

Monterey Bay Area Self Insurance Authority

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

BAY ACTUARIAL CONSULTANTS

Moraga, California

August 20, 2009

Bay Actuarial Consultants

August 20, 2009

Mr. Kent Rice
Chief Executive Officer
Monterey Bay Area Self Insurance Authority
144 Montclair Drive
Santa Cruz, CA
95060

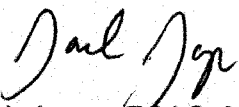
Dear Mr. Rice:

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, ECAS, 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

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 *Net Ultimate Loss Exhibits*, the *Gross Loss Projection Exhibits*, the *Future Loss Exhibits*, the *Discounting Exhibits*, and the *Claims Data Exhibits*.

The *Management Summary* gives an overview of the results of our analysis. The *Technical Approach* section explains and discusses the assumptions and details underlying our calculations. The *Exhibits* document the actual calculations used in developing our results.

Monterey Bay Area Self Insurance Authority

An Actuarial Review of the Workers' Compensation Program

Management Summary

WCAB En Banc Decisions

Our workers' compensation estimates this year are overshadowed by events that the claims data that we used to produce the new estimates do not reflect. These events were the handing down of two new Workers' Compensation Appeals Board ("WCAB") *en banc* decisions, *Ogilvie v. City and County of San Francisco*, and *Almaraz v. Environmental Recovery Services / Guzman v. Milpitas Unified School District*. The WCAB consists of seven members appointed by the Governor. An *en banc* decision is decided by all seven commissioners, instead of by a panel of three commissioners, as are most cases. The *Ogilvie* decision permits the diminished future earning capacity portion of the 2005 Permanent Disability Rating Schedule ("PDRS") to be adjusted if it can be demonstrated that the injured workers' wage loss will differ from that provided for in the PDRS. The *Almaraz/Guzman* decision permits each workers' compensation judge to make an impairment award based on medical evidence that is independent of the American Medical Association ("AMA") Guides if he believes an impairment rating based on the AMA Guides would produce an inequitable permanent disability award.

The Workers' Compensation Insurance rating Bureau of California ("WCIRB") in its most recent rate filing raised rates by 5.8% on account of these two decisions. However in their filing they state,

Projected 2009-10 Loss Rates

Table I shows the MBASIA's projected rates of loss for 2009-10 at various retentions: \$500,000, \$750,000, \$1,000,000, and unlimited. These rates are discounted at 3% interest. Table III on page 12 has adjustment factors to change the Table I rates to their equivalents at different interest rates. The Table I 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.

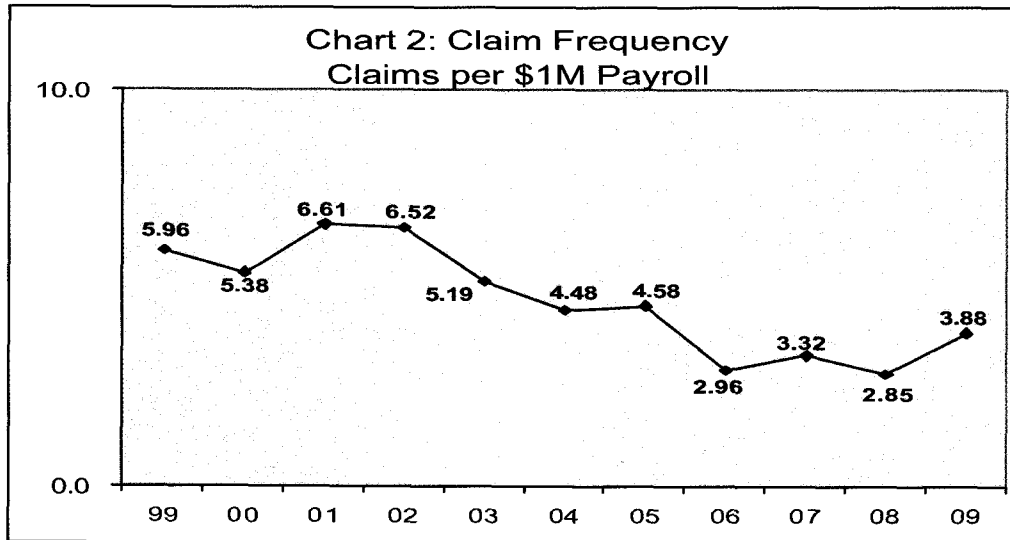
Table I shows actuarial central estimates and estimates at various probability levels. The higher probability level rates have higher probabilities of being adequate. For example, we estimate that there is a 70% probability that the actual 2009-10 \$500,000 SIR loss rate will be less than **\$7.58**.

Table I: Projected 2009-10 Discounted Loss Rates (3% Risk-Adjusted Rate)				
Probability	\$500,000	\$750,000	\$1,000,000	Unlimited
<u>Level</u>	<u>Retention</u>	<u>Retention</u>	<u>Retention</u>	<u>Retention</u>
50%	6.33	6.57	6.70	6.80
Central Estimate	\$6.59	\$6.92	\$7.05	\$7.24
60%	6.92	7.27	7.40	7.53
70%	\$7.58	7.96	8.11	8.32
80%	8.44	8.86	9.10	9.34
90%	9.75	10.31	10.58	11.00

The new central estimates represent increases of between 4% and 6% over last year's rates. As we stated above, these projections do not include any provision for the potential effects of the WCAB *en banc* decisions.

