

Workers' Compensation and Employer Liability Trust Board Regular Meeting

February 3, 2022 | 4:00 p.m.
Council Chambers Conference Room
88 E. Chicago St., Chandler, AZ
or Webex 1-415-655-0001
code 2597 640 4363 password JEaZpKt9b28



Board Members

Alexander Myer, Chair
Michael Bohnert, Vice Chair
Lily Longacre, Secretary
Terry Bond
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 3, 2022, 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 2597 640 4363 and passcode JEaZpKt9b28.

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 3, 2022

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 18, 2021 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 18, 2021.

Briefing

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

3. Actuarial Audit Report - Oliver Wyman

4. Financial Audit Report - Heinfeld Meech

5. Financial Statements - Management Services

6. Investment Report - Management Services

Action Agenda

- 7. Resolution No. WC-009**

Move to approve Resolution No. WC-009 for the City of Chandler Workers' Compensation and Employer Trust Liability Trust Fund Board Recommending Workers' Compensation Contribution and Reserve Level for Fiscal Year 2022-23.

Member Comments/Announcements

Calendar

8. Next meeting is scheduled for Thursday, June 16, 2022 (combined meeting).

Informational

9. Financial Statements
10. Investment Report
11. Excess Insurance Renewal
12. CorVel Contract Renewal
13. New Members and Election of Officers

Adjourn



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

Date: 02/03/2022
To: Workers' Compensation And Employer Liability Trust Board
From: Teresa Canjar, Management Assistant
Subject: **November 18, 2021 City of Chandler Workers' Compensation and
Employer Liability Trust Board Minutes**

Proposed Motion:

Move to approve the Chandler Workers' Compensation and Employer Liability Trust Board minutes from November 18, 2021.

Attachments

11-18-21 Minutes

Meeting Minutes

Workers' Compensation and Employer Liability Trust

Board

Regular Meeting

November 18, 2021 | 4:00 p.m.
Council Chambers Conference Room
88 E. Chicago St., Chandler, AZ



Call to Order

The meeting was called to order by Chairman Myer at 4:04 p.m.

Roll Call

Board Attendance

Chair Alex Myer
Vice Chair Michael Bohnert
Secretary Lily Longacre
Val Gale

Other Attendance

Fernanda Osgood, Benefits/Compensation Manager
Kristi Smith, Accounting Manager
Rae Lynn Nielsen, HR Director
Roni Laxa, Assistant City Attorney
Teresa Canjar, Management Assistant

Absent

Terry Bond

Scheduled and Unscheduled Public Appearances

Consent Agenda and Discussion

1. September 16, 2021 Minutes
Vice Chair Bohnert made a motion to approve the minutes as presented from the September 16, 2021, meeting of the City of Chandler Workers' Compensation and Employer Liability Trust Board, seconded by Ms. Longacre, motion carried.

Briefing

1. Financial Statements

Statement of Net Position as of September 30, 2021

Kristi Smith advised the Board that the total assets were \$14,775,342, cash is up \$700,000 from last quarter, and Due from the City is down about \$510,000. Total liabilities is \$31,000, down \$75,000 because no accounts payable were reported this quarter. The unrestricted net position is \$14,744,342 which is up from last quarter. When you compare the Net Reserve to 6/30/20, there is a surplus of almost \$3.4 million. The Trust audit has been completed by Heinfeld Meech and the results will be presented at the February 2, 2022, meeting. Special thank you to Human Resources staff for all the information they provided.

Statement of Revenues, Expenses and Changes in Net Position – September 30, 2021

The 2021 Budget prorated for 3 months. The total actual operating revenues are \$1,193,370 which is slightly over budget. Operating expenses are under budget at \$945,547. The actual operating Income is \$247,823 which is higher than anticipated. The nonoperating revenues and expenses total \$29,141 and there is a change in net position at \$276,964. The ending net position is \$14,744,342 which agrees with the Statement of Net Position.

Statement of Cash Flows – September 30, 2021

Kristi Smith advised the Board that this report shows the inflows and outflows of cash by activity. The Cash and Investments total \$14,571,252 which agrees with the Statement of Net Position.

2. Investment Report – September 30, 2021

Kristi Smith provided a brief overview of the Investment Performance Review. The report looks a little different because they have changed their name to PFM Asset Management LLC and are now under the US Bank umbrella. The portfolio statistics yield at cost is 0.50% which is down from 0.56% in the previous quarter. Yield at Market is 0.32% which is the same as last quarter. Effective Duration is at 1.87 as compared to the prior quarter of 1.83. The Benchmark Effective Duration is 1.83. The money market rate for Wells Fargo (now Allspring Global Investments) is 0.01% and PFM is 0.02%, which is in line with the last quarter. The Sector Allocation has been pretty consistent with prior quarters.

Calendar

The next regular meeting will be held on Thursday, February 3, 2022, at 4:00 p.m., in the Council Chambers Conference Room, 88 E. Chicago St.

Informational Items

Agenda Items for Future Meeting Dates

Financial Audit Report – Heinfeld Meech

Financial Statements – Management Services

Investment Report – Management Services

Rate Contribution and Reserve Recommendation – Management Services

Adjourn

Mr. Gale made a motion to adjourn the meeting of the City of Chandler Workers' Compensation and Employer Liability Trust Board of November 18, 2021, at 4:12 p.m., seconded by Vice Chair Bohnert, motion carried.

Teresa Canjar, Secretary

Alexander Myer, Chair



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

Date: 02/03/2022
To: Workers' Compensation And Employer Liability Trust Board
From: Teresa Canjar, Management Assistant
Subject: Rate Contribution and Reserve Recommendation - Management Services

Attachments

Rate Contribution and Reserve Analysis

Workers' Compensation and Employer Liability Trust

Contribution and Reserve Analysis for FY 2022-23

Actuarial Report Comparison	June 30, 2020	June 30, 2021	Change from Prior Year
	Nominal/Central Value		
Estimated Unpaid Losses & ALAE	8,795,715	10,458,761	1,663,046
Projected Ultimate Losses & ALAE	2,555,000	2,700,000	145,000
	11,350,715	13,158,761	1,808,046 15.9%
Audit Report Comparison	June 30, 2020	June 30, 2021	Change from Prior Year
	Net Position		
Net Position, restated	3,705,693	4,001,471	295,778
IBNR & Case Reserves	8,975,715	10,458,761	1,483,046
Net Position w/o IBNR	12,681,408	14,460,232	1,778,824 14.0%
Amount over (under)	1,330,693	1,301,471	

Reserve Analysis	Actual FY 19/20	Actual FY 20/21	Estimated FY 21/22	Proposed FY 22/23
Beginning Fund Balance	9,521,901	12,325,282	14,467,378	15,270,137
Revenues				
Contribution to Fund/Int Income	4,629,344	4,795,083	4,443,000	4,483,700
Transfer In from Utilites for Safety Pos.	55,288	57,286	58,971	58,922
Transfer In from General Fund	1,000,000	-	-	-
Transfer In for Muni FF Cancer Reimb Fd	-	-	676,429	676,429
Total Revenues	5,684,632	4,852,369	5,178,400	5,219,051
Expenditures				
Operating Expenditures	(958,842)	(873,839)	(1,970,641)	(2,173,828)
Claim Expenditures	(1,922,409)	(1,836,434)	(2,405,000)	(3,000,000)
Total Expenditures	(2,881,251)	(2,710,273)	(4,375,641)	(5,173,828)
Ending Fund Balance	12,325,282	14,467,378	15,270,137	15,315,360
Actuarially Calculated "Nominal/Central Level" (6/30/21 report)				13,158,761
Projected Fund Balance for FY 2022-23 over Nominal/Central Level				2,156,599

Recommendation of Change in City Contribution to Trust for FY 2022-23	FY 2021-22	FY 2022-23	Change in Contribution
Ongoing Contribution	4,383,700	4,383,700	-



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

Date: 02/03/2022
To: Workers' Compensation And Employer Liability Trust Board
From: Teresa Canjar, Management Assistant
Subject: **Actuarial Audit Report - Oliver Wyman**

Attachments

Summary
Actuarial Audit Report

Workers Compensation Unpaid Losses & ALAE

Executive Summary

Unpaid Losses & ALAE
as of 6/30/21:

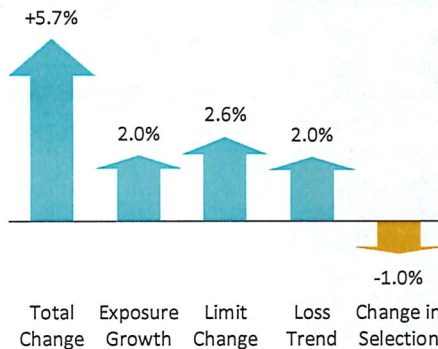
\$10,458,761

Unpaid Losses & ALAE
as of 6/30/20:

\$8,795,715

2020/2021 Ultimate Losses & ALAE
as of 6/30/20

\$2,555,000



2021/2022 Ultimate Losses & ALAE
as of 6/30/21

\$2,700,000

Scope of Analysis

- Estimated unpaid losses and allocated loss adjustment expense (ALAE) as of June 30, 2021 for accidents occurring between January 1, 2003 and June 30, 2021 at an actuarial central estimate and various probability levels
- Projected ultimate losses and ALAE for policy period July 1, 2021 – 2022 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 and to \$1M / \$3M effective 7/1/21.

Key Findings

- The unpaid estimate has increased by approximately \$1.7M due to the experience in 7/1/20-21 policy year, which already has seven claims exceeding \$75k, including a police officer COVID claim with \$1.1M in case reserves.
- The forecast for 21/22 is up 5.7% from the prior forecast due to increases in payroll and the retained limits.

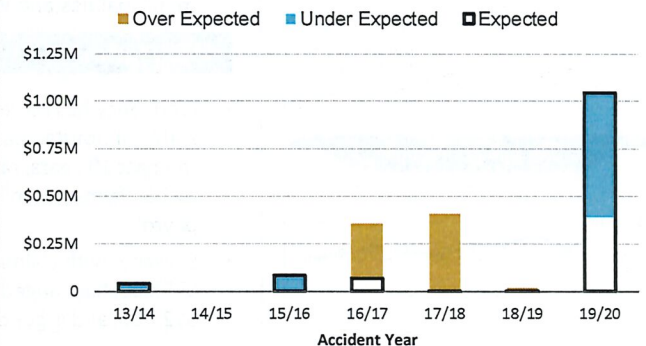
Actual vs. Expected Results

Reported Losses & ALAE 6/30/20 to 6/30/21

Actual	Expected	AvE
\$1,465,601	\$1,049,346	\$416,255

Ultimate Losses & ALAE 6/30/20 to 6/30/21

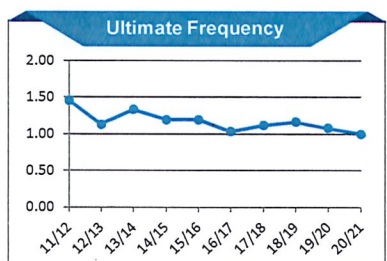
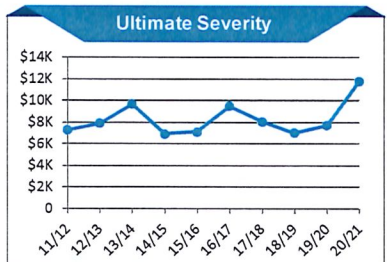
Prior	Current	Change
\$34,617,455	\$35,594,116	\$976,661



- Actual versus Expected results reflect changes in the claims from 6/30/20 to 6/30/21.

Workers Compensation Unpaid Losses & ALAE

Executive Summary



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, if not decreasing slightly, over the past 10 years, ranging from 1.0 to 1.5 claims per million dollars of payroll.
- Severity, with claims limited to \$75,000, has ranged from \$7,000 to \$12,000, and is generally increasing.
- The loss cost, with claims limited to \$75,000, has ranged from \$8 to \$13 per thousand dollars of payroll.

Reconciliation of Reserves

Beginning of Period Unpaid Losses as of 6/30/20	\$8,795,715
Plus Estimated Ultimate Losses for 7/1/20 - 6/30/21	\$3,515,000
Plus Change in Ultimate Losses through 6/30/21	\$16,661
Less Actual Payments (6/30/20-6/30/21)	\$1,868,615
End of Period Unpaid Losses as of 6/30/21	\$10,458,761

Claim Changes Since Prior Report

Claimant	Date of Loss	Current Status	Current Incurred	Prior Incurred	Incurred Change	Current Paid
CN-21-005148	12/27/2020	0	\$1,106,036	\$0	\$1,106,036	\$23,802
CN-18-005439	3/6/2018	0	\$627,354	\$192,181	\$435,173	\$183,359
CN-17-005633	4/20/2017	0	\$533,992	\$149,744	\$384,248	\$155,289
CN-03-0500013	2/12/2003	0	\$759,016	\$536,033	\$222,984	\$530,981
CN-21-005129	12/7/2020	0	\$184,857	\$0	\$184,857	\$158,588
CN-21-005153	12/29/2020	0	\$145,605	\$0	\$145,605	\$12,140
CN-08-0500047	9/13/2007	0	\$125,775	\$1,593	\$124,183	\$5,813
CN-13-005205	3/19/2013	0	\$329,972	\$209,557	\$120,415	\$207,415
CN-21-005190	3/11/2021	0	\$107,351	\$0	\$107,351	\$58,669

Your Actuarial Team

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ACTUARIAL ANALYSIS OF WORKERS' COMPENSATION UNPAID LOSSES & ALAE AS OF JUNE 30, 2021

CITY OF CHANDLER

September 29, 2021

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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, 2021 for claims incurred through that same date.
- Projected ultimate losses and ALAE for policy period July 1, 2021-22.
- 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, 2021.

The estimates are based on data evaluated as of June 30, 2021 and additional information provided to Oliver Wyman (and only that information provided) through September 29, 2021.

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.

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, 2021. 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, 2021	10,458,761	11,975,281	13,878,776	17,016,404
As of June 30, 2020	8,795,715	10,079,889	11,707,097	14,416,177
Change	1,663,046	1,895,392	2,171,679	2,600,227

The estimate of approximately \$10.5 million as of June 30, 2021 represents an increase of approximately \$1.7 million since the actuarial analysis performed as of June 30, 2020. The increase is driven by the inclusion of the experience in policy year 7/1/20 – 6/30/21, which already has seven claims above the \$75,000 incurred threshold, including claim number CN-21-005148, which has approximately \$1.1 million in case reserves and is one of three police officer COVID claims the City has seen with incurred amounts over \$75,000. Total incurred to date for this policy year, approximately \$2.6 million, has already surpassed our initial projected ultimate loss for the period and is notably higher than the incurred values of prior policy years 12 months from inception.

Projected Ultimate Losses and ALAE

The nominal losses and ALAE expected to be incurred during policy period 7/1/21– 6/30/22 by the City, with a self-insured retention of \$3.0 million for police and fire employees and \$1.0 million for all other employees, are as shown in Table 2 below.

Table 2: Projected Ultimate Losses and ALAE for Policy Period 21/22

Self-Insured Retention	Actuarial Central Estimate	Probability Levels		
		70th	80th	90th
1M / 3M	2,700,000	3,096,900	3,626,100	4,514,400

This forecast is based on Oliver Wyman's estimated loss costs (losses per unit of exposure) and the City's forecasted exposures. 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.

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.

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

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, 2021 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, 2020* dated September 29, 2020
- Industry loss development factors, increased limit factors and benefit level changes from the 2019 and 2020 Annual Statistical Bulletins published by National Council on Compensation Insurance (NCCI)

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

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.

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, 2021 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 50%. 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.

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 7/1/2021 – 6/30/2022. 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 7/1/2021 – 6/30/2022. 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.

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. The impact of this event on loss experience is highly uncertain and generally unquantifiable at this time.

The potential impact of the COVID-19 pandemic on workers compensation experience is highly uncertain. The unprecedented nature of the pandemic, the numerous potential impacts on claims experience, and the uncertainty associated with activities and actions intended to temper the impact (such as client-specific actions or more general governmental interventions) increase the uncertainty underlying the

estimates contained in this report. There are numerous known and unknown potential impacts. We describe several of these uncertainties below:

- **Compensability of COVID-19 Claims** Businesses may incur workers compensation claims due to employees becoming infected with COVID-19. However, claims directly related to COVID-19 may or may not be determined compensable as an occupational disease, depending on statutes, regulations, and court interpretations specific to an individual jurisdiction.
 - Some jurisdictions have different standards for different diseases.
 - Some jurisdictions exclude ordinary diseases of life, such as influenza, from coverage.
 - Specific employee classifications, most notably those involved in healthcare with direct patient contact, and public safety officers, may have lower thresholds of compensability than other employee classifications.
 - Some jurisdictions, such as Washington State, have implemented material policy changes with respect to the compensability of COVID-19 related claims. Other jurisdictions may follow.
- **Claim Frequency and Severity** Considerations for potential impacts of the COVID-19 pandemic and related societal and economic impacts on workers compensation claim frequency and severity include:
 - **Health Care Coverage:** Some states have mandated that health insurance must cover testing and emergency room/ urgent care visits related to COVID-19 without deductibles or copays. These types of measures may serve to temper workers compensation claim activity related directly to the illness. Actions taken by individual employers may have the same impact.
 - **High Demand Industries and Essential Businesses:** The hiring of new employees to meet growing demand in some industries could lead to an increase in claims, as claim incidence rates associated with new employees are typically higher than those associated with longer-tenured employees. Additionally, employees performing work to which they are not accustomed may lead to higher average severity of claims. The new demand for these workers is likely leading to longer working hours, which may increase the number of claims. Essential businesses may also see an increase in mental stress claims. Compensability of mental stress claims varies by jurisdiction.
 - **Economic Impacts:** Sectors most affected by sudden job loss and furloughs may see an increase in workers compensation claims as employees seek to supplement their lost income. Potentially offsetting this increase, remaining employees may file fewer claims due to concerns over job security. The overall impact is unknown at this time. An economic downturn may also lead to an increase in claim severity. For example, employees may be more likely to involve attorneys in their claims, and claimants who are already receiving temporary disability benefits may attempt to extend those benefits.
- **Employers Liability** Employers liability may serve as a remedy for an employee who believes the infection was the result of employer negligence. If an employee's family member becomes infected, that could also lead to an employers liability claim.
- **Teleworking** Companies with a material shift to a teleworking environment may see an increase in claims for injuries related to non-ergonomic work environments stations and other potential safety hazards in employees' homes. Compensability of incidents related to these issues will vary by jurisdiction. Less exposure to other work-place hazards may have a counter effect.

- **Claims Handling Considerations** The claims process is likely to lengthen during this pandemic, leading to an increase in claim severity as workers compensation hearings and mediations are potentially postponed, and claimant access to doctors, nurse case managers and medical services is limited. Reduced availability of transitional duty jobs may also serve to increase claim costs for claimants who would have otherwise been able to return to work.

Potential impacts of the pandemic are many and the above only represents a sample of anticipated effects.

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.:



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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.

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.

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.

City of Chandler
Workers' Compensation
Losses & ALAE Forecast for period 7/1/21 to 6/30/22
Based on Data as of June 30, 2021

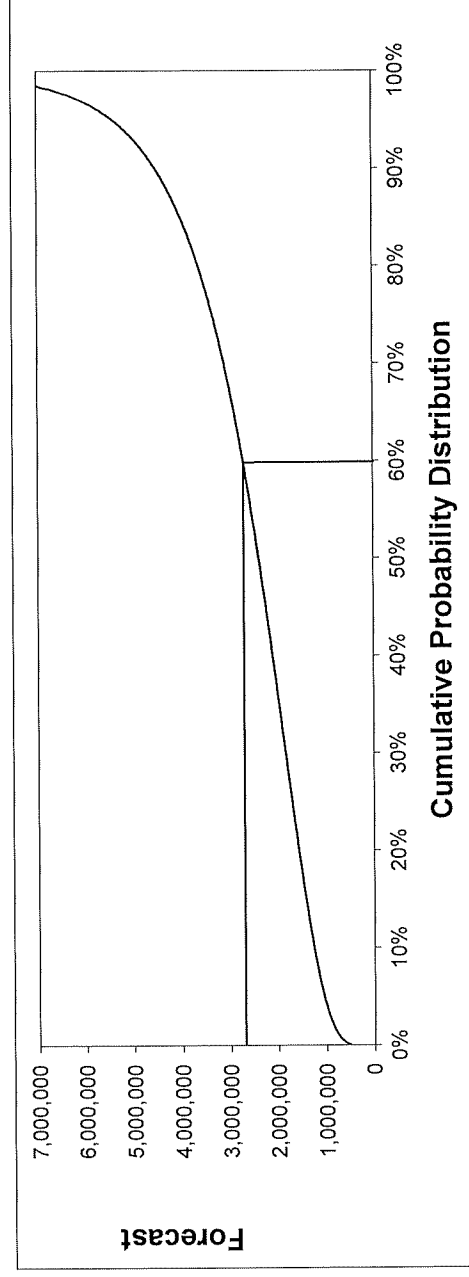
(1) Forecasted Loss Rate Limited to \$75,000	9.22						
(2) Projected Exposures (\$1,000 Payroll)	142,931						
(3) Increased Limit Factor from \$75,000 to SIR	75,000 1,000	750K / 1M 1,868	750K / 1.25M 1,916	750K / 2.25M 1,996	1M / 3M 2,049		
(4) Forecasted Loss Rate Limited to SIR	9.22	17.23	17.67	18.41	18.89		
(5) Forecasted Ultimate Losses & ALAE (Central Estimate)	1,318,000	2,462,000	2,526,000	2,631,000	2,700,000		
(6) 70th Percentile Losses & ALAE Multiplier	1.147						
(7) Forecasted Ultimate Losses & ALAE (70th Percentile Value)	1,511,746	2,823,914	2,897,322	3,017,757	3,096,900		
(8) 80th Percentile Losses & ALAE Multiplier	1.343						
(9) Forecasted Ultimate Losses & ALAE (80th Percentile Value)	1,770,074	3,306,466	3,392,418	3,533,433	3,626,100		
(10) 90th Percentile Losses & ALAE Multiplier	1.672						
(11) Forecasted Ultimate Losses & ALAE (90th Percentile Value)	2,203,696	4,116,464	4,223,472	4,399,032	4,514,400		

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)
- (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
Based on Data as of June 30, 2021

Losses & ALAE CV	5.639				
Forecasted Ultimate Counts	142				
Parameter Risk	0.200				
Forecasted Losses & ALAE CV	0.530				
σ	0.498				
σ^2	0.248				
μ	(0.124)				
Losses & ALAE Forecast (Central Estimate)	2,700,000				
		Percentile	Percentile Factor	Percentile Losses & ALAE Forecast	
		50.0%	0.884	2,386,800	
		60.0%	1.002	2,705,400	
		70.0%	1.147	3,096,900	
		80.0%	1.343	3,626,100	
		90.0%	1.672	4,514,400	
		95.0%	2.003	5,408,100	
		99.0%	2.811	7,589,700	



Note:
based on a lognormal distribution

City of Chandler
Workers' Compensation
Losses & ALAE Forecast for period 7/1/21 to 6/30/22 - Limited to \$75,000
Based on Data as of June 30, 2021

(1)	Selected Frequency for period 7/1/21 to 6/30/22	0.990
(2)	Projected Exposures (\$1,000 Payroll)	142,931
(3)	Forecasted Ultimate Counts (Central Estimate)	142
(4)	Selected Loss Cost for period 7/1/21 to 6/30/22	9.20
(5)	Selected Severity for period 7/1/21 to 6/30/22	9,340
(6)	Estimated Ultimate Losses & ALAE (Loss Cost)	1,314,962
(7)	Estimated Ultimate Losses & ALAE (Frequency/Severity)	1,321,622
(8)	Forecasted Ultimate Losses & ALAE (Central Estimate)	1,318,000
(9)	Forecasted Loss Rate (Central Estimate)	9.22

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, 2021

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	225	478,631	38,782	12.34	1.617	1.269	1.446	14.01
7/1/2003 to 6/30/2004	216	786,281	82,686	9.51	1.600	1.252	1.425	10.61
7/1/2004 to 6/30/2005	204	621,971	84,675	7.35	1.587	1.237	1.397	8.00
7/1/2005 to 6/30/2006	192	649,576	90,201	7.20	1.524	1.208	1.370	7.82
7/1/2006 to 6/30/2007	180	608,000	102,877	5.91	1.454	1.193	1.343	6.52
7/1/2007 to 6/30/2008	168	812,000	111,710	7.27	1.400	1.159	1.317	7.93
7/1/2008 to 6/30/2009	156	675,237	120,668	5.60	1.371	1.107	1.292	5.84
7/1/2009 to 6/30/2010	144	1,310,000	119,800	10.93	1.362	1.064	1.266	10.82
7/1/2010 to 6/30/2011	132	966,822	113,843	8.49	1.341	1.049	1.242	8.25
7/1/2011 to 6/30/2012	120	1,170,000	110,414	10.60	1.303	1.041	1.218	10.31
7/1/2012 to 6/30/2013	108	1,069,226	119,088	8.98	1.270	1.033	1.194	8.72
7/1/2013 to 6/30/2014	96	1,493,000	115,348	12.94	1.262	1.015	1.171	12.17
7/1/2014 to 6/30/2015	84	990,329	119,528	8.29	1.234	1.007	1.148	7.76
7/1/2015 to 6/30/2016	72	1,090,362	127,517	8.55	1.210	0.996	1.125	7.93
7/1/2016 to 6/30/2017	60	1,284,190	128,452	9.84	1.194	1.005	1.103	9.14
7/1/2017 to 6/30/2018	48	1,198,000	133,497	8.97	1.154	1.005	1.082	8.45
7/1/2018 to 6/30/2019	36	1,117,000	135,570	8.24	1.116	1.001	1.061	7.84
7/1/2019 to 6/30/2020	24	1,142,000	136,800	8.35	1.074	1.000	1.040	8.09
7/1/2020 to 6/30/2021	12	1,654,000	140,084	11.81	1.036	1.000	1.020	11.62
TOTALS		19,096,625	2,131,539					

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 2020 edition of NCCI Annual Statistical Bulletin
- (6) based on information published by NCCI
- (7) 2.0% annual trend
- (8) = (4) x (6) x (7) / (5)

Arithmetic Average 9.04
Weighted Average 8.88
Arithmetic Average Excluding Current Period 8.90
Weighted Average Excluding Current Period 8.68
5 Period Arithmetic Average 9.03
3 Period Arithmetic Average 9.18

Selected Loss Cost for period 7/1/21 to 6/30/22 9.20

City of Chandler
Workers' Compensation
Losses & ALAE Forecast Frequency / Severity Method - Limited to \$75,000
Based on Data as of June 30, 2021

