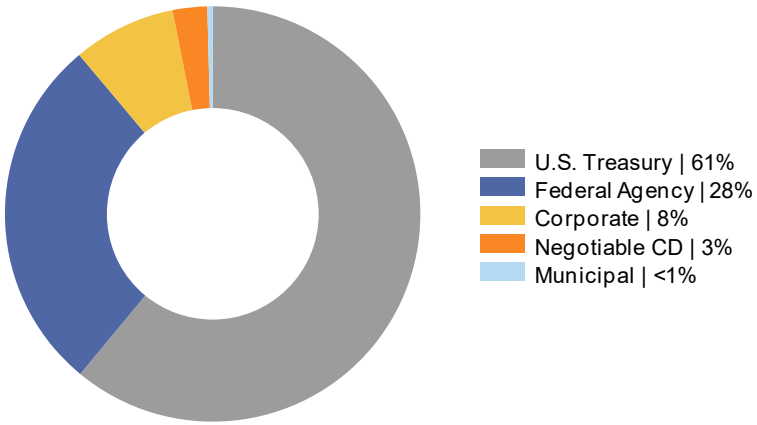
Portfolio Review:
CHANDLER WORKERS COMP & EMPLOYER TRUST

Portfolio Snapshot - CHANDLER WORKERS COMP & EMPLOYER TRUST[1]

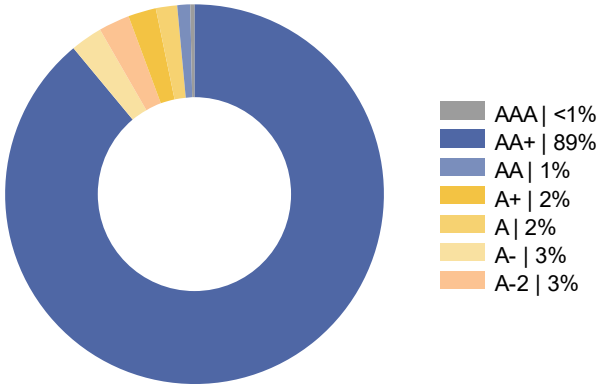
Portfolio Statistics

Total Market Value	$13,205,132.76
Securities Sub-Total	*$13,092,952.91*
Accrued Interest	*$50,192.62*
Cash	*$61,987.23*
Portfolio Effective Duration	1.33 years
Benchmark Effective Duration	1.74 years
Yield At Cost	1.40%
Yield At Market	4.64%
Portfolio Credit Quality	AA

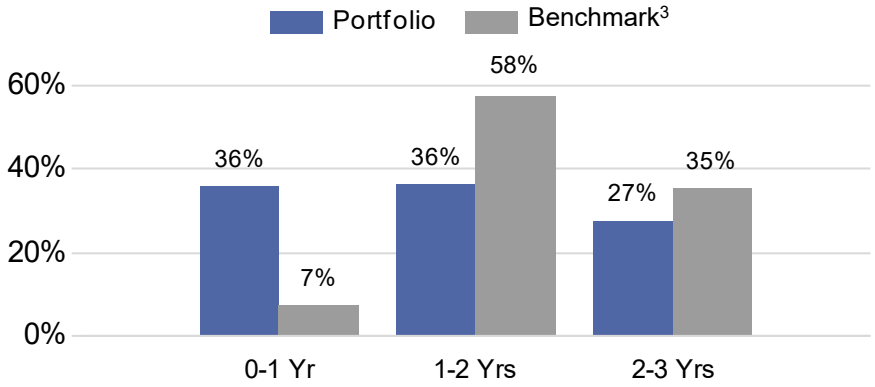
Sector Allocation



Credit Quality - S&P[2]



Duration Distribution



1. *Yield and duration calculations exclude cash and cash equivalents. Sector allocation includes market values and accrued interest.*
2. *An average of each security's credit rating was assigned a numeric value and adjusted for its relative weighting in the portfolio.*
3. *The portfolio's benchmark is currently the ICE BofAML 1-3 Year U.S Treasury Index. Prior to 3/31/17 it was the ICE BofAML 0-3 Year U.S Treasury Index. Source: Bloomberg.*

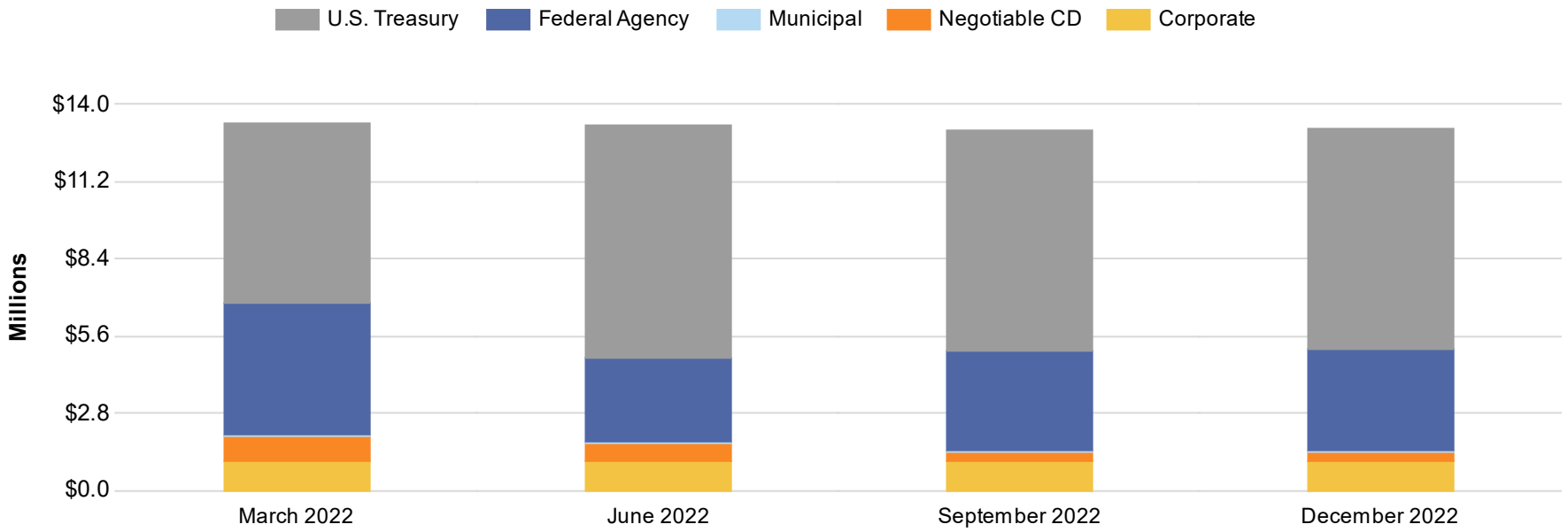
Liquidity Vehicle	Quarter-End Yield
Allspring Treasury Plus Money Market A Fund[1]	4.08%
First American Funds[2]	3.86%