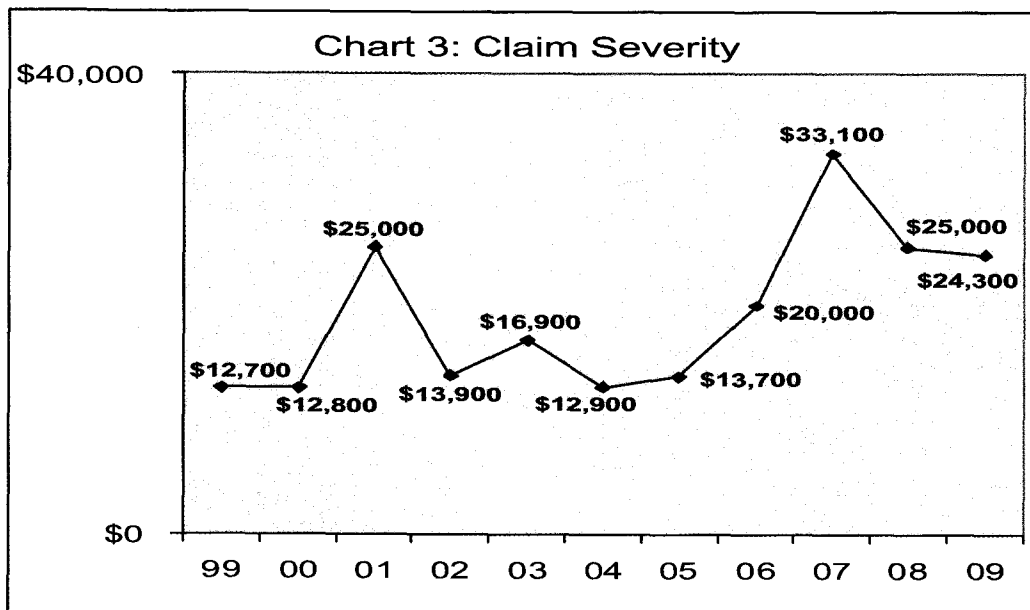
Claim Frequency

Claim "frequency" is the number of claims divided by payroll. Chart 2 displays claim frequency for program years 1998-99 through 2008-09.



Average Claim Size ("Severity")

In Chart 3 we calculate the average claim size by dividing the estimated annual losses by the number of claims. The values in this chart are based on unlimited loss data, so they include the portions of claims are ceded to excess insurers.



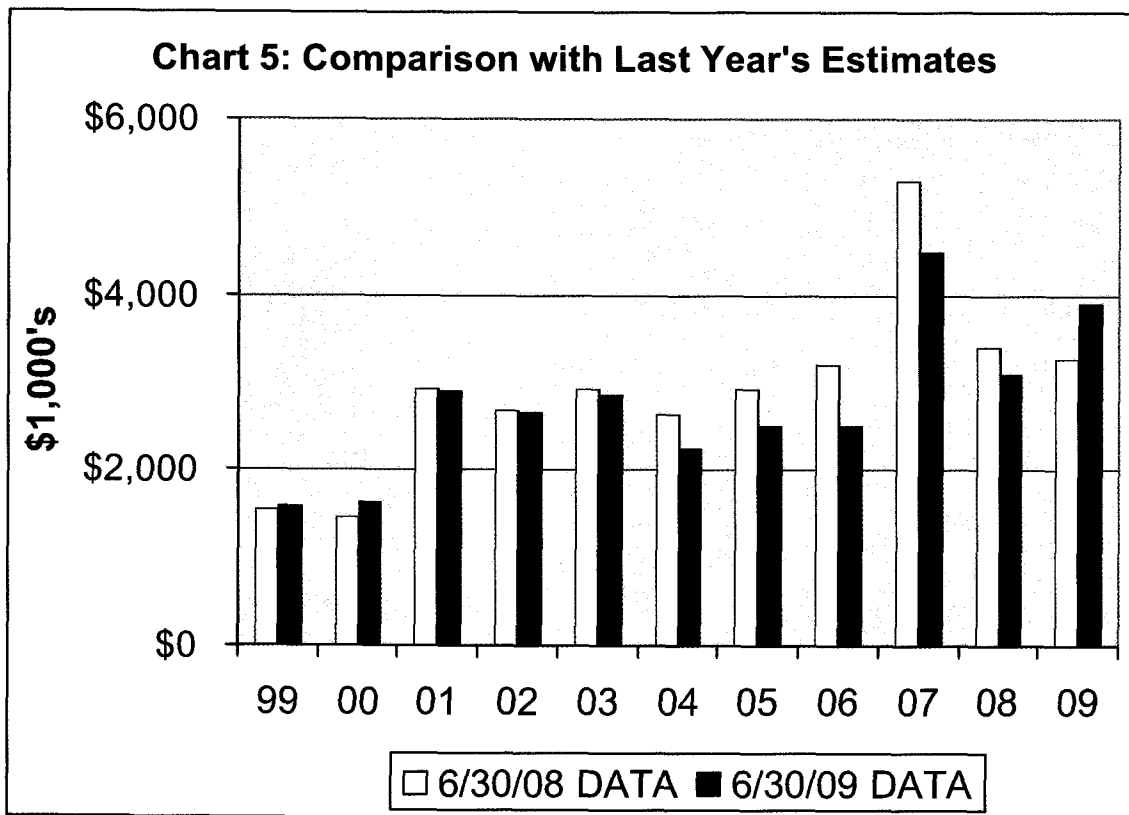
The trend continues to be poor.

