

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

CITY OF CHANDLER

September 30, 2022

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1. EXECUTIVE SUMMARY

Purpose and Scope

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

The analysis provides the following:

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

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

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

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

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

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

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

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

Actuarial Findings

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

Table 1: Estimated Unpaid Losses & ALAE

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

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

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

Projected Ultimate Losses and ALAE

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

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

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

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

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
7/1/22-23	3,000,000	1,500,000

3. DATA

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

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

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

Specifically, the data relied upon are as follows:

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

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. For policy years where there are multiple SIR's for different classes of employees, we calculated the average SIR assuming 70% of the incurred losses limited to \$75,000 are police / fire (and thus subject to the higher SIR).

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

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

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

Estimates of Reserves at Various Probability Levels

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

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

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

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

Projection of Ultimate Losses and ALAE for Future Policy Periods

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

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

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

5. DISTRIBUTION AND USE

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

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

6. CONSIDERATIONS AND LIMITATIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

7. ACKNOWLEDGEMENT OF QUALIFICATIONS

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

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

Oliver Wyman Actuarial Consulting, Inc.:

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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 7/1/2022 to 6/30/2023
Based on Data as of June 30, 2022

Exhibit A
Page 1

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

Notes:

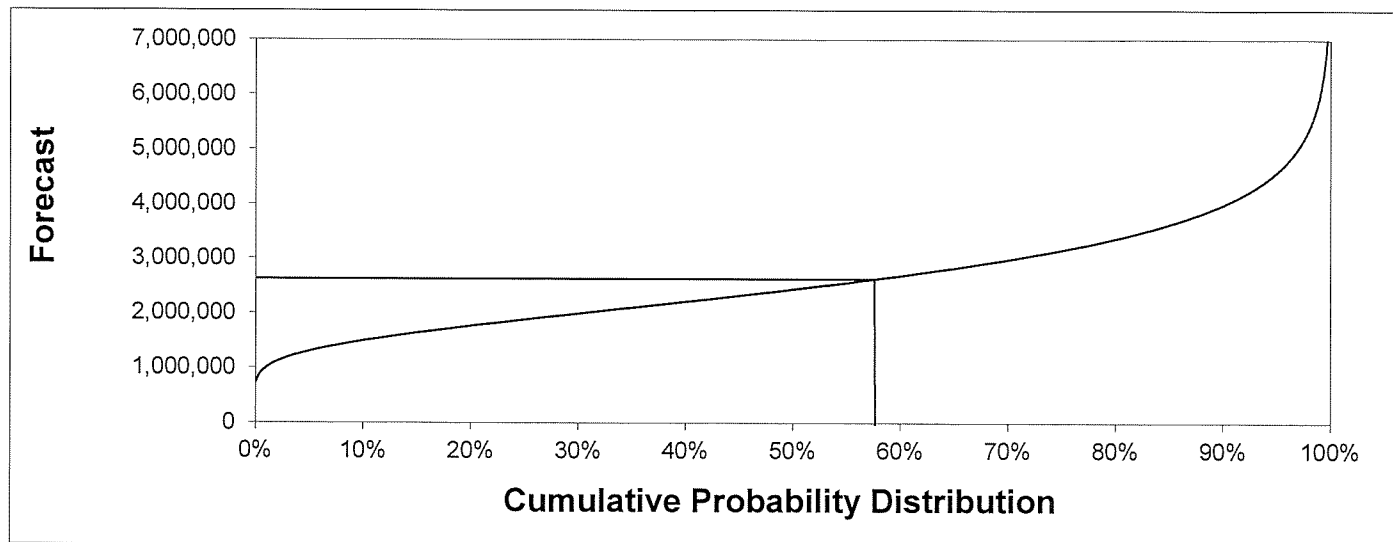
- (1) from Exhibit A, Page 3, Row (9)
- (2) from City of Chandler
- (3) from Appendix B, Page 1, Column (5), assuming 70% of losses limited to \$75,000 correspond to public safety employees, (limit adjusted for trend,
- (4) = (1) x (3)
- (5) = (2) x (4); rounded
- (6) from Exhibit A, Page 2
- (7) = (5)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

City of Chandler
Workers' Compensation
Percentile Factor Calculation for Losses & ALAE Forecast for period 7/1/2022 to 6/30/2023 - Limited to \$500,000
Based on Data as of June 30, 2022

Exhibit A
Page 2

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

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



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

City of Chandler
Workers' Compensation
Losses & ALAE Forecast for period 7/1/2022 to 6/30/2023 - Limited to \$75,000
Based on Data as of June 30, 2022

Exhibit A
Page 3

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

Notes:

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

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

Exhibit A
Page 4

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

Notes:

(1) = (average evaluation period) - (average policy period)

(2) from Exhibit C, Page 3, Column (12)

(3) from City of Chandler

(4) = (2) / (3)

(5) derived from the 2021 edition of NCCI Annual Statistical Bulletin

(6) based on information published by NCCI

(7) assumed 2.0% annual loss cost trend

(8) = (4) x (6) x (7) / (5)

Arithmetic Average 8.61

Weighted Average 8.45

Arithmetic Average Excluding Current Period 8.60

Weighted Average Excluding Current Period 8.42

5 Period Arithmetic Average 8.36

3 Period Arithmetic Average 8.79

Selected Loss Cost for period 7/1/2022 to 6/30/2023 8.60

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

Exhibit A
Page 5

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

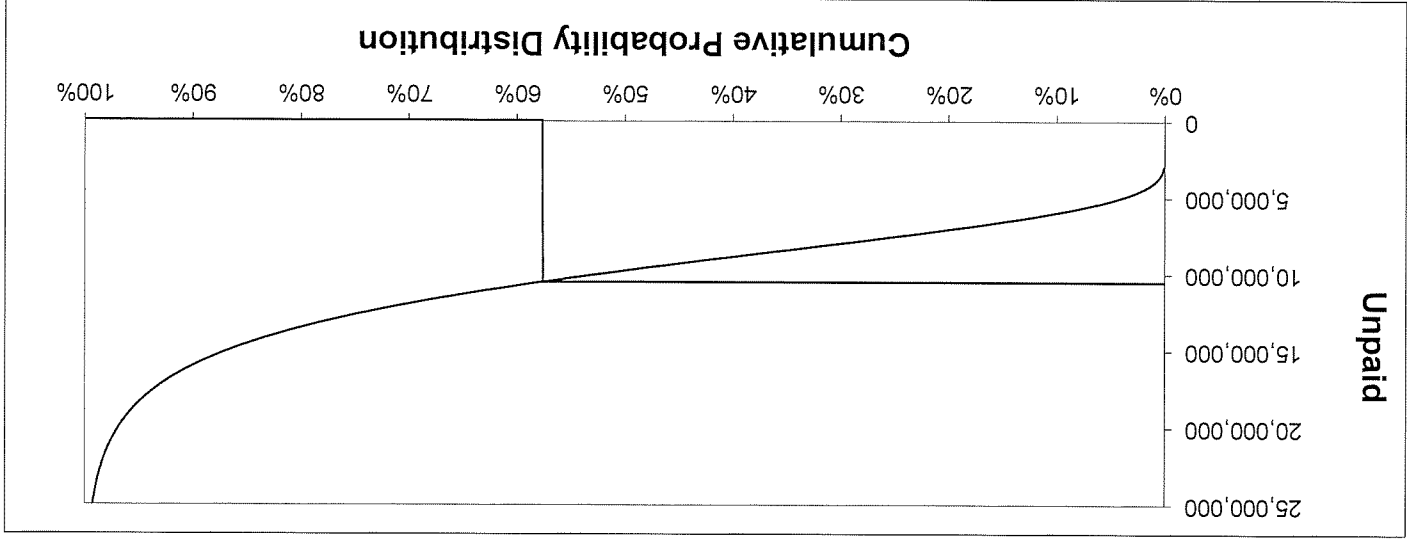
Notes:

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

Arithmetic Average	0.889	Arithmetic Average	9.730
Weighted Average	0.888	Weighted Average	9.507
Arithmetic Average Excluding Current Period	0.892	Arithmetic Average Excluding Current Period	9.687
Weighted Average Excluding Current Period	0.891	Weighted Average Excluding Current Period	9.459
5 Period Arithmetic Average	0.905	5 Period Arithmetic Average	9.293
3 Period Arithmetic Average	0.889	3 Period Arithmetic Average	9.940
Selected Frequency for period 7/1/22 to 6/30/23	0.910	Selected Severity for period 7/1/22 to 6/30/23	9.300

City of Chandler
Workers' Compensation
Percentile Factor Calculation for Unpaid Losses & ALAE as of 6/30/2022 - Limited to Self-Insured Retention (SIR)
Based on Data as of June 30, 2022

