

Monterey Bay Area Self Insurance Authority

**An Actuarial Review of the
Workers' Compensation Program**

**BAY ACTUARIAL CONSULTANTS
Moraga, California
October 2, 2010**

Bay Actuarial Consultants

October 2, 2010

Mr. Michael Simmons
Vice Chairman
Alliant Insurance Services
100 Pine Street, 11th Floor
San Francisco, CA 94111

Dear Mr. Simmons:

We are pleased to present Bay Actuarial's Actuarial Review of the Monterey Bay Area Self Insurance Authority's workers' compensation program. We appreciate the opportunity to serve the Authority.

If you have any questions, please call me at (925) 377-5269.

Respectfully,

BAY ACTUARIAL CONSULTANTS



Jack Joyce, FCAS, MAAA
Principal

Monterey Bay Area Self Insurance Authority

An Actuarial Review of the Workers' Compensation Program

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Monterey Bay Area Self Insurance Authority

An Actuarial Review of the Workers' Compensation Program

Introduction

Monterey Bay Area Self Insurance Authority

An Actuarial Review of the Workers' Compensation Program

Introduction

Background & Purpose

The Monterey Bay Area Self Insurance Authority ("MBASIA") self-insures its workers' compensation claims. Members of the Authority pay the temporary disability ("TD") and Section 4850 of workers' compensation claims directly. Therefore the Authority has no liability for unpaid 4850/TD benefits. Because of this fact we supply two sets of 2010-11 funding rates. The first set includes a provision for 4850/TD benefits and might be useful in evaluating excess insurance options that cover those benefits. The second set of rates excludes 4850/TD and might be useful for projecting the Authority's internal funding requirements. The specific topics covered in this report include the following:

- 1) Projected 2010-11 Loss Rate.** Projections of the losses expected to be incurred during 2010-11, expressed in terms of rates of loss per \$100 of payroll. There are two sets of rates. The first set includes 4850/TD benefits and the second set doesn't.
- 2) Unpaid Losses.** We estimated the Authority's liability for unpaid losses as of June 30, 2010.
- 3) Discounting.** We have also discounted the projected 2010-11 losses and the liabilities to present value, assuming a 2% interest rate. The discounted estimates take into account the time value of money as workers' compensation costs are disbursed over an extended timeframe.
- 4) Variability of Estimates.** We have included an analysis of items (1) and (2) above, in terms of "probability levels."
- 5) Short-Term versus Long-Term.** We have broken out the liabilities into their short-term and long-term components.

Conditions & Limitations

This report has been prepared for the Authority's internal use. Copies of this report may be provided to the Authority's auditors. Any other use of this report is not authorized without the prior written permission of Bay Actuarial. In particular, those interested in providing insurance to the Authority must perform their own actuarial analysis and may not rely upon our work.

In this report, we relied upon loss and payroll data provided by JT2 Claims Administrators and the MBASIA. We have not audited this data and are not responsible for its accuracy. With any actuarial analysis, the accuracy and relevance of the conclusions, and the reasonableness of the recommendations, depend upon the accuracy and relevance of the underlying data. Unless otherwise noted, the term "losses" refers to all costs that can be tied to specific claims. These include loss payments, attorney's fees, and other expenses linked to specific claims.

The actuarial projections in this report are estimates. Uncertainty is unavoidable because many of the events that will determine future claims costs have not yet taken place. These events include, but are not limited to, future legislation or ballot initiatives that may change statutory benefit levels or the workers' compensation laws, changes in the rate of inflation, and the outcomes of future administrative proceedings and litigation. Our projections are based upon the Authority's historical experience. We did not anticipate any extraordinary changes in the various factors that might affect the future cost of claims. We used actuarial methods that should produce reasonable results given current information. There is no guarantee, express or implied, that losses will develop as projected in this report.

Organization of the Report

We have divided the remainder of this report into nine sections: the *Management Summary*, the *Technical Approach* section, the *Summary Exhibits*, the *Fiscal Year End Exhibits*, the *Limited Ultimate Loss Exhibits*, the *Gross Loss Exhibits*, the *Future Loss Exhibits*, the *Discounting Exhibits*, and the *Claims Data Exhibits*.

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Management Summary

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An Actuarial Review of the Workers' Compensation Program

Management Summary

Projected 2010-11 Loss Rates

Table I shows the MBASIA's projected rates of loss for 2010-11 at various self-insured retentions ("SIR's) ranging between \$150,000 and \$1,000,000, plus unlimited. These rates are discounted at 2% interest and include 4850/TD benefits. Table II is similar except that it excludes 4850/TD benefits. Table IV on page 11 has adjustment factors to change the Table I and II rates to their equivalents at different interest rates. The Table I and II rates do not reflect the full cost of self-insurance because they don't include claims handling fees, administrative costs, or the cost of excess insurance coverage.

Tables I and II show actuarial central estimates and estimates at various probability levels. The higher probability level rates have higher probabilities of being adequate. For example, we estimate that there is a 70% probability that the actual 2010-11 \$250,000 SIR loss rate with and without 4850/TD will be less than **\$6.95** and **\$5.62**, respectively.

Table I: Projected 2010-11 Discounted Loss Rates (2% interest rate – INCLUDES 4850/TD)						
Probability Level	Projected Loss per \$100 of Payroll					
	\$150,000 SIR	\$250,000 SIR	\$500,000 SIR	\$750,000 SIR	\$1,000,000 SIR	Unlimited Retention
50%	4.73	5.86	6.86	7.07	7.15	7.21
Central Estimate	\$4.93	\$6.10	\$7.15	\$7.44	\$7.53	\$7.67
60%	5.13	6.41	7.51	7.81	7.91	7.98
70%	5.62	6.95	8.22	8.56	8.66	8.82
80%	6.16	7.69	9.15	9.52	9.71	9.89
90%	7.05	8.85	10.51	11.09	11.30	11.66
09 Central Estimate	\$4.70	\$5.85	\$6.97	\$7.32	\$7.46	\$7.66
Change in C.E.	+4.9%	+4.3%	+2.6%	+1.6%	+0.9%	+0.1%

The next to last row in Table I shows last year's projected 2009-10 central value rates. The bottom row shows the percentage changes between last year's and this year's central value rates. In Table I both this year's and last year's rates are discounted at 2% interest.

Notice that the rate changes are higher at the lower SIR's. This is the opposite what we normally expect to see so we investigated. According to Table I the change in the base rate was 4.9% at the \$250,000 SIR. There are three items that determine the percentage change in the rate at any particular SIR. These three items are (1) the change in the unlimited base rate, (2) the change in the factor that adjusts the base rate to a particular SIR, (3) and the change in the present value discount factor.

The change in the base rate was a reduction of 1.7%. The changes in the SIR adjustment were different for each SIR. At the \$250,000 SIR the change in this factor was an increase of 2.2%. The present value discount factor increased by 3.8% at the \$250,000 SIR. Summing these three percentages produces an overall change of 4.3%, which matches the Table I entry in the \$250,000 SIR column, as we would expect.

Repeating this exercise for the \$1 million SIR rate, the change in the base rate remains the same at -1.7%, the change in the SIR adjustment factor was an increase of 0.6%, and the change in the present value discount factor was 2.0%. These three items add up to 0.9%, which again matches Table I.

The higher increases at the lower SIR's were caused primarily by the change in the discount factors. The change in the SIR adjustment factors also played a role, but that effect was smaller. Both this year's and last year's discount factors are based on loss payment pattern information published by the Workers Compensation Insurance Rating Bureau of California ("WCIRB"), combined with our analysis of California city data showing how the SIR affects the payment pattern. According to the newer WCIRB data, the rate at which claims are paying out is increasing, raising the overall discount factor at all SIR's. Our analysis of California city claims data indicates that the trend toward faster claims payments is not constant for all SIR's, but is increasing more quickly at the lower SIR's. This is the explanation for the larger rate increases at the lower SIR's.

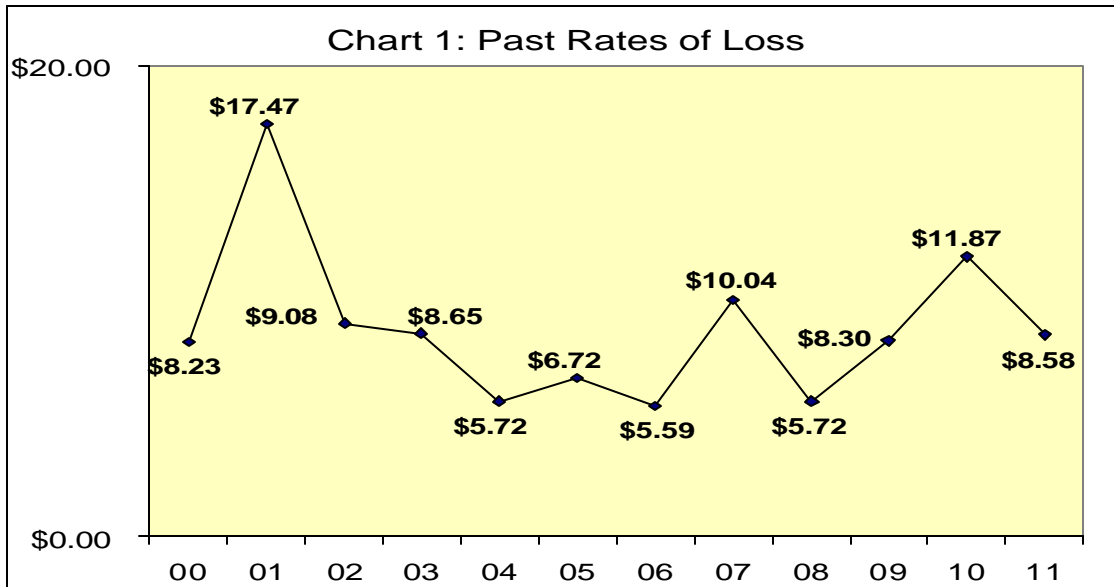
Table II: Projected 2010-11 Discounted Loss Rates (2% interest rate – EXCLUDES 4850/TD)						
Probability <u>Level</u>	<u>Projected Loss per \$100 of Payroll</u>					
	\$150,000 <u>SIR</u>	\$250,000 <u>SIR</u>	\$500,000 <u>SIR</u>	\$750,000 <u>SIR</u>	\$1,000,000 <u>SIR</u>	Unlimited <u>Retention</u>
50%	3.61	4.74	5.75	5.98	6.06	6.13
Central Estimate	\$3.76	\$4.93	\$5.99	\$6.29	\$6.38	\$6.52
60%	3.91	5.18	6.29	6.60	6.70	6.78
70%	4.29	\$5.62	6.89	7.23	7.34	7.50
80%	4.70	6.22	7.67	8.05	8.23	8.41
90%	5.38	7.15	8.81	9.37	9.57	9.91
09 Central Estimate	\$3.40	\$4.54	\$5.66	\$6.02	\$6.16	\$6.35
Change in C.E.	+10.6%	+8.6%	+5.8%	+4.5%	+3.6%	+2.7%

The rate increases in Table II are larger than those in Table I. This is because the Table II rate changes involve a fourth item in addition to the three items discussed above in the Table I analysis. That fourth item is the percentage of losses that derive from 4850/TD benefits, which does not affect Table I.

Last year we estimated that 4850/TD constituted 17.0% of the total unlimited losses. This year the data indicates 14.9%. This change is not surprising because medical costs are the fastest rising component of workers' compensation costs. Therefore the portion of the total losses due to medical costs are increasing and the portion that derives from 4850/TD costs is decreasing. At the \$250,000 SIR last year's 4850/TD ratio was 22.4%. This year the ratio is 19.2%. Therefore the non-4850/TD percentage rose from 77.6% to 80.8% at the \$250,000 SIR, an increase of 4.1%. At the unlimited retention level the non-4850/TD percentage rose from 83.0% to 85.1%, an increase of 2.5%. Once again the percentage increase was greater at the lower SIR, accentuating the trend in the overall increases shown in the bottom row of Table II.

