

Town of Wellesley

**Workers Compensation
Loss and ALAE Analysis
as of June 30, 2020**

October 12, 2020

October 12, 2020

Mr. Marc Waldman
Treasurer
Town of Wellesley
525 Washington St.
Wellesley, MA 02481

Dear Marc:

Attached is our report regarding the Town of Wellesley's (Wellesley's) workers compensation self-insured unpaid loss and allocated loss adjustment expense as of June 30, 2020. We also include estimated ultimate loss amounts for accident periods July 1, 2020-2021 and July 1, 2021-2022.

This report replaces and supersedes the draft report that was issued on October 6, 2020.

Attention is called to the section of the report entitled *Distribution*, which sets out the limits on distribution of the final report.

This report contains workpapers, trade secrets, and confidential information of both Wellesley and Willis Towers Watson, and as such, it is not intended to be subject to disclosure requirements under any Freedom of Information Act or similar laws.

I, Christina L. Centofanti, am a member of the American Academy of Actuaries and meet its qualification standards to render the actuarial opinion contained herein.

Please contact me if you have any questions.

Sincerely,



Christina L. Centofanti, FCAS, MAAA
617.638.3986

Attachment

cc: Jim Swanke – Wills Towers Watson

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Purpose and Scope

Willis Towers Watson was retained by the Town of Wellesley (Wellesley or the Town) to prepare an actuarial analysis of Wellesley's loss and allocated loss adjustment expense (ALAE) experience for the purpose of estimating unpaid loss and ALAE as of June 30, 2020 and June 30, 2021. We also provide projections of ultimate loss and ALAE for the July 1, 2020-2021 (2020/21) and July 1, 2021-2022 (2021/22) accident periods.

This report was prepared for the internal use of Wellesley management to present our findings with respect to this analysis. It is our understanding that Wellesley management will consider our findings for the purpose of establishing liability estimates for external financial reporting and internal management reporting.

Our report is not intended or necessarily suitable for any other purpose.

The exhibits attached in support of our conclusions are an integral part of this report. These sections have been prepared so that our actuarial assumptions and judgments are documented. Judgments about the analysis and findings presented in this report should be made only after considering the report in its entirety. Our projections are predicated on a number of assumptions as to future conditions and events. These assumptions are documented in subsequent sections of this report, and should be understood in order to place the actuarial estimates in their appropriate context. In addition, these projections are subject to a number of reliances and limitations, as described in subsequent sections of this report.

We are available to answer any questions that may arise regarding this report. We assume that the user of this report will seek such explanation on any matter in question.

In this report, we provide estimates of Wellesley's unpaid loss and ALAE as of June 30, 2020 and June 30, 2021 on several bases representing various intended measures. These include an actuarial central estimate, as well as estimates above the actuarial central estimate. The actuarial central estimate was arrived at through evaluation of the results of various actuarial methods and models applied to Wellesley's experience. As such, the derivation of this estimate does not reflect extreme events which are believed to have a remote possibility of occurring. The other higher estimates are intended to present measures of Wellesley's unpaid loss and ALAE that consider risk margins or outcomes that may be considered unlikely, but that are not remote. We consider the actuarial central estimate presented here suitable for use in financial reporting contexts. The unpaid losses at higher confidence levels may not be suitable for this purpose.

We also provide estimates of Wellesley's projected 2020/21 and 2021/22 ultimate losses on several bases representing various intended measures. These include an actuarial central estimate, as well as estimates both above and below the actuarial central estimate. The actuarial central estimate was described in the preceding paragraph. The range of estimates are intended to present measures of Wellesley's prospective loss and ALAE that consider outcomes that may be considered unlikely, but that are not remote. We consider the range of estimated prospective ultimate losses presented here suitable for use in financial reporting contexts.

For the purpose of our report, the “accounting date” of June 30, 2020 is the date used to separate paid and unpaid claim amounts. Transactions through the “valuation date” of August 31, 2020 are included in the data used in our analysis. No account whatsoever has been taken in the projections of developments or data received subsequent to the “review date” of October 5, 2020.

With the exception of coverage period 1/1/01-6/30/01, our analysis was performed net of excess insurance and net of anticipated future salvage and subrogation. Our estimate for the 1/1/01-6/30/01 period is on a gross basis as Wellesley does not believe that there will be any recovery for losses in excess of the aggregate retention for those periods. This is due to the fact that the Town’s former excess insurer, Legion Insurance Company (Legion), is in liquidation. We have assumed that all of the Town’s excess insurance for other coverage periods and all future salvage/subrogation or other recoveries will be valid and collectible.

All unpaid and prospective ultimate loss amounts are stated on both an undiscounted and discounted basis as regards future investment income.

We have not included in our estimate of unpaid loss and ALAE as of June 30, 2020 any provision for any expenses other than ALAE, such as the cost of excess reinsurance, actuarial and audit fees, risk management fees or in-house legal counsel fees. The ALAE amounts included in our unpaid loss and ALAE as of June 30, 2020 include only those categories of loss adjustment expenses (e.g., claims defense, cost containment) that are reflected in the historical ALAE data provided to us. In contrast, the *Findings* section of this report includes an estimate of the additional contribution for the 2021/22 fiscal year. This estimate does include provision for excess insurance, risk management, actuarial and audit fees.

Throughout this report, the use of the term loss without modification includes loss and ALAE but does not include unallocated loss adjustment expense (ULAE).

Material Assumptions Set by Wellesley

The findings in this report are materially influenced by certain assumptions selected by Wellesley, specifically: the 4% interest rate used for discounting, estimated operational expenses for 2021/22 and estimated exposure growth for 2020/21 and 2021/22. The interest rate assumption is based on Wellesley’s knowledge of its investment returns. The operational expense and exposure growth assumptions are based on Wellesley’s knowledge of its projected budget and personnel changes. Evaluating the reasonableness of these assumptions is outside the scope of this assignment.

Distribution

Our report is delivered under the following terms and conditions:

- This report is provided to Wellesley solely for the intended purpose, and may not be referenced or distributed to any other party without our prior written consent
- The report has been prepared for use by persons technically competent in the areas covered and with the necessary background information
- Draft versions of this report must not be relied upon by any person for any purpose
- A copy of the final version of this report may be shared with your external auditors solely in the context of their performing regular audit activities
- You shall not refer to us or include any portion of this report in any shareholder communication or in any offering materials or fairness opinion provided by your professional advisors prepared in connection with the public offering or private placement of any security
- This report may be shared with your affiliates, provided that you ensure that each such affiliate complies with the terms above and the applicable statement of work as if it were a party to them, and you remain responsible for such compliance

In addition, we understand that Wellesley may wish to provide copies of the final version of this report to its current or prospective excess insurers and brokers (the Recipients). Permission is hereby granted for such distribution on the conditions that:

- The report is distributed in its entirety
- Each Recipient agrees not to reference or distribute the report to any other party
- Each Recipient recognizes that the furnishing of this report is not a substitute for its own due diligence and agrees to place no reliance on this report or the data contained herein that would result in the creation of any duty or liability by Willis Towers Watson to such party
- Each Recipient understands that such RECIPIENT IS DEEMED TO HAVE ACCEPTED THESE TERMS AND CONDITIONS by retaining a copy of this report

We accept no responsibility for any consequences arising from any third party relying on this report. If we agree to provide this report to a third party, you are responsible for ensuring that the report is provided in its entirety, that the third party is made aware of the fact that they are not entitled to rely upon it, and that they may not distribute the report to any other party.

This report contains workpapers, trade secrets, and confidential information of both Wellesley and Willis Towers Watson. Because of the nature of the material contained in the report, it is not intended to be subject to disclosure requirements under any Freedom of Information Act or similar laws.

Background

Overview

Wellesley became self-insured on January 1, 1993 for its workers compensation exposures. Effective July 1, 1993, the program year changed from a January 1 to December 31 year to a July 1 to June 30 program year. As a result of this change, the program has a 6-month plan year from January 1, 1993 to June 30, 1993. In the past, Wellesley's self-insured retention (SIR) was on a calendar year basis. As of June 30, 2001, however, Wellesley's excess insurance is on a fiscal year basis, which coincides with the policy periods of its trust fund.

Changes in Operations

Based on discussions with Wellesley management, we are not aware of any recent changes in its claim, excess insurance or any other aspect of the Town's operation that would be expected to materially affect the methods or assumptions used in this analysis. Consequently, we have not made any adjustments to the data, methods, assumptions or parameters implied by the Town's historical data to account for such changes.

Excess Insurance

Wellesley's historical per occurrence and aggregate SIRs are as follows:

Period	Per Occurrence SIR	Aggregate SIR
1/1/93-12/31/97	Unlimited	N/A
1/1/98-99	Unlimited	\$470,880
1/1/99-00	Unlimited	\$410,293
1/1/00-01	\$200,000	\$412,123
1/1/01-6/30/01	\$200,000	\$206,000
7/1/01-6/30/02	\$250,000	\$424,779
7/1/02-6/30/03	\$300,000	\$995,000
7/1/03-6/30/04	\$350,000	\$870,148
7/1/04-6/30/05	\$350,000	\$999,914
7/1/05-6/30/06	\$400,000	\$1,000,812
7/1/06-6/30/07, 7/1/08-6/30/12	\$500,000	\$2,000,000
7/1/07-6/30/08	\$550,000	\$2,000,000
7/1/13-6/30/18	\$600,000	\$2,000,000
7/1/18-6/30/21	\$650,000	\$2,000,000

Terminology

Accident Year: Includes all claims that occurred during the “accident year,” e.g., accident year July 1, 2020 through June 30, 2021 would include all claims during that period, regardless of when they were reported.

Allocated Loss Adjustment Expense (ALAE): ALAE refers to defense, litigation and medical cost containment expenses, whether internal or external (e.g., attorney fees for defense, cost of engaging experts).

Case Reserves: The estimate of unpaid loss (or loss and ALAE) amounts established for unpaid claims that have been reported to Wellesley. Case reserves are established on an individual claim basis.

Exposure: The units in which the exposure to loss are measured. In Wellesley's case, exposures are defined as payroll.

Frequency: Claims per unit of exposure.

IBNR: Loss and/or ALAE for claims Incurred But Not Reported. In this report, we have used the term in its broader, more general sense, to represent development on outstanding case reserves (also referred to as supplemental or IBNER – Incurred But Not Enough Reported) and unreported claims (also referred to as “pure” IBNR or IBNYR – Incurred But Not Yet Reported).

Loss Adjustment Expense (LAE): The term LAE includes both allocated and unallocated loss adjustment expense. See definition of unallocated loss adjustment expense below.

Loss Development Factors: Factors used to project losses and/or ALAE to their ultimate value. These factors adjust actual losses to include IBNR and case reserve adequacy, or total unpaid amounts, to produce an estimate of total or ultimate loss (and/or ALAE).

Loss Reserves: A liability item on the balance sheet to provide for unpaid claims. It consists of two components – case reserves and IBNR reserves.

Paid Loss: The amount of money that has been paid to cover claims.

Pure Premium: Loss (or loss and ALAE) per unit of exposure.

Reported Loss: The total of paid loss and case reserves for known claims.

Severity: Average loss per claim.

Trend Factors: Factors used to adjust the past loss experience to the cost levels of the period being considered. Trend factors include the effects of inflation and may also include adjustment for anticipated changes in laws, technology and other factors which may be expected to affect loss frequency or severity.

Ultimate Loss: The total of reported loss and IBNR.

Unallocated Loss Adjustment Expense (ULAE): Those loss adjustment expenses not included within ALAE (e.g., fees of adjusters, attorney fees incurred in the determination of coverage).

Findings

Based on our analysis of Wellesley's experience at June 30, 2020 and August 31, 2020, and subject to the considerations set forth in the *Reliances and Limitations* section, we have reached the following conclusions.

Net Unpaid Loss and ALAE as of June 30, 2020

The table below details the estimated net unpaid loss and ALAE as of June 30, 2020.

NET UNPAID LOSS AND ALAE AS OF JUNE 30, 2020 (\$000s)		
Accident Year	Nominal	Discounted @ 4%
7/95*-6/14	\$0	\$0
2014/15	0	0
2015/16	4	4
2016/17	39	36
2017/18	21	19
2018/19	117	108
<u>2019/20</u>	<u>318</u>	<u>294</u>
Total	\$500	\$460

*1/1/93-6/30/95 not shown on exhibits, but have \$0 unpaid loss

Discounting of estimated unpaid loss and ALAE is based on the assumption that all investment income earned on the assets underlying the unpaid loss and ALAE liabilities is used to fund loss and ALAE payments as those become due.

These results are summarized on Exhibit 1, Sheet 1. We also calculated discounted unpaid loss and ALAE at 75% and 90% confidence levels as of June 30, 2020 to be \$580,000 and \$750,000, respectively. The 75% confidence level implies there is a 75% probability that Wellesley's discounted unpaid loss and ALAE will be less than \$580,000. Other results on Exhibit 1, Sheet 1 can be interpreted similarly.

