



Actuarial Review of the Self-Insured Workers' Compensation Program

*Outstanding Liabilities as of June 30, 2016
Forecast for Fiscal Year 2016-17*

Presented to

Municipal Pooling Authority

April 2016



Monday, April 11, 2016

Mr. Ric Burwell, MBA, CPCU, ARM
Interim Chief Administrative Officer
Municipal Pooling Authority
1911 San Miguel Drive, Suite 200
Walnut Creek, CA 94596

Re: Actuarial Review of the Self-Insured Workers' Compensation Program

Dear Mr. Burwell:

As you requested, we have completed our review of Municipal Pooling Authority's (MPA's) self-insured workers' compensation program. Assuming an SIR of \$500,000 per occurrence, we estimate the ultimate cost of claims and expenses for claims incurred during the 2016-17 program years to be \$7,009,000. This amount includes allocated loss adjustment expenses (ALAE), unallocated loss adjustment expenses (ULAE), and a discount for anticipated investment income. ALAE is the direct cost associated with the defense of individual claims (e.g. legal fees, investigation fees, court charges). ULAE is the cost to administer all claims to final settlement, which may be years into the future (e.g. claims adjusters' salaries, taxes). The discount for investment income is calculated based on the likely payout pattern of MPA's claims, assuming a 2.5% return on investments per year. For budgeting purposes, the expected costs of 2016-17 claims translate to rates of \$2.88 per \$100 of payroll.

In addition, we estimate the program's liability for outstanding claims to be \$27,550,000 as of June 30, 2016, again including ALAE and ULAE, and discounted for anticipated investment income. Given estimated program assets of \$31,659,000 as of June 30, 2016, the program will be funded between the 75% and 80% confidence levels.

The \$27,550,000 estimate is the minimum liability to be booked by MPA at June 30, 2016 for its workers' compensation program, in accordance with Governmental Accounting Standards Board (GASB) Statement #10. GASB #10 requires MPA to accrue a liability on its financial statements for the ultimate cost of claims and expenses associated with all reported and unreported claims, including ALAE and ULAE. GASB #10 does not prohibit the discounting of losses to recognize investment income.

Our conclusions regarding MPA's liability for unpaid loss and loss adjustment expenses (LAE) at June 30, 2016 are summarized in the table below.

Municipal Pooling Authority
Self-Insured Workers' Compensation Program
Estimated Liability for Unpaid Loss and LAE
at June 30, 2016

	Expected	Marginally Acceptable 70% CL	Recommended Range			Conservative 90% CL
			Low 75% CL	Target 80% CL	High 85% CL	
Loss and ALAE	\$30,381,000					
ULAE	1,643,000					
Investment Income Offset	<u>(4,474,000)</u>					
Discounted Loss and LAE	\$27,550,000	\$29,809,000	\$30,691,000	\$31,738,000	\$33,005,000	\$34,658,000
Available Funding	<u>31,659,000</u>					
Surplus or (Deficit)	\$4,109,000	\$1,850,000	\$968,000	(\$79,000)	(\$1,346,000)	(\$2,999,000)

GASB #10 does not address an actual funding requirement for the program, but only speaks to the liability to be recorded on MPA's financial statements.

Because actuarial estimates of claims costs are subject to some uncertainty, we recommend that an amount in addition to the discounted expected loss costs be set aside as a risk margin for contingencies. Generally, the amount should be sufficient to fund assets to the 75% to 85% confidence level for primary programs. We consider funding assets to the 70% confidence level to be marginally acceptable and funding assets to the 90% confidence level to be conservative.

The table below shows our funding recommendations for Municipal Pooling Authority for the 2016-17 fiscal year.

Municipal Pooling Authority
Self-Insured Workers' Compensation Program
Funding Guidelines for 2016-17
Self-Insured Retention (SIR) of \$500,000

	Expected	Marginally Acceptable 70% CL	Recommended Range			Conservative 90% CL
			Low 75% CL	Target 80% CL	High 85% CL	
Loss and ALAE	\$7,928,000					
ULAE	0					
Investment Income Offset	(919,000)					
Discounted Loss and LAE	\$7,009,000	\$7,752,000	\$8,046,000	\$8,383,000	\$8,796,000	\$9,350,000
Non-claims Related Expenses	3,082,000	3,082,000	3,082,000	3,082,000	3,082,000	3,082,000
Indicated Funding	\$10,091,000	\$10,834,000	\$11,128,000	\$11,465,000	\$11,878,000	\$12,432,000
Rate per \$100 of 2015-16 Payroll	\$4.14	\$4.44	\$4.57	\$4.70	\$4.87	\$5.10

The funding recommendations shown in the table above do not include any recognition of the existing funding margin at June 30, 2016.

Note that while the projected expenses are for the 2016-17 fiscal year, the rate is a percentage of 2015-16 payroll. This is because in practice MPA collects 2016-17 contributions based on member payroll from 2015-16.

The loss projections in this report reflect the estimated impact of benefit legislation contained in AB749, AB227, SB228, SB899, and recent WCAB court decisions based upon information provided by the WCIRB.

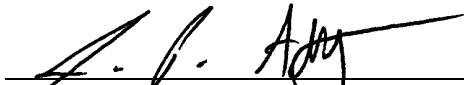
The ultimate impact on loss costs of legislated benefit adjustments are generally difficult to forecast in advance because the changes typically take place over a period of several years following enactment. Furthermore, actuarially derived benefit level evaluations often underestimate actual future cost levels. The shortfalls result from a variety of circumstances, including: increases in utilization levels, unanticipated changes in administrative procedures, and cost shifting among benefit categories. Thus, actual cost increases could differ, perhaps substantially, from the WCIRB's estimates.

The report that follows outlines the scope of our study, its background, and our conclusions, recommendations, and assumptions. Judgments regarding the appropriateness of our conclusions and recommendations should be made only after studying the report in its entirety, including the graphs, attachments, exhibits and appendices. Our report has been developed for MPA's internal use. It is not intended for general circulation.

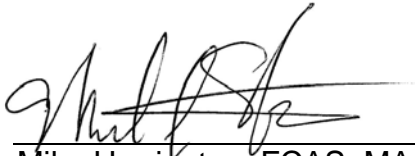
We appreciate the opportunity to be of service to Municipal Pooling Authority in preparing this report. Please feel free to call John Alltop at (916) 244-1160, Mike Harrington at (916) 244-1162 or Becky Richard at (916) 244-1183 with any questions you may have concerning this report.

Sincerely,

Bickmore



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I. BACKGROUND

Municipal Pooling Authority began its self-insured workers' compensation program on July 1, 1978. Its current self-insured retention is \$500,000. Claims administration services are provided by MPA's Risk Management Department. Additional background on the program is given in Appendix J.

As of June 30, 2016, MPA is expected to have assets of \$31,659,000 for the program. Additional background on program funding is given in Appendix K.

The purpose of this review is to provide a guide to MPA to determine reasonable funding levels for its self-insurance program according to the funding policy MPA has adopted and to comply with Governmental Accounting Standards Board Statements #10 and #30. The specific objectives of the study are to estimate MPA's liability for outstanding claims as of June 30, 2016, project ultimate loss costs for 2016-17, and provide funding guidelines to meet these liabilities and future costs.

II. CONCLUSIONS AND RECOMMENDATIONS

A. LIABILITY FOR OUTSTANDING CLAIMS

Graph 1 on the following page summarizes our assessment of MPA's funding position as of June 30, 2016. The dark-colored bars indicate our estimates of the program's liability for outstanding claims before recognition of the investment income that can be earned on the assets held before the claim payments come due. The horizontal line across the graph indicates MPA's estimated available assets at June 30, 2016.

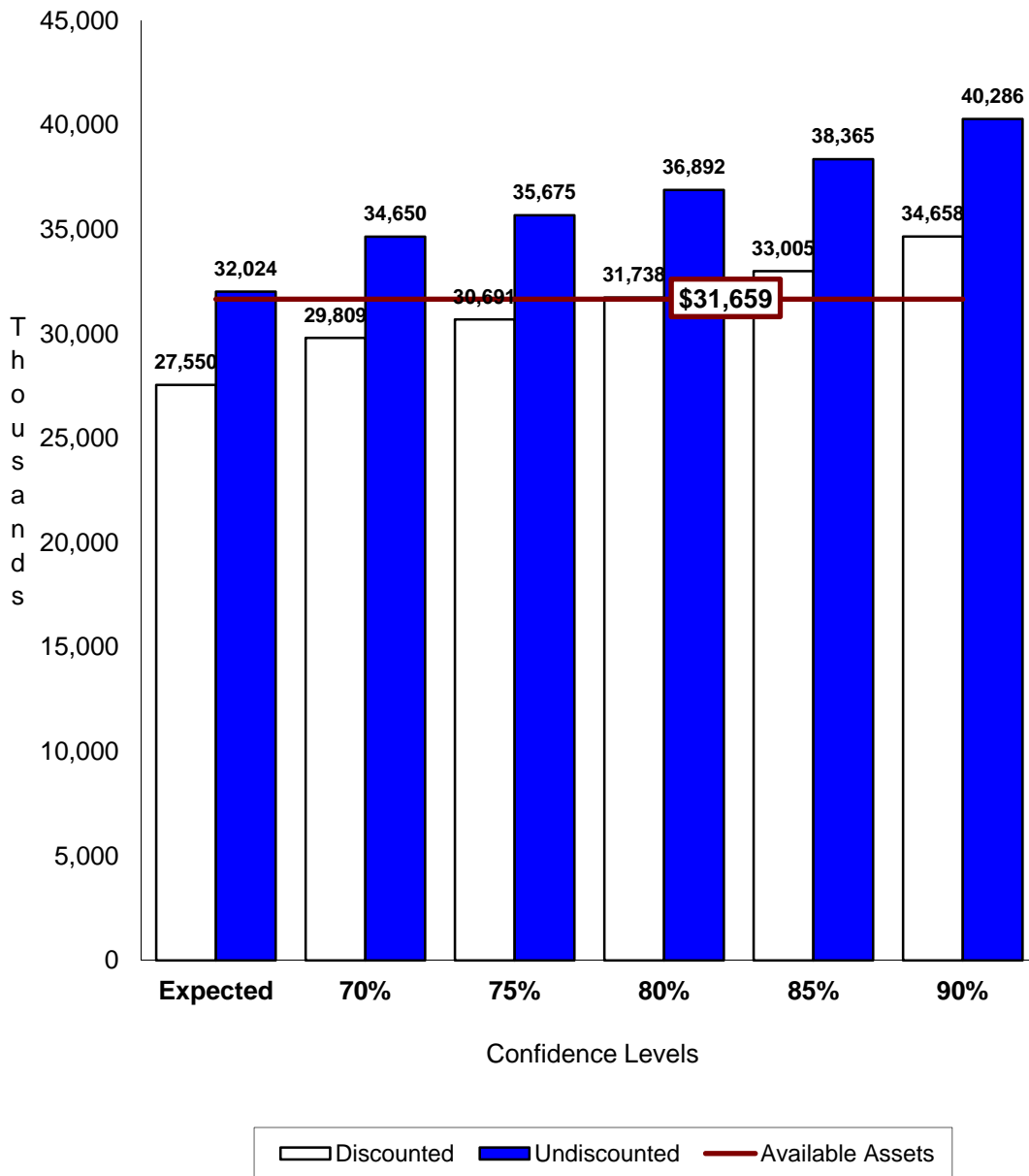
Our best estimate of the full value of MPA's liability for outstanding claims within its self-insured retention (SIR) is \$32,024,000 as of June 30, 2016. This amount includes losses, allocated loss adjustment expenses (ALAE), and unallocated loss adjustment expenses (ULAE). ALAE is the direct cost associated with the defense of individual claims (e.g. legal fees, investigation fees, court charges). ULAE is the cost to administer claims to final settlement, which may be years in the future (e.g. claims adjusters' salaries, taxes).

There is some measure of uncertainty associated with our best estimate because of the random nature of much of the process that determines ultimate claims costs. For this reason, we generally recommend that a program such as this include some funding margin for the possibility that actual loss costs will be greater than the best estimate. We generally measure the amount of this margin by thinking in terms of the probability distribution of actual possible results around our best estimate. As the margin grows, the probability that the corresponding funding amount will be sufficient to meet actual claim liabilities increases. We typically refer to this probability as the "confidence level" of funding. Graph 1 shows the liabilities for outstanding claims at several confidence levels that are typically of interest to risk managers in formulating funding policies for self-insurance programs.

The MPA can earn investment income on the assets it holds until claims payments come due. Assuming a long-term average annual return on investments of 2.5%, we estimate the impact of investment income earnings to be about 14.0% if the program is funded within the range indicated in the graphs, resulting in a discounted liability for outstanding claims of \$27,550,000 as of June 30, 2016.

Investment income earnings will be less than this when the program does not maintain sufficient funding, and more when there is excess funding. Thus, thinking in terms of liabilities discounted for investment income can actually mask funding deficiencies and redundancies that might otherwise be obvious. However, the discounted liabilities do represent legitimate funding targets. The light-colored bars on Graph 1 shows our estimates of MPA's discounted liability for outstanding claims.

Municipal Pooling Authority
 Workers' Compensation
 Available Assets vs Outstanding Liability (\$000's)
 at June 30, 2016



The table below displays a breakdown of the program's outstanding loss and LAE liabilities into case reserves and incurred but not reported (IBNR) reserves at June 30, 2016, before recognition of investment income.

Municipal Pooling Authority
Self-Insured Workers' Compensation Program
Estimated Liability for Unpaid Loss and LAE at June 30, 2016

Year	Case Reserves	IBNR Reserves	Total Outstanding
Prior	\$529,474	\$76,990	\$606,464
1995-96	72,317	8,691	81,008
1996-97	37,220	20,910	58,130
1997-98	73,278	35,820	109,098
1998-99	8,298	42,603	50,901
1999-00	183,279	51,607	234,886
2000-01	373,732	89,382	463,114
2001-02	142,321	69,491	211,812
2002-03	188,547	135,955	324,502
2003-04	123,216	150,366	273,582
2004-05	203,826	149,051	352,877
2005-06	347,526	211,066	558,592
2006-07	179,388	291,458	470,846
2007-08	466,531	417,626	884,157
2008-09	549,464	637,938	1,187,402
2009-10	871,533	1,026,734	1,898,267
2010-11	1,098,320	770,303	1,868,623
2011-12	1,181,925	1,145,518	2,327,443
2012-13	1,737,038	1,199,203	2,936,241
2013-14	2,173,056	1,457,416	3,630,472
2014-15	2,054,199	2,851,145	4,905,344
2015-16	1,886,966	5,060,240	6,947,206
Loss and ALAE	\$14,481,454	\$15,899,513	\$30,380,967
ULAE		1,643,000	1,643,000
Total	\$14,481,454	\$17,542,513	\$32,023,967

B. PROGRAM FUNDING: GOALS AND OBJECTIVES

As self-insurance programs have proliferated among public entities, it has become apparent that there is a large measure of inconsistency in the way in which these programs recognize and account for their claims costs. This is the result of the fact that there have been several different sources of guidance available, none of which has been completely relevant to public entity self-insurance programs.

According to the Governmental Accounting Standards Board (GASB), the most relevant source of guidance on the subject is Financial Accounting Standards Board Statement #60. A liability for unpaid claim costs, including all loss adjustment expenses, should be accrued at the time the self-insured events occur. This liability should include an allowance for incurred but not reported claims. It may be discounted for investment income at an appropriate rate of return, provided the discounting is disclosed. The regulations detailing the way in which this must be done are outlined in GASB's statements #10 and #30. These regulations are required to be applied by MPA.

GASB #10 and #30 do not address asset requirements. They do, however, allow a range of amounts to be recognized for accounting purposes; specifically, GASB #10 and #30 allow recognition of a risk margin for unexpectedly adverse loss experience. Thus, for accounting purposes, it is possible to formulate a funding policy from a range of alternatives. The uncertainty in any estimate of the program's liability for outstanding claims should be taken into consideration in determining funding policy, but it may be offset by recognizing anticipated investment income earnings. This usually means developing a funding program based on discounted claims costs with some risk margin for unexpected adverse loss experience.

The amount of the risk margin should be a question of long-term funding policy. We recommend that the risk margin be determined by thinking in terms of the probability that a given level of assets will prove to be adequate. For example, a reasonable goal might be to maintain assets at the 85% confidence level.

A key factor to consider in determining funding policy is the degree to which stability is required in the level of contributions to the program from year to year. If you elect to maintain assets at a low confidence level, the chances are much greater that future events will prove that additional contributions should have been made for old claims. The additional contributions for old claims may be required at the same time that costs are increasing dramatically on new claims. The burden of funding for increases on past years as well as on current years, may well be prohibitive.