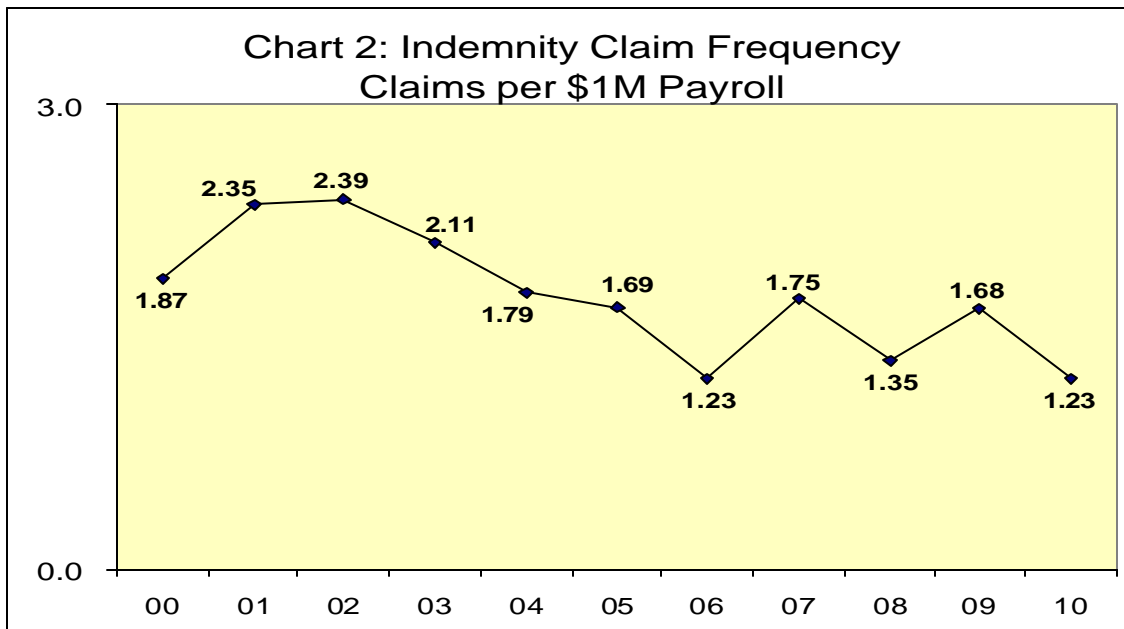
The Authority's Past Rates of Loss

Chart 1 displays the Authority's estimated past unlimited, undiscounted loss rates (no reduction for losses ceded to excess insurers). The loss rate is ultimate total loss per \$100 of payroll. **\$8.58** is the undiscounted central estimate unlimited rate for 2010-11. Our projection places the 2010-11 rate near the center of the past rates as shown in Chart 1. Six of the eleven prior rates are lower than **\$8.58**, and five are higher. The rates in Chart 1 include 4850/TD.



Indemnity Claim Frequency

Indemnity claim "frequency" is the number of indemnity claims divided by payroll. Chart 2 displays indemnity claim frequency for program years 1999-00 through 2009-10.

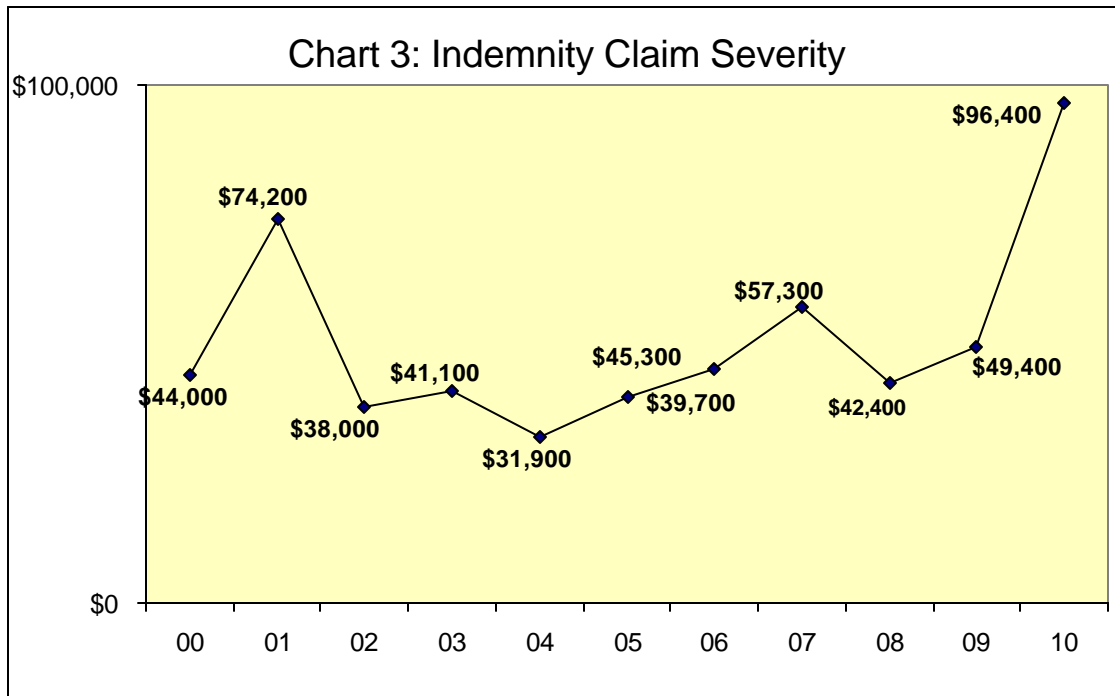


The frequency estimate for 2009-10 is preliminary. Nine of the open 2009-10 claims are “medical-only” claims that have the potential to develop into indemnity claims. If this occurs the extremely low frequency estimate of 1.23 for 2009-10 in Chart 2 would rise.

Average Indemnity Claim Amount (“Severity”)

Chart 3 shows the average indemnity claim amount, calculated by dividing the estimated annual losses by the number of indemnity claims. The values in this chart are based on unlimited loss data, so they include the portions of claims are ceded to excess insurers. The Chart 3 severities include 4850/TD.

At this time there is no reason to be concerned with the high indication for 2009-10. First, as we mentioned above in the discussion of frequency, there is the possibility that claims that are currently “medical-only” may convert to indemnity claims and this would reduce the 2009-10 indemnity severity estimate. Second, the number of IBNR indemnity claims that we currently expect to come in may turn out to be too low. Third, our current estimate of the value of the 2009-10 losses may turn out to be too high. In other words the \$96,400 indication for 2009-10 may change significantly in the future because the data is still very immature.



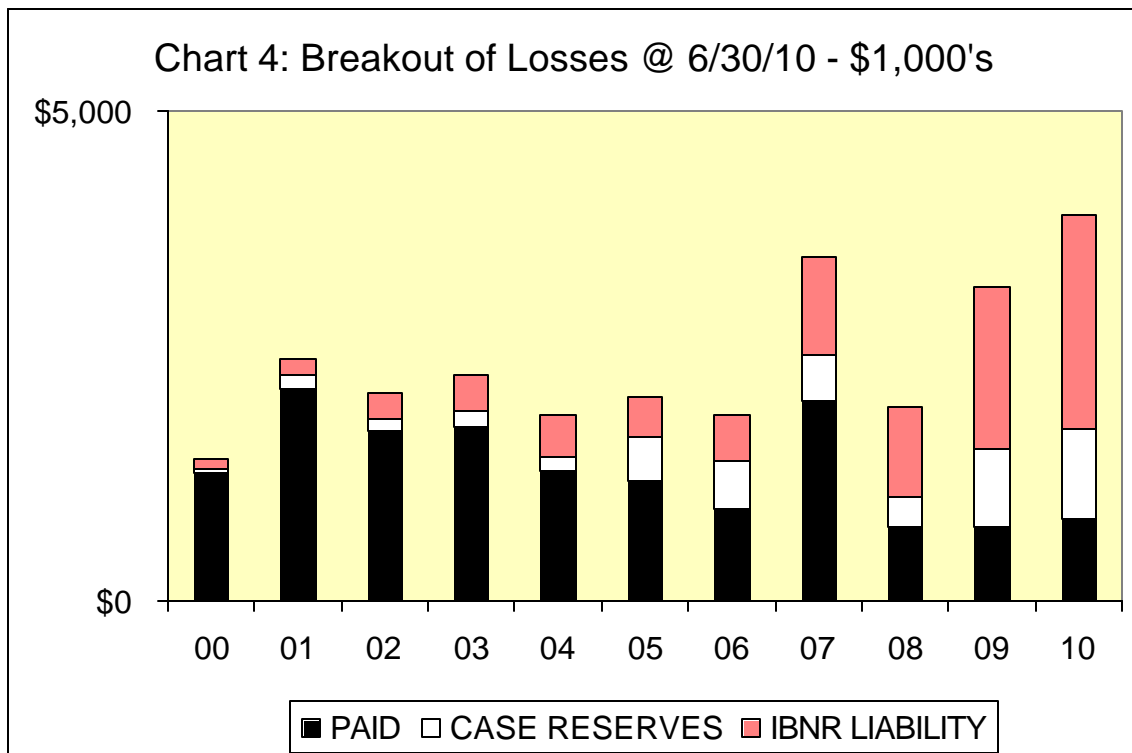
Limited Liability for Unpaid Losses @ 6/30/10

We estimate that the limited liability for unpaid losses was **\$12,936,000** on June 30, 2010 on an undiscounted basis, or **\$11,632,000** if discounted at 2% interest. Table III shows these liabilities at various probability levels.

Table III: Estimated Liability for Unpaid Losses As of June 30, 2010 - \$1,000's		
Probability Level	Undiscounted Losses	Discounted at 2% Interest Losses
50%	12,677	11,399
Central Estimate	\$12,936	\$11,632
60%	13,324	11,981
70%	14,100	12,679
80%	15,135	13,609
90%	16,558	14,889

Loss Breakout as of 6/30/10

We estimate that the Authority's liability of **\$12,936,000** comprised **\$4,467,000** in case reserves for known claims and an IBNR liability of **\$8,469,000**. Chart 4 breaks out the estimated total program year losses for 1999-00 through 2009-10 into their components: losses paid, case reserves, and IBNR liability.

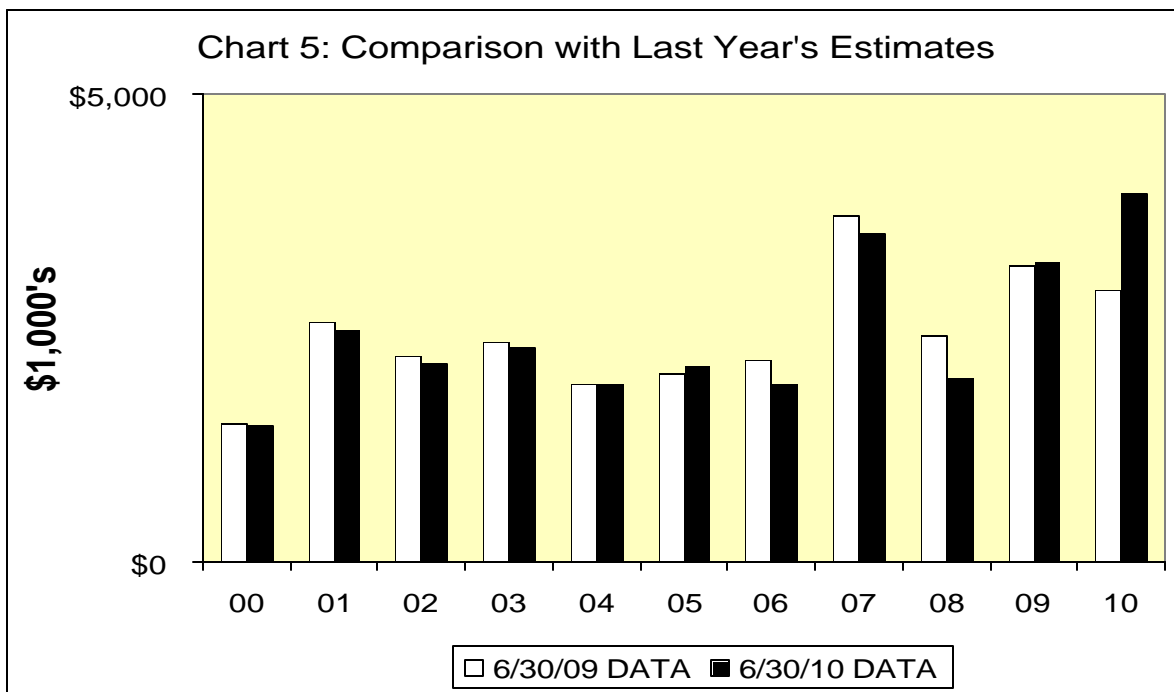


Short-Term Liability

Short-term liabilities are those expected to be expended within twelve months. The limited 6/30/10 liability comprises **\$2,164,000** in short-term and **\$10,772,000** in long-term liabilities.

Comparison with Last Year's Estimates

Chart 5 compares this year's estimates of the limited ultimate losses with last year's estimates. Chart 5 shows limited losses excluding 4850/TD benefits. All the estimates before 2008-09 came down. There was only a very slight increase for 2008-09. The indication is for quite a poor 2009-10 program year.



Reconciliation with 6/30/09 Liability Estimate

Last year we estimated that the liability for unpaid losses was \$12,405,000 on June 30, 2009. Our estimates of the ultimate losses for 2008-09 and prior have fallen by \$986,000 in total. Claims expenditures were \$2,419,000 during 2009-10. The estimated total losses incurred for the 2009-10 program year were \$3,936,000. Therefore starting with the June 30, 2009 liability, if we add the (negative) change in the loss estimates, subtract the claims expenditures, and add the total loss incurred for 2009-10, we end up with \$12,936,000, which matches the new estimate of the unpaid losses as of June 30, 2010, just as it should.