Estimated Prospective Losses

We use our estimates of historical ultimate losses, adjusted for loss cost trend, benefit level changes and varying retentions, to project ultimate losses for the 2020/21 and 2021/22 accident years. In Exhibit 2, Sheet 1, we select a range of pure premiums, with a central estimate pure premium of \$0.475 per hundred dollars of payroll. This represents a 1.6% decrease from the trended, benefit level adjusted expected pure premium used in our previous analysis reflecting Wellesley's favorable loss emergence since our prior review. We multiply the selected pure premiums by the projected payroll for 2020/21 to provide a low, actuarial central estimate and high estimate of ultimate losses. The undiscounted, actuarial central estimate is \$469,000. This estimate is based on a \$650,000 retention.

We also calculate losses discounted at 4.0% and at higher confidence levels.

A similar approach is used for the 2021/22 accident year, based on a 4.0% trend in payroll, as advised by Wellesley, estimated pure premium trend, estimated benefit level adjustments and an assumed \$650,000 retention. Note that the low and high estimates do not represent best or worst case scenarios; results outside of this range are possible if not likely. As noted above, the 2020/21 and 2021/22 accident period estimates are highly dependent on Wellesley's exposure estimates.

Indicated Contribution for the July 1, 2021/22 Fiscal Year

The following table displays the total estimated operational expenses for fiscal year 2021/22, as provided by Wellesley:

TOWN OF WELLESLEY WORKERS COMPENSATION JULY 1, 2021/22 FISCAL YEAR ESTIMATED OPERATIONAL EXPENSES (\$000s)	
Operational Expenses	Undiscounted
Excess Insurance	\$115
Claims Handling	25
Audit/Actuarial/Legal	22
Miscellaneous/Clerical	<u>44</u>
Total Estimated Miscellaneous Costs	\$206

The following table provides a comparison of the total estimated unpaid loss and ALAE as of July 1, 2021 compared to the June 30, 2020 market value of Wellesley's workers compensation fund:

TOWN OF WELLESLEY WORKERS COMPENSATION ESTIMATED CONTRIBUTION FOR THE JULY 1, 2021/22 FISCAL YEAR (\$000s)				
Cost	75% Confidence Level		Expected Level	
	Undisc	Disc (4%)	Undisc	Disc (4%)
Estimated Unpaid Loss and ALAE	\$730	\$670	\$580	\$533
Loss and ALAE for 2021/22	611	566	485	449
Operational Expenses	206	206	206	206
Total	1,547	1,442	1,271	1,189
Market Value as of 6/30/20	<u>1,407</u>	<u>1,407</u>	<u>1,407</u>	<u>1,407</u>
Estimated (Excess)/Contribution	\$141	\$35	(\$136)	(\$218)

As seen in the table, the fund value as of June 30, 2020 of \$1,406,705 is approximately \$141,000 less than the total estimated undiscounted unpaid loss at a 75% confidence level as of June 30, 2021 plus losses and operational expenses for fiscal year 2021/22. The fund value is projected to be \$35,000 less than the unpaid loss as of June 30, 2021 plus the fiscal year 2021/22 expense on a discounted, 75% confidence level basis.

The estimated loss for 2021/22 is dependent on the estimated payroll for that period and the selected loss cost. The estimated payroll is based on the 2019/20 payroll, trended forward two years at 4.0% each year.

The estimated unpaid loss and ALAE as of June 30, 2020 and June 30, 2021 can be found on Exhibit 1, Sheet 1. The expected losses and contingency margin for fiscal years 2020/21 and 2021/22 can be found on Exhibit 2, Sheet 1.

Comparison of Estimated Ultimate Loss and ALAE for 7/1/95 through 6/30/20

A comparison of current and prior estimates of ultimate loss and ALAE is shown in the following table.

COMPARISON OF ESTIMATED ULTIMATE LOSS AND ALAE PRIOR TO AGGREGATE (\$000s)			
Accident Year	Valuation		Percentage Difference
	2019	2020	
7/95-6/14	\$5,565	\$5,556	0%
2014/15	95	93	-2%
2015/16	68	66	-3%
2016/17	490	535	9%
2017/18	130	80	-35%
2018/19	430	360	-16%
2019/20*	456	370	-19%
Total	\$7,234	\$7,066	-2%

*Adjusted for updated payroll.

Note that the 1/1/93-6/30/95 periods are not shown on the exhibits since they are closed.

Overall, Wellesley's workers compensation ultimate losses decreased 2% compared to last year. This is due primarily to an increase in the 2016/17 accident year, offset by improvement in the 2017/18 through 2019/20 accident years. The increase in the 2016/17 accident period was due to greater than expected development on a large claim, however all claims for that period are now closed. We note the estimate for 2019/20 was, to some extent, impacted by a lower level of payroll than anticipated by Wellesley in our prior analysis.

Estimated Loss Payout Projection

Exhibit 1, Sheet 2 displays the projected expected payments (by accident period, by fiscal year) for Wellesley's workers compensation unpaid loss and ALAE as of June 30, 2020. Of the indicated \$500,000 of unpaid loss as of June 30, 2020 (i.e., excluding accident year 2020/21), \$220,000 (44%) is expected to be paid in the 2020/21 fiscal year and \$280,000 (56%) is expected to be paid thereafter.

Summary Statistics

Exhibit 2, Sheet 2 shows estimated claim frequencies (ultimate claims relative to \$1,000 of payroll) and estimated claim severities limited to historical retentions (average cost per claim). We also calculate benefit level-adjusted, trended severities assuming a 0% annual trend rate. Key observations are as follows:

Claim Frequency – As we observed last year, there was an increase in frequency for the 2018/19 accident year; however, the 2019/20 frequency is more in line with prior years.

Claim Severity – Claim severity has been volatile. This is due primarily to the relatively large retention levels as compared to Wellesley's annual volume of loss. Higher values are generally observed in periods where there is a claim worth \$100,000 or more (e.g., 2016/17), which comprise less than 1% of Wellesley's overall volume of claims.

Analysis

Our analysis consisted of the steps outlined below.

Development Patterns

Our projection of future claim reporting and payment is based on Wellesley's historical experience. Using historical loss development experience provided by Wellesley, we select report-to-report (RTR) development factors. In cases for which Wellesley's historical data is not sufficiently credible, stable, or mature, we have supplemented Wellesley's experience with benchmark workers compensation reporting and payment patterns for the state of Massachusetts.

The benchmark development patterns were constructed based on analysis of Massachusetts workers compensation data compiled by the National Council on Compensation Insurance (NCCI). These results were reviewed for consistency and reasonableness. Benchmark patterns were selected for each state. Using an interpolation routine, monthly patterns were calculated from annual values.

While each entity's own development can be expected to vary from the benchmark based on individual circumstances, we believe the benchmark is an appropriate supplement to the analysis of entity data, as it represents our current judgment as to the typical emergence of loss that can be expected for that class of business.

The selected development patterns are used for the development, Bornhuetter-Ferguson and case outstanding projection methods and the cash flow projection.

Initial Expected Losses

The selected initial expected losses (IELs) for accident periods through 7/1/2018-2019 (2018/19) are based on the selected ultimate losses from our prior analysis. The IEL for accident period 7/1/2019-2020 (2019/20) is based on the pure premium selected in our prior report and Wellesley's most recent 2019/20 payroll data.

Selected Ultimate Losses

In general, our selected ultimate losses are based on the results of five projection methods: the reported and paid development methods, the reported and paid Bornhuetter-Ferguson methods and the case outstanding method. Our selections are based on judgment reflecting the range of estimates produced by the methods and the strengths and weaknesses of each method. These methods are described in the final section of this report.

Trend/Benefit Levels

The first step in determining ultimate losses for the prospective year is to apply combined frequency and severity trend factors to estimate the impact on historical loss experience of the economic, judicial and social changes that affect loss costs over time. Historical losses are also adjusted to the benefit level expected for 2020/21 and 2021/22.

The pure premium trend assumption utilized in this analysis is 0%. This is based on consideration of Wellesley's data and the Massachusetts workers compensation industry trend selected by the Massachusetts Workers Compensation Rating and Inspection Bureau (WCRIBMA). Benefit changes are based on benefit level changes through October 1, 2019 as provided by NCCI and assumed annual benefit changes of 0.6% on October 1, 2020; October 1, 2020 and October 1, 2021, based on data from WCRIBMA.

Increased Limits/Size of Loss Distribution

Increased limit factors (ILFs) are used to project pure premiums at the historical retentions to the retention level for 2020/21 and 2021/22.

We do not believe that the data available for Wellesley's exposure is sufficient in size or maturity to draw any conclusions regarding expected costs at the retained limits under consideration. As such, we apply increased limits factors from the historical retained limits to adjust to the 2020/21 and 2021/22 limit. The industry increased limits relationships used are based on workers compensation industry aggregate loss distributions. We adjust the industry increased limits based on consideration of actual Wellesley experience.

Estimated Pure Premiums

We use our projections of ultimate losses to estimate historical pure premiums (losses per exposure unit). For workers compensation, we adjust these historical pure premiums to the accident year 2020/21 level by adjusting for loss cost trend, benefit level adjustments, and changes in retention.

Our accident year 2021/22 selected pure premium is based on a similar approach with the estimated historical loss costs adjusted to the accident year 2021/22 level.

Estimated Ultimate Losses for the 2020/21 and 2021/22 Accident Periods

We use our estimates of Wellesley's exposures and pure premium to derive estimated accident year 2020/21 losses. Estimated exposures for accident year 2020/21 are based on actual 2019/20 exposures, adjusted upward by 4.0% as requested by Wellesley. Estimated ultimate losses for accident year 2020/21 are calculated as the product of the estimated 2020/21 pure premium and estimated 2020/21 exposures. Our estimate of accident year 2020/21 losses is highly dependent on Wellesley's estimate of 2020/21 exposures.

Ultimate losses for accident year 2021/22 are calculated in a similar manner.

Variation from Expected Results

We use the results of our analysis to estimate Wellesley's experience at higher confidence levels. These estimates are derived using computer simulation techniques. Claim frequency is assumed to occur according to a Poisson probability distribution, and the costs associated with these claims (severity) are assumed to follow a Lognormal distribution. These distributions are commonly used in the actuarial profession as models for claim frequency and claim severity, respectively.

A simulation model of this type cannot capture all or completely describe all of the dynamic forces that impact property and casualty losses. Such a model can, however, provide considerable insight into the range of potential fluctuations of losses.

Estimated Unpaid Loss and ALAE as of June 30, 2020

We use our loss estimates and Wellesley's historical payments to estimate unpaid loss and ALAE as of June 30, 2020. We first adjust the ultimate loss selections to reflect Wellesley's excess insurance. Estimated unpaid loss and ALAE as of June 30, 2020 is calculated by subtracting the net loss payments from the estimated retention-adjusted ultimate losses. Estimated unpaid loss and ALAE as of June 30, 2021 is calculated in a similar manner; however, the net loss payments as of June 30, 2021 are estimated based on the unpaid loss as of June 30, 2020, the projected ultimate loss for the 2020/21 period and a selected payment pattern (described in *Development Patterns*).

Discounted unpaid loss and ALAE estimates are also calculated by discounting future loss payments to present value using the selected payment pattern and an interest rate of 4%.

Reliances and Limitations

Inherent Uncertainty

Projections of loss and ALAE are subject to potentially large errors of estimation since the ultimate disposition of claims incurred prior to the financial statement date, whether reported or not, is subject to the outcome of events that have not yet occurred. Examples of these events include jury decisions, court interpretations, legislative changes, changes in the medical condition of claimants, public attitudes, and social/economic conditions such as inflation. Any estimate of future costs is subject to the inherent limitation on one's ability to predict the aggregate course of future events. It should therefore be expected that the actual emergence of loss and ALAE will vary, perhaps materially, from any estimate. Thus, no assurance can be given that Wellesley's actual unpaid loss and ALAE and prospective loss and ALAE will not ultimately exceed the estimates contained herein. In our judgment, we have employed techniques and assumptions that are appropriate, and the estimates presented herein are reasonable, given the information currently available.

The inherent uncertainty associated with loss and ALAE estimates is magnified in this case due to the following circumstances:

- Wellesley's exposures are in one coverage, workers compensation, for which the estimation of unpaid loss is more uncertain than for shorter-tailed coverages.
- Wellesley has high retentions in the most recent policy years (up to \$650,000 per occurrence) with very little loss experience in the higher retention levels. This lack of fully credible data in the higher retention layers makes loss projections more uncertain.
- Wellesley has a relatively small volume of losses. Loss projections based on small volumes of data tend to be volatile.
- The geographic, coverage and industry (public entity) concentration of Wellesley could cause adverse results due to legislative or judicial changes or catastrophic events (e.g., terrorism).
- The data provided to us was valued as of August 31, 2020. We are projecting unpaid loss and ALAE as of June 30, 2021. While we believe that our estimation of payments from August 31, 2020 through June 30, 2021 to be reasonable, this process introduces additional uncertainty to our analysis.

Furthermore, there is no guarantee that the prospective accident year loss and ALAE estimates will prove to be adequate or not excessive.

In addition, the projected payout of claims by year is highly uncertain. Actual loss and ALAE payments could occur materially more or less rapidly than projected due to random variations and the timing of large claim payments.