Percentile	Selected Percentile	Factor	Unpaid Losses & ALAE Percentile
50.0%	0.913	9,590,482	Unpaid Losses & ALAE CV
60.0%	1.017	10,682,936	Open & IBNR Claim Count
70.0%	1.141	11,985,477	Parameter Risk
80.0%	1.306	13,718,696	Unpaid Losses & ALAE CV
90.0%	1.574	16,533,865	s
95.0%	1.838	19,307,017	s ²
99.0%	2.459	25,830,225	m
			Unpaid Losses & ALAE (Central Estimate)
			10,504,362



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

City of Chandler
Workers' Compensation
Unpaid Losses & ALAE Reconciliation from 6/30/2021 to 6/30/2022 - Limited to Self-Insured Retention (SIR)
Based on Data as of June 30, 2022

Exhibit B
Page 2

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

Notes:

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

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

Exhibit B
Page 3

Policy Period	Self-Insured Retention (SIR)	Based on Data as of June 30, 2022						Based on Data as of June 30, 2021					
		(1) Paid Losses & ALAE	(2) Case Reserves	(3) Incurred Losses & ALAE	(4) IBNR	(5) Unpaid Losses & ALAE	(6) Estimated Ultimates	(7) Paid Losses & ALAE	(8) Case Reserves	(9) Incurred Losses & ALAE	(10) IBNR	(11) Unpaid Losses & ALAE	(12) Estimated Ultimates
1/1/2003 to 6/30/2003	500,000	1,071,519	14,423	1,085,942	58	14,481	1,086,000	1,071,106	14,836	1,085,942	58	14,894	1,086,000
7/1/2003 to 6/30/2004	500,000	818,073	15,183	833,257	3,743	18,927	837,000	818,038	15,218	833,257	243	15,462	833,500
7/1/2004 to 6/30/2005	500,000	651,732	0	651,732	0	0	651,732	651,732	0	651,732	0	0	651,732
7/1/2005 to 6/30/2006	500,000	980,808	44,214	1,025,022	4,478	48,692	1,029,500	980,808	44,214	1,025,022	78	44,292	1,025,100
7/1/2006 to 6/30/2007	500,000	600,096	19,072	619,168	5,832	24,904	625,000	599,653	19,515	619,168	832	20,347	620,000
7/1/2007 to 6/30/2008	500,000	788,091	285,003	1,073,094	7,906	292,909	1,081,000	727,568	372,363	1,099,931	1,069	373,432	1,101,000
7/1/2008 to 6/30/2009	500,000	1,164,618	133,052	1,297,670	9,330	142,382	1,307,000	1,160,444	137,225	1,297,670	5,330	142,556	1,303,000
7/1/2009 to 6/30/2010	500,000	1,488,829	263,870	1,752,699	26,301	290,171	1,779,000	1,480,728	272,100	1,752,829	23,171	295,272	1,776,000
7/1/2010 to 6/30/2011	500,000	1,456,561	0	1,456,561	0	0	1,456,561	1,456,561	0	1,456,561	0	0	1,456,561
7/1/2011 to 6/30/2012	500,000	1,905,384	323,928	2,229,312	30,688	354,616	2,280,000	1,880,655	513,530	2,394,185	33,815	547,345	2,428,000
7/1/2012 to 6/30/2013	600,000	2,129,662	202,789	2,332,401	32,599	235,338	2,365,000	2,096,347	236,053	2,332,401	39,599	275,653	2,372,000
7/1/2013 to 6/30/2014	600,000	2,400,586	275,934	2,676,520	63,480	339,414	2,740,000	2,355,943	294,531	2,650,474	76,526	371,057	2,727,000
7/1/2014 to 6/30/2015	600,000	1,451,313	620,910	2,082,223	0	620,910	2,082,223	1,393,200	689,023	2,082,223	0	689,023	2,082,223
7/1/2015 to 6/30/2016	600k / 1M	2,655,922	881,996	3,537,918	86,082	968,078	3,624,000	2,530,046	1,007,866	3,537,912	98,088	1,105,954	3,636,000
7/1/2016 to 6/30/2017	600k / 1M	1,634,744	89,016	1,723,760	121,240	210,256	1,845,000	1,628,931	522,112	2,151,043	155,957	678,069	2,307,000
7/1/2017 to 6/30/2018	600k / 1M	1,691,843	1,054,406	2,746,249	176,751	1,231,157	2,923,000	1,606,123	1,112,092	2,718,215	215,785	1,327,877	2,934,000
7/1/2018 to 6/30/2019	600k / 1.25M	1,050,185	552,821	1,603,007	200,993	753,815	1,804,000	976,327	577,682	1,554,009	198,991	776,673	1,753,000
7/1/2019 to 6/30/2020	600k / 1.25M	1,159,315	746,044	1,915,358	194,642	940,685	2,110,000	1,048,235	300,850	1,349,085	637,915	938,765	1,987,000
7/1/2020 to 6/30/2021	750k / 2.25M	1,428,945	1,153,308	2,582,253	302,747	1,456,055	2,885,000	672,909	1,913,465	2,586,374	928,626	2,842,091	3,515,000
7/1/2021 to 6/30/2022	1M / 3M	709,428	1,916,439	2,625,867	645,133	2,561,572	3,271,000						
TOTALS		27,257,655	8,592,358	35,850,012	1,912,004	10,504,362	37,762,016	25,135,355	8,042,677	33,178,032	2,416,084	10,458,761	35,594,116

Policy Period	Self-Insured Retention (SIR)	Difference						Estimated Ultimates Through 6/30/2021	Estimated Ultimates 7/1/2021 to 6/30/2022
		(13) Paid Losses & ALAE	(14) Case Reserves	(15) Incurred Losses & ALAE	(16) IBNR	(17) Unpaid Losses & ALAE	(18) Estimated Ultimates		
1/1/2003 to 6/30/2003	500,000	413	(413)	0	0	(413)	0	0	0
7/1/2003 to 6/30/2004	500,000	35	(35)	0	3,500	3,465	3,500	3,500	0
7/1/2004 to 6/30/2005	500,000	0	0	0	0	0	0	0	0
7/1/2005 to 6/30/2006	500,000	0	0	0	4,400	4,400	4,400	4,400	0
7/1/2006 to 6/30/2007	500,000	443	(443)	0	5,000	4,557	5,000	5,000	0
7/1/2007 to 6/30/2008	500,000	60,523	(87,360)	(26,837)	6,837	(80,523)	(20,000)	(20,000)	0
7/1/2008 to 6/30/2009	500,000	4,173	(4,173)	0	4,000	(173)	4,000	4,000	0
7/1/2009 to 6/30/2010	500,000	8,100	(8,230)	(130)	3,130	(5,100)	3,000	3,000	0
7/1/2010 to 6/30/2011	500,000	0	0	0	0	0	0	0	0
7/1/2011 to 6/30/2012	500,000	24,729	(189,602)	(164,873)	(3,127)	(192,729)	(168,000)	(168,000)	0
7/1/2012 to 6/30/2013	600,000	33,315	(33,315)	0	(7,000)	(40,315)	(7,000)	(7,000)	0
7/1/2013 to 6/30/2014	600,000	44,643	(18,597)	26,046	(13,046)	(31,643)	13,000	13,000	0
7/1/2014 to 6/30/2015	600,000	68,113	(68,113)	0	0	(68,113)	0	0	0
7/1/2015 to 6/30/2016	600k / 1M	125,876	(125,870)	6	(12,006)	(137,876)	(12,000)	(12,000)	0
7/1/2016 to 6/30/2017	600k / 1M	5,813	(433,096)	(427,283)	(34,717)	(467,813)	(462,000)	(462,000)	0
7/1/2017 to 6/30/2018	600k / 1M	85,720	(57,686)	28,034	(39,034)	(96,720)	(11,000)	(11,000)	0
7/1/2018 to 6/30/2019	600k / 1.25M	73,859	(24,861)	48,998	2,002	(22,859)	51,000	51,000	0
7/1/2019 to 6/30/2020	600k / 1.25M	121,080	445,193	566,273	(443,273)	1,820	123,000	123,000	0
7/1/2020 to 6/30/2021	750k / 2.25M	756,037	(760,158)	(4,121)	(625,879)	(1,386,037)	(630,000)	(630,000)	0
7/1/2021 to 6/30/2022	1M / 3M	709,428	1,916,439	2,625,867	645,133	2,561,572	3,271,000	N/A	3,271,000
TOTALS		2,122,299	549,681	2,671,980	(504,080)	45,601	2,167,900	(1,103,100)	3,271,000

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

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

Exhibit C
Page 1

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

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

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

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

Exhibit C
Page 2

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

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

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

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

Exhibit C
Page 3

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

Notes:

(1) from City of Chandler
(2) = Exhibit D, Page 7, Column (12) - closed claim counts with payment
(3) from City of Chandler
(4) from City of Chandler
(5) from Exhibit D, Page 1, Column (4)
(6) from Exhibit D, Page 2, Column (4)