1. *Allspring Treasury Plus Money Market A Fund ticker symbol PISXX. Account yield from the Trust custody statement as of 12/31/22.*

2. *First American Funds ticker symbol FGZXX; Account yield from statement as of 12/31/22. For U.S. Treasury, Treasury Obligations and Government Obligations – You could lose money by investing in the Fund. Although the Fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so. An investment in the Fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The Fund's sponsor has no legal obligation to provide financial support to the Fund, and you should not expect that the sponsor will provide financial support to the Fund at any time.*

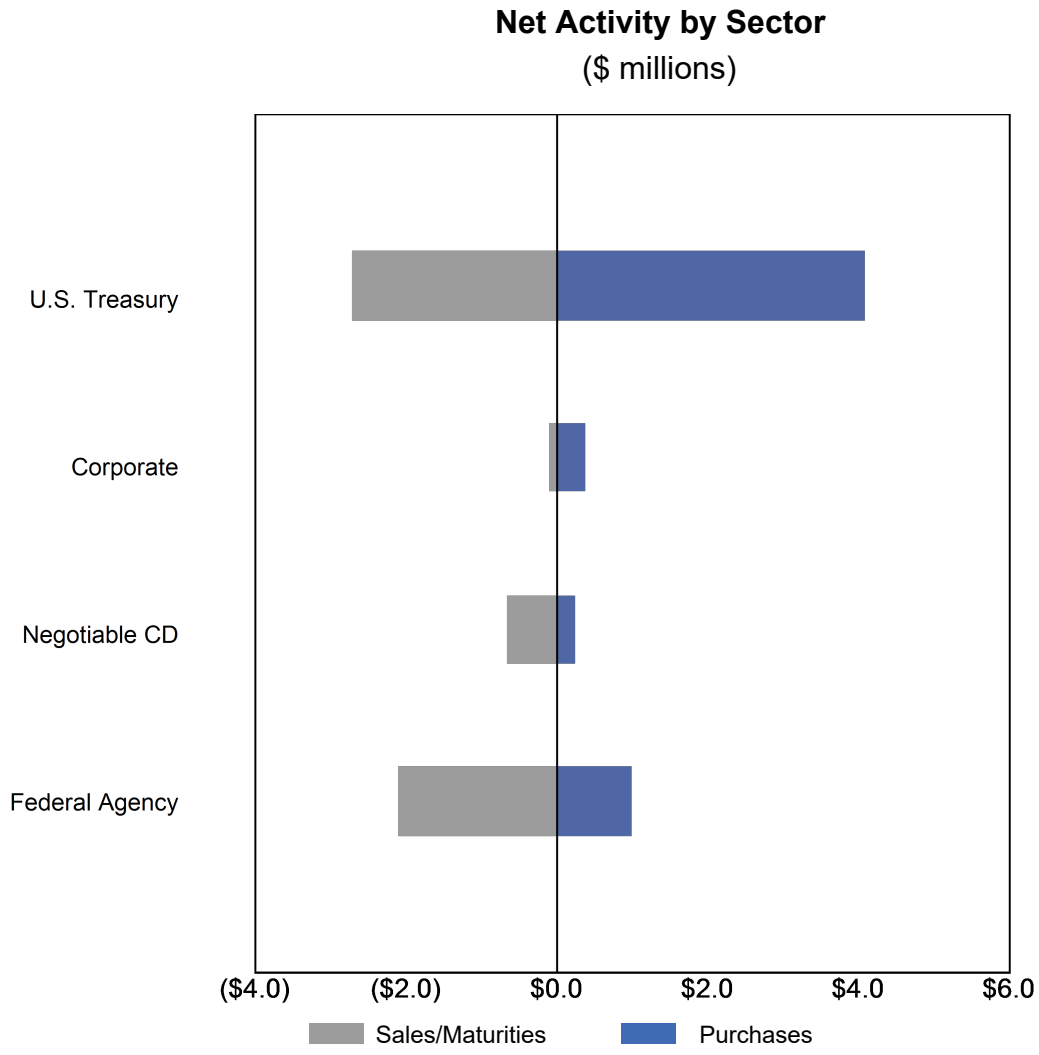
Sector Allocation Review - CHANDLER WORKERS COMP & EMPLOYER TRUST

Security Type	Mar-22	% of Total	Jun-22	% of Total	Sep-22	% of Total	Dec-22	% of Total
U.S. Treasury	$6.5	48.7%	$8.4	63.8%	$8.0	61.0%	$8.0	61.0%
Federal Agency	$4.8	36.1%	$3.0	23.0%	$3.6	27.9%	$3.7	27.9%
Municipal	$0.1	0.4%	$0.1	0.4%	$0.0	0.4%	$0.0	0.4%
Negotiable CD	$0.9	6.7%	$0.6	4.7%	$0.3	2.7%	$0.3	2.7%
Corporate	$1.1	8.1%	$1.1	8.1%	$1.0	8.0%	$1.0	8.0%
Total	**$13.3**	**100.0%**	**$13.2**	**100.0%**	**$13.0**	**100.0%**	**$13.1**	**100.0%**