Note that a quantification of this uncertainty would likely reflect a range of reasonable favorable and adverse scenarios, but not necessarily a range of all possible outcomes. Further, the proper application of any range is dependent on the context. Wellesley's financial reports are governed by accounting standards, and such standards vary among jurisdictions. Under current accounting standards, the ends of a range that is illustrative of uncertainty would likely not be suitable for financial reporting purposes.

Ranges of Estimates

The range of estimated pure premiums for the prospective periods presented herein is intended to reflect the reasonably expected variation in loss and ALAE based on information currently available. It is possible that actual results will fall outside this range.

Data Reliance

Throughout this analysis we relied on historical data and other quantitative and qualitative information supplied by or on behalf of Wellesley. We have not independently audited or verified this information; however, we have reviewed it for reasonableness and internal consistency. We have assumed that the information is complete and accurate, and that we have been provided with all information relevant to the analysis of Wellesley's ultimate loss and ALAE. The accuracy of our results is dependent upon the accuracy and completeness of the underlying data; therefore, any material discrepancies discovered in this data should be reported to us and this report amended accordingly, if warranted.

Extraordinary Future Emergence

We have not anticipated any extraordinary changes to the legal, social, or economic environment that might affect the cost, frequency, or future reporting of claims. In addition, our estimates make no provision for potential future claims arising from loss causes not represented in the historical data (e.g., new types of mass torts or latent injuries, terrorist acts) except where claims of these types are included but not identified in the reported claims and are implicitly analyzed.

Discounting

Estimates discounted for time value of money can be more uncertain than those on an undiscounted basis. In addition to the usual uncertainty in projecting ultimate loss and ALAE, discounted estimates are also influenced by:

- Variations in the timing of actual loss and ALAE payments versus the rate of payment assumed in discounting estimates to present value
- Variation in the actual investment yield on the assets underlying the liabilities versus the assumed interest rate used in discounting

Excess Insurance

As noted earlier, with the exception of policy period 1/1/01-6/30/01, our estimates are presented net of excess insurance. Our estimate for this policy period is on a gross basis as Wellesley does not believe that there will be any recovery for losses in excess of the aggregate retention for that period. This is due to the fact that the Town's former excess insurer, Legion, is in liquidation. An independent evaluation of the quality of security provided by Wellesley's other excess insurers is outside the scope of our engagement. We have assumed that all of the Town's excess insurance protection, other than for policy period 1/1/01-6/30/01, will be valid and collectible. Contingent liability may exist for any other excess insurance recoveries that may prove to be uncollectible. Should any uncollectible liabilities materialize, they would be in addition to the net unpaid loss and ALAE estimates contained herein.

Underlying Assets

We have not examined the assets underlying Wellesley's loss reserves and we have formed no opinion as to the validity or value of these assets. We have assumed throughout the analysis that Wellesley's loss reserves are backed by valid assets with suitably scheduled maturities and/or adequate liquidity to meet cash flow requirements.

Self-Insurance Risk

When reviewing our findings, it is important to note certain implications of a self-insurance plan. The entire retained risk remains with the self-insured, which likely exposes this entity to greater potential fluctuations in financial experience than does a first dollar insurance program. Wellesley should have sufficient financial capacity to reserve for and withstand those fluctuations. Actual losses in excess of projected losses will have to be paid by Wellesley. It is not possible to estimate such fluctuations with complete accuracy; however, the effects of such fluctuations can be reduced by the funding of a provision for contingencies (a margin for the risk of adverse deviation from the expected loss levels).

An important factor bearing on a self-insured's financial capacity is the existence of an excess insurance program. Excess insurance is generally considered an integral part of programs with the potential for catastrophic losses. Workers compensation losses are characterized by this potential.

Nothing in this report should be construed as recommending that Wellesley should or should not self-insure this coverage. Many factors other than the unpaid loss and ALAE and prospective accident year loss and ALAE estimates should be considered in that decision.

Risk Margins

The mathematical techniques underlying our estimate of the risk margin are intended to provide a rough approximation of the potential variations in losses. This estimate reflects only the potential "process" risk (defined as the risk associated with the projection of future contingencies that are inherently variable, even when the parameters are known with certainty) and some portion of the "parameter risk" (where "parameter" risk is defined as the risk that the parameters used in the methods or models are not representative of future outcomes) based on the assumed loss model and the selected parameters and our selected model for estimating parameter risk. Additional "parameter" and "model" risk (i.e., "model" risk is the risk that the methods are not appropriate to the circumstances or the models are not representative of the specified phenomenon) exists and is not reflected by the risk margins estimated in our model.

Note that the results at higher confidence levels by accident year represent an allocation of the total liability (and prospective year losses) at higher confidence levels. If we had calculated risk margins by year, the indicated results would be different and greater than the results shown in Exhibit 1. Since Wellesley treats the liability (and corresponding assets) on a pooled basis (i.e., not allocated by year) the pooled allocation approach to the confidence level calculation is not unreasonable.

Data and Information

Wellesley provided the following data and information for use in this analysis:

- Paid and reported loss and ALAE data, as well as reported claim count data evaluated as of June 30, 2020 and August 31, 2020
- 2019/20 payroll and an assumption regarding the change in payroll for accident years 2020/21 and 2021/22
- Fund balance as of June 30, 2020
- Excess insurance retentions
- Estimated operational expenses for fiscal year 2021/22

Description of Projection Methods

The choice of method to estimate ultimate losses should consider, among other things, the line of business, the number of years of experience, and the age of the experience year being developed. In general, these methods can be applied to losses, ALAE, and various measures of claim count.

Reported Development Method

The reported development method is based upon the assumption that the relative change in a given year's reported loss estimates from one evaluation point to the next is similar to the relative change in prior years' reported loss estimates at similar evaluation points. In utilizing this method, actual annual historical reported loss data is evaluated. Successive years can be arranged to form a triangle of data.

RTR development factors are calculated to measure the change in cumulative reported costs from one evaluation point to the next. These historical RTR factors and comparable benchmark factors form the basis for selecting the RTR factors used in projecting the current valuation of losses to an ultimate basis. In addition, a tail factor is selected to account for loss development beyond the observed experience. The tail factor is based on trends shown in the data and consideration of external benchmarks.

This method's implicit assumption is that the relative adequacy of case reserves has been consistent over time, and that there have been no material changes in the rate at which claims have been reported.

Paid Development Method

The paid development method is similar to the reported development method; however, case reserves are excluded from the analysis. While this method has the disadvantage of not recognizing the information provided by current case reserves, it has the advantage of avoiding potential distortions in the data due to changes in case reserving methodology.

This method's implicit assumption is that the rate of payment of claims has been relatively consistent over time.

Reported Bornhuetter-Ferguson Method

The reported Bornhuetter-Ferguson (B-F) method is essentially a blend of two other methods. The first method is the loss development method whereby actual reported losses are multiplied by an expected loss development factor. For slow reporting coverages, the loss development method can lead to erratic and unreliable projections because a relatively small swing in early reportings can result in a large swing in ultimate projections. The second method is the expected loss method whereby the IBNR estimate equals the difference between a predetermined estimate of expected losses and actual reported losses. This has the advantage of stability, but it does not respond to actual results as they emerge.

The reported B-F method combines these two methods by setting ultimate losses equal to actual reported losses plus expected unreported losses. As an experience year matures and expected unreported losses become smaller, the initial expected loss assumption becomes gradually less important.

Two parameters are needed to apply the B-F method: the initial expected losses and the expected reporting pattern. The initial expected losses are selected as described in the *Analysis* section, while the expected reporting pattern is based on the reported loss development method described above.

This method is often used for long-tail lines and in situations where the reported loss experience is relatively immature or lacks sufficient credibility for the application of other methods.

Paid Bornhuetter-Ferguson Method

The paid B-F method is analogous to the reported B-F method using paid losses and development patterns in place of reported losses and patterns.

Case Outstanding Method (IBNR to Case Method)

This method calculates developed case reserves by dividing the latest evaluation of the case reserves by the difference between the assumed reporting and payment patterns percentages at the appropriate maturities. Estimated ultimate losses are determined by adding developed case reserves to actual paid losses. This method yields a potentially volatile estimate of ultimate losses, meaning that a small change in the data could cause a large change in the projection. Therefore, this method is generally used only where sufficient data is not available to use the more stable methods described previously or where few unreported claims are expected.

Accident Year	As of 6/30/2020				
	Estimated Ultimate Losses after Aggregate	Paid Losses @ 6/30/2020	Estimated Unpaid Losses @ 6/30/2020	Discount Factor @ 4.0 %	Discounted Unpaid Losses @ 6/30/2020
(1)	(2)	(3)	(4)	(5)	(6)
7/1/1995 - 6/30/1996	\$239	\$239	\$0	1.0000	\$0
7/1/1996 - 6/30/1997	300	300	0	1.0000	0
7/1/1997 - 6/30/1998	259	259	0	1.0000	0
7/1/1998 - 6/30/1999	685	685	0	1.0000	0
7/1/1999 - 6/30/2000	195	195	0	1.0000	0
7/1/2000 - 6/30/2001	348	348	0	1.0000	0
7/1/2001 - 6/30/2002	92	92	0	1.0000	0
7/1/2002 - 6/30/2003	206	206	0	1.0000	0
7/1/2003 - 6/30/2004	233	233	0	1.0000	0
7/1/2004 - 6/30/2005	163	163	0	1.0000	0
7/1/2005 - 6/30/2006	183	183	0	1.0000	0
7/1/2006 - 6/30/2007	311	311	0	0.9806	0
7/1/2007 - 6/30/2008	328	328	0	0.9682	0
7/1/2008 - 6/30/2009	247	247	0	0.9547	0
7/1/2009 - 6/30/2010	332	332	0	0.9393	0
7/1/2010 - 6/30/2011	317	317	0	0.9437	0
7/1/2011 - 6/30/2012	301	301	0	0.9444	0
7/1/2012 - 6/30/2013	163	163	0	0.9379	0
7/1/2013 - 6/30/2014	300	300	0	0.9294	0
7/1/2014 - 6/30/2015	93	93	0	0.9207	0
7/1/2015 - 6/30/2016	66	62	4	0.9118	4
7/1/2016 - 6/30/2017	535	496	39	0.9036	36
7/1/2017 - 6/30/2018	85	64	21	0.9097	19
7/1/2018 - 6/30/2019	360	243	117	0.9163	108
7/1/2019 - 6/30/2020	370	52	318	0.9247	294
Total	\$6,709	\$6,209	\$500		\$460
(7) Estimated Unpaid Losses at a					
(a) 75% Confidence level			\$630		\$580
(b) 90% Confidence level			810		750

Accident Year	As of 6/30/2021				
	Estimated Ultimate Losses after Aggregate	Estimated Paid Losses @ 6/30/2021	Estimated Unpaid Losses @ 6/30/2021	Discount Factor @ 4.0 %	Discounted Unpaid Losses @ 6/30/2021
(1)	(8)	(9)	(10)	(11)	(12)
7/1/1995 - 6/30/1996	\$239	\$239	\$0	1.0000	\$0
7/1/1996 - 6/30/1997	300	300	0	1.0000	0
7/1/1997 - 6/30/1998	259	259	0	1.0000	0
7/1/1998 - 6/30/1999	685	685	0	1.0000	0
7/1/1999 - 6/30/2000	195	195	0	1.0000	0
7/1/2000 - 6/30/2001	348	348	0	1.0000	0
7/1/2001 - 6/30/2002	92	92	0	1.0000	0
7/1/2002 - 6/30/2003	206	206	0	1.0000	0
7/1/2003 - 6/30/2004	233	233	0	1.0000	0
7/1/2004 - 6/30/2005	163	163	0	1.0000	0
7/1/2005 - 6/30/2006	183	183	0	1.0000	0
7/1/2006 - 6/30/2007	311	311	0	1.0000	0
7/1/2007 - 6/30/2008	328	328	0	0.9806	0
7/1/2008 - 6/30/2009	247	247	0	0.9682	0
7/1/2009 - 6/30/2010	332	332	0	0.9547	0
7/1/2010 - 6/30/2011	317	317	0	0.9393	0
7/1/2011 - 6/30/2012	301	301	0	0.9437	0
7/1/2012 - 6/30/2013	163	163	0	0.9444	0
7/1/2013 - 6/30/2014	300	300	0	0.9379	0
7/1/2014 - 6/30/2015	93	93	0	0.9294	0
7/1/2015 - 6/30/2016	66	63	3	0.9207	3
7/1/2016 - 6/30/2017	535	506	29	0.9118	27
7/1/2017 - 6/30/2018	85	74	11	0.9036	10
7/1/2018 - 6/30/2019	360	290	70	0.9097	64
7/1/2019 - 6/30/2020	370	204	166	0.9163	152
7/1/2020 - 6/30/2021	469	169	300	0.9247	278
Total	\$7,178	\$6,598	\$580		\$533
(13) Estimated Unpaid Losses at a					
(a) 75% Confidence level			\$730		\$670
(b) 90% Confidence level			940		870

Notes:
 (2), (8) From Exhibit 3, Column (11). 7/1/2020 - 6/30/2021 from Exhibit 2, Sheet 1, Item (12).
 (3) Data provided by Town of Wellesley.
 (4) (2) - (3).
 (5), (11) Based on Exhibit 7, Column (5).
 (6) (4) x (5).
 (7), (13) Adjusted for risk margin based on simulation of Town of Wellesley experience.
 (9) (3) + Exhibit 1, Sheet 2, Column (3). 7/1/2020 - 6/30/2021 from Exhibit 1, Sheet 2, Column (3).
 (10) (8) - (9).
 (12) (10) x (11).