We generally recommend maintaining program assets at the 80% confidence level, after recognition of investment income, with a recommended range of the 75% to 85% confidence levels. We tend to think of the 70% confidence level as marginally acceptable and of the 90% confidence level as conservative. We recommend the 75% to 85% confidence level range because the probabilities are reasonably high that resulting assets will be sufficient to meet claim liabilities, yet the required risk margins are not so large that they will cause most self-insured entities to experience undue financial hardship. In addition, within this range, anticipated investment income generally offsets the required risk margin for the most part, which means that assets are likely sufficient on an undiscounted basis.

We also strongly believe, however, that the confidence level to which any future year is funded should be evaluated in light of the relative certainty of the assumptions underlying the actuarial analysis, MPA's other budgetary constraints, and the relative level of risk it is believed appropriate to assume. This means formulating both short and long-term funding goals, which may be the same in some years, but different in others. In general, we recommend that you fund each year's claims costs in that year. When surpluses or deficits have developed on outstanding liabilities and funding adjustments are necessary, they should be clearly identified as such so that the habit of funding each year's claims costs that year is maintained. We also recommend that you reduce a surplus more slowly than you would accumulate funding to reduce a deficit.

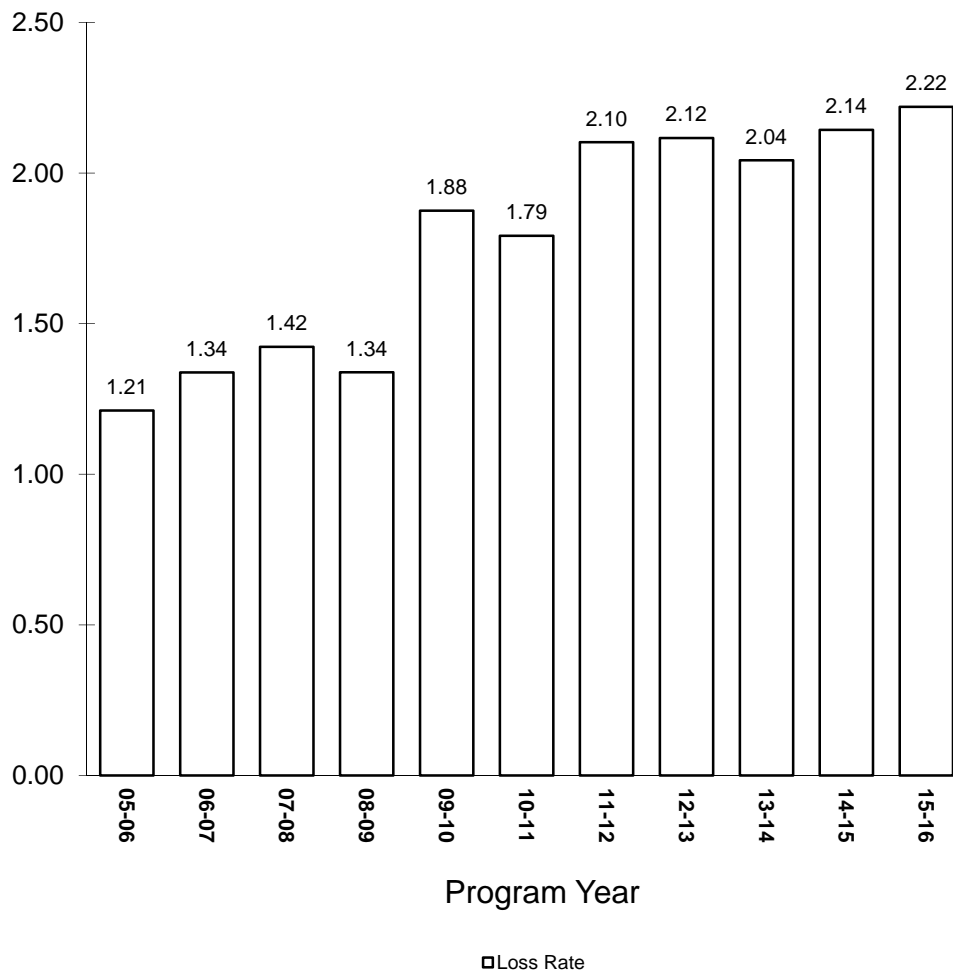
It is estimated that program assets will be \$31,659,000 at June 30, 2016, resulting in the program being funded between the 75% and 80% confidence levels.

C. HISTORICAL TRENDS IN THE SELF-INSURANCE PROGRAM

MPA's loss rate (based on losses limited to \$100,000 per occurrence) has generally increased over the 10 year period shown below. The program's loss rate increased from \$1.21 per \$100 of payroll during the 2005-06 program year to \$2.14 for the 2014-15 program year. Our projected loss rate for 2015-16 of \$2.22 per \$100 of payroll is based on this upward trend.

Graph 2

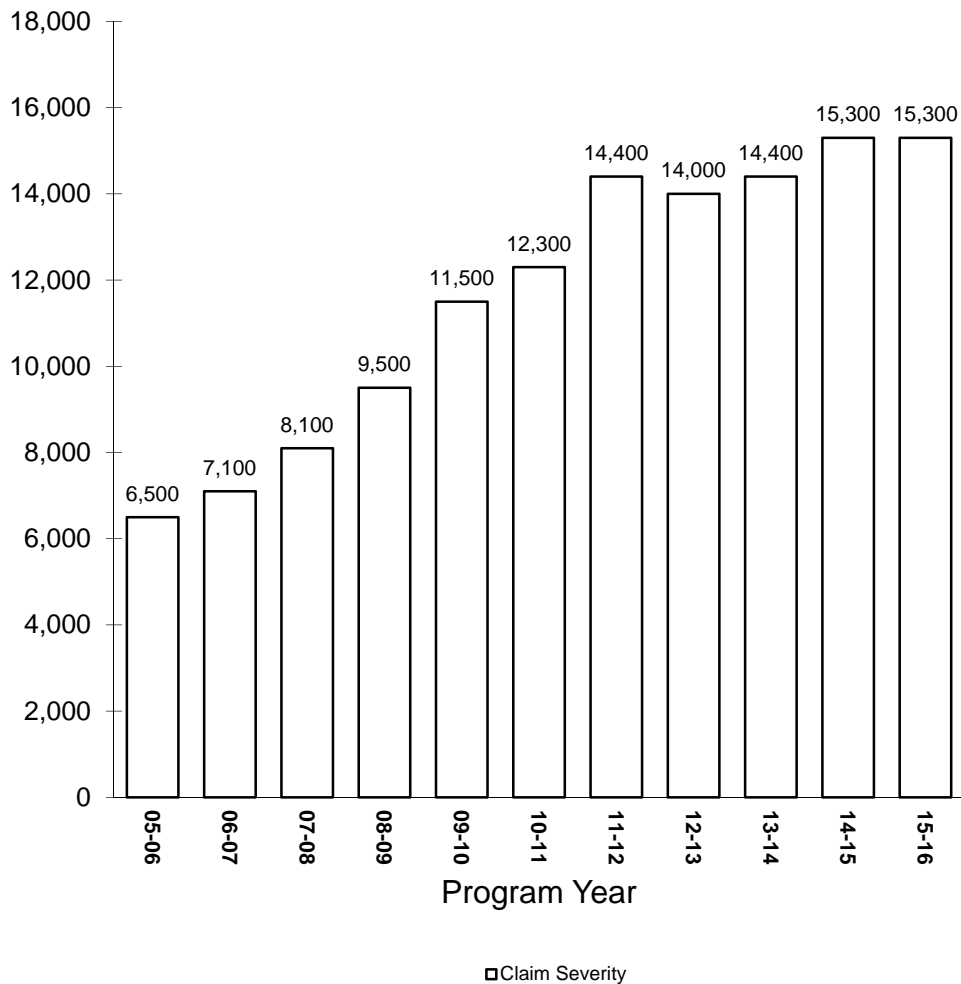
Municipal Pooling Authority
Workers' Compensation
Dollars of Loss per
\$100 of Payroll



The following chart shows that MPA's average claim size, developed to ultimate and limited to \$100,000 per occurrence, has increased significantly during the period 2005-06 through 2011-12. While this trend is quite pronounced, it is in line with statewide workers' compensation inflation. Although much less severe, the average claim size has continued to increase during the most recent three years. The projected 2015-16 average cost per claim of about \$15,300 is based on the average of the latest three years and the apparent upward trend.

Graph 3

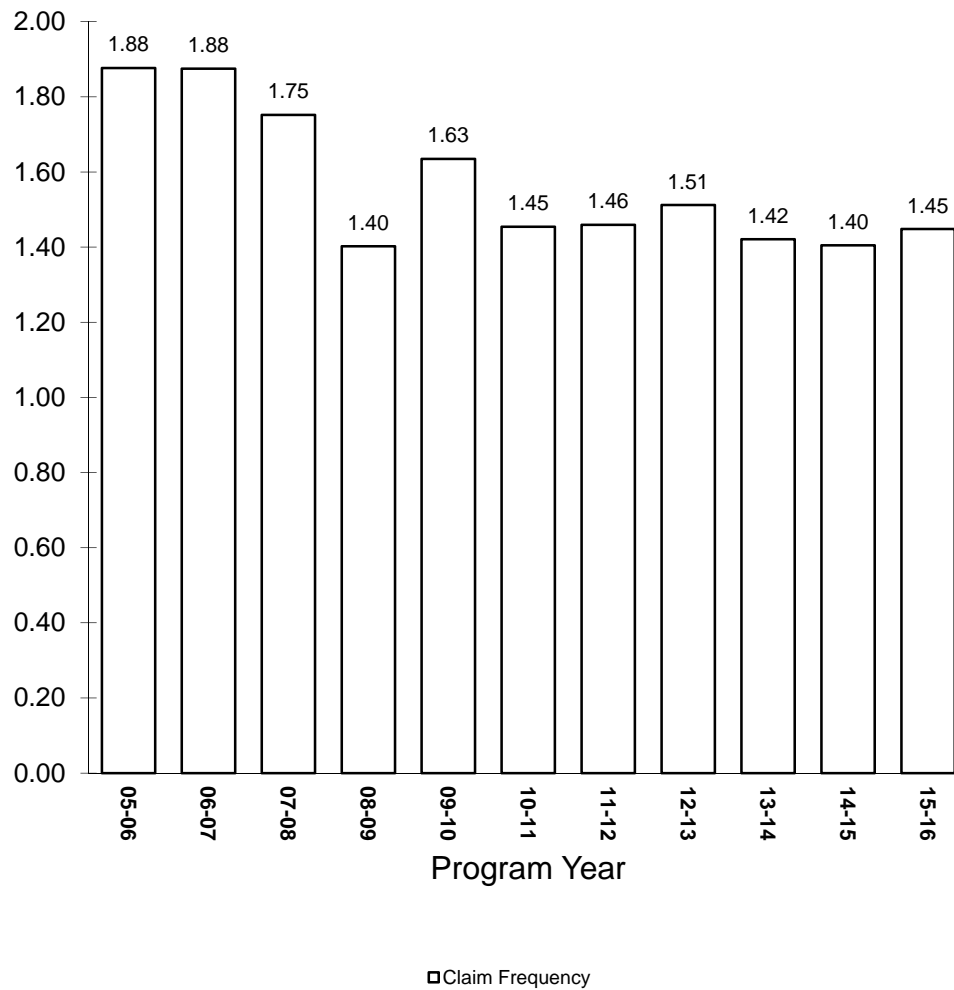
Municipal Pooling Authority
Workers' Compensation
Dollars of Loss per Claim



Until 2010-11, MPA's frequency of claims per \$1 million payroll had been generally decreasing overall. Since 2010-11, MPA's frequency has been relatively consistent. From 2005-06 to 2007-08, the program averaged 1.83 claims. The average frequency decreased to 1.47 during the most recent seven years and our projection for 2015-16 is 1.45 based on the average of the most recent five years.

Graph 4

Municipal Pooling Authority
Workers' Compensation
Number of Claims per
\$1 Million of Payroll



D. COMPARISON WITH PREVIOUS RESULTS

The prior report for Municipal Pooling Authority was dated December 2, 2014. In the table below we display actual versus expected development of incurred losses and ALAE by accident year between the October 31, 2014 evaluation date of the prior report and the October 31, 2015 evaluation date of the current report.

Actual Versus Expected Incurred Loss and ALAE Development

Accident Year	Expected Incurred Development	Actual Incurred Development	Actual Minus Expected
Prior	\$17,000	\$104,261	\$87,261
1995-96	2,000	7,000	5,000
1996-97	8,000	0	(8,000)
1997-98	14,000	27,536	13,536
1998-99	13,000	(35,312)	(48,312)
1999-00	18,000	(19,838)	(37,838)
2000-01	28,000	(42,008)	(70,008)
2001-02	18,000	68,777	50,777
2002-03	35,000	54,825	19,825
2003-04	41,000	(12,048)	(53,048)
2004-05	36,000	32,249	(3,751)
2005-06	43,000	149,271	106,271
2006-07	61,000	(17,165)	(78,165)
2007-08	67,000	(128,072)	(195,072)
2008-09	105,000	19,956	(85,044)
2009-10	193,000	(9,121)	(202,121)
2010-11	185,000	273,684	88,684
2011-12	319,000	98,992	(220,008)
2012-13	636,000	868,805	232,805
2013-14	1,250,000	1,525,475	275,475
2014-15	2,489,000	2,564,875	75,875
Total	\$5,578,000	\$5,532,142	(\$45,858)

As shown, actual incurred development was less than anticipated since the prior report. Overall, MPA has experienced favorable loss experience for most accident years prior to 2012-13. However, this favorable experience is partially offset by the adverse loss development during the three most recent accident years.

In the table below we display actual versus expected development of paid losses and ALAE by accident year between the October 31, 2014 evaluation date of the prior report and the October 31, 2015 evaluation date of the current report.

Actual Versus Expected Paid Loss and ALAE Development

Accident Year	Expected Paid Development	Actual Paid Development	Actual Minus Expected
Prior	\$182,000	\$66,663	(\$115,337)
1995-96	20,000	11,544	(8,456)
1996-97	8,000	941	(7,059)
1997-98	14,000	26,148	12,148
1998-99	11,000	0	(11,000)
1999-00	30,000	20,292	(9,708)
2000-01	61,000	42,229	(18,771)
2001-02	19,000	30,424	11,424
2002-03	40,000	18,735	(21,265)
2003-04	50,000	15,126	(34,874)
2004-05	52,000	45,683	(6,317)
2005-06	58,000	81,131	23,131
2006-07	92,000	162,409	70,409
2007-08	155,000	54,272	(100,728)
2008-09	220,000	251,704	31,704
2009-10	371,000	275,896	(95,104)
2010-11	391,000	354,975	(36,025)
2011-12	633,000	491,971	(141,029)
2012-13	1,000,000	1,110,117	110,117
2013-14	1,363,000	1,390,487	27,487
2014-15	1,122,000	1,085,431	(36,569)
Total	\$5,892,000	\$5,536,178	(\$355,822)

As shown, actual paid development was less than anticipated since the prior report. Most accident years prior to 2012-13 have developed lower than expected, while two of the three most recent years have developed higher than expected.

In the table below we display the change in our estimates of the program's ultimate losses and ALAE by accident year since our prior report.

Change in Ultimate Loss and ALAE

Accident Year	Prior Report	Current Report	Change In Ultimate
Prior	\$19,283,000	\$19,366,000	\$83,000
1995-96	1,592,000	1,597,000	5,000
1996-97	2,683,000	2,678,000	(5,000)
1997-98	3,595,000	3,612,000	17,000
1998-99	3,401,000	3,355,000	(46,000)
1999-00	3,102,000	3,067,000	(35,000)
2000-01	4,234,000	4,170,000	(64,000)
2001-02	2,431,000	2,488,000	57,000
2002-03	3,864,000	3,896,000	32,000
2003-04	3,475,000	3,429,000	(46,000)
2004-05	2,770,000	2,771,000	1,000
2005-06	3,150,000	3,265,000	115,000
2006-07	3,910,000	3,803,000	(107,000)
2007-08	4,808,000	4,697,000	(111,000)
2008-09	5,725,000	5,677,000	(48,000)
2009-10	7,948,000	7,791,000	(157,000)
2010-11	6,072,000	6,126,000	54,000
2011-12	6,990,000	6,825,000	(165,000)
2012-13	7,136,000	7,296,000	160,000
2013-14	6,971,000	7,056,000	85,000
2014-15	7,191,000	7,205,000	14,000
Total	\$110,331,000	\$110,170,000	(\$161,000)

As shown, overall we have decreased our estimated ultimates by \$161,000 since our prior report. This decrease can be partially tied to less than anticipated loss development for the most recent accident years between the two reports as previously discussed.