(7) from Exhibit D, Page 3, Column (10)
(8) from Exhibit D, Page 4, Column (8)
(9) from Exhibit D, Page 5, Column (7)
(10) from Exhibit D, Page 6, Column (7)
(11) from previous Oliver Wyman study
(12) selected

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

Exhibit D
Page 1

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

Notes:

(1) = (average evaluation period) - (average policy period)

(2) from City of Chandler

(3) from Appendix A, Page 1

(4) = (2) x (3)

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

Exhibit D
Page 2

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

Notes:

(1) = (average evaluation period) - (average policy period)

(2) from City of Chandler

(3) from Appendix A, Page 1

(4) = (2) x (3)

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

Exhibit D
Page 3

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

Notes:

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

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

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

Exhibit D
Page 4

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

Notes:

(1) based on Exhibit D, Page 1 and 2, Column (4) and actuarial judgment	Arithmetic Average	9,462	Excluding Current Period
(2) from Exhibit D, Page 7, Column (12)	Weighted Average	9,239	
(3) based on information published by NCCI	5 Period Arithmetic Average	9,182	
(4) = (1) / (2) x (3)	3 Period Arithmetic Average	8,763	
(5) assumed 2.5% annual severity trend	Prior Forecast	9,340	
(6) = (4) x (5)	Selected for period 7/1/2021 to 6/30/2022	9,200	
(7) = (Selected for period 7/1/2021 to 6/30/2022) / [(3) x (5)]			
(8) = (2) x (7)			

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

Exhibit D
Page 5

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

Notes:

(1) = (average evaluation period) - (average policy period)

(2) based on Exhibit D, Page 1 and 2, Column (4) and actuarial judgment; most recent 4 periods from Exhibit D, Page 3, Column (10)

(3) from City of Chandler

(4) from Appendix A, Page 1

(5) = (2) x [1 / (4)]

(6) = (2) x [1 - 1 / (4)]

(7) = (3) + (6)

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

Exhibit D
Page 6

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

Notes:

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

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

Exhibit D
Page 7

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

Notes:

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

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

Excluding
Current
Period

City of Chandler
Workers' Compensation

Exhibit E
Page 1

Actual vs. Expected Paid Losses & ALAE between 7/1/2021 and 6/30/2022 - Limited to Self-Insured Retention (SIR)
Based on Data as of June 30, 2022

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

Notes:

(1) from previous Oliver Wyman study

(2) from previous Oliver Wyman study

(3) = (1) - (2)

(4) based on paid loss development factors from previous Oliver Wyman study

(5) = (3) x (4)

(6) from City of Chandler

(7) = (6) - (5)

City of Chandler

Workers' Compensation

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

Based on Data as of June 30, 2022

Exhibit E

Page 2

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

Notes:

(1) from previous Oliver Wyman study

(2) from previous Oliver Wyman study

(3) = (1) - (2)

(4) based on incurred loss development factors from previous Oliver Wyman study

(5) = (3) x (4)

(6) from City of Chandler

(7) = (6) - (5)

City of Chandler
Workers' Compensation
Actual vs. Expected Paid Losses & ALAE between 7/1/2021 and 6/30/2022 - Limited to \$75,000
Based on Data as of June 30, 2022

Exhibit E
Page 3

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

Notes:

(1) from previous Oliver Wyman study

(2) from previous Oliver Wyman study

(3) = (1) - (2)

(4) based on paid loss development factors from previous Oliver Wyman study

(5) = (3) x (4)

(6) from City of Chandler

(7) = (6) - (5)

City of Chandler
Workers' Compensation
Actual vs. Expected Incurred Losses & ALAE between 7/1/2021 and 6/30/2022 - Limited to \$75,000
Based on Data as of June 30, 2022

Exhibit E
Page 4

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

Notes:

(1) from previous Oliver Wyman study

(2) from previous Oliver Wyman study

(3) = (1) - (2)

(4) based on incurred loss development factors from previous Oliver Wyman study

(5) = (3) x (4)

(6) from City of Chandler

(7) = (6) - (5)

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

Appendix A
Page 1

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

Notes:
limited (bolded) paid LDFs based on Appendix A, Page 2
limited (bolded) incurred LDFs based on Appendix A, Page 5
other LDFs are adjusted using Oliver Wyman relativities
reported count factors based on Appendix A, Page 4

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

Appendix A
Page 2

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	247,026	565,212	621,763	661,178	715,176	720,556	722,269	722,205	722,300	725,697	725,697	725,655	725,655	725,875	739,755	749,083	774,870	775,091	775,127
7/1/2004	276,397	536,761	577,418	592,457	605,379	609,033	616,357	621,775	621,775	621,775	621,775	621,775	621,775	621,971	621,971	621,971	621,971	621,971	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	649,576
7/1/2006	209,267	464,091	531,181	552,186	552,895	584,800	585,106	578,421	581,840	581,848	582,063	582,071	582,176	587,789	587,801	588,244	588,244	588,244	588,244
7/1/2007	351,283	616,773	702,322	645,614	595,827	595,827	597,997	636,245	658,716	673,524	679,204	686,940	691,745	695,966	750,292				
7/1/2008	321,961	608,696	622,878	618,457	611,609	627,188	643,015	643,023	644,726	645,027	674,485	674,560	675,237	675,237					
7/1/2009	807,943	1,268,270	1,274,279	1,258,475	1,269,316	1,268,437	1,268,781	1,299,694	1,301,130	1,299,762	1,300,357	1,299,626	1,299,526						
7/1/2010	667,115	932,878	953,600	956,407	966,774	966,782	966,782	966,822	966,822	966,822	966,822	966,822	966,822						
7/1/2011	656,562	1,042,286	1,107,176	1,140,809	1,152,179	1,153,721	1,157,939	1,158,827	1,159,929	1,160,847	1,160,847								
7/1/2012	308,364	737,253	852,237	861,204	899,282	997,688	1,037,066	1,069,226	1,069,226	1,069,226									
7/1/2013	515,792	1,169,619	1,422,414	1,433,603	1,478,801	1,479,343	1,478,586	1,482,601	1,493,243										
7/1/2014	557,797	927,794	988,164	988,803	990,329	990,329													
7/1/2015	418,716	903,262	998,672	999,797	1,034,850	1,040,344	1,040,350												
7/1/2016	496,863	992,965	1,205,210	1,264,190	1,264,190	1,264,190													
7/1/2017	603,228	1,112,325	1,098,076	1,098,692	1,108,047														
7/1/2018	517,966	832,096	947,621	994,592															
7/1/2019	513,953	927,549	970,464																
7/1/2020	589,321	1,148,306																	
7/1/2021	593,767																		
Accident Period Beginning	12 to 24	24 to 36	36 to 48	48 to 60	60 to 72	72 to 84	84 to 96	96 to 108	108 to 120	120 to 132	132 to 144	144 to 156	156 to 168	168 to 180	180 to 192	192 to 204	204 to 216	216 to 228	228 to Ult
7/1/2003	2.288	1.100	1.063	1.082	1.008	1.002	1.000	1.000	1.005	1.000	1.000	1.000	1.000	1.019	1.013	1.034	1.000	1.000	
7/1/2004	1.942	1.076	1.026	1.022	1.006	1.012	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/2005	2.521	1.092	1.076	1.015	1.018	1.012	1.012	1.017	1.015	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
7/1/2006	2.218	1.145	1.040	1.001	1.058	1.001	0.989	1.006	1.000	1.000	1.000	1.000	1.010	1.000	1.001				
7/1/2007	1.756	1.139	0.919	0.923	1.000	1.004	1.064	1.035	1.022	1.008	1.011	1.007	1.006	1.078					
7/1/2008	1.891	1.023	0.993	0.989	1.025	1.025	1.000	1.003	1.000	1.046	1.000	1.001	1.000						
7/1/2009	1.570	1.005	0.988	1.009	0.999	1.000	1.024	1.001	0.999	1.000	0.999	1.000							
7/1/2010	1.398	1.022	1.003	1.011	1.000	1.000	1.000	1.000	1.000	1.000	1.000								
7/1/2011	1.587	1.062	1.030	1.010	1.001	1.004	1.001	1.001	1.001	1.000									
7/1/2012	2.391	1.156	1.011	1.044	1.109	1.039	1.031	1.000	1.000										
7/1/2013	2.268	1.216	1.008	1.032	1.000	1.000	1.002	1.007											
7/1/2014	1.663	1.065	1.001	1.002	1.000	1.000	1.000												
7/1/2015	2.157	1.106	1.001	1.035	1.005	1.000													
7/1/2016	1.998	1.214	1.049	1.000	1.000														
7/1/2017	1.844	0.987	1.001	1.009															
7/1/2018	1.606	1.139	1.050																
7/1/2019	1.805	1.046																	
7/1/2020	1.949																		
Average	1.936	1.094	1.016	1.012	1.016	1.008	1.011	1.006	1.004	1.006	1.001	1.001	1.003	1.019	1.003	1.011	1.000	1.000	
Wtd Avg	1.851	1.091	1.014	1.013	1.014	1.007	1.010	1.005	1.003	1.005	1.001	1.001	1.003	1.021	1.004	1.013	1.000	1.000	
5 Yr Avg	1.840	1.098	1.020	1.015	1.023	1.009	1.007	1.002	1.000	1.011	1.002	1.002	1.003						
3 Yr Avg	1.787	1.057	1.033	1.015	1.002	1.000	1.011	1.003	1.000	1.000	1.000	1.003	1.005	1.026	1.000				
Prior	1.850	1.110	1.020	1.015	1.015	1.013	1.010	1.008	1.008	1.005	1.005	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.011 Tail
Industry	1.793	1.180	1.086	1.052	1.025	1.019	1.014	1.009	1.008	1.007	1.005	1.005	1.003	1.003	1.003	1.002	1.002	1.002	1.010
Selected	1.850	1.100	1.020	1.015	1.015	1.010	1.010	1.009	1.008	1.007	1.005	1.005	1.003	1.003	1.003	1.002	1.002	1.002	1.010
Ultimate	2.316	1.252	1.138	1.116	1.099	1.083	1.072	1.062	1.052	1.043	1.036	1.031	1.026	1.023	1.019	1.017	1.014	1.012	1.010
Pattern	43.2%	36.7%	8.0%	1.8%	1.3%	1.4%	0.9%	0.9%	0.9%	0.8%	0.7%	0.5%	0.5%	0.3%	0.3%	0.3%	0.2%	0.2%	1.2%