Alternative Interest Rates

Table IV shows the multiplicative factors that translate the Table I and II rates and the Table III liabilities to their equivalents at interest rates other than 2%.

Table IV: Interest Rate Adjustment Factors				
Interest Rate	0%	1%	2%	3%
UNL Rate	1.119	1.055	1.000	0.953
1M SIR Rate	1.116	1.054	1.000	0.954
750K SIR Rate	1.113	1.052	1.000	0.955
500K SIR Rate	1.110	1.051	1.000	0.956
250K SIR Rate	1.095	1.045	1.000	0.961
Liabilities	1.112	1.052	1.000	0.954

California Workers' Compensation Outlook

The outlook for workers' compensation costs in California is extremely poor. The following factors suggest that costs in general will continue to rise significantly:

- Medical costs are increasing at a double-digit pace;
- Costs fell due to the reforms of 2003 and 2004 until approximately 2006 and have been increasing ever since. We believe that medical and legal providers were in disarray after the reforms were enacted and spent the next few years optimizing new strategies to increase their incomes under the new rules. It appears that they began to be successful in 2006;
- WCAB en banc decisions. The Workers' Compensation Appeals Board ("WCAB") issued two significant decisions about one and one-half years ago that were precedent-setting and that will should prove to be very costly to employers. These decisions ("Ogilvie" and "Alvarez-Guzman") are still working their way through the appeals process. The overall impact is unknown but many estimate that they will increase costs by 15%, 20%, or more;
- There is a potential for a more labor-friendly administration in Sacramento after the November elections. There is a great deal of pressure to repeal or mitigate the 2003 and 2004 reforms.
- The federal MMSEA act will send back to insurers and self-insurers the costs that Medicare and Medicaid pay for injuries that were covered by workers' compensation.

Monterey Bay Area Self Insurance Authority

An Actuarial Review of the Workers' Compensation Program

Technical Approach

Monterey Bay Area Self Insurance Authority

An Actuarial Review of the Workers' Compensation Program

Technical Approach

This section describes the actuarial calculations.

Exhibits

Summary Exhibits

These exhibits summarize the analysis and conclusions. Summary Exhibit 1 shows the projected limited liabilities for unpaid losses as of June 30, 2010. Summary Exhibit 2 shows our projected rate for the 2010-11 program year, which runs from July 1, 2010 to June 30, 2011. These rates include 4850/TD benefits. Summary Exhibit 3 shows the estimated limited unpaid losses as of June 30, 2010 by program year on both discounted and non-discounted bases. The limited unpaid losses exclude 4850/TD.

Fiscal Year End Exhibits

These exhibits show the estimated unpaid limited losses as of June 30, 2010. Fiscal Year End Exhibit 4 shows limited unpaid losses including 4850/TD benefits. Fiscal Year End Exhibit 3 shows the percentages of the total losses that derive from 4850/TD. Fiscal Year End Exhibit 2 shows the calculation that removes 4850/TD IBNR from the total IBNR liability. Fiscal Year End Exhibit 1 shows the limited unpaid losses excluding 4850/TD.

Limited Ultimate Loss Exhibits

These exhibits show the estimation of the limited ultimate losses for each program year, including 4850/TD benefits. We start with the gross (unlimited) loss estimates and adjust them to a limited basis to reflect the expected effect of excess insurance.

Gross Loss Exhibits

These exhibits show the various actuarial projection methods and summarize the results for each program year.

We use five different actuarial methods:

- 1) Reported loss projection method;
- 2) Paid loss projection method;
- 3) IBNR to Case Reserves Ratio method;
- 4) Bornhuetter-Ferguson method using reported losses; and
- 5) Frequency times Severity method.

We summarize these results in Gross Loss Exhibit 1.

Future Loss Exhibits

These exhibits show the projection of the projected gross (unlimited) rate for 2010-11, with and without 4850/TD benefits.

Discounting Exhibits

These exhibits show the discounting of the remaining unpaid losses and the projected future loss rate. They also include the Program Information Exhibit.

Claims Data Exhibits

These exhibits show the reported loss, paid loss, and claim count triangles as of December 31, 2009, and the associated loss and claim development factors.

**Monterey Bay Area Self Insurance Authority
Workers' Compensation Program**

**Actuarial Analysis of the
Workers' Compensation Program**

Summary Exhibits

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Estimated Unpaid Losses as of June 30, 2010
Limited Self-Insured Losses Excluding 4850/TD

(1) Estimated Unpaid Losses:		\$12,935,903
(2) Discounted Value of Unpaid Losses: (Assuming 2.0% Interest Rate)		\$11,631,919

Probability Levels

Probability Level <u>(3)</u>	Probability Factor <u>(4)</u>	Discounted * Liability <u>(5)</u>
40%	0.92	10,701,365
50%	0.98	11,399,281
Central Estimate	1.00	\$11,631,919
60%	1.03	11,980,877
70%	1.09	12,678,792
80%	1.17	13,609,345
90%	1.28	14,888,856

* Multiply by 1.112 to obtain undiscounted values.

Notes:

- (1) Page 20, Column (1).
- (2) Page 20, Column (2).
- (3) Estimated probability that funding will be adequate.
- (4) Estimated by BAC.
- (5) (2) x (4).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Loss Funding Rate for 2010-11

\$250,000 SIR Loss rate
Limited Losses Including 4850/TD

(1) Discounted Loss Rate: Loss Rates
\$6.10
(as of July 1, 2010, 2.0% interest rate)

<u>Probability Levels</u>		
Probability Level <u>(2)</u>	Probability Factor <u>(3)</u>	Discounted * Rate <u>(4)</u>
0.20	0.71	\$4.33
0.30	0.80	4.88
0.40	0.88	5.37
0.50	0.96	5.86
Central Estimate	1.00	\$6.10
0.60	1.05	6.41
0.70	1.14	6.95
0.80	1.26	7.69
0.90	1.45	8.85

* Multiply by 1.095 to obtain undiscounted values.

Notes:

- (1) [Page 49, Column (5)] x [Page 56, Item (4)], adjusted for \$250K SIR.
- (2) Estimated probability that funding will be adequate.
- (3) Estimated by BAC.
- (4) (1) x (3).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

June 30, 2010 Summary
Limited Self-Insured Losses Excluding 4850/TD

Program Year	Undiscounted Value: Claims Liabilities as of 6/30/10 (1)	Discounted Value: Claims Liabilities as of 6/30/10 (2)	Estimated Ultimate Losses (3)
1985-86	\$20,371	\$16,840	\$400,000
1986-87	0	0	751,028
1987-88	0	0	123,543
1988-89	0	0	677,917
1989-90	0	0	696,442
1990-91	73,855	63,694	1,245,033
1991-92	43,577	36,963	1,145,048
1992-93	49,896	41,764	1,269,490
1993-94	36,382	30,665	985,280
1994-95	80,541	68,278	700,576
1995-96	172,121	144,713	839,518
1996-97	85,375	71,404	1,348,181
1997-98	86,141	71,884	948,250
1998-99	106,236	88,470	1,397,298
1999-00	147,578	123,602	1,459,114
2000-01	307,138	265,585	2,478,010
2001-02	400,577	357,282	2,133,275
2002-03	538,394	486,103	2,321,988
2003-04	596,646	541,477	1,930,683
2004-05	874,874	783,945	2,098,978
2005-06	970,102	867,279	1,899,985
2006-07	1,465,401	1,313,393	3,511,769
2007-08	1,325,770	1,197,724	2,073,531
2008-09	2,446,685	2,223,390	3,210,645
2009-10	3,108,247	2,837,464	3,936,424
Total	\$12,935,903	\$11,631,919	\$39,582,007

Notes:

- (1) Page 52, Column (1).
- (2) Page 52, Column (3).
- (3) Page 22, Column (1).

**Monterey Bay Area Self Insurance Authority
Workers' Compensation Program**

**Actuarial Analysis of the
Workers' Compensation Program**

Fiscal Year End Exhibits

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Estimated Unpaid Losses as of June 30, 2010
Limited Self-Insured Losses Excluding 4850/TD

Program Year	Estimated Ultimate Losses (1)	Limited Paid Losses less 4850/TD Paid 6/30/10 (2)	Limited Case Reserves less 4850/TD Case 6/30/10 (3)	Lim Reported less 4850/TD Reported 6/30/10 (4)	Limited IBNR less 4850/TD IBNR 6/30/10 (5)	Estimated Unpaid Losses excluding 4850/TD 6/30/10 (6)
1985-86	\$400,000	\$379,629	\$13,458	\$393,087	\$6,913	\$20,371
1986-87	751,028	751,028	0	751,028	0	0
1987-88	123,543	123,542	0	123,542	0	0
1988-89	677,917	677,917	0	677,917	0	0
1989-90	696,442	696,442	0	696,442	0	0
1990-91	1,245,033	1,171,178	46,444	1,217,622	27,411	73,855
1991-92	1,145,048	1,101,471	23,922	1,125,393	19,654	43,577
1992-93	1,269,490	1,219,594	13,806	1,233,400	36,090	49,896
1993-94	985,280	948,898	11,914	960,812	24,468	36,382
1994-95	700,576	620,035	54,564	674,599	25,977	80,541
1995-96	839,518	667,397	154,104	821,501	18,017	172,121
1996-97	1,348,181	1,262,807	34,707	1,297,514	50,668	85,375
1997-98	948,250	862,110	42,141	904,251	44,000	86,141
1998-99	1,397,298	1,291,062	42,974	1,334,036	63,262	106,236
1999-00	1,459,114	1,311,536	32,623	1,344,159	114,955	147,578
2000-01	2,478,010	2,170,871	131,449	2,302,320	175,689	307,138
2001-02	2,133,275	1,732,699	127,291	1,859,989	273,286	400,577
2002-03	2,321,988	1,783,594	157,215	1,940,810	381,178	538,394
2003-04	1,930,683	1,334,037	129,700	1,463,737	466,946	596,646
2004-05	2,098,978	1,224,104	448,664	1,672,768	426,210	874,874
2005-06	1,899,985	929,884	501,515	1,431,398	468,587	970,102
2006-07	3,511,769	2,046,369	472,065	2,518,434	993,335	1,465,401
2007-08	2,073,531	747,761	314,513	1,062,274	1,011,257	1,325,770
2008-09	3,210,645	763,960	786,636	1,550,596	1,660,049	2,446,685
2009-10	3,936,424	828,177	927,093	1,755,269	2,181,154	3,108,247
Total	\$39,582,007	\$26,646,103	\$4,466,798	\$31,112,901	\$8,469,105	\$12,935,903

Notes:

- (1) (2) + (6).
- (2) Page 25, Column (2) less 4850/TD paid.
- (3) [Page 25, Column (3)] - [Page 23, Column (2)].
- (4) (2) + (3).
- (5) Page 23, Column (6).
- (6) (3) + (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Calculation of 4850/TD IBNR

Program Year	Total Case Reserves 6/30/10 (1)	4850/TD Case Reserves 6/30/10 (2)	4850/TD Case Reserves Percentage (3)	Total IBNR as of 6/30/10 (4)	4850/TD IBNR as of 6/30/10 (5)	IBNR Net of 4850/TD as of 6/30/10 (6)
1985-86	\$13,458	\$0	0.0%	\$6,913	\$0	\$6,913
1986-87	0	0	0.0%	0	0	0
1987-88	0	0	0.0%	0	0	0
1988-89	0	0	0.0%	0	0	0
1989-90	0	0	0.0%	0	0	0
1990-91	46,444	0	0.0%	27,411	0	27,411
1991-92	23,922	0	0.0%	19,654	0	19,654
1992-93	13,806	0	0.0%	36,090	0	36,090
1993-94	11,914	0	0.0%	24,468	0	24,468
1994-95	54,564	0	0.0%	25,977	0	25,977
1995-96	154,104	0	0.0%	18,017	0	18,017
1996-97	34,707	0	0.0%	50,668	0	50,668
1997-98	42,141	0	0.0%	44,000	0	44,000
1998-99	42,974	0	0.0%	63,262	0	63,262
1999-00	32,623	0	0.0%	114,955	0	114,955
2000-01	131,449	0	0.0%	175,689	0	175,689
2001-02	127,291	0	0.0%	273,286	0	273,286
2002-03	157,215	0	0.0%	381,178	0	381,178
2003-04	129,700	0	0.0%	466,946	0	466,946
2004-05	448,664	0	0.0%	426,210	0	426,210
2005-06	501,515	0	0.0%	468,587	0	468,587
2006-07	472,065	0	0.0%	993,335	0	993,335
2007-08	318,255	3,742	1.2%	1,011,852	595	1,011,257
2008-09	802,277	15,641	1.9%	1,664,918	4,869	1,660,049
2009-10	1,222,400	295,307	24.2%	2,351,583	170,429	2,181,154
Total	\$4,781,489	\$314,691	\$0	\$8,644,997	\$175,892	\$8,469,105