At the time of the prior report, we estimated the liability for outstanding claims as of June 30, 2015 to be \$25,975,000 at the discounted, expected level. Our current estimate as of June 30, 2016, is \$27,550,000, an increase in our assessment of the MPA's outstanding liabilities, as shown below:

Outstanding Claim Liabilities for Loss and LAE

	Prior Report at June 30, 2015	Current Report at June 30, 2016	Change
(A) Case Reserves:	\$13,896,000	\$14,481,000	\$585,000
(B) IBNR Reserves:	14,794,000	15,900,000	1,106,000
(C) Claims Administration Reserves:	1,506,000	1,643,000	137,000
(D) Total Reserves:	\$30,196,000	\$32,024,000	\$1,828,000
(E) Offset for Investment Income:	(4,221,000)	(4,474,000)	(253,000)
(F) Total Outstanding Claim Liabilities:	\$25,975,000	\$27,550,000	\$1,575,000

As shown, our estimate of outstanding claims liabilities at the discounted, expected level has increased between June 30, 2015 and June 30, 2016 as reflected in our prior and current reports respectively.

The increase in claim reserves (case and IBNR) is driven primarily by greater than expected loss development during recent accident years. Reserves for future claims administration expenses have increased, resulting in a \$1,828,000 increase in total claim reserves. This increase in reserves leads to a larger offset for investment income. The net change due to the above factors is an overall increase of \$1,575,000 in our estimate of outstanding claim liabilities for loss and LAE.

At the time of the prior report, available assets were estimated to be \$29,294,000 as of June 30, 2015, which corresponded to the then-estimated discounted liability for outstanding claims between the 75% and 80% confidence levels. Available assets are currently estimated to be \$31,659,000 as of June 30, 2016, which corresponds to the currently estimated liability for outstanding claims again between the 75% and 80% confidence levels. It can be summarized as follows:

	Funding Margin		
	Prior Report at June 30, 2015	Current Report at June 30, 2016	Change
(A) Outstanding Liability at the Discounted Expected Level:	\$25,975,000	\$27,550,000	\$1,575,000
(B) Estimated Assets At June 30:	29,294,000	31,659,000	2,365,000
(C) Surplus/(Deficit):	\$3,319,000	\$4,109,000	\$790,000

As you can see, our estimate of the program's funding margin at the discounted, expected level has increased by \$790,000 between June 30, 2015 (as previously estimated) and June 30, 2016 (as currently estimated). This is driven by an increase in the estimated fund assets between the two points, partially offset by an increase in the estimated outstanding liability.

At the time of the prior report, our funding estimate for the 2015-16 year was \$10,232,000 at the discounted, 70% confidence level. That amount included allocated loss adjustment expenses (ALAE) and a discount for anticipated investment income, as well as all other program expenses. Our current estimate for the 2016-17 year is \$10,834,000 at the discounted, 70% confidence level, an increase in the program's expected loss costs, as shown in the table below:

Comparison of Funding for Loss and LAE

	Prior Report 2015-16 SIR = \$500,000	Current Report 2016-17 SIR = \$500,000	Change
(A) Ultimate Loss and ALAE:	\$7,543,000	\$7,928,000	\$385,000
(B) Risk Margin (70% CL)	\$784,000	840,000	56,000
(C) Other Program Expenses:	\$2,869,000	3,082,000	213,000
(D) Total Claim Costs:	\$11,196,000	\$11,850,000	\$654,000
(E) Offset for Investment Income:	(\$964,000)	(1,016,000)	(52,000)
(F) Total Recommended Funding:	\$10,232,000	\$10,834,000	\$602,000
(G) Funding per \$100 of Payroll:	\$4.388	\$4.445	\$0.06

As you can see, our funding recommendations at the discounted, expected level have increased between 2015-16 and 2016-17, as shown in our prior and current reports respectively.

Our estimates of ultimate loss and ALAE have increased by \$385,000 (\$441,000 at 70% confidence). This is driven primarily by greater than expected loss development during the more recent accident years. In addition, other program expenses (claims administration, excess insurance, personnel, etc.) are expected to be higher, resulting in an overall increase in total claim costs of \$654,000. Investment income is expected to be higher. The net change due to the above factors is an overall increase of \$602,000 in our annual funding estimate for loss and LAE. On a rate basis, this is a 1.3% increase.

E. DATA PROVIDED FOR THE ANALYSIS

Overall, the data utilized in preparing this report appears to be accurate.

Comments and issues regarding the data are as follows:

- We have assumed that the program's self-insured retention will remain at \$500,000 per occurrence for 2015-16 and 2016-17 (See Appendix J).
- We estimated the June 30, 2016 asset balance by beginning with the June 30, 2015 asset balance, and adjusting for anticipated revenue and expense for 2015-16 (see Appendix K).
- We received loss data evaluated as of October 31, 2015 (See Appendix L). We also utilized the data from the MPA's most recent actuarial study for our assessment of loss development.
- We have assumed that MPA's payroll for 2015-16 will be \$243,758,300 based upon information provided by MPA for 2014-15, trended by 1.0% (See Appendix M).

The data provided for the analysis appears to be reasonable for use in this actuarial valuation of liabilities and projection of loss costs.

III. ASSUMPTIONS AND LIMITATIONS

Any quantitative analysis is developed within a very specific framework of assumptions about conditions in the outside world, and actuarial analysis is no exception. We believe that it is important to review the assumptions we have made in developing the estimates presented in this report. By doing so, we hope you will gain additional perspective on the nature of the uncertainties involved in maintaining a self-insurance program. Our assumptions, and some observations about them, are as follows:

- Our analysis is based on loss experience, exposure data, and other general and specific information provided to us by MPA. We have accepted all of this information without audit.
- We have also made use of loss statistics that have been developed from the information gathered and compiled from the WCIRB.
- We have assumed that the future development of incurred and paid losses can be reasonably predicted on the basis of development of such losses in the recent past.
- We have assumed that there is a continuing relationship between past and future loss costs.
- It is not possible to predict future claim costs precisely. Most of the cost of workers' compensation claims arise from a small number of incidents involving serious injury. A relatively small number of such claims could generate enough loss dollars to significantly reduce, or even deplete, the self-insurance fund.
- We cannot predict and have not attempted to predict the impact of future law changes and court rulings on claims costs. This is one major reason why we believe our funding recommendations are reasonable now, but should not be extrapolated into the future.
- The changes in cost levels associated with benefit increases and administrative changes typically take place over a period of several years following their enactment, and these changes are very difficult to forecast in advance. We have based our benefit level factors on those produced by the Workers' Compensation Insurance Rating Bureau of California (WCIRB). See Appendix E for a display of the benefit level cost indices by fiscal year.
- We have assumed that the loss rate trend associated with claim costs increases at 0.5% per year. We have assumed that claim severity increases at 2.5% per year, and that claim frequency decreases at 2.0% per year.
- We have assumed that payroll and other inflation-sensitive exposure measures increase 2.5% annually due to inflation.

- We have assumed that assets held for investment will generate an average annual return of 2.5% over the duration of payment of the loss liabilities. It should be noted that actual future investment returns may vary significantly from this assumption, depending upon the prevailing investment market conditions.
- The claims costs we have estimated include indemnity and medical payments, and all loss adjustment expenses. We have included estimates for excess insurance contributions and other expenses associated with the program based upon information provided by MPA.
- Our funding recommendations do not include provisions for catastrophic events not in MPA's history, such as earthquakes, flooding, mass civil disorder, or mass occupational disease.
- Our estimates assume that all excess insurance is valid and collectible. Further, our funding recommendations do not include a provision for losses greater than MPA's excess coverage.
- MPA's assets available for the program are estimated to be \$31,659,000 as of June 30, 2016 for use in this report. This is shown in further detail in Appendix K.

IV. GLOSSARY OF ACTUARIAL TERMS

Accident Year - Year during which the accidents that generate a group of claims occurs, regardless of when the claims are reported, payments are made, or reserves are established.

Allocated Loss Adjustment Expenses (ALAE) - Expense incurred in settling claims that can be directly attributed to specific individual claims (e.g., legal fees, investigative fees, court charges, etc.)

Benefit Level Factor - Factor used to adjust historical losses to the current level of workers' compensation benefits.

Case Reserve - The amount left to be paid on a claim, as estimated by the claims administrator.

Claim Count Development Factor - A factor that is applied to the number of claims reported in a particular accident period in order to estimate the number of claims that will ultimately be reported.

Claim Frequency - Number of claims per \$1 million of payroll.

Confidence Level - An estimated probability that a given level of funding will be adequate to pay actual claims costs. For example, the 85% confidence level refers to an estimate for which there is an 85% chance that the amount will be sufficient to pay loss costs.

Discount Factor - A factor to adjust estimated loss costs to reflect anticipated investment income from assets held prior to actual claim payout.

Expected Losses - The best estimate of the full, ultimate value of loss costs.

Incurred but not Reported (IBNR) Losses - Losses for which the accident has occurred but the claim has not yet been reported. This is the ultimate value of losses, less any amount that has been set up as reported losses by the claims adjuster. It includes both amounts for claims incurred but not yet received by the administrator and loss development on already reported claims.

Loss Development Factor - A factor applied to losses for a particular accident period to reflect the fact that reported and paid losses do not reflect final values until all claims are settled (see Section IV).

Loss Rate - Ultimate losses per \$100 of payroll.

Non-Claims Related Expenses – Program expenses not directly associated with claims settlement and administration, such as excess insurance, safety program expenses, and general overhead. These exclude expenses associated with loss settlements (Indemnity/Medical, BI/PD), legal expenses associated with individual claims (ALAE), and claims administration (ULAE).

Outstanding Losses - Losses that have been incurred but not paid. This is the ultimate value of losses less any amount that has been paid.

Paid Losses - Losses actually paid on all reported claims.

Program Losses - Losses, including ALAE, limited to the SIR for each occurrence.

Reported Losses - The total expected value of losses as estimated by the claims administrator. This is the sum of paid losses and case reserves.

Self-Insured Retention (SIR) - The level at which an excess insurance policy is triggered to begin payments on a claim. Financially, this is similar to an insurance deductible.

Severity - Average claim cost.

Ultimate Losses - The value of claim costs at the time when all claims have been settled. This amount must be estimated until all claims are actually settled.

Unallocated Loss Adjustment Expenses (ULAE) – Claim settlement expenses that cannot be directly attributed to individual claims (e.g., claims adjusters' salaries, taxes, etc.)

Municipal Pooling Authority - Workers' Compensation

Funding Guidelines for Outstanding Liabilities at
June 30, 2016

(A) Estimated Ultimate Losses Incurred through 6/30/16: (From Appendix F)	\$117,819,000
(B) Estimated Paid Losses through 6/30/16: (From Appendix F)	87,438,000
(C) Estimated Liability for Claims Outstanding at 6/30/16: (From Appendix F)	<u>\$30,381,000</u>
(D) Estimated Liability for Outstanding Claims Administration Fees at 6/30/16: (Based on a factor of 5.25% of (C))	1,643,000
(E) Total Outstanding Liability for Claims at 6/30/16: ((C) + (D))	<u>\$32,024,000</u>
(F) Reserve Discount Factor (Based on a Discount Rate of 2.50%. (Appendix H, Page 1, (H))	0.860
(G) Discounted Outstanding Liability for Claims at 6/30/16: ((E) x (F))	<u>\$27,550,000</u>

	Marginally Acceptable		Recommended		Conservative
Confidence Level of Adequacy:	70%	75%	80%	85%	90%
(H) Confidence Level Factor: (From Appendix I)	1.082	1.114	1.152	1.198	1.258
(I) Margin for Adverse Experience: ((G) x [(H) - 1])	2,259,000	3,141,000	4,188,000	5,455,000	7,108,000
(J) Total Required Assets at 6/30/16: ((G) + (I))	<u>\$29,809,000</u>	<u>\$30,691,000</u>	<u>\$31,738,000</u>	<u>\$33,005,000</u>	<u>\$34,658,000</u>
(K) Estimated Total Assets at 6/30/16: (From Appendix K)	\$31,659,000	\$31,659,000	\$31,659,000	\$31,659,000	\$31,659,000
(L) Indicated Funding Redundancy/ (Deficiency): ((K) - (J))	<u>\$1,850,000</u>	<u>\$968,000</u>	<u>(\$79,000)</u>	<u>(\$1,346,000)</u>	<u>(\$2,999,000)</u>

Municipal Pooling Authority - Workers' Compensation
Funding Options for Program Year 2016-2017 (SIR = \$500,000)
One-Year Funding Plan

	Dollar Amount	Payroll Rate			
(A) Estimated Ultimate Losses Incurred in Accident Year 2016-2017: (From Appendix F)	\$7,928,000	\$3.252			
(B) Estimated Claims Administration Fees Incurred in Accident Year 2016-2017: (From Exhibit 5, Page 1, item (L))	0	0.000			
(C) Total Claims Costs Incurred in Accident Year 2016-2017: ((A) + (B))	<u>\$7,928,000</u>	<u>\$3.252</u>			
(D) Loss Discount Factor (Based on a Discount Rate of 2.50%.) (Appendix H, Page 2, (F))	0.884				
(E) Discounted Total Claims Costs Incurred in Accident Year 2016-2017: ((C) x (D))	<u>\$7,009,000</u>	<u>\$2.875</u>			
	<u>Marginally Acceptable</u>		<u>Recommended</u>		<u>Conservative</u>
	70%	75%	80%	85%	90%
(F) Confidence Level Factor: (From Appendix I)	1.106	1.148	1.196	1.255	1.334
(G) Margin for Adverse Experience: ((E) x [(F) - 1])	743,000	1,037,000	1,374,000	1,787,000	2,341,000
(H) Recommended Funding in 2016-2017 for Claims Costs and Other Expenses ((E) + (G))	<u>\$7,752,000</u>	<u>\$8,046,000</u>	<u>\$8,383,000</u>	<u>\$8,796,000</u>	<u>\$9,350,000</u>
(I) Other Budgeted Program Expenses: (Provided by the Authority)	3,082,000	3,082,000	3,082,000	3,082,000	3,082,000
(J) Recommended Funding in 2016-2017 for Claims Costs, Other Expenses, and Non Claims Related Expenses: ((H) + (I))	<u>\$10,834,000</u>	<u>\$11,128,000</u>	<u>\$11,465,000</u>	<u>\$11,878,000</u>	<u>\$12,432,000</u>
(K) Indicated Rate per \$100 of Payroll: ((J) / \$2,437,583)	\$4.445	\$4.565	\$4.703	\$4.873	\$5.100
(L) Prior Rate at 70% Confidence	\$4.388	\$4.388	\$4.388	\$4.388	\$4.388
(M) Indicated Change in Rate	1.3%	4.0%	7.2%	11.1%	16.2%

Payroll rates are per hundred dollars of 2015-2016 payroll of \$243,758,300.

Municipal Pooling Authority - Workers' Compensation

Funding Options for Program Year 2016-2017 (SIR = \$500,000)
One-Year Funding Plan at the 60% Confidence Level

	Dollar Amount	Payroll Rate
(A) Estimated Ultimate Losses Incurred in Accident Year 2016-2017: (From Appendix F)	\$7,928,000	\$3.252
(B) Loss Discount Factor (Based on a Discount Rate of 2.50%.) (Appendix H, Page 2, (F))	0.884	
(C) Discounted Total Claims Costs Incurred in Accident Year 2016-2017: ((A) x (B))	<u>\$7,009,000</u>	<u>\$2.875</u>
(D) 60% Confidence Level Factor: (From Appendix I)	1.034	1.034
(E) Margin for Adverse Experience: ((C) x [(D) - 1])	238,000	\$0.098
(F) Recommended Funding in 2016-2017 for Claims Costs and Other Expenses ((C) + (E))	<u>\$7,247,000</u>	<u>\$2.973</u>
(G) Other Budgeted Program Expenses: (Provided by the Authority)		
Excess Premium	\$1,354,000	\$0.555
Claims Administration	279,000	0.114
DOC Expense Paid	865,000	0.355
G&A Expense Paid	124,000	0.051
Member Dividend/Rebates Payable:	<u>460,000</u>	<u>0.189</u>
Total	<u>\$3,082,000</u>	<u>\$1.264</u>
(H) Recommended Funding in 2016-2017 for Claims Costs, Other Expenses, and Non Claims Related Expenses: ((F) + (G))	<u>\$10,329,000</u>	
(I) Rate per \$100 of Payroll: ((H) / \$2,437,583)	\$4.237	
(J) Prior Rate	\$4.388	
(K) Indicated Change in Rate	-3.4%	

Payroll rates are per hundred dollars of 2015-2016 payroll of \$243,758,300.