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	225	38,782	1.617	478,631	63	1,005	0.910	0.914	7,597	1,269	1,589	15,320
7/1/2003 to 6/30/2004	216	82,686	1.600	785,281	149	1,126	0.914	1,029	5,277	1,252	1,560	10,307
7/1/2004 to 6/30/2005	204	84,675	1.587	621,971	143	1,064	0.918	0.977	4,349	1,237	1,522	8,184
7/1/2005 to 6/30/2006	192	90,201	1.524	648,578	147	1,069	0.923	0.987	4,419	1,208	1,485	7,924
7/1/2006 to 6/30/2007	180	102,877	1.454	608,000	135	0,903	0.928	0.937	4,504	1,193	1,448	7,784
7/1/2007 to 6/30/2008	168	111,710	1,400	812,000	161	1,029	0.932	0.960	5,043	1,159	1,413	8,262
7/1/2008 to 6/30/2009	156	120,668	1,371	675,237	165	0,998	0.937	0.935	4,092	1,107	1,378	6,244
7/1/2009 to 6/30/2010	144	119,800	1,362	1,310,000	142	0,870	0.942	0.819	9,225	1,064	1,345	13,206
7/1/2010 to 6/30/2011	132	113,643	1,341	965,622	153	1,002	0.946	0.849	6,319	1,049	1,312	8,701
7/1/2011 to 6/30/2012	120	110,414	1,303	1,170,000	161	1,119	0.951	1,065	7,287	1,041	1,280	9,587
7/1/2012 to 6/30/2013	108	119,088	1,270	1,069,226	135	0,893	0.956	0.853	7,920	1,033	1,249	10,218
7/1/2013 to 6/30/2014	96	115,348	1,262	1,483,000	154	1,058	0.961	1,016	9,695	1,015	1,218	11,563
7/1/2014 to 6/30/2015	84	119,528	1,234	990,329	143	0,969	0.966	0.936	6,925	1,007	1,189	8,290
7/1/2015 to 6/30/2016	72	127,517	1,210	1,090,362	153	0,992	0.970	0.962	7,127	0,996	1,160	8,236
7/1/2016 to 6/30/2017	60	128,452	1,194	1,264,190	133	0,867	0.975	0.946	9,505	1,005	1,131	10,812
7/1/2017 to 6/30/2018	48	133,497	1,154	1,198,000	149	0,967	0.980	0,948	8,040	1,005	1,104	8,920
7/1/2018 to 6/30/2019	36	135,570	1,116	1,117,000	158	1,044	0.985	1,029	7,070	1,001	1,077	7,623
7/1/2019 to 6/30/2020	24	136,600	1,074	1,142,000	148	1,008	0.990	0,998	7,716	1,000	1,051	8,107
7/1/2020 to 6/30/2021	12	140,084	1,036	1,654,000	144	0,992	0.995	0,987	11,486	1,000	1,025	11,773
TOTALS		2,131,539		19,096,625	2,736							

Notes:
(1) = (average evaluation period) - (average policy period)
(2) from City of Chandler
(3) derived from the 2020 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) -0.5% annual trend
(8) = (6) x (7)
(9) = (4) / (5)
(10) based on information published by NCCI
(11) 2.3% annual trend
(12) = (9) x (10) x (11)

Arithmetic Average
Weighted Average
Arithmetic Average Excluding Current Period
Weighted Average Excluding Current Period
5 Period Arithmetic Average
3 Period Arithmetic Average

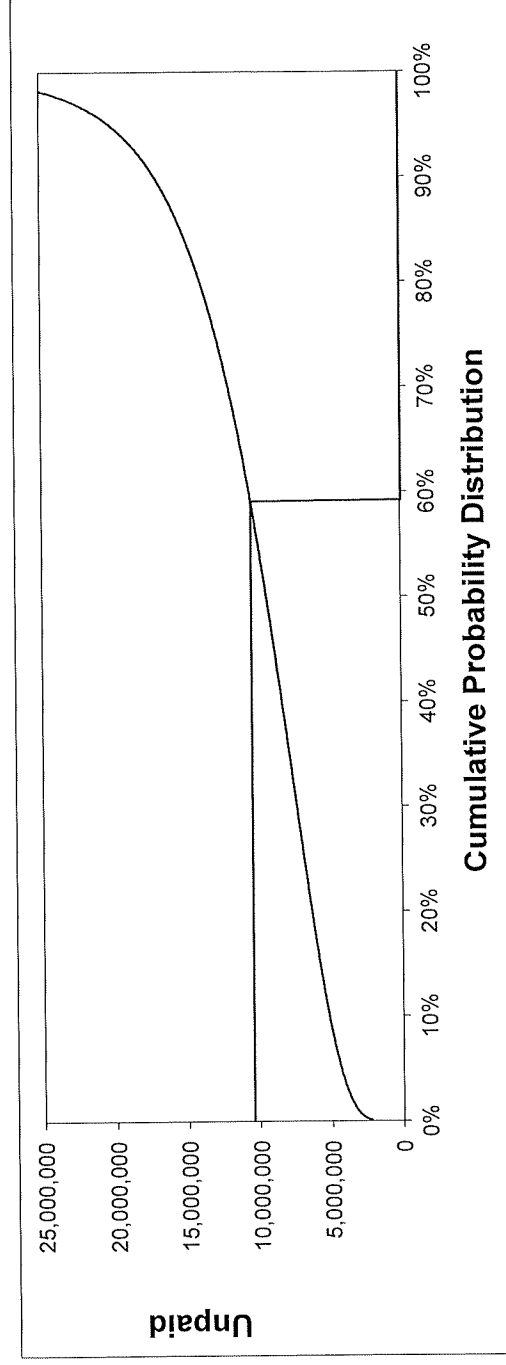
Arithmetic Average
Weighted Average
Arithmetic Average Excluding Current Period
Weighted Average Excluding Current Period
5 Period Arithmetic Average
3 Period Arithmetic Average

Arithmetic Average
Weighted Average
Arithmetic Average Excluding Current Period
Weighted Average Excluding Current Period
5 Period Arithmetic Average
3 Period Arithmetic Average

Arithmetic Average
Weighted Average
Arithmetic Average Excluding Current Period
Weighted Average Excluding Current Period
5 Period Arithmetic Average
3 Period Arithmetic Average

City of Chandler
Workers' Compensation
Percentile Factor Calculation for Unpaid Losses & ALAE as of 6/30/21
Based on Data as of June 30, 2021

Losses & ALAE CV	5.639	Percentile	Percentile Factor	Percentile Unpaid Losses & ALAE
Open & IBNR Claim Count	152	50.0%	0.898	9,391,967
Parameter Risk	0.150	60.0%	1.010	10,563,349
Unpaid Losses & ALAE CV	0.490	70.0%	1.145	11,975,281
σ	0.464	80.0%	1.327	13,878,776
σ^2	0.215	90.0%	1.627	17,016,404
μ	(0.108)	95.0%	1.926	20,143,574
Unpaid Losses & ALAE (Central Estimate)	10,458,761	99.0%	2.642	27,632,047



Note: based on a lognormal distribution

Oliver Wyman Actuarial Consulting, Inc. %Unpaid on 9/29/2021 at 6:13 PM

City of Chandler
Workers' Compensation
Unpaid Losses & ALAE Reconciliation from 6/30/20 to 6/30/21 - Limited to Self-Insured Retention (SIR)
Based on Data as of June 30, 2021

(1) Indicated Unpaid Losses & ALAE as of 6/30/20	8,795,715
(2) Estimated Ultimate Losses & ALAE for period 7/1/20 to 6/30/21	3,515,000
(3) Payments for period 7/1/20 to 6/30/21	1,868,615
(4) Change in Ultimate Losses & ALAE since 6/30/20	16,661
<hr/>	
(5) Indicated Unpaid Losses & ALAE as of 6/30/21	10,458,761

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
Summary - Limited to Self-Insured Retention (SIR)
Based on Data as of June 30, 2021

(1)	(2)	(3)	(4) Losses & ALAE @ SIR				(6)	(7)	(8) Claim Counts (ex. CWOP)				(12)	(13)	
			(2) Paid	(3) Case Reserves	(4) Incurred	(5) IBNR			(8) Closed	(9) Open	(10) Reported	(11) IBNR			(12) Open & IBNR
Policy Period	Self-Insured Retention (SIR)	Exposures (\$1,000 Payroll)													
1/1/2003 to 6/30/2003	500,000	38,782	1,071,106	14,636	1,085,942	58	14,894	1,086,000	61	2	63	0	2	63	63
7/1/2003 to 6/30/2004	500,000	82,686	816,038	15,218	833,257	243	15,462	833,500	148	1	149	0	1	149	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	143
7/1/2005 to 6/30/2006	500,000	90,201	980,808	44,214	1,025,022	78	44,292	1,025,100	146	1	147	0	1	147	147
7/1/2006 to 6/30/2007	500,000	102,877	599,653	19,515	619,168	832	20,347	620,000	134	1	135	0	1	135	135
7/1/2007 to 6/30/2008	500,000	111,710	727,568	372,363	1,099,931	1,069	373,432	1,101,000	158	3	161	0	3	161	161
7/1/2008 to 6/30/2009	500,000	120,668	1,160,444	137,225	1,297,670	5,330	142,556	1,303,000	163	2	165	0	2	165	165
7/1/2009 to 6/30/2010	500,000	119,800	1,480,728	272,100	1,752,829	23,171	295,272	1,776,000	139	3	142	0	3	142	142
7/1/2010 to 6/30/2011	500,000	115,843	1,456,561	0	1,456,561	0	0	1,456,561	152	1	153	0	1	153	153
7/1/2011 to 6/30/2012	500,000	110,414	1,880,655	513,530	2,394,185	33,815	547,345	2,428,000	157	4	161	0	4	161	161
7/1/2012 to 6/30/2013	600,000	119,088	2,096,347	236,053	2,332,401	39,599	275,653	2,372,000	131	4	135	0	4	135	135
7/1/2013 to 6/30/2014	600,000	115,348	2,355,943	294,531	2,650,474	76,526	371,057	2,727,000	149	5	154	0	5	154	154
7/1/2014 to 6/30/2015	600,000	119,528	1,393,200	689,023	2,082,223	0	689,023	2,082,223	141	2	143	0	2	143	143
7/1/2015 to 6/30/2016	600K / 1M	127,517	2,530,046	1,007,866	3,537,912	98,088	1,105,954	3,636,000	149	4	153	0	4	153	153
7/1/2016 to 6/30/2017	600K / 1M	128,452	1,628,931	522,112	2,151,043	155,957	678,069	2,307,000	128	5	133	0	5	133	133
7/1/2017 to 6/30/2018	600K / 1M	133,497	1,608,123	1,117,092	2,718,215	215,785	1,327,877	2,934,000	144	5	149	0	5	149	149
7/1/2018 to 6/30/2019	600K / 1.25M	135,570	976,327	577,682	1,554,009	198,991	776,673	1,753,000	144	14	158	0	14	158	158
7/1/2019 to 6/30/2020	600K / 1.25M	138,800	1,049,235	300,850	1,349,085	637,915	938,765	1,987,000	124	23	147	1	24	148	148
7/1/2020 to 6/30/2021	750K / 2.25M	140,084	672,909	1,913,465	2,586,374	929,626	2,842,091	3,515,000	73	55	128	16	71	144	144
TOTALS		2,131,539	25,135,355	8,042,677	33,178,032	2,415,084	10,458,761	35,594,116	2,584	135	2,719	17	152	2,736	2,736

Policy Period	Self-Insured Retention (SIR)	(14) (15) (16) (17) (18)					(19)	(20)
		(Losses & ALAE @ SIR) / Claim Counts						
		Paid per Closed	Case Reserves per Open	Incurred per Reported	Unpaid per Open & IBNR	Ultimate per Ultimate	Ultimate Frequency (per \$1M)	Implied Ultimate Loss Cost per Exposure
1/1/2003 to 6/30/2003	500,000	17,559	7,418	17,237	7,447	17,238	1,624	28.00
7/1/2003 to 6/30/2004	500,000	5,527	15,218	5,592	15,462	5,594	1,802	10.08
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	44,292	6,973	1,630	11.36
7/1/2006 to 6/30/2007	500,000	4,475	19,515	4,586	20,347	4,586	1,312	6.03
7/1/2007 to 6/30/2008	500,000	4,605	124,121	6,832	124,477	6,839	1,441	9.86
7/1/2008 to 6/30/2009	500,000	7,119	68,613	7,865	71,278	7,897	1,367	10.80
7/1/2009 to 6/30/2010	500,000	10,653	90,700	12,344	98,424	12,507	1,185	14.82
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	11,979	128,383	14,871	136,836	15,081	1,458	21.99
7/1/2012 to 6/30/2013	600,000	16,003	59,013	17,277	68,913	17,570	1,134	19.92
7/1/2013 to 6/30/2014	600,000	15,812	58,906	17,211	74,211	17,708	1,335	23.64
7/1/2014 to 6/30/2015	600,000	9,881	344,511	14,361	344,511	14,561	1,196	17.42
7/1/2015 to 6/30/2016	600K / 1M	16,980	251,966	23,124	276,488	23,765	1,200	28.51
7/1/2016 to 6/30/2017	600K / 1M	12,726	104,422	16,173	135,514	17,346	1,035	17.96
7/1/2017 to 6/30/2018	600K / 1M	11,154	222,418	18,243	265,575	19,691	1,116	21.98
7/1/2018 to 6/30/2019	600K / 1.25M	8,780	41,263	9,835	55,477	11,095	1,165	12.93
7/1/2019 to 6/30/2020	600K / 1.25M	8,454	13,080	9,177	39,115	13,426	1,082	14.52
7/1/2020 to 6/30/2021	750K / 2.25M	9,218	34,790	20,206	40,029	24,410	1,028	25.09
TOTALS		9,727	59,575	12,202	68,808	13,010	1,284	16.70

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, 2021

(1) Policy Period	Self-Insured Retention (SIR)	(2) Age in Months	(3) Limited to \$75,000		(5) Expected IBNR	(6) Incurred	(7) Limited to SIR		(8) Incurred LDFs	(9) Expected IBNR	(10) Excess		(11)
			Incurred	Ultimate			ILFs to SIR	Incurred			Incurred	Expected IBNR	
1/1/2003 to 6/30/2003	500,000	225	478,631	478,631	0	1,085,942	1,579	1,000	0	0	607,311	0	0
7/1/2003 to 6/30/2004	500,000	216	786,281	786,281	0	833,257	1,582	1,000	0	0	48,975	0	0
7/1/2004 to 6/30/2005	500,000	204	621,971	621,971	0	851,732	1,586	1,000	0	0	25,762	0	0
7/1/2005 to 6/30/2006	500,000	192	849,576	849,576	0	1,025,022	1,590	1,000	0	0	375,446	0	0
7/1/2006 to 6/30/2007	500,000	180	607,316	608,000	0	619,168	1,593	1,000	0	0	11,852	0	0
7/1/2007 to 6/30/2008	500,000	168	811,227	812,000	0	1,099,931	1,596	1,000	0	0	288,704	0	0
7/1/2008 to 6/30/2009	500,000	156	675,237	675,237	675	1,297,670	1,599	1,006	6,081	0	522,433	5,407	0
7/1/2009 to 6/30/2010	500,000	144	1,305,417	1,310,000	2,616	1,752,929	1,604	1,010	21,588	0	447,411	19,972	0
7/1/2010 to 6/30/2011	500,000	132	966,822	966,822	2,895	1,456,561	1,610	1,015	22,270	0	489,739	19,375	0
7/1/2011 to 6/30/2012	500,000	120	1,164,313	1,170,000	4,668	2,394,185	1,618	1,018	33,017	0	1,229,872	28,349	0
7/1/2012 to 6/30/2013	600,000	108	1,069,226	1,069,226	5,330	2,332,401	1,683	1,028	44,986	0	1,283,175	39,655	0
7/1/2013 to 6/30/2014	600,000	96	1,483,450	1,493,000	6,327	2,850,474	1,689	1,031	75,973	0	1,167,024	67,046	0
7/1/2014 to 6/30/2015	600,000	84	990,329	990,329	1,007	2,082,223	1,694	1,036	57,544	0	1,091,893	50,739	0
7/1/2015 to 6/30/2016	600k / 1M	72	1,090,362	1,090,362	1,010	3,537,912	1,822	1,058	109,134	0	2,447,550	98,293	0
7/1/2016 to 6/30/2017	600k / 1M	60	1,264,190	1,264,190	1,015	2,151,043	1,829	1,082	175,204	0	886,853	156,408	0
7/1/2017 to 6/30/2018	600k / 1M	48	1,148,254	1,198,000	1,020	2,718,215	1,836	1,094	189,452	0	1,569,961	165,789	0
7/1/2018 to 6/30/2019	600k / 1.25M	36	1,080,187	1,117,000	1,030	1,554,009	1,897	1,102	195,566	0	473,822	162,844	0
7/1/2019 to 6/30/2020	600k / 1.25M	24	1,040,193	1,142,000	1,051	1,349,085	1,904	1,110	216,350	0	308,892	160,958	0
7/1/2020 to 6/30/2021	750k / 2.25M	12	1,334,418	1,654,000	1,340	2,586,374	2,043	1,466	1,073,833	0	1,251,956	854,165	0
TOTALS			18,567,401	19,096,525	593,317	33,178,032			2,221,097		14,610,632	1,627,780	

Policy Period	Self-Insured Retention (SIR)	(12) Indicated Ultimate		(13) Limited to SIR		(14) Excess Method	(15) Prior Ultimate	(16) Selected Ultimate
		ILF Method	LDF Method	Excess Method	Prior Ultimate			
1/1/2003 to 6/30/2003	500,000	755,797	1,085,942	1,085,942	1,086,500		1,086,500	1,086,000
7/1/2003 to 6/30/2004	500,000	1,244,163	833,257	833,257	834,500		834,500	833,500
7/1/2004 to 6/30/2005	500,000	986,617	651,732	651,732	651,732		651,732	651,732
7/1/2005 to 6/30/2006	500,000	1,032,610	1,025,022	1,025,022	1,048,000		1,048,000	1,025,100
7/1/2006 to 6/30/2007	500,000	968,559	619,168	619,168	625,000		625,000	620,000
7/1/2007 to 6/30/2008	500,000	1,295,892	1,099,931	1,100,704	995,000		1,101,000	1,101,000
7/1/2008 to 6/30/2009	500,000	1,079,398	1,305,022	1,303,076	1,320,000		1,303,000	1,303,000
7/1/2009 to 6/30/2010	500,000	2,100,641	1,771,029	1,776,383	1,800,000		1,776,000	1,776,000
7/1/2010 to 6/30/2011	500,000	1,556,379	1,477,705	1,475,936	1,515,000		1,456,561	1,456,561
7/1/2011 to 6/30/2012	500,000	1,890,710	2,436,738	2,428,221	2,370,000		2,428,000	2,428,000
7/1/2012 to 6/30/2013	600,000	1,799,197	2,392,214	2,372,056	2,275,000		2,372,000	2,372,000
7/1/2013 to 6/30/2014	600,000	2,520,993	2,792,831	2,727,070	2,750,000		2,727,000	2,727,000
7/1/2014 to 6/30/2015	600,000	1,677,771	2,156,308	2,132,862	2,082,223		2,082,223	2,082,223
7/1/2015 to 6/30/2016	600k / 1M	1,967,099	3,743,510	3,636,205	3,750,000		3,636,000	3,636,000
7/1/2016 to 6/30/2017	600k / 1M	2,312,476	2,327,375	2,307,451	2,050,000		2,307,000	2,307,000
7/1/2017 to 6/30/2018	600k / 1M	2,199,470	2,974,418	2,933,730	2,550,000		2,934,000	2,934,000
7/1/2018 to 6/30/2019	600k / 1.25M	2,118,815	1,712,029	1,753,465	2,010,000		1,753,000	1,753,000
7/1/2019 to 6/30/2020	600k / 1.25M	2,174,352	1,498,153	1,611,850	2,350,000		1,987,000	1,987,000
7/1/2020 to 6/30/2021	750k / 2.25M	3,379,750	3,790,811	3,560,121	2,555,000		3,515,000	3,515,000
TOTALS		33,080,688	35,633,195	35,335,036	34,617,455		35,594,116	35,594,116

Notes:
 (1) = (average evaluation period) - (average policy period)
 (2) from City of Chandler, Page 3, Column (12)
 (3) from Exhibit C, Page 3, Column (12)
 (4) from Appendix A, Page 1
 (5) = (3) x (1 - 1/(4))
 (6) from City of Chandler
 (7) from Appendix B, Page 1
 (8) (limit adjusted for trend for prior years)
 (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, 2021

Policy Period	(1) Exposures (\$1,000 Payroll)	(2) Open & IBNR Claim Count	(3) Paid	(4) Incurred	(5) Paid Development Method	(6) Incurred Development Method	(7) Loss Cost Method	(8) Frequency / Severity Method	(9) Paid Bornhuetter- Ferguson Method	(10) Incurred Bornhuetter- Ferguson Method	(11) Prior Ultimate	(12) Selected Ultimate
1/1/2003 to 6/30/2003	38,782	2	478,631	478,631	484,086	478,631			484,024	478,631	478,631	478,631
7/1/2003 to 6/30/2004	82,686	1	775,091	786,281	784,988	786,281			785,014	786,281	786,281	786,281
7/1/2004 to 6/30/2005	84,675	0	621,971	621,971	631,180	621,971			631,046	621,971	621,971	621,971
7/1/2005 to 6/30/2006	90,201	1	649,576	649,576	660,512	649,576			660,331	649,576	649,576	649,576
7/1/2006 to 6/30/2007	102,877	1	587,801	607,316	598,893	607,316			599,049	607,316	608,000	608,000
7/1/2007 to 6/30/2008	111,710	3	695,966	811,227	710,704	811,227			712,789	811,227	740,000	812,000
7/1/2008 to 6/30/2009	120,668	2	675,237	675,237	681,246	675,912			680,875	675,911	674,560	675,237
7/1/2009 to 6/30/2010	119,800	3	1,299,626	1,305,417	1,334,429	1,308,029			1,334,085	1,308,056	1,310,000	1,310,000
7/1/2010 to 6/30/2011	113,843	1	966,822	966,822	997,676	969,725			996,722	969,716	966,822	966,822
7/1/2011 to 6/30/2012	110,414	4	1,160,847	1,164,313	1,203,883	1,168,977			1,203,259	1,169,047	1,172,000	1,170,000
7/1/2012 to 6/30/2013	119,088	4	1,069,226	1,069,226	1,117,736	1,074,583			1,115,631	1,074,556	1,069,226	1,069,226
7/1/2013 to 6/30/2014	115,348	5	1,482,601	1,483,450	1,562,264	1,492,373			1,560,482	1,492,582	1,479,586	1,493,000
7/1/2014 to 6/30/2015	119,528	2	990,329	990,329	1,053,978	997,282			1,050,134	997,234	990,329	990,329
7/1/2015 to 6/30/2016	127,517	4	1,040,344	1,090,362	1,121,359	1,101,311			1,119,119	1,101,203	1,090,362	1,090,362
7/1/2016 to 6/30/2017	128,452	5	1,264,190	1,264,190	1,383,075	1,283,269			1,372,856	1,282,986	1,264,190	1,264,190
7/1/2017 to 6/30/2018	133,497	5	1,098,692	1,148,254	1,220,043	1,171,411	1,255,498	1,170,170	1,223,570	1,173,074	1,230,000	1,198,000
7/1/2018 to 6/30/2019	135,570	14	947,621	1,080,187	1,073,333	1,112,992	1,261,703	1,275,632	1,085,395	1,117,375	1,185,000	1,117,000
7/1/2019 to 6/30/2020	136,800	24	927,549	1,040,193	1,166,184	1,093,219	1,250,718	1,227,296	1,183,465	1,100,858	1,230,000	1,142,000
7/1/2020 to 6/30/2021	140,064	71	589,321	1,334,418	1,370,712	1,788,114	1,260,755	1,224,000	1,308,029	1,654,308	1,296,000	1,654,000
TOTALS	2,131,539	152	17,321,440	18,567,401	19,166,270	19,192,202			19,125,875	19,071,908	18,842,534	19,096,625

- 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, 2021

Policy Period	(1) Age in Months	(2) Paid	(3) Cumulative Development Factors	(4) Ultimate
1/1/2003 to 6/30/2003	225	478,631	1.011	484,086
7/1/2003 to 6/30/2004	216	775,091	1.013	784,998
7/1/2004 to 6/30/2005	204	621,971	1.015	631,180
7/1/2005 to 6/30/2006	192	649,576	1.017	660,512
7/1/2006 to 6/30/2007	180	587,801	1.019	598,893
7/1/2007 to 6/30/2008	168	695,966	1.021	710,704
7/1/2008 to 6/30/2009	156	675,237	1.024	691,246
7/1/2009 to 6/30/2010	144	1,299,626	1.027	1,334,429
7/1/2010 to 6/30/2011	132	966,822	1.032	997,676
7/1/2011 to 6/30/2012	120	1,160,847	1.037	1,203,883
7/1/2012 to 6/30/2013	108	1,069,226	1.045	1,117,736
7/1/2013 to 6/30/2014	96	1,482,601	1.054	1,562,264
7/1/2014 to 6/30/2015	84	990,329	1.064	1,053,978
7/1/2015 to 6/30/2016	72	1,040,344	1.078	1,121,359
7/1/2016 to 6/30/2017	60	1,264,190	1.094	1,383,075
7/1/2017 to 6/30/2018	48	1,098,692	1.110	1,220,043
7/1/2018 to 6/30/2019	36	947,621	1.133	1,073,333
7/1/2019 to 6/30/2020	24	927,549	1.257	1,166,164
7/1/2020 to 6/30/2021	12	589,321	2.326	1,370,712
TOTALS		17,321,440		19,166,270

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, 2021

	(1)	(2)	(3)	(4)
Policy Period	Age in Months	Incurred	Cumulative Development Factors	Ultimate
1/1/2003 to 6/30/2003	225	478,631	1.000	478,631
7/1/2003 to 6/30/2004	216	786,281	1.000	786,281
7/1/2004 to 6/30/2005	204	621,971	1.000	621,971
7/1/2005 to 6/30/2006	192	649,576	1.000	649,576
7/1/2006 to 6/30/2007	180	607,316	1.000	607,316
7/1/2007 to 6/30/2008	168	811,227	1.000	811,227
7/1/2008 to 6/30/2009	156	675,237	1.001	675,912
7/1/2009 to 6/30/2010	144	1,305,417	1.002	1,308,029
7/1/2010 to 6/30/2011	132	966,822	1.003	969,725
7/1/2011 to 6/30/2012	120	1,164,313	1.004	1,168,977
7/1/2012 to 6/30/2013	108	1,069,226	1.005	1,074,583
7/1/2013 to 6/30/2014	96	1,483,450	1.006	1,492,373
7/1/2014 to 6/30/2015	84	990,329	1.007	997,282
7/1/2015 to 6/30/2016	72	1,090,362	1.010	1,101,311
7/1/2016 to 6/30/2017	60	1,264,190	1.015	1,283,269
7/1/2017 to 6/30/2018	48	1,148,254	1.020	1,171,411
7/1/2018 to 6/30/2019	36	1,080,187	1.030	1,112,992
7/1/2019 to 6/30/2020	24	1,040,193	1.051	1,093,219
7/1/2020 to 6/30/2021	12	1,334,418	1.340	1,788,114
TOTALS		18,567,401		19,192,202