Notes:

- (1) Page 25, Column (3).
- (2) Provided by JT2.
- (3) (2) / (1).
- (4) Page 25, Column (5).
- (5) (2) x 'IBNR to case reserves' ratio.
Ratio is [(4) / (1)], reduced 70% in 2009-10, 85% in 2008-09, & 95% in 2007-08.
4850/TD IBNR is \$0 for all other years.
- (6) (4) - (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

4850/TD as % of Total Losses

Program Year	4850/TD (1)	Estimated Ultimate Gross Loss (2)	4850/TD Percentage (3)
2002-03	\$498,012	\$3,000,000	16.6%
2003-04	349,317	2,300,000	15.2%
2004-05	461,022	2,700,000	17.1%
2005-06	300,015	2,400,000	12.5%
2006-07	588,231	4,300,000	13.7%
2007-08	426,469	2,500,000	17.1%
2008-09	489,355	3,900,000	12.5%
2009-10	763,576	5,400,000	14.1%
Total	\$3,875,997	\$26,500,000	14.6%
02/03 - 08/09	\$3,112,420	\$21,100,000	14.9%

Selected Percentages

Gross Loss:	14.9%
\$1M Limit:	15.3%
\$750K Limit:	15.5%
\$500K Limit:	16.2%
\$250K Limit:	19.2%
\$150K Limit:	23.8%

- (1) [Page 25, Column (1)] - [Page 22, Column (1)].
 (2) Page 34, Column (6).
 (3) (1) / (2).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Estimated Unpaid Losses as of June 30, 2010

Limited Self-Insured Losses Including 4850/TD

Program Year	Estimated Ultimate Losses (1)	Paid Losses as of 6/30/10 (2)	Case Reserves 6/30/10 (3)	Reported Losses as of 6/30/10 (4)	Estimated IBNR as of 6/30/10 (5)	Estimated Unpaid Losses as of 6/30/10 (6)
1985-86	\$400,000	\$379,629	\$13,458	\$393,087	\$6,913	\$20,371
1986-87	755,060	755,060	0	755,060	0	0
1987-88	130,922	130,922	0	130,922	0	0
1988-89	693,890	693,890	0	693,890	0	0
1989-90	738,579	738,579	0	738,579	0	0
1990-91	1,310,000	1,236,145	46,444	1,282,589	27,411	73,855
1991-92	1,280,000	1,236,423	23,922	1,260,346	19,654	43,577
1992-93	1,440,000	1,390,104	13,806	1,403,910	36,090	49,896
1993-94	1,100,000	1,063,618	11,914	1,075,532	24,468	36,382
1994-95	860,000	779,459	54,564	834,023	25,977	80,541
1995-96	1,060,000	887,879	154,104	1,041,983	18,017	172,121
1996-97	1,530,000	1,444,625	34,707	1,479,332	50,668	85,375
1997-98	1,150,000	1,063,859	42,141	1,106,000	44,000	86,141
1998-99	1,520,000	1,413,764	42,974	1,456,738	63,262	106,236
1999-00	1,600,000	1,452,422	32,623	1,485,045	114,955	147,578
2000-01	2,810,000	2,502,862	131,449	2,634,311	175,689	307,138
2001-02	2,600,000	2,199,423	127,291	2,326,714	273,286	400,577
2002-03	2,820,000	2,281,606	157,215	2,438,822	381,178	538,394
2003-04	2,280,000	1,683,354	129,700	1,813,054	466,946	596,646
2004-05	2,560,000	1,685,126	448,664	2,133,790	426,210	874,874
2005-06	2,200,000	1,229,898	501,515	1,731,413	468,587	970,102
2006-07	4,100,000	2,634,600	472,065	3,106,665	993,335	1,465,401
2007-08	2,500,000	1,169,893	318,255	1,488,148	1,011,852	1,330,107
2008-09	3,700,000	1,232,805	802,277	2,035,082	1,664,918	2,467,195
2009-10	4,700,000	1,126,017	1,222,400	2,348,417	2,351,583	3,573,983
Total	\$45,838,451	\$32,411,965	\$4,781,489	\$37,193,454	\$8,644,997	\$13,426,486

Notes:

- (1) Page 27, Column (6).
- (2) Page 29, Column (1).
- (3) (4) - (2).
- (4) Page 28, Column (1).
- (5) (1) - (4).
- (6) (3) + (5).

**Monterey Bay Area Self Insurance Authority
Workers' Compensation Program**

**Actuarial Analysis of the
Workers' Compensation Program**

**Limited Loss Exhibits
Including 4850/TD**

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Selected Ultimate Losses
Limited Self-Insured Losses Including 4850/TD

Program Year	Limited Reported Projection (1)	Limited Paid Projection (2)	Lim IBNR to Case Reserves Ratio (3)	B-F Limited Method Using Reported (4)	B-F Limited Method Using Paid (5)	Selected Ultimate Losses (6)
1985-86	\$394,914	\$385,941	\$398,389	\$395,599	\$387,666	\$400,000
1986-87	760,863	771,599	755,060	763,259	776,583	755,060
1987-88	132,530	134,783	130,922	132,493	134,719	130,922
1988-89	702,870	715,205	693,890	702,911	714,707	693,890
1989-90	748,737	763,650	738,579	749,050	763,262	738,579
1990-91	1,304,060	1,284,898	1,318,211	1,304,940	1,289,228	1,310,000
1991-92	1,280,427	1,286,156	1,276,661	1,281,306	1,287,513	1,280,000
1992-93	1,427,998	1,448,089	1,413,961	1,432,869	1,458,244	1,440,000
1993-94	1,096,853	1,115,000	1,084,230	1,096,812	1,115,138	1,100,000
1994-95	853,290	823,096	874,510	854,263	826,099	860,000
1995-96	1,069,476	940,986	1,170,968	1,071,103	950,599	1,060,000
1996-97	1,525,545	1,538,260	1,513,727	1,529,084	1,545,788	1,530,000
1997-98	1,147,639	1,139,712	1,156,527	1,148,840	1,143,589	1,150,000
1998-99	1,523,411	1,524,679	1,521,629	1,525,104	1,527,189	1,520,000
1999-00	1,567,142	1,583,538	1,541,255	1,622,134	1,671,237	1,600,000
2000-01	2,808,875	2,817,194	2,799,543	2,812,528	2,824,802	2,810,000
2001-02	2,524,475	2,623,811	2,446,240	2,605,723	2,778,904	2,600,000
2002-03	2,731,998	2,904,524	2,596,195	2,818,229	3,040,419	2,820,000
2003-04	2,157,550	2,313,935	1,996,580	2,339,960	2,582,388	2,280,000
2004-05	2,541,825	2,376,231	2,686,544	2,623,022	2,569,390	2,560,000
2005-06	2,161,140	1,857,202	2,449,081	2,291,684	2,181,514	2,200,000
2006-07	4,145,370	4,457,668	3,853,472	3,863,401	3,867,687	4,100,000
2007-08	2,260,333	2,465,814	2,079,147	2,636,168	2,935,561	2,500,000
2008-09	3,855,719	3,784,331	3,910,003	3,628,318	3,507,893	3,700,000
2009-10	8,446,124	8,397,236	8,478,753	4,746,527	4,002,420	4,700,000
Total	\$49,169,164	\$49,453,538	\$48,884,079	\$45,975,329	\$45,882,542	\$45,838,451

- (1) Page 28, Column (3).
- (2) Page 29, Column (3).
- (3) Page 30, Column (6).
- (4) Page 31, Column (6).
- (5) Page 32, Column (6).
- (6) Selected on the basis of (1) - (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Reported Loss Development
Limited Self-Insured Losses Including 4850/TD

Program Year	Cumulative Reported Losses as of 6/30/10 (1)	Reported Development Factor as of 6/30/10 (2)	Projected Ultimate Losses (3)
1985-86	\$393,087	1.005	\$394,914
1986-87	755,060	1.008	760,863
1987-88	130,922	1.012	132,530
1988-89	693,890	1.013	702,870
1989-90	738,579	1.014	748,737
1990-91	1,282,589	1.017	1,304,060
1991-92	1,260,346	1.016	1,280,427
1992-93	1,403,910	1.017	1,427,998
1993-94	1,075,532	1.020	1,096,853
1994-95	834,023	1.023	853,290
1995-96	1,041,983	1.026	1,069,476
1996-97	1,479,332	1.031	1,525,545
1997-98	1,106,000	1.038	1,147,639
1998-99	1,456,738	1.046	1,523,411
1999-00	1,485,045	1.055	1,567,142
2000-01	2,634,311	1.066	2,808,875
2001-02	2,326,714	1.085	2,524,475
2002-03	2,438,822	1.120	2,731,998
2003-04	1,813,054	1.190	2,157,550
2004-05	2,133,790	1.191	2,541,825
2005-06	1,731,413	1.248	2,161,140
2006-07	3,106,665	1.334	4,145,370
2007-08	1,488,148	1.519	2,260,333
2008-09	2,035,082	1.895	3,855,719
2009-10	2,348,417	3.597	8,446,124
Total	\$37,193,454		\$49,169,164

Notes:

- (1) Provided by JT2.
- (2) Page 35, Column (2), tempered for SIR.
- (3) (1) x (2), rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Paid Loss Development
Limited Self-Insured Losses Including 4850/TD

Program Year	Cumulative Paid Losses as of 6/30/10 (1)	Paid Development Factor as of 6/30/10 (2)	Projected Ultimate Losses (3)
1985-86	\$379,629	1.017	\$385,941
1986-87	755,060	1.022	771,599
1987-88	130,922	1.029	134,783
1988-89	693,890	1.031	715,205
1989-90	738,579	1.034	763,650
1990-91	1,236,145	1.039	1,284,898
1991-92	1,236,423	1.040	1,286,156
1992-93	1,390,104	1.042	1,448,089
1993-94	1,063,618	1.048	1,115,000
1994-95	779,459	1.056	823,096
1995-96	887,879	1.060	940,986
1996-97	1,444,625	1.065	1,538,260
1997-98	1,063,859	1.071	1,139,712
1998-99	1,413,764	1.078	1,524,679
1999-00	1,452,422	1.090	1,583,538
2000-01	2,502,862	1.126	2,817,194
2001-02	2,199,423	1.193	2,623,811
2002-03	2,281,606	1.273	2,904,524
2003-04	1,683,354	1.375	2,313,935
2004-05	1,685,126	1.410	2,376,231
2005-06	1,229,898	1.510	1,857,202
2006-07	2,634,600	1.692	4,457,668
2007-08	1,169,893	2.108	2,465,814
2008-09	1,232,805	3.070	3,784,331
2009-10	1,126,017	7.457	8,397,236
Total	\$32,411,965		\$49,453,538

Notes:

- (1) Provided by JT2.
- (2) Page 36, Column (2), tempered for SIR.
- (3) (1) x (2), rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

IBNR to Case Reserves Ratio Method
Limited Self-Insured Losses Including 4850/TD

Program Year	Limited Reported LDF (1)	Limited Paid LDF (2)	Limited IBNR to Case Reserves Ratio (3)	Limited Case Reserves (4)	Estimated IBNR as of Reserves (5)	Estimated Ultimate Losses (6)
1985-86	1.005	1.017	0.394	\$13,458	\$5,302	\$398,389
1986-87	1.008	1.022	0.552	0	0	755,060
1987-88	1.012	1.029	0.735	0	0	130,922
1988-89	1.013	1.031	0.750	0	0	693,890
1989-90	1.014	1.034	0.704	0	0	738,579
1990-91	1.017	1.039	0.767	46,444	35,622	1,318,211
1991-92	1.016	1.040	0.682	23,922	16,315	1,276,661
1992-93	1.017	1.042	0.728	13,806	10,051	1,413,961
1993-94	1.020	1.048	0.730	11,914	8,698	1,084,230
1994-95	1.023	1.056	0.742	54,564	40,487	874,510
1995-96	1.026	1.060	0.837	154,104	128,985	1,170,968
1996-97	1.031	1.065	0.991	34,707	34,395	1,513,727
1997-98	1.038	1.071	1.199	42,141	50,527	1,156,527
1998-99	1.046	1.078	1.510	42,974	64,891	1,521,629
1999-00	1.055	1.090	1.723	32,623	56,210	1,541,255
2000-01	1.066	1.126	1.257	131,449	165,232	2,799,543
2001-02	1.085	1.193	0.939	127,291	119,526	2,446,240
2002-03	1.120	1.273	1.001	157,215	157,373	2,596,195
2003-04	1.190	1.375	1.415	129,700	183,526	1,996,580
2004-05	1.191	1.410	1.232	448,664	552,754	2,686,544
2005-06	1.248	1.510	1.431	501,515	717,668	2,449,081
2006-07	1.334	1.692	1.582	472,065	746,807	3,853,472
2007-08	1.519	2.108	1.857	318,255	590,999	2,079,147
2008-09	1.895	3.070	2.337	802,277	1,874,921	3,910,003
2009-10	3.597	7.457	5.015	1,222,400	6,130,336	8,478,753
Total				\$4,781,489	\$11,690,625	\$48,884,079