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

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

Appendix A
Page 3

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	405,319	615,533	658,303	716,149	753,179	744,414	746,126	745,968	745,968	746,550	746,550	746,507	746,507	757,007	770,294	770,294	786,281	786,281	786,281
7/1/2004	433,092	596,068	636,433	655,098	654,707	654,721	654,029	655,980	621,775	621,775	621,775	621,775	621,775	621,971	621,971	621,971	621,971	621,971	621,971
7/1/2005	218,697	565,416	613,104	665,312	642,903	643,810	643,968	643,968	648,952	649,576	649,576	649,576	649,576	649,576	649,576	649,576	649,576	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	607,316
7/1/2007	591,135	736,617	771,326	696,254	661,761	655,981	699,833	718,703	744,997	732,151	728,026	737,820	737,820	811,227	811,227	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	665,025	665,343	674,485	674,485	675,237	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	1,306,294	1,305,417	1,305,287	1,305,287	1,305,287	1,305,287	1,305,287	1,305,287	1,305,287
7/1/2010	846,987	997,056	971,294	962,028	966,774	968,032	966,782	966,822	966,822	966,822	966,822	966,822	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	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313
7/1/2012	549,779	982,837	971,678	888,485	986,927	1,038,675	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	1,069,226
7/1/2013	1,110,080	1,536,783	1,478,594	1,480,078	1,491,735	1,486,217	1,479,586	1,483,450	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818
7/1/2014	1,041,527	1,020,543	1,008,810	997,553	990,329	990,329	990,329	990,329	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	1,090,362	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	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	1,264,190
7/1/2017	1,202,169	1,232,355	1,249,200	1,148,254	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518
7/1/2018	812,003	1,079,028	1,080,187	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690
7/1/2019	859,380	1,040,193	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624
7/1/2020	1,334,418	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718
7/1/2021	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644
Accident Period Beginning	12 to 24	24 to 36	36 to 48	48 to 60	60 to 72	72 to 84	84 to 96	96 to 108	108 to 120	120 to 132	132 to 144	144 to 156	156 to 168	168 to 180	180 to 192	192 to 204	204 to 216	216 to 228	228 to Ult
7/1/2003	1.519	1.069	1.088	1.052	0.988	1.002	1.000	1.000	1.001	1.000	1.000	1.000	1.014	1.018	1.000	1.021	1.000	1.000	1.000
7/1/2004	1.376	1.068	1.029	0.999	1.000	0.999	1.003	0.948	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2005	2.585	1.084	1.085	0.966	1.001	1.000	1.000	1.008	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2006	1.601	1.064	1.029	0.983	0.999	1.004	0.983	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2007	1.246	1.047	0.903	0.950	0.991	1.067	1.027	1.037	0.983	0.994	1.013	1.000	1.099	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2008	1.147	0.941	0.983	0.999	1.035	1.000	1.000	1.000	1.000	1.014	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2009	1.145	0.952	0.971	1.000	0.998	1.004	1.020	1.000	1.000	1.000	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2010	1.177	0.974	0.990	1.005	1.001	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2011	1.040	0.994	1.011	0.995	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2012	1.788	0.989	0.914	1.111	1.052	1.003	1.026	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2013	1.384	0.962	1.001	1.008	0.996	0.996	1.003	1.009	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	0.980	0.989	0.989	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	1.486	0.990	1.003	1.029	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	1.359	1.006	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	1.000
7/1/2017	1.025	0.933	0.999	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	1.329	1.001	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	1.000	1.000	1.000	1.000
7/1/2019	1.210	1.042	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	1.030	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	1.000
Average	1.357	1.006	1.000	1.006	1.005	1.006	1.005	1.000	0.998	1.001	1.002	1.000	1.019	1.004	1.000	1.007	1.000	1.000	1.000
Wtd Avg	1.250	0.996	0.996	1.008	1.004	1.004	1.006	1.001	0.999	1.001	1.001	1.000	1.021	1.004	1.000	1.008	1.000	1.000	1.000
5 Yr Avg	1.191	0.994	0.999	1.007	1.010	1.000	1.006	1.002	1.000	1.002	1.003	1.000	1.020	1.000	1.000	1.000	1.000	1.000	1.000
3 Yr Avg	1.190	0.992	1.001	1.012	1.000	0.999	1.009	1.003	1.000	1.000	1.000	1.000	1.033	1.000	1.000	1.000	1.000	1.000	1.000
Prior	1.275	1.020	1.010	1.005	1.005	1.003	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
Industry	1.243	1.059	1.026	1.008	1.004	1.003	1.002	1.001	1.001	1.001	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000
Selected	1.250	1.020	1.010	1.005	1.005	1.003	1.001	1.001	1.001	1.001	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000
Ultimate	1.314	1.051	1.031	1.020	1.015	1.010	1.007	1.006	1.005	1.004	1.003	1.003	1.002	1.002	1.001	1.001	1.001	1.001	1.000
Pattern	76.1%	19.0%	1.9%	1.0%	0.5%	0.5%	0.3%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%

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

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

Appendix A
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Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	143	150	149	149	149	149	149	149	151	149	149	149	149	149	149	149	149	149	149
7/1/2004	135	141	142	142	142	142	143	143	143	143	143	143	143	143	143	143	143	143	143
7/1/2005	120	147	147	147	147	147	155	147	147	147	147	147	147	147	147	147	147	147	147
7/1/2006	104	135	135	135	135	139	135	135	135	135	135	135	135	135	135	135	135	135	135
7/1/2007	154	159	160	160	167	160	160	160	161	161	161	161	161	161	161	161	161	161	161
7/1/2008	164	165	166	177	165	165	165	165	165	164	165	165	165	165	165	165	165	165	165
7/1/2009	140	144	147	144	144	144	144	143	142	142	142	142	142	142	142	142	142	142	142
7/1/2010	148	161	153	153	153	154	153	153	153	153	153	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	161
7/1/2012	128	133	134	135	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	154
7/1/2014	138	140	142	143	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	153
7/1/2016	125	131	132	133	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	149
7/1/2018	145	159	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158
7/1/2019	126	147	148	148	148	148	148	148	148	148	148	148	148	148	148	148	148	148	148
7/1/2020	128	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134
7/1/2021	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
Accident Period Beginning	12 to 24	24 to 36	36 to 48	48 to 60	60 to 72	72 to 84	84 to 96	96 to 108	108 to 120	120 to 132	132 to 144	144 to 156	156 to 168	168 to 180	180 to 192	192 to 204	204 to 216	216 to 228	228 to Ult
7/1/2003	1.049	0.993	1.000	1.000	1.000	1.000	1.000	1.013	0.987	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2004	1.044	1.007	1.000	1.000	1.000	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2005	1.225	1.000	1.000	1.000	1.000	1.054	0.948	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2006	1.298	1.000	1.000	1.000	1.030	0.971	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2007	1.032	1.006	1.000	1.044	0.958	1.000	1.000	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2008	1.006	1.006	1.066	0.932	1.000	1.000	1.000	1.000	0.994	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2009	1.029	1.021	0.980	1.000	1.000	1.000	0.993	0.993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2010	1.088	0.950	1.000	1.000	1.007	0.994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2011	0.964	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2012	1.039	1.008	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2013	1.055	1.000	1.000	1.000	1.000	1.000	1.000	1.000	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	1.014	1.014	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
7/1/2015	1.117	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	1.000
7/1/2016	1.048	1.008	1.008	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	1.034	1.000	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
7/1/2018	1.097	0.994	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	1.167	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	1.000
7/1/2020	1.047	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	1.000
Average	1.075	1.001	1.004	0.998	1.000	1.002	0.995	1.001	0.998	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Avg	1.069	1.000	1.004	0.998	0.999	1.002	0.995	1.001	0.998	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 Yr Avg	1.079	1.002	1.002	1.000	1.000	1.000	1.000	0.999	0.999	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 Yr Avg	1.103	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Prior	1.090	1.003	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	1.090	1.003	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Ultimate	1.095	1.005	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Pattern	91.3%	8.2%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