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, 2021

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	225	476,631	38,782	1.561	1.269	10.04	1.418	14.23	7.80	
7/1/2003 to 6/30/2004	216	786,281	82,686	1.544	1.252	7.71	1.397	10.78	7.94	
7/1/2004 to 6/30/2005	204	621,971	84,675	1.532	1.237	5.93	1.370	8.12	8.14	
7/1/2005 to 6/30/2006	192	649,576	90,201	1.471	1.208	5.91	1.343	7.95	8.16	
7/1/2006 to 6/30/2007	180	607,316	102,877	1.403	1.193	5.02	1.317	6.61	8.03	
7/1/2007 to 6/30/2008	168	811,227	111,710	1.351	1.159	6.23	1.292	8.05	8.12	
7/1/2008 to 6/30/2009	156	675,237	120,668	1.323	1.107	4.68	1.266	5.93	8.49	
7/1/2009 to 6/30/2010	144	1,321,229	119,800	1.315	1.064	8.93	1.242	11.09	8.95	
7/1/2010 to 6/30/2011	132	966,822	113,843	1.294	1.049	6.89	1.218	8.39	9.11	
7/1/2011 to 6/30/2012	120	1,186,430	110,414	1.257	1.041	8.90	1.194	10.62	9.10	
7/1/2012 to 6/30/2013	108	1,069,226	119,068	1.225	1.033	7.57	1.171	8.86	9.12	
7/1/2013 to 6/30/2014	96	1,527,319	115,348	1.218	1.015	11.02	1.148	12.65	9.42	
7/1/2014 to 6/30/2015	84	990,329	119,528	1.191	1.007	7.00	1.125	7.88	9.46	
7/1/2015 to 6/30/2016	72	1,090,362	127,517	1.168	0.996	7.30	1.103	8.05	9.56	
7/1/2016 to 6/30/2017	60	1,264,190	128,452	1.153	1.005	8.58	1.082	9.29	9.54	
7/1/2017 to 6/30/2018	48	1,195,727	133,497	1.114	1.005	8.08	1.061	8.57	9.40	1,255,498
7/1/2018 to 6/30/2019	36	1,112,992	135,570	1.077	1.001	7.63	1.040	7.94	9.31	1,281,703
7/1/2019 to 6/30/2020	24	1,129,691	136,800	1.036	1.000	7.97	1.020	8.13	9.14	1,250,718
7/1/2020 to 6/30/2021	12	1,410,613	140,084	1.000	1.000	10.07	1.000	10.07	9.00	1,260,755
TOTALS		18,895,170	2,131,539							

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 2020 edition of NCCI Annual Statistical Bulletin
- (5) based on information published by NCCI
- (6) = (2) x (5) / (3) / (4)
- (7) 2.0% annual trend
- (8) = (6) x (7)
- (9) = (Selected for period 7/1/20 to 6/30/21) x (4) / (5) / (7)
- (10) = (3) x (9)

Arithmetic average
Weighted average
5 Period Arithmetic average
3 Period Arithmetic average

Prior Forecast
Frequency x Severity
Selected for period 7/1/20 to 6/30/21

Excluding
Current
Period

City of Chandler
Workers' Compensation
Frequency / Severity Method for Losses & ALAE - Limited to \$75,000
Based on Data as of June 30, 2021

	(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 Severity
1/1/2003 to 6/30/2003	478,631	63	1.269	9,643	1.550	14,946	4,321	
7/1/2003 to 6/30/2004	786,281	149	1.252	6,609	1.522	10,056	4,460	
7/1/2004 to 6/30/2005	621,971	143	1.237	5,379	1.485	7,984	4,630	
7/1/2005 to 6/30/2006	649,576	147	1.208	5,338	1.448	7,731	4,859	
7/1/2006 to 6/30/2007	607,316	135	1.193	5,369	1.413	7,586	5,041	
7/1/2007 to 6/30/2008	811,227	161	1.159	5,841	1.379	8,053	5,319	
7/1/2008 to 6/30/2009	675,237	165	1.107	4,530	1.345	6,092	5,710	
7/1/2009 to 6/30/2010	1,321,229	142	1.064	9,903	1.312	12,994	6,086	
7/1/2010 to 6/30/2011	966,822	153	1.049	6,631	1.280	8,489	6,327	
7/1/2011 to 6/30/2012	1,186,430	161	1.041	7,674	1.249	9,583	6,536	
7/1/2012 to 6/30/2013	1,069,226	135	1.033	8,182	1.218	9,969	6,753	
7/1/2013 to 6/30/2014	1,527,319	154	1.015	10,061	1.189	11,960	7,048	
7/1/2014 to 6/30/2015	990,329	143	1.007	6,974	1.160	8,087	7,279	
7/1/2015 to 6/30/2016	1,090,362	153	0.996	7,102	1.131	8,035	7,539	
7/1/2016 to 6/30/2017	1,264,190	133	1.005	9,556	1.104	10,548	7,659	
7/1/2017 to 6/30/2018	1,195,727	149	1.005	8,065	1.077	8,886	7,853	1,170,170
7/1/2018 to 6/30/2019	1,112,992	158	1.001	7,053	1.051	7,410	8,080	1,276,632
7/1/2019 to 6/30/2020	1,129,691	148	1.000	7,633	1.025	7,824	8,293	1,227,296
7/1/2020 to 6/30/2021	1,410,613	144	1.000	9,796	1.000	9,796	8,500	1,224,000
TOTALS	18,895,170	2,736						

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) 2.5% annual trend
- (6) = (4) x (5)
- (7) = (Selected for period 7/1/20 to 6/30/21) / [(3) x (5)]
- (8) = (2) x (7)

Excluding
Current
Period

Arithmetic Avg
Weighted Avg
5 Period Arithmetic Avg
3 Period Arithmetic Avg

Prior Forecast

Selected for period 7/1/20 to 6/30/21

9,224
9,001
8,501
7,973

8,700

8,500

City of Chandler
Workers' Compensation
Paid Losses & ALAE Bornhuetter-Ferguson Method - Limited to \$75,000
Based on Data as of June 30, 2021

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Policy Period	Age in Months	Preliminary Ultimate	Actual Paid	Cumulative Development Factors	Expected Paid	Expected Unpaid	Ultimate
1/1/2003 to 6/30/2003	225	478,631	478,631	1.011	473,238	5,393	484,024
7/1/2003 to 6/30/2004	216	786,281	775,091	1.013	776,359	9,923	785,014
7/1/2004 to 6/30/2005	204	621,971	621,971	1.015	612,896	9,075	631,046
7/1/2005 to 6/30/2006	192	649,576	649,576	1.017	638,820	10,755	660,331
7/1/2006 to 6/30/2007	180	607,316	587,801	1.019	596,069	11,248	599,049
7/1/2007 to 6/30/2008	168	811,227	695,966	1.021	794,404	16,823	712,789
7/1/2008 to 6/30/2009	156	675,237	675,237	1.024	659,599	15,638	690,875
7/1/2009 to 6/30/2010	144	1,321,229	1,299,626	1.027	1,286,770	34,459	1,334,085
7/1/2010 to 6/30/2011	132	966,822	966,822	1.032	936,921	29,900	996,722
7/1/2011 to 6/30/2012	120	1,186,430	1,160,847	1.037	1,144,018	42,412	1,203,259
7/1/2012 to 6/30/2013	108	1,069,226	1,069,226	1.045	1,022,821	46,405	1,115,631
7/1/2013 to 6/30/2014	96	1,527,319	1,482,601	1.054	1,449,437	77,882	1,560,482
7/1/2014 to 6/30/2015	84	990,329	990,329	1.064	930,525	59,805	1,050,134
7/1/2015 to 6/30/2016	72	1,090,362	1,040,344	1.078	1,011,587	78,775	1,119,119
7/1/2016 to 6/30/2017	60	1,264,190	1,264,190	1.094	1,155,524	108,666	1,372,856
7/1/2017 to 6/30/2018	48	1,255,498	1,098,692	1.110	1,130,620	124,878	1,223,570
7/1/2018 to 6/30/2019	36	1,261,703	947,621	1.133	1,113,929	147,774	1,095,395
7/1/2019 to 6/30/2020	24	1,250,718	927,549	1.257	994,802	255,916	1,183,465
7/1/2020 to 6/30/2021	12	1,260,755	589,321	2.326	542,046	718,708	1,308,029
TOTALS		19,074,820	17,321,440		17,270,384	1,804,435	19,125,875

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, 2021

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Policy Period	Age in Months	Preliminary Ultimate	Actual Incurred	Cumulative Development Factors	Expected Incurred	Expected IBNR	Ultimate
1/1/2003 to 6/30/2003	225	478,631	478,631	1.000	478,631	0	478,631
7/1/2003 to 6/30/2004	216	786,281	786,281	1.000	786,281	0	786,281
7/1/2004 to 6/30/2005	204	621,971	621,971	1.000	621,971	0	621,971
7/1/2005 to 6/30/2006	192	649,576	649,576	1.000	649,576	0	649,576
7/1/2006 to 6/30/2007	180	607,316	607,316	1.000	607,316	0	607,316
7/1/2007 to 6/30/2008	168	811,227	811,227	1.000	811,227	0	811,227
7/1/2008 to 6/30/2009	156	675,237	675,237	1.001	674,562	675	675,911
7/1/2009 to 6/30/2010	144	1,321,229	1,305,417	1.002	1,318,591	2,639	1,308,056
7/1/2010 to 6/30/2011	132	966,822	966,822	1.003	963,927	2,895	969,716
7/1/2011 to 6/30/2012	120	1,186,430	1,164,313	1.004	1,181,696	4,734	1,169,047
7/1/2012 to 6/30/2013	108	1,069,226	1,069,226	1.005	1,063,896	5,330	1,074,556
7/1/2013 to 6/30/2014	96	1,527,319	1,483,450	1.006	1,518,187	9,132	1,492,582
7/1/2014 to 6/30/2015	84	990,329	990,329	1.007	983,425	6,905	997,234
7/1/2015 to 6/30/2016	72	1,090,362	1,090,362	1.010	1,079,521	10,841	1,101,203
7/1/2016 to 6/30/2017	60	1,264,190	1,264,190	1.015	1,245,394	18,796	1,282,986
7/1/2017 to 6/30/2018	48	1,255,498	1,148,254	1.020	1,230,678	24,820	1,173,074
7/1/2018 to 6/30/2019	36	1,261,703	1,080,187	1.030	1,224,515	37,188	1,117,375
7/1/2019 to 6/30/2020	24	1,250,718	1,040,193	1.051	1,190,053	60,665	1,100,858
7/1/2020 to 6/30/2021	12	1,260,755	1,334,418	1.340	940,865	319,890	1,654,308
TOTALS		19,074,820	18,567,401		18,570,312	504,508	19,071,908

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
Selected Ultimate Claim Counts - Excluding Closed Without Payments
Based on Data as of June 30, 2021

Policy Period	(1) Age in Months	(2) Exposures (\$1,000 Payroll)	(3) Exposure Trend	(4) Reported Counts	(5) Cumulative Development Factors	(6) Estimated Ultimate Counts	(7) Preliminary Frequency (per \$1M)	(8) Frequency Trend	(9) Preliminary Trended Frequency (per \$1M)	(10) Estimated Ultimate Counts	(11) Prior Ultimate Counts	(12) Selected Ultimate Counts	(13) Selected Frequency (per \$1M)
1/1/2003 to 6/30/2003	225	38,782	1.561	63	1.000	63	1.041	0.915	0.952	63	63	63	1.624
7/1/2003 to 6/30/2004	216	82,686	1.544	149	1.000	149	1.167	0.918	1.072	149	149	149	1.802
7/1/2004 to 6/30/2005	204	84,675	1.532	143	1.000	143	1.108	0.923	1.016	143	143	143	1.688
7/1/2005 to 6/30/2006	192	90,201	1.471	147	1.000	147	1.103	0.928	1.028	147	147	147	1.630
7/1/2006 to 6/30/2007	180	102,877	1.403	135	1.000	135	0.935	0.932	0.872	135	135	135	1.312
7/1/2007 to 6/30/2008	168	111,710	1.351	161	1.000	161	1.067	0.937	0.999	161	161	161	1.441
7/1/2008 to 6/30/2009	156	120,668	1.323	165	1.000	165	1.034	0.942	0.973	165	165	165	1.367
7/1/2009 to 6/30/2010	144	119,800	1.315	142	1.000	142	0.902	0.946	0.853	142	142	142	1.185
7/1/2010 to 6/30/2011	132	113,843	1.294	153	1.000	153	1.039	0.951	0.988	153	153	153	1.344
7/1/2011 to 6/30/2012	120	110,414	1.257	161	1.000	161	1.160	0.956	1.109	161	161	161	1.458
7/1/2012 to 6/30/2013	108	119,088	1.225	135	1.000	135	0.925	0.961	0.889	135	135	135	1.134
7/1/2013 to 6/30/2014	96	115,348	1.218	154	1.000	154	1.066	0.966	1.058	154	154	154	1.335
7/1/2014 to 6/30/2015	84	119,528	1.191	143	1.000	143	1.004	0.970	0.975	143	143	143	1.196
7/1/2015 to 6/30/2016	72	127,517	1.168	153	1.000	153	1.028	0.975	1.002	153	153	153	1.200
7/1/2016 to 6/30/2017	60	128,452	1.153	133	1.000	133	0.898	0.980	0.880	133	133	133	1.035
7/1/2017 to 6/30/2018	48	133,497	1.114	149	1.000	149	1.002	0.985	0.987	149	149	149	1.116
7/1/2018 to 6/30/2019	36	135,570	1.077	158	1.002	158	1.084	0.990	1.073	158	161	158	1.165
7/1/2019 to 6/30/2020	24	136,800	1.036	147	1.005	148	1.042	0.995	1.037	148	135	148	1.082
7/1/2020 to 6/30/2021	12	140,084	1.000	128	1.095	140	1.001	1.000	1.001	141	150	144	1.028
TOTALS		2,131,539		2,719		2,732				2,733	2,734	2,736	

Notes:
 (1) = (average evaluation period) - (average policy period)
 (2) from City of Chandler
 (3) Arizona annual trend from 2020 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) -0.5% annual 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

Excluding
Current
Period

Arithmetic Avg
Weighted Avg
5 Period Arithmetic Avg
3 Period Arithmetic Avg

Prior Forecast

Selected for period 7/1/20 to 6/30/21

0.987
0.987
0.996
1.032
1.070
1.030

City of Chandler
Workers' Compensation
Actual vs. Expected Paid Losses & ALAE between 7/1/20 and 6/30/21 - Limited to Self-Insured Retention (SIR)
Based on Data as of June 30, 2021

Policy Period	(1) Ultimate @ 6/30/20	(2) Paid @ 6/30/20	(3) Unpaid @ 6/30/20	(4) Expected Period Paid %	(5) Expected Period Paid	(6) Actual Period Paid	(7) Difference
1/1/2003 to 6/30/2003	1,086,500	1,070,699	15,801	44.4%	7,023	407	(6,616)
7/1/2003 to 6/30/2004	834,000	817,817	16,183	33.3%	5,394	221	(5,173)
7/1/2004 to 6/30/2005	651,732	651,732	0	33.3%	0	0	0
7/1/2005 to 6/30/2006	1,048,000	978,139	69,861	69.5%	48,548	2,668	(45,880)
7/1/2006 to 6/30/2007	625,000	599,641	25,359	26.4%	6,701	12	(6,689)
7/1/2007 to 6/30/2008	995,000	717,151	277,849	17.7%	49,180	10,417	(38,763)
7/1/2008 to 6/30/2009	1,320,000	1,155,117	164,883	12.7%	20,877	5,327	(15,550)
7/1/2009 to 6/30/2010	1,800,000	1,472,878	327,122	22.0%	71,943	7,850	(64,093)
7/1/2010 to 6/30/2011	1,515,000	1,456,434	58,566	48.7%	28,494	128	(28,366)
7/1/2011 to 6/30/2012	2,370,000	1,802,412	567,588	28.2%	160,301	78,244	(82,057)
7/1/2012 to 6/30/2013	2,275,000	2,042,029	232,971	18.2%	42,429	54,318	11,889
7/1/2013 to 6/30/2014	2,750,000	2,314,518	435,482	17.2%	75,036	41,425	(33,611)
7/1/2014 to 6/30/2015	2,082,223	1,325,087	757,135	11.3%	85,510	68,113	(17,397)
7/1/2015 to 6/30/2016	3,750,000	2,394,097	1,355,903	20.2%	274,515	135,949	(138,566)
7/1/2016 to 6/30/2017	2,050,000	1,579,189	470,811	10.7%	50,224	49,741	(483)
7/1/2017 to 6/30/2018	2,550,000	1,515,924	1,034,076	2.6%	26,411	90,199	63,788
7/1/2018 to 6/30/2019	2,010,000	859,922	1,150,078	34.3%	394,227	116,405	(277,823)
7/1/2019 to 6/30/2020	2,350,000	513,953	1,836,047	58.1%	1,066,511	534,282	(532,229)
TOTALS	32,062,455	23,266,740	8,795,715		2,413,326	1,195,706	(1,217,620)

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 7/1/20 and 6/30/21 - Limited to Self-Insured Retention (SIR)
Based on Data as of June 30, 2021

Policy Period	(1) Ultimate @ 6/30/20	(2) Incurred @ 6/30/20	(3) IBNR @ 6/30/20	(4) Expected Period Incurred %	(5) Expected Period Incurred	(6) Actual Period Incurred	(7) Difference
1/1/2003 to 6/30/2003	1,086,500	1,085,942	558	44.4%	248	0	(248)
7/1/2003 to 6/30/2004	834,000	833,257	743	33.3%	248	0	(248)
7/1/2004 to 6/30/2005	651,732	651,732	0	50.0%	0	0	0
7/1/2005 to 6/30/2006	1,048,000	1,043,990	4,010	49.9%	2,001	(18,968)	(20,969)
7/1/2006 to 6/30/2007	625,000	619,168	5,832	43.6%	2,541	0	(2,541)
7/1/2007 to 6/30/2008	995,000	975,748	19,252	47.1%	9,059	124,183	115,124
7/1/2008 to 6/30/2009	1,320,000	1,296,993	23,007	28.5%	6,551	677	(5,874)
7/1/2009 to 6/30/2010	1,800,000	1,753,706	46,294	18.9%	8,741	(877)	(9,618)
7/1/2010 to 6/30/2011	1,515,000	1,477,295	37,705	12.2%	4,608	(20,734)	(25,343)
7/1/2011 to 6/30/2012	2,370,000	2,317,576	52,424	6.7%	3,526	76,609	73,083
7/1/2012 to 6/30/2013	2,275,000	2,211,985	63,015	2.6%	1,636	120,415	118,779
7/1/2013 to 6/30/2014	2,750,000	2,635,235	114,765	33.3%	38,207	15,239	(22,968)
7/1/2014 to 6/30/2015	2,082,223	2,082,223	0	20.8%	0	0	0
7/1/2015 to 6/30/2016	3,750,000	3,542,441	207,559	40.5%	84,046	(4,529)	(88,575)
7/1/2016 to 6/30/2017	2,050,000	1,793,202	256,798	25.6%	65,856	357,841	291,984
7/1/2017 to 6/30/2018	2,550,000	2,311,150	238,850	-32.1%	(76,707)	407,064	483,771
7/1/2018 to 6/30/2019	2,010,000	1,538,022	471,978	-30.6%	(144,531)	15,987	160,519
7/1/2019 to 6/30/2020	2,350,000	956,392	1,393,608	74.9%	1,043,315	392,694	(650,622)
TOTALS	32,062,455	29,126,058	2,936,397		1,049,346	1,465,601	416,255

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 7/1/20 and 6/30/21 - Limited to \$75,000
Based on Data as of June 30, 2021

Policy Period	(1) Ultimate @ 6/30/20	(2) Paid @ 6/30/20	(3) Unpaid @ 6/30/20	(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	100.0%	0	0	0
7/1/2003 to 6/30/2004	786,281	774,870	11,412	100.0%	11,412	221	(11,190)
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	50.0%	0	0	0
7/1/2006 to 6/30/2007	608,000	587,789	20,211	33.3%	6,730	12	(6,718)
7/1/2007 to 6/30/2008	740,000	691,745	48,255	25.0%	12,046	4,221	(7,825)
7/1/2008 to 6/30/2009	674,560	674,560	0	20.0%	0	677	677
7/1/2009 to 6/30/2010	1,310,000	1,300,357	9,643	28.5%	2,747	(732)	(3,479)
7/1/2010 to 6/30/2011	966,822	966,822	0	53.1%	0	0	0
7/1/2011 to 6/30/2012	1,172,000	1,159,929	12,071	34.5%	4,163	918	(3,245)
7/1/2012 to 6/30/2013	1,069,226	1,069,226	0	25.5%	0	0	0
7/1/2013 to 6/30/2014	1,479,586	1,479,586	0	24.0%	0	3,014	3,014
7/1/2014 to 6/30/2015	990,329	990,329	0	19.2%	0	0	0
7/1/2015 to 6/30/2016	1,090,362	1,034,850	55,512	27.3%	15,176	5,494	(9,682)
7/1/2016 to 6/30/2017	1,264,190	1,264,190	0	25.0%	0	0	0
7/1/2017 to 6/30/2018	1,230,000	1,098,076	131,924	19.6%	25,871	616	(25,255)
7/1/2018 to 6/30/2019	1,185,000	832,096	352,904	45.7%	161,154	115,525	(45,629)
7/1/2019 to 6/30/2020	1,230,000	513,953	716,047	63.6%	455,519	413,596	(41,923)
TOTALS	17,546,534	16,188,557	1,357,977		694,818	543,562	(151,256)

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 7/1/20 and 6/30/21 - Limited to \$75,000
Based on Data as of June 30, 2021

Policy Period	(1) Ultimate @ 6/30/20	(2) Incurred @ 6/30/20	(3) IBNR @ 6/30/20	(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	740,000	737,820	2,180	50.0%	1,090	73,407	72,318
7/1/2008 to 6/30/2009	674,560	674,560	0	33.3%	0	677	677
7/1/2009 to 6/30/2010	1,310,000	1,306,294	3,706	25.0%	925	(877)	(1,802)
7/1/2010 to 6/30/2011	966,822	966,822	0	20.0%	0	0	0
7/1/2011 to 6/30/2012	1,172,000	1,164,307	7,693	16.6%	1,279	6	(1,273)
7/1/2012 to 6/30/2013	1,069,226	1,069,226	0	14.2%	0	0	0
7/1/2013 to 6/30/2014	1,479,586	1,479,586	0	41.5%	0	3,864	3,864
7/1/2014 to 6/30/2015	990,329	990,329	0	29.2%	0	0	0
7/1/2015 to 6/30/2016	1,090,362	1,090,362	0	46.3%	0	0	0
7/1/2016 to 6/30/2017	1,264,190	1,264,190	0	37.7%	0	0	0
7/1/2017 to 6/30/2018	1,230,000	1,149,200	80,800	0.0%	0	(946)	(946)
7/1/2018 to 6/30/2019	1,185,000	1,079,028	105,972	0.0%	0	1,159	1,159
7/1/2019 to 6/30/2020	1,230,000	859,380	370,620	81.3%	301,377	180,813	(120,564)
TOTALS	17,546,534	16,974,880	571,654		305,354	258,102	(47,252)

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, 2021

Age	Paid Losses & ALAE							Incurred Losses & ALAE							Reported Counts	
	75,000	500,000	600,000	880,000	1,000,000	1,055,000	1,755,000	75,000	500,000	600,000	880,000	1,000,000	1,055,000	1,755,000	Age	Excl. CWOP
12	2.326	2.555	2.566	2.597	2.610	2.611	2.625	1.340	1.434	1.438	1.451	1.456	1.457	1.466	12	1.095
24	1.257	1.340	1.344	1.355	1.361	1.361	1.366	1.051	1.089	1.091	1.102	1.110	1.110	1.120	24	1.005
36	1.133	1.282	1.292	1.322	1.335	1.336	1.349	1.030	1.079	1.082	1.094	1.101	1.102	1.111	36	1.002
48	1.110	1.257	1.267	1.296	1.309	1.310	1.323	1.020	1.077	1.081	1.094	1.100	1.101	1.110	48	1.000
60	1.094	1.238	1.248	1.277	1.289	1.290	1.303	1.015	1.063	1.067	1.082	1.088	1.089	1.099	60	1.000
72	1.078	1.216	1.227	1.256	1.274	1.276	1.290	1.010	1.042	1.046	1.058	1.063	1.064	1.073	72	1.000
84	1.064	1.195	1.206	1.243	1.258	1.259	1.275	1.007	1.032	1.036	1.046	1.051	1.051	1.059	84	1.000
96	1.054	1.176	1.188	1.227	1.243	1.245	1.262	1.006	1.028	1.031	1.043	1.048	1.049	1.057	96	1.000
108	1.045	1.157	1.168	1.207	1.223	1.225	1.242	1.005	1.022	1.026	1.038	1.043	1.044	1.052	108	1.000
120	1.037	1.138	1.149	1.187	1.203	1.204	1.222	1.004	1.018	1.021	1.033	1.038	1.039	1.047	120	1.000
132	1.032	1.132	1.143	1.182	1.198	1.200	1.217	1.003	1.015	1.017	1.028	1.032	1.032	1.039	132	1.000
144	1.027	1.120	1.131	1.167	1.183	1.184	1.200	1.002	1.010	1.012	1.020	1.023	1.023	1.029	144	1.000
156	1.024	1.116	1.127	1.163	1.178	1.180	1.196	1.001	1.006	1.007	1.011	1.013	1.013	1.016	156	1.000
168	1.021	1.111	1.121	1.157	1.172	1.174	1.190	1.000	1.000	1.000	1.000	1.000	1.000	1.000	168	1.000
180	1.019	1.107	1.117	1.153	1.168	1.169	1.185	1.000	1.000	1.000	1.000	1.000	1.000	1.000	180	1.000
192	1.017	1.104	1.114	1.149	1.164	1.165	1.181	1.000	1.000	1.000	1.000	1.000	1.000	1.000	192	1.000
204	1.015	1.099	1.109	1.144	1.158	1.159	1.175	1.000	1.000	1.000	1.000	1.000	1.000	1.000	204	1.000
216	1.013	1.093	1.102	1.135	1.149	1.150	1.165	1.000	1.000	1.000	1.000	1.000	1.000	1.000	216	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, 2021