Short-Term Liability

Short-term liabilities are those expected to be expended within twelve months. The net 6/30/07 liability is composed of **\$2,293,000** short-term and **\$11,104,000** long-term.

Comparison with Last Year's Estimates

Chart 5 compares this year's estimates of the net ultimate losses with last year's estimates.



There have been downticks in every estimate since 1999-00, except in the recently concluded year, 2008-09.

Monterey Bay Area Self Insurance Authority

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

Technical Approach

- 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 Loss Projection Exhibit 1.

Future Loss Exhibits

These Exhibits show the projection of the projected gross (unlimited) rate for 2009-10.

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, 2008, and the associated loss and claim development factors.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Unpaid Losses as of June 30, 2009
Net Self-Insured Losses

(1) Projected Unpaid Losses:	\$13,396,696
(2) Discounted Value of Unpaid Losses: (Assuming 3.0% Interest Rate)	\$10,713,238

Probability Levels

Probability Level (3)	Probability Factor (4)	Discounted * Liability (5)
40%	0.93	9,963,311
50%	0.98	10,498,973
Central Estimate	1.00	\$10,713,238
60%	1.03	11,034,635
70%	1.08	11,570,297
80%	1.15	12,320,224
90%	1.26	13,498,680

* Multiply by 1.250 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

June 30, 2009 Summary

Net Self-Insured Losses

Program Year	Undiscounted Value: Claims Liabilities as of 6/30/09 (1)	Discounted Value: Claims Liabilities as of 6/30/09 (2)	Estimated Ultimate Losses (3)
1985-86	\$27,234	\$21,618	\$404,000
1986-87	0	0	755,054
1987-88	0	0	130,919
1988-89	0	0	693,800
1989-90	0	0	738,579
1990-91	74,348	56,211	1,310,000
1991-92	37,944	28,248	1,270,000
1992-93	45,621	33,555	1,430,000
1993-94	52,849	38,308	1,110,000
1994-95	98,045	70,513	870,000
1995-96	183,378	132,955	1,060,000
1996-97	84,634	62,398	1,520,000
1997-98	127,360	94,007	1,180,000
1998-99	183,518	133,695	1,590,000
1999-00	338,152	243,138	1,630,000
2000-01	448,513	321,701	2,900,000
2001-02	503,800	369,805	2,670,000
2002-03	573,389	435,236	2,850,000
2003-04	590,871	457,295	2,250,000
2004-05	937,124	728,086	2,500,000
2005-06	1,306,530	1,035,478	2,500,000
2006-07	2,248,438	1,818,980	4,500,000
2007-08	2,144,675	1,772,095	3,100,000
2008-09	3,390,271	2,859,916	3,900,000
Total	\$13,396,696	\$10,713,238	\$42,862,352

Notes:

- (1) Page 22, Column (6).
- (2) Page 49, Column (3).
- (3) Page 24, Column (6).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Estimated Unpaid Losses as of June 30, 2009

Net Self-Insured Losses

Program Year	Estimated Ultimate Losses (1)	Paid Losses as of 6/30/09 (2)	Case Reserves 6/30/09 (3)	Reported Losses as of 6/30/09 (4)	Estimated IBNR as of 6/30/09 (5)	Estimated Unpaid Losses as of 6/30/09 (6)
1985-86	\$404,000	\$376,766	\$16,315	\$393,081	\$10,919	\$27,234
1986-87	755,054	755,054	0	755,054	0	0
1987-88	130,919	130,919	0	130,919	0	0
1988-89	693,800	693,800	0	693,800	0	0
1989-90	738,579	738,579	0	738,579	0	0
1990-91	1,310,000	1,235,652	46,946	1,282,598	27,402	74,348
1991-92	1,270,000	1,232,056	10,583	1,242,638	27,362	37,944
1992-93	1,430,000	1,384,379	10,223	1,394,602	35,398	45,621
1993-94	1,110,000	1,057,151	23,381	1,080,532	29,468	52,849
1994-95	870,000	771,955	62,066	834,020	35,980	98,045
1995-96	1,060,000	876,622	151,540	1,028,161	31,839	183,378
1996-97	1,520,000	1,435,366	26,936	1,462,302	57,698	84,634
1997-98	1,180,000	1,052,640	46,357	1,098,997	81,003	127,360
1998-99	1,590,000	1,406,482	60,496	1,466,979	123,021	183,518
1999-00	1,630,000	1,291,848	202,493	1,494,341	135,659	338,152
2000-01	2,900,000	2,451,487	204,151	2,655,638	244,362	448,513
2001-02	2,670,000	2,166,200	174,694	2,340,894	329,106	503,800
2002-03	2,850,000	2,276,611	174,175	2,450,786	399,215	573,389
2003-04	2,250,000	1,659,129	187,527	1,846,655	403,345	590,871
2004-05	2,500,000	1,562,876	499,590	2,062,465	437,535	937,124
2005-06	2,500,000	1,193,470	749,844	1,943,314	556,686	1,306,530
2006-07	4,500,000	2,251,562	1,153,852	3,405,415	1,094,585	2,248,438
2007-08	3,100,000	955,325	922,881	1,878,206	1,221,794	2,144,675
2008-09	3,900,000	509,729	864,971	1,374,699	2,525,301	3,390,271
Total	\$42,862,352	\$29,465,656	\$5,589,020	\$35,054,676	\$7,807,676	\$13,396,696