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

Appendix A
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Accident Period	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
Beginning																			
7/1/2003	247,026	565,212	621,763	661,178	715,176	720,556	722,269	722,205	722,300	725,697	725,697	725,655	725,655	725,875	739,755	749,083	774,870	775,091	775,127
7/1/2004	276,397	536,761	577,418	592,457	605,379	609,033	616,357	621,775	621,775	621,775	621,775	621,775	621,775	621,971	621,971	621,971	621,971	621,971	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	649,576
7/1/2006	209,267	464,091	531,181	552,186	552,895	584,800	585,106	578,421	581,840	581,848	582,063	582,071	582,176	587,789	587,801	588,244	588,244	588,244	588,244
7/1/2007	351,283	616,773	702,322	645,614	595,827	595,827	597,997	636,245	658,716	673,524	679,204	686,940	691,745	695,966	750,292				
7/1/2008	321,961	608,696	622,878	618,457	611,609	627,188	643,015	643,023	644,726	645,027	674,485	674,560	675,237	675,237					
7/1/2009	807,943	1,268,270	1,274,279	1,258,475	1,269,316	1,268,437	1,268,781	1,299,694	1,301,130	1,299,762	1,300,357	1,299,626	1,299,626	1,299,626					
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					
7/1/2011	656,562	1,042,286	1,107,176	1,140,809	1,152,179	1,153,721	1,157,939	1,158,827	1,159,929	1,160,847	1,160,847								
7/1/2012	308,364	737,253	852,237	861,204	899,282	997,688	1,097,066	1,069,226	1,069,226	1,069,226									
7/1/2013	515,792	1,169,619	1,422,414	1,433,603	1,478,801	1,479,343	1,479,586	1,482,601	1,493,243										
7/1/2014	557,797	927,794	988,164	988,803	990,329	990,329	990,329	990,329											
7/1/2015	418,716	903,262	998,672	999,797	1,034,850	1,040,344	1,040,350												
7/1/2016	496,863	992,965	1,205,210	1,264,190	1,264,190	1,264,190													
7/1/2017	603,228	1,112,325	1,098,076	1,098,692	1,108,047														
7/1/2018	517,966	832,096	947,621	994,592															
7/1/2019	513,953	927,549	970,464																
7/1/2020	589,321	1,148,306																	
7/1/2021	593,767																		

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

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

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Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	405,319	615,533	658,303	716,149	753,179	744,414	746,126	745,968	745,968	746,550	746,550	746,507	746,507	757,007	770,294	770,294	786,281	786,281	786,281
7/1/2004	433,092	596,068	636,433	655,098	654,707	654,721	654,029	655,980	621,775	621,775	621,775	621,775	621,775	621,971	621,971	621,971	621,971	621,971	621,971
7/1/2005	218,697	565,416	613,104	665,312	642,903	643,810	643,968	643,968	648,952	649,576	649,576	649,576	649,576	649,576	649,576	649,576	649,576	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	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	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	665,025	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	1,305,964	1,306,294	1,305,417	1,305,287	1,305,287	1,305,287	1,305,287	1,305,287	1,305,287	1,305,287
7/1/2010	846,987	997,056	971,294	962,028	966,774	968,032	966,782	966,822	966,822	966,822	966,822	966,822	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	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313
7/1/2012	549,779	982,837	971,678	888,485	986,927	1,038,675	1,042,245	1,069,226	1,069,226	1,069,226	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	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818
7/1/2014	1,041,527	1,020,543	1,008,810	997,553	990,329	990,329	990,329	990,329	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	1,090,362	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	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	1,264,190
7/1/2017	1,202,169	1,232,355	1,149,200	1,148,254	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518
7/1/2018	812,003	1,079,028	1,080,187	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690
7/1/2019	859,380	1,040,193	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624
7/1/2020	1,334,418	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718
7/1/2021	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	0.515	0.783	0.837	0.911	0.958	0.947	0.949	0.949	0.949	0.949	0.949	0.949	0.949	0.963	0.980	0.980	1.000	1.000	1.000
7/1/2004	0.696	0.958	1.023	1.053	1.053	1.053	1.052	1.055	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2005	0.337	0.870	0.944	1.024	0.990	0.991	0.991	0.991	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	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	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	0.909	0.909	0.909	0.909	0.909	0.909
7/1/2008	0.898	1.030	0.970	0.953	0.952	0.985	0.985	0.985	0.985	0.985	0.999	0.999	0.999	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2009	0.923	1.057	1.006	0.976	0.976	0.974	0.978	0.997	0.997	0.997	0.997	0.997	0.997	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	0.996	0.996	0.996	0.996	0.996	0.996
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	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	1.000
7/1/2013	0.738	1.021	0.982	0.983	0.991	0.988	0.983	0.986	0.995	0.995	0.995	0.995	0.995	0.995	0.995	0.995	0.995	0.995	0.995
7/1/2014	1.052	1.031	1.019	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
7/1/2015	0.659	0.979	0.969	0.972	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	0.728	0.989	0.995	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	1.019	1.044	0.974	0.973	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980
7/1/2018	0.736	0.977	0.978	0.977	0.977	0.977	0.977	0.977	0.977	0.977	0.977	0.977	0.977	0.977	0.977	0.977	0.977	0.977	0.977
7/1/2019	0.767	0.928	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	0.967	0.967	0.967
7/1/2020	0.930	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958
7/1/2021	0.774	0.774	0.774	0.774	0.774	0.774	0.774	0.774	0.774	0.774	0.774	0.774	0.774	0.774	0.774	0.774	0.774	0.774	0.774

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

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

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

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

Appendix A
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Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	405,319	615,533	658,303	716,149	753,179	744,414	746,126	745,968	745,968	746,550	746,550	746,507	746,507	757,007	770,294	770,294	786,281	786,281	786,281
7/1/2004	433,092	596,068	636,433	655,098	654,707	654,721	654,029	655,980	621,775	621,775	621,775	621,775	621,775	621,971	621,971	621,971	621,971	621,971	621,971
7/1/2005	218,697	565,416	613,104	665,312	642,903	643,810	643,968	643,968	648,952	649,576	649,576	649,576	649,576	649,576	649,576	649,576	649,576	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	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	737,820	737,820	737,820	737,820	737,820	737,820
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	665,343	674,485	674,485	674,560	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	1,306,294	1,305,417	1,305,287	1,305,287	1,305,287	1,305,287	1,305,287	1,305,287	1,305,287
7/1/2010	846,987	997,056	971,294	962,028	966,774	968,032	966,782	966,822	966,822	966,822	966,822	966,822	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	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313	1,164,313
7/1/2012	549,779	982,837	971,678	888,485	986,927	1,038,675	1,042,245	1,069,226	1,069,226	1,069,226	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	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818	1,496,818
7/1/2014	1,041,527	1,020,543	1,008,810	997,553	990,329	990,329	990,329	990,329	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	1,090,362	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	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	1,264,190
7/1/2017	1,202,169	1,232,355	1,149,200	1,148,254	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518	1,156,518
7/1/2018	812,003	1,079,028	1,080,187	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690	1,078,690
7/1/2019	859,380	1,040,193	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624	1,083,624
7/1/2020	1,334,418	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718	1,374,718
7/1/2021	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644	1,002,644

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	4.90	7.44	7.96	8.66	9.11	9.00	9.02	9.02	9.02	9.03	9.03	9.03	9.03	9.16	9.32	9.32	9.51	9.51	9.51
7/1/2004	5.11	7.04	7.52	7.74	7.73	7.73	7.72	7.75	7.84	7.34	7.34	7.34	7.34	7.35	7.35	7.35	7.35	7.35	7.35
7/1/2005	2.42	6.27	6.80	7.38	7.13	7.14	7.14	7.14	7.19	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20
7/1/2006	3.48	5.56	5.92	6.09	5.99	5.98	6.01	5.90	5.90	5.90	5.90	5.90	5.90	5.90	5.90	5.90	5.90	5.90	5.90
7/1/2007	5.29	6.59	6.90	6.23	5.92	5.87	6.26	6.43	6.67	6.55	6.52	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60
7/1/2008	5.03	5.76	5.43	5.33	5.33	5.51	5.51	5.51	5.51	5.51	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59
7/1/2009	10.09	11.56	11.00	10.67	10.67	10.65	10.69	10.90	10.90	10.90	10.90	10.90	10.90	10.90	10.90	10.90	10.90	10.90	10.90
7/1/2010	7.44	8.76	8.53	8.45	8.49	8.50	8.49	8.49	8.49	8.49	8.49	8.49	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	10.55	10.55	10.55	10.55	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	8.98
7/1/2013	9.62	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	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	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	8.55
7/1/2016	7.16	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	9.84
7/1/2017	9.01	9.23	8.61	8.60	8.66	8.66	8.66	8.66	8.66	8.66	8.66	8.66	8.66	8.66	8.66	8.66	8.66	8.66	8.66
7/1/2018	5.99	7.96	7.97	7.96	7.96	7.96	7.96	7.96	7.96	7.96	7.96	7.96	7.96	7.96	7.96	7.96	7.96	7.96	7.96
7/1/2019	6.28	7.60	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92
7/1/2020	9.53	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81
7/1/2021	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01