Municipal Pooling Authority - Workers' Compensation

IBNR as of 6/30/16 at Expected Claims Level

Accident Year	Estimated Ultimate (A)	Reported as of 10/31/15 (B)	Estimated IBNR as of 10/31/15 (C)	Estimated Percent of IBNR Reported Between 11/1/15 and 6/30/16 (D)	Estimated IBNR Reported (E)	Estimated IBNR as of 6/30/16 (F)
Prior	\$19,366,000	\$19,270,010	\$95,990	19.9%	\$19,000	\$76,990
1995-1996	1,597,000	1,586,309	10,691	14.2%	2,000	8,691
1996-1997	2,678,000	2,654,090	23,910	11.0%	3,000	20,910
1997-1998	3,612,000	3,569,180	42,820	16.5%	7,000	35,820
1998-1999	3,355,000	3,302,397	52,603	18.5%	10,000	42,603
1999-2000	3,067,000	3,006,393	60,607	14.7%	9,000	51,607
2000-2001	4,170,000	4,060,618	109,382	18.1%	20,000	89,382
2001-2002	2,488,000	2,406,509	81,491	14.3%	12,000	69,491
2002-2003	3,896,000	3,735,045	160,955	15.7%	25,000	135,955
2003-2004	3,429,000	3,256,634	172,366	12.6%	22,000	150,366
2004-2005	2,771,000	2,601,949	169,051	11.6%	20,000	149,051
2005-2006	3,265,000	3,028,934	236,066	10.8%	25,000	211,066
2006-2007	3,803,000	3,476,542	326,458	10.8%	35,000	291,458
2007-2008	4,697,000	4,226,374	470,626	11.3%	53,000	417,626
2008-2009	5,677,000	4,964,062	712,938	10.5%	75,000	637,938
2009-2010	7,791,000	6,641,266	1,149,734	10.7%	123,000	1,026,734
2010-2011	6,126,000	5,266,697	859,303	10.3%	89,000	770,303
2011-2012	6,825,000	5,493,482	1,331,518	14.0%	186,000	1,145,518
2012-2013	7,296,000	5,912,797	1,383,203	13.3%	184,000	1,199,203
2013-2014	7,056,000	5,117,584	1,938,416	24.8%	481,000	1,457,416
2014-2015	7,205,000	3,206,855	3,998,145	28.7%	1,147,000	2,851,145
2015-2016	7,649,000	561,760	1,988,000	28.6%	2,027,000	5,060,240
Totals	\$117,819,000	\$97,345,487	\$15,374,273		\$4,574,000	\$15,899,513

Notes:

- (A) From Exhibit 4, Not Included.
- (B) Provided by the Authority. These losses exclude amounts incurred above the Authority's SIR for each year.
- (C) (A) - (B).
- (D) Percentage of incurred but not reported (IBNR) expected to be reported between 11/1/15 and 6/30/16. The percentage is based on the development pattern selected in Appendix A.
- (E) ((A) - (B)) x (D).
- (F) (A) - (B) - (E).

This exhibit shows the calculation of the amount of incurred but not reported losses we expect as of 6/30/16. This amount is dependent on both the strength of the case reserves and the average frequency and severity of the losses incurred.

Municipal Pooling Authority - Workers' Compensation

Estimated Ultimate Program Losses

Accident Year	Reported Loss Development Method (A)	Paid Loss Development Method (B)	Exposure Method Based on Reported Losses (C)	Exposure Method Based on Paid Losses (D)	Frequency-Severity Method (E)	Selected Estimate of Ultimate Losses (F)
Prior	\$19,366,360	\$19,331,559	\$0	\$0	\$19,215,300	\$19,366,000
1995-1996	1,597,413	1,562,478	1,597,120	1,561,839	1,543,124	1,597,000
1996-1997	2,677,977	2,765,140	2,677,339	2,755,632	2,582,752	2,678,000
1997-1998	3,612,010	3,726,921	3,605,632	3,684,268	3,037,584	3,612,000
1998-1999	3,355,235	3,550,833	3,349,802	3,510,389	2,962,800	3,355,000
1999-2000	3,066,521	3,054,993	3,074,603	3,082,498	3,411,072	3,067,000
2000-2001	4,170,255	4,026,297	4,151,663	3,981,781	3,501,047	4,170,000
2001-2002	2,488,330	2,505,164	2,493,371	2,516,299	2,632,307	2,488,000
2002-2003	3,895,652	3,979,607	3,903,834	3,993,425	4,116,420	3,896,000
2003-2004	3,429,236	3,583,621	3,435,573	3,582,427	3,579,611	3,429,000
2004-2005	2,771,076	2,795,245	2,756,703	2,756,957	2,537,146	2,771,000
2005-2006	3,265,191	3,178,585	3,254,342	3,171,531	3,131,868	3,265,000
2006-2007	3,803,337	4,020,660	3,799,984	3,972,595	3,762,583	3,803,000
2007-2008	4,703,954	4,689,233	4,685,282	4,649,844	4,500,188	4,697,000
2008-2009	5,639,174	5,714,818	5,498,158	5,413,969	4,451,495	5,677,000
2009-2010	7,730,434	7,851,972	7,534,291	7,433,476	6,332,860	7,791,000
2010-2011	6,309,503	5,941,887	6,343,640	6,132,801	6,000,671	6,126,000
2011-2012	6,883,333	6,801,502	6,766,738	6,608,891	6,076,226	6,825,000
2012-2013	7,869,933	7,325,835	7,449,548	6,781,011	6,445,656	7,296,000
2013-2014	7,906,667	6,892,578	7,429,170	6,683,011	6,720,720	7,056,000
2014-2015	7,228,251	6,377,283	7,275,361	7,135,377	7,764,117	7,205,000
Totals						\$110,170,000
						Projected Losses for the Year 2015-2016 (G)
						\$7,649,000
						Projected Losses for the Year 2016-2017 (H)
						\$7,928,000

Notes:

- (A) From Appendix A, Page 1, Column (G).
- (B) From Appendix B, Page 1, Column (G).
- (C) From Appendix C, Page 1, Column (G).
- (D) From Appendix C, Page 2, Column (G).
- (E) From Appendix D, Page 1, Column (C).
- (F) Selected averages of (A), (B), (C), (D), and (E).
- (G) From Exhibit 5, Page 1, Line (K).
- (H) From Exhibit 5, Page 1, Line (K).

This exhibit summarizes the results of the actuarial methods we have applied to estimate ultimate losses for each year. It is important to apply a number of estimation methods because each one relies on specific assumptions about the claims process that tend to hold generally true, but that may be violated in specific situations. Thus, the more estimation methods that can be applied, the better.

Municipal Pooling Authority - Workers' Compensation
Estimated Ultimate Limited Losses Capped at \$100,000 per Claim

Accident Year	Reported Loss Development Method (A)	Paid Loss Development Method (B)	Exposure Method Based on Reported Losses (C)	Exposure Method Based on Paid Losses (D)	Frequency-Severity Method (E)	Selected Ultimate Limited Losses (F)	
Prior	\$17,157,008	\$17,121,225	\$0	\$0	\$17,156,880	\$17,157,000	
1995-1996	1,308,220	1,295,564	1,308,285	1,296,045	1,307,878	1,308,000	
1996-1997	2,176,675	2,169,702	2,176,817	2,170,611	2,176,832	2,177,000	
1997-1998	2,545,373	2,540,150	2,545,578	2,539,039	2,544,993	2,545,000	
1998-1999	2,468,724	2,507,846	2,468,969	2,506,102	2,468,880	2,469,000	
1999-2000	2,826,231	2,814,854	2,826,629	2,814,993	2,825,928	2,826,000	
2000-2001	2,884,457	2,883,705	2,885,011	2,884,446	2,883,837	2,884,000	
2001-2002	2,154,952	2,136,482	2,155,555	2,136,359	2,155,115	2,155,000	
2002-2003	3,301,343	3,247,654	3,302,624	3,250,060	3,301,200	3,301,000	
2003-2004	2,787,346	2,777,295	2,785,984	2,776,559	2,786,788	2,787,000	
2004-2005	1,960,008	1,862,681	1,959,353	1,868,698	1,960,050	1,960,000	
2005-2006	2,400,819	2,370,244	2,400,357	2,372,294	2,400,888	2,401,000	
2006-2007	2,861,082	2,950,433	2,861,227	2,945,154	2,861,135	2,861,000	
2007-2008	3,404,561	3,385,421	3,405,269	3,385,453	3,394,996	3,395,000	
2008-2009	3,385,726	3,278,584	3,382,985	3,282,317	3,331,903	3,332,000	
2009-2010	4,878,138	4,528,774	4,871,936	4,547,606	4,703,110	4,703,000	
2010-2011	4,424,762	4,126,249	4,448,402	4,225,774	4,420,433	4,276,000	
2011-2012	4,879,444	4,585,708	4,861,012	4,589,248	4,439,968	4,870,000	
2012-2013	4,880,633	4,811,135	4,842,752	4,710,229	4,672,346	4,801,000	
2013-2014	5,028,407	4,236,815	4,970,064	4,459,900	4,833,408	4,715,000	
2014-2015	5,333,500	4,611,454	5,287,001	5,059,342	5,537,904	5,173,000	
Totals						\$82,096,000	
						Projected Losses for the Year 2015-2016 (G)	\$5,411,000
						Projected Losses for the Year 2016-2017 (H)	\$5,564,000

Notes:

- (A) From Appendix A, Page 1, Column (D).
- (B) From Appendix B, Page 1, Column (D).
- (C) Based on results in Appendix C, Page 1.
- (D) Based on results in Appendix C, Page 2.
- (E) Based on results in Appendix D, Page 1.
- (F) Selected averages of (A), (B), (C), (D), and (E).
- (G) From Exhibit 5, Page 1, Line (K) / Line (G).
- (H) From Exhibit 5, Page 1, Line (K) / Line (G).

This exhibit summarizes the results of the actuarial methods we have applied to estimate limited losses for each year. These results are used to select a limited loss rate for future years.

Municipal Pooling Authority - Workers' Compensation

Selection of Projected Limited Loss Rate
and Projection of Program Losses and ULAE

Accident Year	Ultimate Limited Losses (A)	Trend Factor (B)	Trended Limited Losses (C)	Trended Payroll (\$00) (D)	Trended Limited Loss Rate (E)
1995-1996	1,308,000	1.849	2,418,492	1,118,361	2.163
1996-1997	2,177,000	1.647	3,585,519	1,144,040	3.134
1997-1998	2,545,000	1.419	3,611,355	1,275,246	2.832
1998-1999	2,469,000	1.253	3,093,657	1,310,387	2.361
1999-2000	2,826,000	1.112	3,142,512	1,350,158	2.328
2000-2001	2,884,000	1.038	2,993,592	1,463,320	2.046
2001-2002	2,155,000	1.035	2,230,425	1,531,226	1.457
2002-2003	3,301,000	1.087	3,588,187	1,889,313	1.899
2003-2004	2,787,000	1.342	3,740,154	2,170,273	1.723
2004-2005	1,960,000	1.719	3,369,240	2,225,402	1.514
2005-2006	2,401,000	1.839	4,415,439	2,537,008	1.740
2006-2007	2,861,000	1.717	4,912,337	2,671,132	1.839
2007-2008	3,395,000	1.574	5,343,730	2,908,270	1.837
2008-2009	3,332,000	1.445	4,814,740	2,959,310	1.627
2009-2010	4,703,000	1.297	6,099,791	2,909,285	2.097
2010-2011	4,276,000	1.230	5,259,480	2,701,542	1.947
2011-2012	4,870,000	1.216	5,921,920	2,557,098	2.316
2012-2013	4,801,000	1.196	5,741,996	2,443,267	2.350
2013-2014	4,715,000	1.128	5,318,520	2,426,233	2.192
2014-2015	5,173,000	1.038	5,369,574	2,473,785	2.171
Totals	\$64,939,000		\$84,970,660	\$42,064,656	\$2.020
10/11-14/15	23,835,000		27,611,490	12,601,925	2.191
11/12-14/15	19,559,000		22,352,010	9,900,383	2.258
			(F) Selected Limited Rate:		\$2.220
			Prior Selected Limited Rate:		\$2.200
Program Year:		2015-2016	2016-2017		
(G) Factor to SIR:		1.414	1.425		
(H) Trend Factor:		1.000	1.018		
(I) Program Rate:		\$3.138	\$3.220		
(J) Trended Payroll (\$00):		\$2,437,583	\$2,461,959		
(K) Projected Program Losses:		7,649,000	7,928,000		
(L) Projected ULAE:		0	0		
(M) Projected Loss and ULAE:		\$7,649,000	\$7,928,000		

Notes appear on the next page.

Municipal Pooling Authority - Workers' Compensation

Selection of Projected Limited Loss Rate
and Projection of Program Losses and ULAE

Notes:

- (A) From Exhibit 4, Page 2, Column (F).
For purposes of projecting future losses, losses are capped at \$100,000 per occurrence.
- (B) From Appendix E, Column (B).
- (C) $(A) \times (B)$.
- (D) From Appendix M, Column (C).
- (E) $(C) / (D)$.
- (F) Selected based on (E).
- (G) Based on a Weibull distribution, a mathematical model of claim sizes.
- (H) From Appendix E.
 - (I) $(F) \times (G) \times (H)$.
- (J) From Appendix M, Column (C).
- (K) $(I) \times (J)$.
- (L) Based on an estimated claim closing pattern and the Authority's historical claims administration expenses.
- (M) $(K) + (L)$.

This exhibit shows the calculation of future loss costs based on the past loss rates per \$100 of payroll. The projections will be accurate only to the extent that what has happened in the past is representative of what will happen in the future.

Municipal Pooling Authority - Workers' Compensation

Reported Loss Development

Accident Year (A)	Limited Reported Losses as of 10/31/15 (B)	Reported Loss Development Factor (C)	Ultimate Limited Losses (D)	Program Reported Losses of 10/31/15 (E)	Reported Loss Development Factor (F)	Ultimate Program Losses (G)
Prior	\$17,054,680	1.006	\$17,157,008	\$19,270,010	1.005	\$19,366,360
1995-1996	1,299,126	1.007	1,308,220	1,586,309	1.007	1,597,413
1996-1997	2,159,400	1.008	2,176,675	2,654,090	1.009	2,677,977
1997-1998	2,522,669	1.009	2,545,373	3,569,180	1.012	3,612,010
1998-1999	2,444,281	1.010	2,468,724	3,302,397	1.016	3,355,235
1999-2000	2,792,718	1.012	2,826,231	3,006,393	1.020	3,066,521
2000-2001	2,844,632	1.014	2,884,457	4,060,618	1.027	4,170,255
2001-2002	2,118,930	1.017	2,154,952	2,406,509	1.034	2,488,330
2002-2003	3,236,611	1.020	3,301,343	3,735,045	1.043	3,895,652
2003-2004	2,724,678	1.023	2,787,346	3,256,634	1.053	3,429,236
2004-2005	1,910,339	1.026	1,960,008	2,601,949	1.065	2,771,076
2005-2006	2,333,157	1.029	2,400,819	3,028,934	1.078	3,265,191
2006-2007	2,769,682	1.033	2,861,082	3,476,542	1.094	3,803,337
2007-2008	3,283,087	1.037	3,404,561	4,226,374	1.113	4,703,954
2008-2009	3,243,033	1.044	3,385,726	4,964,062	1.136	5,639,174
2009-2010	4,641,425	1.051	4,878,138	6,641,266	1.164	7,730,434
2010-2011	4,174,304	1.060	4,424,762	5,266,697	1.198	6,309,503
2011-2012	4,543,244	1.074	4,879,444	5,493,482	1.253	6,883,333
2012-2013	4,449,073	1.097	4,880,633	5,912,797	1.331	7,869,933
2013-2014	4,131,805	1.217	5,028,407	5,117,584	1.545	7,906,667
2014-2015	3,120,831	1.709	5,333,500	3,206,855	2.254	7,228,251
Totals	\$77,797,705		\$83,047,409	\$96,783,727		\$111,769,842

Notes:

- (A) Years are 7/1 to 6/30.
- (B) Provided by the Authority. These losses exclude amounts over \$100,000 per occurrence.
- (C) From Appendix A, Page 2. Interpolated to apply to data as of 10/31/15.
- (D) (B) x (C). These estimated losses exclude amounts over \$100,000 per occurrence.
- (E) Losses capped at the Authority's SIR. Amounts are provided by the Authority.
- (F) Derived from factors on Appendix A, Page 4. Interpolated to apply to data as of 10/31/15.
- (G) (E) x (F).

This method tends to understate ultimate losses for the most recent several years because the large losses for those years generally have not yet emerged at the time of our review.

This exhibit shows the calculation of estimated ultimate losses for each year based on paid losses and case reserves as reported by the claims administrator. These losses tend to "develop" or change from period to period as more information becomes available about the cases. This development tends to follow quantifiable patterns over time.