Notes:

- (1) Page 24, Column (6).
- (2) Page 26, Column (1).
- (3) (4) - (2).
- (4) Page 25, Column (1).
- (5) (1) - (4).
- (6) (3) + (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Selected Ultimate Losses
Net Self-Insured Losses

Program Year	Net Reported Projection (1)	Net Paid Projection (2)	Net IBNR to Case Reserves Ratio (3)	B-F Net Method Using Reported (4)	B-F Net Method Using Paid (5)	Selected Ultimate Losses (6)
1985-86	\$400,533	\$404,898	\$399,052	\$402,579	\$411,259	\$404,000
1986-87	770,561	817,110	755,054	775,374	832,270	755,054
1987-88	133,825	142,591	130,919	133,799	141,654	130,919
1988-89	710,450	760,734	693,800	709,757	754,854	693,800
1989-90	757,589	815,053	738,579	757,272	808,865	738,579
1990-91	1,317,806	1,375,273	1,299,358	1,320,244	1,377,869	1,310,000
1991-92	1,279,131	1,378,007	1,246,543	1,280,338	1,369,856	1,270,000
1992-93	1,438,472	1,557,795	1,398,456	1,445,162	1,571,450	1,430,000
1993-94	1,116,827	1,195,765	1,089,651	1,117,012	1,189,391	1,110,000
1994-95	864,238	879,866	858,784	864,470	878,965	870,000
1995-96	1,070,079	1,013,749	1,089,989	1,069,501	1,019,722	1,060,000
1996-97	1,534,313	1,695,570	1,474,181	1,541,040	1,691,684	1,520,000
1997-98	1,167,309	1,264,157	1,123,937	1,169,207	1,251,370	1,180,000
1998-99	1,578,142	1,704,957	1,507,693	1,587,305	1,707,297	1,590,000
1999-00	1,619,814	1,580,766	1,643,376	1,655,100	1,673,911	1,630,000
2000-01	2,918,746	3,048,547	2,829,779	2,836,178	2,844,663	2,900,000
2001-02	2,618,325	2,795,829	2,496,197	2,634,313	2,789,024	2,670,000
2002-03	2,802,465	3,124,600	2,600,576	2,882,669	3,212,933	2,850,000
2003-04	2,173,468	2,435,846	2,013,929	2,365,327	2,762,172	2,250,000
2004-05	2,473,293	2,434,221	2,495,110	2,578,043	2,674,785	2,500,000
2005-06	2,424,881	2,089,943	2,589,680	2,537,328	2,474,034	2,500,000
2006-07	4,542,890	4,741,455	4,456,575	4,243,270	4,011,058	4,500,000
2007-08	2,974,452	2,809,610	3,045,650	3,272,614	3,449,388	3,100,000
2008-09	4,005,177	3,455,953	4,276,676	3,737,166	3,576,981	3,900,000
Total	\$42,692,786	\$43,522,295	\$42,253,545	\$42,915,069	\$44,475,453	\$42,862,352

- (1) Page 25, Column (3).
- (2) Page 26, Column (3).
- (3) Page 27, Column (6).
- (4) Page 28, Column (6).
- (5) Page 29, Column (6).
- (6) Selected on the basis of (1) - (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Paid Loss Development
Net Self-Insured Losses