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to
7/1/2003	2,477,026	565,212	621,763	661,178	715,176	720,556	722,269	722,205	722,300	725,697	725,697	725,655	725,655	725,675	739,755	749,083	774,870	775,091
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	628,386	640,201	649,576	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	587,789	587,789	587,789
7/1/2007	351,283	616,773	702,322	645,614	595,827	595,827	597,997	635,245	658,716	673,524	679,204	686,940	691,745	695,966	695,966	695,966	695,966	695,966
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	675,237	675,237	675,237	675,237
7/1/2009	807,943	1,264,270	1,274,279	1,258,475	1,269,316	1,268,437	1,268,437	1,268,437	1,268,437	1,268,437	1,268,437	1,268,437	1,268,437	1,268,437	1,268,437	1,268,437	1,268,437	1,268,437
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	966,822	966,822	966,822	966,822	966,822	966,822
7/1/2011	656,952	1,042,286	1,107,176	1,140,809	1,152,179	1,152,179	1,152,179	1,152,179	1,152,179	1,152,179	1,152,179	1,152,179	1,152,179	1,152,179	1,152,179	1,152,179	1,152,179	1,152,179
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	1,069,226	1,069,226	1,069,226	1,069,226	1,069,226	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	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343
7/1/2014	557,797	927,794	988,164	988,803	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329
7/1/2015	418,716	903,262	998,672	998,672	1,034,850	1,040,344	1,040,344	1,040,344	1,040,344	1,040,344	1,040,344	1,040,344	1,040,344	1,040,344	1,040,344	1,040,344	1,040,344	1,040,344
7/1/2016	496,863	992,965	1,205,210	1,284,190	1,284,190	1,284,190	1,284,190	1,284,190	1,284,190	1,284,190	1,284,190	1,284,190	1,284,190	1,284,190	1,284,190	1,284,190	1,284,190	1,284,190
7/1/2017	603,228	1,112,325	1,098,076	1,098,076	1,098,076	1,098,076	1,098,076	1,098,076	1,098,076	1,098,076	1,098,076	1,098,076	1,098,076	1,098,076	1,098,076	1,098,076	1,098,076	1,098,076
7/1/2018	517,966	832,096	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621
7/1/2019	513,953	927,549	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621
7/1/2020	589,321																	

Notes: industry development factors based on data from the 2019 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, 2021

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning																		
7/1/2003	405,319	615,533	658,303	716,149	753,176	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
7/1/2004	433,092	596,058	636,433	655,098	654,707	654,721	654,028	655,980	621,775	621,775	621,775	621,775	621,775	621,775	621,371	621,371	621,371	621,371
7/1/2005	218,697	572,351	613,104	642,903	642,903	643,810	643,810	643,968	648,952	649,576	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	607,316	607,316
7/1/2007	591,135	726,617	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	811,227	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	674,485	674,485	675,237	675,237	675,237	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	1,306,081	1,305,417	1,305,417	1,305,417	1,305,417	1,305,417	1,305,417	1,305,417
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	966,822	966,822	966,822	966,822	966,822	966,822
7/1/2011	1,113,010	1,158,045	1,151,669	1,154,497	1,158,747	1,163,992	1,163,992	1,163,992	1,163,992	1,163,992	1,163,992	1,164,307	1,164,307	1,164,307	1,164,307	1,164,307	1,164,307	1,164,307
7/1/2012	549,779	982,837	971,678	886,485	986,927	1,036,675	1,042,245	1,042,245	1,042,245	1,042,245	1,042,245	1,042,245	1,042,245	1,042,245	1,042,245	1,042,245	1,042,245	1,042,245
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	1,483,450	1,483,450	1,483,450	1,483,450	1,483,450	1,483,450	1,483,450	1,483,450	1,483,450	1,483,450
7/1/2014	1,041,927	1,020,543	1,008,810	997,553	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329
7/1/2015	718,305	1,067,238	1,056,357	1,060,018	1,060,018	1,060,018	1,060,018	1,060,018	1,060,018	1,060,018	1,060,018	1,060,018	1,060,018	1,060,018	1,060,018	1,060,018	1,060,018	1,060,018
7/1/2016	919,829	1,247,731	1,257,422	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190
7/1/2017	1,202,169	1,232,355	1,232,355	1,232,355	1,232,355	1,232,355	1,232,355	1,232,355	1,232,355	1,232,355	1,232,355	1,232,355	1,232,355	1,232,355	1,232,355	1,232,355	1,232,355	1,232,355
7/1/2018	812,003	1,079,028	1,080,187	1,080,187	1,080,187	1,080,187	1,080,187	1,080,187	1,080,187	1,080,187	1,080,187	1,080,187	1,080,187	1,080,187	1,080,187	1,080,187	1,080,187	1,080,187
7/1/2019	859,380	1,040,193	1,040,193	1,040,193	1,040,193	1,040,193	1,040,193	1,040,193	1,040,193	1,040,193	1,040,193	1,040,193	1,040,193	1,040,193	1,040,193	1,040,193	1,040,193	1,040,193
7/1/2020	1,334,418																	

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning																		
7/1/2003	1,519	1,069	1,068	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052
7/1/2004	1,376	1,069	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029
7/1/2005	2,585	1,064	1,065	1,065	1,065	1,065	1,065	1,065	1,065	1,065	1,065	1,065	1,065	1,065	1,065	1,065	1,065	1,065
7/1/2006	1,601	1,064	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029	1,029
7/1/2007	1,246	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041
7/1/2008	1,142	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041
7/1/2009	1,142	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041
7/1/2010	1,142	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041
7/1/2011	1,142	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041	1,041
7/1/2012	1,384	1,069	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011
7/1/2013	1,789	1,069	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011
7/1/2014	1,384	1,069	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011
7/1/2015	1,486	1,069	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011
7/1/2016	1,359	1,069	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011
7/1/2017	1,025	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011
7/1/2018	1,329	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011
7/1/2019	1,210	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011
Average	1,376	1,004	1,000	1,006	1,005	1,005	1,006	1,006	1,006	1,001	1,002	1,000	1,000	1,004	1,000	1,010	1,000	1,000
Wtd Avg	1,272	0,993	0,996	1,008	1,005	1,004	1,007	1,000	0,998	1,001	1,002	1,000	1,000	1,005	1,000	1,011	1,000	1,000
5 Yr Avg	1,282	0,984	1,000	1,028	1,011	1,010	1,010	1,010	0,997	1,002	1,003	1,000	1,000	1,003	1,000	1,000	1,000	1,000
3 Yr Avg	1,188	0,980	1,003	1,007	0,999	1,000	1,009	1,000	1,000	1,005	1,004	1,000	1,000	1,001	1,000	1,000	1,000	1,000
Prior	1,300	1,000	1,000	1,020	1,015	1,005	1,005	1,001	1,001	1,001	1,001	1,001	1,001	1,001	1,001	1,001	1,001	1,001
Industry	1,265	1,071	1,031	1,010	1,004	1,004	1,003	1,002	1,001	1,001	1,001	1,001	1,001	1,001	1,000	1,000	1,000	1,001
Selected	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	1,001	1,000	1,000	1,000	1,000
Ultimate	1,340	1,051	1,030	1,020	1,015	1,010	1,007	1,006	1,005	1,004	1,003	1,002	1,001	1,001	1,000	1,000	1,000	1,000
Pattern	74.6%	20.5%	1.9%	1.0%	0.5%	0.5%	0.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%

Notes:
Industry development factors based on data from the 2019 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, 2021

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning	143	150	149	149	149	149	149	149	151	149	149	149	149	149	149	149	149	149
7/1/2003	135	141	142	142	142	142	143	143	143	143	143	143	143	143	143	143	143	143
7/1/2004	120	147	147	147	147	147	155	147	147	147	147	147	147	147	147	147	147	147
7/1/2005	104	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135
7/1/2006	154	159	160	160	160	160	160	160	161	161	161	161	161	161	161	161	161	161
7/1/2007	164	177	166	177	165	165	165	165	165	164	165	165	165	165	165	165	165	165
7/1/2008	140	144	147	144	144	144	144	144	144	142	142	142	142	142	142	142	142	142
7/1/2009	148	161	153	153	153	154	153	153	153	153	153	153	153	153	153	153	153	153
7/1/2010	167	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
7/1/2011	128	133	134	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135
7/1/2012	146	154	154	154	154	154	154	154	154	154	154	154	154	154	154	154	154	154
7/1/2013	138	140	142	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143
7/1/2014	125	131	132	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133
7/1/2015	145	150	150	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149
7/1/2016	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
7/1/2017	145	150	150	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149
7/1/2018	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
7/1/2019	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
7/1/2020	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
7/1/2021	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning	1,049	1,044	1,007	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
7/1/2003	1,049	1,044	1,007	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
7/1/2004	1,044	1,007	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
7/1/2005	1,225	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	1,000
7/1/2006	1,298	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	1,000
7/1/2007	1,032	1,006	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
7/1/2008	1,006	1,006	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
7/1/2009	1,029	1,021	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
7/1/2010	1,006	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	1,000
7/1/2011	1,006	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	1,000
7/1/2012	1,006	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	1,000
7/1/2013	1,006	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	1,000
7/1/2014	1,006	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	1,000
7/1/2015	1,006	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	1,000
7/1/2016	1,006	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	1,000
7/1/2017	1,006	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	1,000
7/1/2018	1,006	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	1,000
7/1/2019	1,006	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	1,000
7/1/2020	1,006	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	1,000
7/1/2021	1,006	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	1,000
Average	1,077	1,000	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
Vnd Avg	1,070	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	1,092	1,003	1,002	1,000	1,000	1,000	0.999	0.999	0.999	1,001	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
3 Yr Avg	1,099	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,002	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Prior	1,060	1,005	1,005	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
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
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
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%

Oliver Wyman Actuarial Consulting, Inc.

Report on 9/29/2021 at 6:13 PM

City of Chandler
Workers' Compensation
Paid Losses & ALAE / Ultimate Losses & ALAE - Limited to \$75,000
Based on Data as of June 30, 2021

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning	247,026	585,212	621,763	661,178	715,176	720,556	722,269	722,205	722,300	725,697	725,697	725,655	725,655	725,675	739,755	749,083	774,870	775,091
7/1/2003	247,026	585,212	621,763	661,178	715,176	720,556	722,269	722,205	722,300	725,697	725,697	725,655	725,655	725,675	739,755	749,083	774,870	775,091
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	621,775	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	649,576
7/1/2006	208,267	464,091	531,181	552,186	552,895	584,800	585,106	578,421	581,940	581,848	582,053	582,071	582,176	587,789	587,801	587,801	587,801	587,801
7/1/2007	351,283	616,773	702,322	645,614	595,827	595,827	597,597	636,245	658,716	673,524	679,204	686,940	691,745	695,966	695,966	695,966	695,966	695,966
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	674,485	674,485	674,485	674,485	674,485	674,485	674,485
7/1/2009	807,943	1,274,279	1,268,878	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	1,299,626	1,299,626	1,299,626	1,299,626	1,299,626	1,299,626
7/1/2010	667,115	932,878	953,000	956,407	966,774	966,782	966,782	966,822	966,822	966,822	966,822	966,822	966,822	966,822	966,822	966,822	966,822	966,822
7/1/2011	658,582	1,042,286	1,107,176	1,140,809	1,152,173	1,153,721	1,157,939	1,158,827	1,159,929	1,160,847	1,160,847	1,160,847	1,160,847	1,160,847	1,160,847	1,160,847	1,160,847	1,160,847
7/1/2012	308,364	737,253	852,237	861,204	899,882	937,568	1,037,066	1,069,226	1,069,226	1,069,226	1,069,226	1,069,226	1,069,226	1,069,226	1,069,226	1,069,226	1,069,226	1,069,226
7/1/2013	515,382	1,169,519	1,422,414	1,433,503	1,478,001	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343	1,479,343
7/1/2014	957,737	927,794	966,164	966,503	980,328	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329
7/1/2015	418,716	803,262	956,072	956,197	1,034,950	1,034,950	1,034,950	1,034,950	1,034,950	1,034,950	1,034,950	1,034,950	1,034,950	1,034,950	1,034,950	1,034,950	1,034,950	1,034,950
7/1/2016	895,183	1,254,950	1,326,000	1,326,000	1,326,000	1,326,000	1,326,000	1,326,000	1,326,000	1,326,000	1,326,000	1,326,000	1,326,000	1,326,000	1,326,000	1,326,000	1,326,000	1,326,000
7/1/2017	602,228	1,112,326	1,099,076	1,099,076	1,099,076	1,099,076	1,099,076	1,099,076	1,099,076	1,099,076	1,099,076	1,099,076	1,099,076	1,099,076	1,099,076	1,099,076	1,099,076	1,099,076
7/1/2018	513,568	832,096	947,521	1,038,692	1,038,692	1,038,692	1,038,692	1,038,692	1,038,692	1,038,692	1,038,692	1,038,692	1,038,692	1,038,692	1,038,692	1,038,692	1,038,692	1,038,692
7/1/2019	513,353	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549
7/1/2020	589,321																	

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning	0.314	0.719	0.791	0.841	0.870	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
7/1/2003	0.314	0.719	0.791	0.841	0.870	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
7/1/2004	0.444	0.863	0.928	0.953	0.973	0.979	0.981	0.981	0.981	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986
7/1/2005	0.309	0.779	0.851	0.916	0.929	0.946	0.958	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969
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	0.957	0.957	0.957	0.957	0.957	0.957
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	0.867	0.867	0.867	0.867
7/1/2008	0.477	0.901	0.922	0.916	0.906	0.929	0.952	0.952	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955
7/1/2009	0.617	0.968	0.973	0.961	0.969	0.968	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969
7/1/2010	0.690	0.965	0.966	0.989	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
7/1/2011	0.288	0.891	0.946	0.975	0.985	0.986	0.990	0.990	0.991	0.992	0.992	0.992	0.992	0.992	0.992	0.992	0.992	0.992
7/1/2012	0.288	0.891	0.946	0.975	0.985	0.986	0.990	0.990	0.991	0.992	0.992	0.992	0.992	0.992	0.992	0.992	0.992	0.992
7/1/2013	0.345	0.783	0.953	0.960	0.990	0.991	0.991	0.991	0.991	0.991	0.991	0.991	0.991	0.991	0.991	0.991	0.991	0.991
7/1/2014	0.563	0.937	0.998	0.998	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
7/1/2015	0.384	0.828	0.916	0.917	0.949	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
7/1/2016	0.504	0.928	0.953	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
7/1/2017	0.504	0.928	0.953	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
7/1/2018	0.464	0.745	0.848	0.917														
7/1/2019	0.450	0.812																
7/1/2020	0.356																	

City of Chandler
Workers' Compensation
Incurred Losses & ALAE / Ultimate Losses & ALAE - Limited to \$75,000
Based on Data as of June 30, 2021

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning																		
7/1/2003	405,319	615,533	658,303	716,149	753,179	744,414	745,126	745,968	745,968	746,550	746,550	746,507	746,507	757,007	770,294	770,294	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	585,416	613,104	685,312	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	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	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				
7/1/2008	606,357	695,601	654,669	643,402	642,616	655,025	665,025	665,025	665,025	665,025	665,025	674,485	674,485					
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	1,305,081	1,305,964	1,305,294	1,305,417	1,305,417					
7/1/2010	846,987	997,056	971,294	962,028	966,774	968,032	965,782	965,822	965,822	965,822	965,822							
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								
7/1/2012	548,779	982,837	971,678	888,485	986,927	1,038,675	1,042,245	1,059,226	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										
7/1/2014	1,041,527	1,020,543	1,008,810	997,553	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												
7/1/2016	919,829	1,249,791	1,257,422	1,254,190	1,284,190													
7/1/2017	1,202,169	1,232,355	1,148,200	1,146,234														
7/1/2018	812,003	1,079,028	1,085,167															
7/1/2019	839,360	1,040,193																
7/1/2020	1,334,416																	

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning																		
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	0.953	0.980	0.980	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	0.980	0.991	0.991	0.991	0.999	1.000	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	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	0.999	0.999	0.999
7/1/2008	0.896	1.030	0.970	0.953	0.952	0.985	0.985	0.985	0.985	0.985	0.985	0.985	0.985	0.999	0.999	0.999	0.999	0.999
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	0.997	0.997	0.997	0.997	0.997	0.997
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	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	0.995	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	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2013	0.744	1.029	0.990	0.991	0.999	0.995	0.991	0.994										
7/1/2014	1.052	1.031	1.019	1.007	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	0.972	1.000	1.000	1.000											
7/1/2017	1.003	1.029	0.969	0.958														
7/1/2018	0.727	0.966	0.967															
7/1/2019	0.753	0.911																
7/1/2020	0.807																	

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, 2021

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
7/1/2003	247,026	565,212	621,763	661,178	715,176	720,356	722,269	722,205	722,300	725,597	725,697	725,655	725,655	725,675	739,765	749,083	774,870	775,091
7/1/2004	276,397	536,761	577,418	592,457	603,379	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	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	587,789	587,789	587,789	587,789
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	695,966	695,966	695,966	695,966
7/1/2008	321,961	608,596	622,878	618,457	611,609	627,188	643,015	643,023	644,726	645,027	674,495	674,560	675,237	675,237	675,237	675,237	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	1,299,526	1,299,526	1,299,526	1,299,526	1,299,526	1,299,526	1,299,526
7/1/2010	667,115	932,478	953,600	956,407	966,774	966,782	966,782	966,822	966,822	966,822	966,822	966,822	966,822	966,822	966,822	966,822	966,822	966,822
7/1/2011	656,562	1,042,966	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	1,160,847	1,160,847	1,160,847	1,160,847	1,160,847	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	1,069,226	1,069,226	1,069,226	1,069,226	1,069,226	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	1,479,566	1,479,566	1,479,566	1,479,566	1,479,566	1,479,566	1,479,566	1,479,566	1,479,566	1,479,566	1,479,566	1,479,566
7/1/2014	557,797	927,794	988,164	988,803	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329	990,329
7/1/2015	418,716	903,262	998,672	999,797	1,034,850	1,034,850	1,034,850	1,034,850	1,034,850	1,034,850	1,034,850	1,034,850	1,034,850	1,034,850	1,034,850	1,034,850	1,034,850	1,034,850
7/1/2016	496,863	952,965	1,205,210	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190	1,264,190
7/1/2017	603,228	1,112,325	1,098,076	1,098,592	1,098,592	1,098,592	1,098,592	1,098,592	1,098,592	1,098,592	1,098,592	1,098,592	1,098,592	1,098,592	1,098,592	1,098,592	1,098,592	1,098,592
7/1/2018	517,966	832,096	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621	947,621
7/1/2019	513,953	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549	927,549
7/1/2020	589,321	589,321	589,321	589,321	589,321	589,321	589,321	589,321	589,321	589,321	589,321	589,321	589,321	589,321	589,321	589,321	589,321	589,321

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
7/1/2003	2,99	6,84	7,52	8,00	8,65	8,71	8,74	8,73	8,74	8,76	8,78	8,78	8,78	8,78	8,95	9,06	9,37	9,37
7/1/2004	2,99	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	2,29	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	7,20
7/1/2006	2,03	4,51	5,16	5,37	5,37	5,68	5,69	5,70	5,66	5,66	5,66	5,66	5,66	5,66	5,66	5,66	5,66	5,66
7/1/2007	3,14	5,52	6,29	5,78	5,33	5,33	5,35	5,35	5,34	5,34	5,35	5,35	5,35	5,35	5,35	5,35	5,35	5,35
7/1/2008	2,67	5,04	5,16	5,13	5,07	5,20	5,33	5,33	5,34	5,35	5,35	5,35	5,35	5,35	5,35	5,35	5,35	5,35
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	10,85	10,85	10,85	10,85	10,85
7/1/2010	5,66	8,19	8,38	8,40	8,49	8,49	8,49	8,49	8,49	8,49	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	10,51	10,51	10,51	10,51	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	8,98	8,98	8,98	8,98	8,98	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	12,85	12,85	12,85	12,85	12,85	12,85	12,85	12,85	12,85	12,85
7/1/2014	4,67	7,76	8,27	8,27	8,27	8,29	8,29	8,29	8,29	8,29	8,29	8,29	8,29	8,29	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	8,16	8,16	8,16	8,16	8,16	8,16	8,16	8,16	8,16	8,16	8,16
7/1/2016	3,87	7,73	9,38	9,84	9,84	9,84	9,84	9,84	9,84	9,84	9,84	9,84	9,84	9,84	9,84	9,84	9,84	9,84
7/1/2017	4,52	8,33	8,23	8,23	8,23	8,23	8,23	8,23	8,23	8,23	8,23	8,23	8,23	8,23	8,23	8,23	8,23	8,23
7/1/2018	3,82	6,14	6,99	6,99	6,99	6,99	6,99	6,99	6,99	6,99	6,99	6,99	6,99	6,99	6,99	6,99	6,99	6,99
7/1/2019	3,76	6,78	6,78	6,78	6,78	6,78	6,78	6,78	6,78	6,78	6,78	6,78	6,78	6,78	6,78	6,78	6,78	6,78
7/1/2020	4,21	4,21	4,21	4,21	4,21	4,21	4,21	4,21	4,21	4,21	4,21	4,21	4,21	4,21	4,21	4,21	4,21	4,21

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, 2021

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning																		
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
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	218.897	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	649.576
7/1/2006	397.568	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	607.316	607.316
7/1/2007	591.135	736.617	771.326	696.254	661.761	665.981	699.833	718.703	744.997	732.151	728.026	737.820	737.820	811.227				
7/1/2008	606.357	695.601	654.669	643.402	642.616	665.025	665.025	665.025	665.025	665.025	665.025	665.025	665.025	665.025	665.025	665.025	665.025	665.025
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	1,306.081	1,306.081	1,306.081	1,306.081	1,306.081	1,306.081	1,306.081	1,306.081	1,306.081
7/1/2010	846.887	997.056	971.294	962.028	966.774	968.032	966.782	966.822	966.822	966.822	966.822	966.822	966.822	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	1,164.307	1,164.307	1,164.307	1,164.307	1,164.307	1,164.307	1,164.307	1,164.307	1,164.307
7/1/2012	549.779	982.837	971.678	888.485	986.927	1,486.217	1,038.675	1,042.245	1,069.226	1,069.226	1,069.226	1,069.226	1,069.226	1,069.226	1,069.226	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	1,483.450	1,483.450	1,483.450	1,483.450	1,483.450	1,483.450	1,483.450	1,483.450	1,483.450	1,483.450
7/1/2014	1,041.527	1,020.543	1,008.810	997.553	990.329	990.329	990.329	990.329	990.329	990.329	990.329	990.329	990.329	990.329	990.329	990.329	990.329	990.329
7/1/2015	718.505	1,067.238	1,056.357	1,060.018	1,090.362	1,090.362	1,090.362	1,090.362	1,090.362	1,090.362	1,090.362	1,090.362	1,090.362	1,090.362	1,090.362	1,090.362	1,090.362	1,090.362
7/1/2016	919.829	1,249.791	1,257.422	1,264.190	1,264.190	1,264.190	1,264.190	1,264.190	1,264.190	1,264.190	1,264.190	1,264.190	1,264.190	1,264.190	1,264.190	1,264.190	1,264.190	1,264.190
7/1/2017	1,202.169	1,232.355	1,149.200	1,148.254	1,148.254	1,148.254	1,148.254	1,148.254	1,148.254	1,148.254	1,148.254	1,148.254	1,148.254	1,148.254	1,148.254	1,148.254	1,148.254	1,148.254
7/1/2018	812.003	1,079.028	1,080.187															
7/1/2019	859.380	1,040.193																
7/1/2020	1,334.418																	

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning																		
7/1/2003	4.90	7.44	7.96	8.56	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
7/1/2004	5.11	7.04	7.32	7.74	7.73	7.73	7.72	7.75	7.74	7.74	7.74	7.74	7.74	7.35	7.35	7.35	7.35	7.35
7/1/2005	2.42	6.27	6.80	7.38	7.73	7.73	7.74	7.75	7.74	7.74	7.74	7.74	7.74	7.20	7.20	7.20	7.20	7.20
7/1/2006	3.46	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	5.90	5.90
7/1/2007	5.29	6.59	6.90	6.93	6.92	6.97	6.96	6.93	6.97	6.97	6.97	6.97	6.97	6.55	6.55	6.55	6.55	6.55
7/1/2008	5.03	5.73	5.73	5.73	5.73	5.73	5.73	5.73	5.73	5.73	5.73	5.73	5.73	5.51	5.51	5.51	5.51	5.51
7/1/2009	10.35	11.56	11.00	10.67	10.67	10.65	10.69	10.69	10.69	10.69	10.69	10.69	10.69	10.50	10.50	10.50	10.50	10.50
7/1/2010	7.09	8.76	8.53	8.45	8.49	8.50	8.49	8.49	8.49	8.49	8.49	8.49	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	10.54	10.54	10.54	10.54	10.55	10.55	10.55	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	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98
7/1/2013	8.71	13.32	12.82	12.83	12.93	12.88	12.83	12.86	12.86	12.86	12.86	12.86	12.86	12.86	12.86	12.86	12.86	12.86
7/1/2014	8.71	8.54	8.44	8.35	8.29	8.29	8.29	8.29	8.29	8.29	8.29	8.29	8.29	8.29	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	8.55	8.55	8.55	8.55	8.55	8.55	8.55	8.55	8.55	8.55	8.55
7/1/2016	9.01	9.73	9.79	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84
7/1/2017	7.16	9.23	8.61	8.60														
7/1/2018	5.99	7.96	7.97															
7/1/2019	6.28	7.60																
7/1/2020	9.53																	

City of Chandler
Workers' Compensation
Closed Claim Counts / Ultimate Claim Counts - Excluding Closed Without Payments
Based on Data as of June 30, 2021

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

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
7/1/2003	0.617	0.872	0.960	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
7/1/2004	0.531	0.965	0.972	0.972	0.979	0.979	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986
7/1/2005	0.796	0.980	0.980	0.986	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993
7/1/2006	0.689	0.919	0.956	0.978	0.985	0.978	0.985	0.985	0.985	0.985	0.985	0.985	0.985	0.985	0.985	0.985	0.985	0.985
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	0.988	0.988	0.988	0.988	0.988
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	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	0.979	0.979	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	0.987	0.987	0.987	0.987	0.987	0.987	0.987	0.987
7/1/2011	0.578	0.882	0.944	0.950	0.963	0.969	0.969	0.969	0.970	0.975	0.975	0.975	0.975	0.975	0.975	0.975	0.975	0.975
7/1/2012	0.526	0.800	0.881	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956
7/1/2013	0.403	0.727	0.903	0.942	0.955	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961
7/1/2014	0.434	0.853	0.923	0.979	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986
7/1/2015	0.412	0.908	0.967	0.961	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967	0.967
7/1/2016	0.421	0.812	0.925	0.947	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962	0.962
7/1/2017	0.638	0.866	0.946	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966
7/1/2018	0.595	0.867	0.911	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966
7/1/2019	0.534	0.838	0.911	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966
7/1/2020	0.507	0.838	0.911	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966	0.966

City of Chandler
Workers' Compensation
Reported Claim Counts / Ultimate Claim Counts - Excluding Closed Without Payments
Based on Data as of June 30, 2021

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

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
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
7/1/2004	0.944	0.966	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993
7/1/2005	0.916	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	1.000
7/1/2006	0.916	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	1.000
7/1/2007	0.957	0.988	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994
7/1/2008	0.964	1.000	1.006	1.006	1.006	1.006	1.006	1.006	1.006	1.006	1.006	1.006	1.006	1.006	1.006	1.006	1.006	1.006
7/1/2009	0.966	1.014	1.035	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014
7/1/2010	0.967	1.052	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
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	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	1.000	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	1.000	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	1.000	1.000	1.000	1.000	1.000	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	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2016	0.940	0.985	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
7/1/2017	0.973	1.007	1.007	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
7/1/2018	0.918	1.006	1.007	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
7/1/2019	0.851	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	1.000	1.000	1.000	1.000
7/1/2020	0.889	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	1.000	1.000	1.000	1.000