Municipal Pooling Authority - Workers' Compensation
Reported Loss Development

Limited Losses Reported as of:

Accident Year	12 Months	24 Months	36 Months	48 Months	60 Months	72 Months	84 Months	96 Months	108 Months	120 Months
1994-1995										
1995-1996										
1996-1997										
1997-1998										
1998-1999										2,454,924
1999-2000									2,807,235	2,796,748
2000-2001								2,834,245	2,851,596	2,857,112
2001-2002							2,002,601	2,045,092	2,078,430	2,115,748
2002-2003						3,160,437	3,154,260	3,209,401	3,202,327	3,150,556
2003-2004					2,945,843	2,692,469	2,684,882	2,753,964	2,720,302	2,651,431
2004-2005				1,976,585	1,910,393	1,843,979	1,750,054	1,761,283	1,802,251	1,839,217
2005-2006			2,043,150	2,174,093	2,262,406	2,227,441	2,230,934	2,308,899	2,296,594	2,328,157
2006-2007		2,524,993	2,688,367	2,883,249	2,785,074	2,758,279	2,747,976	2,761,899	2,794,703	
2007-2008	2,034,796	2,746,313	3,106,006	3,241,862	3,265,883	3,323,736	3,337,507	3,300,815		
2008-2009	1,815,954	2,547,313	3,047,449	3,163,903	3,206,832	3,249,286	3,317,905			
2009-2010	2,602,432	4,053,760	4,429,533	4,477,022	4,494,974	4,609,502				
2010-2011	2,177,724	3,372,980	4,085,603	4,032,840	4,121,809					
2011-2012	2,237,306	3,866,321	4,575,307	4,563,313						
2012-2013	2,524,608	3,910,912	4,509,109							
2013-2014	2,243,390	3,662,902								
2014-2015	2,324,025									

Reported Loss Development Factors:

	12-24 Months	24-36 Months	36-48 Months	48-60 Months	60-72 Months	72-84 Months	84-96 Months	96-108 Months	108-120 Months	120-132 Months
1994-1995										
1995-1996										
1996-1997										
1997-1998										
1998-1999										1.001
1999-2000									0.996	0.984
2000-2001								1.006	1.002	0.992
2001-2002							1.021	1.016	1.018	0.980
2002-2003						0.998	1.017	0.998	0.984	0.999
2003-2004					0.914	0.997	1.026	0.988	0.975	1.024
2004-2005				0.967	0.965	0.949	1.006	1.023	1.021	1.029
2005-2006			1.064	1.041	0.985	1.002	1.035	0.995	1.014	
2006-2007		1.065	1.072	0.966	0.990	0.996	1.005	1.012		
2007-2008	1.350	1.131	1.044	1.007	1.018	1.004	0.989			
2008-2009	1.403	1.196	1.038	1.014	1.013	1.021				
2009-2010	1.558	1.093	1.011	1.004	1.025					
2010-2011	1.549	1.211	0.987	1.022						
2011-2012	1.728	1.183	0.997							
2012-2013	1.549	1.153								
2013-2014	1.633									

	12-24 Months	24-36 Months	36-48 Months	48-60 Months	60-72 Months	72-84 Months	84-96 Months	96-108 Months	108-120 Months	120-132 Months
Average	1.539	1.147	1.030	1.003	0.987	0.995	1.014	1.005	1.001	1.001
Dollar-weighted										
Averages										
3-yr	1.633	1.181	0.999	1.013	1.020	1.008	1.007	1.009	1.000	1.015
4-yr	1.613	1.158	1.006	1.012	1.014	1.007	1.007	1.003	0.995	1.007
CSAC										
Factors	1.470	1.120	1.025	1.015	1.010	1.010	1.009	1.008	1.007	1.006
Prior	1.595	1.160	1.030	1.010	1.009	1.005	1.005	1.005	1.004	1.004
Selected	1.600	1.159	1.025	1.015	1.009	1.008	1.007	1.005	1.004	1.003
Cumulated	2.051	1.282	1.106	1.079	1.063	1.054	1.046	1.039	1.034	1.030

Municipal Pooling Authority - Workers' Compensation
Reported Loss Development

Limited Losses Reported as of:

Accident Year	132 Months	144 Months	156 Months	168 Months	180 Months	192 Months	204 Months	216 Months	228 Months	240 Months	252 Months
1994-1995				1,646,159	1,646,327	1,641,883	1,641,883	1,636,883	1,636,883	1,639,383	1,648,883
1995-1996			1,221,980	1,227,521	1,261,873	1,299,000	1,308,297	1,304,461	1,299,126	1,299,126	
1996-1997		2,106,209	2,099,296	2,129,480	2,139,480	2,147,015	2,163,400	2,163,400	2,159,400		
1997-1998	2,450,854	2,444,420	2,461,228	2,462,126	2,462,126	2,464,511	2,470,811	2,509,792			
1998-1999	2,458,535	2,463,094	2,457,606	2,465,343	2,482,593	2,479,593	2,444,281				
1999-2000	2,751,231	2,735,208	2,742,099	2,786,722	2,812,481	2,802,460					
2000-2001	2,835,624	2,863,397	2,845,041	2,843,750	2,858,324						
2001-2002	2,073,809	2,095,122	2,100,381	2,100,930							
2002-2003	3,148,384	3,166,634	3,236,611								
2003-2004	2,714,758	2,731,291									
2004-2005	1,892,804										
2005-2006											
2006-2007											
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											

	132-144 Months	144-156 Months	156-168 Months	168-180 Months	180-192 Months	192-204 Months	204-216 Months	216-228 Months	228-240 Months	240-252 Months	252-Ult. Months
1994-1995				1.000	0.997	1.000	0.997	1.000	1.002	1.006	
1995-1996			1.005	1.028	1.029	1.007	0.997	0.996	1.000		
1996-1997		0.997	1.014	1.005	1.004	1.008	1.000	0.998			
1997-1998	0.997	1.007	1.000	1.000	1.001	1.003	1.016				
1998-1999	1.002	0.998	1.003	1.007	0.999	0.986					
1999-2000	0.994	1.003	1.016	1.009	0.996						
2000-2001	1.010	0.994	1.000	1.005							
2001-2002	1.010	1.003	1.000								
2002-2003	1.006	1.022									
2003-2004	1.006										
2004-2005											
2005-2006											
2006-2007											
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											

	132-144 Months	144-156 Months	156-168 Months	168-180 Months	180-192 Months	192-204 Months	204-216 Months	216-228 Months	228-240 Months	240-252 Months	252-Ult. Months
Average Dollar-weighted Averages	1.004	1.003	1.005	1.008	1.004	1.001	1.003	0.998	1.001	1.006	
3-yr	1.007	1.007	1.006	1.007	0.999	0.998	1.006	0.998			
4-yr	1.008	1.006	1.005	1.005	1.000	1.000	1.004				
CSAC Factors	1.005	1.005	1.004	1.003	1.003	1.003	1.003	1.002	1.002	1.002	1.006
Prior	1.004	1.003	1.003	1.003	1.002	1.002	1.002	1.001	1.001	1.001	0.000
Selected	1.003	1.003	1.003	1.003	1.002	1.002	1.002	1.001	1.001	1.001	1.006
Cumulated	1.027	1.024	1.021	1.018	1.015	1.013	1.011	1.009	1.008	1.007	1.006

Municipal Pooling Authority - Workers' Compensation
Reported between \$100,000 and \$500,000 Loss Development

Accident Year	<u>Losses Reported as of:</u>									
	12 Months	24 Months	36 Months	48 Months	60 Months	72 Months	84 Months	96 Months	108 Months	120 Months
1994-1995										
1995-1996										
1996-1997										
1997-1998										
1998-1999										1,308,116
1999-2000									294,529	294,529
2000-2001								927,263	1,063,094	1,159,090
2001-2002							145,487	145,487	181,082	206,919
2002-2003						594,472	593,028	606,306	580,772	572,235
2003-2004					537,905	514,076	514,076	514,076	514,076	514,076
2004-2005				548,030	581,213	594,237	616,170	614,962	624,736	624,736
2005-2006			59,389	188,429	299,321	364,382	365,895	408,542	541,776	645,776
2006-2007		435,789	633,325	705,295	744,206	754,206	723,665	709,561	728,304	
2007-2008	25,388	67,351	163,151	539,368	597,054	956,707	1,021,285	981,412		
2008-2009	827,313	1,095,576	1,158,127	1,400,442	1,558,114	1,662,530	1,734,469			
2009-2010	109,738	958,571	1,846,507	2,104,489	2,106,983	2,027,198				
2010-2011	26,296	147,111	710,579	882,450	984,740					
2011-2012	12,432	301,624	693,432	901,461						
2012-2013	23,515	555,651	1,179,714							
2013-2014	410,909	740,759								
2014-2015	11,126									

Reported Loss Development Factors:

	12-24 Months	24-36 Months	36-48 Months	48-60 Months	60-72 Months	72-84 Months	84-96 Months	96-108 Months	108-120 Months	120-132 Months
1994-1995										
1995-1996										
1996-1997										
1997-1998										
1998-1999										1.000
1999-2000									1.000	0.975
2000-2001								1.146	1.090	1.108
2001-2002							1.000	1.245	1.143	0.914
2002-2003						0.998	1.022	0.958	0.985	0.865
2003-2004					0.956	1.000	1.000	1.000	1.000	1.000
2004-2005				1.061	1.022	1.037	0.998	1.016	1.000	1.107
2005-2006			3.173	1.589	1.217	1.004	1.117	1.326	1.192	
2006-2007		1.453	1.114	1.055	1.013	0.960	0.981	1.026		
2007-2008	2.653	2.422	3.306	1.107	1.602	1.068	0.961			
2008-2009	1.324	1.057	1.209	1.113	1.067	1.043				
2009-2010	8.735	1.926	1.140	1.001	0.962					
2010-2011	5.595	4.830	1.242	1.116						
2011-2012	24.263	2.299	1.300							
2012-2013	23.630	2.123								
2013-2014	1.803									
	12-24 Months	24-36 Months	36-48 Months	48-60 Months	60-72 Months	72-84 Months	84-96 Months	96-108 Months	108-120 Months	120-132 Months
Average Dollar-weighted Averages	9.715	2.301	1.783	1.149	1.120	1.016	1.011	1.102	1.059	0.996
3-yr	3.576	2.572	1.196	1.060	1.090	1.031	0.995	1.093	1.062	0.994
4-yr	3.688	2.257	1.200	1.065	1.079	1.029	0.995	1.072	1.042	0.985
CSAC Factors	2.750	1.900	1.380	1.270	1.130	1.100	1.080	1.070	1.055	1.050
Prior	2.750	1.900	1.380	1.270	1.130	1.100	1.080	1.070	1.055	1.050
Selected	2.750	1.900	1.380	1.270	1.130	1.100	1.080	1.070	1.055	1.050
Cumulated	18.101	6.582	3.464	2.510	1.976	1.749	1.590	1.472	1.376	1.304

Municipal Pooling Authority - Workers' Compensation
Reported between \$100,000 and \$500,000 Loss Development

Accident Year	Losses Reported as of:										
	132 Months	144 Months	156 Months	168 Months	180 Months	192 Months	204 Months	216 Months	228 Months	240 Months	252 Months
1994-1995				269,072	313,670	341,140	341,837	341,837	342,841	342,841	342,841
1995-1996			238,780	244,710	244,710	244,710	244,710	246,401	280,183	287,183	
1996-1997		486,762	486,762	523,587	524,505	533,206	536,035	644,690	633,076		
1997-1998	1,177,049	1,141,144	1,240,603	1,197,250	1,184,321	1,339,391	1,358,442	1,346,512			
1998-1999	1,308,116	1,308,116	1,308,116	1,308,116	1,308,116	1,308,116	1,308,117				
1999-2000	287,171	287,171	287,171	287,171	291,174	213,674					
2000-2001	1,284,376	1,284,376	1,401,238	1,512,460	1,512,460						
2001-2002	189,161	195,282	195,282	287,579							
2002-2003	495,136	495,136	495,136								
2003-2004	514,076	523,685									
2004-2005	691,610										
2005-2006											
2006-2007											
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											
	132-144 Months	144-156 Months	156-168 Months	168-180 Months	180-192 Months	192-204 Months	204-216 Months	216-228 Months	228-240 Months	240-252 Months	252-Ult. Months
1994-1995				1.166	1.088	1.002	1.000	1.003	1.000	1.000	
1995-1996			1.025	1.000	1.000	1.000	1.007	1.137	1.025		
1996-1997		1.000	1.076	1.002	1.017	1.005	1.203	0.982			
1997-1998	0.969	1.087	0.965	0.989	1.131	1.014	0.991				
1998-1999	1.000	1.000	1.000	1.000	1.000	1.000					
1999-2000	1.000	1.000	1.000	1.014	0.734						
2000-2001	1.000	1.091	1.079	1.000							
2001-2002	1.032	1.000	1.473								
2002-2003	1.000	1.000									
2003-2004	1.019										
2004-2005											
2005-2006											
2006-2007											
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
	132-144 Months	144-156 Months	156-168 Months	168-180 Months	180-192 Months	192-204 Months	204-216 Months	216-228 Months	228-240 Months	240-252 Months	252-Ult. Months
Average Dollar-weighted Averages	1.003	1.025	1.088	1.024	0.995	1.004	1.050	1.041	1.013	1.000	
3-yr	1.013	1.059	1.108	1.001	1.028	1.007	1.046	1.019			
4-yr	1.006	1.052	1.064	0.998	1.026	1.006	1.040				
CSAC Factors	1.040	1.029	1.030	1.026	1.024	1.020	1.015	1.011	1.008	1.005	1.010
Prior	1.040	1.029	1.030	1.026	1.024	1.020	1.015	1.011	1.008	1.015	0.000
Selected	1.040	1.029	1.030	1.026	1.024	1.020	1.015	1.011	1.008	1.005	1.010
Cumulated	1.242	1.194	1.160	1.126	1.097	1.071	1.050	1.034	1.023	1.015	1.010

Municipal Pooling Authority - Workers' Compensation

Paid Loss Development

Accident Year (A)	Limited Paid Losses as of 10/31/15 (B)	Paid Loss Development Factor (C)	Ultimate Limited Losses (D)	Program Paid Losses of 10/31/15 (E)	Paid Loss Development Factor (F)	Ultimate Program Losses (G)
Prior	\$16,918,207	1.012	\$17,121,225	\$18,750,300	1.031	\$19,331,559
1995-1996	1,276,418	1.015	1,295,564	1,492,338	1.047	1,562,478
1996-1997	2,129,246	1.019	2,169,702	2,613,554	1.058	2,765,140
1997-1998	2,483,040	1.023	2,540,150	3,492,897	1.067	3,726,921
1998-1999	2,441,914	1.027	2,507,846	3,300,031	1.076	3,550,833
1999-2000	2,730,217	1.031	2,814,854	2,813,069	1.086	3,054,993
2000-2001	2,783,499	1.036	2,883,705	3,673,629	1.096	4,026,297
2001-2002	2,052,336	1.041	2,136,482	2,260,978	1.108	2,505,164
2002-2003	3,104,832	1.046	3,247,654	3,540,576	1.124	3,979,607
2003-2004	2,640,014	1.052	2,777,295	3,124,343	1.147	3,583,621
2004-2005	1,758,906	1.059	1,862,681	2,389,098	1.170	2,795,245
2005-2006	2,223,493	1.066	2,370,244	2,664,363	1.193	3,178,585
2006-2007	2,742,038	1.076	2,950,433	3,295,623	1.220	4,020,660
2007-2008	3,117,331	1.086	3,385,421	3,727,530	1.258	4,689,233
2008-2009	2,972,424	1.103	3,278,584	4,359,129	1.311	5,714,818
2009-2010	4,011,314	1.129	4,528,774	5,698,093	1.378	7,851,972
2010-2011	3,523,697	1.171	4,126,249	4,031,131	1.474	5,941,887
2011-2012	3,677,392	1.247	4,585,708	4,201,051	1.619	6,801,502
2012-2013	3,390,511	1.419	4,811,135	3,861,800	1.897	7,325,835
2013-2014	2,251,230	1.882	4,236,815	2,681,937	2.570	6,892,578
2014-2015	1,222,873	3.771	4,611,454	1,222,873	5.215	6,377,283
Totals	\$69,450,932		\$80,241,975	\$83,194,343		\$109,676,211

Notes:

- (A) Years are 7/1 to 6/30.
- (B) Provided by the Authority. These losses exclude amounts over \$100,000 per occurrence.
- (C) From Appendix B, Page 2. Interpolated to apply to data as of 10/31/15.
- (D) (B) x (C). These estimated losses exclude amounts over \$100,000 per occurrence.
- (E) Losses capped at the Authority's SIR. Amounts are provided by the Authority.
- (F) Derived from factors on Appendix B, Page 4. Interpolated to apply to data as of 10/31/15.
- (G) (E) x (F).

This method tends to understate ultimate losses for the most recent several years because the large losses for those years generally have not yet emerged at the time of our review.

This exhibit shows the calculation of estimated ultimate losses for each year based on paid losses as reported by the claims administrator. These losses tend to "develop" or change from period to period as more information becomes available about the cases. This development tends to follow quantifiable patterns over time.