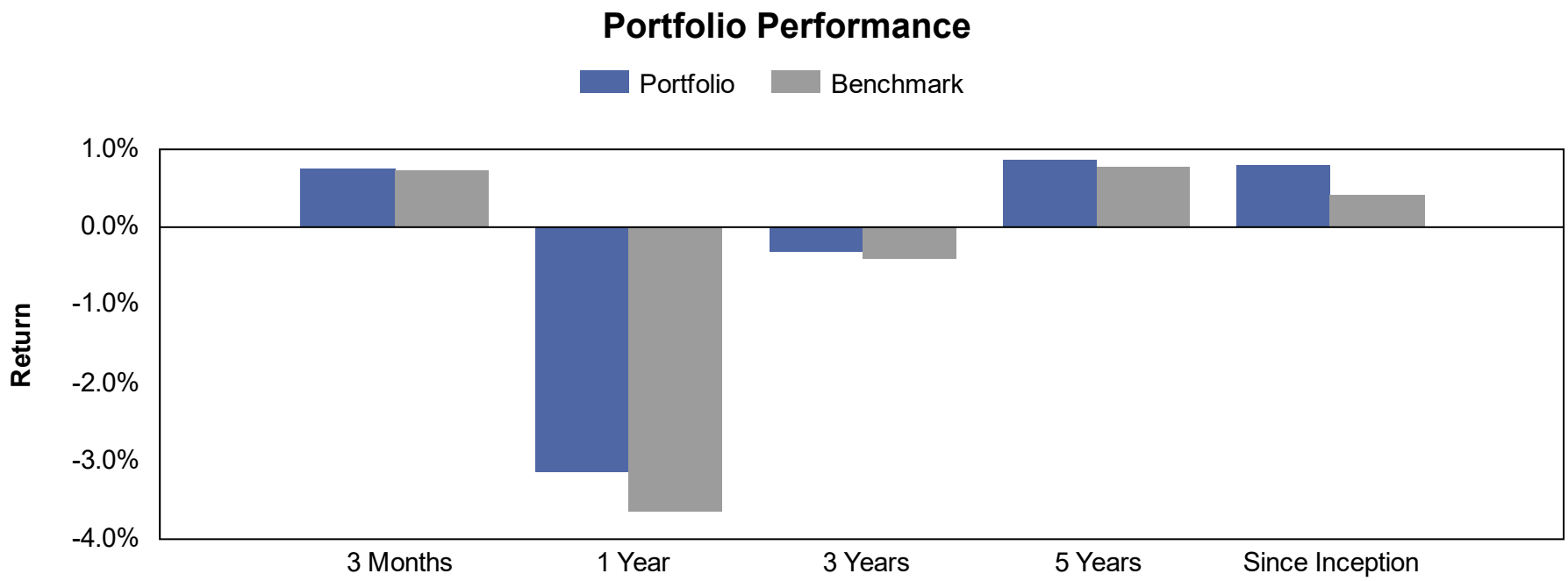
Market values, excluding accrued interest. Only includes fixed-income securities held within the separately managed account(s) and LGIPs managed by PFMAM. Detail may not add to total due to rounding.

Portfolio Activity (12 Months) - CHANDLER WORKERS COMP & EMPLOYER TRUST



Sector	Net Activity
U.S. Treasury	$1,369,312
Corporate	$284,896
Negotiable CD	($417,982)
Federal Agency	($1,108,682)
Total Net Activity	**$127,544**

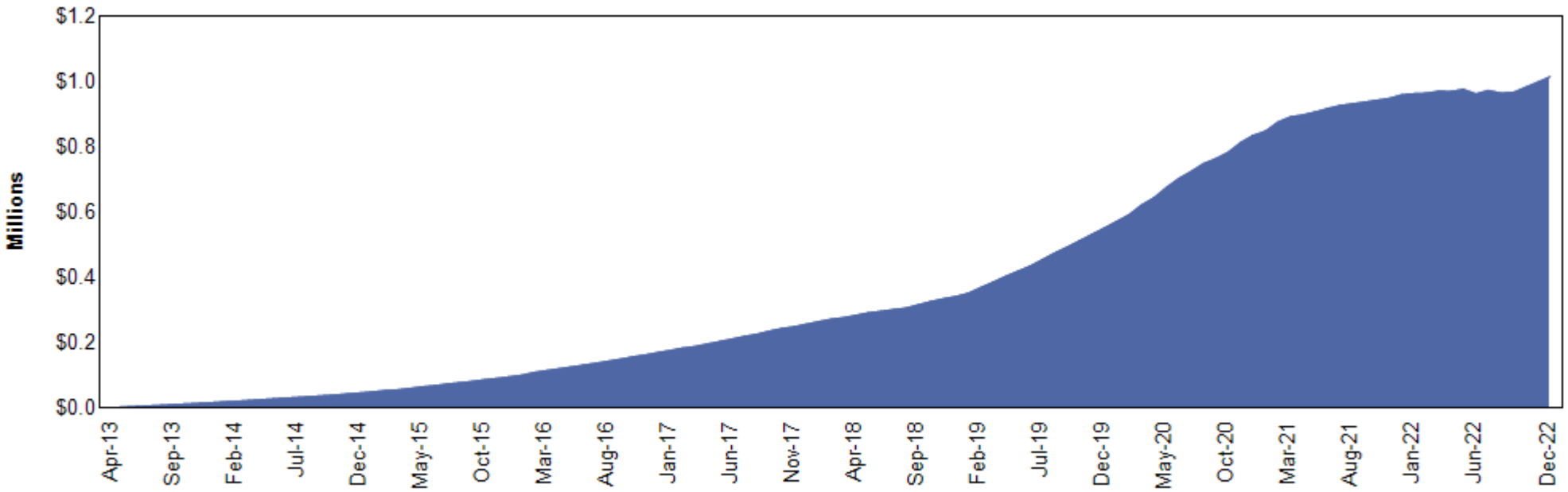
Based on total proceeds (principal and accrued interest) of buys, sells, maturities, and principal paydowns. Detail may not add to total due to rounding.



Market Value Basis Earnings	3 Months	1 Year	3 Years	5 Years	Since Inception[1]
Interest Earned[2]	$39,916	$118,601	$362,633	$638,971	$735,962
Change in Market Value	$59,363	($545,407)	($551,604)	($716,931)	($5,449,150)
Total Dollar Return	**$99,279**	**($426,806)**	**($188,972)**	**($77,960)**	**$6,185,113**
Total Return[3]					
Portfolio	0.76%	-3.13%	-0.32%	0.87%	0.79%
Benchmark[4]	0.74%	-3.65%	-0.41%	0.77%	0.41%
Difference	0.02%	0.52%	0.09%	0.10%	0.38%

1. *The lesser of 10 years or since inception is shown. Since inception returns for periods one year or less are not shown. Performance inception date is March 31, 2013.*
2. *Interest earned calculated as the ending accrued interest less beginning accrued interest, plus net interest activity.*
3. *Returns for periods one year or less are presented on a periodic basis. Returns for periods greater than one year are presented on an annualized basis.*
4. *The portfolio's benchmark is currently the ICE BofAML 1-3 Year U.S Treasury Index. Prior to 3/31/17 it was the ICE BofAML 0-3 Year U.S Treasury Index. Source: Bloomberg.*

Accrual Basis Earnings - CHANDLER WORKERS COMP & EMPLOYER TRUST



Accrual Basis Earnings	3 Months	1 Year	3 Years	5 Year	Since Inception[1]
Interest Earned[2]	$39,916	$118,601	$364,276	$638,971	$1,128,244
Realized Gains / (Losses)[3]	-	($63,143)	$91,104	$62,024	$70,665
Change in Amortized Cost	$8,275	$10,729	$7,491	$56,169	($184,018)
Total Earnings	**$48,191**	**$55,458**	**$462,870**	**$757,164**	**$1,014,891**

1. The lesser of 10 years or since inception is shown. Performance inception date is March 31, 2013.
2. Interest earned calculated as the ending accrued interest less beginning accrued interest, plus net interest activity.
3. Realized gains / (losses) are shown on an amortized cost basis.