Program Year	Cumulative Paid Losses as of 6/30/09 (1)	Paid Development Factor as of 6/30/09 (2)	Projected Ultimate Losses (3)
1985-86	\$376,766	1.075	\$404,898
1986-87	755,054	1.082	817,110
1987-88	130,919	1.089	142,591
1988-89	693,800	1.096	760,734
1989-90	738,579	1.104	815,053
1990-91	1,235,652	1.113	1,375,273
1991-92	1,232,056	1.118	1,378,007
1992-93	1,384,379	1.125	1,557,795
1993-94	1,057,151	1.131	1,195,765
1994-95	771,955	1.140	879,866
1995-96	876,622	1.156	1,013,749
1996-97	1,435,366	1.181	1,695,570
1997-98	1,052,640	1.201	1,264,157
1998-99	1,406,482	1.212	1,704,957
1999-00	1,291,848	1.224	1,580,766
2000-01	2,451,487	1.244	3,048,547
2001-02	2,166,200	1.291	2,795,829
2002-03	2,276,611	1.372	3,124,600
2003-04	1,659,129	1.468	2,435,846
2004-05	1,562,876	1.558	2,434,221
2005-06	1,193,470	1.751	2,089,943
2006-07	2,251,562	2.106	4,741,455
2007-08	955,325	2.941	2,809,610
2008-09	509,729	6.780	3,455,953
Total	\$29,465,656		\$43,522,295

Notes:

- (1) Provided by JT2.
- (2) Page 33, Column (2), tempered for SIR.
- (3) (1) x (2), rounded.

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Bornhuetter-Ferguson Using Reported Losses
Net Self-Insured Losses

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 6/30/09 (5)	Estimated Ultimate Losses (6)
1985-86	\$499,892	1.019	1.9%	\$9,498	\$393,081	\$402,579
1986-87	1,015,997	1.021	2.0%	20,320	755,054	775,374
1987-88	130,919	1.022	2.2%	2,880	130,919	133,799
1988-89	693,800	1.024	2.3%	15,957	693,800	709,757
1989-90	747,728	1.026	2.5%	18,693	738,579	757,272
1990-91	1,394,289	1.027	2.7%	37,646	1,282,598	1,320,244
1991-92	1,300,000	1.029	2.9%	37,700	1,242,638	1,280,338
1992-93	1,685,320	1.031	3.0%	50,560	1,394,602	1,445,162
1993-94	1,140,000	1.034	3.2%	36,480	1,080,532	1,117,012
1994-95	870,000	1.036	3.5%	30,450	834,020	864,470
1995-96	1,060,000	1.041	3.9%	41,340	1,028,161	1,069,501
1996-97	1,675,284	1.049	4.7%	78,738	1,462,302	1,541,040
1997-98	1,190,000	1.062	5.9%	70,210	1,098,997	1,169,207
1998-99	1,718,942	1.076	7.0%	120,326	1,466,979	1,587,305
1999-00	2,087,776	1.084	7.7%	160,759	1,494,341	1,655,100
2000-01	2,006,002	1.099	9.0%	180,540	2,655,638	2,836,178
2001-02	2,768,106	1.119	10.6%	293,419	2,340,894	2,634,313
2002-03	3,455,063	1.143	12.5%	431,883	2,450,786	2,882,669
2003-04	3,457,815	1.177	15.0%	518,672	1,846,655	2,365,327
2004-05	3,105,892	1.199	16.6%	515,578	2,062,465	2,578,043
2005-06	2,984,997	1.248	19.9%	594,014	1,943,314	2,537,328
2006-07	3,351,421	1.334	25.0%	837,855	3,405,415	4,243,270
2007-08	3,778,884	1.584	36.9%	1,394,408	1,878,206	3,272,614
2008-09	3,595,841	2.913	65.7%	2,362,467	1,374,699	3,737,166
Total	\$45,713,968			\$7,860,393	\$35,054,676	\$42,915,069

Notes:

- (1) Page 36, Column (4), or Page 31, Column (6), adjusted for maximum claim and SIR.
- (2) Page 25, Column (2).
- (3) $100\% - [1.000 / (2)]$.
- (4) (1) x (3).
- (5) Page 25, Column (1).
- (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

Reported Loss Development
Unlimited Losses

Program Year	Cumulative Reported Losses as of 6/30/09 (1)	Reported Development Factor as of 6/30/09 (2)	Projected Ultimate Losses (3)
1985-86	\$510,390	1.019	\$520,075
1986-87	1,038,668	1.021	1,059,999
1987-88	130,919	1.022	133,825
1988-89	693,800	1.024	710,450
1989-90	751,039	1.026	770,369
1990-91	1,356,041	1.027	1,393,266
1991-92	1,242,638	1.029	1,279,131
1992-93	1,665,574	1.031	1,717,969
1993-94	1,080,532	1.034	1,116,827
1994-95	834,020	1.036	864,238
1995-96	1,028,161	1.041	1,070,079
1996-97	1,594,236	1.049	1,672,824
1997-98	1,098,997	1.062	1,167,446
1998-99	1,476,173	1.076	1,588,977
1999-00	1,707,770	1.090	1,862,250
2000-01	4,025,177	1.108	4,458,650
2001-02	2,366,874	1.128	2,670,907
2002-03	2,450,786	1.151	2,820,975
2003-04	1,846,655	1.177	2,173,468
2004-05	2,062,465	1.211	2,497,204
2005-06	1,943,314	1.262	2,453,008
2006-07	3,490,184	1.356	4,731,612
2007-08	1,878,206	1.625	3,052,936
2008-09	1,374,699	3.064	4,212,220
Total	\$37,647,320		\$45,998,705