Municipal Pooling Authority - Workers' Compensation
Paid Loss Development

Limited Losses Paid as of:

Accident Year	12 Months	24 Months	36 Months	48 Months	60 Months	72 Months	84 Months	96 Months	108 Months	120 Months
1994-1995										
1995-1996										
1996-1997										
1997-1998										
1998-1999										2,375,676
1999-2000									2,537,628	2,559,571
2000-2001								2,667,919	2,700,731	2,730,248
2001-2002							1,870,263	1,897,477	1,931,289	1,972,137
2002-2003						2,871,087	2,931,497	3,002,705	3,023,192	3,054,369
2003-2004					2,326,110	2,371,968	2,421,783	2,527,567	2,540,161	2,553,320
2004-2005				1,511,599	1,543,162	1,595,159	1,655,814	1,677,073	1,695,912	1,717,531
2005-2006			1,373,909	1,736,683	1,902,352	2,017,147	2,087,363	2,125,077	2,205,025	2,222,784
2006-2007		1,487,074	2,093,465	2,347,655	2,422,118	2,525,706	2,567,027	2,599,702	2,739,799	
2007-2008	557,256	1,538,605	2,152,678	2,658,493	2,874,957	2,992,702	3,061,396	3,114,479		
2008-2009	636,147	1,616,151	2,150,566	2,520,268	2,750,461	2,855,577	2,958,789			
2009-2010	733,213	2,021,035	2,929,847	3,429,600	3,722,672	3,939,986				
2010-2011	717,578	1,851,382	2,847,009	3,258,339	3,446,942					
2011-2012	792,545	2,113,114	3,082,130	3,582,660						
2012-2013	805,718	2,348,117	3,123,194							
2013-2014	679,124	2,064,510								
2014-2015	793,301									

Paid Loss Development Factors:

	12-24 Months	24-36 Months	36-48 Months	48-60 Months	60-72 Months	72-84 Months	84-96 Months	96-108 Months	108-120 Months	120-132 Months
1994-1995										
1995-1996										
1996-1997										
1997-1998										
1998-1999										1.003
1999-2000									1.009	1.008
2000-2001								1.012	1.011	1.002
2001-2002							1.015	1.018	1.021	1.007
2002-2003						1.021	1.024	1.007	1.010	1.009
2003-2004					1.020	1.021	1.044	1.005	1.005	1.007
2004-2005				1.021	1.034	1.038	1.013	1.011	1.013	1.021
2005-2006			1.264	1.095	1.060	1.035	1.018	1.038	1.008	
2006-2007		1.408	1.121	1.032	1.043	1.016	1.013	1.054		
2007-2008	2.761	1.399	1.235	1.081	1.041	1.023	1.017			
2008-2009	2.541	1.331	1.172	1.091	1.038	1.036				
2009-2010	2.756	1.450	1.171	1.085	1.058					
2010-2011	2.580	1.538	1.144	1.058						
2011-2012	2.666	1.459	1.162							
2012-2013	2.914	1.330								
2013-2014	3.040									

	12-24 Months	24-36 Months	36-48 Months	48-60 Months	60-72 Months	72-84 Months	84-96 Months	96-108 Months	108-120 Months	120-132 Months
Average	2.751	1.416	1.181	1.066	1.042	1.027	1.021	1.021	1.011	1.008
Dollar-weighted										
Averages										
3-yr	2.865	1.434	1.159	1.077	1.047	1.025	1.016	1.037	1.008	1.011
4-yr	2.797	1.438	1.162	1.078	1.046	1.027	1.015	1.028	1.009	1.010
CSAC										
Factors	2.500	1.400	1.170	1.090	1.050	1.033	1.020	1.015	1.012	1.010
Prior	2.700	1.450	1.175	1.080	1.045	1.025	1.020	1.010	1.009	1.008
Selected	2.800	1.435	1.175	1.075	1.045	1.025	1.018	1.010	1.009	1.008
Cumulated	6.034	2.155	1.502	1.278	1.189	1.138	1.110	1.090	1.079	1.069

Municipal Pooling Authority - Workers' Compensation
Paid Loss Development

Limited Losses Paid as of:

Accident Year	132 Months	144 Months	156 Months	168 Months	180 Months	192 Months	204 Months	216 Months	228 Months	240 Months	252 Months
1994-1995				1,632,398	1,632,566	1,632,778	1,632,864	1,633,062	1,633,062	1,635,562	1,641,282
1995-1996			1,189,663	1,195,378	1,210,133	1,240,054	1,269,538	1,274,662	1,275,273	1,276,377	
1996-1997		2,089,797	2,090,027	2,101,153	2,111,141	2,113,709	2,121,936	2,122,005	2,128,724		
1997-1998	2,420,792	2,425,180	2,426,366	2,429,302	2,431,642	2,433,077	2,441,231	2,479,972			
1998-1999	2,383,097	2,387,469	2,399,594	2,415,518	2,419,456	2,424,748	2,441,914				
1999-2000	2,579,395	2,590,556	2,601,211	2,708,089	2,719,352	2,729,656					
2000-2001	2,735,479	2,769,470	2,771,681	2,777,286	2,782,711						
2001-2002	1,986,754	2,013,602	2,035,187	2,040,694							
2002-2003	3,082,679	3,091,063	3,104,747								
2003-2004	2,570,920	2,638,576									
2004-2005	1,752,928										
2005-2006											
2006-2007											
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											

	132-144 Months	144-156 Months	156-168 Months	168-180 Months	180-192 Months	192-204 Months	204-216 Months	216-228 Months	228-240 Months	240-252 Months	252-Ult. Months
1994-1995				1.000	1.000	1.000	1.000	1.000	1.002	1.003	
1995-1996			1.005	1.012	1.025	1.024	1.004	1.000	1.001		
1996-1997		1.000	1.005	1.005	1.001	1.004	1.000	1.003			
1997-1998	1.002	1.000	1.001	1.001	1.001	1.003	1.016				
1998-1999	1.002	1.005	1.007	1.002	1.002	1.007					
1999-2000	1.004	1.004	1.041	1.004	1.004						
2000-2001	1.012	1.001	1.002	1.002							
2001-2002	1.014	1.011	1.003								
2002-2003	1.003	1.004									
2003-2004	1.026										
2004-2005											
2005-2006											
2006-2007											
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											

	132-144 Months	144-156 Months	156-168 Months	168-180 Months	180-192 Months	192-204 Months	204-216 Months	216-228 Months	228-240 Months	240-252 Months	252-Ult. Months
Average Dollar-weighted Averages	1.009	1.004	1.009	1.004	1.006	1.008	1.005	1.001	1.002	1.003	
3-yr	1.013	1.005	1.016	1.003	1.002	1.005	1.008	1.001			
4-yr	1.013	1.005	1.014	1.002	1.002	1.008	1.006				
CSAC Factors	1.009	1.008	1.007	1.006	1.005	1.005	1.004	1.004	1.004	1.004	1.013
Prior	1.007	1.006	1.005	1.005	1.005	1.005	1.004	1.004	1.004	1.003	0.000
Selected	1.007	1.006	1.005	1.005	1.005	1.005	1.004	1.004	1.004	1.003	1.013
Cumulated	1.061	1.054	1.048	1.043	1.038	1.033	1.028	1.024	1.020	1.016	1.013

Municipal Pooling Authority - Workers' Compensation
Paid between \$100,000 and \$500,000 Loss Development

Accident Year	<u>Losses Paid as of:</u>									
	12 Months	24 Months	36 Months	48 Months	60 Months	72 Months	84 Months	96 Months	108 Months	120 Months
1994-1995										
1995-1996										
1996-1997										
1997-1998										
1998-1999										1,253,666
1999-2000									51,255	51,260
2000-2001								556,971	583,624	624,634
2001-2002							106,032	111,773	111,773	157,312
2002-2003						299,906	336,089	404,371	413,487	413,879
2003-2004					474,556	474,720	474,720	474,720	474,720	474,720
2004-2005				172,230	250,899	353,762	427,370	504,834	567,539	618,711
2005-2006			12,940	25,496	103,391	178,873	258,411	270,684	358,310	385,252
2006-2007		117,649	262,264	407,427	454,961	480,459	505,912	514,460	549,294	
2007-2008			20,350	231,443	308,624	480,323	559,482	599,628		
2008-2009		409,752	520,694	775,648	967,526	1,124,067	1,363,726			
2009-2010		75,514	783,857	1,175,394	1,572,595	1,653,273				
2010-2011			131,557	277,293	431,600					
2011-2012		18,227	242,003	492,976						
2012-2013		61,835	208,508							
2013-2014		349,619								
2014-2015										

Paid Loss Development Factors:

	12-24 Months	24-36 Months	36-48 Months	48-60 Months	60-72 Months	72-84 Months	84-96 Months	96-108 Months	108-120 Months	120-132 Months
1994-1995										
1995-1996										
1996-1997										
1997-1998										
1998-1999										1.000
1999-2000									1.000	1.001
2000-2001								1.048	1.070	1.108
2001-2002							1.054	1.000	1.407	1.093
2002-2003						1.121	1.203	1.023	1.001	1.017
2003-2004					1.000	1.000	1.000	1.000	1.000	1.000
2004-2005				1.457	1.410	1.208	1.181	1.124	1.090	1.012
2005-2006			1.970	4.055	1.730	1.445	1.047	1.324	1.075	
2006-2007		2.229	1.553	1.117	1.056	1.053	1.017	1.068		
2007-2008			11.373	1.333	1.556	1.165	1.072			
2008-2009		1.271	1.490	1.247	1.162	1.213				
2009-2010		10.380	1.500	1.338	1.051					
2010-2011			2.108	1.556						
2011-2012		13.277	2.037							
2012-2013		3.372								
2013-2014										

	12-24 Months	24-36 Months	36-48 Months	48-60 Months	60-72 Months	72-84 Months	84-96 Months	96-108 Months	108-120 Months	120-132 Months
Average										
Dollar-weighted		6.106	3.147	1.729	1.281	1.172	1.082	1.084	1.092	1.033
Averages										
3-yr			1.681	1.334	1.144	1.165	1.046	1.144	1.056	1.010
4-yr			1.622	1.334	1.131	1.187	1.079	1.105	1.043	1.018
CSAC										
Factors	4.000	3.100	2.400	1.750	1.500	1.300	1.250	1.175	1.100	1.080
Prior	4.000	3.100	2.400	1.750	1.500	1.300	1.250	1.175	1.100	1.080
Selected	4.000	3.100	2.400	1.750	1.500	1.300	1.250	1.175	1.100	1.080
Cumulated	331.020	82.755	26.695	11.123	6.356	4.237	3.259	2.607	2.219	2.017

Municipal Pooling Authority - Workers' Compensation
Paid between \$100,000 and \$500,000 Loss Development

Accident Year	Losses Paid as of:										
	132 Months	144 Months	156 Months	168 Months	180 Months	192 Months	204 Months	216 Months	228 Months	240 Months	252 Months
1994-1995				240,267	284,755	298,035	307,427	308,210	311,070	311,670	312,382
1995-1996			163,450	167,067	169,742	172,879	175,956	184,032	200,216	211,672	
1996-1997		357,523	362,830	389,886	413,678	429,177	436,473	533,527	622,694		
1997-1998	1,035,811	1,055,973	1,061,755	1,068,013	1,137,157	1,145,059	1,160,609	1,179,047			
1998-1999	1,254,175	1,283,746	1,294,149	1,308,116	1,308,116	1,308,116	1,308,116				
1999-2000	51,312	51,312	51,312	58,525	68,548	79,372					
2000-2001	692,043	740,551	813,551	858,217	877,336						
2001-2002	172,006	184,612	185,887	199,550							
2002-2003	421,025	427,009	433,081								
2003-2004	474,720	484,329									
2004-2005	626,133										
2005-2006											
2006-2007											
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											
	132-144 Months	144-156 Months	156-168 Months	168-180 Months	180-192 Months	192-204 Months	204-216 Months	216-228 Months	228-240 Months	240-252 Months	252-Ult. Months
1994-1995				1.185	1.047	1.032	1.003	1.009	1.002	1.002	
1995-1996			1.022	1.016	1.018	1.018	1.046	1.088	1.057		
1996-1997		1.015	1.075	1.061	1.037	1.017	1.222	1.167			
1997-1998	1.019	1.005	1.006	1.065	1.007	1.014	1.016				
1998-1999	1.024	1.008	1.011	1.000	1.000	1.000					
1999-2000	1.000	1.000	1.141	1.171	1.158						
2000-2001	1.070	1.099	1.055	1.022							
2001-2002	1.073	1.007	1.074								
2002-2003	1.014	1.014									
2003-2004	1.020										
2004-2005											
2005-2006											
2006-2007											
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
	132-144 Months	144-156 Months	156-168 Months	168-180 Months	180-192 Months	192-204 Months	204-216 Months	216-228 Months	228-240 Months	240-252 Months	252-Ult. Months
Average Dollar-weighted Averages	1.031	1.021	1.055	1.074	1.045	1.016	1.072	1.088	1.030	1.002	
3-yr	1.026	1.059	1.062	1.013	1.007	1.008	1.070	1.105			
4-yr	1.044	1.057	1.034	1.030	1.012	1.008	1.060				
CSAC Factors	1.070	1.055	1.045	1.035	1.035	1.030	1.030	1.030	1.030	1.030	1.275
Prior	1.070	1.055	1.045	1.035	1.035	1.030	1.030	1.030	1.030	1.313	0.000
Selected	1.070	1.055	1.045	1.035	1.035	1.030	1.030	1.030	1.030	1.030	1.275
Cumulated	1.868	1.746	1.655	1.584	1.530	1.478	1.435	1.393	1.352	1.313	1.275

Municipal Pooling Authority - Workers' Compensation

Exposure and Development Method
Based on Reported Losses

Accident Year	Trended Payroll (\$00) (A)	Reported Losses as of 10/31/15 (B)	Loss Development Factor (C)	Percentage of Losses Yet to Be Reported (D)	Program Rate (E)	Incurred but not Reported (IBNR) (F)	Ultimate Program Losses (G)
1995-1996	1,118,361	1,586,309	1.007	0.007	1.381	10,811	1,597,120
1996-1997	1,144,040	2,654,090	1.009	0.009	2.258	23,249	2,677,339
1997-1998	1,275,246	3,569,180	1.012	0.012	2.382	36,452	3,605,632
1998-1999	1,310,387	3,302,397	1.016	0.016	2.261	47,405	3,349,802
1999-2000	1,350,158	3,006,393	1.020	0.020	2.526	68,210	3,074,603
2000-2001	1,463,320	4,060,618	1.027	0.026	2.393	91,045	4,151,663
2001-2002	1,531,226	2,406,509	1.034	0.033	1.719	86,862	2,493,371
2002-2003	1,889,313	3,735,045	1.043	0.041	2.179	168,789	3,903,834
2003-2004	2,170,273	3,256,634	1.053	0.050	1.649	178,939	3,435,573
2004-2005	2,225,402	2,601,949	1.065	0.061	1.140	154,754	2,756,703
2005-2006	2,537,008	3,028,934	1.078	0.072	1.234	225,408	3,254,342
2006-2007	2,671,132	3,476,542	1.094	0.086	1.408	323,442	3,799,984
2007-2008	2,908,270	4,226,374	1.113	0.102	1.547	458,908	4,685,282
2008-2009	2,959,310	4,964,062	1.136	0.120	1.504	534,096	5,498,158
2009-2010	2,909,285	6,641,266	1.164	0.141	2.177	893,025	7,534,291
2010-2011	2,701,542	5,266,697	1.198	0.165	2.416	1,076,943	6,343,640
2011-2012	2,557,098	5,493,482	1.253	0.202	2.465	1,273,256	6,766,738
2012-2013	2,443,267	5,912,797	1.331	0.249	2.526	1,536,751	7,449,548
2013-2014	2,426,233	5,117,584	1.545	0.353	2.699	2,311,586	7,429,170
2014-2015	2,473,785	3,206,855	2.254	0.556	2.958	4,068,506	7,275,361
Totals	\$42,064,656	\$77,513,717				\$13,568,437	\$91,082,154

Notes:

- (A) From Appendix M, Column (C).
- (B) Provided by the Authority. These losses exclude amounts incurred above the Authority's SIR for each year.
- (C) From Appendix A, Page 1, Column (F).
- (D) $1 - 1/(C)$.
- (E) From Appendix C, Page 3, Column (H).
- (F) $(A) \times (D) \times (E)$.
- (G) $(B) + (F)$.

This exhibit shows the calculation of ultimate losses based on the assumption that there is an underlying relationship between losses and payroll that changes in regular ways over time. The method relies on the premise that the losses that are currently unreported will cost what this relationship would suggest.