City of Chandler
Workers' Compensation
Rate of Reported Count Frequency to Exposure (\$1M Payroll) - Excluding Closed Without Payments
Based on Data as of June 30, 2021

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

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
7/1/2003	1,728	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
7/1/2004	1,584	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	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	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	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	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	1,185	1,185	1,185	1,185	1,185
7/1/2010	1,300	1,414	1,344	1,344	1,458	1,353	1,344	1,344	1,344	1,344	1,344	1,344	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	1,458	1,458	1,458	1,458	1,458	1,458	1,458
7/1/2012	1,266	1,335	1,335	1,335	1,335	1,335	1,335	1,335	1,335	1,335	1,335	1,335	1,335	1,335	1,335	1,335	1,335	1,335
7/1/2013	1,155	1,171	1,188	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196
7/1/2014	1,074	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020
7/1/2015	1,066	1,028	1,028	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035
7/1/2016	1,070	1,124	1,124	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116
7/1/2017	0,921	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075	1,075
7/1/2018	0,914																	
7/1/2019																		
7/1/2020																		

City of Chandler
Workers' Compensation
Paid Losses & ALAE / Incurred Losses & ALAE - Limited to \$75,000
Based on Data as of June 30, 2021

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
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
7/1/2004	0.638	0.901	0.907	0.904	0.925	0.930	0.942	0.948	0.948	0.948	0.948	0.948	0.948	0.948	0.948	0.948	0.948	0.948
7/1/2005	0.918	0.895	0.901	0.894	0.939	0.955	0.966	0.977	0.987	0.987	0.987	0.987	0.987	0.987	0.987	0.987	0.987	0.987
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	0.958	0.958	0.958	0.958	0.958	0.958
7/1/2007	0.594	0.837	0.911	0.927	0.900	0.908	0.854	0.885	0.885	0.920	0.933	0.931	0.938	0.858	0.831	0.938	0.938	0.938
7/1/2008	0.531	0.875	0.951	0.961	0.952	0.943	0.967	0.967	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969
7/1/2009	0.668	0.916	0.967	0.984	0.993	0.995	0.991	0.995	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.996	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	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	0.997	0.997	0.997	0.997	0.997	0.997	0.997
7/1/2012	0.561	0.750	0.877	0.969	0.911	0.961	0.985	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2013	0.465	0.761	0.962	0.969	0.991	0.995	0.995	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2014	0.536	0.909	0.980	0.991	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
7/1/2015	0.583	0.846	0.945	0.943	0.949	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
7/1/2016	0.540	0.795	0.958	0.943	1.000	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
7/1/2017	0.502	0.903	0.956	0.957	1.000	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
7/1/2018	0.638	0.771	0.877	0.957	1.000	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
7/1/2019	0.598	0.892	0.977	0.957	1.000	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
7/1/2020	0.442																	

City of Chandler
Workers' Compensation
Closed Claim Counts / Reported Claim Counts - Excluding Closed Without Payments
Based on Data as of June 30, 2021

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning																		
7/1/2003	0.643	0.667	0.580	0.573	0.573	0.560	0.587	0.593	0.580	0.593	0.593	0.593	0.593	0.593	0.593	0.593	0.593	0.593
7/1/2004	0.563	0.579	0.579	0.579	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566
7/1/2005	0.575	0.580	0.580	0.586	0.593	0.593	0.542	0.593	0.586	0.586	0.586	0.586	0.586	0.586	0.586	0.586	0.586	0.586
7/1/2006	0.594	0.519	0.566	0.578	0.565	0.550	0.565	0.565	0.565	0.565	0.565	0.565	0.565	0.565	0.565	0.565	0.565	0.565
7/1/2007	0.668	0.537	0.566	0.563	0.516	0.581	0.569	0.569	0.569	0.569	0.569	0.569	0.569	0.569	0.569	0.569	0.569	0.569
7/1/2008	0.707	0.539	0.558	0.553	0.562	0.576	0.576	0.576	0.576	0.576	0.576	0.576	0.576	0.576	0.576	0.576	0.576	0.576
7/1/2009	0.736	0.875	0.857	0.865	0.858	0.872	0.865	0.865	0.865	0.865	0.865	0.865	0.865	0.865	0.865	0.865	0.865	0.865
7/1/2010	0.682	0.820	0.574	0.587	0.587	0.581	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587
7/1/2011	0.557	0.862	0.544	0.550	0.563	0.569	0.569	0.569	0.569	0.569	0.569	0.569	0.569	0.569	0.569	0.569	0.569	0.569
7/1/2012	0.555	0.812	0.586	0.556	0.556	0.556	0.553	0.553	0.553	0.553	0.553	0.553	0.553	0.553	0.553	0.553	0.553	0.553
7/1/2013	0.425	0.727	0.503	0.542	0.555	0.561	0.563	0.563	0.563	0.563	0.563	0.563	0.563	0.563	0.563	0.563	0.563	0.563
7/1/2014	0.449	0.871	0.530	0.579	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566
7/1/2015	0.450	0.871	0.530	0.579	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566	0.566
7/1/2016	0.448	0.824	0.532	0.547	0.567	0.574	0.567	0.567	0.567	0.567	0.567	0.567	0.567	0.567	0.567	0.567	0.567	0.567
7/1/2017	0.455	0.850	0.532	0.540	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562
7/1/2018	0.548	0.852	0.511	0.556														
7/1/2019	0.627	0.844																
7/1/2020	0.570																	

City of Chandler
Workers' Compensation
Average Paid Losses & ALAE - Limited to \$75,000
Based on Data as of June 30, 2021

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning	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
7/1/2003	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	
7/1/2004	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	4,480	
7/1/2005	2,250	3,743	4,118	4,183	4,157	4,430	4,389	4,349	4,375	4,375	4,344	4,344	4,345	4,386	4,387	4,449	4,480	
7/1/2006	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				
7/1/2007	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					
7/1/2008	7,844	10,066	10,113	9,054	9,198	9,060	9,128	9,418	9,361	9,419	9,355	9,350						
7/1/2009	6,605	7,067	6,400	6,334	6,402	6,403	6,403	6,403	6,403	6,403	6,361							
7/1/2010	7,060	7,340	7,284	7,456	7,433	7,396	7,423	7,428	7,388	7,394								
7/1/2011	4,343	6,826	7,162	6,676	6,971	7,734	7,977	8,162	8,162									
7/1/2012	8,319	10,443	10,233	9,887	10,060	9,996	9,930	9,950										
7/1/2013	6,646	7,605	7,486	7,063	7,024	7,024	7,024											
7/1/2014	8,997	6,498	6,748	6,801	6,992	6,982												
7/1/2015	8,873	9,194	9,798	10,033	9,876													
7/1/2016	6,350	8,623	7,788															
7/1/2017	5,510	6,074	6,581															
7/1/2018	6,506	7,480																
7/1/2019																		
7/1/2020	8,073																	

City of Chandler
Workers' Compensation
Average Incurred Losses & ALAE - Limited to \$75,000 & Excluding Closed Without Payments
Based on Data as of June 30, 2021

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning																		
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
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	
7/1/2005	1,822	3,846	4,171	4,506	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	4,489	4,489	4,489	4,489	4,489	4,489	4,489	4,489	4,489	
7/1/2007	3,839	4,533	4,821	4,352	3,963	4,100	4,374	4,482	4,627	4,548	4,522	4,583	4,583	4,583	4,583	4,583	4,583	
7/1/2008	3,697	4,216	3,944	3,635	3,895	4,030	4,030	4,030	4,030	4,057	4,057	4,057	4,057	4,057	4,057	4,057	4,057	
7/1/2009	8,637	9,614	8,961	8,880	8,877	8,856	8,853	8,853	9,133	9,198	9,197	9,197	9,197	9,197	9,197	9,197	9,197	
7/1/2010	5,723	5,193	5,348	5,288	5,319	5,286	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	5,319	
7/1/2011	6,666	7,193	7,153	7,233	7,197	7,230	7,230	7,230	7,232	7,232	7,232	7,232	7,232	7,232	7,232	7,232	7,232	
7/1/2012	4,235	7,390	7,231	6,581	7,311	7,230	7,230	7,230	7,230	7,230	7,230	7,230	7,230	7,230	7,230	7,230	7,230	
7/1/2013	7,603	9,779	9,601	9,611	8,667	9,611	9,611	9,611	9,611	9,611	9,611	9,611	9,611	9,611	9,611	9,611	9,611	
7/1/2014	7,144	7,144	7,144	6,976	6,976	6,976	6,976	6,976	6,976	6,976	6,976	6,976	6,976	6,976	6,976	6,976	6,976	
7/1/2015	5,413	6,375	6,904	6,908	7,127	7,127	7,127	7,127	7,127	7,127	7,127	7,127	7,127	7,127	7,127	7,127	7,127	
7/1/2016	7,359	9,540	9,526	9,508	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505	
7/1/2017	8,291	8,216	7,651	7,706														
7/1/2018	5,600	6,786	6,837															
7/1/2019	6,820	7,076																
7/1/2020	10,425																	

City of Chandler
Workers' Compensation
Average Open - Limited to \$75,000
Based on Data as of June 30, 2021

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning	7/1/2003	7/1/2004	7/1/2005	7/1/2006	7/1/2007	7/1/2008	7/1/2009	7/1/2010	7/1/2011	7/1/2012	7/1/2013	7/1/2014	7/1/2015	7/1/2016	7/1/2017	7/1/2018	7/1/2019	7/1/2020
	3,104	2,516	12,130	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
	2,656	19,769	19,672	20,880	24,664	22,844	18,836	17,103	4,376	0	0	0	0	0	0	0	0	0
	5,997	19,817	20,166	35,285	39,231	29,166	2,417	14,581	12,734	12,734	25,254	25,246	25,140	19,527	19,515	0	0	0
	13,482	9,842	12,994	24,940	31,607	4,369	16,464	14,422	17,256	19,542	24,411	25,440	23,037	38,420	0	0	0	0
	4,997	11,984	9,858	8,440	4,710	20,051	20,367	16,492	5,500	6,772	0	0	0	0	0	0	0	0
	5,925	8,691	4,542	1,313	10,336	9,459	5,502	5,500	1,270	1,650	1,551	1,979	0	0	0	0	0	0
	10,844	6,453	2,049	4,056	1,486	1,716	2,354	1,270	0	0	0	0	0	0	0	0	0	0
	3,827	2,213	4,424	2,811	0	417	0	0	0	0	0	0	0	0	0	0	0	0
	6,168	6,093	4,944	2,961	1,095	2,054	1,211	1,033	1,094	867	0	0	0	0	0	0	0	0
	4,235	9,823	7,963	4,547	14,607	6,831	1,036	0	0	0	0	0	0	0	0	0	0	0
	7,075	8,742	3,745	5,164	1,848	1,146	0	170	0	0	0	0	0	0	0	0	0	0
	6,365	5,153	2,065	2,917	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4,049	11,713	11,537	10,037	11,102	12,504	0	0	0	0	0	0	0	0	0	0	0	0
	6,130	11,166	5,801	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11,979	5,716	5,680	9,912	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7,350	11,224	9,469	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5,765	4,898	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	13,547	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

City of Chandler
Workers' Compensation
Average Unpaid Losses & ALAE - Limited to \$75,000 & Excluding Closed Without Payments
Based on Data as of June 30, 2021

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning																		
7/1/2003	9,461	11,635	54,839	31,276	17,776	21,908	32,006	64,076	63,891	60,584	60,594	60,627	60,627	60,407	46,527	37,199	11,412	11,190
7/1/2004	5,158	17,042	11,138	7,378	5,531	4,313	2,807	98	4,687	0	0	0	0	0	0	0	0	0
7/1/2005	14,962	47,870	32,323	27,417	45,904	34,932	27,363	20,189	13,080	13,076	25,937	25,929	25,824	20,211	20,199	0	0	0
7/1/2006	9,494	13,083	12,803	18,605	27,553	7,733	11,447	14,790	30,857	46,159	66,998	62,530	60,127	38,678	0	0	0	0
7/1/2007	8,377	16,289	13,710	23,789	27,022	54,043	35,667	28,293	7,628	7,552	376	338	0	0	0	0	0	0
7/1/2008	7,210	6,854	8,726	8,111	21,209	12,012	8,055	8,053	2,577	2,560	3,214	3,458	0	0	0	0	0	0
7/1/2009	12,873	2,608	2,233	17,175	10,171	20,782	13,740	2,577	2,560	0	0	0	0	0	0	0	0	0
7/1/2010	5,764	1,616	3,306	5,207	24	20	20	0	2,518	2,288	0	0	0	0	0	0	0	0
7/1/2011	7,551	6,722	6,980	3,649	2,970	3,256	2,412	2,235	0	0	0	0	0	0	0	0	0	0
7/1/2012	11,888	12,295	13,962	34,670	28,324	11,923	6,432	2,080	0	0	0	0	0	0	0	0	0	0
7/1/2013	10,622	7,700	4,705	5,600	2,028	2,276	2,663	0	0	0	0	0	0	0	0	0	0	0
7/1/2014	5,340	4,378	137	509	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2015	9,852	13,483	18,137	15,084	11,102	12,504	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2016	9,852	10,849	15,898	15,084	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2017	11,014	4,284	12,491	19,862	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2018	9,360	13,567	12,098	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2019	9,102	8,935	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2020	14,995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

City of Chandler
Workers' Compensation
IBNR / Case Reserve - Limited to \$75,000
Based on Data as of June 30, 2021

Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216
Beginning																		
7/1/2003	2.41	3.39	3.50	1.28	0.87	1.75	1.58	1.70	1.70	1.91	1.91	1.91	1.91	0.94	0.52	0.75	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	0.03	0.03	0.03	0.03	0.04	0.04			
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	0.01			
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					
7/1/2008	0.24	-0.23	0.65	1.28	1.05	0.27	0.46	0.46	0.50	0.49	0.62	0.79						
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						
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								
7/1/2012	2.15	0.35	0.82	6.63	0.94	0.75	5.21											
7/1/2013	0.64	-0.12	0.26	0.28	0.10	0.99		11.24										
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												
7/1/2016	0.81	0.06	0.13															
7/1/2017	-0.01	-0.29	0.95	1.00														
7/1/2018	1.04	0.15	0.28															
7/1/2019	0.82	0.90																
7/1/2020	0.43																	

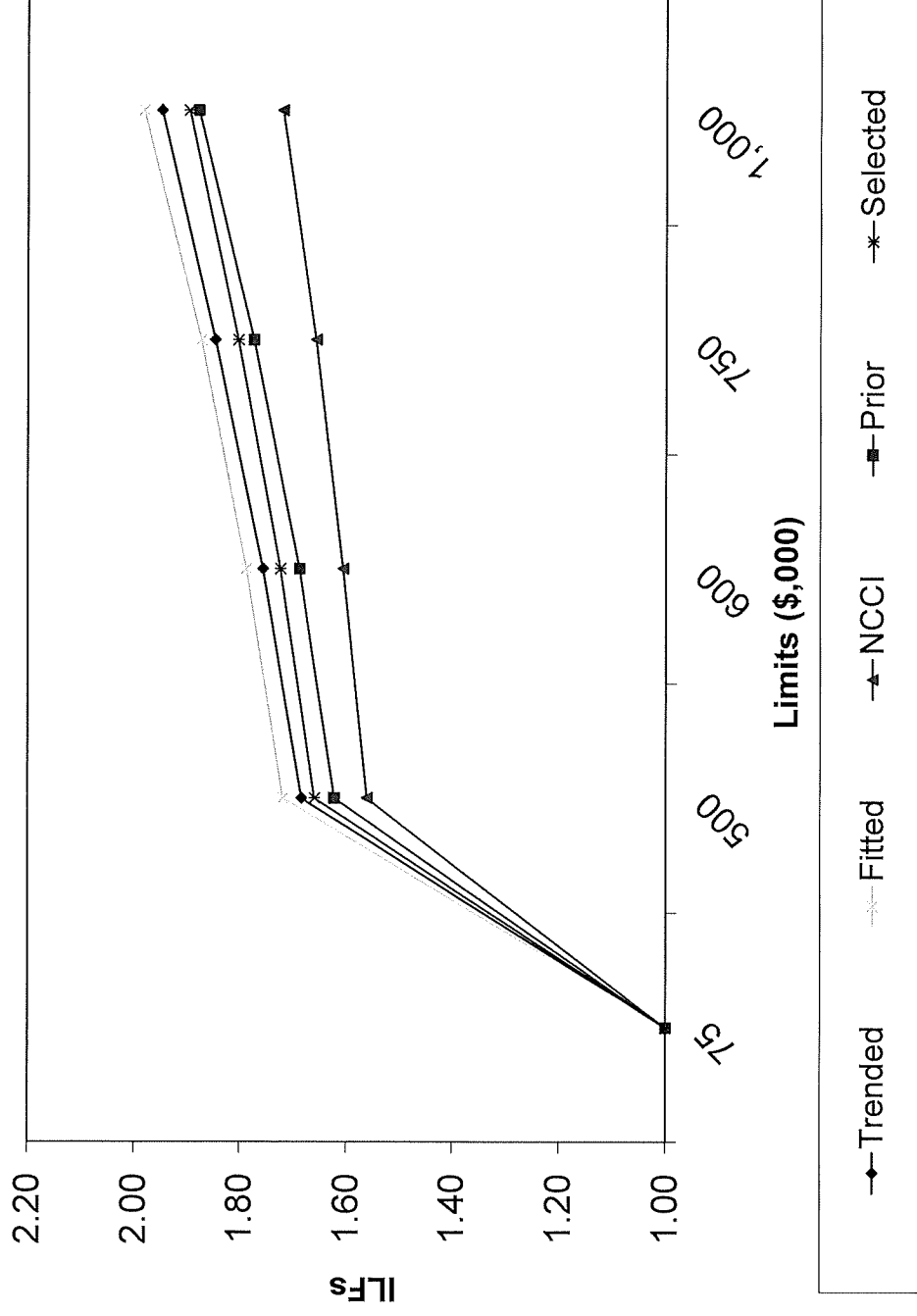
City of Chandler
Workers' Compensation
Increased Limit Factors - Losses & ALAE
Based on Data as of June 30, 2021

	(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	1.684	1.719	1.562	1.622	1.659
600,000	1.757	1.788	1.606	1.688	1.724
750,000	1.846	1.873	1.657	1.774	1.803
1,000,000	1.948	1.982	1.720	1.878	1.896
1,250,000	2.028	2.066	1.754	1.956	1.965
2,250,000	2.122	2.289	1.864	2.056	2.079
3,000,000	2.122	2.398	1.911	2.092	2.114

Notes:

- (1) assumed a 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, 2021



City of Chandler
Workers' Compensation
Data Summary
Based on Data as of June 30, 2021

Policy Period	Self-Insured Retention (SIR) *	(1) Exposures (\$1,000 Payroll)	(2) Limited Paid to 75,000	(3) Paid Losses & ALAE from Limit to SIR	(4) Paid Excess of SIR	(5) Unlimited Paid	(6) Limited Incurred to 75,000	(7) Incurred Losses & ALAE from Limit to SIR	(8) Incurred Excess of SIR	(9) Unlimited Incurred	(10) Reported (ex. CWOPI)	(11) Claim Counts Closed With Payment	(12) Claim Counts Closed Without Payment
1/1/2003 to 6/30/2003	500,000	38,782	478,631	592,475	30,981	1,102,087	478,631	607,311	259,016	1,344,958	63	61	10
7/1/2003 to 6/30/2004	500,000	82,686	775,091	42,947	0	818,038	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	587,801	11,852	0	599,653	607,316	11,852	0	619,168	135	134	7
7/1/2007 to 6/30/2008	500,000	111,710	695,966	31,602	0	727,568	811,227	288,704	0	1,099,931	161	158	6
7/1/2008 to 6/30/2009	500,000	120,668	675,237	485,208	0	1,160,444	675,237	622,433	0	1,297,670	165	163	15
7/1/2009 to 6/30/2010	500,000	119,800	1,289,626	181,103	0	1,480,728	1,305,417	447,411	0	1,752,829	142	139	5
7/1/2010 to 6/30/2011	500,000	113,843	986,822	489,739	570,657	2,027,218	986,822	489,739	1,253,417	2,709,979	153	152	10
7/1/2011 to 6/30/2012	500,000	110,414	1,160,847	719,808	0	1,880,655	1,164,313	1,229,872	347,758	2,741,943	161	157	12
7/1/2012 to 6/30/2013	600,000	119,088	1,069,226	1,027,121	0	2,096,347	1,069,226	1,263,175	698,791	3,031,191	135	131	19
7/1/2013 to 6/30/2014	600,000	115,348	1,482,601	873,342	0	2,355,943	1,483,450	1,167,024	370,014	3,020,488	154	149	8
7/1/2014 to 6/30/2015	600,000	119,528	990,329	402,871	0	1,393,200	990,329	1,091,893	334,213	2,416,436	143	141	9
7/1/2015 to 6/30/2016	600k / 1M	127,517	1,040,344	1,489,702	0	2,530,046	1,090,362	2,447,550	1,284,333	4,822,246	153	149	9
7/1/2016 to 6/30/2017	600k / 1M	128,452	1,264,190	384,741	0	1,628,931	1,264,190	886,853	0	2,151,043	133	128	9
7/1/2017 to 6/30/2018	600k / 1M	133,497	1,098,692	507,431	0	1,606,123	1,148,254	1,569,961	386,506	3,104,720	149	144	16
7/1/2018 to 6/30/2019	600k / 1.25M	135,570	947,621	28,706	0	976,327	1,080,187	473,822	0	1,554,009	158	144	8
7/1/2019 to 6/30/2020	600k / 1.25M	136,800	927,549	120,686	0	1,048,235	1,040,193	308,892	0	1,349,085	147	124	14
7/1/2020 to 6/30/2021	750k / 2.25M	140,064	599,321	83,588	0	672,909	1,334,418	1,251,956	0	2,586,374	128	73	6
TOTALS		2,131,539	17,321,440	7,813,915	601,637	25,736,992	18,567,401	14,610,632	4,934,048	38,112,080	2,719	2,584	193

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 (≥ \$75,000)
Based on Data as of June 30, 2021

Claim Number	Accident Date	Claim Status	Self-Insured Retention (SIR)	(1) Limited Paid to 75,000	(2) Paid from SIR to Unlimited	(3) Paid Excess of SIR	(4) Unlimited Paid	(5) Unlimited Paid Change	(6) Limited Incurred to 75,000	(7) Incurred from SIR to Limit	(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	30,981	530,981	1,761	75,000	425,000	259,016	759,016	222,984
CN-03-0500045	5/8/2003	Open	500,000	75,000	163,873	0	238,873	407	75,000	178,709	0	233,709	0
	1/1/2003 to 6/30/2003 ; 3 claims ; 2 open			225,000	592,475	30,981	848,456	2,168	225,000	607,371	259,016	1,091,327	222,984
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	63,810	0	0	63,810	221	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			213,810	42,947	0	256,757	221	225,000	46,375	0	271,375	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	1,320	75,000	85,341	0	160,341	(18,968)
CN-06-0500138	5/23/2006	Open	500,000	75,000	245,891	0	320,891	1,348	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	2,668	150,000	375,446	0	525,446	(18,968)
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	7,594	0	82,594	6,197	75,000	213,920	0	288,920	0
CN-08-0500047	9/13/2007	Open	500,000	5,813	0	0	5,813	4,221	75,000	50,775	0	125,775	124,183
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			155,813	31,602	0	187,416	10,417	225,000	288,704	0	513,704	124,183
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	340,308	0	415,308	4,112	75,000	397,998	0	472,998	0
CN-09-0500107	2/17/2009	Open	500,000	75,000	100,304	0	175,304	538	75,000	179,839	0	254,839	0
	7/1/2008 to 6/30/2009 ; 3 claims ; 2 open			225,000	483,208	0	710,208	4,650	225,000	622,433	0	847,433	0
CN-10-0500009	7/17/2009	Open	500,000	75,000	28,870	0	101,870	3,703	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-10-0500087	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	57,965	0	132,965	4,878	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	181,103	0	631,103	8,581	450,000	447,411	0	897,411	0
WC-001	7/28/2010	Open	500,000	75,000	425,000	570,657	1,070,657	33,035	75,000	425,000	1,253,417	1,753,417	(0)
CN-11-0500036	8/22/2010	Closed	500,000	75,000	31,715	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	128	75,000	25,079	0	100,079	(20,734)
	7/1/2010 to 6/30/2011 ; 4 claims ; 1 open			300,000	489,739	570,657	1,360,396	33,163	300,000	489,739	1,253,417	2,043,157	(20,734)

City of Chandler
Workers' Compensation
Large Loss Listing (\$75,000)
Based on Data as of June 30, 2021