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

Program Year	Reported Development Factor as of 6/30/09 (1)	Paid Development Factor as of 6/30/09 (2)	IBNR to Case Reserves Ratio (3)	Case Reserves 6/30/09 (4)	Estimated IBNR Losses as of 6/30/09 (5)	Estimated Ultimate Losses (6)
1985-86	1.019	1.078	0.346	\$23,594	\$8,163	\$518,553
1986-87	1.021	1.085	0.345	47,832	16,502	1,055,170
1987-88	1.022	1.092	0.345	0	0	130,919
1988-89	1.024	1.100	0.347	0	0	693,800
1989-90	1.026	1.108	0.347	0	0	751,039
1990-91	1.027	1.116	0.346	52,915	18,308	1,374,349
1991-92	1.029	1.124	0.349	10,583	3,693	1,246,331
1992-93	1.031	1.131	0.357	16,131	5,759	1,671,333
1993-94	1.034	1.137	0.371	23,381	8,674	1,089,206
1994-95	1.036	1.145	0.380	62,066	23,585	857,605
1995-96	1.041	1.163	0.388	151,540	58,797	1,086,958
1996-97	1.049	1.190	0.417	38,930	16,234	1,610,470
1997-98	1.062	1.212	0.506	46,357	23,457	1,122,454
1998-99	1.076	1.226	0.627	60,605	37,999	1,514,172
1999-00	1.090	1.240	0.748	399,492	298,820	2,006,590
2000-01	1.108	1.265	0.867	1,011,226	876,733	4,901,910
2001-02	1.128	1.316	0.902	200,674	181,008	2,547,882
2002-03	1.151	1.388	0.885	174,175	154,145	2,604,931
2003-04	1.177	1.468	0.892	187,527	167,274	2,013,929
2004-05	1.211	1.587	0.889	499,590	444,135	2,506,600
2005-06	1.262	1.795	0.884	749,844	662,862	2,606,176
2006-07	1.356	2.178	0.942	1,238,621	1,166,781	4,656,965
2007-08	1.625	3.080	1.324	922,881	1,221,894	3,100,100
2008-09	3.064	7.235	3.580	864,971	3,096,596	4,471,295
Total				\$6,782,932	\$8,491,419	\$46,138,739

Notes:

- (1) Page 32, Column (2).
- (2) Page 33, Column (2).
- (3) $[(1) - 1.000] \times (2) / [(2) - (1)]$.
- (4) Page 32, Column (1) - Page 33, Column (1).
- (5) (3) x (4), rounded.
- (6) (5) + Page 32, Column (1).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

A Priori Losses for Bornhuetter-Ferguson

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)
1998-99	\$8.58	0.643	\$315,279	\$1,739,373
1999-00	8.58	0.673	380,622	2,197,841
2000-01	8.58	0.701	360,308	2,167,104
2001-02	8.58	0.847	391,440	2,844,697
2002-03	8.58	0.918	438,658	3,455,063
2003-04	8.58	0.824	489,088	3,457,815
2004-05	8.58	0.770	470,120	3,105,892
2005-06	8.58	0.725	483,287	3,006,284
2006-07	8.58	0.875	463,121	3,476,882
2007-08	8.58	0.972	453,117	3,778,884
2008-09	8.58	1.000	435,689	3,738,212
Total			\$4,680,728	\$32,968,047

Notes:

- (1) Page 37, Item (5).
- (2) Estimated by BAC.
- (3) Page 58, Column (3).
- (4) (1) x (2) x (3).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

A Priori Ultimate losses

Program Year	Reported Loss Projection (1)	Paid Loss Projection (2)	<i>A Priori</i> Selection (3)
1985-86	\$520,075	\$524,856	\$522,398
1986-87	1,059,999	1,075,223	1,067,377
1987-88	133,825	143,014	138,267
1988-89	710,450	763,161	735,863
1989-90	770,369	832,042	800,019
1990-91	1,393,266	1,454,147	1,422,451
1991-92	1,279,131	1,384,885	1,329,683
1992-93	1,717,969	1,865,800	1,788,476
1993-94	1,116,827	1,201,540	1,157,173
1994-95	864,238	884,187	873,713
1995-96	1,070,079	1,019,463	1,046,174
1996-97	1,672,824	1,850,539	1,756,105
1997-98	1,167,446	1,275,290	1,217,829
1998-99	1,588,977	1,735,146	1,657,320
1999-00	1,862,250	1,622,894	1,750,275
2000-01	4,458,650	3,811,830	4,156,647
2001-02	2,670,907	2,850,579	2,753,853
2002-03	2,820,975	3,159,933	2,974,638
2003-04	2,173,468	2,435,846	2,290,216
2004-05	2,497,204	2,479,997	2,489,757
2005-06	2,453,008	2,142,305	2,324,727
2006-07	4,731,612	4,903,004	4,797,373
2007-08	3,052,936	2,942,366	3,014,741
2008-09	4,212,220	3,687,848	4,056,212
Total	\$45,998,705	\$46,045,895	\$46,121,287

Notes:

- (1) Page 32, Column (3).
- (2) Page 33, Column (3).
- (3) Selected on the basis of (1) and (2).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Calculation of Expected Claim Severity
Frequency Times Severity Method

Program Year	<i>A Priori</i> Ultimate Losses (1)	Estimated Severity Trend (2)	Selected Claim Count (3)	Trended Claim Severity (4)
1998-99	\$1,657,320	1.904	127	\$24,844
1999-00	1,750,275	1.783	144	21,672
2000-01	4,156,647	1.677	174	40,055
2001-02	2,753,853	1.361	194	19,315
2002-03	2,974,638	1.229	180	20,313
2003-04	2,290,216	1.342	180	17,079
2004-05	2,489,757	1.408	184	19,055
2005-06	2,324,727	1.466	127	26,837
2006-07	4,797,373	1.190	142	40,211
2007-08	3,014,741	1.050	124	25,528
2008-09	4,056,212	1.000	169	24,001
Total	\$32,265,759		1,745	\$25,355
98/99-07/08	\$28,209,547		1,576	\$25,500
			(5) Selected Severity:	\$25,500

Notes:

- (1) Page 38, Column (3).
- (2) Estimated by BAC.
- (3) Page 41, Column (3).
- (4) $(1) \times (2) / (3)$.
- (5) Selected on the basis of (4).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projection of Ultimate Claim Counts
Projection of Reported Claims

Program Year	Total Claims Reported 6/30/09 (1)	Development Factors as of 6/30/09 (2)	Projected Ultimate Claims (3)
1985-86	9	1.000	9
1986-87	12	1.000	12
1987-88	11	1.000	11
1988-89	34	1.000	34
1989-90	81	1.000	81
1990-91	163	1.000	163
1991-92	149	1.000	149
1992-93	107	1.000	107
1993-94	127	1.000	127
1994-95	137	1.000	137
1995-96	136	1.000	136
1996-97	122	1.000	122
1997-98	136	1.001	136
1998-99	127	1.001	127
1999-00	144	1.002	144
2000-01	173	1.003	174
2001-02	193	1.004	194
2002-03	179	1.004	180
2003-04	179	1.006	180
2004-05	182	1.009	184
2005-06	126	1.010	127
2006-07	140	1.012	142
2007-08	122	1.019	124
2008-09	156	1.100	172
Total	2,945		2,972

Notes:

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

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)
2001-02	194	\$39.1	4.96
2002-03	180	43.9	4.10
2003-04	180	48.9	3.68
2004-05	184	47.0	3.91
2005-06	127	48.3	2.63
2006-07	142	46.3	3.07
2007-08	124	45.3	2.74
2008-09	172	43.6	3.95
Total	1,303	\$362.5	3.63
03/04-07/08	757	\$235.9	3.20
		(4) Selected Claim Frequency:	3.20
		(5) 2008-09 Trended Payroll (\$Millions):	\$43.6
		(6) 2008-09 A Priori Claim Count:	140

Notes:

- (1) Page 42, Column (3).
- (2) Page 58, Column (3) / 10,000.
- (3) (1) / (2).
- (4) Selected on the basis of (3).
- (5) Page 58, Column (3) / 10,000.
- (6) (4) x (5).

Monterey Bay Area Self Insurance Authority
Workers' Compensation Program

Projected Ultimate Unlimited Loss Rate for 2009-10

Program Year	2008-09 Level Loss Rate (1)	Expected Increase for 2009-10 (2)	Untrended Payroll (\$00's) (3)	Projected Ultimate Losses (4)	Projected 2009-10 Unlimited Loss Rate (5)
2009-10	\$8.82	0.989	\$453,117	\$3,955,708	\$8.73

Notes:

- (1) Page 47, Item (11).
- (2) -1.1% Expected Increase Estimated by BAC.
- (3) Page 58, Column (2).
- (4) (1) x (2) x (3), rounded.
- (5) (4) / (3), rounded.

**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 2009-10 Losses as of July 1, 2009
Assuming a 3.0% Interest rate

Unlimited Losses

Program Year	Projected Loss Payments (1)	Discounted Value Factor (2)	Discounted Value of Payments (3)
2009-10	\$528,491	0.985	\$520,738
2010-11	665,725	0.957	636,853
2011-12	479,876	0.929	445,693
2012-13	353,783	0.902	319,012
2013-14	269,309	0.875	235,767
2014-15	198,859	0.850	169,021
2015-16	153,894	0.825	126,993
2016-17	130,695	0.801	104,708
2017-18	112,610	0.778	87,592
2018-19	107,316	0.755	81,042
2019-20	108,284	0.733	79,391
2020-21	104,225	0.712	74,190
2021-22	94,842	0.691	65,544
2022-23	80,911	0.671	54,288
2023-24	49,720	0.651	32,389
2024-25	27,690	0.632	17,512
2025-26	27,191	0.614	16,696
2026-27	25,709	0.596	15,326
2027-28	25,715	0.579	14,883
2028-29	25,709	0.562	14,446
2029-30	25,715	0.546	14,029
2030-31	25,211	0.530	13,353
2031-32	23,734	0.514	12,205
2032-33	33,592	0.499	16,771
2033-34	13,378	0.485	6,485
34-35 to 48-49	263,521	0.393	103,494
Total	\$3,955,708		\$3,278,421