Municipal Pooling Authority - Workers' Compensation

Exposure and Development Method
Based on Paid Losses

Accident Year	Trended Payroll (\$00) (A)	Paid Losses as of 10/31/15 (B)	Loss Development Factor (C)	Percentage of Losses Yet to Be Paid (D)	Program Rate (E)	Incurred but not Paid (F)	Ultimate Program Losses (G)
1995-1996	1,118,361	1,492,338	1.047	0.045	1.381	69,501	1,561,839
1996-1997	1,144,040	2,613,554	1.058	0.055	2.258	142,078	2,755,632
1997-1998	1,275,246	3,492,897	1.067	0.063	2.382	191,371	3,684,268
1998-1999	1,310,387	3,300,031	1.076	0.071	2.261	210,358	3,510,389
1999-2000	1,350,158	2,813,069	1.086	0.079	2.526	269,429	3,082,498
2000-2001	1,463,320	3,673,629	1.096	0.088	2.393	308,152	3,981,781
2001-2002	1,531,226	2,260,978	1.108	0.097	1.719	255,321	2,516,299
2002-2003	1,889,313	3,540,576	1.124	0.110	2.179	452,849	3,993,425
2003-2004	2,170,273	3,124,343	1.147	0.128	1.649	458,084	3,582,427
2004-2005	2,225,402	2,389,098	1.170	0.145	1.140	367,859	2,756,957
2005-2006	2,537,008	2,664,363	1.193	0.162	1.234	507,168	3,171,531
2006-2007	2,671,132	3,295,623	1.220	0.180	1.408	676,972	3,972,595
2007-2008	2,908,270	3,727,530	1.258	0.205	1.547	922,314	4,649,844
2008-2009	2,959,310	4,359,129	1.311	0.237	1.504	1,054,840	5,413,969
2009-2010	2,909,285	5,698,093	1.378	0.274	2.177	1,735,383	7,433,476
2010-2011	2,701,542	4,031,131	1.474	0.322	2.416	2,101,670	6,132,801
2011-2012	2,557,098	4,201,051	1.619	0.382	2.465	2,407,840	6,608,891
2012-2013	2,443,267	3,861,800	1.897	0.473	2.526	2,919,211	6,781,011
2013-2014	2,426,233	2,681,937	2.570	0.611	2.699	4,001,074	6,683,011
2014-2015	2,473,785	1,222,873	5.215	0.808	2.958	5,912,504	7,135,377
Totals	\$42,064,656	\$64,444,043				\$24,963,978	\$89,408,021

Notes:

- (A) From Appendix M, Column (C).
- (B) Provided by the Authority. These losses exclude amounts paid above the Authority's SIR for each year.
- (C) From Appendix B, Page 1, Column (F).
- (D) $1 - 1/(C)$.
- (E) From Appendix C, Page 3, Column (H).
- (F) $(A) \times (D) \times (E)$.
- (G) $(B) + (F)$.

This exhibit shows the calculation of ultimate losses based on the assumption that there is an underlying relationship between losses and payroll that changes in regular ways over time. The method relies on the premise that the losses that are currently unpaid will cost what this relationship would suggest.

Municipal Pooling Authority - Workers' Compensation

Exposure and Development Method

Accident Year	Trended Payroll (\$00) (A)	Ultimate Limited Losses (B)	Trend Factor (C)	Trended Limited Losses (D)	Trended Limited Loss Rate (E)	Limited Loss Rate (F)	Factor to SIR (G)	Program Loss Rate (H)
1995-1996	1,118,361	1,308,000	1.849	2,418,492	2.163	1.170	1.180	1.381
1996-1997	1,144,040	2,177,000	1.647	3,585,519	3.134	1.903	1.187	2.258
1997-1998	1,275,246	2,545,000	1.419	3,611,355	2.832	1.996	1.194	2.382
1998-1999	1,310,387	2,469,000	1.253	3,093,657	2.361	1.884	1.200	2.261
1999-2000	1,350,158	2,826,000	1.112	3,142,512	2.328	2.093	1.207	2.526
2000-2001	1,463,320	2,884,000	1.038	2,993,592	2.046	1.971	1.214	2.393
2001-2002	1,531,226	2,155,000	1.035	2,230,425	1.457	1.407	1.222	1.719
2002-2003	1,889,313	3,301,000	1.087	3,588,187	1.899	1.747	1.247	2.179
2003-2004	2,170,273	2,787,000	1.342	3,740,154	1.723	1.284	1.285	1.649
2004-2005	2,225,402	1,960,000	1.719	3,369,240	1.514	0.881	1.295	1.140
2005-2006	2,537,008	2,401,000	1.839	4,415,439	1.740	0.946	1.305	1.234
2006-2007	2,671,132	2,861,000	1.717	4,912,337	1.839	1.071	1.315	1.408
2007-2008	2,908,270	3,395,000	1.574	5,343,730	1.837	1.167	1.326	1.547
2008-2009	2,959,310	3,332,000	1.445	4,814,740	1.627	1.126	1.336	1.504
2009-2010	2,909,285	4,703,000	1.297	6,099,791	2.097	1.617	1.347	2.177
2010-2011	2,701,542	4,276,000	1.230	5,259,480	1.947	1.780	1.358	2.416
2011-2012	2,557,098	4,806,000	1.216	5,844,096	2.285	1.801	1.369	2.465
2012-2013	2,443,267	4,863,000	1.196	5,816,148	2.380	1.831	1.380	2.526
2013-2014	2,426,233	4,831,000	1.128	5,449,368	2.246	1.941	1.391	2.699
2014-2015	2,473,785	5,153,000	1.038	5,348,814	2.162	2.110	1.402	2.958
Total/Avg	\$42,064,656	\$65,033,000		\$85,077,076	\$2.023			
09/10-13/14	13,037,425	23,479,000		28,468,883	\$2.184			
10/11-14/15	12,601,925	23,929,000		27,717,906	\$2.199			
				Selected Limited Rate:	\$2.190			
				Prior Selected Limited Rate:	\$2.150			

Notes:

- (A) From Appendix M, Column (C).
- (B) Selected average of results from Appendices A and B.
- (C) From Appendix E, Column (B).
- (D) (B) x (C).
- (E) (D) / (A).
- (F) Selected Limited Rate / (C). For 2009-2010 and prior (B) / (A).
- (G) Based on a Weibull distribution, a mathematical model of claim sizes.
- (H) (F) x (G).

This exhibit shows the calculation of the underlying historical relationship between losses and payroll that is needed to apply the estimation methods shown on pages 1 and 2 of this Appendix.

Municipal Pooling Authority - Workers' Compensation

Frequency and Severity Method

Accident Year	Ultimate Program Severity (A)	Adjusted Ultimate Claims (B)	Ultimate Program Losses (C)
Prior	\$3,790	5,070	\$19,215,300
1995-1996	4,126	374	1,543,124
1996-1997	7,508	344	2,582,752
1997-1998	8,368	363	3,037,584
1998-1999	8,230	360	2,962,800
1999-2000	9,024	378	3,411,072
2000-2001	10,267	341	3,501,047
2001-2002	7,811	337	2,632,307
2002-2003	9,801	420	4,116,420
2003-2004	8,267	433	3,579,611
2004-2005	7,087	358	2,537,146
2005-2006	8,419	372	3,131,868
2006-2007	9,383	401	3,762,583
2007-2008	10,766	418	4,500,188
2008-2009	12,755	349	4,451,495
2009-2010	15,446	410	6,332,860
2010-2011	17,293	347	6,000,671
2011-2012	17,977	338	6,076,226
2012-2013	18,792	343	6,445,656
2013-2014	20,490	328	6,720,720
2014-2015	22,903	339	7,764,117
Total		12,423	\$104,305,547

Notes:

- (A) From Appendix D, Page 2, Column (H).
- (B) From Appendix D, Page 2, Column (B).
- (C) (A) x (B).

This exhibit shows the calculation of the estimated ultimate losses for each year based on the observed average frequency and severity of claims.

Municipal Pooling Authority - Workers' Compensation

Frequency and Severity Method

Accident Year	Ultimate Limited Losses (A)	Adjusted Ultimate Claims (B)	Ultimate Limited Severity (C)	Trend Factor (D)	Trended Limited Severity (E)	Limited Severity (F)	Factor to SIR (G)	Program Severity (H)
Prior	\$17,157,000	5,070	\$3,384	3.072	\$10,396	\$3,384	1.120	\$3,790
1995-1996	1,308,000	374	3,497	2.749	9,613	3,497	1.180	4,126
1996-1997	2,177,000	344	6,328	2.402	15,200	6,328	1.187	7,508
1997-1998	2,545,000	363	7,011	2.030	14,232	7,011	1.194	8,368
1998-1999	2,469,000	360	6,858	1.758	12,056	6,858	1.200	8,230
1999-2000	2,826,000	378	7,476	1.529	11,431	7,476	1.207	9,024
2000-2001	2,884,000	341	8,457	1.399	11,831	8,457	1.214	10,267
2001-2002	2,155,000	337	6,395	1.367	8,742	6,395	1.222	7,811
2002-2003	3,301,000	420	7,860	1.408	11,067	7,860	1.247	9,801
2003-2004	2,787,000	433	6,436	1.704	10,967	6,436	1.285	8,267
2004-2005	1,960,000	358	5,475	2.140	11,717	5,475	1.295	7,087
2005-2006	2,401,000	372	6,454	2.244	14,483	6,454	1.305	8,419
2006-2007	2,861,000	401	7,135	2.053	14,648	7,135	1.315	9,383
2007-2008	3,395,000	418	8,122	1.844	14,977	8,122	1.326	10,766
2008-2009	3,332,000	349	9,547	1.660	15,848	9,547	1.336	12,755
2009-2010	4,703,000	410	11,471	1.461	16,759	11,471	1.347	15,446
2010-2011	4,276,000	347	12,323	1.358	16,735	12,739	1.358	17,293
2011-2012	4,870,000	338	14,408	1.317	18,975	13,136	1.369	17,977
2012-2013	4,801,000	343	13,997	1.270	17,776	13,622	1.380	18,792
2013-2014	4,715,000	328	14,375	1.174	16,876	14,736	1.391	20,490
2014-2015	5,173,000	339	15,260	1.059	16,160	16,336	1.402	22,903

Average Limited Severity: \$13,833
Average 10/11-14/15 Limited Severity: \$17,304
Average 11/12-14/15 Limited Severity: \$17,447

Selected Limited Severity: \$17,300
Prior Selected Limited Severity: \$16,800

Notes:

- (A) Selected average of results from Appendices A, B, and C.
- (B) Appendix D, Page 3, Column (C).
- (C) (A) / (B).
- (D) From Appendix E, Column (J).
- (E) (C) x (D).
- (F) Selected Limited Severity / (D).
- (G) Based on a Weibull distribution, a mathematical model of claim sizes.
- (H) (F) x (G).

This exhibit shows the calculation of the historical average cost per claim, or severity. The observed average severity is used in the method shown on page 1 of this Appendix.

Municipal Pooling Authority - Workers' Compensation

Frequency and Severity Method
Projection of Ultimate Claims

Accident Year	Reported Claim Development (A)	Closed Claim Development (B)	Selected Ultimate Claims (C)	Trended Payroll (\$000,000) (D)	Claim Frequency (E)	Trend Factor (F)	Trended Claim Frequency (G)
Prior	5,070	5,070	5,070	0		0.655	
1995-1996	374	372	374	112	3.344	0.668	2.234
1996-1997	344	342	344	114	3.007	0.682	2.051
1997-1998	363	362	363	128	2.847	0.696	1.982
1998-1999	360	363	360	131	2.747	0.710	1.950
1999-2000	378	378	378	135	2.800	0.725	2.030
2000-2001	341	337	341	146	2.330	0.740	1.724
2001-2002	337	339	337	153	2.201	0.755	1.662
2002-2003	420	423	420	189	2.223	0.769	1.709
2003-2004	433	438	433	217	1.995	0.785	1.566
2004-2005	358	357	358	223	1.609	0.801	1.289
2005-2006	372	372	372	254	1.466	0.817	1.198
2006-2007	401	409	401	267	1.501	0.834	1.252
2007-2008	418	418	418	291	1.437	0.851	1.223
2008-2009	349	346	349	296	1.179	0.868	1.023
2009-2010	410	392	410	291	1.409	0.886	1.248
2010-2011	347	343	347	270	1.284	0.904	1.161
2011-2012	338	322	338	256	1.322	0.922	1.219
2012-2013	343	339	343	244	1.404	0.942	1.323
2013-2014	328	313	328	243	1.352	0.961	1.299
2014-2015	339	363	339	247	1.370	0.980	1.343
Total	12,423	12,398	12,423	4,206.466			1.421

(H) Selected 2015-2016 Frequency: 1.450
Prior Selected Frequency: 1.500

Program Year:	2015-2016	2016-2017
(I) Trend Factor:	1.000	0.980
(J) Selected Frequency:	1.450	1.421
(K) Estimated Payroll (\$000,000):	\$244	\$246
(L) Ultimate Claims:	353	350

Notes:

- (A) From Appendix D, Page 4, (C).
- (B) From Appendix D, Page 5, (C).
- (C) Selected from (A) and (B).
- (D) From Appendix M, Column (C) divided by 10,000.
- (E) (C) / (D).
- (F) From Appendix E.
- (G) (E) x (F).
- (H) The selected frequency of 1.450 is based on (G).
- (I) From Appendix E.
- (J) (H) x (I).
- (K) From Appendix M, Column (C) divided by 10,000.
- (L) (J) x (K).

This exhibit summarizes the estimated numbers of claims and shows the estimated frequencies per \$1,000,000 of trended payroll.

Municipal Pooling Authority - Workers' Compensation

Frequency and Severity Method
Reported Claim Count Development

Accident Year	Claims Reported as of 10/31/2015 (A)	Reported Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
Prior	5,070	1.000	5,070	
1995-1996	374	1.000	374	2.234
1996-1997	344	1.000	344	2.051
1997-1998	363	1.000	363	1.981
1998-1999	360	1.000	360	1.951
1999-2000	378	1.000	378	2.030
2000-2001	341	1.000	341	1.724
2001-2002	337	1.000	337	1.662
2002-2003	420	1.000	420	1.710
2003-2004	433	1.000	433	1.566
2004-2005	358	1.000	358	1.289
2005-2006	372	1.000	372	1.198
2006-2007	401	1.000	401	1.252
2007-2008	418	1.000	418	1.223
2008-2009	349	1.000	349	1.024
2009-2010	410	1.000	410	1.249
2010-2011	347	1.000	347	1.161
2011-2012	337	1.004	338	1.219
2012-2013	340	1.008	343	1.322
2013-2014	324	1.012	328	1.299
2014-2015	322	1.054	339	1.343
Total	12,398		12,423	1.421

Notes:

- (A) Provided by the Authority.
- (B) From Appendix D, Page 6.
- (C) (A) x (B).
- (D) (C) / [Appendix D, Page 3, (D)] x [Appendix D, Page 3, (F)].

This exhibit shows the calculation of estimated ultimate claims for each year based on reported claims as provided by the Authority. These numbers of claims tend to "develop" or change from period to period as more claims are filed. This development tends to follow quantifiable patterns over time.

Municipal Pooling Authority - Workers' Compensation

Frequency and Severity Method
Closed Claim Count Development

Accident Year	Claims Closed as of 10/31/2015 (A)	Closed Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
Prior	5,045	1.005	5,070	
1995-1996	370	1.006	372	2.222
1996-1997	340	1.007	342	2.039
1997-1998	359	1.009	362	1.976
1998-1999	359	1.011	363	1.967
1999-2000	373	1.013	378	2.030
2000-2001	332	1.015	337	1.704
2001-2002	333	1.017	339	1.672
2002-2003	414	1.021	423	1.722
2003-2004	427	1.025	438	1.584
2004-2005	347	1.029	357	1.285
2005-2006	360	1.033	372	1.198
2006-2007	394	1.038	409	1.277
2007-2008	401	1.043	418	1.223
2008-2009	329	1.052	346	1.015
2009-2010	368	1.066	392	1.194
2010-2011	316	1.084	343	1.148
2011-2012	288	1.119	322	1.161
2012-2013	288	1.178	339	1.307
2013-2014	253	1.237	313	1.240
2014-2015	222	1.636	363	1.438
Total	11,918		12,398	1.416

Notes:

- (A) Provided by the Authority.
- (B) From Appendix D, Page 7.
- (C) (A) x (B).
- (D) (C) / [Appendix D, Page 3, (D)] x [Appendix D, Page 3, (F)].

This exhibit shows the calculation of estimated ultimate claims for each year based on closed claims as provided by the Authority. These numbers of closed claims tend to "develop" or change from period to period as more claims are closed. This development tends to follow quantifiable patterns over time.