Issuer Distribution
As of December 31, 2022

Issuer	Market Value ($)	% of Portfolio
UNITED STATES TREASURY	7,997,225	61.09%
FREDDIE MAC	1,760,792	13.45%
FANNIE MAE	1,047,403	8.00%
FEDERAL HOME LOAN BANKS	843,921	6.45%
CREDIT SUISSE GROUP RK	348,105	2.66%
BANK OF AMERICA CO	191,624	1.46%
JP MORGAN CHASE & CO	162,592	1.24%
TEXAS INSTRUMENTS INC	138,311	1.06%
ADOBE INC	99,657	0.76%
CATERPILLAR INC	94,342	0.72%
HERSHEY COMPANY	84,518	0.65%
WAL-MART STORES INC	78,899	0.60%
TOYOTA MOTOR CORP	73,258	0.56%
AMAZON.COM INC	66,037	0.50%
CITY OF SCOTTSDALE	49,044	0.37%
DEERE & COMPANY	38,538	0.29%
STATE STREET CORPORATION	18,686	0.14%
Grand Total	**13,092,953**	**100.00%**

Managed Account Detail of Securities Held

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
U.S. Treasury											
US TREASURY NOTES DTD 10/01/2018 2.875% 09/30/2023	9128285D8	285,000.00	AA+	Aaa	9/27/2021	9/28/2021	299,639.65	0.30	2,093.46	290,439.87	281,348.44
US TREASURY NOTES DTD 01/15/2021 0.125% 01/15/2024	91282CBE0	588,000.00	AA+	Aaa	2/2/2021	2/4/2021	587,058.28	0.18	339.54	587,667.99	560,621.25
US TREASURY NOTES DTD 03/15/2021 0.250% 03/15/2024	91282CBR1	625,000.00	AA+	Aaa	4/5/2021	4/7/2021	622,973.63	0.36	466.16	624,170.94	592,578.13
US TREASURY NOTES DTD 03/15/2021 0.250% 03/15/2024	91282CBR1	305,000.00	AA+	Aaa	9/27/2021	9/28/2021	303,701.37	0.42	227.49	304,365.85	289,178.12
US TREASURY NOTES DTD 03/31/2017 2.125% 03/31/2024	912828W71	515,000.00	AA+	Aaa	1/5/2022	1/6/2022	529,162.50	0.88	2,796.07	522,906.67	498,825.81
US TREASURY N/B NOTES DTD 04/15/2021 0.375% 04/15/2024	91282CBV2	595,000.00	AA+	Aaa	5/3/2021	5/4/2021	595,952.93	0.32	478.13	595,415.86	563,018.75
US TREASURY N/B NOTES DTD 05/15/2021 0.250% 05/15/2024	91282CCC3	200,000.00	AA+	Aaa	6/1/2021	6/2/2021	199,679.69	0.30	64.92	199,851.43	188,250.00
US TREASURY N/B NOTES DTD 09/15/2021 0.375% 09/15/2024	91282CCX7	235,000.00	AA+	Aaa	10/4/2021	10/6/2021	234,127.93	0.50	262.92	234,494.61	218,953.92
US TREASURY N/B NOTES DTD 09/15/2021 0.375% 09/15/2024	91282CCX7	155,000.00	AA+	Aaa	9/27/2021	9/28/2021	154,182.62	0.55	173.41	154,529.80	144,416.41
US TREASURY N/B NOTES DTD 10/15/2021 0.625% 10/15/2024	91282CDB4	105,000.00	AA+	Aaa	11/2/2021	11/3/2021	104,700.59	0.72	140.63	104,818.46	98,027.35
US TREASURY N/B NOTES DTD 11/15/2021 0.750% 11/15/2024	91282CDH1	465,000.00	AA+	Aaa	12/3/2021	12/7/2021	462,983.79	0.90	452.80	463,715.93	434,048.44
US TREASURY N/B NOTES DTD 11/15/2021 0.750% 11/15/2024	91282CDH1	280,000.00	AA+	Aaa	1/4/2022	1/6/2022	277,976.56	1.01	272.65	278,674.30	261,362.50
US TREASURY NOTES DTD 11/30/2019 1.500% 11/30/2024	912828YV6	260,000.00	AA+	Aaa	6/2/2021	6/4/2021	269,638.28	0.43	342.86	265,284.05	245,984.39
US TREASURY N/B NOTES DTD 12/15/2021 1.000% 12/15/2024	91282CDN8	185,000.00	AA+	Aaa	12/9/2021	12/15/2021	185,028.91	0.99	86.40	185,018.83	173,090.63
US TREASURY NOTES DTD 01/31/2020 1.375% 01/31/2025	912828Z52	270,000.00	AA+	Aaa	7/2/2021	7/7/2021	277,519.92	0.58	1,553.60	274,388.54	253,589.08

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
U.S. Treasury											
US TREASURY N/B NOTES DTD 02/15/2022 1.500% 02/15/2025	91282CDZ1	255,000.00	AA+	Aaa	5/3/2022	5/4/2022	245,397.66	2.92	1,444.77	247,680.34	239,939.06
US TREASURY N/B NOTES DTD 02/15/2022 1.500% 02/15/2025	91282CDZ1	310,000.00	AA+	Aaa	2/17/2022	2/25/2022	307,832.42	1.74	1,756.39	308,451.16	291,690.63
US TREASURY N/B NOTES DTD 02/15/2022 1.500% 02/15/2025	91282CDZ1	575,000.00	AA+	Aaa	4/5/2022	4/7/2022	555,391.60	2.75	3,257.81	560,439.12	541,039.06
US TREASURY NOTES DTD 04/30/2020 0.375% 04/30/2025	912828ZL7	1,480,000.00	AA+	Aaa	6/6/2022	6/8/2022	1,376,689.06	2.91	950.55	1,396,921.19	1,350,500.00
US TREASURY N/B NOTES DTD 06/15/2022 2.875% 06/15/2025	91282CEU1	140,000.00	AA+	Aaa	8/2/2022	8/4/2022	139,704.69	2.95	187.98	139,747.04	135,253.13
US TREASURY N/B NOTES DTD 07/15/2022 3.000% 07/15/2025	91282CEY3	150,000.00	AA+	Aaa	8/15/2022	8/16/2022	149,390.63	3.15	2,078.80	149,469.66	145,265.63
US TREASURY N/B NOTES DTD 08/15/2022 3.125% 08/15/2025	91282CFE6	505,000.00	AA+	Aaa	9/1/2022	9/6/2022	499,476.56	3.52	5,960.85	500,078.28	490,244.51
Security Type Sub-Total		**8,483,000.00**					**8,378,209.27**	**1.47**	**25,388.19**	**8,388,529.92**	**7,997,225.24**
Negotiable CD											
CREDIT SUISSE NEW YORK CERT DEPOS DTD 02/04/2022 1.100% 02/03/2023	22552G6R6	250,000.00	A-2	P-2	2/3/2022	2/4/2022	250,000.00	1.10	2,528.47	250,000.00	249,070.00
CREDIT SUISSE NEW YORK CERT DEPOS DTD 03/23/2021 0.590% 03/17/2023	22552G3C2	100,000.00	A-2	P-2	3/19/2021	3/23/2021	100,000.00	0.59	475.28	100,000.00	99,034.60
Security Type Sub-Total		**350,000.00**					**350,000.00**	**0.95**	**3,003.75**	**350,000.00**	**348,104.60**
Municipal											
SCOTTSDALE, AZ TXBL GO BONDS DTD 12/30/2020 0.608% 07/01/2025	810454BL1	55,000.00	AAA	Aaa	12/10/2020	12/30/2020	55,000.00	0.61	167.20	55,000.00	49,044.05
Security Type Sub-Total		**55,000.00**					**55,000.00**	**0.61**	**167.20**	**55,000.00**	**49,044.05**