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

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Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	92	130	146	145	145	146	147	148	148	148	148	148	148	148	148	148	148	148	148
7/1/2004	76	138	139	139	140	140	141	141	143	143	143	143	143	143	143	143	143	143	143
7/1/2005	117	144	144	145	146	146	146	146	145	145	145	145	145	145	145	146	146	146	146
7/1/2006	93	124	129	132	133	132	133	133	133	133	134	134	134	134	134	134	134	134	134
7/1/2007	106	149	153	154	153	157	155	155	156	158	159	159	159	158	158	158	158	158	158
7/1/2008	116	155	159	158	162	161	161	161	161	161	163	163	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	139
7/1/2010	101	132	149	151	151	151	151	151	151	151	152	152	152	152	152	152	152	152	152
7/1/2011	93	142	152	153	155	156	156	156	157	157	158	158	158	158	158	158	158	158	158
7/1/2012	71	108	119	129	129	129	130	131	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	149
7/1/2014	62	122	132	140	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141
7/1/2015	63	139	148	147	148	149	149	149	149	149	149	149	149	149	149	149	149	149	149
7/1/2016	56	108	123	126	128	131	131	131	131	131	131	131	131	131	131	131	131	131	131
7/1/2017	95	129	141	144	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
7/1/2018	94	137	144	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151
7/1/2019	79	124	136	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144
7/1/2020	73	116	136	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144
7/1/2021	84	116	136	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	228
7/1/2003	0.617	0.872	0.980	0.973	0.973	0.980	0.987	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993
7/1/2004	0.531	0.965	0.972	0.972	0.979	0.979	0.986	0.986	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2005	0.796	0.980	0.980	0.986	0.993	0.993	0.993	0.993	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986
7/1/2006	0.689	0.919	0.956	0.978	0.985	0.978	0.985	0.985	0.985	0.985	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993	0.993
7/1/2007	0.658	0.925	0.950	0.957	0.950	0.975	0.963	0.963	0.969	0.981	0.988	0.988	0.988	0.988	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	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	0.972	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	0.987
7/1/2011	0.578	0.882	0.944	0.950	0.963	0.969	0.969	0.969	0.975	0.975	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	0.963	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
7/1/2013	0.403	0.727	0.903	0.942	0.955	0.961	0.968	0.968	0.968	0.968	0.968	0.968	0.968	0.968	0.968	0.968	0.968	0.968	0.968
7/1/2014	0.434	0.853	0.923	0.979	0.986	0.986	0.986	0.986	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	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974
7/1/2016	0.421	0.812	0.925	0.947	0.962	0.985	0.985	0.985	0.985	0.985	0.985	0.985	0.985	0.985	0.985	0.985	0.985	0.985	0.985
7/1/2017	0.638	0.866	0.946	0.966	0.973	0.973	0.973	0.973	0.973	0.973	0.973	0.973	0.973	0.973	0.973	0.973	0.973	0.973	0.973
7/1/2018	0.595	0.867	0.911	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	0.956
7/1/2019	0.534	0.838	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919
7/1/2020	0.541	0.859	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919
7/1/2021	0.667	0.859	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919	0.919

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

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Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	143	150	149	149	149	149	149	149	151	149	149	149	149	149	149	149	149	149	149
7/1/2004	135	141	142	142	142	142	143	143	143	143	143	143	143	143	143	143	143	143	143
7/1/2005	120	147	147	147	147	147	155	147	147	147	147	147	147	147	147	147	147	147	147
7/1/2006	104	135	135	135	135	139	135	135	135	135	135	135	135	135	135	135	135	135	135
7/1/2007	154	159	160	160	167	160	160	160	161	161	161	161	161	161	161	161	161	161	161
7/1/2008	164	165	166	177	165	165	165	165	165	164	165	165	165	165	165	165	165	165	165
7/1/2009	140	144	147	144	144	144	144	143	142	142	142	142	142	142	142	142	142	142	142
7/1/2010	148	161	153	153	153	154	153	153	153	153	153	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	161
7/1/2012	128	133	134	135	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	154
7/1/2014	138	140	142	143	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	153
7/1/2016	125	131	132	133	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	149
7/1/2018	145	159	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158
7/1/2019	126	147	148	148	148	148	148	148	148	148	148	148	148	148	148	148	148	148	148
7/1/2020	128	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134
7/1/2021	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	0.960	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.013	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2004	0.944	0.986	0.993	0.993	0.993	0.993	0.993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2005	0.816	1.000	1.000	1.000	1.000	1.000	1.054	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2006	0.770	1.000	1.000	1.000	1.000	1.030	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2007	0.957	0.988	0.994	0.994	1.037	0.994	0.994	0.994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2008	0.994	1.000	1.006	1.073	1.000	1.000	1.000	1.000	1.000	0.994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2009	0.986	1.014	1.035	1.014	1.014	1.014	1.014	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7/1/2010	0.967	1.052	1.000	1.000	1.000	1.007	1.000	1.000	1.000	1.000	1.000	1.000	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	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	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	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	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	1.000
7/1/2016	0.940	0.985	0.992	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	1.000
7/1/2018	0.918	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	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	1.000
7/1/2020	0.948	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	1.000
7/1/2021	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913	0.913

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

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

Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	1.729	1.814	1.802	1.802	1.802	1.802	1.802	1.802	1.826	1.802	1.802	1.802	1.802	1.802	1.802	1.802	1.802	1.802	1.802
7/1/2004	1.594	1.665	1.677	1.677	1.677	1.677	1.689	1.689	1.689	1.689	1.689	1.689	1.689	1.689	1.689	1.689	1.689	1.689	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	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	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	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	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	1.185
7/1/2010	1.300	1.414	1.344	1.344	1.344	1.353	1.344	1.344	1.344	1.344	1.344	1.344	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	1.458
7/1/2012	1.075	1.117	1.125	1.134	1.134	1.134	1.134	1.134	1.134	1.134	1.134	1.134	1.134	1.134	1.134	1.134	1.134	1.134	1.134
7/1/2013	1.266	1.335	1.335	1.335	1.335	1.335	1.335	1.335	1.335	1.335	1.335	1.335	1.335	1.335	1.335	1.335	1.335	1.335	1.335
7/1/2014	1.155	1.171	1.188	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196
7/1/2015	1.074	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200
7/1/2016	0.973	1.020	1.028	1.035	1.035	1.035	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
7/1/2017	1.085	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	1.116
7/1/2018	1.070	1.173	1.165	1.165	1.165	1.165	1.165	1.165	1.165	1.165	1.165	1.165	1.165	1.165	1.165	1.165	1.165	1.165	1.165
7/1/2019	0.921	1.075	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082
7/1/2020	0.914	0.957	0.957	0.957	0.957	0.957	0.957	0.957	0.957	0.957	0.957	0.957	0.957	0.957	0.957	0.957	0.957	0.957	0.957
7/1/2021	0.805	0.805	0.805	0.805	0.805	0.805	0.805	0.805	0.805	0.805	0.805	0.805	0.805	0.805	0.805	0.805	0.805	0.805	0.805