TOWN OF WELLESLEY
 Workers Compensation
 Estimation of Expected Claim Payments as of 6/30/2020
 Data in Thousands

Accident Year (1)	Estimated Unpaid Losses @ 6/30/2020 (2)	Paid Losses during Fiscal Year														
		7/2020-2021 (3)	7/2021-2022 (4)	7/2022-2023 (5)	7/2023-2024 (6)	7/2024-2025 (7)	7/2025-2026 (8)	7/2026-2027 (9)	7/2027-2028 (10)	7/2028-2029 (11)	7/2029-2030 (12)	7/2030-2031 (13)	7/2031-2032 (14)	7/2032-2033 (15)	7/2033-2034 (16)	7/2034 & Subs. (17)
7/1/1995 - 6/30/1996	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/1996 - 6/30/1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/1997 - 6/30/1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/1998 - 6/30/1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/1999 - 6/30/2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2000 - 6/30/2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2001 - 6/30/2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2002 - 6/30/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2003 - 6/30/2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2004 - 6/30/2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2005 - 6/30/2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2006 - 6/30/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2007 - 6/30/2008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2008 - 6/30/2009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2009 - 6/30/2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2010 - 6/30/2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2011 - 6/30/2012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2012 - 6/30/2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2013 - 6/30/2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2014 - 6/30/2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2015 - 6/30/2016	4	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
7/1/2016 - 6/30/2017	39	10	7	5	5	4	4	3	0	0	0	0	0	0	0	0
7/1/2017 - 6/30/2018	21	10	3	2	1	2	1	1	1	0	0	0	0	0	0	0
7/1/2018 - 6/30/2019	117	47	34	9	6	5	5	3	3	2	0	0	0	0	0	0
7/1/2019 - 6/30/2020	318	152	66	48	13	9	7	7	5	3	0	0	0	0	0	0
7/1/2020 - 6/30/2021	469	169	144	63	45	13	9	7	7	5	5	3	0	0	0	0
Total	\$969	\$390	\$254	\$128	\$72	\$32	\$26	\$21	\$16	\$12	\$9	\$5	\$1	\$1	\$1	\$0

Notes:

- (2) Exhibit 1, Sheet 1, Column (4); Exhibit 1, Sheet 1, Column (8) for 7/2020-2021.
- (3)-(15) Based on Column (2) and payment pattern in Exhibit 8.

Accident Year (1)	Estimated Ultimate Losses (2)	Trend and Current Benefit Factor to 2020/2021 (3)	Increased Limit Factor (4)	Trended Ultimate Losses (5)	Payroll (00's) (6)	Estimated Trended Pure Premium (7a)	Estimated Untrended Pure Premium (7b)
7/1/1995 - 6/30/1996	\$239	1.230	1.000	\$294	\$293,935	\$1,000	\$1,000
7/1/1996 - 6/30/1997	300	1.213	1.000	364	289,349	1.258	1.258
7/1/1997 - 6/30/1998	259	1.202	1.000	311	304,213	1.024	1.024
7/1/1998 - 6/30/1999	685	1.191	1.030	839	336,836	2.492	2.492
7/1/1999 - 6/30/2000	195	1.178	1.265	290	364,714	0.795	0.795
7/1/2000 - 6/30/2001	348	1.146	1.148	457	393,853	1.161	1.161
7/1/2001 - 6/30/2002	92	1.131	1.093	114	414,012	0.275	0.275
7/1/2002 - 6/30/2003	563	1.116	1.099	691	444,493	1.554	1.554
7/1/2003 - 6/30/2004	233	1.108	1.106	286	459,718	0.621	0.621
7/1/2004 - 6/30/2005	163	1.098	1.114	199	539,559	0.369	0.369
7/1/2005 - 6/30/2006	183	1.090	1.121	224	510,056	0.439	0.439
7/1/2006 - 6/30/2007	311	1.082	1.129	380	552,641	0.687	0.687
7/1/2007 - 6/30/2008	328	1.075	1.527	538	566,759	0.949	0.949
7/1/2008 - 6/30/2009	247	1.064	1.148	301	652,988	0.461	0.461
7/1/2009 - 6/30/2010	332	1.052	1.157	404	672,326	0.601	0.601
7/1/2010 - 6/30/2011	317	1.052	1.164	388	681,420	0.569	0.569
7/1/2011 - 6/30/2012	301	1.047	1.171	369	706,653	0.522	0.522
7/1/2012 - 6/30/2013	163	1.041	1.178	200	738,137	0.271	0.271
7/1/2013 - 6/30/2014	300	1.039	1.184	369	769,733	0.479	0.479
7/1/2014 - 6/30/2015	93	1.035	1.191	115	806,240	0.143	0.143
7/1/2015 - 6/30/2016	66	1.030	1.198	81	836,133	0.097	0.097
7/1/2016 - 6/30/2017	535	1.025	1.253	687	869,981	0.790	0.790
7/1/2017 - 6/30/2018	85	1.018	1.213	105	912,626	0.115	0.115
7/1/2018 - 6/30/2019	360	1.012	1.220	445	923,322	0.481	0.481
7/1/2019 - 6/30/2020	370	1.006	1.228	457	949,868	0.481	0.481
Total	\$7,066			\$8,908	\$14,989,564	\$0.594	\$0.594

(8) Averages of Estimated Pure Premium		
Latest 5	\$0.393	\$0.393
Latest 7	0.370	0.370
Weighted Latest 5	0.395	0.395
Weighted Latest 7	0.372	0.372
All Years	0.705	0.705
All Years (excluding hi & lo)	0.654	0.654

(9) Prior Selected Central Estimate Pure Premium, adjusted to 2020/2021 level	\$0.352	\$0.483	\$0.684
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(10) Selected 2020/2021 \$650,000 Limit Pure Premium	Low	Central	High
	\$0.370	\$0.475	\$0.680

	7/1/2020 - 6/30/2021			7/1/2021 - 6/30/2022		
	Low	Central	High	Low	Central	High
(11) Estimated Payroll (00's)		\$987,863			\$1,027,377	
(12) Estimated Ultimate Losses (000's)	\$366	\$469	\$672	\$378	\$485	\$694
(13) Discount factor at 4.0%		0.9263			0.9263	
(14) Estimated Discounted Ultimate Losses	\$339	\$435	\$622	\$350	\$449	\$643
(15) Estimated Discounted Ultimate Losses at						
a) 75% Confidence Level	\$427	\$548	\$784	\$441	\$566	\$810
b) 90% Confidence Level	550	706	1,011	569	730	1,045

Notes:

- (2) From Exhibit 3, Column (10).
- (3) From Exhibit 2, Sheet 3, Column (8).
- (4) Selected judgmentally based on Willis Towers Watson analysis of industry data and Wellesley experience.
- (5) (2) x (3) x (4).
- (6) Data provided by Town of Wellesley.
- (7a) (5) / (6) x 1,000.
- (7b) [(5) / Exhibit 2, Sheet 3, Column (7)] / (6) x 1,000.
- (8) Averages of (7).
- (9) From June 2019 report, adjusted by 0.0% trend, 0.6% benefit level change.
- (10) Selected judgmentally.
- (11) 7/1/2020 - 6/30/2021 and 7/1/2021 - 6/30/2022 assume a 4.0% annual payroll trend as requested by Town of Wellesley.
- (12) (10) x (11), 7/1/2021 - 6/30/2022 adjusted for pure premium trend and benefit level changes.
- (13) From Exhibit 7, Column (5).
- (14) (12) x (13).
- (15) (14), adjusted by risk margins based on simulation of Town of Wellesley experience.

Accident Year (1)	Estimated Ultimate Claim Counts (2)	Payroll (00's) (3)	Estimated Frequency (000's) (4)
7/1/1995 - 6/30/1996	107	\$293,935	0.364
7/1/1996 - 6/30/1997	110	289,349	0.380
7/1/1997 - 6/30/1998	101	304,213	0.332
7/1/1998 - 6/30/1999	98	336,836	0.291
7/1/1999 - 6/30/2000	91	364,714	0.250
7/1/2000 - 6/30/2001	102	393,853	0.259
7/1/2001 - 6/30/2002	81	414,012	0.196
7/1/2002 - 6/30/2003	102	444,493	0.229
7/1/2003 - 6/30/2004	95	459,718	0.207
7/1/2004 - 6/30/2005	76	539,559	0.141
7/1/2005 - 6/30/2006	80	510,056	0.157
7/1/2006 - 6/30/2007	82	552,641	0.148
7/1/2007 - 6/30/2008	68	566,759	0.120
7/1/2008 - 6/30/2009	74	652,988	0.113
7/1/2009 - 6/30/2010	93	672,326	0.138
7/1/2010 - 6/30/2011	106	681,420	0.156
7/1/2011 - 6/30/2012	73	706,653	0.103
7/1/2012 - 6/30/2013	64	738,137	0.087
7/1/2013 - 6/30/2014	76	769,733	0.099
7/1/2014 - 6/30/2015	70	806,240	0.087
7/1/2015 - 6/30/2016	66	836,133	0.079
7/1/2016 - 6/30/2017	74	869,981	0.085
7/1/2017 - 6/30/2018	83	912,626	0.091
7/1/2018 - 6/30/2019	111	923,322	0.121
7/1/2019 - 6/30/2020	76	949,868	0.080
Total/Average	2,159	\$14,989,564	0.144

Accident Year (1)	Estimated Ultimate Losses (000's)		Estimated Severity	
	Untrended (5)	Trended (6)	Untrended (7)	Trended (8)
7/1/1995 - 6/30/1996	\$239	\$294	\$2,233	\$2,746
7/1/1996 - 6/30/1997	300	364	2,727	3,310
7/1/1997 - 6/30/1998	259	311	2,566	3,084
7/1/1998 - 6/30/1999	685	815	6,985	8,319
7/1/1999 - 6/30/2000	195	229	2,138	2,518
7/1/2000 - 6/30/2001	348	398	3,407	3,906
7/1/2001 - 6/30/2002	92	104	1,137	1,286
7/1/2002 - 6/30/2003	563	628	5,519	6,161
7/1/2003 - 6/30/2004	233	258	2,454	2,718
7/1/2004 - 6/30/2005	163	179	2,142	2,351
7/1/2005 - 6/30/2006	183	200	2,292	2,497
7/1/2006 - 6/30/2007	311	336	3,791	4,103
7/1/2007 - 6/30/2008	328	352	4,819	5,178
7/1/2008 - 6/30/2009	247	262	3,334	3,546
7/1/2009 - 6/30/2010	332	349	3,571	3,756
7/1/2010 - 6/30/2011	317	333	2,986	3,142
7/1/2011 - 6/30/2012	301	315	4,120	4,315
7/1/2012 - 6/30/2013	163	170	2,549	2,654
7/1/2013 - 6/30/2014	300	312	3,944	4,100
7/1/2014 - 6/30/2015	93	96	1,332	1,379
7/1/2015 - 6/30/2016	66	68	1,000	1,030
7/1/2016 - 6/30/2017	535	548	7,230	7,410
7/1/2017 - 6/30/2018	85	87	1,024	1,043
7/1/2018 - 6/30/2019	360	364	3,234	3,273
7/1/2019 - 6/30/2020	370	372	4,869	4,898
Total/Average	\$7,066	\$7,747	\$3,272	\$3,588

Notes:

- (2) From Exhibit 6, Column (4).
- (3) Data provided by Town of Wellesley.
- (4) (2) / (3) x 1,000.
- (5) From Exhibit 3, Column (10).
- (6) (5) x Exhibit 2, Sheet 1, Column (3).
- (7) (5) / (2) x 1,000.
- (8) (6) / (2) x 1,000.