(4) Indicated Discount Factor: 0.829

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 3.0% 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 2009-10 Losses as of July 1, 2009
Assuming a 3.0% Interest rate

\$750,000 SIR

Program Year	Projected Loss Payments (1)	Discounted Value Factor (2)	Discounted Value of Payments (3)
2009-10	\$518,899	0.985	\$511,286
2010-11	643,260	0.957	615,362
2011-12	457,293	0.929	424,719
2012-13	334,037	0.902	301,206
2013-14	256,427	0.875	224,489
2014-15	189,541	0.850	161,101
2015-16	145,080	0.825	119,719
2016-17	123,283	0.801	98,769
2017-18	105,318	0.778	81,919
2018-19	99,795	0.755	75,363
2019-20	100,310	0.733	73,545
2020-21	98,039	0.712	69,786
2021-22	89,956	0.691	62,168
2022-23	75,608	0.671	50,730
2023-24	47,493	0.651	30,938
2024-25	26,445	0.632	16,725
2025-26	25,972	0.614	15,947
2026-27	24,556	0.596	14,639
2027-28	24,562	0.579	14,216
2028-29	24,556	0.562	13,798
2029-30	24,562	0.546	13,400
2030-31	24,080	0.530	12,754
2031-32	22,670	0.514	11,658
2032-33	32,086	0.499	16,019
2033-34	12,778	0.485	6,194
34-35 to 48-49	251,703	0.393	98,852
Total	\$3,778,309		\$3,135,302

(4) Indicated Discount Factor: 0.830

Notes:

- (1) Based upon the observed payment pattern.
- (2) Based upon a 3.0% 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 Paid Losses (\$000's) as of December 31, 2009 - Unlimited

Program YEAR	Month of Incurrence																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
1985																													
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2009																													
	<u>1-18</u>	<u>19-30</u>	<u>31-42</u>	<u>43-54</u>	<u>55-66</u>	<u>67-78</u>	<u>79-90</u>	<u>91-102</u>	<u>103-114</u>	<u>115-126</u>	<u>127-138</u>	<u>139-150</u>	<u>151-162</u>	<u>163-174</u>	<u>175-186</u>	<u>187-198</u>	<u>199-210</u>	<u>211-222</u>	<u>223-234</u>	<u>235-246</u>	<u>247-258</u>	<u>259-270</u>	<u>271-282</u>	<u>283-294</u>	<u>295-306</u>	<u>307-318</u>	<u>319-330</u>	<u>331-342</u>	
ALL YR VOL	5.603	1.493	1.294	1.180	1.091	1.058	1.058	1.052	1.030	1.010	1.014	1.009	1.010	1.010	1.014	1.004	1.006	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.005	1.004
REFERENCE	3.427	1.547	1.287	1.167	1.108	1.073	1.058	1.045	1.039	1.037	1.035	1.031	1.027	1.019	1.011	1.005	1.008	1.007	1.007	1.007	1.007	1.007	1.007	1.007	1.007	1.007	1.007	1.007	1.002
SELECTED	5.603	1.647	1.287	1.180	1.108	1.058	1.058	1.052	1.030	1.010	1.014	1.009	1.027	1.019	1.011	1.004	1.005	1.007	1.007	1.007	1.007	1.007	1.007	1.007	1.007	1.007	1.007	1.007	1.002
CUMULATIVE	23.068	4.115	2.499	1.942	1.674	1.511	1.428	1.351	1.284	1.247	1.235	1.217	1.206	1.174	1.152	1.139	1.134	1.128	1.120	1.112	1.104	1.096	1.089	1.082	1.075	1.068	1.061	1.054	
06/30/09 FACTOR	7.235	3.080	2.178	1.795	1.587	1.468	1.388	1.316	1.265	1.240	1.226	1.212	1.190	1.163	1.145	1.137	1.131	1.124	1.116	1.108	1.100	1.092	1.085	1.078	1.071	1.064	1.057	1.050	

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 2008-09 (\$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	315,279
1993-94	275,000	175,063	315,279
1994-95	300,000	182,066	315,279
1995-96	300,000	189,348	315,279
1996-97	300,000	196,922	315,279
1997-98	300,000	204,799	315,279
1998-99	300,000	212,991	315,279
1999-00	300,000	267,420	380,622
2000-01	300,000	263,274	360,308
2001-02	350,000	297,462	391,440
2002-03	500,000	346,678	438,658
2003-04	NO XS	401,995	489,088
2004-05	500,000	401,860	470,120
2005-06	500,000	429,640	483,287
2006-07	500,000	428,182	463,121
2007-08	500,000	435,689	453,117
2008-09	500,000	435,689	435,689
2009-10	?	453,117	435,689

Notes:

- (1) Provided by MBASIA.
- (2) Provided by MBASIA. 2009-10 estimated by BAC. 1997-98 & prior estimated by BAC.
- (3) 4.0% trend to 2008-09.