Notes:

- (1) Page 28, Column (2).
- (2) Page 29, Column (2).
- (3) $[(1) - 1.000] \times (2) / [(2) - (1)]$.
- (4) $[\text{Page 28, Column (1)}] - [\text{Page 29, Column (1)}]$.
- (5) (3) x (4), rounded.
- (6) (5) + Page 28, Column (1).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Bornhuetter-Ferguson Using Reported Losses
Limited Self-Insured Losses Including 4850/TD

Program Year	<i>A Priori</i> Ultimate Losses (1)	Cumulative Reported Loss Development Factors (2)	Percentage of Losses Not Yet Reported (3)	Expected Unreported Losses (4)	Losses Reported as of 6/30/10 (5)	Estimated Ultimate Losses (6)
1985-86	\$502,311	1.005	0.5%	\$2,512	\$393,087	\$395,599
1986-87	1,024,912	1.008	0.8%	8,199	755,060	763,259
1987-88	130,922	1.012	1.2%	1,571	130,922	132,493
1988-89	693,890	1.013	1.3%	9,021	693,890	702,911
1989-90	747,960	1.014	1.4%	10,471	738,579	749,050
1990-91	1,396,929	1.017	1.6%	22,351	1,282,589	1,304,940
1991-92	1,310,000	1.016	1.6%	20,960	1,260,346	1,281,306
1992-93	1,703,491	1.017	1.7%	28,959	1,403,910	1,432,869
1993-94	1,120,000	1.020	1.9%	21,280	1,075,532	1,096,812
1994-95	880,000	1.023	2.3%	20,240	834,023	854,263
1995-96	1,120,000	1.026	2.6%	29,120	1,041,983	1,071,103
1996-97	1,658,412	1.031	3.0%	49,752	1,479,332	1,529,084
1997-98	1,190,000	1.038	3.6%	42,840	1,106,000	1,148,840
1998-99	1,553,773	1.046	4.4%	68,366	1,456,738	1,525,104
1999-00	2,636,325	1.055	5.2%	137,089	1,485,045	1,622,134
2000-01	2,874,463	1.066	6.2%	178,217	2,634,311	2,812,528
2001-02	3,577,042	1.085	7.8%	279,009	2,326,714	2,605,723
2002-03	3,545,857	1.120	10.7%	379,407	2,438,822	2,818,229
2003-04	3,293,164	1.190	16.0%	526,906	1,813,054	2,339,960
2004-05	3,038,707	1.191	16.1%	489,232	2,133,790	2,623,022
2005-06	2,815,433	1.248	19.9%	560,271	1,731,413	2,291,684
2006-07	3,014,884	1.334	25.1%	756,736	3,106,665	3,863,401
2007-08	3,356,784	1.519	34.2%	1,148,020	1,488,148	2,636,168
2008-09	3,375,501	1.895	47.2%	1,593,236	2,035,082	3,628,318
2009-10	3,321,482	3.597	72.2%	2,398,110	2,348,417	4,746,527
Total	\$49,882,238			\$8,781,875	\$37,193,454	\$45,975,329

Notes:

- (1) Page 39, Column (4), or Page 34, Column (6), adjusted for maximum claim and SIR.
- (2) Page 28, Column (2).
- (3) $100\% - [1.000 / (2)]$.
- (4) $(1) \times (3)$.
- (5) Page 28, Column (1).
- (6) $(4) + (5)$.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Bornhuetter-Ferguson Using Paid Losses
Limited Self-Insured Losses Including 4850/TD

Program Year	<i>A Priori</i> Ultimate Losses (1)	Cumulative Paid Loss Development Factors (2)	Percentage of Losses Not Yet Paid (3)	Expected Unpaid Losses (4)	Losses Paid as of 6/30/10 (5)	Estimated Ultimate Losses (6)
1985-86	\$502,311	1.017	1.6%	\$8,037	\$379,629	\$387,666
1986-87	1,024,912	1.022	2.1%	21,523	755,060	776,583
1987-88	130,922	1.029	2.9%	3,797	130,922	134,719
1988-89	693,890	1.031	3.0%	20,817	693,890	714,707
1989-90	747,960	1.034	3.3%	24,683	738,579	763,262
1990-91	1,396,929	1.039	3.8%	53,083	1,236,145	1,289,228
1991-92	1,310,000	1.040	3.9%	51,090	1,236,423	1,287,513
1992-93	1,703,491	1.042	4.0%	68,140	1,390,104	1,458,244
1993-94	1,120,000	1.048	4.6%	51,520	1,063,618	1,115,138
1994-95	880,000	1.056	5.3%	46,640	779,459	826,099
1995-96	1,120,000	1.060	5.6%	62,720	887,879	950,599
1996-97	1,658,412	1.065	6.1%	101,163	1,444,625	1,545,788
1997-98	1,190,000	1.071	6.7%	79,730	1,063,859	1,143,589
1998-99	1,553,773	1.078	7.3%	113,425	1,413,764	1,527,189
1999-00	2,636,325	1.090	8.3%	218,815	1,452,422	1,671,237
2000-01	2,874,463	1.126	11.2%	321,940	2,502,862	2,824,802
2001-02	3,577,042	1.193	16.2%	579,481	2,199,423	2,778,904
2002-03	3,545,857	1.273	21.4%	758,813	2,281,606	3,040,419
2003-04	3,293,164	1.375	27.3%	899,034	1,683,354	2,582,388
2004-05	3,038,707	1.410	29.1%	884,264	1,685,126	2,569,390
2005-06	2,815,433	1.510	33.8%	951,616	1,229,898	2,181,514
2006-07	3,014,884	1.692	40.9%	1,233,087	2,634,600	3,867,687
2007-08	3,356,784	2.108	52.6%	1,765,668	1,169,893	2,935,561
2008-09	3,375,501	3.070	67.4%	2,275,088	1,232,805	3,507,893
2009-10	3,321,482	7.457	86.6%	2,876,403	1,126,017	4,002,420
Total	\$49,882,238			\$13,470,577	\$32,411,965	\$45,882,542

Notes:

- (1) Page 31, Column (1).
- (2) Page 29, Column (2).
- (3) $100\% - [1.000 / (2)]$.
- (4) $(1) \times (3)$.
- (5) Page 29, Column (2).
- (6) $(4) + (5)$.

**Monterey Bay Area Self Insurance Authority
Workers' Compensation Program**

**Actuarial Analysis of the
Workers' Compensation Program**

Gross Loss Exhibits

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Selected Ultimate Losses
Unlimited Losses Including 4850/TD

Program Year	Reported Projection (1)	Paid Projection (2)	IBNR to Case Reserves Ratio (3)	B-F Method Using Reported (4)	Frequency Times Severity (5)	Selected Ultimate Losses (6)
1985-86	\$526,883	\$517,731	\$534,374			\$530,000
1986-87	1,067,183	1,055,910	1,076,304			1,070,000
1987-88	134,752	139,503	130,922			130,922
1988-89	715,792	742,333	693,890			693,890
1989-90	776,861	806,459	751,039			751,039
1990-91	1,406,306	1,408,526	1,404,264			1,410,000
1991-92	1,310,548	1,335,889	1,285,704			1,310,000
1992-93	1,775,122	1,796,648	1,752,357			1,770,000
1993-94	1,125,698	1,157,041	1,090,211			1,120,000
1994-95	876,838	852,187	906,975			880,000
1995-96	1,101,749	976,391	1,271,598			1,120,000
1996-97	1,715,757	1,736,603	1,684,160			1,710,000
1997-98	1,189,277	1,190,280	1,187,542			1,190,000
1998-99	1,594,960	1,608,897	1,566,271			1,590,000
1999-00	2,173,679	2,015,749	2,547,681	\$2,249,657	\$2,288,975	2,200,000
2000-01	4,566,216	3,964,223	5,555,867	4,435,649	3,041,672	4,600,000
2001-02	2,676,096	2,765,274	2,574,347	2,802,217	3,732,748	2,700,000
2002-03	2,829,724	3,000,735	2,652,792	2,928,150	3,527,562	3,000,000
2003-04	2,157,550	2,313,935	1,996,580	2,339,960	3,197,907	2,300,000
2004-05	2,628,212	2,428,250	2,849,409	2,707,934	2,776,027	2,700,000
2005-06	2,242,992	1,897,242	2,656,206	2,378,104	1,988,714	2,400,000
2006-07	4,441,506	4,548,827	4,316,239	4,061,429	3,039,503	4,300,000
2007-08	2,315,817	2,479,847	2,153,937	2,686,520	2,568,301	2,500,000
2008-09	3,961,628	3,836,403	4,063,238	3,722,113	3,703,989	3,900,000
2009-10	10,412,503	8,591,976	11,683,446	5,424,305	2,828,000	5,400,000
Total	\$55,723,649	\$53,166,859	\$58,385,353			\$51,275,851
99/00-09/10	\$40,405,923	\$37,842,461	\$43,049,743	\$35,736,039	\$32,693,398	\$36,000,000

- (1) Page 35, Column (3).
(2) Page 36, Column (3).
(3) Page 37, Column (6).
(4) Page 38, Column (6).
(5) Page 42, Column (4).
(6) Selected on the basis of (1) - (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Reported Loss Development
Unlimited Losses Including 4850/TD

Program Year	Cumulative Reported Losses as of 6/30/10 (1)	Reported Development Factor as of 6/30/10 (2)	Projected Ultimate Losses (3)
1985-86	\$513,622	1.026	\$526,883
1986-87	1,038,674	1.027	1,067,183
1987-88	130,922	1.029	134,752
1988-89	693,890	1.032	715,792
1989-90	751,039	1.034	776,861
1990-91	1,355,867	1.037	1,406,306
1991-92	1,260,346	1.040	1,310,548
1992-93	1,702,111	1.043	1,775,122
1993-94	1,075,532	1.047	1,125,698
1994-95	834,023	1.051	876,838
1995-96	1,041,983	1.057	1,101,749
1996-97	1,610,917	1.065	1,715,757
1997-98	1,106,000	1.075	1,189,277
1998-99	1,465,933	1.088	1,594,960
1999-00	1,971,814	1.102	2,173,679
2000-01	4,083,061	1.118	4,566,216
2001-02	2,353,459	1.137	2,676,096
2002-03	2,438,822	1.160	2,829,724
2003-04	1,813,054	1.190	2,157,550
2004-05	2,133,790	1.232	2,628,212
2005-06	1,731,413	1.295	2,242,992
2006-07	3,191,434	1.392	4,441,506
2007-08	1,488,148	1.556	2,315,817
2008-09	2,035,082	1.947	3,961,628
2009-10	2,840,874	3.665	10,412,503
Total	\$40,661,810		\$55,723,649

Notes:

- (1) Provided by JT2.
- (2) Estimated by BAC.
- (3) (1) x (2), rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Paid Loss Projection
Unlimited Losses Including 4850/TD

Program Year	Cumulative Paid Losses as of 6/30/10 (1)	Paid Development Factor as of 6/30/10 (2)	Projected Ultimate Losses (3)
1985-86	\$489,659	1.057	\$517,731
1986-87	994,816	1.061	1,055,910
1987-88	130,922	1.066	139,503
1988-89	693,890	1.070	742,333
1989-90	751,039	1.074	806,459
1990-91	1,307,421	1.077	1,408,526
1991-92	1,236,423	1.080	1,335,889
1992-93	1,658,305	1.083	1,796,648
1993-94	1,063,618	1.088	1,157,041
1994-95	779,459	1.093	852,187
1995-96	887,879	1.100	976,391
1996-97	1,567,294	1.108	1,736,603
1997-98	1,063,859	1.119	1,190,280
1998-99	1,422,851	1.131	1,608,897
1999-00	1,759,552	1.146	2,015,749
2000-01	3,330,478	1.190	3,964,223
2001-02	2,199,423	1.257	2,765,274
2002-03	2,281,606	1.315	3,000,735
2003-04	1,683,354	1.375	2,313,935
2004-05	1,685,126	1.441	2,428,250
2005-06	1,229,898	1.543	1,897,242
2006-07	2,634,600	1.727	4,548,827
2007-08	1,169,893	2.120	2,479,847
2008-09	1,232,805	3.112	3,836,403
2009-10	1,148,192	7.483	8,591,976
Total	\$34,402,362		\$53,166,859