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Federal Agency											
FREDDIE MAC NOTES DTD 06/26/2020 0.250% 06/26/2023	3137EAES4	80,000.00	AA+	Aaa	6/24/2020	6/26/2020	79,766.40	0.35	2.78	79,962.45	78,263.60
FANNIE MAE NOTES DTD 07/10/2020 0.250% 07/10/2023	3135G05G4	210,000.00	AA+	Aaa	7/8/2020	7/10/2020	209,548.50	0.32	249.38	209,921.66	205,121.70
FANNIE MAE NOTES (CALLABLE) DTD 08/10/2020 0.300% 08/10/2023	3135G05R0	240,000.00	AA+	Aaa	8/11/2020	8/12/2020	239,568.00	0.36	282.00	239,912.65	233,477.52
FANNIE MAE NOTES (CALLABLE) DTD 08/18/2020 0.360% 08/18/2023	3135G05V1	145,000.00	AA+	Aaa	8/20/2020	8/21/2020	145,000.00	0.36	192.85	145,000.00	140,972.19
FREDDIE MAC NOTES DTD 08/21/2020 0.250% 08/24/2023	3137EAEV7	105,000.00	AA+	Aaa	8/19/2020	8/21/2020	104,892.90	0.28	92.60	104,977.08	101,963.51
FREDDIE MAC NOTES DTD 09/04/2020 0.250% 09/08/2023	3137EAEW5	50,000.00	AA+	Aaa	9/2/2020	9/4/2020	50,009.13	0.24	39.24	50,002.08	48,464.60
FREDDIE MAC NOTES DTD 09/04/2020 0.250% 09/08/2023	3137EAEW5	70,000.00	AA+	Aaa	9/2/2020	9/4/2020	69,976.90	0.26	54.93	69,994.75	67,850.44
FREDDIE MAC NOTES DTD 10/16/2020 0.125% 10/16/2023	3137EAEY1	155,000.00	AA+	Aaa	10/14/2020	10/16/2020	154,421.85	0.25	40.36	154,847.94	149,334.29
FREDDIE MAC NOTES DTD 11/05/2020 0.250% 11/06/2023	3137EAEZ8	570,000.00	AA+	Aaa	11/3/2020	11/5/2020	569,487.00	0.28	217.71	569,855.37	548,256.78
FANNIE MAE NOTES DTD 11/25/2020 0.250% 11/27/2023	3135G06H1	205,000.00	AA+	Aaa	1/7/2021	1/8/2021	205,055.35	0.24	48.40	205,017.35	196,632.93
FANNIE MAE NOTES DTD 11/25/2020 0.250% 11/27/2023	3135G06H1	150,000.00	AA+	Aaa	11/23/2020	11/25/2020	149,829.00	0.29	35.42	149,948.56	143,877.75
FREDDIE MAC NOTES DTD 12/04/2020 0.250% 12/04/2023	3137EAFA2	95,000.00	AA+	Aaa	12/2/2020	12/4/2020	94,905.95	0.28	17.81	94,971.05	91,040.78
FREDDIE MAC NOTES DTD 12/04/2020 0.250% 12/04/2023	3137EAFA2	705,000.00	AA+	Aaa	12/4/2020	12/7/2020	704,739.15	0.26	132.19	704,919.50	675,618.42
FEDERAL HOME LOAN BANK NOTES (CALLABLE) DTD 08/08/2022 4.100% 08/08/2025	3130ASRJ0	860,000.00	AA+	Aaa	8/5/2022	8/8/2022	859,570.00	4.12	14,006.06	859,627.28	843,920.58
FANNIE MAE NOTES (CALLABLE) DTD 08/30/2022 4.000% 08/28/2025	3135GACV1	130,000.00	AA+	Aaa	8/25/2022	8/30/2022	129,993.50	4.00	1,747.78	129,994.24	127,321.22
Security Type Sub-Total		**3,770,000.00**					**3,766,763.63**	**1.30**	**17,159.51**	**3,768,951.96**	**3,652,116.31**

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Corporate											
ADOBE INC CORP NOTE DTD 02/03/2020 1.700% 02/01/2023	00724PAA7	100,000.00	A+	A2	1/22/2020	2/3/2020	99,863.00	1.75	708.33	99,996.12	99,657.20
CATERPILLAR FINL SERVICE CORPORATE NOTES DTD 03/01/2021 0.250% 03/01/2023	14913R2J5	95,000.00	A	A2	2/22/2021	3/1/2021	94,918.30	0.29	79.17	94,993.40	94,342.13
HERSHEY COMPANY (CALLABLE) DTD 05/10/2018 3.375% 05/15/2023	427866AZ1	85,000.00	A	A1	3/11/2020	3/13/2020	88,299.70	2.10	366.56	85,304.23	84,518.39
TOYOTA MOTOR CREDIT CORP CORPORATE NOTES DTD 05/26/2020 1.350% 08/25/2023	89236THA6	75,000.00	A+	A1	5/20/2020	5/26/2020	74,972.25	1.36	354.38	74,994.48	73,257.75
JOHN DEERE CAPITAL CORP CORPORATE NOTES DTD 01/10/2022 0.900% 01/10/2024	24422EVX4	40,000.00	A	A2	1/4/2022	1/10/2022	39,993.60	0.91	171.00	39,996.72	38,537.96
AMAZON.COM INC CORPORATE NOTES DTD 05/12/2021 0.450% 05/12/2024	023135BW5	70,000.00	AA	A1	5/10/2021	5/12/2021	69,897.80	0.50	42.88	69,953.66	66,036.67
TEXAS INSTRUMENTS INC CORP NOTES (CALLAB DTD 05/04/2017 2.625% 05/15/2024	882508BB9	142,000.00	A+	Aa3	2/23/2022	2/25/2022	144,232.24	1.90	476.29	143,308.35	138,311.41
BANK OF AMERICA CORP (CALLABLE) CORPORAT DTD 10/21/2020 0.810% 10/24/2024	06051GJH3	100,000.00	A-	A2	10/16/2020	10/21/2020	100,000.00	0.81	150.75	100,000.00	95,909.80
BANK OF AMERICA CORP CORP NOTES (CALLABL DTD 02/04/2022 1.843% 02/04/2025	06051GKG3	100,000.00	A-	A2	2/1/2022	2/4/2022	100,000.00	1.84	752.56	100,000.00	95,714.10
JPMORGAN CHASE & CO (CALLABLE) CORP NOTE DTD 06/01/2021 0.824% 06/01/2025	46647PCH7	115,000.00	A-	A1	5/24/2021	6/1/2021	115,000.00	0.82	78.97	115,000.00	107,247.74
JPMORGAN CHASE & CO CORP NOTES (CALLABLE DTD 08/10/2021 0.768% 08/09/2025	46647PCM6	60,000.00	A-	A1	8/3/2021	8/10/2021	60,000.00	0.77	181.76	60,000.00	55,344.42
WALMART INC CORPORATE NOTES DTD 09/09/2022 3.900% 09/09/2025	931142EW9	80,000.00	AA	Aa2	9/6/2022	9/9/2022	79,944.00	3.93	970.67	79,949.82	78,899.04