TOWN OF WELLESLEY
 Workers Compensation
 Benefit Level and Trend Adjustment Factors

Date (1)	Benefit Level Change (2)	Cumulative Index (3)	Experience Period (4)	Weighted Average Index for Experience Period (5)	On-Level Benefit Factor to 2020/2021 (6)	Residual Trend to 2020/2021 (7)	Trend and Current Benefit Factor to 2020/2021 (8)
10/1/1987	1.016	1.016	7/1/1995 - 6/30/1996	0.929	1.230	1.000	1.230
7/1/1988	1.036	1.053					
10/1/1988	1.017	1.070	7/1/1996 - 6/30/1997	0.941	1.213	1.000	1.213
9/1/1989	1.002	1.073					
10/1/1989	1.016	1.090	7/1/1997 - 6/30/1998	0.950	1.202	1.000	1.202
10/1/1990	1.008	1.098					
10/1/1991	1.012	1.112	7/1/1998 - 6/30/1999	0.959	1.191	1.000	1.191
12/1/1991	1.006	1.118					
12/23/1991	0.800	0.895	7/1/1999 - 6/30/2000	0.970	1.178	1.000	1.178
10/1/1992	1.011	0.905					
7/1/1993	1.002	0.906	7/1/2000 - 6/30/2001	0.996	1.146	1.000	1.146
10/1/1993	1.009	0.914					
10/1/1994	1.006	0.920	7/1/2001 - 6/30/2002	1.010	1.131	1.000	1.131
2/1/1995	1.006	0.925					
10/1/1995	1.005	0.930	7/1/2002 - 6/30/2003	1.023	1.116	1.000	1.116
7/1/1996	1.006	0.936					
10/1/1996	1.008	0.943	7/1/2003 - 6/30/2004	1.031	1.108	1.000	1.108
10/1/1997	1.010	0.953					
10/1/1998	1.009	0.961	7/1/2004 - 6/30/2005	1.040	1.098	1.000	1.098
10/1/1999	1.012	0.973					
9/1/2000	1.010	0.982	7/1/2005 - 6/30/2006	1.048	1.090	1.000	1.090
10/1/2000	1.021	1.003					
10/1/2001	1.009	1.012	7/1/2006 - 6/30/2007	1.056	1.082	1.000	1.082
10/1/2002	0.999	1.011					
12/1/2002	1.020	1.031	7/1/2007 - 6/30/2008	1.063	1.075	1.000	1.075
10/1/2003	1.000	1.031					
9/1/2004	1.005	1.036	7/1/2008 - 6/30/2009	1.074	1.064	1.000	1.064
10/1/2004	1.006	1.043					
10/1/2005	1.007	1.050	7/1/2009 - 6/30/2010	1.086	1.052	1.000	1.052
10/1/2006	1.007	1.057					
10/1/2007	1.007	1.065	7/1/2010 - 6/30/2011	1.085	1.052	1.000	1.052
10/1/2008	1.007	1.072					
4/1/2009	1.013	1.086	7/1/2011 - 6/30/2012	1.091	1.047	1.000	1.047
10/1/2009	1.000	1.086					
10/1/2010	0.999	1.085	7/1/2012 - 6/30/2013	1.097	1.041	1.000	1.041
10/1/2011	1.007	1.093					
10/1/2012	1.005	1.098	7/1/2013 - 6/30/2014	1.099	1.039	1.000	1.039
10/1/2013	1.001	1.099					
10/1/2014	1.005	1.105	7/1/2014 - 6/30/2015	1.103	1.035	1.000	1.035
10/1/2015	1.005	1.110					
10/1/2016	1.005	1.116	7/1/2015 - 6/30/2016	1.109	1.030	1.000	1.030
10/1/2017	1.007	1.124					
10/1/2018	1.006	1.130	7/1/2016 - 6/30/2017	1.114	1.025	1.000	1.025
10/1/2019	1.006	1.137					
10/1/2020	1.006	1.144	7/1/2017 - 6/30/2018	1.122	1.018	1.000	1.018
10/1/2021	1.006	1.151					
			7/1/2018 - 6/30/2019	1.129	1.012	1.000	1.012
			7/1/2019 - 6/30/2020	1.135	1.006	1.000	1.006
			7/1/2020 - 6/30/2021	1.142	1.000	1.000	1.000

Notes:

- (2) Based on WCRIBMA rate level filings.
- (3) Cumulative multiplier of (2).
- (4) Insurance Period.
- (5) Weighted Average of (3) for experience period.
- (6) Last entry in (5) / (5).
- (7) 0.0% annual rate, based on consideration of Wellesley data and MA WC industry information.
- (8) (6) x (7).

TOWN OF WELLESLEY
Workers Compensation
Selection of Ultimate Losses
Data in Thousands

Exhibit 3

Accident Year	as of 8/31/2020		Estimated Ultimate Losses Based on:					Case Outstanding	Prior Selected Ultimate prior to agg. excess ins. (9)	Selected Ultimate Losses prior to agg. excess ins. (10)	Selected Ultimate Losses after agg. excess ins. (11)
	Reported Losses	Paid Losses	Loss Development Method on:		Bornhuetter- Ferguson Method on:						
			Reported Losses	Paid Losses	Reported Losses	Paid Losses					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
7/1/1995 - 6/30/1996	\$239	\$239	\$239	\$239	\$239	\$239	\$239	\$239	\$239	\$239	
7/1/1996 - 6/30/1997	300	300	300	300	300	300	300	300	300	300	
7/1/1997 - 6/30/1998	259	259	259	259	259	259	259	259	259	259	
7/1/1998 - 6/30/1999	685	685	685	685	685	685	685	685	685	685	
7/1/1999 - 6/30/2000	195	195	195	195	195	195	195	195	195	195	
7/1/2000 - 6/30/2001	348	348	348	348	348	348	348	348	348	348	
7/1/2001 - 6/30/2002	92	92	92	92	92	92	92	92	92	92	
7/1/2002 - 6/30/2003	563	563	563	563	563	563	563	563	563	206	
7/1/2003 - 6/30/2004	233	233	233	233	233	233	233	233	233	233	
7/1/2004 - 6/30/2005	163	163	163	163	163	163	163	163	163	163	
7/1/2005 - 6/30/2006	183	183	183	183	183	183	183	183	183	183	
7/1/2006 - 6/30/2007	311	311	311	311	311	311	311	311	311	311	
7/1/2007 - 6/30/2008	328	328	328	328	328	328	328	328	328	328	
7/1/2008 - 6/30/2009	247	247	247	247	247	247	247	255	247	247	
7/1/2009 - 6/30/2010	332	332	333	333	333	333	332	333	332	332	
7/1/2010 - 6/30/2011	317	317	319	319	319	319	317	317	317	317	
7/1/2011 - 6/30/2012	301	301	304	307	304	306	301	301	301	301	
7/1/2012 - 6/30/2013	163	163	166	168	166	168	163	163	163	163	
7/1/2013 - 6/30/2014	300	300	308	313	307	312	300	300	300	300	
7/1/2014 - 6/30/2015	93	93	97	99	97	99	93	95	93	93	
7/1/2015 - 6/30/2016	62	62	65	66	65	67	62	68	66	66	
7/1/2016 - 6/30/2017	496	496	526	550	524	544	496	490	535	535	
7/1/2017 - 6/30/2018	64	64	73	78	79	87	64	130	85	85	
7/1/2018 - 6/30/2019	245	244	323	353	348	377	249	430	360	360	
7/1/2019 - 6/30/2020	215	94	341	219	384	354	438	456	370	370	
Total	\$6,731	\$6,609	\$6,998	\$6,951	\$7,071	\$7,113	\$6,958	\$7,234	\$7,066	\$6,709	

Notes:

- (2), (3) Based on data provided by Town of Wellesley.
- (4) Exhibit 5, Sheet 1, Item (4).
- (5) Exhibit 5, Sheet 2, Item (4).
- (6) Exhibit 4, Sheet 1, Item (7).
- (7) Exhibit 4, Sheet 2, Item (7).

- (8) Exhibit 4, Sheet 3, Item (6).
- (9) Accident years through 6/30/2019 equal to ultimate from our prior report as of June 2019. Accident year 7/1/2019 - 6/30/2020 based on pure premium selected in the prior report as of June 2019 and most recent payroll data.
- (10) Selected judgmentally based on (2) through (9).
- (11) (10), adjusted for aggregate and per occurrence retentions.

TOWN OF WELLESLEY

Workers Compensation

Development of Reported Losses Using the Bornhuetter-Ferguson Technique

Data in Thousands

Accident Year (1)	Initial Expected Ultimate Losses (2)	Percent Unreported (3)	Estimated Unreported Losses (4)	Expected Reported Losses as of 8/31/2020 (5)	Actual Reported Losses as of 8/31/2020 (6)	Estimated Ultimate Losses (7)
7/1/1995 - 6/30/1996	\$239	0.0%	\$0	\$239	\$239	\$239
7/1/1996 - 6/30/1997	300	0.0%	0	300	300	300
7/1/1997 - 6/30/1998	259	0.0%	0	259	259	259
7/1/1998 - 6/30/1999	685	0.0%	0	685	685	685
7/1/1999 - 6/30/2000	195	0.0%	0	195	195	195
7/1/2000 - 6/30/2001	348	0.0%	0	348	348	348
7/1/2001 - 6/30/2002	92	0.0%	0	92	92	92
7/1/2002 - 6/30/2003	563	0.0%	0	563	563	563
7/1/2003 - 6/30/2004	233	0.0%	0	233	233	233
7/1/2004 - 6/30/2005	163	0.0%	0	163	163	163
7/1/2005 - 6/30/2006	183	0.0%	0	183	183	183
7/1/2006 - 6/30/2007	311	0.0%	0	311	311	311
7/1/2007 - 6/30/2008	328	0.0%	0	328	328	328
7/1/2008 - 6/30/2009	255	0.1%	0	254	247	247
7/1/2009 - 6/30/2010	333	0.3%	1	332	332	333
7/1/2010 - 6/30/2011	317	0.7%	2	314	317	319
7/1/2011 - 6/30/2012	301	1.2%	4	297	301	304
7/1/2012 - 6/30/2013	163	1.7%	3	160	163	166
7/1/2013 - 6/30/2014	300	2.5%	8	292	300	307
7/1/2014 - 6/30/2015	95	3.9%	4	91	93	97
7/1/2015 - 6/30/2016	68	5.0%	3	65	62	65
7/1/2016 - 6/30/2017	490	5.8%	28	462	496	524
7/1/2017 - 6/30/2018	130	11.6%	15	115	64	79
7/1/2018 - 6/30/2019	430	24.1%	104	326	245	348
7/1/2019 - 6/30/2020	456	37.0%	169	287	215	384
Total	\$7,234		\$340	\$6,894	\$6,731	\$7,071

Notes:

- (2) Exhibit 3, Item (9).
- (3) Based on selected pattern in Exhibit 9.
- (4) (2) x (3).
- (5) (2) x [100.0%- (3)].
- (6) Data provided by Town of Wellesley.
- (7) (4) + (6).

TOWN OF WELLESLEY

Workers Compensation

Development of Paid Losses Using the Bornhuetter-Ferguson Technique

Data in Thousands

Accident Year (1)	Initial Expected Ultimate Losses (2)	Percent Unpaid (3)	Estimated Unpaid Losses (4)	Expected Paid Losses as of 8/31/2020 (5)	Actual Paid Losses as of 8/31/2020 (6)	Estimated Ultimate Losses (7)
7/1/1995 - 6/30/1996	\$239	0.0%	\$0	\$239	\$239	\$239
7/1/1996 - 6/30/1997	300	0.0%	0	300	300	300
7/1/1997 - 6/30/1998	259	0.0%	0	259	259	259
7/1/1998 - 6/30/1999	685	0.0%	0	685	685	685
7/1/1999 - 6/30/2000	195	0.0%	0	195	195	195
7/1/2000 - 6/30/2001	348	0.0%	0	348	348	348
7/1/2001 - 6/30/2002	92	0.0%	0	92	92	92
7/1/2002 - 6/30/2003	563	0.0%	0	563	563	563
7/1/2003 - 6/30/2004	233	0.0%	0	233	233	233
7/1/2004 - 6/30/2005	163	0.0%	0	163	163	163
7/1/2005 - 6/30/2006	183	0.0%	0	183	183	183
7/1/2006 - 6/30/2007	311	0.1%	0	311	311	311
7/1/2007 - 6/30/2008	328	0.2%	1	327	328	328
7/1/2008 - 6/30/2009	255	0.3%	1	254	247	247
7/1/2009 - 6/30/2010	333	0.4%	1	331	332	333
7/1/2010 - 6/30/2011	317	0.9%	3	314	317	319
7/1/2011 - 6/30/2012	301	1.9%	6	295	301	306
7/1/2012 - 6/30/2013	163	2.9%	5	158	163	168
7/1/2013 - 6/30/2014	300	4.2%	13	287	300	312
7/1/2014 - 6/30/2015	95	5.7%	5	90	93	99
7/1/2015 - 6/30/2016	68	7.4%	5	63	62	67
7/1/2016 - 6/30/2017	490	9.9%	48	442	496	544
7/1/2017 - 6/30/2018	130	17.7%	23	107	64	87
7/1/2018 - 6/30/2019	430	31.0%	133	297	244	377
7/1/2019 - 6/30/2020	456	57.1%	260	196	94	354
Total	\$7,234		\$504	\$6,730	\$6,609	\$7,113

Notes:

- (2) Exhibit 3, Item (9).
- (3) Based on selected pattern in Exhibit 8.
- (4) (2) x (3).
- (5) (2) x [100.0%- (3)].
- (6) Data provided by Town of Wellesley.
- (7) (4) + (6).