Notes:

- (1) Provided by JT2.
- (2) Estimated by BAC.
- (3) (1) x (2), rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

IBNR to Case Reserves Ratio Method
Unlimited Losses Including 4850/TD

Program Year	Reported Development Factor as of 6/30/10 (1)	Paid Development Factor as of 6/30/10 (2)	IBNR to Case Reserves Ratio (3)	Case Reserves 6/30/10 (4)	Estimated IBNR Losses as of 6/30/10 (5)	Estimated Ultimate Losses (6)
1985-86	1.026	1.057	0.866	\$23,963	\$20,752	\$534,374
1986-87	1.027	1.061	0.858	43,858	37,630	1,076,304
1987-88	1.029	1.066	0.859	0	0	130,922
1988-89	1.032	1.070	0.883	0	0	693,890
1989-90	1.034	1.074	0.937	0	0	751,039
1990-91	1.037	1.077	0.999	48,446	48,397	1,404,264
1991-92	1.040	1.080	1.060	23,922	25,358	1,285,704
1992-93	1.043	1.083	1.147	43,806	50,246	1,752,357
1993-94	1.047	1.088	1.232	11,914	14,679	1,090,211
1994-95	1.051	1.093	1.337	54,564	72,952	906,975
1995-96	1.057	1.100	1.490	154,104	229,615	1,271,598
1996-97	1.065	1.108	1.679	43,623	73,243	1,684,160
1997-98	1.075	1.119	1.935	42,141	81,542	1,187,542
1998-99	1.088	1.131	2.329	43,082	100,338	1,566,271
1999-00	1.102	1.146	2.713	212,262	575,867	2,547,681
2000-01	1.118	1.190	1.957	752,583	1,472,806	5,555,867
2001-02	1.137	1.257	1.434	154,036	220,888	2,574,347
2002-03	1.160	1.315	1.361	157,215	213,970	2,652,792
2003-04	1.190	1.375	1.415	129,700	183,526	1,996,580
2004-05	1.232	1.441	1.595	448,664	715,619	2,849,409
2005-06	1.295	1.543	1.844	501,515	924,793	2,656,206
2006-07	1.392	1.727	2.020	556,834	1,124,805	4,316,239
2007-08	1.556	2.120	2.092	318,255	665,789	2,153,937
2008-09	1.947	3.112	2.528	802,277	2,028,156	4,063,238
2009-10	3.665	7.483	5.224	1,692,682	8,842,572	11,683,446
Total				\$6,259,448	\$17,723,543	\$58,385,353

Notes:

- (1) Page 35, Column (2).
- (2) Page 36, Column (2).
- (3) $[(1) - 1.000] \times (2) / [(2) - (1)]$.
- (4) Page 35, Column (1) - Page 36, Column (1).
- (5) (3) x (4), rounded.
- (6) (5) + Page 35, Column (1).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Bornhuetter-Ferguson Using Reported Losses
Unlimited Losses Including 4850/TD

Program Year	<i>A Priori</i> Ultimate Losses (1)	Cumulative Reported Loss Development Factors (2)	Percentage of Losses Not Yet Reported (3)	Expected Unreported Losses (4)	Losses Reported as of 6/30/10 (5)	Estimated Ultimate Losses (6)
1999-00	\$2,987,560	1.102	9.3%	\$277,843	\$1,971,814	\$2,249,657
2000-01	3,326,303	1.118	10.6%	352,588	4,083,061	4,435,649
2001-02	3,708,743	1.137	12.1%	448,758	2,353,459	2,802,217
2002-03	3,545,857	1.160	13.8%	489,328	2,438,822	2,928,150
2003-04	3,293,164	1.190	16.0%	526,906	1,813,054	2,339,960
2004-05	3,053,960	1.232	18.8%	574,144	2,133,790	2,707,934
2005-06	2,836,366	1.295	22.8%	646,691	1,731,413	2,378,104
2006-07	3,096,067	1.392	28.1%	869,995	3,191,434	4,061,429
2007-08	3,356,784	1.556	35.7%	1,198,372	1,488,148	2,686,520
2008-09	3,471,257	1.947	48.6%	1,687,031	2,035,082	3,722,113
2009-10	3,553,550	3.665	72.7%	2,583,431	2,840,874	5,424,305
	\$36,229,611			\$9,655,087	\$26,080,952	\$35,736,039

Notes:

- (1) Page 39, Column (4).
- (2) Page 35, Column (2).
- (3) $100\% - [1.000 / (2)]$.
- (4) $(1) \times (3)$.
- (5) Page 35, Column (1).
- (6) $(4) + (5)$.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

A Priori Losses for Bornhuetter-Ferguson
Unlimited Losses Including 4850/TD

Program Year	<i>A Priori</i> Loss Rate (1)	Factor to Remove Trend (2)	Trended Payroll (\$00's) (3)	<i>A Priori</i> Ultimate Losses (4)
1999-00	\$7.81	0.907	\$421,753	\$2,987,560
2000-01	7.81	0.971	438,623	3,326,303
2001-02	7.81	1.041	456,168	3,708,743
2002-03	7.81	0.957	474,415	3,545,857
2003-04	7.81	0.880	479,159	3,293,164
2004-05	7.81	0.808	483,951	3,053,960
2005-06	7.81	0.743	488,790	2,836,366
2006-07	7.81	0.803	493,678	3,096,067
2007-08	7.81	0.862	498,615	3,356,784
2008-09	7.81	0.928	478,947	3,471,257
2009-10	7.81	1.000	455,000	3,553,550
Total			\$5,169,099	\$36,229,611

Notes:

- (1) Page 40, Item (5).
- (2) Estimated by BAC.
- (3) Page 61, Column (3).
- (4) (1) x (2) x (3).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

A Priori Loss Rate for Bornhuetter-Ferguson Method
Unlimited Losses Including 4850/TD

Program Year	<i>A Priori</i> Ultimate Losses (1)	Estimated Pure Premium Trend (2)	Trended Payroll (\$00's) (3)	Constant Dollar Loss Rate (4)
1999-00	\$2,096,233	1.103	\$405,532	\$5.70
2000-01	4,274,601	1.029	421,753	10.43
2001-02	2,718,447	0.961	438,623	5.95
2002-03	2,909,879	1.045	456,168	6.67
2003-04	2,230,115	1.137	474,415	5.34
2004-05	2,536,060	1.237	479,159	6.55
2005-06	2,085,171	1.346	483,951	5.80
2006-07	4,489,403	1.246	488,790	11.45
2007-08	2,385,259	1.160	493,678	5.61
2008-09	3,913,439	1.077	498,615	8.45
2009-10	4,304,783	1.000	478,947	8.99
Total	\$33,943,390		\$5,119,631	\$7.36
04/05-08/09	\$15,409,332		\$2,444,192	\$7.81
			(5) Selected A Priori 2009-10 Loss Rate:	\$7.81

Notes:

- (1) Page 41, Column (3).
- (2) Estimated by BAC.
- (3) Page 61, Column (3).
- (4) (1) x (2) / (3).
- (5) Selected on the basis of (4).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

A Priori Ultimate losses
Unlimited Losses Including 4850/TD

Program Year	Reported Loss Projection (1)	Paid Loss Projection (2)	<i>A Priori</i> Selection (3)
1985-86	\$526,883	\$517,731	\$522,376
1986-87	1,067,183	1,055,910	1,061,638
1987-88	134,752	139,503	137,086
1988-89	715,792	742,333	728,821
1989-90	776,861	806,459	791,384
1990-91	1,406,306	1,408,526	1,407,395
1991-92	1,310,548	1,335,889	1,322,976
1992-93	1,775,122	1,796,648	1,785,680
1993-94	1,125,698	1,157,041	1,141,067
1994-95	876,838	852,187	864,753
1995-96	1,101,749	976,391	1,041,983
1996-97	1,715,757	1,736,603	1,725,974
1997-98	1,189,277	1,190,280	1,189,769
1998-99	1,594,960	1,608,897	1,601,794
1999-00	2,173,679	2,015,749	2,096,233
2000-01	4,566,216	3,964,223	4,274,601
2001-02	2,676,096	2,765,274	2,718,447
2002-03	2,829,724	3,000,735	2,909,879
2003-04	2,157,550	2,313,935	2,230,115
2004-05	2,628,212	2,428,250	2,536,060
2005-06	2,242,992	1,897,242	2,085,171
2006-07	4,441,506	4,548,827	4,489,403
2007-08	2,315,817	2,479,847	2,385,259
2008-09	3,961,628	3,836,403	3,913,439
2009-10	10,412,503	8,591,976	4,304,783
Total	\$55,723,649	\$53,166,859	\$49,266,086

Notes:

- (1) Page 35, Column (3).
- (2) Page 36, Column (3).
- (3) Selected on the basis of (1) and (2).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Frequency Times Severity Method

Program Year	Selected Claim Severity <u>(1)</u>	Factor to Remove Trend <u>(2)</u>	Selected Ultimate Claims <u>(3)</u>	Estimated Ultimate Losses <u>(4)</u>
1999-00	\$50,500	0.907	50	\$2,288,975
2000-01	50,500	0.971	62	3,041,672
2001-02	50,500	1.041	71	3,732,748
2002-03	50,500	0.957	73	3,527,562
2003-04	50,500	0.880	72	3,197,907
2004-05	50,500	0.808	68	2,776,027
2005-06	50,500	0.743	53	1,988,714
2006-07	50,500	0.803	75	3,039,503
2007-08	50,500	0.862	59	2,568,301
2008-09	50,500	0.928	79	3,703,989
2009-10	50,500	1.000	56	2,828,000
Total				\$32,693,398

Notes:

- (1) Page 43, Item (5).
- (2) Estimated by BAC.
- (3) Page 44, Column (3).
- (4) (1) x (2) x (3).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Calculation of Expected Claim Severity
Frequency Times Severity Method
Unlimited Losses Including 4850/TD

Program Year	<i>A Priori</i> Ultimate Losses <u>(1)</u>	Estimated Severity Trend <u>(2)</u>	Selected Claim Count <u>(3)</u>	Trended Claim Severity <u>(4)</u>
1999-00	\$2,096,233	1.103	50	\$46,248
2000-01	4,274,601	1.029	62	70,970
2001-02	2,718,447	0.961	71	36,778
2002-03	2,909,879	1.045	73	41,657
2003-04	2,230,115	1.137	72	35,217
2004-05	2,536,060	1.237	68	46,135
2005-06	2,085,171	1.346	53	52,949
2006-07	4,489,403	1.246	75	74,589
2007-08	2,385,259	1.160	59	46,901
2008-09	3,913,439	1.077	79	53,356
2009-10	4,304,783	1.000	56	76,871
Total	\$33,943,390		718	\$52,879
99/00-08/09	\$29,638,607		662	\$50,500
			(5) Selected Severity:	\$50,500

Notes:

- (1) Page 41, Column (3).
- (2) Estimated by BAC.
- (3) Page 44, Column (3).
- (4) $(1) \times (2) / (3)$.
- (5) Selected on the basis of (4).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Selected Claim Counts

Program Year	Reported Claim Count Projection <u>(1)</u>	Bornhuetter- Ferguson Method <u>(2)</u>	Selected Claim Count <u>(3)</u>
1985-86	10		10
1986-87	12		12
1987-88	8		8
1988-89	22		22
1989-90	40		40
1990-91	49		49
1991-92	46		46
1992-93	37		37
1993-94	50		50
1994-95	44		44
1995-96	45		45
1996-97	54		54
1997-98	61		61
1998-99	54		54
1999-00	50		50
2000-01	62		62
2001-02	71		71
2002-03	73		73
2003-04	72		72
2004-05	68		68
2005-06	53		53
2006-07	75		75
2007-08	59		59
2008-09	79		79
2009-10	55	56	56
Total	1,249		1,250

Notes:

- (1) Page 45, Column (3).
- (2) , Column (6).
- (3) Selected on the basis of (1) and (2).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projection of Ultimate Indemnity Claims

Program Year	Total Indemnity Claims Reported 6/30/10 (1)	Development Factors as of 6/30/10 (2)	Projected Ultimate Indemnity Claims (3)
1985-86	10	1.000	10
1986-87	12	1.000	12
1987-88	8	1.000	8
1988-89	22	1.000	22
1989-90	40	1.000	40
1990-91	49	1.000	49
1991-92	46	1.000	46
1992-93	37	1.000	37
1993-94	50	1.000	50
1994-95	44	1.000	44
1995-96	45	1.000	45
1996-97	54	1.000	54
1997-98	61	1.000	61
1998-99	54	1.001	54
1999-00	50	1.001	50
2000-01	62	1.002	62
2001-02	71	1.003	71
2002-03	73	1.003	73
2003-04	72	1.003	72
2004-05	68	1.005	68
2005-06	53	1.008	53
2006-07	74	1.009	75
2007-08	58	1.012	59
2008-09	78	1.017	79
2009-10	50	1.100	55
Total	1,241		1,249