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Corporate											
STATE STREET CORP (CALLABLE) CORPORATE N DTD 02/07/2022 1.746% 02/06/2026	857477BR3	20,000.00	A	A1	2/2/2022	2/7/2022	20,000.00	1.75	140.65	20,000.00	18,686.10
Security Type Sub-Total		**1,082,000.00**					**1,087,120.89**	**1.47**	**4,473.97**	**1,083,496.78**	**1,046,462.71**
Managed Account Sub Total		**13,740,000.00**					**13,637,093.79**	**1.40**	**50,192.62**	**13,645,978.66**	**13,092,952.91**
Securities Sub Total		**$13,740,000.00**					**$13,637,093.79**	**1.40%**	**$50,192.62**	**$13,645,978.66**	**$13,092,952.91**
Accrued Interest											**$50,192.62**
Total Investments											**$13,143,145.53**

Quarterly Portfolio Transactions

Trade Date	Settle Date	Par ($)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount ($)	Yield at Market	Realized G/L (BV)
INTEREST									
10/3/2022	10/3/2022		MONEY0002	MONEY MARKET FUND			52.58		
10/15/2022	10/15/2022	595,000.00	91282CBV2	US TREASURY N/B NOTES	0.37%	4/15/2024	1,115.63		
10/15/2022	10/15/2022	105,000.00	91282CDB4	US TREASURY N/B NOTES	0.62%	10/15/2024	328.13		
10/16/2022	10/16/2022	155,000.00	3137EAEY1	FREDDIE MAC NOTES	0.12%	10/16/2023	96.88		
10/24/2022	10/24/2022	100,000.00	06051GJH3	BANK OF AMERICA CORP (CALLABLE) CORPORAT	0.81%	10/24/2024	405.00		
10/31/2022	10/31/2022	1,480,000.00	912828ZL7	US TREASURY NOTES	0.37%	4/30/2025	2,775.00		
11/1/2022	11/1/2022		MONEY0002	MONEY MARKET FUND			92.47		
11/6/2022	11/6/2022	570,000.00	3137EAEZ8	FREDDIE MAC NOTES	0.25%	11/6/2023	712.50		
11/12/2022	11/12/2022	70,000.00	023135BW5	AMAZON.COM INC CORPORATE NOTES	0.45%	5/12/2024	157.50		
11/15/2022	11/15/2022	85,000.00	427866AZ1	HERSHEY COMPANY (CALLABLE)	3.37%	5/15/2023	1,434.38		
11/15/2022	11/15/2022	200,000.00	91282CCC3	US TREASURY N/B NOTES	0.25%	5/15/2024	250.00		
11/15/2022	11/15/2022	745,000.00	91282CDH1	US TREASURY N/B NOTES	0.75%	11/15/2024	2,793.75		
11/15/2022	11/15/2022	142,000.00	882508BB9	TEXAS INSTRUMENTS INC CORP NOTES (CALLAB	2.62%	5/15/2024	1,863.75		
11/27/2022	11/27/2022	355,000.00	3135G06H1	FANNIE MAE NOTES	0.25%	11/27/2023	443.75		
11/30/2022	11/30/2022	260,000.00	912828YV6	US TREASURY NOTES	1.50%	11/30/2024	1,950.00		
12/1/2022	12/1/2022	115,000.00	46647PCH7	JPMORGAN CHASE & CO (CALLABLE) CORP NOTE	0.82%	6/1/2025	473.80		
12/1/2022	12/1/2022		MONEY0002	MONEY MARKET FUND			137.83		

Quarterly Portfolio Transactions

Trade Date	Settle Date	Par ($)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount ($)	Yield at Market	Realized G/L (BV)
INTEREST									
12/4/2022	12/4/2022	800,000.00	3137EAFA2	FREDDIE MAC NOTES	0.25%	12/4/2023	1,000.00		
12/15/2022	12/15/2022	185,000.00	91282CDN8	US TREASURY N/B NOTES	1.00%	12/15/2024	925.00		
12/15/2022	12/15/2022	140,000.00	91282CEU1	US TREASURY N/B NOTES	2.87%	6/15/2025	2,012.50		
12/26/2022	12/26/2022	80,000.00	3137EAES4	FREDDIE MAC NOTES	0.25%	6/26/2023	100.00		
Total INTEREST		**6,182,000.00**					**19,120.45**		**0.00**