TOWN OF WELLESLEY

Workers Compensation

Estimation of Unpaid Loss and ALAE based on Case Outstanding Development

Data in Thousands

Accident Year (1)	Case Outstanding Loss & ALAE of 8/31/2020 (2)	Expected Percent Reported (3)	Expected Percent Paid (4)	Estimated IBNR (5)	Estimated Ultimate Loss & ALAE (6)
7/1/1995 - 6/30/1996	\$0	100.0%	100.0%	\$0	\$239
7/1/1996 - 6/30/1997	0	100.0%	100.0%	0	300
7/1/1997 - 6/30/1998	0	100.0%	100.0%	0	259
7/1/1998 - 6/30/1999	0	100.0%	100.0%	0	685
7/1/1999 - 6/30/2000	0	100.0%	100.0%	0	195
7/1/2000 - 6/30/2001	0	100.0%	100.0%	0	348
7/1/2001 - 6/30/2002	0	100.0%	100.0%	0	92
7/1/2002 - 6/30/2003	0	100.0%	100.0%	0	563
7/1/2003 - 6/30/2004	0	100.0%	100.0%	0	233
7/1/2004 - 6/30/2005	0	100.0%	100.0%	0	163
7/1/2005 - 6/30/2006	0	100.0%	100.0%	0	183
7/1/2006 - 6/30/2007	0	100.0%	99.9%	0	311
7/1/2007 - 6/30/2008	0	100.0%	99.8%	0	328
7/1/2008 - 6/30/2009	0	99.9%	99.7%	0	247
7/1/2009 - 6/30/2010	0	99.7%	99.6%	0	332
7/1/2010 - 6/30/2011	0	99.3%	99.1%	0	317
7/1/2011 - 6/30/2012	0	98.8%	98.1%	0	301
7/1/2012 - 6/30/2013	0	98.3%	97.1%	0	163
7/1/2013 - 6/30/2014	0	97.5%	95.8%	0	300
7/1/2014 - 6/30/2015	0	96.1%	94.3%	0	93
7/1/2015 - 6/30/2016	0	95.0%	92.6%	0	62
7/1/2016 - 6/30/2017	0	94.2%	90.1%	0	496
7/1/2017 - 6/30/2018	0	88.4%	82.3%	0	64
7/1/2018 - 6/30/2019	1	75.9%	69.0%	4	249
7/1/2019 - 6/30/2020	121	63.0%	42.9%	223	438
Total	\$122			\$227	\$6,958

Notes:

- (2) Data provided by Town of Wellesley.
- (3) Based on selected pattern in Exhibit 9.
- (4) Based on selected pattern in Exhibit 8.
- (5) = (2) x [100.0% - (3)] / [(3) - (4)].
- (6) = (5) + Exhibit 4, Sheet 1, Item (6).

TOWN OF WELLESLEY

Workers Compensation

Development of Reported Losses Using the Loss Development Technique

Data in Thousands

Accident Year <hr/> (1)	Reported Losses as of 8/31/2020 <hr/> (2)	Development Factor to Ultimate <hr/> (3)	Estimated Ultimate Losses <hr/> (4)
7/1/1995 - 6/30/1996	\$239	1.000	\$239
7/1/1996 - 6/30/1997	300	1.000	300
7/1/1997 - 6/30/1998	259	1.000	259
7/1/1998 - 6/30/1999	685	1.000	685
7/1/1999 - 6/30/2000	195	1.000	195
7/1/2000 - 6/30/2001	348	1.000	348
7/1/2001 - 6/30/2002	92	1.000	92
7/1/2002 - 6/30/2003	563	1.000	563
7/1/2003 - 6/30/2004	233	1.000	233
7/1/2004 - 6/30/2005	163	1.000	163
7/1/2005 - 6/30/2006	183	1.000	183
7/1/2006 - 6/30/2007	311	1.000	311
7/1/2007 - 6/30/2008	328	1.000	328
7/1/2008 - 6/30/2009	247	1.001	247
7/1/2009 - 6/30/2010	332	1.003	333
7/1/2010 - 6/30/2011	317	1.007	319
7/1/2011 - 6/30/2012	301	1.012	304
7/1/2012 - 6/30/2013	163	1.017	166
7/1/2013 - 6/30/2014	300	1.026	308
7/1/2014 - 6/30/2015	93	1.040	97
7/1/2015 - 6/30/2016	62	1.053	65
7/1/2016 - 6/30/2017	496	1.061	526
7/1/2017 - 6/30/2018	64	1.131	73
7/1/2018 - 6/30/2019	245	1.318	323
7/1/2019 - 6/30/2020	215	1.588	341
Total	\$6,731		\$6,998

Notes:

- (2) Data provided by Town of Wellesley.
- (3) Based on selected pattern in Exhibit 9.
- (4) (2) x (3).

TOWN OF WELLESLEY

Workers Compensation

Development of Paid Losses Using the Loss Development Technique

Data in Thousands

Accident Year <hr style="width: 100%; border: none; border-top: 1px solid black; margin-bottom: 5px;"/> (1)	Paid Losses as of 8/31/2020 <hr style="width: 100%; border: none; border-top: 1px solid black; margin-bottom: 5px;"/> (2)	Development Factor to Ultimate <hr style="width: 100%; border: none; border-top: 1px solid black; margin-bottom: 5px;"/> (3)	Estimated Ultimate Losses <hr style="width: 100%; border: none; border-top: 1px solid black; margin-bottom: 5px;"/> (4)
7/1/1995 - 6/30/1996	\$239	1.000	\$239
7/1/1996 - 6/30/1997	300	1.000	300
7/1/1997 - 6/30/1998	259	1.000	259
7/1/1998 - 6/30/1999	685	1.000	685
7/1/1999 - 6/30/2000	195	1.000	195
7/1/2000 - 6/30/2001	348	1.000	348
7/1/2001 - 6/30/2002	92	1.000	92
7/1/2002 - 6/30/2003	563	1.000	563
7/1/2003 - 6/30/2004	233	1.000	233
7/1/2004 - 6/30/2005	163	1.000	163
7/1/2005 - 6/30/2006	183	1.000	183
7/1/2006 - 6/30/2007	311	1.001	311
7/1/2007 - 6/30/2008	328	1.002	328
7/1/2008 - 6/30/2009	247	1.003	247
7/1/2009 - 6/30/2010	332	1.004	333
7/1/2010 - 6/30/2011	317	1.009	319
7/1/2011 - 6/30/2012	301	1.019	307
7/1/2012 - 6/30/2013	163	1.030	168
7/1/2013 - 6/30/2014	300	1.044	313
7/1/2014 - 6/30/2015	93	1.060	99
7/1/2015 - 6/30/2016	62	1.080	66
7/1/2016 - 6/30/2017	496	1.110	550
7/1/2017 - 6/30/2018	64	1.215	78
7/1/2018 - 6/30/2019	244	1.449	353
7/1/2019 - 6/30/2020	94	2.330	219
Total	\$6,609		\$6,951

Notes:

- (2) Data provided by Town of Wellesley.
- (3) Based on selected pattern in Exhibit 8.
- (4) (2) x (3).

Workers Compensation
Development of Reported Counts Using the Loss Development Technique

Accident Year (1)	Reported Counts as of 8/31/2020 (2)	Development Factor to Ultimate (3)	Projected Ultimate Claims (4)	Indicated Frequency (5)	Selected Frequency (6)	Estimated Ultimate Claims (7)
7/1/1995 - 6/30/1996	107	1.000	107	0.364	0.364	107
7/1/1996 - 6/30/1997	110	1.000	110	0.380	0.380	110
7/1/1997 - 6/30/1998	101	1.000	101	0.332	0.332	101
7/1/1998 - 6/30/1999	98	1.000	98	0.291	0.291	98
7/1/1999 - 6/30/2000	91	1.000	91	0.250	0.250	91
7/1/2000 - 6/30/2001	102	1.000	102	0.259	0.259	102
7/1/2001 - 6/30/2002	81	1.000	81	0.196	0.196	81
7/1/2002 - 6/30/2003	102	1.000	102	0.229	0.229	102
7/1/2003 - 6/30/2004	95	1.000	95	0.207	0.207	95
7/1/2004 - 6/30/2005	76	1.000	76	0.141	0.141	76
7/1/2005 - 6/30/2006	80	1.000	80	0.157	0.157	80
7/1/2006 - 6/30/2007	82	1.000	82	0.148	0.148	82
7/1/2007 - 6/30/2008	68	1.000	68	0.120	0.120	68
7/1/2008 - 6/30/2009	74	1.000	74	0.113	0.113	74
7/1/2009 - 6/30/2010	93	1.000	93	0.138	0.138	93
7/1/2010 - 6/30/2011	106	1.000	106	0.156	0.156	106
7/1/2011 - 6/30/2012	73	1.000	73	0.103	0.103	73
7/1/2012 - 6/30/2013	64	1.000	64	0.087	0.087	64
7/1/2013 - 6/30/2014	76	1.000	76	0.099	0.099	76
7/1/2014 - 6/30/2015	70	1.000	70	0.087	0.087	70
7/1/2015 - 6/30/2016	66	1.000	66	0.079	0.079	66
7/1/2016 - 6/30/2017	74	1.000	74	0.085	0.085	74
7/1/2017 - 6/30/2018	83	1.000	83	0.091	0.091	83
7/1/2018 - 6/30/2019	111	1.003	111	0.121	0.121	111
7/1/2019 - 6/30/2020	70	1.020	71	0.075	0.080	76
Total	2,153		2,155	0.144	0.144	2,159

Notes:

- (2) Data provided by Town of Wellesley. Includes claims without any payment or reserves.
- (3) Based on selected pattern in Exhibit 10.
- (4) (2) x (3).
- (5) (5) / Exhibit 2, Sheet 1, Column (6) x 1,000.
- (6) Selected judgmentally based on (5).
- (7) (6) x Exhibit 2, Sheet 1, Column (6) / 1,000.

TOWN OF WELLESLEY

Workers Compensation

Calculation of Discount Factors

Interest Rate = 4.0%

Annual Funding - Beginning of Year

Year (T)	Percent Paid In Year (T)	Percent Unpaid At Beginning Of Year (T)	Present Value Of Payments In Year (T)	Average Discount Factor for Remaining Payments at Beginning Of Year (T)
(1)	(2)	(3)	(4)	(5)
1	36.0289	100.0000	35.3292	0.9263
2	30.6246	63.9711	28.8749	0.9315
3	13.3307	33.3465	12.0856	0.9219
4	9.5981	20.0158	8.3670	0.9181
5	2.6875	10.4177	2.2526	0.8950
6	1.8454	7.7303	1.4873	0.8998
7	1.4117	5.8849	1.0940	0.9094
8	1.4329	4.4732	1.0677	0.9225
9	0.9696	3.0403	0.6947	0.9309
10	0.9793	2.0707	0.6747	0.9439
11	0.6924	1.0914	0.4587	0.9474
12	0.0996	0.3990	0.0634	0.9254
13	0.0997	0.2994	0.0611	0.9433
14	0.0998	0.1997	0.0588	0.9617
15	0.0999	0.0999	0.0566	0.9806
16	0.0000	0.0000	0.0000	1.0000

Notes:

- (2) [(3) at time T] - [(3) at time T+1].
- (3) Based on payment pattern from Exhibit 8.
- (4) $(2) \times [(1.0 + 0.040) ^ -(1 - 0.5)]$.
- (5) $(5), \text{Year (T)} = [\text{Sum (4), Year (T) to Year (16)}] / (3) \times [(1.0 + 0.040) ^ ((1) - 1)]$.

Accident Period	Evaluation Age in Months													
	12	24	36	48	60	72	84	96	108	120	132	144	156	168
07/92 - 06/93	0	0	0	0	0	0	11	11	11	11	11	11	11	11
07/93 - 06/94	0	0	0	0	0	587	589	593	599	602	604	606	602	432
07/94 - 06/95	0	0	0	0	117	117	117	117	117	117	117	117	117	117
07/95 - 06/96	0	0	0	239	239	239	239	239	239	239	239	239	239	239
07/96 - 06/97	0	0	225	231	253	279	299	300	300	300	300	300	300	300
07/97 - 06/98	0	212	222	246	259	259	259	259	259	259	259	259	259	259
07/98 - 06/99	296	261	340	405	456	662	685	685	685	685	685	685	685	685
07/99 - 06/00	19	44	87	108	127	147	161	175	186	195	195	195	195	195
07/00 - 06/01	57	156	237	290	347	347	347	347	347	347	347	347	347	347
07/01 - 06/02	43	90	90	90	90	90	90	90	90	90	90	90	90	90
07/02 - 06/03	143	330	480	483	487	487	487	487	526	563	563	563	563	563
07/03 - 06/04	148	178	193	198	201	201	205	211	216	218	223	225	227	232
07/04 - 06/05	59	143	157	157	163	163	163	163	163	163	163	163	163	163
07/05 - 06/06	98	172	183	183	183	183	183	183	183	183	183	183	183	183
07/06 - 06/07	82	210	282	311	313	313	311	311	311	311	311	311	311	311
07/07 - 06/08	64	113	165	205	240	245	254	272	300	308	328	328	328	328
07/08 - 06/09	69	151	175	214	221	224	228	232	236	240	244	247	247	247
07/09 - 06/10	105	170	243	266	277	327	328	330	332	332	332	332	332	332
07/10 - 06/11	106	236	299	304	308	310	316	316	317	317	317	317	317	317
07/11 - 06/12	171	191	267	300	301	301	301	301	301	301	301	301	301	301
07/12 - 06/13	108	142	162	163	163	163	163	163	163	163	163	163	163	163
07/13 - 06/14	213	251	278	298	300	300	300	300	300	300	300	300	300	300
07/14 - 06/15	50	93	93	93	93	93	93	93	93	93	93	93	93	93
07/15 - 06/16	30	60	62	62	62	62	62	62	62	62	62	62	62	62
07/16 - 06/17	150	300	401	496	496	496	496	496	496	496	496	496	496	496
07/17 - 06/18	37	61	64	64	64	64	64	64	64	64	64	64	64	64
07/18 - 06/19	156	243	243	243	243	243	243	243	243	243	243	243	243	243
07/19 - 06/20	52	52	52	52	52	52	52	52	52	52	52	52	52	52