Notes:

- (1) Provided by JT2.
- (2) Estimated by BAC.
- (3) (1) x (2), rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projection of Ultimate Indemnity Claims
Bornhuetter-Ferguson Method

<u>Program Year</u>	<u>A Priori Claim Count (1)</u>	<u>Claim Development Factor (2)</u>	<u>Estimated Percentage of Claims Unreported (3)</u>	<u>Estimated Unreported Claims (4)</u>	<u>Reported Claims as of 6/30/10 (5)</u>	<u>Projected Ultimate Claims (6)</u>
2009-10	64	1.100	9.1%	6	50	56

Notes:

- (1) Page 47, Item (6).
- (2) Page 45, Column (2).
- (3) $100\% - [1.000 / (2)]$.
- (4) $(1) \times (3)$.
- (5) Page 45, Column (1).
- (6) $(4) + (5)$.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Calculation of Expected Claim Counts
A Priori Claim Count

Program Year	Projected Ultimate Claim Counts (1)	Trended Payroll (\$Millions) (2)	Indicated Claim Frequency (3)
2002-03	73	\$47.4	1.54
2003-04	72	47.9	1.50
2004-05	68	48.4	1.41
2005-06	53	48.9	1.08
2006-07	75	49.4	1.52
2007-08	59	49.9	1.18
2008-09	79	47.9	1.65
2009-10	55	45.5	1.21
Total	534	\$385.3	1.39
02/03-08/09	479	\$339.8	1.41
	(4) Selected Claim Frequency:		1.41
	(5) 2009-10 Trended Payroll (\$Millions):		\$45.5
	(6) 2009-10 A Priori Claim Count:		64

Notes:

- (1) Page 45, Column (3).
- (2) Page 61, Column (3) / 10,000.
- (3) (1) / (2).
- (4) Selected on the basis of (3).
- (5) Page 61, Column (3) / 10,000.
- (6) (4) x (5).

**Monterey Bay Area Self Insurance Authority
Workers' Compensation Program**

**Actuarial Analysis of the
Workers' Compensation Program**

Future Loss Exhibits

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Ultimate Unlimited Loss Rate for 2010-11
Unlimited Losses Including 4850/TD

Program Year	2009-10 Level Loss Rate (1)	Expected Increase for 2010-11 (2)	Trended Payroll (\$00's) (3)	Projected Ultimate Losses (4)	Projected 2010-11 Unlimited Loss Rate (5)
2010-11	\$8.13	1.077	\$421,400	\$3,687,250	\$8.58
				(6) 4850 percentage:	14.9%
				(7) Gross Rate ex 4850 :	\$7.30
				(8) 1M Limit Rate ex 4850 :	\$7.13
				(9) 750K Limit Rate ex 4850 :	\$7.00
				(10) 500K Limit Rate ex 4850 :	\$6.65
				(11) 250K Limit Rate ex 4850 :	\$5.40
				(12) 150K Limit Rate ex 4850 :	\$4.11

Notes:

- (1) Page 50, Item (11).
- (2) 7.7% Expected Increase Estimated by BAC.
- (3) Page 61, Column (2).
- (4) (1) x (2) x (3), rounded.
- (5) (4) / [Page 61, Column (2)], rounded.
- (6) Page 24, Column (3).
- (7) [1.00 - (6)] x Unlimited Loss Rate.
- (8) - (12) Unlimited Loss Rate adjusted for Stated Limit & Percentages on Page 24.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Unlimited Losses Including 4850/TD

Projected Future Loss Rate

Program Year	Estimated Ultimate Losses (1)	Pure Premium Trend (2)	Trended Payroll (\$00's) (3)	Trended Loss Rate (4)	SIMPLE
1999-00	\$2,200,000	1.103	\$421,753	\$5.75	8.23
2000-01	4,600,000	1.029	438,623	10.80	17.47
2001-02	2,700,000	0.961	456,168	5.69	9.08
2002-03	3,000,000	1.045	474,415	6.61	8.65
2003-04	2,300,000	1.137	479,159	5.46	5.72
2004-05	2,700,000	1.237	483,951	6.90	6.72
2005-06	2,400,000	1.346	488,790	6.61	5.59
2006-07	4,300,000	1.246	493,678	10.85	10.04
2007-08	2,500,000	1.160	498,615	5.82	5.72
2008-09	3,900,000	1.077	478,947	8.77	8.30
2009-10	5,400,000	1.000	455,000	11.87	11.87
Total	\$36,000,000		\$5,169,099	\$7.74	\$8.85
04/05-08/09	\$15,800,000		\$2,443,981	\$7.79	\$7.27

(5) Selected Loss Rate: \$8.00

Program Year	Largest Claim (6)	Severity Trend (7)	LDF (8)	Trended Developed Max Claim (9)
2000-01	\$786,769	1.029	1.118	\$905,709
2001-02	892,921	0.961	1.137	975,279
2002-03	376,745	1.045	1.160	456,827
2003-04	346,154	1.137	1.190	468,357
2004-05	222,898	1.237	1.232	339,619
2005-06	447,130	1.346	1.295	779,571
2006-07	453,688	1.246	1.392	786,777
2007-08	584,769	1.160	1.556	1,055,698

(10) Factor for Unlimited Retention: 1.016

(11) Unlimited 2009-10 Rate: **\$8.13**

Notes:

- | | |
|--------------------------|--|
| (1) Page 34, Column (6). | (7) Page 43, Column (2). Indexed to 2009-10. |
| (2) Page 40, Column (2). | (8) Page 35, Column (2). |
| (3) Page 61, Column (3). | (9) (6) x (7) x (8). |
| (4) (1) x (2) / (3). | (10) Estimated by BAC. |
| (5) Based on Column (4). | (11) (5) x (10). |
| (6) Provided by JT2. | |

**Monterey Bay Area Self Insurance Authority
Workers' Compensation Program**

**Actuarial Analysis of the
Workers' Compensation Program**

Discounting Exhibits

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Discounted Value of Unpaid Losses as of June 30, 2010
Assuming a 2.0% Interest Rate

Limited Self-Insured Losses Excluding 4850/TD

Program Year	Estimated Unpaid Losses (1)	Discount Factor (2)	Discounted Unpaid Losses (3)
1985-86	\$20,371	0.827	\$16,840
1986-87	0	0.853	0
1987-88	0	0.875	0
1988-89	0	0.863	0
1989-90	0	0.859	0
1990-91	73,855	0.862	63,694
1991-92	43,577	0.848	36,963
1992-93	49,896	0.837	41,764
1993-94	36,382	0.843	30,665
1994-95	80,541	0.848	68,278
1995-96	172,121	0.841	144,713
1996-97	85,375	0.836	71,404
1997-98	86,141	0.834	71,884
1998-99	106,236	0.833	88,470
1999-00	147,578	0.838	123,602
2000-01	307,138	0.865	265,585
2001-02	400,577	0.892	357,282
2002-03	538,394	0.903	486,103
2003-04	596,646	0.908	541,477
2004-05	874,874	0.896	783,945
2005-06	970,102	0.894	867,279
2006-07	1,465,401	0.896	1,313,393
2007-08	1,325,770	0.903	1,197,724
2008-09	2,446,685	0.909	2,223,390
2009-10	3,108,247	0.913	2,837,464
Total	\$12,935,903		\$11,631,919

(4) Indicated Discount Factor: 0.899

Notes:

- (1) Page 22, Column (6).
- (2) (3) / (1).
- (3) Based upon a 2.0% interest rate.
- (4) [Sum of Column (3)] / [Sum of Column (1)].

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Discounted Value of 2010-11 Losses as of July 1, 2010
Assuming a 2.0% Interest rate

Unlimited Losses Including 4850/TD

Program Year	Projected Loss Payments (1)	Discounted Value Factor (2)	Discounted Value of Payments (3)
2010-11	\$492,747	0.990	\$487,892
2011-12	692,129	0.971	671,872
2012-13	554,622	0.952	527,833
2013-14	396,092	0.933	369,569
2014-15	254,692	0.915	232,978
2015-16	168,549	0.897	151,156
2016-17	123,589	0.879	108,663
2017-18	121,177	0.862	104,452
2018-19	129,141	0.845	109,135
2019-20	165,045	0.829	136,742
2020-21	120,826	0.812	98,143
2021-22	42,263	0.796	33,656
2022-23	34,753	0.781	27,132
2023-24	32,139	0.765	24,600
2024-25	25,230	0.750	18,933
2025-26	19,578	0.736	14,404
2026-27	16,957	0.721	12,231
2027-28	13,798	0.707	9,757
2028-29	9,382	0.693	6,504
2029-30	9,867	0.680	6,706
2030-31	11,281	0.666	7,517
2031-32	12,771	0.653	8,343
2032-33	13,822	0.640	8,853
2033-34	13,458	0.628	8,451
2034-35	13,414	0.616	8,257
35-36 to 48-49	199,928	0.517	103,421
Total	\$3,687,250		\$3,297,200

(4) Indicated Discount Factor: 0.894

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 2.0% interest rate.
- (3) (1) x (2).
- (4) [Sum of Column (3)] / [Sum of Column (1)].

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Discounted Value of 2010-11 Losses as of July 1, 2010
Assuming a 2.0% Interest rate

\$1 Million SIR
Limited Self-Insured Losses Including 4850/TD

Program Year	Projected Loss Payments (1)	Discounted Value Factor (2)	Discounted Value of Payments (3)
2010-11	\$482,912	0.990	\$478,155
2011-12	682,644	0.971	662,665
2012-13	545,551	0.952	519,200
2013-14	388,929	0.933	362,886
2014-15	250,808	0.915	229,425
2015-16	172,360	0.897	154,574
2016-17	123,712	0.879	108,771
2017-18	120,622	0.862	103,974
2018-19	142,393	0.845	120,334
2019-20	170,343	0.829	141,131
2020-21	127,090	0.812	103,231
2021-22	56,358	0.796	44,880
2022-23	18,416	0.781	14,378
2023-24	17,815	0.765	13,636
2024-25	16,181	0.750	12,142
2025-26	14,710	0.736	10,822
2026-27	9,917	0.721	7,153
2027-28	7,532	0.707	5,326
2028-29	3,791	0.693	2,628
2029-30	4,592	0.680	3,121
2030-31	8,646	0.666	5,761
2031-32	12,516	0.653	8,176
2032-33	13,546	0.640	8,676
2033-34	13,190	0.628	8,282
2034-35	13,146	0.616	8,093
35-36 to 48-49	195,938	0.517	101,357
Total	\$3,613,659		\$3,238,777

(4) Indicated Discount Factor: 0.896

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 2.0% interest rate.
- (3) (1) x (2).
- (4) [Sum of Column (3)] / [Sum of Column (1)].

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Discounted Value of 2010-11 Losses as of July 1, 2010
Assuming a 2.0% Interest rate

\$500,000 SIR

Limited Self-Insured Losses Including 4850/TD

Program Year	Projected Loss Payments (1)	Discounted Value Factor (2)	Discounted Value of Payments (3)
2010-11	\$457,278	0.990	\$452,772
2011-12	653,627	0.971	634,497
2012-13	507,017	0.952	482,527
2013-14	397,558	0.933	370,937
2014-15	242,821	0.915	222,118
2015-16	160,028	0.897	143,514
2016-17	128,950	0.879	113,376
2017-18	131,503	0.862	113,354
2018-19	149,286	0.845	126,159
2019-20	156,171	0.829	129,390
2020-21	102,318	0.812	83,109
2021-22	37,624	0.796	29,962
2022-23	24,074	0.781	18,795
2023-24	22,139	0.765	16,945
2024-25	14,329	0.750	10,752
2025-26	7,950	0.736	5,849
2026-27	6,698	0.721	4,831
2027-28	9,960	0.707	7,043
2028-29	6,761	0.693	4,687
2029-30	7,101	0.680	4,826
2030-31	8,107	0.666	5,402
2031-32	4,869	0.653	3,181
2032-33	4,072	0.640	2,608
2033-34	714	0.628	448
2034-35	1,861	0.616	1,145
35-36 to 48-49	167,319	0.509	85,212
Total	\$3,410,134		\$3,073,439

(4) Indicated Discount Factor: 0.901

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 2.0% interest rate.
- (3) (1) x (2).
- (4) [Sum of Column (3)] / [Sum of Column (1)].