Quarterly Portfolio Transactions

Tran. Type	Trade Date	Settle Date	Par ($)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount ($)	Yield at Market	Realized G/L (BV)
INTEREST	10/3/2022	10/3/2022		MONEY0002	MONEY MARKET FUND			52.58		
INTEREST	10/15/2022	10/15/2022	595,000.00	91282CBV2	US TREASURY N/B NOTES	0.37%	4/15/2024	1,115.63		
INTEREST	10/15/2022	10/15/2022	105,000.00	91282CDB4	US TREASURY N/B NOTES	0.62%	10/15/2024	328.13		
INTEREST	10/16/2022	10/16/2022	155,000.00	3137EAEY1	FREDDIE MAC NOTES	0.12%	10/16/2023	96.88		
INTEREST	10/24/2022	10/24/2022	100,000.00	06051GJH3	BANK OF AMERICA CORP (CALLABLE)	0.81%	10/24/2024	405.00		
INTEREST	10/31/2022	10/31/2022	1,480,000.00	912828ZL7	US TREASURY NOTES	0.37%	4/30/2025	2,775.00		
INTEREST	11/1/2022	11/1/2022		MONEY0002	MONEY MARKET FUND			92.47		
INTEREST	11/6/2022	11/6/2022	570,000.00	3137EAEZ8	FREDDIE MAC NOTES	0.25%	11/6/2023	712.50		
INTEREST	11/12/2022	11/12/2022	70,000.00	023135BW5	AMAZON.COM INC CORPORATE NOTES	0.45%	5/12/2024	157.50		
INTEREST	11/15/2022	11/15/2022	85,000.00	427866AZ1	HERSHEY COMPANY (CALLABLE)	3.37%	5/15/2023	1,434.38		
INTEREST	11/15/2022	11/15/2022	200,000.00	91282CCC3	US TREASURY N/B NOTES	0.25%	5/15/2024	250.00		
INTEREST	11/15/2022	11/15/2022	745,000.00	91282CDH1	US TREASURY N/B NOTES	0.75%	11/15/2024	2,793.75		
INTEREST	11/15/2022	11/15/2022	142,000.00	882508BB9	TEXAS INSTRUMENTS INC CORP	2.62%	5/15/2024	1,863.75		
INTEREST	11/27/2022	11/27/2022	355,000.00	3135G06H1	FANNIE MAE NOTES	0.25%	11/27/2023	443.75		
INTEREST	11/30/2022	11/30/2022	260,000.00	912828YV6	US TREASURY NOTES	1.50%	11/30/2024	1,950.00		
INTEREST	12/1/2022	12/1/2022	115,000.00	46647PCH7	JPMORGAN CHASE & CO (CALLABLE)	0.82%	6/1/2025	473.80		
INTEREST	12/1/2022	12/1/2022		MONEY0002	MONEY MARKET FUND			137.83		
INTEREST	12/4/2022	12/4/2022	800,000.00	3137EAFA2	FREDDIE MAC NOTES	0.25%	12/4/2023	1,000.00		

Quarterly Portfolio Transactions

Tran. Type	Trade Date	Settle Date	Par ($)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount ($)	Yield at Market	Realized G/L (BV)
INTEREST	12/15/2022	12/15/2022	185,000.00	91282CDN8	US TREASURY N/B NOTES	1.00%	12/15/2024	925.00		
INTEREST	12/15/2022	12/15/2022	140,000.00	91282CEU1	US TREASURY N/B NOTES	2.87%	6/15/2025	2,012.50		
INTEREST	12/26/2022	12/26/2022	80,000.00	3137EAES4	FREDDIE MAC NOTES	0.25%	6/26/2023	100.00		
TOTALS			**6,182,000.00**					**19,120.45**		**0.00**

Important Disclosures

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It is not possible to invest directly in an index. The index returns shown throughout this material do not represent the results of actual trading of investor assets. Third-party providers maintain the indices shown and calculate the index levels and performance shown or discussed. Index returns do not reflect payment of any sales charges or fees an investor would pay to purchase the securities they represent. The imposition of these fees and charges would cause investment performance to be lower than the performance shown.

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- In accordance with generally accepted accounting principles, information is presented on a trade date basis; forward settling purchases are included in the monthly balances, and forward settling sales are excluded.
- Performance is presented in accordance with the CFA Institute's Global Investment Performance Standards (GIPS). Unless otherwise noted, performance is shown gross of fees. Quarterly returns are presented on an unannualized basis. Returns for periods greater than one year are presented on an annualized basis. Past performance is not indicative of future returns.
- Bank of America/Merrill Lynch Indices provided by Bloomberg Financial Markets.
- Money market fund/cash balances are included in performance and duration computations.
- Standard & Poor's is the source of the credit ratings. Distribution of credit rating is exclusive of money market fund/LGIP holdings.
- Callable securities in the portfolio are included in the maturity distribution analysis to their stated maturity date, although, they may be called prior to maturity.
- MBS maturities are represented by expected average life.

Glossary

- Accrued Interest: Interest that is due on a bond or other fixed income security since the last interest payment was made.
- Agencies: Federal agency securities and/or Government-sponsored enterprises.
- Amortized Cost: The original cost of the principal of the security is adjusted for the amount of the periodic reduction of any discount or premium from the purchase date until the date of the report. Discount or premium with respect to short-term securities (those with less than one year to maturity at time of issuance) is amortized on a straight line basis. Such discount or premium with respect to longer-term securities is amortized using the constant yield basis.
- Asset-Backed Security: A financial instrument collateralized by an underlying pool of assets – usually ones that generate a cash flow from debt, such as loans, leases, credit card balances, and receivables.
- Bankers' Acceptance: A draft or bill or exchange accepted by a bank or trust company. The accepting institution guarantees payment of the bill as well as the insurer.
- Commercial Paper: An unsecured obligation issued by a corporation or bank to finance its short-term credit needs, such as accounts receivable and inventory.
- Contribution to Total Return: The weight of each individual security multiplied by its return, then summed for each sector to determine how much each sector added or subtracted from the overall portfolio performance.
- Effective Duration: A measure of the sensitivity of a security's price to a change in interest rates, stated in years.
- Effective Yield: The total yield an investor receives in relation to the nominal yield or coupon of a bond. Effective yield takes into account the power of compounding on investment returns, while nominal yield does not.
- FDIC: Federal Deposit Insurance Corporation. A federal agency that insures bank deposits to a specified amount.
- Interest Rate: Interest per year divided by principal amount and expressed as a percentage.
- Market Value: The value that would be received or paid for an investment in an orderly transaction between market participants at the measurement date.
- Maturity: The date upon which the principal or stated value of an investment becomes due and payable.
- Negotiable Certificates of Deposit: A CD with a very large denomination, usually $1 million or more, that can be traded in secondary markets.
- Par Value: The nominal dollar face amount of a security.
- Pass-through Security: A security representing pooled debt obligations that passes income from debtors to its shareholders. The most common type is the mortgage-backed security.