Accident Period	Age Interval in Months													
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
07/92 - 06/93	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/93 - 06/94	0.000	0.000	0.000	0.000	0.000	1.003	1.007	1.009	1.006	1.003	1.003	1.000	0.994	0.718
07/94 - 06/95	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/95 - 06/96	0.000	0.000	0.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/96 - 06/97	0.000	0.000	1.026	1.104	1.094	1.073	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/97 - 06/98	0.000	1.046	1.111	1.051	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/98 - 06/99	0.883	1.303	1.192	1.125	1.453	1.034	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/99 - 06/00	2.349	1.959	1.240	1.177	1.159	1.095	1.087	1.064	1.044	1.000	1.000	1.000	1.000	1.000
07/00 - 06/01	2.748	1.522	1.221	1.197	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/01 - 06/02	2.077	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.019
07/02 - 06/03	2.305	1.457	1.006	1.007	1.000	1.000	1.000	1.081	1.070	1.000	1.000	1.000	1.000	1.000
07/03 - 06/04	1.206	1.085	1.026	1.012	1.000	1.021	1.030	1.021	1.011	1.022	1.008	1.011	1.019	1.006
07/04 - 06/05	2.424	1.098	1.000	1.038	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/05 - 06/06	1.752	1.067	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/06 - 06/07	2.570	1.339	1.105	1.005	1.000	0.992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/07 - 06/08	1.752	1.468	1.239	1.170	1.020	1.037	1.071	1.102	1.028	1.063	1.000	1.000	1.000	1.000
07/08 - 06/09	2.196	1.156	1.225	1.032	1.017	1.017	1.018	1.014	1.019	1.014	1.013	1.000	1.000	1.000
07/09 - 06/10	1.819	1.432	1.094	1.041	1.180	1.003	1.007	1.004	1.001	1.000	1.000	1.000	1.000	1.000
07/10 - 06/11	2.237	1.268	1.016	1.012	1.008	1.018	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/11 - 06/12	1.117	1.396	1.125	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/12 - 06/13	1.334	1.144	1.002	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/13 - 06/14	1.179	1.106	1.073	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/14 - 06/15	1.859	1.000	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/15 - 06/16	2.004	1.021	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/16 - 06/17	2.004	1.337	1.236	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/17 - 06/18	1.645	1.043	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/18 - 06/19	1.553	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/19 - 06/20	1.553	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Averages														
1:	Volume - 3 of 5													
	1.828	1.082	1.040	1.001	1.000	1.001	1.003	1.005	1.005	1.005	1.000	1.000	1.000	1.002
2:	Volume - 3													
	1.760	1.249	1.172	1.004	1.000	1.000	1.001	1.002	1.005	1.026	1.004	1.000	1.000	1.003
3:	Volume - 5													
	1.789	1.172	1.117	1.002	1.002	1.005	1.005	1.022	1.009	1.017	1.003	1.002	1.003	1.003
4:	Volume - 7													
	1.549	1.207	1.099	1.011	1.034	1.010	1.013	1.017	1.007	1.016	1.002	1.001	1.002	1.002
5:	Benchmark Pattern													
	2.381	1.374	1.164	1.079	1.029	1.021	1.015	1.010	1.008	1.008	1.007	1.011	1.005	1.006
6:	Prior Analysis													
	1.900	1.200	1.090	1.030	1.020	1.015	1.015	1.010	1.010	1.007	1.001	1.001	1.001	1.001
Selected Values	1.850	1.200	1.120	1.030	1.020	1.015	1.015	1.010	1.010	1.007	1.001	1.001	1.001	1.001
Cumulative	2.776	1.500	1.250	1.116	1.084	1.063	1.047	1.031	1.021	1.011	1.004	1.003	1.002	1.001

Accident Period	180	192	204	216	228	240	252	264	276	288	300	312	324	336
07/92 - 06/93	11	11	11	11	11	11	11	11	11	11	11	11	11	11
07/93 - 06/94	432	432	432	432	432	432	432	432	432	432	432	432	432	432
07/94 - 06/95	117	117	117	117	117	117	117	117	117	117	117	117	117	
07/95 - 06/96	239	239	239	239	239	239	239	239	239	239	239	239	239	
07/96 - 06/97	300	300	300	300	300	300	300	300	300	300	300	300		
07/97 - 06/98	259	259	259	259	259	259	259	259	259	259				
07/98 - 06/99	685	685	685	685	685	685	685	685	685					
07/99 - 06/00	195	195	195	195	195	195	195							
07/00 - 06/01	347	347	347	347	348	348								
07/01 - 06/02	92	92	92	92	92									
07/02 - 06/03	563	563	563	563										
07/03 - 06/04	233	233	233											
07/04 - 06/05	163	163												
07/05 - 06/06	183													
07/06 - 06/07														
07/07 - 06/08														
07/08 - 06/09														
07/09 - 06/10														
07/10 - 06/11														
07/11 - 06/12														
07/12 - 06/13														
07/13 - 06/14														
07/14 - 06/15														
07/15 - 06/16														
07/16 - 06/17														
07/17 - 06/18														
07/18 - 06/19														
07/19 - 06/20														

Accident Period	180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-UII
07/92 - 06/93	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/93 - 06/94	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/94 - 06/95	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/95 - 06/96	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/96 - 06/97	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/97 - 06/98	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/98 - 06/99	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/99 - 06/00	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/00 - 06/01	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/01 - 06/02	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/02 - 06/03	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/03 - 06/04	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/04 - 06/05	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/05 - 06/06	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/06 - 06/07	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/07 - 06/08	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/08 - 06/09	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/09 - 06/10	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/10 - 06/11	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/11 - 06/12	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/12 - 06/13	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/13 - 06/14	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/14 - 06/15	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/15 - 06/16	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/16 - 06/17	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/17 - 06/18	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/18 - 06/19	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/19 - 06/20	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Averages														
1:	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
2:	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
3:	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
4:	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
5:	1,005	1,005	1,005	1,004	1,004	1,004	1,004	1,004	1,004	1,003	1,003	1,003	1,003	1,023
6:	1,000	1,000	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 Values	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Cumulative	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

Divided Difference Interpolation

Evaluation Point (Months)	Expected Percentage		Evaluation Point (Months)	Expected Percentage	
	Developed	Undeveloped		Developed	Undeveloped
3	5.19%	94.81%	153	99.78%	0.22%
6	13.11%	86.89%	156	99.80%	0.20%
9	23.48%	76.52%	159	99.82%	0.18%
12	36.03%	63.97%	162	99.84%	0.16%
15	46.05%	53.95%	165	99.87%	0.13%
18	54.35%	45.65%	168	99.90%	0.10%
21	61.15%	38.85%	171	99.94%	0.06%
24	66.65%	33.35%	174	99.97%	0.03%
27	70.16%	29.84%	177	99.99%	0.01%
30	73.59%	26.41%	180	100.00%	0.00%
33	76.88%	23.12%			
36	79.98%	20.02%			
39	83.36%	16.64%			
42	86.03%	13.97%			
45	88.07%	11.93%			
48	89.58%	10.42%			
51	90.36%	9.64%			
54	91.06%	8.94%			
57	91.69%	8.31%			
60	92.27%	7.73%			
63	92.80%	7.20%			
66	93.28%	6.72%			
69	93.71%	6.29%			
72	94.12%	5.88%			
75	94.44%	5.56%			
78	94.79%	5.21%			
81	95.15%	4.85%			
84	95.53%	4.47%			
87	95.95%	4.05%			
90	96.33%	3.67%			
93	96.66%	3.34%			
96	96.96%	3.04%			
99	97.19%	2.81%			
102	97.42%	2.58%			
105	97.67%	2.33%			
108	97.93%	2.07%			
111	98.18%	1.82%			
114	98.44%	1.56%			
117	98.68%	1.32%			
120	98.91%	1.09%			
123	99.17%	0.83%			
126	99.37%	0.63%			
129	99.51%	0.49%			
132	99.60%	0.40%			
135	99.63%	0.37%			
138	99.65%	0.35%			
141	99.68%	0.32%			
144	99.70%	0.30%			
147	99.73%	0.27%			
150	99.75%	0.25%			

Accident Period	Evaluation Age in Months													
	12	24	36	48	60	72	84	96	108	120	132	144	156	168
07/92 - 06/93	0	0	0	0	0	0	11	11	11	11	11	11	11	11
07/93 - 06/94	0	0	0	0	0	587	592	597	603	612	612	612	605	457
07/94 - 06/95	0	0	0	0	117	117	117	117	117	117	117	117	117	117
07/95 - 06/96	0	0	0	239	239	239	239	239	239	239	239	239	239	239
07/96 - 06/97	0	0	225	274	278	301	301	300	300	300	300	300	300	300
07/97 - 06/98	0	212	229	254	260	259	259	259	259	259	259	259	259	259
07/98 - 06/99	296	387	460	475	510	701	933	685	685	685	685	685	685	685
07/99 - 06/00	36	74	125	127	136	159	211	211	213	243	195	195	195	195
07/00 - 06/01	153	205	297	358	347	347	347	347	347	347	347	347	347	347
07/01 - 06/02	70	90	90	90	90	90	90	90	90	90	90	90	90	94
07/02 - 06/03	221	379	526	487	487	487	487	489	532	563	563	563	563	563
07/03 - 06/04	159	186	204	202	203	201	209	231	231	232	233	235	235	237
07/04 - 06/05	100	222	157	157	163	163	163	163	163	163	163	163	163	163
07/05 - 06/06	137	176	183	183	183	183	183	183	183	183	183	183	183	183
07/06 - 06/07	141	242	325	311	313	313	311	311	311	311	311	311	311	311
07/07 - 06/08	76	119	185	230	250	246	261	276	301	316	328	328	328	328
07/08 - 06/09	148	158	183	222	221	224	228	232	236	240	244	247	247	247
07/09 - 06/10	181	217	321	337	312	327	328	330	332	332	332	332	332	332
07/10 - 06/11	200	322	309	304	309	310	319	316	317	317	317	317	317	317
07/11 - 06/12	267	213	291	301	301	301	301	301	301	301	301	301	301	301
07/12 - 06/13	189	144	162	163	163	163	163	163	163	163	163	163	163	163
07/13 - 06/14	255	251	280	310	300	300	300	300	300	300	300	300	300	300
07/14 - 06/15	95	96	93	93	93	93	93	93	93	93	93	93	93	93
07/15 - 06/16	52	60	62	62	62	62	62	62	62	62	62	62	62	62
07/16 - 06/17	201	350	428	496	496	496	496	496	496	496	496	496	496	496
07/17 - 06/18	45	61	64	64	64	64	64	64	64	64	64	64	64	64
07/18 - 06/19	219	244	244	244	244	244	244	244	244	244	244	244	244	244
07/19 - 06/20	142	142	142	142	142	142	142	142	142	142	142	142	142	142

Accident Period	Age Interval in Months													
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
07/92 - 06/93	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/93 - 06/94	0.000	0.000	0.000	0.000	0.000	1.008	1.008	1.010	1.015	0.999	1.000	0.990	0.755	0.999
07/94 - 06/95	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/95 - 06/96	0.000	0.000	0.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/96 - 06/97	0.000	0.000	1.218	1.015	1.083	1.000	0.995	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/97 - 06/98	0.000	1.081	1.110	1.024	0.995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/98 - 06/99	1.309	1.189	1.032	1.074	1.374	1.332	0.733	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/99 - 06/00	2.081	1.678	1.019	1.068	1.168	1.328	1.000	1.007	1.144	0.800	1.000	1.000	1.000	1.000
07/00 - 06/01	1.342	1.447	1.205	0.970	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/01 - 06/02	1.297	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.041	0.978
07/02 - 06/03	1.714	1.388	0.926	0.999	1.000	1.000	1.004	1.089	1.058	1.000	1.000	1.000	1.000	1.000
07/03 - 06/04	1.170	1.096	0.990	1.008	0.987	1.041	1.104	1.000	1.005	1.006	1.005	1.000	1.012	0.982
07/04 - 06/05	2.217	0.705	1.000	1.038	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/05 - 06/06	1.289	1.041	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/06 - 06/07	1.724	1.341	0.959	1.005	1.000	0.992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/07 - 06/08	1.562	1.554	1.245	1.086	0.985	1.061	1.058	1.090	1.050	1.035	1.000	1.000	1.000	1.000
07/08 - 06/09	1.066	1.160	1.213	0.993	1.015	1.019	1.018	1.014	1.019	1.014	1.013	1.000	1.000	1.000
07/09 - 06/10	1.203	1.475	1.051	0.927	1.047	1.003	1.007	1.004	1.001	1.000	1.000	1.000	1.000	1.000
07/10 - 06/11	1.612	0.958	0.984	1.018	1.003	1.028	0.991	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/11 - 06/12	0.797	1.367	1.035	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/12 - 06/13	0.763	1.128	1.002	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/13 - 06/14	0.985	1.116	1.107	0.966	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/14 - 06/15	1.016	0.963	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/15 - 06/16	1.157	1.021	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/16 - 06/17	1.739	1.222	1.159	1.159	1.159	1.159	1.159	1.159	1.159	1.159	1.159	1.159	1.159	1.159
07/17 - 06/18	1.351	1.043	1.043	1.043	1.043	1.043	1.043	1.043	1.043	1.043	1.043	1.043	1.043	1.043
07/18 - 06/19	1.115	1.115	1.115	1.115	1.115	1.115	1.115	1.115	1.115	1.115	1.115	1.115	1.115	1.115
07/19 - 06/20	1.115	1.115	1.115	1.115	1.115	1.115	1.115	1.115	1.115	1.115	1.115	1.115	1.115	1.115
Averages														
1: Volume - 3 of 5	1.156	1.089	1.058	0.999	1.000	1.001	1.003	1.005	1.005	1.005	1.000	1.000	1.000	0.996
2: Volume - 3	1.408	1.173	1.118	0.977	1.000	1.000	0.996	1.002	1.005	1.016	1.004	1.000	1.000	0.993
3: Volume - 5	1.326	1.131	1.096	0.988	1.001	1.007	1.003	1.020	1.013	1.011	1.003	1.000	1.002	0.995
4: Volume - 7	1.143	1.173	1.064	0.981	1.011	1.015	1.010	1.015	1.011	1.009	1.002	1.000	1.004	0.996
5: Benchmark Pattern	1.532	1.142	1.070	1.026	1.007	1.001	1.002	1.000	1.004	1.000	1.002	1.005	1.002	1.000
6: Prior Analysis	1.200	1.180	1.075	1.008	1.011	1.014	1.010	1.005	1.005	1.005	1.001	1.001	1.000	1.000
Selected Values	1.200	1.175	1.090	1.008	1.011	1.014	1.010	1.005	1.005	1.005	1.002	1.001	1.000	1.000
Cumulative	1.633	1.361	1.158	1.063	1.054	1.043	1.028	1.018	1.013	1.008	1.003	1.001	1.000	1.000