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-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	287,574	0	342,574	44,513	75,000	324,889	0	399,899	76,603
CN-10-0000002	3/23/2012	Open	500,000	75,000	135,869	0	210,869	19,815	75,000	425,000	347,758	847,758	0
CN-12-0500139	4/19/2012	Open	500,000	75,000	89,585	0	144,585	12,997	75,000	233,184	0	308,184	76,603
7/1/2011 to 6/30/2012 ; 4 claims ; 3 open													
				300,000	719,808	0	1,019,808	77,326	300,000	1,229,872	347,758	1,877,630	
CN-13-0051222	9/30/2012	Open	600,000	75,000	10,571	0	85,571	0	75,000	65,501	0	140,501	0
CN-13-0051159	1/16/2013	Closed	600,000	75,000	65,458	0	140,458	0	75,000	65,458	0	140,458	0
CN-13-0052005	3/19/2013	Open	600,000	75,000	132,415	0	207,415	33,384	75,000	254,972	0	329,972	120,415
CN-13-0052025	5/2/2013	Open	600,000	75,000	490,410	0	565,410	20,934	75,000	525,000	698,791	1,298,791	0
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	2,161	0	77,161	0	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	1,027,121	0	1,552,121	54,318	525,000	1,263,775	688,791	2,486,965	120,415
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	183,575	0	258,575	183	75,000	197,469	0	272,469	0
CN-14-005197	2/19/2014	Open	600,000	75,000	69,738	0	144,738	3,915	75,000	71,837	0	146,837	0
CN-14-005202	2/28/2014	Closed	600,000	75,000	39,249	0	113,249	0	75,000	38,249	0	113,249	0
CN-14-005319	5/12/2014	Open	600,000	75,000	128,530	0	203,530	15,156	75,000	334,002	0	408,002	(11,015)
CN-14-005344	6/13/2014	Open	600,000	75,000	452,783	0	527,783	19,157	75,000	525,000	370,014	970,014	22,391
7/1/2013 to 6/30/2014 ; 6 claims ; 4 open													
				450,000	873,342	0	1,323,342	38,411	450,000	1,167,024	370,014	1,987,038	11,375
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	10/23/2014	Open	600,000	75,000	195,646	0	270,646	34,057	75,000	525,000	161,640	761,640	0
CN-15-005142	10/31/2014	Open	600,000	75,000	165,332	0	240,332	34,056	75,000	525,000	172,573	772,573	0
7/1/2014 to 6/30/2015 ; 3 claims ; 2 open													
				225,000	402,871	0	627,871	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	152,933	0	227,933	16,144	75,000	559,550	0	634,550	0
CN-16-005145	10/30/2015	Open	1,000,000	75,000	24,982	0	24,982	5,494	75,000	20,280	0	95,280	0
CN-16-005314	4/23/2016	Open	1,000,000	75,000	644,747	0	719,747	86,297	75,000	925,000	638,203	1,638,203	0
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	(4,529)
CN-16-005347	5/18/2016	Open	1,000,000	75,000	674,302	0	749,302	28,014	75,000	925,000	646,131	1,646,131	2,867
7/1/2015 to 6/30/2016 ; 5 claims ; 4 open													
				324,982	1,469,702	0	1,814,684	135,949	375,000	2,447,550	1,284,333	4,106,884	(1,662)
CN-17-005049	8/16/2016	Open	1,000,000	75,000	19,743	0	94,743	3,399	75,000	43,014	0	118,014	0
CN-17-005102	9/29/2016	Open	1,000,000	75,000	31,553	0	106,553	0	75,000	44,183	0	119,183	0
CN-17-005110	10/14/2016	Closed	600,000	75,000	1,270	0	76,270	0	75,000	1,270	0	76,270	(2,545)
CN-17-005137	11/9/2016	Open	1,000,000	75,000	71,800	0	146,800	6,161	75,000	143,358	0	218,358	7,500
CN-17-005202	12/30/2016	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	Open	1,000,000	75,000	113,323	0	194,323	24	75,000	155,272	0	230,272	0
CN-17-005653	4/20/2017	Open	1,000,000	75,000	80,288	0	155,288	39,843	75,000	458,992	0	533,992	384,248
CN-17-005508	5/10/2017	Closed	1,000,000	75,000	19,912	0	94,912	215	75,000	19,912	0	94,912	(31,363)
7/1/2016 to 6/30/2017 ; 8 claims ; 5 open													
				600,000	364,747	0	964,747	49,747	600,000	886,653	0	1,486,653	357,847
CN-18-005172	9/28/2017	Open	1,000,000	75,000	21,574	0	96,574	204	75,000	24,345	0	98,345	0
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	(11,878)
CN-18-005237	11/9/2017	Closed	1,000,000	75,000	1,283	0	82,283	0	75,000	1,283	0	82,283	0
CN-18-005238	11/14/2017	Closed	1,000,000	75,000	40,763	0	115,763	51	75,000	40,763	0	115,763	(15,484)
CN-18-005344	12/8/2017	Open	1,000,000	75,000	34,252	0	68,252	52,370	75,000	18,066	0	93,066	0
CN-18-005439	3/6/2018	Open	1,000,000	75,000	108,359	0	183,359	52,370	75,000	552,354	0	627,354	435,173
CN-18-005455	3/6/2018	Open	1,000,000	75,000	327,321	0	402,321	37,009	75,000	1,386,506	386,506	1,386,506	0
7/1/2017 to 6/30/2018 ; 7 claims ; 4 open													
				484,252	507,431	0	991,683	89,634	525,000	1,569,961	386,506	2,481,466	408,011

City of Chandler
Workers' Compensation
Large Loss Listing (≥ \$75,000)
Based on Data as of June 30, 2021

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	18,852	0	93,852	309	75,000	26,387	0	101,387	0
CN-19-005108	9/4/2018	Closed	1,250,000	75,000	10,054	0	85,054	571	75,000	10,054	0	85,054	571
CN-19-005528	5/2/2019	Open	1,250,000	54,845	0	0	54,845	40,027	75,000	21,766	0	96,766	73,022
CN-19-005522	5/29/2019	Open	1,250,000	37,888	0	0	37,888	14,580	75,000	40,627	0	482,627	0
CN-19-005523	6/21/2019	Open	800,000	35,315	0	0	35,315	2,010	75,000	8,008	0	83,008	0
	7/1/2018 to 6/30/2019 ; 4 claims ; 4 open			278,048	28,706	0	306,754	57,507	375,000	473,822	0	848,822	73,592
CN-20-005053	9/5/2019	Open	1,250,000	75,000	101,272	0	176,272	106,324	75,000	173,593	0	248,593	76,582
CN-20-005053	9/25/2019	Open	1,250,000	75,000	2,199	0	77,199	35,856	75,000	73,953	0	148,953	84,514
CN-20-005069	10/10/2019	Open	1,250,000	97,704	0	0	67,704	23,751	75,000	8,017	0	83,017	21,964
CN-20-005167	1/27/2020	Open	1,250,000	75,000	17,214	0	92,214	53,773	75,000	32,155	0	107,155	36,756
CN-20-005223	1/27/2020	Open	1,250,000	60,335	0	0	60,335	51,523	75,000	8,395	0	83,395	59,391
CN-20-005313	6/25/2020	Open	1,250,000	73,669	0	0	73,669	73,669	75,000	12,779	0	87,779	87,779
	7/1/2019 to 6/30/2020 ; 6 claim ; 6 open			426,708	120,686	0	547,394	344,937	450,000	309,892	0	759,892	366,886
CN-21-005129	12/7/2020	Open	2,250,000	75,000	83,588	0	158,588	158,588	75,000	109,857	0	184,857	184,857
CN-21-005148	12/27/2020	Open	2,250,000	23,802	0	0	23,802	23,802	75,000	1,031,036	0	1,106,036	1,106,036
CN-21-005153	12/29/2020	Open	2,250,000	12,140	0	0	12,140	12,140	75,000	70,605	0	145,605	145,605
CN-21-005168	2/11/2021	Open	2,250,000	15,989	0	0	15,989	15,989	75,000	1,603	0	76,603	76,603
CN-21-005190	3/11/2021	Open	2,250,000	58,669	0	0	58,669	58,669	75,000	32,351	0	107,351	107,351
CN-21-005251	5/8/2021	Open	2,250,000	123	0	0	123	123	75,000	989	0	75,989	75,989
CN-21-005276	6/16/2021	Open	2,250,000	247	0	0	247	247	75,000	5,504	0	80,504	80,504
	7/1/2020 to 6/30/2021 ; 7 claim ; 7 open			185,970	83,388	0	269,358	269,558	525,000	1,251,956	0	1,776,956	1,776,956
TOTALS ; 84 claims ; 54 open				5,689,584	7,813,915	601,637	14,085,137	1,247,364	6,300,000	14,610,632	4,834,048	25,844,880	3,497,581

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

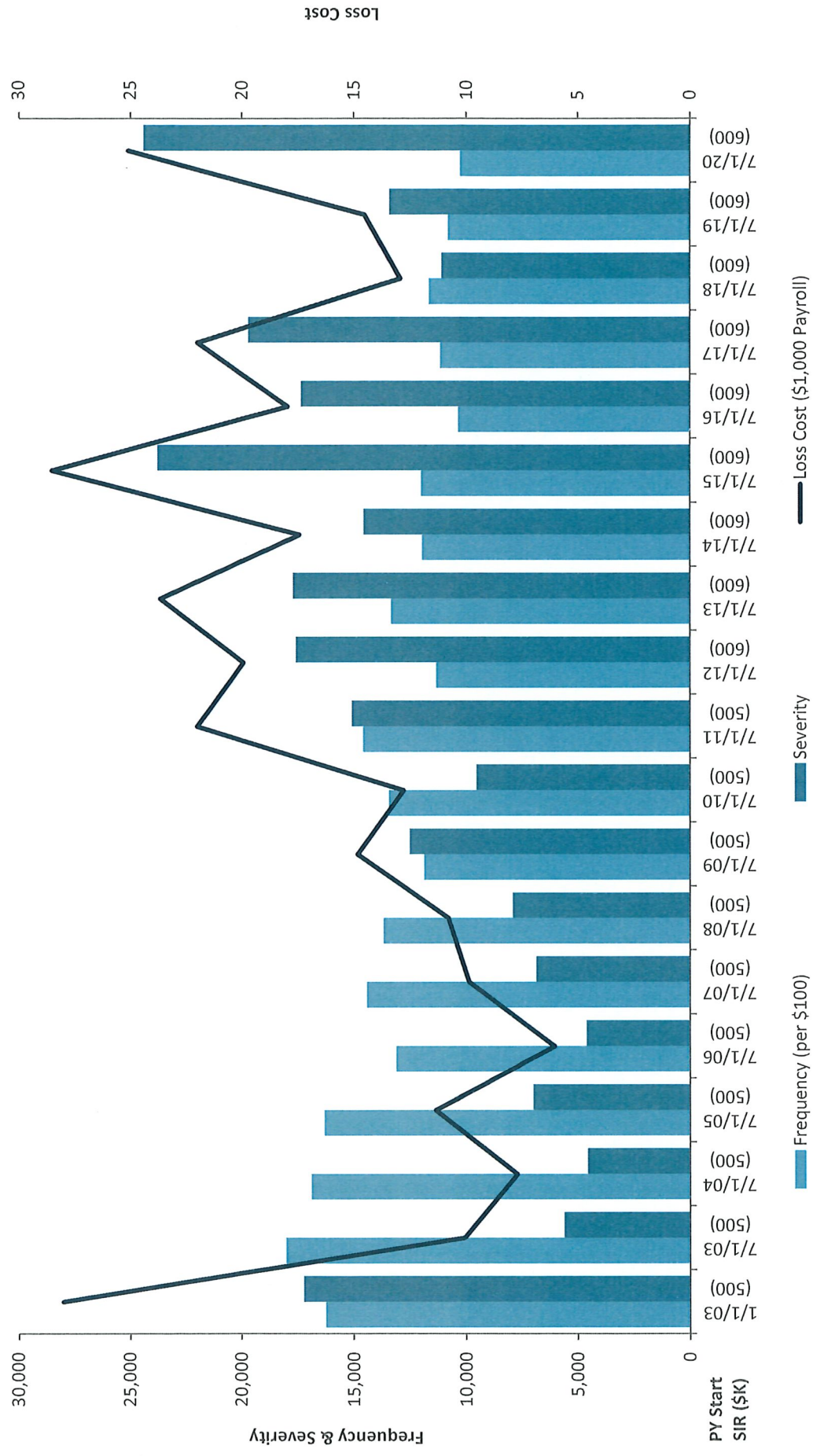
City of Chandler
Workers' Compensation
Losses & ALAE Reconciliation
Based on Data as of June 30, 2021

	Paid	Incurred
(1) Loss Run 1 - Unlimited	25,736,573	38,111,661
(2) Manual Adjustment	419	419
(3) Amounts Excess of SIR	601,637	4,934,048
(4) OW Analysis - Retained	25,135,355	33,178,032
(5) Difference - Retained	0	0

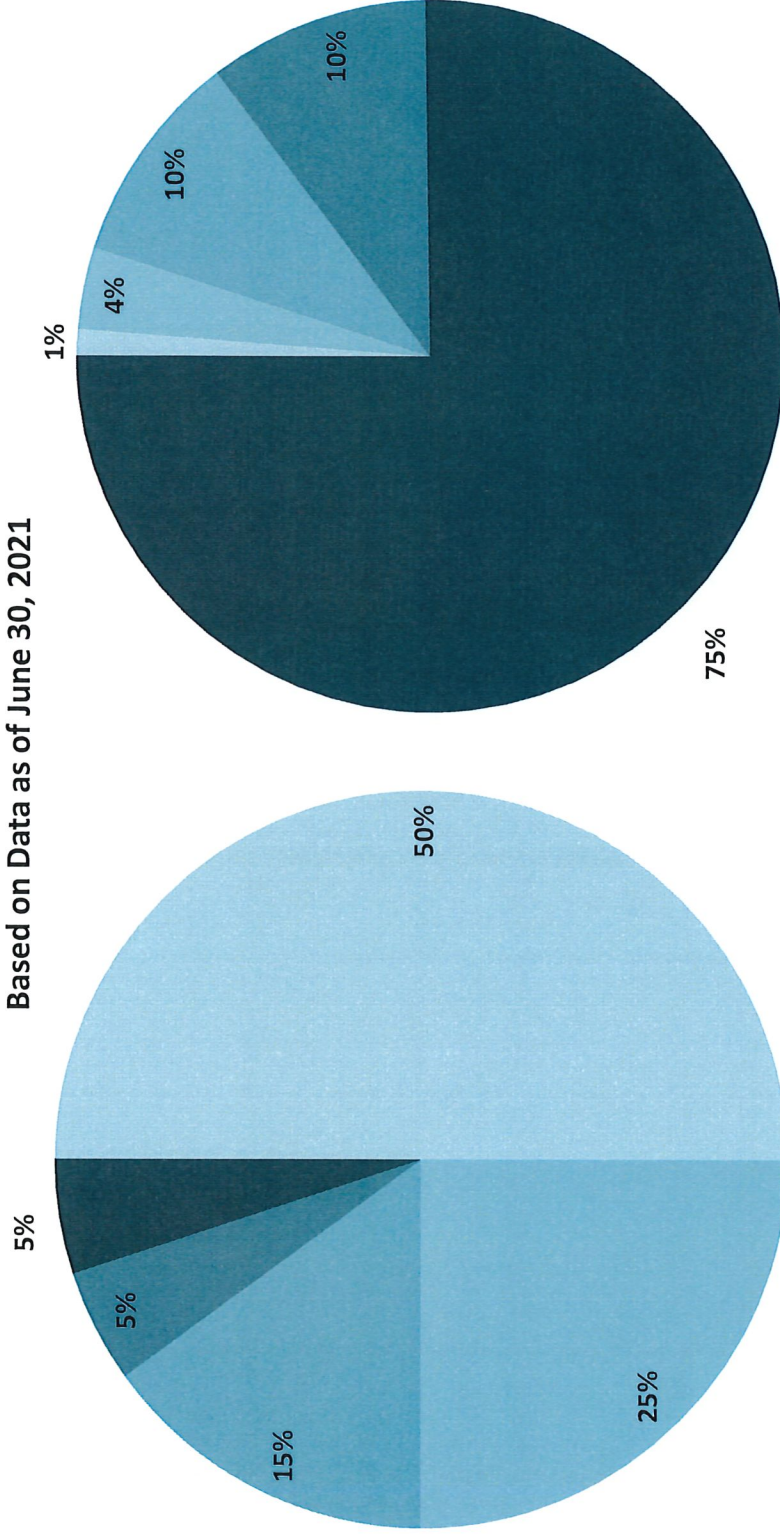
Notes:

- (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, 2021



**City of Chandler
Workers' Compensation
Layer Distribution**
Based on Data as of June 30, 2021



■ < 925 ■ 925 - 4,104 ■ 4,104 - 19,304 ■ 19,304 - 41,522 ■ > 41,522



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



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

Date: 02/03/2022
To: Workers' Compensation And Employer Liability Trust Board
From: Teresa Canjar, Management Assistant
Subject: **Financial Audit Report - Heinfeld Meech**

Attachments

Financial Audit Report

November 11, 2021

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, 2021. 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.

Other Matters – Accounting Restatement

The auditor's report includes an emphasis-of-matter paragraph related to the Trust's inclusion of actuarially-determined case reserves in the current year claims liability. As a result of this change, and as discussed in Note 4 to the financial statements, the beginning net position has been restated to reflect this correction for prior periods. Our opinion is not modified with respect to this matter.

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?**

August 9, 2021

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, 2021. 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, 2021.

Accounting standards generally accepted in the United States provide for certain required supplementary information (RSI) to supplement the Trust's basic financial statements. Such information, although not part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic 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 basic financial statements, and other knowledge we obtained during our audit of the basic 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. 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 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 2021 and conclude audit procedures and date our report in December 2021.

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
- Wolters Kluwer – 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 five (5) 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 five 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 \$6,950. 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 - \$284; Manager - \$207; Senior - \$163; Staff - \$114.

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 2018 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, Management Services Director
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: Management Services Director | CFO

Signature: *Dawn Lang*
Dawn Lang (Aug 10, 2021 09:15 PDT)

Date: 08/10/2021

Grant Bennett Associates

A PROFESSIONAL CORPORATION

Report on the Firm's System of Quality Control

August 16, 2018

To the Shareholders of 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, 2018. 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, 2018, 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
A PROFESSIONAL CORPORATION
Certified Public Accountants



www.gbacpa.com

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Sacramento, CA 95815
916/922-5109 FAX 916/641-5200

P.O. Box 223096
Princeville, HI 96722
888/769-7323



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, 2021, 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.

Management Services

Mailing Address
Mail Stop 609
P.O. Box 4008
Chandler, AZ 85244-4008

Administration
480-782-2250
480-782-2553 Fax
chandleraz.gov

Location
Third Floor
175 S. Arizona Ave.
Chandler, AZ 85225

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 appropriately disclosed all information for conduit debt obligations in accordance with U.S. GAAP.

27. 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.
28. 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.
29. 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.
30. 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.
31. 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.
32. We have reviewed, approved, and accepted responsibility for the financial statements, and notes to the financial statements.
33. 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.
34. 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.
35. We have followed all applicable laws and regulations in adopting, approving, and amending budgets.
36. 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.
37. The financial statements include all fiduciary activities required by U.S. GAAP.

38. The financial statements properly classify all funds and activities in accordance with U.S. GAAP.
39. Components of net position are properly classified and, if applicable, approved.
40. Investments are properly valued.
41. 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.
42. If applicable, provisions for uncollectible receivables have been properly identified and recorded.
43. 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.
44. Revenues are appropriately classified in the statement of revenues, expenses and changes in net position.
45. Special and extraordinary items, if any, are appropriately classified and reported.
46. Deposits and investment securities are properly classified as to risk and are properly disclosed.
47. 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.
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 (Nov 11, 2021 06:45 MST)

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

11/11/2021

Date



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

Date: 02/03/2022
To: Workers' Compensation And Employer Liability Trust Board
From: Teresa Canjar, Management Assistant
Subject: **Financial Statements - Management Services**

Attachments

Financial Statements

CITY OF CHANDLER
Chandler Worker's Compensation and Employer Liability Trust
Statement of Net Position
December 31, 2021

ASSETS

Cash and investments	\$ 14,776,429
Accrued interest	18,865
Due from City	101,457
Total assets	<u>14,896,751</u>

LIABILITIES

Claims payable	<u>31,000</u>
Total current liabilities	<u>31,000</u>

NET POSITION

Unrestricted	14,865,751
Total net position ⁽¹⁾	<u><u>\$ 14,865,751</u></u>

Notes:

⁽¹⁾ Net Position as compared to Reserve Goal:

Estimated Unpaid Losses & ALAE, as of 6/30/21
Weighted Projected Ultimate Losses & ALAE
Reserve Goal Based on 6/30/21 Actuarial Report

Nominal "Central" Value	
\$	10,458,761
	2,700,000
\$	<u><u>13,158,761</u></u>

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, 2021

	FY 2021-22 Budget	FY 2021-22 Budget Prorated	Actuals	Budget to Actual Difference
OPERATING REVENUES				
Contributions:				
Employer self insurance premiums	\$ 4,383,700	\$ 2,191,850	\$ 2,217,760	\$ 25,910
Total operating revenues	<u>4,383,700</u>	<u>2,191,850</u>	<u>2,217,760</u>	<u>25,910</u>
OPERATING EXPENSES				
Personnel services	490,952	245,476	226,273	(19,203)
Professional services	339,875	169,938	25,878	(144,060)
Operating supplies and maintenance	4,200	2,100	558	(1,542)
Communication and transportation	2,100	1,050	132	(918)
Excess insurance	371,130	371,130	392,736	21,606
Premium insurance	95,000	47,500	28,048	(19,452)
Other insurance	676,429	676,429	676,429	-
Claims paid	4,595,110	2,297,555	1,202,625	(1,094,930)
Other:				
Education and training	2,100	1,050	-	(1,050)
Computer Software	16,389	8,195	6,960	(1,235)
Fiduciary Liability Insurance	-	-	-	-
Total operating expenses	<u>6,593,285</u>	<u>3,820,422</u>	<u>2,559,639</u>	<u>(1,260,783)</u>
OPERATING INCOME (LOSS)	<u>(2,209,585)</u>	<u>(1,628,572)</u>	<u>(341,879)</u>	<u>1,286,693</u>
NONOPERATING REVENUES (EXPENSES):				
Interest income (loss)	166,000	83,000	38,207	(44,793)
Transfers out to technology fund	(3,845)	(3,845)	(3,845)	-
Transfers in from City	-	-	676,429	676,429
Transfers in from Municipal Utilities for Safety Position	58,922	29,462	29,461	(1)
Total nonoperating revenues (expenses)	<u>221,077</u>	<u>108,617</u>	<u>740,252</u>	<u>631,635</u>
Change in net position	<u>(1,988,508)</u>	<u>(1,519,955)</u>	<u>398,373</u>	<u>1,918,328</u>
NET POSITION:				
Total net position, as of July 1, 2021	<u>14,467,378</u>	<u>14,467,378</u>	<u>14,467,378</u>	<u>-</u>
Total net position, as of December 31, 2021	<u>\$ 12,478,870</u>	<u>\$ 12,947,423</u>	<u>\$ 14,865,751</u>	<u>\$ 1,918,328</u>

CITY OF CHANDLER
Chandler Worker's Compensation and Employer Liability Trust
Statement of Cash Flows
For the Six Months Ended December 31, 2021

CASH FLOWS FROM OPERATING ACTIVITIES:

Cash received for premiums	\$ 2,810,547
Cash payments for claims	(1,202,625)
Cash payments to suppliers for other services	(1,205,606)
Cash payments to employees for services	(226,273)
Net cash provided (used) by operating activities	<u>176,043</u>

Cash received from the City	705,890
Net cash provided (used) by noncapital financing activities	<u>705,890</u>

CASH FLOWS FROM INVESTING ACTIVITIES:

Investment Income	36,825
Net cash used from investing activities	<u>36,825</u>

Net increase (decrease) in cash and cash equivalents	<u>914,913</u>
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CASH AND CASH EQUIVALENTS:

Beginning of year	13,861,516
End of year	<u>\$ 14,776,429</u>

RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES:

Operating income (loss)	\$ (341,879)
(Increase) decrease in due from City	592,787
(Increase) decrease in accounts receivable	
Increase (decrease) in accounts payable	(22,117)
Increase (decrease) in miscellaneous payables	(52,748)
Total adjustments	<u>517,922</u>
Net cash provided (used) by operating activities	<u>\$ 176,043</u>



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

Date: 02/03/2022
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, 2021



CITY OF CHANDLER WORKERS COMP & EMPLOYER TRUST

Investment Performance Review For the Quarter Ended December 31, 2021

Client Management Team

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

PFM Asset Management LLC

1200 South Alma School Rd.
Suite 3000
Mesa, AZ 85210
415-470-7815

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

Agenda

- Market Summary
- Account Summary
- Portfolio Review

Market Summary

Summary

► In Q4, U.S. economic conditions were characterized by: (1) a surge in COVID cases as the Omicron variant spread widely; (2) a sharply falling unemployment rate, rising wages, and near-record number of job openings; (3) stickier-than-expected inflation as pent-up consumer demand clashed with continued global supply chain disruptions amid a tight labor market and; (4) a pivot by the Fed to remove monetary accommodation more quickly, setting the stage for rate hikes to begin sooner than previously expected.

► The public health situation remained precarious with the emergence of the Omicron variant to COVID-19. The surge in new cases affected small businesses already challenged by labor shortages and rising prices due to supply chain challenges. The labor market continued to recover, with the unemployment rate falling to a cycle low, plentiful job opportunities and rising wages. Although the economy has largely rebounded from the pandemic-induced recession, the massive monetary and fiscal support from the Fed and Congress has triggered a multi-decade surge in inflation.

► While growth is forecast to remain above trend, the real challenge for 2022 is getting inflation down. Mounting inflationary pressures prompted accelerated tapering of bond purchases by the Fed and pulled forward expected rate hikes. Tapering is expected to be complete by mid-March followed by three rate hikes in 2022. The Fed may also let some of its \$8.7 trillion balance sheet roll off sometime later in the year.

Economic Snapshot

► U.S. real GDP growth slowed sharply in Q3 to a modest 2.3%, well below the 6.5% growth rate in the first half of 2021. The lackluster growth reflected a slowdown in consumer spending as the Delta variant dampened confidence and behavior. Personal consumption grew at just 2% compared to the previous quarter's 12%. Nevertheless, economists predict a solid rebound for Q4, with the Atlanta Fed forecasting growth of over 6%.

► The unemployment rate dropped to 3.9% in December, compared to the record low pre-pandemic level of 3.5%. In the past 50 years, unemployment has only been lower during the 22 months prior to the pandemic and for one month in 2000. Although the U.S. economy added a record 6.4 million jobs in 2021, overall employment remains below its pre-pandemic figure largely due to people dropping out of the labor force. This imbalance created a shortage of workers and kept pressure on wages as employers battle to attract and retain workers.

► Inflation was shockingly high, with the CPI reaching 7% year-over-year. Sharply higher prices for gasoline, heating oil and other energy products were most pronounced. New and used cars continued to show large price increases, but inflation became more widespread and persistent.

► Manufacturing and services activity chilled a bit with both the ISM Manufacturing and Non-Manufacturing PMI surveys pulling back at quarter end. Nonetheless, both indices remain well above the 50-point threshold indicating growth.

► Demand for homes remained exceptionally strong, but inventories are lean, leading to even higher prices. Higher prices amid higher mortgage rates will negatively affect affordability and present a headwind to further price increases. Existing home sales rose

by 1.9% to a 6.46 million-unit annual rate in November, marking the third consecutive month of increases, while unseasonably mild weather helped boost housing starts by 12%. Bolstered by near-record-low inventories and high backlogs, home builder confidence is near an all-time high.

Interest Rates

► U.S. Treasury yields generally rose in the quarter and the yield curve flattened, as short- to intermediate-term maturities increased between 30 and 40 bps, led higher by expectations for faster Fed rate hikes. Meanwhile, rate changes were more muted to modestly lower on the longer end of the curve, which reflected expectations for longer-term normalization of inflation and GDP growth. At quarter-end, the yield on a 3-month U.S. Treasury Bill stood at 0.03%, the 2-year note rose to 0.73%, the 5-year note climbed to 1.26%, the 10-year note increased to 1.51%, while the 30-year ended the quarter at 1.90%.

► As a result of yield changes over the quarter, U.S. Treasury returns were largely negative, except for the shortest and longest tenors. For example, the 3-month U.S. Treasury index returned 0.01% for the quarter and the 10-year U.S. Treasury index returned 0.75%. Meanwhile, those indexes representing the "belly" of the curve posted negative returns, with the 2-, 3-, and 5-year Treasury indices returning -0.51%, -0.85%, and -0.90%, respectively.

Sector Performance

► Investment in non-government sectors was a modest detractor to portfolio performance in Q4 as yield spreads on most investment-grade (IG) fixed-income sectors widened off recent rock bottom levels. As a result, most IG spread sectors produced negative excess returns for Q4, underperforming similar-maturity Treasuries.

► Federal agencies were not immune to the broad spread widening experienced in Q4, generating slightly negative excess returns. Although callable yield spreads widened modestly over the quarter due to an uptick in volatility, spreads generally remained low. Non-callable agencies markedly outperformed their optionable counterparts.