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

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

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

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

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

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

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

Appendix A
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Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	2,834	4,104	4,418	4,806	5,055	4,996	5,008	5,006	4,940	5,010	5,010	5,010	5,010	5,081	5,170	5,170	5,277	5,277	5,277
7/1/2004	3,208	4,227	4,482	4,613	4,611	4,611	4,574	4,587	4,348	4,348	4,348	4,348	4,348	4,349	4,349	4,349	4,349	4,349	4,349
7/1/2005	1,822	3,846	4,171	4,526	4,373	4,380	4,155	4,381	4,415	4,419	4,419	4,419	4,419	4,419	4,419	4,419	4,419	4,419	4,419
7/1/2006	3,438	4,240	4,512	4,642	4,564	4,427	4,578	4,498	4,499	4,499	4,499	4,499	4,499	4,499	4,499	4,499	4,499	4,499	4,499
7/1/2007	3,839	4,633	4,821	4,352	3,963	4,100	4,374	4,492	4,627	4,548	4,522	4,583	4,583	5,039	5,039	5,039	5,039	5,039	5,039
7/1/2008	3,697	4,216	3,944	3,635	3,895	4,030	4,030	4,030	4,030	4,057	4,088	4,088	4,088	4,092	4,092	4,092	4,092	4,092	4,092
7/1/2009	8,637	9,614	8,961	8,880	8,877	8,856	8,893	9,133	9,198	9,197	9,199	9,193	9,192	9,193	9,193	9,193	9,193	9,193	9,193
7/1/2010	5,723	6,193	6,348	6,288	6,319	6,286	6,319	6,319	6,319	6,319	6,319	6,319	6,319	6,319	6,319	6,319	6,319	6,319	6,319
7/1/2011	6,665	7,193	7,153	7,233	7,197	7,230	7,230	7,230	7,232	7,232	7,232	7,232	7,232	7,232	7,232	7,232	7,232	7,232	7,232
7/1/2012	4,295	7,390	7,251	6,581	7,311	7,694	7,720	7,720	7,920	7,920	7,920	7,920	7,920	7,920	7,920	7,920	7,920	7,920	7,920
7/1/2013	7,603	9,979	9,601	9,611	9,687	9,651	9,608	9,633	9,720	9,633	9,633	9,633	9,633	9,633	9,633	9,633	9,633	9,633	9,633
7/1/2014	7,547	7,290	7,104	6,976	6,925	6,925	6,925	6,925	6,925	6,925	6,925	6,925	6,925	6,925	6,925	6,925	6,925	6,925	6,925
7/1/2015	5,243	6,975	6,904	6,928	7,127	7,127	7,127	7,127	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	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505	9,505
7/1/2017	8,291	8,216	7,661	7,706	7,762	7,762	7,762	7,762	7,762	7,762	7,762	7,762	7,762	7,762	7,762	7,762	7,762	7,762	7,762
7/1/2018	5,600	6,786	6,837	6,827	6,827	6,827	6,827	6,827	6,827	6,827	6,827	6,827	6,827	6,827	6,827	6,827	6,827	6,827	6,827
7/1/2019	6,820	7,076	7,322	7,322	7,322	7,322	7,322	7,322	7,322	7,322	7,322	7,322	7,322	7,322	7,322	7,322	7,322	7,322	7,322
7/1/2020	10,425	10,258	10,258	10,258	10,258	10,258	10,258	10,258	10,258	10,258	10,258	10,258	10,258	10,258	10,258	10,258	10,258	10,258	10,258
7/1/2021	8,719	8,719	8,719	8,719	8,719	8,719	8,719	8,719	8,719	8,719	8,719	8,719	8,719	8,719	8,719	8,719	8,719	8,719	8,719

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

Appendix A
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Accident Period Beginning	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228
7/1/2003	3,104	2,516	12,180	13,743	9,501	7,953	11,929	23,763	7,889	20,852	20,852	20,852	20,852	31,133	30,539	21,211	11,412	11,190	11,155
7/1/2004	2,656	19,769	19,672	20,880	24,664	22,844	18,836	17,103											
7/1/2005	5,987	19,817	20,166	35,285	39,231	29,166	2,417	14,581	4,376	0	0	0	0	0	0	0	0		
7/1/2006	13,482	9,842	12,994	24,840	31,607	4,369	16,464	14,422	12,734	25,254	25,246	25,140	19,527	19,515	19,072				
7/1/2007	4,997	11,984	9,858	8,440	4,710	20,051	20,367	16,492	17,256	19,542	24,411	25,440	23,037	38,420	20,312				
7/1/2008	5,925	8,691	4,542	1,313	10,336	9,459	5,502	5,500	5,075	6,772	0	0	0	0	0				
7/1/2009	10,844	6,453	2,049	4,056	1,486	1,716	2,354	1,270	1,650	1,551	1,979	1,931	1,921						
7/1/2010	3,827	2,213	4,424	2,811	0	417	0	0	0	0	0	0	0						
7/1/2011	6,168	6,093	4,944	2,961	1,095	2,054	1,211	1,093	1,094	867	1,155								
7/1/2012	4,235	9,823	7,963	4,547	14,607	6,831	1,036	0	0	0									
7/1/2013	7,075	8,742	3,745	5,164	1,848	1,146	0	170	715										
7/1/2014	6,365	5,153	2,065	2,917	0	0	0	0											
7/1/2015	4,049	11,713	11,537	10,037	11,102	12,504	12,504												
7/1/2016	6,130	11,166	5,801	0	0	0													
7/1/2017	11,979	5,716	5,680	9,912	12,118														
7/1/2018	5,765	11,224	9,469	12,014															
7/1/2019	7,350	4,898	9,430																
7/1/2020	13,547	12,578																	
7/1/2021	13,190																		

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

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

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

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

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

Appendix B
Page 1

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

Notes:

(1) *assumed 2.5% annual severity trend*

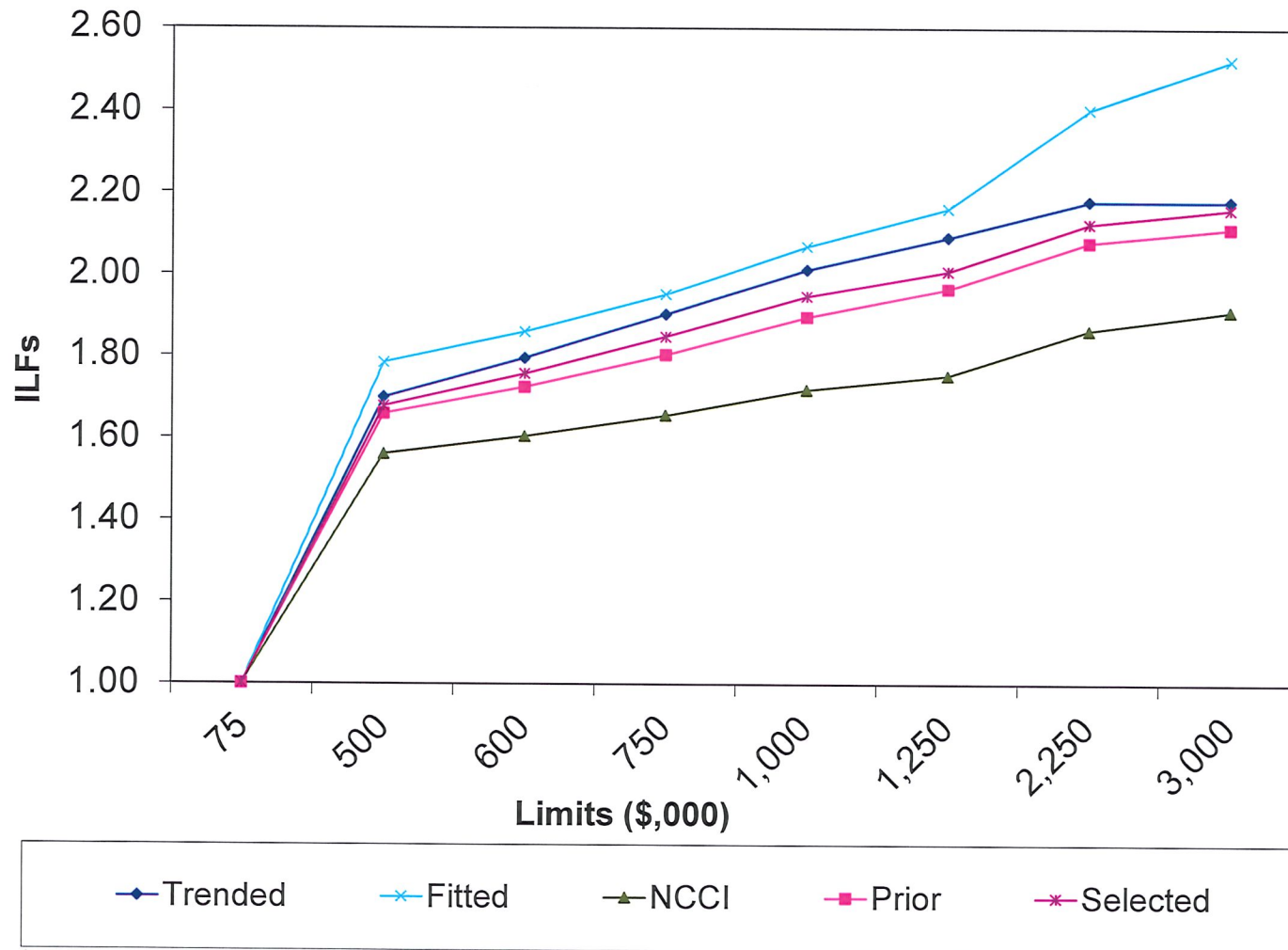
(2) *fitted using a logarithmic distribution*