Accident Period	180	192	204	216	228	240	252	264	276	288	300	312	324	336
07/92 - 06/93	11	11	11	11	11	11	11	11	11	11	11	11	11	11
07/93 - 06/94	456	432	432	432	432	432	432	432	432	432	432	432	432	432
07/94 - 06/95	117	117	117	117	117	117	117	117	117	117	117	117	117	
07/95 - 06/96	239	239	239	239	239	239	239	239	239	239	239	239	239	
07/96 - 06/97	300	300	300	300	300	300	300	300	300	300	300	300		
07/97 - 06/98	259	259	259	259	259	259	259	259	259	259				
07/98 - 06/99	685	685	685	685	685	685	685	685	685					
07/99 - 06/00	195	195	195	195	195	195	195							
07/00 - 06/01	347	347	347	347	348	348								
07/01 - 06/02	92	92	92		92									
07/02 - 06/03	563	563	563	563										
07/03 - 06/04	233	233	233											
07/04 - 06/05	163	163												
07/05 - 06/06	183													
07/06 - 06/07														
07/07 - 06/08														
07/08 - 06/09														
07/09 - 06/10														
07/10 - 06/11														
07/11 - 06/12														
07/12 - 06/13														
07/13 - 06/14														
07/14 - 06/15														
07/15 - 06/16														
07/16 - 06/17														
07/17 - 06/18														
07/18 - 06/19														
07/19 - 06/20														

Accident Period	180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-UII
07/92 - 06/93	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/93 - 06/94	0.947	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/94 - 06/95	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/95 - 06/96	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/96 - 06/97	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/97 - 06/98	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/98 - 06/99	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/99 - 06/00	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/00 - 06/01	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/01 - 06/02	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/02 - 06/03	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/03 - 06/04	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/04 - 06/05	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/05 - 06/06	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/06 - 06/07	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/07 - 06/08	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/08 - 06/09	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/09 - 06/10	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/10 - 06/11	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/11 - 06/12	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/12 - 06/13	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/13 - 06/14	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/14 - 06/15	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/15 - 06/16	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/16 - 06/17	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/17 - 06/18	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/18 - 06/19	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/19 - 06/20	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Averages														
1:	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2:	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3:	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
4:	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5:	1.003	1.004	1.000	1.003	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.000	1.000	1.000
6:	1.000	1.000	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 Values	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Divided Difference Interpolation

Evaluation Point (Months)	Expected Percentage		Evaluation Point (Months)	Expected Percentage	
	Developed	Undeveloped		Developed	Undeveloped
(1)	(2)	(3)	(1)	(2)	(3)
3	22.61%	77.39%	153	99.99%	0.01%
6	39.84%	60.16%	156	100.00%	0.00%
9	52.45%	47.55%			
12	61.23%	38.77%			
15	63.93%	36.07%			
18	66.92%	33.08%			
21	70.14%	29.86%			
24	73.48%	26.52%			
27	77.07%	22.93%			
30	80.42%	19.58%			
33	83.53%	16.47%			
36	86.34%	13.66%			
39	89.34%	10.66%			
42	91.56%	8.44%			
45	93.11%	6.89%			
48	94.11%	5.89%			
51	94.27%	5.73%			
54	94.45%	5.55%			
57	94.65%	5.35%			
60	94.86%	5.14%			
63	95.06%	4.94%			
66	95.30%	4.70%			
69	95.59%	4.41%			
72	95.90%	4.10%			
75	96.27%	3.73%			
78	96.62%	3.38%			
81	96.94%	3.06%			
84	97.25%	2.75%			
87	97.56%	2.44%			
90	97.82%	2.18%			
93	98.04%	1.96%			
96	98.22%	1.78%			
99	98.34%	1.66%			
102	98.47%	1.53%			
105	98.59%	1.41%			
108	98.71%	1.29%			
111	98.82%	1.18%			
114	98.94%	1.06%			
117	99.07%	0.93%			
120	99.20%	0.80%			
123	99.37%	0.63%			
126	99.50%	0.50%			
129	99.61%	0.39%			
132	99.70%	0.30%			
135	99.76%	0.24%			
138	99.81%	0.19%			
141	99.86%	0.14%			
144	99.90%	0.10%			
147	99.94%	0.06%			
150	99.97%	0.03%			

Accident Period	Evaluation Age in Months													
	12	24	36	48	60	72	84	96	108	120	132	144	156	168
07/92 - 06/93	0	0	0	0	0	0	43	43	43	43	43	43	43	43
07/93 - 06/94	0	0	0	0	0	99	99	99	99	99	99	99	99	99
07/94 - 06/95	0	0	0	0	85	85	85	85	85	85	85	85	85	85
07/95 - 06/96	0	0	0	107	107	107	107	107	107	107	107	107	107	107
07/96 - 06/97	0	0	109	110	110	110	110	110	110	110	110	110	110	110
07/97 - 06/98	0	101	101	101	101	101	101	101	101	101	101	101	101	101
07/98 - 06/99	91	97	97	98	98	98	98	98	98	98	98	98	98	98
07/99 - 06/00	89	91	91	91	91	91	91	91	91	91	91	91	91	91
07/00 - 06/01	100	102	102	102	102	102	102	102	102	102	102	102	102	102
07/01 - 06/02	80	81	81	81	81	81	81	81	81	81	81	81	81	81
07/02 - 06/03	101	102	102	102	102	102	102	102	102	102	102	102	102	102
07/03 - 06/04	91	94	95	95	95	95	95	95	95	95	95	95	95	95
07/04 - 06/05	73	76	76	76	76	76	76	76	76	76	76	76	76	76
07/05 - 06/06	76	80	80	80	80	80	80	80	80	80	80	80	80	80
07/06 - 06/07	77	81	82	82	82	82	82	82	82	82	82	82	82	82
07/07 - 06/08	67	68	68	68	68	68	68	68	68	68	68	68	68	68
07/08 - 06/09	71	74	74	74	74	74	74	74	74	74	74	74	74	74
07/09 - 06/10	92	93	93	93	93	93	93	93	93	93	93	93	93	93
07/10 - 06/11	106	106	106	106	106	106	106	106	106	106	106	106	106	106
07/11 - 06/12	72	73	73	73	73	73	73	73	73	73	73	73	73	73
07/12 - 06/13	63	64	64	64	64	64	64	64	64	64	64	64	64	64
07/13 - 06/14	74	76	76	76	76	76	76	76	76	76	76	76	76	76
07/14 - 06/15	70	70	70	70	70	70	70	70	70	70	70	70	70	70
07/15 - 06/16	61	65	66	66	66	66	66	66	66	66	66	66	66	66
07/16 - 06/17	72	74	74	74	74	74	74	74	74	74	74	74	74	74
07/17 - 06/18	82	83	83	83	83	83	83	83	83	83	83	83	83	83
07/18 - 06/19	110	111	111	111	111	111	111	111	111	111	111	111	111	111
07/19 - 06/20	69	69	69	69	69	69	69	69	69	69	69	69	69	69

Accident Period	Age Interval in Months													
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
07/92 - 06/93	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/93 - 06/94	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/94 - 06/95	0.000	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/95 - 06/96	0.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/96 - 06/97	0.000	0.000	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/97 - 06/98	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/98 - 06/99	1.066	1.000	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/99 - 06/00	1.022	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/00 - 06/01	1.020	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/01 - 06/02	1.013	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/02 - 06/03	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/03 - 06/04	1.033	1.011	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/04 - 06/05	1.041	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/05 - 06/06	1.053	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/06 - 06/07	1.052	1.012	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/07 - 06/08	1.015	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/08 - 06/09	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
07/09 - 06/10	1.011	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/10 - 06/11	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/11 - 06/12	1.014	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/12 - 06/13	1.016	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/13 - 06/14	1.027	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/14 - 06/15	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/15 - 06/16	1.066	1.015	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/16 - 06/17	1.028	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/17 - 06/18	1.012	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/18 - 06/19	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
07/19 - 06/20	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Averages														
1:	Volume - 3 of 5													
	1.015	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2:	Volume - 3													
	1.015	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
3:	Volume - 5													
	1.020	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
4:	Volume - 7													
	1.021	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
5:	Prior Analysis													
	1.025	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
Selected Values														
Cumulative	1.021	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Accident Period	180	192	204	216	228	240	252	264	276	288	300	312	324	336
07/92 - 06/93	43	43	43	43	43	43	43	43	43	43	43	43	43	43
07/93 - 06/94	99	99	99	99	99	99	99	99	99	99	99	99	99	99
07/94 - 06/95	85	85	85	85	85	85	85	85	85	85	85	85	85	85
07/95 - 06/96	107	107	107	107	107	107	107	107	107	107	107	107	107	107
07/96 - 06/97	110	110	110	110	110	110	110	110	110	110	110	110	110	110
07/97 - 06/98	101	101	101	101	101	101	101	101	101	101	101	101	101	101
07/98 - 06/99	98	98	98	98	98	98	98	98	98	98	98	98	98	98
07/99 - 06/00	91	91	91	91	91	91	91	91	91	91	91	91	91	91
07/00 - 06/01	102	102	102	102	102	102	102	102	102	102	102	102	102	102
07/01 - 06/02	81	81	81	81	81	81	81	81	81	81	81	81	81	81
07/02 - 06/03	102	102	102	102	102	102	102	102	102	102	102	102	102	102
07/03 - 06/04	95	95	95	95	95	95	95	95	95	95	95	95	95	95
07/04 - 06/05	76	76	76	76	76	76	76	76	76	76	76	76	76	76
07/05 - 06/06	80	80	80	80	80	80	80	80	80	80	80	80	80	80
07/06 - 06/07														
07/07 - 06/08														
07/08 - 06/09														
07/09 - 06/10														
07/10 - 06/11														
07/11 - 06/12														
07/12 - 06/13														
07/13 - 06/14														
07/14 - 06/15														
07/15 - 06/16														
07/16 - 06/17														
07/17 - 06/18														
07/18 - 06/19														
07/19 - 06/20														

Accident Period	180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-UII
07/92 - 06/93	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/93 - 06/94	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/94 - 06/95	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/95 - 06/96	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/96 - 06/97	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/97 - 06/98	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/98 - 06/99	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/99 - 06/00	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/00 - 06/01	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/01 - 06/02	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/02 - 06/03	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/03 - 06/04	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/04 - 06/05	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
07/05 - 06/06														
07/06 - 06/07														
07/07 - 06/08														
07/08 - 06/09														
07/09 - 06/10														
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07/15 - 06/16														
07/16 - 06/17														
07/17 - 06/18														
07/18 - 06/19														
07/19 - 06/20														
Averages														
1:	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
2:	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
3:	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
4:	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
5:	1,000	1,000	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 Values														
Cumulative	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

Divided Difference Interpolation

Evaluation Point (Months)	Expected Percentage	
	Developed	Undeveloped
(1)	(2)	(3)
3	38.47%	61.53%
6	66.58%	33.42%
9	85.78%	14.22%
12	97.55%	2.45%
15	98.29%	1.71%
18	98.86%	1.14%
21	99.29%	0.71%
24	99.60%	0.40%
27	99.76%	0.24%
30	99.88%	0.12%
33	99.95%	0.05%
36	100.00%	0.00%