► The taxable municipal sector was one of the best performing IG sectors during Q4, generating positive excess returns. Municipals performed well as lean supply was met with robust demand for new issues, ultimately keeping spreads in check.

► IG corporates slightly underperformed in Q4 after consistently being one of the top-performing sectors in prior quarters, as incremental spreads widened due to rising rates and the prospects for reduced monetary support from the Fed. As a result, IG corporates posted negative excess returns, with longer duration issues underperforming shorter ones. Underperformance was generally consistent across the quality ratings spectrum.

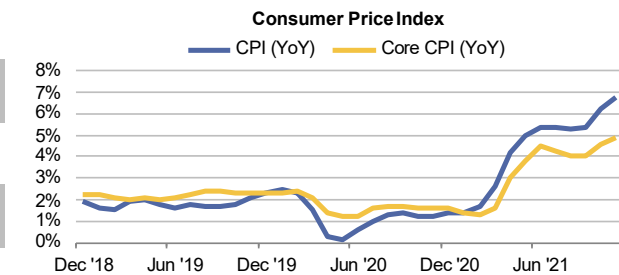
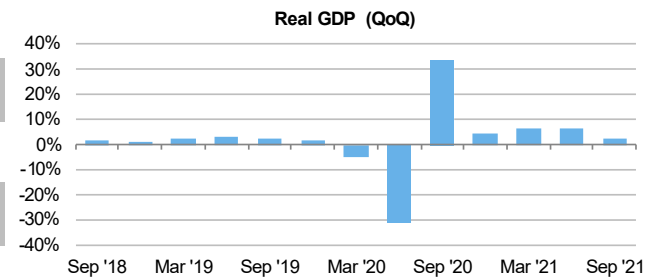
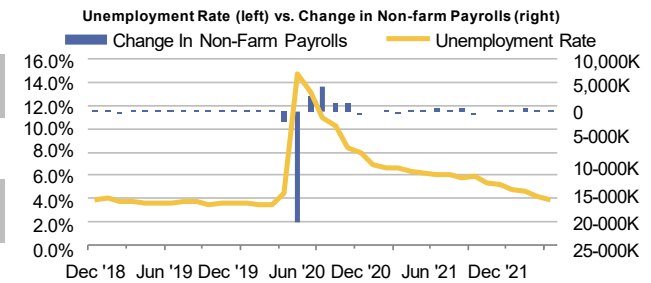
► Federal agency-backed mortgage-backed security (MBS) excess returns were generally negative across most collateral and coupon types except 15-year MBS pass-throughs. Conventional 15-year collateral generated modest outperformance, while 30-year collateral MBS and Agency CMBS underperformed. The Fed's announcement of accelerated asset purchase tapering and the looming balance sheet reduction in combination with slowing refinancing activity has weighed on the sector. It is likely to persist for at least the near term.

Economic Snapshot

Labor Market		Latest	Sep '21	Dec '20
Unemployment Rate	Dec'21	3.9%	4.7%	6.7%
Change In Non-Farm Payrolls	Dec'21	199,000	379,000	-306,000
Average Hourly Earnings (YoY)	Dec'21	4.7%	4.5%	5.5%
Personal Income (YoY)	Nov'21	7.4%	5.1%	4.8%
Initial Jobless Claims (week)	1/1/22	207,000	364,000	763,000

Growth		Latest	Sep '21	Dec '20
Real GDP (QoQ SAAR)	2021Q3	2.3%	6.7% ¹	33.8% ²
GDP Personal Consumption (QoQ SAAR)	2021Q3	2.0%	12.0% ¹	41.4% ²
Retail Sales (YoY)	Nov '21	18.2%	14.2%	2.3%
ISM Manufacturing Survey (month)	Dec '21	58.7	61.1	60.5
Existing Home Sales SAAR (month)	Nov '21	6.46 mil.	6.29 mil.	6.65 mil.

Inflation/Prices		Latest	Sep '21	Dec '20
Personal Consumption Expenditures (YoY)	Nov '21	5.7%	4.4%	1.3%
Consumer Price Index (YoY)	Nov '21	6.8%	5.4%	1.4%
Consumer Price Index Core (YoY)	Nov '21	4.9%	4.0%	1.6%
Crude Oil Futures (WTI, per barrel)	Dec 31	\$75.21	\$75.03	\$48.52
Gold Futures (oz.)	Dec 31	\$1,829	\$1,755	\$1,895



1. Data as of Second Quarter 2021.

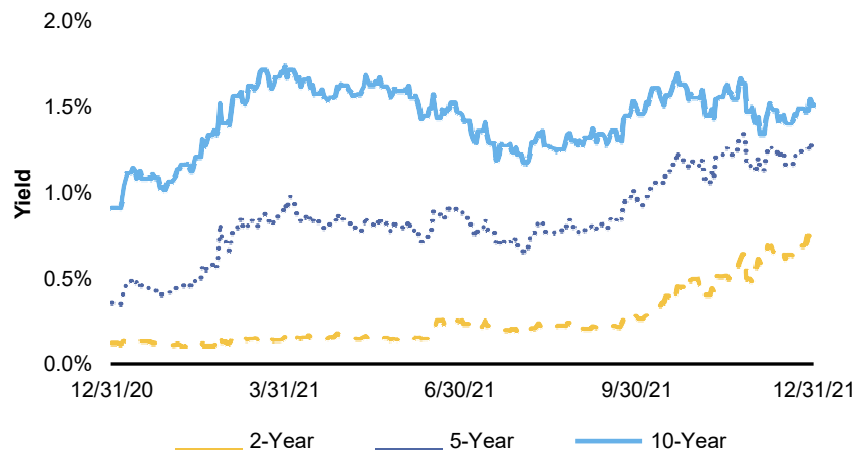
2. Data as of Third Quarter 2020.

Note: YoY = year-over-year, QoQ = quarter-over-quarter, SAAR = seasonally adjusted annual rate, WTI = West Texas Intermediate crude oil.

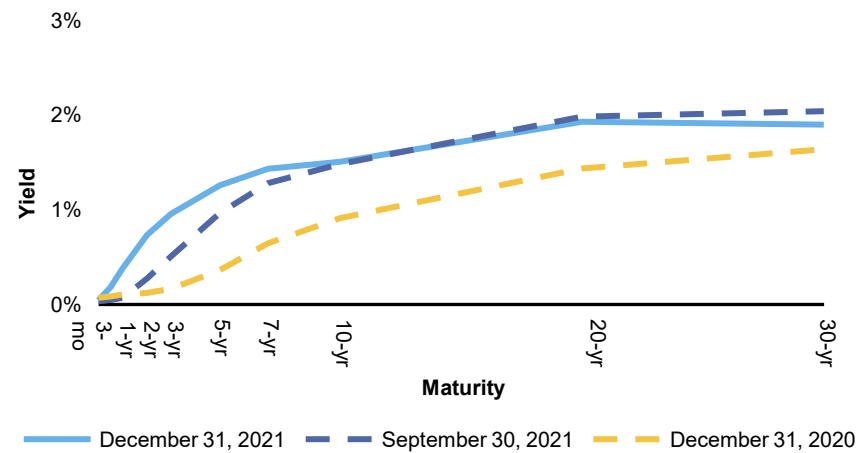
Source: Bloomberg.

Interest Rate Overview

U.S. Treasury Note Yields



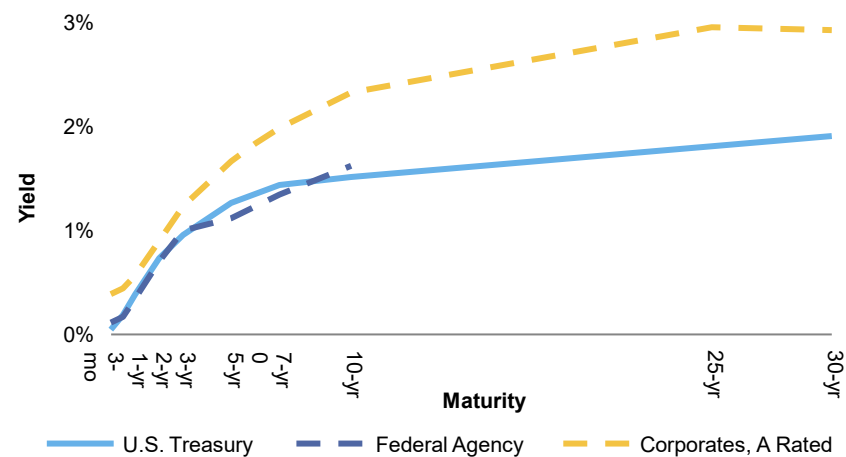
U.S. Treasury Yield Curve



U.S. Treasury Yields

Maturity	Dec '21	Sep '21	Change over Quarter	Dec '20	Change over Year
3-Month	0.04%	0.04%	0.00%	0.07%	(0.03%)
1-Year	0.38%	0.07%	0.31%	0.11%	0.27%
2-Year	0.73%	0.28%	0.45%	0.12%	0.61%
5-Year	1.26%	0.97%	0.29%	0.36%	0.90%
10-Year	1.51%	1.49%	0.02%	0.92%	0.59%
30-Year	1.90%	2.05%	(0.15%)	1.65%	0.25%

Yield Curves as of 12/31/2021



Source: Bloomberg.

ICE BofAML Index Returns

As of 12/31/2021		Returns for Periods ended 12/31/2021			
December 31, 2021	Duration	Yield	3 Month	1 Year	3 Years
1-3 Year Indices					
U.S. Treasury	1.88	0.70%	(0.53%)	(0.55%)	2.01%
Federal Agency	1.78	0.68%	(0.49%)	(0.43%)	1.89%
U.S. Corporates, A-AAA rated	1.83	1.04%	(0.57%)	(0.24%)	2.88%
Agency MBS (0 to 3 years)	1.87	0.78%	(0.63%)	(2.66%)	2.49%
Taxable Municipals	1.51	0.94%	(0.47%)	2.02%	3.58%
1-5 Year Indices					
U.S. Treasury	2.64	0.87%	(0.68%)	(1.10%)	2.42%
Federal Agency	2.39	0.84%	(0.70%)	(0.86%)	2.07%
U.S. Corporates, A-AAA rated	2.75	1.30%	(0.69%)	(0.64%)	3.65%
Agency MBS (0 to 5 years)	2.87	1.64%	(0.75%)	(1.56%)	2.59%
Taxable Municipals	2.52	1.17%	(0.67%)	0.46%	3.34%
Master Indices (Maturities 1 Year or Greater)					
U.S. Treasury	7.37	1.24%	0.35%	(2.38%)	4.16%
Federal Agency	3.99	1.08%	(0.37%)	(1.15%)	3.43%
U.S. Corporates, A-AAA rated	8.47	2.09%	0.20%	(1.73%)	6.71%
Agency MBS (0 to 30 years)	3.82	1.85%	(0.42%)	(1.21%)	3.08%
Taxable Municipals	11.18	2.55%	0.64%	1.41%	8.83%

Returns for periods greater than one year are annualized.

Source: ICE BofAML Indices.

Disclosures

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Account Summary

Fixed-Income Sector Commentary – 4Q 2021

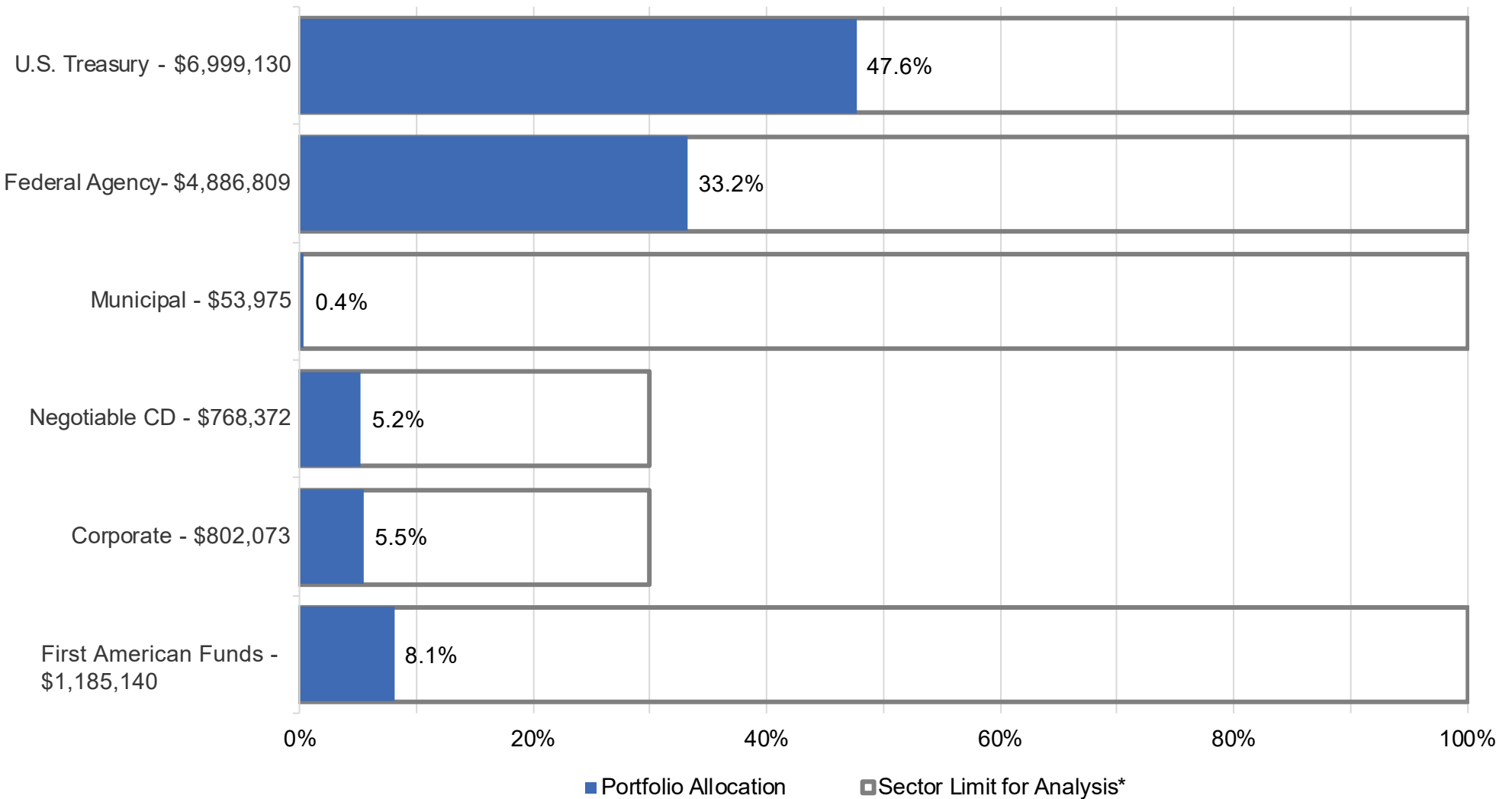
- ◆ **U.S. Treasury** securities generated negative performance as yields rose across maturities. The higher absolute level of yields support duration extensions and roll-down where the curve is steep.
- ◆ **Federal agency** spreads widened modestly, generating slightly negative excess returns. Spreads remain tight by historical standards and opportunities to add will be limited.
- ◆ **Supranational** securities performed in line with their federal agency counterparts – supply from seasonal issuance should provide opportunities to add sector exposure.
- ◆ **Corporates** underperformed after consistently being one of the top performing sectors in prior quarters. Modestly wider spreads are likely to provide opportunities to increase exposure on an issuer-specific basis.
- ◆ **Asset-Backed Securities** issuance remains robust and wider spreads enhance the sector's relative value as collateral performance remains strong.
- ◆ **Mortgage-Backed Securities** performance was generally negative across collateral and coupon types with 15-yr MBS pools being the exception. FOMC asset purchase tapering and potential balance sheet reduction will continue to weigh negatively on the sector.
- ◆ **Taxable Municipal** securities were one of the best performing sectors in Q4. Limited supply is likely to keep downward pressure on spreads and limit opportunities to increase allocations.
- ◆ **Commercial Paper and CD** rates gravitated higher throughout the quarter as market expectations for rate hikes sent short maturities higher, creating opportunities to add.

Account Summary

CHANDLER WORKERS COMP & EMPLOYER TRUST			
Portfolio Values	December 31, 2021	Analytics ¹	December 31, 2021
PFM Managed Account	\$13,510,358	Yield at Market	0.69%
Amortized Cost	\$13,581,121	Yield on Cost	0.48%
Market Value	\$13,510,358	Portfolio Duration	1.77
Accrued Interest	\$18,865		

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

Sector Allocation Analytics



For informational/analytical purposes only and is not provided for compliance assurance.

*Sector Limit for Analysis is subject to interpretation as derived from our interpretation of your Investment Policy as provided.

Detail may not add to total due to rounding.

Issuer Diversification

Security Type / Issuer	Market Value (%)	S&P / Moody's / Fitch
U.S. Treasury	51.8%	
UNITED STATES TREASURY	51.8%	AA / Aaa / AAA
Federal Agency	36.2%	
FANNIE MAE	8.0%	AA / Aaa / AAA
FREDDIE MAC	28.2%	AA / Aaa / AAA
Municipal	0.4%	
CITY OF SCOTTSDALE	0.4%	AAA / Aaa / AAA
Negotiable CD	5.7%	
CREDIT SUISSE GROUP RK	0.7%	A / A / A
DNB ASA	0.5%	AA / Aa / NR
HSBC HOLDINGS PLC	0.9%	A / Aa / AA
NORDEA BANK ABP	0.9%	AA / Aa / AA
SKANDINAVISKA ENSKILDA BANKEN AB	1.0%	A / Aa / AA
SUMITOMO MITSUI FINANCIAL GROUP INC	0.6%	A / Aa / A
UBS AG	1.1%	A / Aa / AA
Corporate	5.9%	
ADOBE INC	0.7%	A / A / NR
AMAZON.COM INC	1.3%	AA / A / AA
BANK OF AMERICA CO	0.7%	A / A / AA
CATERPILLAR INC	0.7%	A / A / A
HERSHEY COMPANY	0.7%	A / A / NR
JP MORGAN CHASE & CO	1.3%	A / A / AA
TOYOTA MOTOR CORP	0.6%	A / A / A
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. Excludes balances invested in money market funds.

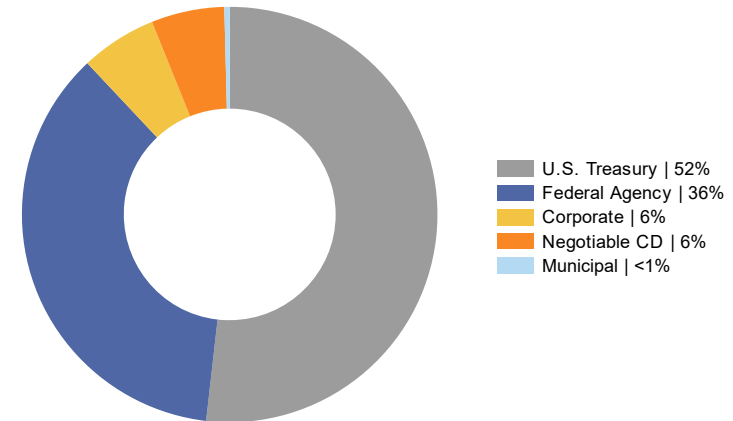
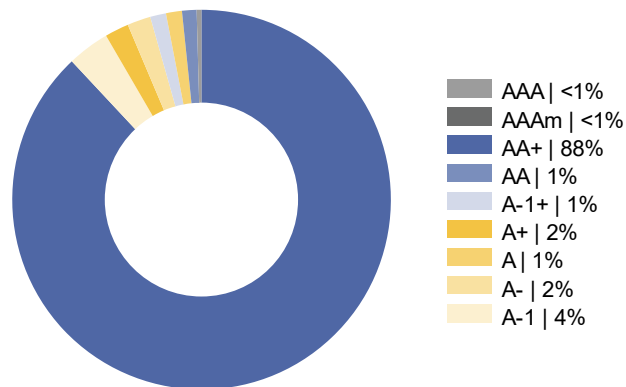
Portfolio Review:
CHANDLER WORKERS COMP & EMPLOYER TRUST

Portfolio Snapshot¹

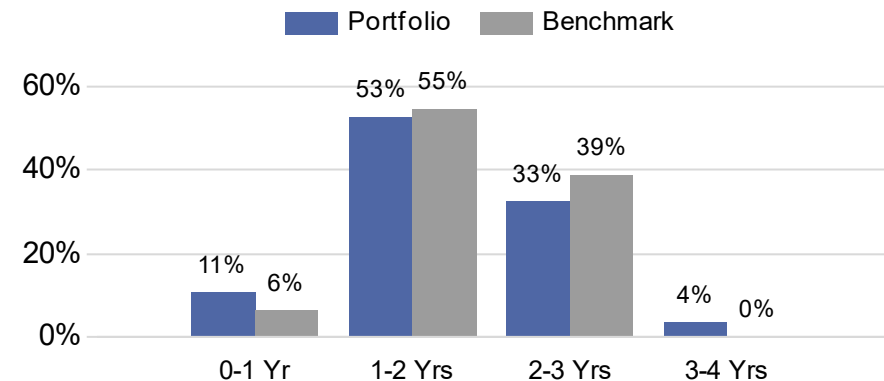
Portfolio Statistics

Total Market Value	\$13,539,391
Portfolio Effective Duration	1.77 years
Benchmark Effective Duration	1.82 years
Yield At Cost	0.48%
Yield At Market	0.69%
Portfolio Credit Quality	AA

Sector Allocation

Credit Quality - S&P²

Duration Distribution



1. Total market value includes accrued interest and balances invested in PFM Funds, as of December 31, 2021. Calculations exclude balances invested in PFM Funds.

2. The portfolio's benchmark is the 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. An average of each security's credit rating was assigned a numeric value and adjusted for its relative weighting in the portfolio.

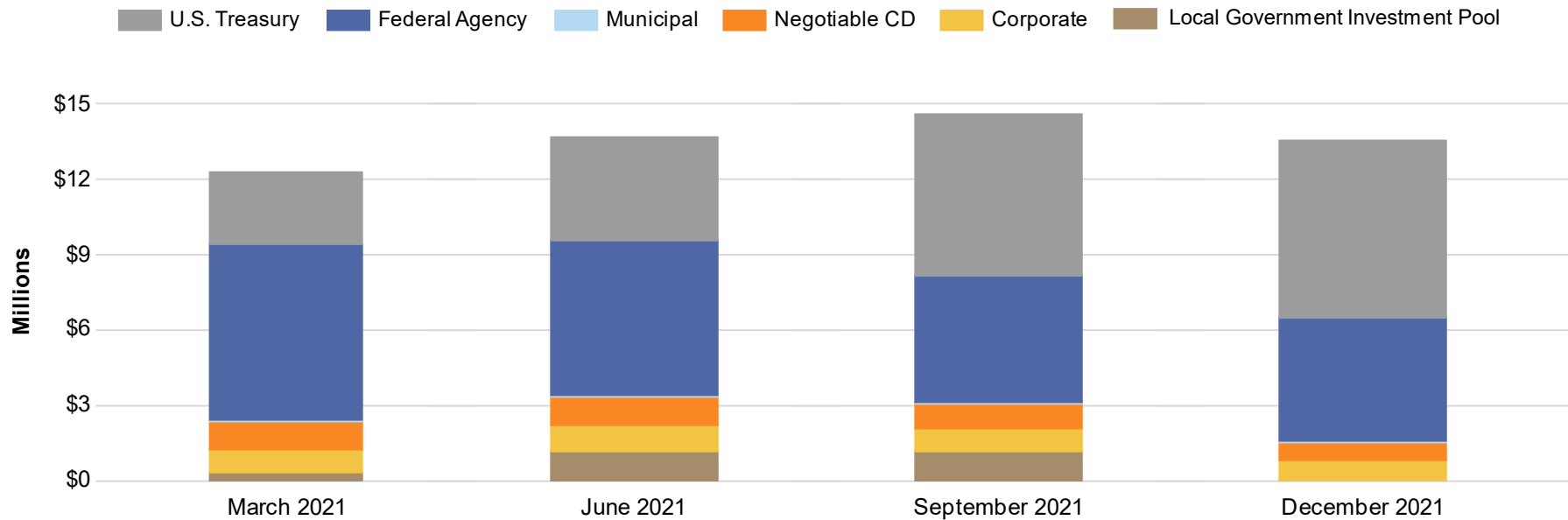
Liquidity Vehicle	Quarter-End Yield
Wells Fargo Public Institutional Bank Deposit Account ¹	0.01%
First American Funds ²	0.01%

1. Wells Fargo Public Institutional Bank Deposit Account yield from the Trust custody statement as of 12/31/21.

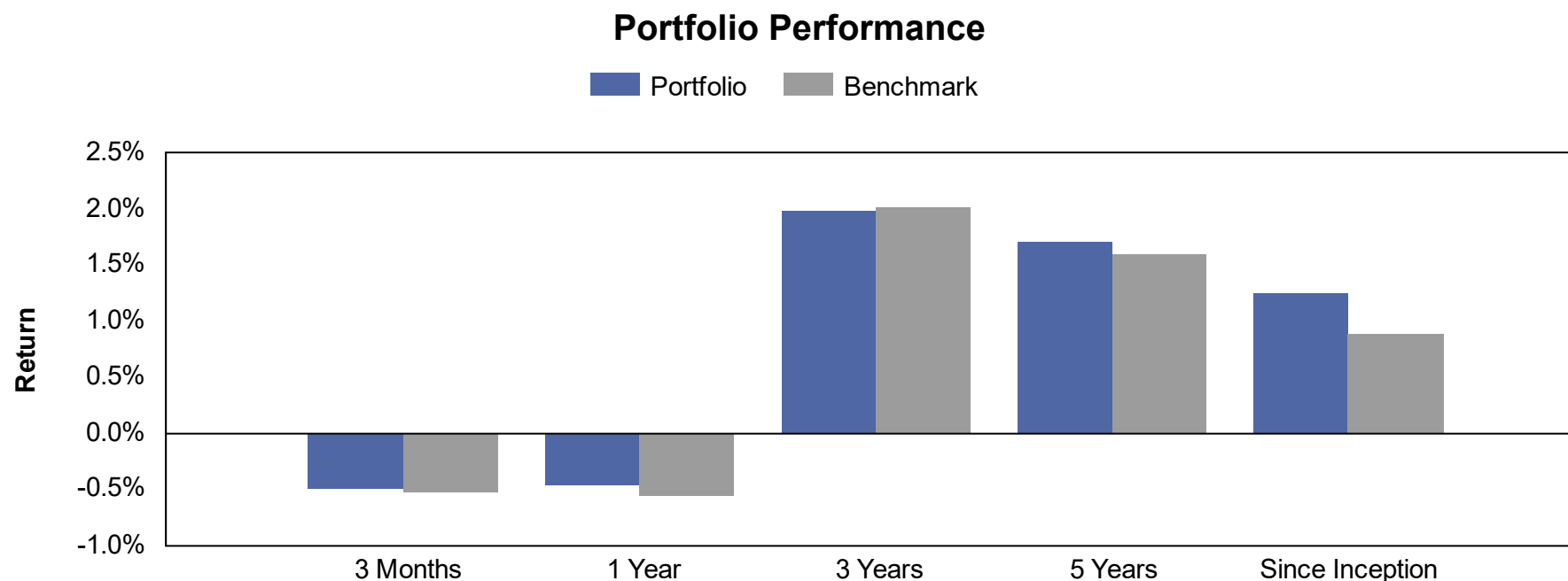
2. First American Funds Account yield from statement as of 12/31/21.