(3) *NCCI = National Council on Compensation Insurance*

(4) *from previous Oliver Wyman study*

(5) *selected*

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



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

Appendix C
Page 1

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

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

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

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

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

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

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

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

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

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

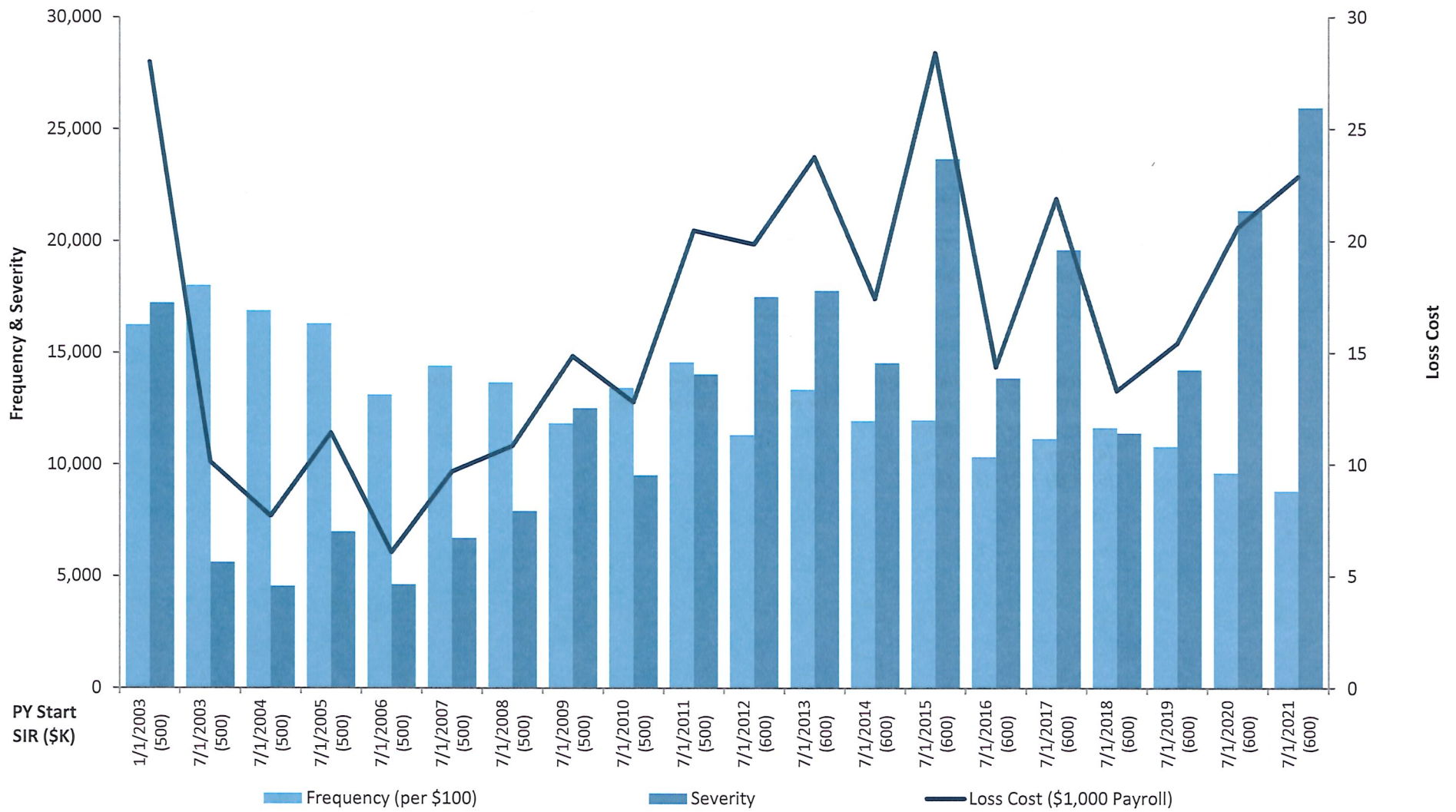
Appendix D

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

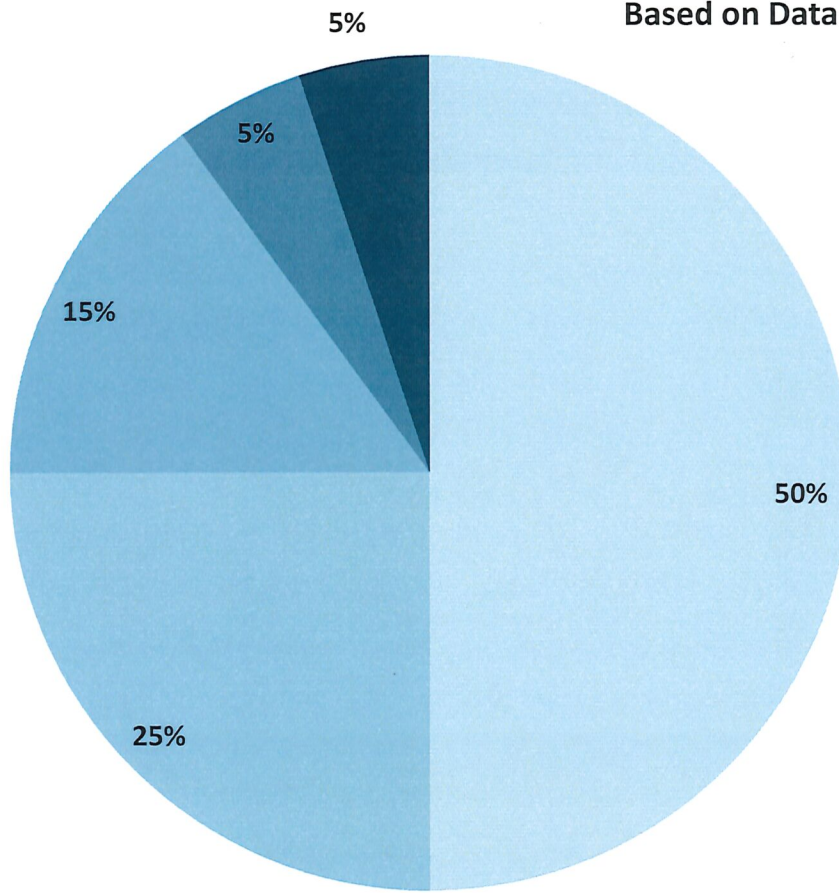
Notes:

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

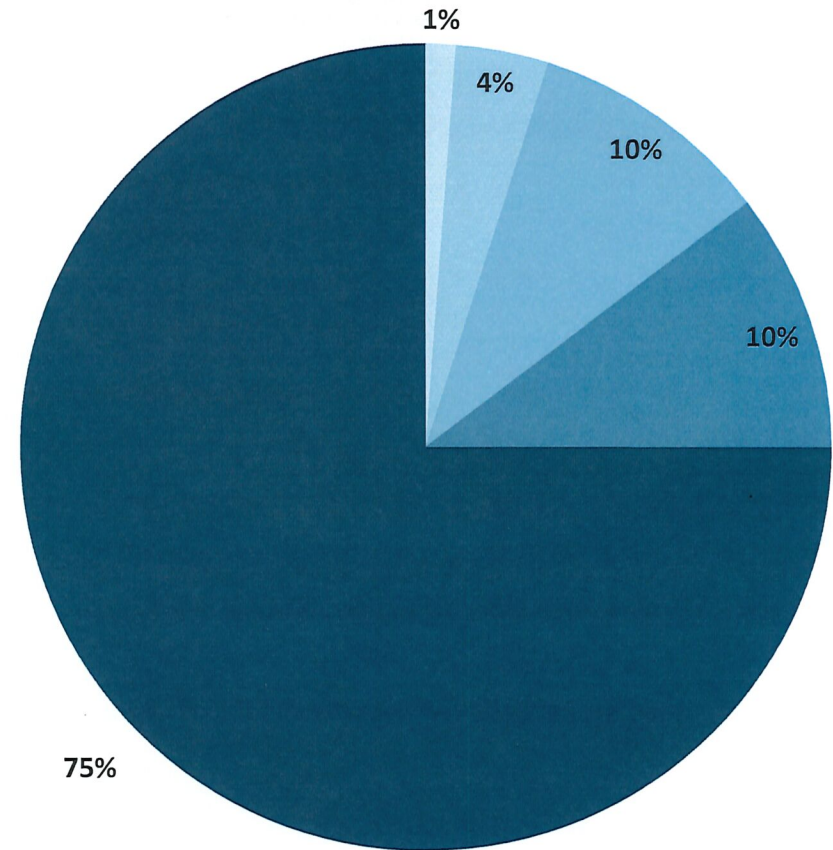
City of Chandler
Workers' Compensation
Ultimate Frequency, Severity & Loss Cost @ SIR
Based on Data as of June 30, 2022



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



Reported Count Distribution



Unlimited Incurred Dollar Distribution

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



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