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Discounted Value of 2010-11 Losses as of July 1, 2010
Assuming a 2.0% Interest rate

\$250,000 SIR

Limited Self-Insured Losses Including 4850/TD

Program Year	Projected Loss Payments (1)	Discounted Value Factor (2)	Discounted Value of Payments (3)
2010-11	\$411,094	0.990	\$407,044
2011-12	587,445	0.971	570,252
2012-13	444,411	0.952	422,945
2013-14	327,678	0.933	305,737
2014-15	237,156	0.915	216,937
2015-16	152,937	0.897	137,155
2016-17	125,070	0.879	109,964
2017-18	91,438	0.862	78,818
2018-19	109,317	0.845	92,382
2019-20	102,965	0.829	85,307
2020-21	71,632	0.812	58,184
2021-22	29,789	0.796	23,722
2022-23	18,465	0.781	14,416
2023-24	13,888	0.765	10,630
2024-25	10,814	0.750	8,115
2025-26	8,338	0.736	6,134
2026-27	7,185	0.721	5,182
2027-28	5,821	0.707	4,116
2028-29	3,945	0.693	2,735
2029-30	8,259	0.680	5,613
2030-31	8,498	0.666	5,662
2031-32	8,690	0.653	5,677
2032-33	3,313	0.640	2,122
2033-34	1,861	0.628	1,168
2034-35	3,498	0.616	2,153
35-36 to 48-49	76,873	0.502	38,581
Total	\$2,870,378		\$2,620,751

(4) Indicated Discount Factor: 0.913

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 2.0% interest rate.
- (3) (1) x (2).
- (4) [Sum of Column (3)] / [Sum of Column (1)].

**Monterey Bay Area Self Insurance Authority
Workers' Compensation Program**

**Actuarial Analysis of the
Workers' Compensation Program**

Claims Data Exhibits

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Cumulative Reported Losses (\$000's) as of December 31, 2009 - Unlimited

Program	Months of Development																									
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234	246	258	270	282	294	
1986																		319	347	447	461	721	513	510	514	
1987																	785	785	783	1,035	1,034	1,034	1,039	1,039		
1988																131	131	131	131	131	131	131	131	131		
1989															680	686	686	686	694	694	694	694	694			
1990														674	710	785	785	753	751	751	751					
1991													1,188	1,188	1,211	1,211	1,212	1,213	1,306	1,356						
1992												1,108	1,205	1,238	1,251	1,246	1,242	1,243	1,242							
1993											1,637	1,678	1,662	1,663	1,668	1,665	1,666	1,666								
1994										1,070	1,053	1,074	1,086	1,071	1,052	1,052	1,081									
1995									746	747	767	768	768	769	769	834										
1996								841	838	849	855	860	848	849	1,030											
1997								1,502	1,656	1,665	1,676	1,682	1,669	1,579	1,594											
1998					1,124	1,054	1,035	1,027	1,028	1,086	1,099	1,099														
1999					1,161	1,279	1,290	1,286	1,356	1,441	1,451	1,474														
2000				1,082	1,243	1,263	1,230	1,277	1,471	1,557	1,970															
2001				1,697	2,579	2,857	2,668	3,101	3,477	3,769	4,114															
2002		1,239	1,886	2,196	2,336	2,291	2,328	2,367	2,375																	
2003	644	2,163	2,625	2,510	2,494	2,445	2,452	2,452																		
2004	676	1,643	1,676	1,757	1,803	1,906	1,862																			
2005	882	1,861	1,899	2,025	2,284	1,955																				
2006	507	1,453	1,896	2,268	1,889																					
2007	696	3,220	4,322	3,231																						
2008	317	1,879	1,778																							
2009	488	1,618																								
2010	657																									
	<u>6-18</u>	<u>18-30</u>	<u>30-42</u>	<u>42-54</u>	<u>54-66</u>	<u>66-78</u>	<u>78-90</u>	<u>90-102</u>	<u>102-114</u>	<u>114-126</u>	<u>126-138</u>	<u>138-150</u>	<u>150-162</u>	<u>162-174</u>	<u>174-186</u>	<u>186-198</u>	<u>198-210</u>	<u>210-222</u>	<u>222-234</u>	<u>234-246</u>	<u>246-258</u>	<u>258-270</u>	<u>270-282</u>	<u>282-294</u>	<u>294-Unl</u>	
ALL YR VOL	3.286	1.195	1.035	1.034	0.974	1.026	1.046	1.047	1.050	1.059	1.011	0.999	1.004	1.032	1.019	1.004	0.995	1.024	1.100	1.004	1.112	0.892	0.998	1.006		
REFERENCE	3.023	1.399	1.156	1.087	1.063	1.042	1.029	1.023	1.018	1.015	1.014	1.013	1.011	1.008	1.006	1.005	1.004	1.003	1.003	1.003	1.003	1.003	1.003	1.002	1.002	1.027
SELECTED	3.023	1.399	1.156	1.087	1.063	1.042	1.029	1.023	1.018	1.015	1.014	1.013	1.011	1.008	1.006	1.005	1.004	1.003	1.003	1.003	1.003	1.003	1.003	1.002	1.002	1.027
CUMULATIVE	7.110	2.352	1.681	1.453	1.337	1.258	1.207	1.173	1.148	1.127	1.110	1.095	1.081	1.070	1.061	1.054	1.049	1.045	1.041	1.039	1.036	1.033	1.030	1.028	1.027	
06/30/10 FACTOR	3.665	1.947	1.556	1.392	1.295	1.232	1.190	1.160	1.137	1.118	1.102	1.088	1.075	1.065	1.057	1.051	1.047	1.043	1.040	1.037	1.034	1.032	1.029	1.027	1.026	

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Cumulative Paid Losses (\$000's) as of December 31, 2009 - Unlimited

Program	Months of Development																								
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234	246	258	270	282	294
1986																		295	315	347	382	490	483	485	489
1987																		752	760	776	972	980	984	988	992
1988																	131	131	131	131	131	131	131	131	
1989															680	686	686	686	686	694	694	694	694		
1990														666	701	748	750	750	751	751	751				
1991													1,153	1,162	1,171	1,180	1,188	1,199	1,289	1,305					
1992												1,098	1,121	1,166	1,199	1,219	1,224	1,229	1,234						
1993											1,571	1,602	1,611	1,619	1,629	1,637	1,645	1,654							
1994									1,022	1,027	1,037	1,050	1,052	1,052	1,052	1,059									
1995								738	743	747	751	754	756	766	776										
1996								838	838	839	843	846	848	849	885										
1997							1,345	1,420	1,467	1,505	1,522	1,537	1,553	1,557											
1998						882	932	968	989	999	1,011	1,042	1,057												
1999					988	1,102	1,188	1,232	1,338	1,361	1,382	1,419													
2000				688	774	846	931	1,029	1,136	1,254	1,684														
2001			863	1,708	2,057	2,279	2,518	2,758	2,905	3,162															
2002		654	1,162	1,499	1,859	2,047	2,128	2,155	2,183																
2003	238	991	1,485	1,906	2,111	2,271	2,276	2,279																	
2004	116	726	1,078	1,264	1,557	1,653	1,667																		
2005	229	1,059	1,332	1,459	1,532	1,585																			
2006	123	646	1,005	1,124	1,211																				
2007	224	1,357	2,048	2,507																					
2008	65	797	1,117																						
2009	156	891																							
2010	174																								
	<u>6-18</u>	<u>18-30</u>	<u>30-42</u>	<u>42-54</u>	<u>54-66</u>	<u>66-78</u>	<u>78-90</u>	<u>90-102</u>	<u>102-114</u>	<u>114-126</u>	<u>126-138</u>	<u>138-150</u>	<u>150-162</u>	<u>162-174</u>	<u>174-186</u>	<u>186-198</u>	<u>198-210</u>	<u>210-222</u>	<u>222-234</u>	<u>234-246</u>	<u>246-258</u>	<u>258-270</u>	<u>270-282</u>	<u>282-294</u>	<u>294-Unl</u>
ALL YR VOL	5.617	1.481	1.278	1.151	1.083	1.050	1.046	1.044	1.048	1.064	1.016	1.010	1.009	1.018	1.014	1.005	1.005	1.027	1.062	1.015	1.051	0.998	1.004	1.007	
REFERENCE	3.480	1.708	1.341	1.177	1.094	1.049	1.032	1.036	1.042	1.037	1.023	1.016	1.011	1.008	1.007	1.005	1.003	1.003	1.003	1.003	1.003	1.004	1.004	1.004	1.059
SELECTED	5.617	1.708	1.341	1.151	1.094	1.050	1.046	1.044	1.048	1.064	1.016	1.010	1.011	1.008	1.007	1.005	1.005	1.003	1.003	1.003	1.003	1.004	1.004	1.004	1.059
CUMULATIVE	23.924	4.260	2.494	1.859	1.616	1.478	1.407	1.344	1.288	1.229	1.155	1.136	1.125	1.113	1.104	1.096	1.091	1.085	1.082	1.079	1.076	1.072	1.068	1.063	1.059
06/30/10 FACTOR	7.483	3.112	2.120	1.727	1.543	1.441	1.375	1.315	1.257	1.190	1.146	1.131	1.119	1.108	1.100	1.093	1.088	1.083	1.080	1.077	1.074	1.070	1.066	1.061	1.057

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Cumulative Number of Reported Losses as of December 31, 2009

Program	Months of Development																								
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234	246	258	270	282	294
1986																		9	9	9	9	9	9	9	11
1987																		12	12	12	12	12	12	12	14
1988															11	11	11	11	11	11	11	11	12		
1989														34	34	34	34	34	34	34	34	34			
1990														81	81	81	81	81	81	81	81	81			
1991													163	163	163	163	163	163	163	163	163				
1992												149	149	149	149	149	149	149	149	149	149				
1993											107	107	107	107	107	107	107	107	107	107	107				
1994										126	126	126	127	127	127	127	127	127	127	127	127				
1995									137	137	137	137	137	137	137	137	137	137	137	137	137				
1996									134	134	135	136	136	136	136	136	136	136	136	136	136				
1997									122	122	122	122	122	122	122	122	122	122	122	122	122				
1998							135	136	136	136	136	136	136	136	136	136	136	136	136	136	136				
1999					127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127				
2000				142	143	142	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144				
2001			172	173	173	173	173	173	173	173	173	173	173	173	173	173	173	173	173	173	173				
2002		189	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193				
2003	83	174	177	177	177	178	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179				
2004	98	177	177	178	178	179	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180				
2005	92	181	181	181	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182				
2006	52	123	125	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126				
2007	72	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140				
2008	56	121	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122				
2009	69	157	157	157	157	157	157	157	157	157	157	157	157	157	157	157	157	157	157	157	157				
2010	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53				
	<u>6-18</u>	<u>18-30</u>	<u>30-42</u>	<u>42-54</u>	<u>54-66</u>	<u>66-78</u>	<u>78-90</u>	<u>90-102</u>	<u>102-114</u>	<u>114-126</u>	<u>126-138</u>	<u>138-150</u>	<u>150-162</u>	<u>162-174</u>	<u>174-186</u>	<u>186-198</u>	<u>198-210</u>	<u>210-222</u>	<u>222-234</u>	<u>234-246</u>	<u>246-258</u>	<u>258-270</u>	<u>270-282</u>	<u>282-294</u>	<u>294-Ult</u>
ALL YR VOL	2.056	1.009	1.003	1.002	1.001	1.004	1.000	1.000	1.001	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.031	1.095	1.222	
SELECTED	2.056	1.009	1.003	1.002	1.001	1.004	1.000	1.000	1.001	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	2.101	1.022	1.013	1.010	1.009	1.008	1.003	1.003	1.003	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
06/30/10 FACTOR	1.100	1.017	1.012	1.009	1.008	1.005	1.003	1.003	1.003	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Program Information

Program Year	Self-Insured Retention (SIR) (1)	Payroll (\$00's) (2)	Payroll Trended to 2009-10 (\$00's) (3)
1985-86	\$150,000	\$0	\$0
1986-87	200,000	0	0
1987-88	250,000	0	0
1988-89	250,000	0	0
1989-90	250,000	0	0
1990-91	300,000	0	0
1991-92	250,000	0	0
1992-93	250,000	168,330	320,498
1993-94	275,000	175,063	333,318
1994-95	300,000	182,066	346,650
1995-96	300,000	189,348	360,516
1996-97	300,000	196,922	374,937
1997-98	300,000	204,799	389,934
1998-99	300,000	212,991	405,532
1999-00	300,000	267,420	421,753
2000-01	300,000	263,274	438,623
2001-02	350,000	297,462	456,168
2002-03	500,000	346,678	474,415
2003-04	NO XS	401,995	479,159
2004-05	500,000	401,860	483,951
2005-06	500,000	429,640	488,790
2006-07	500,000	428,182	493,678
2007-08	500,000	437,000	498,615
2008-09	500,000	470,000	478,947
2009-10	500,000	455,000	455,000
2010-11	250,000	430,000	421,400

Notes:

- (1) Provided by MBASIA.
- (2) Provided by MBASIA. 2010-11 estimated by BAC.
1997-98 & prior estimated by BAC.
- (3) Estimated by BAC.