Sector Allocation Review

Security Type	Mar-21	% of Total	Jun-21	% of Total	Sep-21	% of Total	Dec-21	% of Total
U.S. Treasury	\$2.8	23.1%	\$4.1	30.1%	\$6.4	44.0%	\$7.0	51.8%
Federal Agency	\$7.0	57.4%	\$6.2	45.2%	\$5.0	34.4%	\$4.9	36.2%
Municipal	\$0.1	0.4%	\$0.1	0.4%	\$0.1	0.4%	\$0.1	0.4%
Negotiable CD	\$1.1	9.0%	\$1.1	8.1%	\$1.0	6.9%	\$0.8	5.7%
Corporate	\$0.9	7.5%	\$1.0	7.5%	\$0.9	6.2%	\$0.8	5.9%
Local Government Investment Pool	\$0.3	2.6%	\$1.2	8.7%	\$1.2	8.1%	\$0.0	0.0%
Total	\$12.3	100.0%	\$13.7	100.0%	\$14.6	100.0%	\$13.5	100.0%



Market values, excluding accrued interest. Only includes investments held within the separately managed account(s). Detail may not add to total due to rounding.



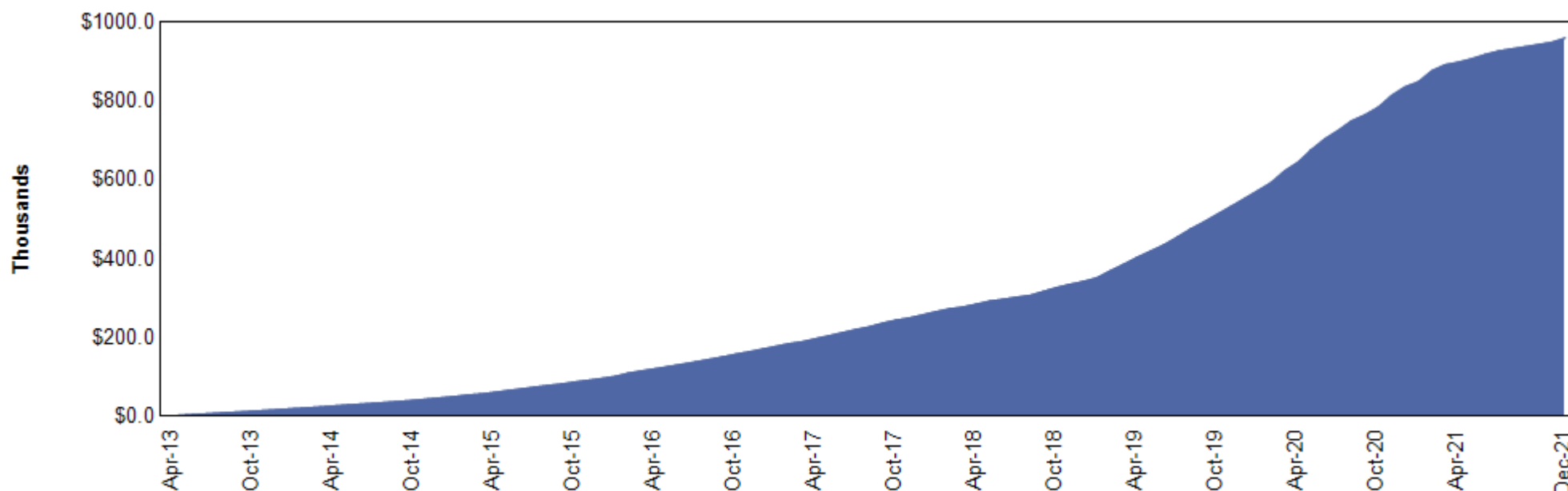
Market Value Basis Earnings	3 Months	1 Year	3 Years	5 Years	Since Inception ¹
Interest Earned	\$20,338	\$81,243	\$420,930	\$604,873	\$1,009,643
Change in Market Value	(\$92,789)	(\$148,144)	(\$118,170)	(\$139,315)	(\$380,640)
Total Dollar Return	(\$72,451)	(\$66,901)	\$302,760	\$465,558	\$629,003
Total Return²					
Portfolio	-0.50%	-0.46%	1.98%	1.70%	1.25%
Benchmark ³	-0.53%	-0.55%	2.02%	1.60%	0.88%
Difference	0.03%	0.09%	-0.04%	0.10%	0.37%

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. 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.

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.

Accrual Basis Earnings



Accrual Basis Earnings	3 Months	1 Year	3 Years	5 Year	Since Inception ¹
Interest Earned ²	\$20,338	\$81,243	\$420,930	\$604,873	\$1,009,643
Realized Gains / (Losses) ³	\$5,523	\$51,951	\$162,762	\$133,921	\$144,537
Change in Amortized Cost	(\$3,527)	(\$8,911)	\$33,502	\$49,892	(\$194,747)
Total Earnings	\$22,335	\$124,282	\$617,195	\$788,686	\$959,433

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, 2021**

Issuer	Market Value (\$)	% of Portfolio
UNITED STATES TREASURY	6,999,130	51.80%
FREDDIE MAC	3,809,081	28.19%
FANNIE MAE	1,077,728	7.98%
JP MORGAN CHASE & CO	172,692	1.28%
AMAZON.COM INC	170,653	1.26%
UBS AG	149,939	1.11%
SKANDINAVISKA ENSKILDA BANKEN AB	131,256	0.97%
HSBC HOLDINGS PLC	120,013	0.89%
NORDEA BANK ABP	116,103	0.86%
ADOBE INC	101,102	0.75%
CREDIT SUISSE GROUP RK	99,978	0.74%
BANK OF AMERICA CO	99,342	0.74%
CATERPILLAR INC	94,716	0.70%
HERSHEY COMPANY	87,934	0.65%
SUMITOMO MITSUI FINANCIAL GROUP INC	85,159	0.63%
TOYOTA MOTOR CORP	75,634	0.56%
DNB ASA	65,924	0.49%
CITY OF SCOTTSDALE	53,975	0.40%
PFM FUNDS - GOVT SELECT, INSTL CL		0.00%
Grand Total	13,510,358	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	Market Value
U.S. Treasury										
US TREASURY NOTES DTD 11/30/2015 2.000% 11/30/2022	912828M80	20,000.00	AA+	Aaa	8/1/2019	8/2/2019	20,119.53	1.81	35.16	20,290.62
US TREASURY NOTES DTD 12/15/2019 1.625% 12/15/2022	912828YW4	259,000.00	AA+	Aaa	1/3/2020	1/7/2020	259,465.39	1.56	196.56	262,035.17
US TREASURY NOTES DTD 12/31/2015 2.125% 12/31/2022	912828N30	30,000.00	AA+	Aaa	11/1/2019	11/5/2019	30,530.86	1.55	1.76	30,501.56
US TREASURY NOTES DTD 01/15/2020 1.500% 01/15/2023	912828Z29	120,000.00	AA+	Aaa	2/3/2020	2/5/2020	120,585.94	1.33	831.52	121,312.50
US TREASURY NOTES DTD 02/15/2020 1.375% 02/15/2023	912828Z86	530,000.00	AA+	Aaa	3/2/2020	3/4/2020	538,943.75	0.80	2,752.62	535,548.46
US TREASURY N/B NOTES DTD 05/31/2021 0.125% 05/31/2023	91282CCD1	885,000.00	AA+	Aaa	8/2/2021	8/6/2021	884,516.02	0.16	97.25	879,468.75
US TREASURY NOTES DTD 06/15/2020 0.250% 06/15/2023	912828ZU7	230,000.00	AA+	Aaa	8/23/2021	8/24/2021	230,152.73	0.21	26.85	228,921.88
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	295,865.63
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	580,558.15
US TREASURY NOTES DTD 02/15/2021 0.125% 02/15/2024	91282CBM2	50,000.00	AA+	Aaa	3/1/2021	3/1/2021	49,787.11	0.27	23.61	49,351.56
US TREASURY NOTES DTD 02/15/2021 0.125% 02/15/2024	91282CBM2	375,000.00	AA+	Aaa	3/4/2021	3/9/2021	372,993.16	0.31	177.06	370,136.70
US TREASURY NOTES DTD 02/15/2021 0.125% 02/15/2024	91282CBM2	100,000.00	AA+	Aaa	3/3/2021	3/4/2021	99,511.72	0.29	47.22	98,703.12
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	301,378.12
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	617,578.13
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	588,957.06

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	Market Value
U.S. Treasury										
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	197,281.24
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	262.91	231,658.58
US TREASURY N/B NOTES DTD 09/15/2021 0.375% 09/15/2024	91282CCX7	305,000.00	AA+	Aaa	9/27/2021	9/28/2021	303,391.60	0.55	341.23	300,663.27
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	104,146.88
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	462,457.01
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	264,062.50
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	185,173.44
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	273,079.67
Security Type Sub-Total		7,022,000.00					7,053,002.78	0.49	11,039.74	6,999,130.00
Negotiable CD										
HSBC BANK USA NA DTD 02/26/2021 0.250% 02/25/2022	40435RKU4	120,000.00	A-1	P-1	2/26/2021	2/26/2021	120,000.00	0.25	257.50	120,012.84
SUMITOMO MITSUI BANK NY CERT DEPOS DTD 07/14/2020 0.700% 07/08/2022	86565CKU2	85,000.00	A-1	P-1	7/10/2020	7/14/2020	85,000.00	0.70	292.54	85,159.12
UBS AG STAMFORD CT CERT DEPOS DTD 02/18/2021 0.250% 08/16/2022	90275DNC0	150,000.00	A-1	P-1	2/16/2021	2/18/2021	150,000.00	0.25	143.75	149,938.50
NORDEA BANK ABP NEW YORK CERT DEPOS DTD 08/29/2019 1.850% 08/26/2022	65558TLL7	115,000.00	A-1+	P-1	8/27/2019	8/29/2019	115,000.00	1.84	756.44	116,103.43
SKANDINAV ENSKILDA BANK LT CD DTD 09/03/2019 1.860% 08/26/2022	83050PDR7	130,000.00	A-1	P-1	8/29/2019	9/3/2019	130,000.00	1.85	859.73	131,255.67
DNB BANK ASA/NY LT CD DTD 12/06/2019 2.040% 12/02/2022	23341VZT1	65,000.00	A-1+	P-1	12/5/2019	12/6/2019	65,000.00	2.03	110.50	65,924.24

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	Market Value
Negotiable CD										
CREDIT SUISSE NEW YORK CERT DEPOS DTD 03/23/2021 0.590% 03/17/2023	22552G3C2	100,000.00	A+	A1	3/19/2021	3/23/2021	100,000.00	0.59	465.44	99,977.80
Security Type Sub-Total		765,000.00					765,000.00	1.01	2,885.90	768,371.60
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	53,975.35
Security Type Sub-Total		55,000.00					55,000.00	0.61	167.20	53,975.35
Local Government Investment Pool										
PFM Funds - Govt Select, Instl Cl		0.00	AAAm	NR			0.00		0.00	0.00
Security Type Sub-Total		0.00					0.00	0.00	0.00	0.00
Federal Agency										
FREDDIE MAC NOTES DTD 04/20/2020 0.375% 04/20/2023	3137EAEQ8	150,000.00	AA+	Aaa	4/17/2020	4/20/2020	149,625.00	0.46	110.94	149,730.45
FREDDIE MAC NOTES DTD 05/07/2020 0.375% 05/05/2023	3137EAER6	100,000.00	AA+	Aaa	8/3/2020	8/4/2020	100,490.00	0.20	58.33	99,774.60
FREDDIE MAC NOTES DTD 05/07/2020 0.375% 05/05/2023	3137EAER6	375,000.00	AA+	Aaa	5/7/2020	5/8/2020	375,558.75	0.32	218.75	374,154.75
FREDDIE MAC NOTES DTD 05/07/2020 0.375% 05/05/2023	3137EAER6	1,295,000.00	AA+	Aaa	6/2/2020	6/5/2020	1,297,408.70	0.31	755.42	1,292,081.07
FANNIE MAE NOTES DTD 05/22/2020 0.250% 05/22/2023	3135G04Q3	135,000.00	AA+	Aaa	5/20/2020	5/22/2020	134,593.65	0.35	36.56	134,433.81
FREDDIE MAC NOTES DTD 06/26/2020 0.250% 06/26/2023	3137EAES4	160,000.00	AA+	Aaa	6/24/2020	6/26/2020	159,532.80	0.35	5.56	159,212.96
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	208,845.21

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	Market Value
Federal Agency										
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	238,532.16
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	144,220.63
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	104,325.17
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	49,637.85
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	69,492.99
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	153,382.11
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	564,960.63
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	148,604.10
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	203,092.27
FREDDIE MAC NOTES DTD 12/04/2020 0.250% 12/04/2023	3137EAF2	95,000.00	AA+	Aaa	12/2/2020	12/4/2020	94,905.95	0.28	17.81	94,088.95
FREDDIE MAC NOTES DTD 12/04/2020 0.250% 12/04/2023	3137EAF2	705,000.00	AA+	Aaa	12/4/2020	12/7/2020	704,739.15	0.26	132.19	698,239.05
Security Type Sub-Total		4,915,000.00					4,914,642.63	0.30	2,588.45	4,886,808.76
Corporate										
AMAZON.COM INC CORP NOTES DTD 11/29/2012 2.500% 11/29/2022	023135AJ5	100,000.00	AA	A1	6/9/2020	6/11/2020	104,546.00	0.64	222.22	101,382.10
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	101,101.70
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	94,716.43

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	Market Value
Corporate										
HERSHEY COMPANY 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	87,933.69
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	75,633.60
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	69,271.23
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	99,341.50
JPMORGAN CHASE & CO CORPORATE NOTES DTD 06/01/2021 0.824% 06/01/2025	46647PCH7	115,000.00	A-	A2	5/24/2021	6/1/2021	115,000.00	0.82	78.97	113,627.02
JPMORGAN CHASE & CO CORPORATE NOTES DTD 08/10/2021 0.768% 08/09/2025	46647PCM6	60,000.00	A-	A2	8/3/2021	8/10/2021	60,000.00	0.77	180.48	59,065.44
Security Type Sub-Total		800,000.00					807,497.05	1.01	2,183.74	802,072.71
Managed Account Sub Total		13,557,000.00					13,595,142.46		18,865.03	13,510,358.42
Securities Sub Total		\$13,557,000.00					\$13,595,142.46		\$18,865.03	\$13,510,358.42
Accrued Interest										\$18,865.03
Total Investments										\$13,529,223.45

Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
BUY									
10/4/2021	10/6/2021	235,000.00	91282CCX7	US TREASURY N/B NOTES	0.37%	9/15/2024	234,179.05	0.50%	
11/2/2021	11/3/2021	105,000.00	91282CDB4	US TREASURY N/B NOTES	0.62%	10/15/2024	104,734.84	0.72%	
12/3/2021	12/7/2021	465,000.00	91282CDH1	US TREASURY N/B NOTES	0.75%	11/15/2024	463,195.74	0.90%	
12/9/2021	12/15/2021	185,000.00	91282CDN8	US TREASURY N/B NOTES	1.00%	12/15/2024	185,028.91	0.99%	
Total BUY		990,000.00					987,138.54		0.00
INTEREST									
8/16/2021	10/1/2021	150,000.00	90275DNC0	UBS AG STAMFORD CT CERT DEPOS	0.25%	8/16/2022	186.46		
10/1/2021	10/1/2021		MONEY0002	MONEY MARKET FUND			2.78		
10/15/2021	10/15/2021	595,000.00	91282CBV2	US TREASURY N/B NOTES	0.37%	4/15/2024	1,115.63		
10/16/2021	10/16/2021	155,000.00	3137EAEY1	FREDDIE MAC NOTES	0.12%	10/16/2023	96.88		
10/20/2021	10/20/2021	150,000.00	3137EAEQ8	FREDDIE MAC NOTES	0.37%	4/20/2023	281.25		
10/24/2021	10/24/2021	100,000.00	06051GJH3	BANK OF AMERICA CORP (CALLABLE) CORPORAT	0.81%	10/24/2024	405.00		
11/1/2021	11/1/2021		MONEY0002	MONEY MARKET FUND			0.09		
11/5/2021	11/5/2021	1,770,000.00	3137EAER6	FREDDIE MAC NOTES	0.37%	5/5/2023	3,318.75		
11/6/2021	11/6/2021	570,000.00	3137EAEZ8	FREDDIE MAC NOTES	0.25%	11/6/2023	712.50		
11/12/2021	11/12/2021	70,000.00	023135BW5	AMAZON.COM INC CORPORATE NOTES	0.45%	5/12/2024	157.50		
11/15/2021	11/15/2021	200,000.00	91282CCC3	US TREASURY N/B NOTES	0.25%	5/15/2024	250.00		

Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
INTEREST									
11/15/2021	11/15/2021	85,000.00	427866AZ1	HERSHEY COMPANY	3.37%	5/15/2023	1,434.38		
11/15/2021	11/15/2021	340,000.00	912828TY6	US TREASURY NOTES	1.62%	11/15/2022	2,762.50		
11/22/2021	11/22/2021	135,000.00	3135G04Q3	FANNIE MAE NOTES	0.25%	5/22/2023	168.75		
11/27/2021	11/27/2021	355,000.00	3135G06H1	FANNIE MAE NOTES	0.25%	11/27/2023	443.75		
11/29/2021	11/29/2021	100,000.00	023135AJ5	AMAZON.COM INC CORP NOTES	2.50%	11/29/2022	1,250.00		
11/30/2021	11/30/2021	20,000.00	912828M80	US TREASURY NOTES	2.00%	11/30/2022	200.00		
11/30/2021	11/30/2021	260,000.00	912828YV6	US TREASURY NOTES	1.50%	11/30/2024	1,950.00		
11/30/2021	11/30/2021	885,000.00	91282CCD1	US TREASURY N/B NOTES	0.12%	5/31/2023	553.13		
12/1/2021	12/1/2021		MONEY0002	MONEY MARKET FUND			0.15		
12/1/2021	12/1/2021	115,000.00	46647PCH7	JPMORGAN CHASE & CO CORPORATE NOTES	0.82%	6/1/2025	473.80		
12/2/2021	12/2/2021	65,000.00	23341VZT1	DNB BANK ASA/NY LT CD	2.04%	12/2/2022	674.05		
12/4/2021	12/4/2021	800,000.00	3137EAFA2	FREDDIE MAC NOTES	0.25%	12/4/2023	1,000.00		
12/15/2021	12/15/2021	230,000.00	912828ZU7	US TREASURY NOTES	0.25%	6/15/2023	287.50		
12/15/2021	12/15/2021	259,000.00	912828YW4	US TREASURY NOTES	1.62%	12/15/2022	2,104.38		
12/26/2021	12/26/2021	160,000.00	3137EAES4	FREDDIE MAC NOTES	0.25%	6/26/2023	200.00		
12/31/2021	12/31/2021	30,000.00	912828N30	US TREASURY NOTES	2.12%	12/31/2022	318.75		
Total INTEREST		7,599,000.00					20,347.98		0.00

Quarterly Portfolio Transactions

Trade Date	Settle Date	Par (\$)	CUSIP	Security Description	Coupon	Maturity Date	Transact Amount (\$)	Yield at Market	Realized G/L (BV)
SELL									
10/4/2021	10/6/2021	235,000.00	06742TWL6	BARCLAYS BANK PLC NY CERT DEPOS	0.29%	2/4/2022	235,556.98		110.22
11/2/2021	11/3/2021	105,000.00	3137EAET2	FREDDIE MAC NOTES	0.12%	7/25/2022	105,036.78		86.63
12/3/2021	12/7/2021	100,000.00	02665WCY5	AMERICAN HONDA FINANCE	2.20%	6/27/2022	101,896.78		999.76
12/3/2021	12/7/2021	340,000.00	912828TY6	US TREASURY NOTES	1.62%	11/15/2022	344,599.05		4,326.73
Total SELL		780,000.00					787,089.59		5,523.34

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)
BUY	10/4/2021	10/6/2021	235,000.00	91282CCX7	US TREASURY N/B NOTES	0.37%	9/15/2024	234,179.05	0.50%	
BUY	11/2/2021	11/3/2021	105,000.00	91282CDB4	US TREASURY N/B NOTES	0.62%	10/15/2024	104,734.84	0.72%	
BUY	12/3/2021	12/7/2021	465,000.00	91282CDH1	US TREASURY N/B NOTES	0.75%	11/15/2024	463,195.74	0.90%	
BUY	12/9/2021	12/15/2021	185,000.00	91282CDN8	US TREASURY N/B NOTES	1.00%	12/15/2024	185,028.91	0.99%	
INTEREST	8/16/2021	10/1/2021	150,000.00	90275DNC0	UBS AG STAMFORD CT CERT DEPOS	0.25%	8/16/2022	186.46		
INTEREST	10/1/2021	10/1/2021		MONEY0002	MONEY MARKET FUND			2.78		
INTEREST	10/15/2021	10/15/2021	595,000.00	91282CBV2	US TREASURY N/B NOTES	0.37%	4/15/2024	1,115.63		
INTEREST	10/16/2021	10/16/2021	155,000.00	3137EAEY1	FREDDIE MAC NOTES	0.12%	10/16/2023	96.88		
INTEREST	10/20/2021	10/20/2021	150,000.00	3137EAEQ8	FREDDIE MAC NOTES	0.37%	4/20/2023	281.25		
INTEREST	10/24/2021	10/24/2021	100,000.00	06051GJH3	BANK OF AMERICA CORP (CALLABLE)	0.81%	10/24/2024	405.00		
INTEREST	11/1/2021	11/1/2021		MONEY0002	MONEY MARKET FUND			0.09		
INTEREST	11/5/2021	11/5/2021	1,770,000.00	3137EAER6	FREDDIE MAC NOTES	0.37%	5/5/2023	3,318.75		
INTEREST	11/6/2021	11/6/2021	570,000.00	3137EAEZ8	FREDDIE MAC NOTES	0.25%	11/6/2023	712.50		
INTEREST	11/12/2021	11/12/2021	70,000.00	023135BW5	AMAZON.COM INC CORPORATE NOTES	0.45%	5/12/2024	157.50		
INTEREST	11/15/2021	11/15/2021	200,000.00	91282CCC3	US TREASURY N/B NOTES	0.25%	5/15/2024	250.00		
INTEREST	11/15/2021	11/15/2021	85,000.00	427866AZ1	HERSHEY COMPANY	3.37%	5/15/2023	1,434.38		
INTEREST	11/15/2021	11/15/2021	340,000.00	912828TY6	US TREASURY NOTES	1.62%	11/15/2022	2,762.50		
INTEREST	11/22/2021	11/22/2021	135,000.00	3135G04Q3	FANNIE MAE NOTES	0.25%	5/22/2023	168.75		

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	11/27/2021	11/27/2021	355,000.00	3135G06H1	FANNIE MAE NOTES	0.25%	11/27/2023	443.75		
INTEREST	11/29/2021	11/29/2021	100,000.00	023135AJ5	AMAZON.COM INC CORP NOTES	2.50%	11/29/2022	1,250.00		
INTEREST	11/30/2021	11/30/2021	20,000.00	912828M80	US TREASURY NOTES	2.00%	11/30/2022	200.00		
INTEREST	11/30/2021	11/30/2021	260,000.00	912828YV6	US TREASURY NOTES	1.50%	11/30/2024	1,950.00		
INTEREST	11/30/2021	11/30/2021	885,000.00	91282CCD1	US TREASURY N/B NOTES	0.12%	5/31/2023	553.13		
INTEREST	12/1/2021	12/1/2021		MONEY0002	MONEY MARKET FUND			0.15		
INTEREST	12/1/2021	12/1/2021	115,000.00	46647PCH7	JPMORGAN CHASE & CO CORPORATE	0.82%	6/1/2025	473.80		
INTEREST	12/2/2021	12/2/2021	65,000.00	23341VZT1	DNB BANK ASA/NY LT CD	2.04%	12/2/2022	674.05		
INTEREST	12/4/2021	12/4/2021	800,000.00	3137EAFA2	FREDDIE MAC NOTES	0.25%	12/4/2023	1,000.00		
INTEREST	12/15/2021	12/15/2021	230,000.00	912828ZU7	US TREASURY NOTES	0.25%	6/15/2023	287.50		
INTEREST	12/15/2021	12/15/2021	259,000.00	912828YW4	US TREASURY NOTES	1.62%	12/15/2022	2,104.38		
INTEREST	12/26/2021	12/26/2021	160,000.00	3137EAES4	FREDDIE MAC NOTES	0.25%	6/26/2023	200.00		
INTEREST	12/31/2021	12/31/2021	30,000.00	912828N30	US TREASURY NOTES	2.12%	12/31/2022	318.75		
SELL	10/4/2021	10/6/2021	235,000.00	06742TWL6	BARCLAYS BANK PLC NY CERT DEPOS	0.29%	2/4/2022	235,556.98		110.22
SELL	11/2/2021	11/3/2021	105,000.00	3137EAET2	FREDDIE MAC NOTES	0.12%	7/25/2022	105,036.78		86.63
SELL	12/3/2021	12/7/2021	100,000.00	02665WCY5	AMERICAN HONDA FINANCE	2.20%	6/27/2022	101,896.78		999.76
SELL	12/3/2021	12/7/2021	340,000.00	912828TY6	US TREASURY NOTES	1.62%	11/15/2022	344,599.05		4,326.73
TOTALS			9,369,000.00					1,794,576.11		5,523.34

Important Disclosures

This material is for general information purposes only and is not intended to provide specific advice or a specific recommendation, as it was prepared without regard to any specific objectives or financial circumstances.

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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 of 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.



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

Date: 02/03/2022
To: Workers' Compensation And Employer Liability Trust Board
From: Teresa Canjar, Management Assistant
Subject: Resolution No. WC-009

Proposed Motion:

Move to approve Resolution No. WC-009 for the City of Chandler Workers' Compensation and Employer Trust Liability Trust Fund Board Recommending Workers' Compensation Contribution and Reserve Level for Fiscal Year 2022-23.

Attachments

Resolution WC-009

RESOLUTION NO. WC-009

A RESOLUTION OF THE CITY OF CHANDLER WORKERS' COMPENSATION AND EMPLOYER LIABILITY TRUST BOARD RECOMMENDING WORKERS' COMPENSATION CONTRIBUTION AND RESERVE LEVEL FOR FISCAL YEAR 2022-23

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, 2021 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 is sufficient to fund the expenditure requirements and no change to the ongoing contribution is needed.

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 \$4,383,700 remain unchanged for FY 2022-23.

PASSED AND ADOPTED by the City of Chandler Workers' Compensation and Employer Liability Trust Board on this 3rd day of February, 2022.

Chairperson

City of Chandler Workers' Compensation and Employer Liability Trust Board

Attest:

City Clerk

Approved As To Form:

City Attorney 