Glossary

- Repurchase Agreements: A holder of securities sells these securities to an investor with an agreement to repurchase them at a fixed price on a fixed date.
- Settle Date: The date on which the transaction is settled and monies/securities are exchanged. If the settle date of the transaction (i.e., coupon payments and maturity proceeds) occurs on a non-business day, the funds are exchanged on the next business day.
- Supranational: A multinational union or association in which member countries cede authority and sovereignty on at least some internal matters to the group, whose decisions are binding on its members.
- Trade Date: The date on which the transaction occurred; however, the final consummation of the security transaction and payment has not yet taken place.
- Unsettled Trade: A trade which has been executed; however, the final consummation of the security transaction and payment has not yet taken place.
- U.S. Treasury: The department of the U.S. government that issues Treasury securities.
- Yield: The rate of return based on the current market value, the annual interest receipts, maturity value, and the time period remaining until maturity, stated as a percentage on an annualized basis.
- YTM at Cost: The yield to maturity at cost is the expected rate of return based on the original cost, the annual interest receipts, maturity value, and the time period from purchase date to maturity, stated as a percentage on an annualized basis.
- YTM at Market: The yield to maturity at market is the rate of return based on the current market value, the annual interest receipts, maturity value, and the time period remaining until maturity, stated as a percentage on an annualized basis.

ITEM 6

Workers' Compensation And Employer Liability Trust Board Human Resources Memo No.

Date: 02/02/2023

To: Workers' Compensation And Employer Liability Trust Board

From: Teresa Canjar, Management Assistant

Subject: **Rate Contribution and Reserve Recommendation - Management Services**

Attachments

WC Contribution Analysis

Workers' Compensation and Employer Liability Trust
Contribution and Reserve Analysis for FY 2023-24

Actuarial Report Comparison	June 30, 2021	June 30, 2022	Change from Prior Year
	Nominal/Central Value		
Estimated Unpaid Losses & ALAE	10,458,761	10,504,362	45,601
Projected Ultimate Losses & ALAE	2,700,000	2,907,000	207,000
	13,158,761	13,411,362	252,601
			1.9%

Audit Report Comparison	June 30, 2021	June 30, 2022	Change from Prior Year
	Net Position		
Net Position, restated	4,001,471	3,705,693	(295,778)
IBNR & Case Reserves	10,458,761	10,504,362	45,601
Net Position w/o IBNR	14,460,232	14,210,055	(250,177)
			-1.7%
Amount over (under)	1,301,471	798,693	

Reserve Analysis	Actual FY 20/21	Actual FY 21/22	Estimated FY 22/23	Proposed FY 23/24
Beginning Fund Balance	**12,325,282**	**14,467,378**	**15,833,985**	**17,551,802**
Revenues				
Contribution to Fund/Int Income	4,795,083	4,486,957	4,475,296	5,160,100
Transfer In from Utilites for Safety Pos.	57,286	58,922	61,446	67,500
Transfer In from General Fund	-	-	-	-
Transfer In for Muni FF Cancer Reimb Fd	-	676,429	676,429	-
Total Revenues	4,852,369	5,222,308	5,213,171	5,227,600
Expenditures				
Operating Expenditures	(873,839)	(1,650,981)	(1,995,354)	(2,381,384)
Claim Expenditures	(1,836,434)	(2,204,720)	(1,500,000)	(3,000,000)
Total Expenditures	(2,710,273)	(3,855,701)	(3,495,354)	(5,381,384)
Ending Fund Balance	**14,467,378**	**15,833,985**	**17,551,802**	**17,398,018**
Actuarially Calculated "Nominal/Central Level" (6/30/22 report)				13,411,362
Projected Fund Balance for FY 2023-24 over Nominal/Central Level				3,986,656

Recommendation of Change in City Contribution to Trust for FY 2023-24	FY 2022-23*	FY 2023-24	Change in Contribution
Ongoing Contribution	5,060,100	5,060,100	-

**Adjusted from $4,383,700 to include the MFCR contribution ($676,400), which was transferred in from the General Fund.*

Workers' Compensation And Employer Liability Trust Board Human Resources Memo No.

Date: 02/02/2023
To: Workers' Compensation And Employer Liability Trust Board
From: Teresa Canjar, Management Assistant
Subject: **Resolution No. WC-010**

Proposed Motion:

Move to approve Resolution No. WC-010 for the City of Chandler Workers' Compensation and Employer Liability Trust Fund Board recommending Workers' Compensation Contribution and Reserve Level for Fiscal Year 2023-24.

Attachments

Resolution WC-010

RESOLUTION NO. WC-010

A RESOLUTION OF THE CITY OF CHANDLER WORKERS' COMPENSATION AND EMPLOYER LIABILITY TRUST BOARD RECOMMENDING WORKERS' COMPENSATION CONTRIBUTION AND RESERVE LEVEL FOR FISCAL YEAR 2023-24

WHEREAS, the City of Chandler Workers' Compensation and Employer Liability Trust Fund ("the Fund") was created by the City of Chandler through Ordinance No. 4415, adopting City Code § 2-16 *et seq*., on December 10, 2012; and

WHEREAS, City Code § 2-16.3, established the City of Chandler Workers' Compensation and Employer Liability Trust Fund Board ("the Board"); and

WHEREAS, City Code § 2-16.4(a)(2), provides that the Board shall provide financial oversight by evaluating claim expenses and reserve amounts; and

WHEREAS, the Chandler Workers' Compensation and Employer Liability Trust (the Trust") was established by the Chandler Workers' Compensation and Employer Liability Trust Document ("the Trust Document") authorized and approved by the City of Chandler through Resolution No. 4658, adopted on January 24, 2013, and amended by Resolution No. 4835, passed and adopted on February 26, 2015; and

WHEREAS, Article IV, Section 4.03(d), of the Trust Document provides that the Board shall have the authority and responsibility to determine the appropriate amount of Funds that the Trust should hold as Restricted Reserve, provided that the Restricted Reserve shall be no less than the minimum (or nominal) amount recommended and attested by the actuary engaged by the Council to provide services to the Trust. The actuarial report as of June 30, 2022 notes that the actuarial central (nominal) estimate represents the expected value over the range of reasonably possible outcomes (as opposed to all conceivable outcomes); and

WHEREAS, Article V, Section 5.01(a), of the Trust Document provides that the Board shall make an annual recommendation to the City Council of funds anticipated to be needed for the following fiscal year to fulfill the needs and purposes of the Trust. The Council shall make an appropriation of funds to the Trust as part of the annual City budget; and

WHEREAS, the Board has determined that the current ongoing Workers' Compensation contribution from the City of $4,383,700 plus the General Fund existing contribution to fund the Municipal Firefighter Cancer Reimbursement Fund expense of $676,400 for a total of $5,060,100 is sufficient to fund the expenditure requirements.

NOW THEREFORE, BE IT RESOLVED that the City of Chandler Workers' Compensation and Employer Liability Trust Board hereby recommends that the current ongoing Workers' Compensation contribution from the City of $5,060,100 remains unchanged for FY 2023-24.

PASSED AND ADOPTED by the City of Chandler Workers' Compensation and Employer Liability Trust Board on this 2nd day of February, 2023.

_____

Chairperson
City of Chandler Workers' Compensation and Employer Liability Trust Board

Attest:

_____

City Clerk

Approved As To Form:

_____

City Attorney