Municipal Pooling Authority - Workers' Compensation
Reported Claim Count Development

Number of Claims Reported as of:

Accident Year	12 Months	24 Months	36 Months	48 Months	60 Months	72 Months	84 Months	96 Months	108 Months	120 Months	132 Months	144 Months	156 Months
1994-1995													
1995-1996													373
1996-1997												344	344
1997-1998											363	363	363
1998-1999										360	360	360	360
1999-2000									378	378	378	378	378
2000-2001								341	341	341	341	341	341
2001-2002							335	336	336	337	337	337	337
2002-2003						420	420	420	420	420	420	420	420
2003-2004					433	433	433	433	433	433	433	433	
2004-2005				356	356	358	358	358	358	358	358		
2005-2006			370	371	371	372	372	372	372	372			
2006-2007		399	400	400	400	400	400	401	401				
2007-2008	388	406	412	413	416	417	418	418					
2008-2009	324	346	347	349	349	349	349						
2009-2010	386	405	407	408	409	410							
2010-2011	330	346	346	347	347								
2011-2012	308	332	334	336									
2012-2013	321	338	339										
2013-2014	299	322											
2014-2015	302												

Reported Claim Count Development Factors:

	12-24 Months	24-36 Months	36-48 Months	48-60 Months	60-72 Months	72-84 Months	84-96 Months	96-108 Months	108-120 Months	120-132 Months	132-144 Months	144-156 Months	156-168 Months
1994-1995													
1995-1996													1.000
1996-1997												1.000	1.000
1997-1998											1.000	1.000	1.000
1998-1999										1.000	1.000	1.000	1.000
1999-2000									1.000	1.000	1.000	1.000	1.000
2000-2001								1.000	1.000	1.000	1.000	1.000	1.000
2001-2002							1.003	1.000	1.003	1.000	1.000	1.000	1.000
2002-2003						1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2003-2004					1.000	1.000	1.000	1.000	1.000	1.000	1.000		
2004-2005				1.000	1.006	1.000	1.000	1.000	1.000	1.000			
2005-2006			1.003	1.000	1.003	1.000	1.000	1.000	1.000				
2006-2007		1.003	1.000	1.000	1.000	1.000	1.003	1.000					
2007-2008	1.046	1.015	1.002	1.007	1.002	1.002	1.000						
2008-2009	1.068	1.003	1.006	1.000	1.000	1.000							
2009-2010	1.049	1.005	1.002	1.002	1.002								
2010-2011	1.048	1.000	1.003	1.000									
2011-2012	1.078	1.006	1.006										
2012-2013	1.053	1.003											
2013-2014	1.077												

	12-24 Months	24-36 Months	36-48 Months	48-60 Months	60-72 Months	72-84 Months	84-96 Months	96-108 Months	108-120 Months	120-132 Months	132-144 Months	144-156 Months	156-168 Months
Average	1.060	1.005	1.003	1.001	1.002	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000
Claim-weighted Averages													
3-yr	1.069	1.003	1.004	1.001	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
4-yr	1.064	1.004	1.004	1.003	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
CSAC Factors	1.100	1.007	1.004	1.003	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
Prior	1.055	1.005	1.004	1.003	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	1.060	1.005	1.004	1.003	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulated	1.075	1.014	1.009	1.005	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Municipal Pooling Authority - Workers' Compensation
Closed Claim Development

Accident Year	Claims Closed as of:												
	12 Months	24 Months	36 Months	48 Months	60 Months	72 Months	84 Months	96 Months	108 Months	120 Months	132 Months	144 Months	156 Months
1994-1995													
1995-1996													366
1996-1997												340	341
1997-1998											353	355	356
1998-1999										353	353	353	353
1999-2000									359	363	366	367	368
2000-2001								318	319	321	324	327	330
2001-2002							324	323	324	324	327	328	330
2002-2003						390	398	404	406	411	413	413	414
2003-2004					398	413	415	416	420	425	422	426	
2004-2005				322	331	336	341	347	346	347	348		
2005-2006			324	338	338	348	354	356	359	361			
2006-2007		340	357	359	373	379	385	388	393				
2007-2008	224	337	348	363	380	386	393	396					
2008-2009	189	282	289	304	315	319	324						
2009-2010	178	302	317	340	356	363							
2010-2011	161	263	276	296	311								
2011-2012	164	252	263	284									
2012-2013	185	267	281										
2013-2014	171	252											
2014-2015	164												

Closed Claim Count Development Factors:

	12-24 Months	24-36 Months	36-48 Months	48-60 Months	60-72 Months	72-84 Months	84-96 Months	96-108 Months	108-120 Months	120-132 Months	132-144 Months	144-156 Months	156-168 Months
1994-1995													
1995-1996													1.000
1996-1997												1.003	0.994
1997-1998											1.006	1.003	1.003
1998-1999										1.000	1.000	1.000	1.006
1999-2000									1.011	1.008	1.003	1.003	1.011
2000-2001								1.003	1.006	1.009	1.009	1.009	0.997
2001-2002							0.997	1.003	1.000	1.009	1.003	1.006	1.009
2002-2003						1.021	1.015	1.005	1.012	1.005	1.000	1.002	
2003-2004					1.038	1.005	1.002	1.010	1.012	0.993	1.009		
2004-2005				1.028	1.015	1.015	1.018	0.997	1.003	1.003			
2005-2006			1.043	1.000	1.030	1.017	1.006	1.008	1.006				
2006-2007		1.050	1.006	1.039	1.016	1.016	1.008	1.013					
2007-2008	1.504	1.033	1.043	1.047	1.016	1.018	1.008						
2008-2009	1.492	1.025	1.052	1.036	1.013	1.016							
2009-2010	1.697	1.050	1.073	1.047	1.020								
2010-2011	1.634	1.049	1.072	1.051									
2011-2012	1.537	1.044	1.080										
2012-2013	1.443	1.052											
2013-2014	1.474												

	12-24 Months	24-36 Months	36-48 Months	48-60 Months	60-72 Months	72-84 Months	84-96 Months	96-108 Months	108-120 Months	120-132 Months	132-144 Months	144-156 Months	156-168 Months
Average	1.540	1.043	1.053	1.035	1.021	1.015	1.008	1.006	1.007	1.004	1.004	1.004	1.003
Claim-weighted Averages													
3-yr	1.483	1.049	1.075	1.045	1.016	1.017	1.007	1.006	1.007	1.000	1.004	1.006	1.006
4-yr	1.518	1.049	1.069	1.045	1.016	1.017	1.010	1.007	1.008	1.002	1.005	1.005	1.006
CSAC Factors	1.600	1.080	1.050	1.030	1.025	1.015	1.010	1.008	1.005	1.004	1.003	1.002	1.001
Prior	1.585	1.050	1.050	1.040	1.018	1.015	1.010	1.005	1.005	1.005	1.004	1.004	1.004
Selected	1.535	1.045	1.060	1.040	1.018	1.015	1.010	1.005	1.005	1.005	1.004	1.004	1.004
Cumulated	1.928	1.256	1.202	1.134	1.090	1.071	1.055	1.045	1.040	1.035	1.030	1.026	1.022

Municipal Pooling Authority - Workers' Compensation

Loss Trend Factors

Accident Year	Benefit Level Factor (A)	Factor to	Factor to	Factor to	Factor to	Factor to	Factor to	Factor to	Factor to	Factor to
		2015-2016 Loss Rate Level (B)	2016-2017 Loss Rate Level (C)	2017-2018 Loss Rate Level (D)	2018-2019 Loss Rate Level (E)	2015-2016 Frequency Level (F)	2016-2017 Frequency Level (G)	2017-2018 Frequency Level (H)	2018-2019 Frequency Level (I)	2015-2016 Severity Level (J)
Prior	1.830	2.027	2.064	2.102	2.141	0.655	0.642	0.629	0.616	3.072
1995-1996	1.678	1.849	1.883	1.917	1.953	0.668	0.655	0.642	0.629	2.749
1996-1997	1.503	1.647	1.677	1.708	1.740	0.682	0.669	0.655	0.642	2.402
1997-1998	1.302	1.419	1.445	1.471	1.499	0.696	0.682	0.668	0.655	2.030
1998-1999	1.156	1.253	1.276	1.299	1.323	0.710	0.696	0.682	0.668	1.758
1999-2000	1.031	1.112	1.132	1.153	1.174	0.725	0.710	0.696	0.682	1.529
2000-2001	0.966	1.038	1.057	1.076	1.096	0.740	0.725	0.710	0.696	1.399
2001-2002	0.968	1.035	1.054	1.073	1.093	0.755	0.740	0.724	0.710	1.367
2002-2003	1.022	1.087	1.107	1.127	1.148	0.769	0.754	0.739	0.724	1.408
2003-2004	1.267	1.342	1.367	1.392	1.418	0.785	0.770	0.754	0.739	1.704
2004-2005	1.631	1.719	1.751	1.783	1.816	0.801	0.785	0.769	0.754	2.140
2005-2006	1.753	1.839	1.873	1.907	1.943	0.817	0.801	0.785	0.769	2.244
2006-2007	1.644	1.717	1.748	1.780	1.813	0.834	0.818	0.801	0.785	2.053
2007-2008	1.514	1.574	1.603	1.632	1.662	0.851	0.834	0.817	0.801	1.844
2008-2009	1.396	1.445	1.471	1.498	1.526	0.868	0.851	0.834	0.817	1.660
2009-2010	1.260	1.297	1.321	1.345	1.370	0.886	0.869	0.851	0.834	1.461
2010-2011	1.200	1.230	1.252	1.275	1.299	0.904	0.886	0.868	0.851	1.358
2011-2012	1.193	1.216	1.239	1.261	1.285	0.922	0.904	0.886	0.868	1.317
2012-2013	1.179	1.196	1.218	1.241	1.264	0.942	0.923	0.904	0.886	1.270
2013-2014	1.117	1.128	1.149	1.170	1.192	0.961	0.942	0.922	0.904	1.174
2014-2015	1.033	1.038	1.057	1.076	1.096	0.980	0.960	0.941	0.922	1.059
2015-2016	1.000	1.000	1.018	1.037	1.056	1.000	0.980	0.960	0.941	1.000
2016-2017	0.987	--	1.000	1.018	1.037	--	1.000	0.980	0.960	--
2017-2018	0.974	--	--	1.000	1.018	--	--	1.000	0.980	--
2018-2019	0.961	--	--	--	1.000	--	--	--	1.000	--

Notes:

- (A) Based on WCIRB.
- (B) - (E) (A) adjusted for a 0.5% annual loss rate trend.
- (F) - (I) (A) adjusted for a -2.0% annual frequency trend.
- (J) (A) adjusted for a 2.5% annual severity trend.

This exhibit shows the calculation of the ways in which we expect claims costs to have changed over the past twenty years due to changes in statutory workers' compensation benefit levels and changes in actual claims costs in excess of changes in payroll. Changes in the ways in which claims are filed as a result of greater awareness of workers' compensation benefits are not generally reflected in the statutory benefit level factors shown above, but may be part of the reason for changes in actual claims costs in excess of payroll changes.

Municipal Pooling Authority - Workers' Compensation

Payment and Reserve Forecast

<u>Accident Year</u>	<u>As of</u> <u>10/31/2015</u>	<u>Calendar Period</u>	
		<u>11/1/2015</u> <u>to</u> <u>6/30/2016</u>	<u>7/1/2016</u> <u>to</u> <u>6/30/2017</u>
Prior			
Ultimate Loss	\$30,608,000	\$30,608,000	\$30,608,000
Paid in Calendar Period	-	53,279	140,444
Paid to Date	29,649,120	29,702,399	29,842,843
Outstanding Liability	958,880	905,601	765,157
1999-2000			
Ultimate Loss	\$3,067,000	\$3,067,000	\$3,067,000
Paid in Calendar Period	-	19,045	24,898
Paid to Date	2,813,069	2,832,114	2,857,012
Outstanding Liability	253,931	234,886	209,988
2000-2001			
Ultimate Loss	\$4,170,000	\$4,170,000	\$4,170,000
Paid in Calendar Period	-	33,257	48,164
Paid to Date	3,673,629	3,706,886	3,755,050
Outstanding Liability	496,371	463,114	414,950
2001-2002			
Ultimate Loss	\$2,488,000	\$2,488,000	\$2,488,000
Paid in Calendar Period	-	15,210	21,393
Paid to Date	2,260,978	2,276,188	2,297,581
Outstanding Liability	227,022	211,812	190,419
2002-2003			
Ultimate Loss	\$3,896,000	\$3,896,000	\$3,896,000
Paid in Calendar Period	-	30,922	31,477
Paid to Date	3,540,576	3,571,498	3,602,975
Outstanding Liability	355,424	324,502	293,025
2003-2004			
Ultimate Loss	\$3,429,000	\$3,429,000	\$3,429,000
Paid in Calendar Period	-	31,075	34,198
Paid to Date	3,124,343	3,155,418	3,189,616
Outstanding Liability	304,657	273,582	239,384
2004-2005			
Ultimate Loss	\$2,771,000	\$2,771,000	\$2,771,000
Paid in Calendar Period	-	29,025	50,461
Paid to Date	2,389,098	2,418,123	2,468,584
Outstanding Liability	381,902	352,877	302,416

Municipal Pooling Authority - Workers' Compensation

Payment and Reserve Forecast

<u>Accident Year</u>	<u>As of</u> <u>10/31/2015</u>	<u>Calendar Period</u>	
		<u>11/1/2015</u> <u>to</u> <u>6/30/2016</u>	<u>7/1/2016</u> <u>to</u> <u>6/30/2017</u>
2005-2006			
Ultimate Loss	\$3,265,000	\$3,265,000	\$3,265,000
Paid in Calendar Period	-	42,045	60,328
Paid to Date	2,664,363	2,706,408	2,766,736
Outstanding Liability	600,637	558,592	498,264
2006-2007			
Ultimate Loss	\$3,803,000	\$3,803,000	\$3,803,000
Paid in Calendar Period	-	36,531	47,555
Paid to Date	3,295,623	3,332,154	3,379,709
Outstanding Liability	507,377	470,846	423,291
2007-2008			
Ultimate Loss	\$4,697,000	\$4,697,000	\$4,697,000
Paid in Calendar Period	-	85,313	92,836
Paid to Date	3,727,530	3,812,843	3,905,679
Outstanding Liability	969,470	884,157	791,321
2008-2009			
Ultimate Loss	\$5,677,000	\$5,677,000	\$5,677,000
Paid in Calendar Period	-	130,469	149,613
Paid to Date	4,359,129	4,489,598	4,639,211
Outstanding Liability	1,317,871	1,187,402	1,037,789
2009-2010			
Ultimate Loss	\$7,791,000	\$7,791,000	\$7,791,000
Paid in Calendar Period	-	194,640	265,757
Paid to Date	5,698,093	5,892,733	6,158,490
Outstanding Liability	2,092,907	1,898,267	1,632,510
2010-2011			
Ultimate Loss	\$6,126,000	\$6,126,000	\$6,126,000
Paid in Calendar Period	-	226,246	248,527
Paid to Date	4,031,131	4,257,377	4,505,904
Outstanding Liability	2,094,869	1,868,623	1,620,096
2011-2012			
Ultimate Loss	\$6,825,000	\$6,825,000	\$6,825,000
Paid in Calendar Period	-	296,506	358,426
Paid to Date	4,201,051	4,497,557	4,855,983
Outstanding Liability	2,623,949	2,327,443	1,969,017

Municipal Pooling Authority - Workers' Compensation

Payment and Reserve Forecast

<u>Accident Year</u>	<u>As of</u> <u>10/31/2015</u>	<u>Calendar Period</u>	
		<u>11/1/2015</u> <u>to</u> <u>6/30/2016</u>	<u>7/1/2016</u> <u>to</u> <u>6/30/2017</u>
2012-2013			
Ultimate Loss	\$7,296,000	\$7,296,000	\$7,296,000
Paid in Calendar Period	-	497,959	472,735
Paid to Date	3,861,800	4,359,759	4,832,494
Outstanding Liability	3,434,200	2,936,241	2,463,506
2013-2014			
Ultimate Loss	\$7,056,000	\$7,056,000	\$7,056,000
Paid in Calendar Period	-	743,591	736,986
Paid to Date	2,681,937	3,425,528	4,162,514
Outstanding Liability	4,374,063	3,630,472	2,893,486
2014-2015			
Ultimate Loss	\$7,205,000	\$7,205,000	\$7,205,000
Paid in Calendar Period	-	1,076,783	1,152,756
Paid to Date	1,222,873	2,299,656	3,452,412
Outstanding Liability	5,982,127	4,905,344	3,752,588
2015-2016			
Ultimate Loss	\$2,550,000	\$7,649,000	\$7,649,000
Paid in Calendar Period	-	637,080	1,722,907
Paid to Date	64,714	701,794	2,424,701
Outstanding Liability	2,485,286	6,947,206	5,224,299
2016-2017			
Ultimate Loss	-	-	\$7,928,000
Paid in Calendar Period	-	-	943,432
Paid to Date	-	-	943,432
Outstanding Liability	-	-	6,984,568
Totals			
Ultimate Loss	\$112,720,000	\$117,819,000	\$125,747,000
Paid in Calendar Period	-	4,178,976	6,602,893
Paid to Date	83,259,057	87,438,033	94,040,926
Outstanding Liability	29,460,943	30,380,967	31,706,074
Total Outstanding ULAE	0	0	0
Outstanding Liability plus ULAE	29,460,943	30,380,967	31,706,074

Notes appear on the next page.

Municipal Pooling Authority - Workers' Compensation

Payment and Reserve Forecast

Notes to previous page:

- Accident Year is associated with date of loss. Calendar Period is associated with date of transaction. For example, for the losses which occurred during 2013-2014, \$743,591 is expected to be paid between 11/1/15 and 6/30/16, \$3,425,528 will have been paid by 6/30/16, and the reserve for remaining payments on these claims should be \$3,630,472.
- Ultimate Losses for each accident year are from Exhibit 4, Page 1.
- Paid in Calendar Period is a proportion of the Outstanding Liability from the previous calendar period. These proportions are derived from the paid loss development pattern selected in Appendix B. For example, $\$736,986 = \$3,630,472 \times 20.3\%$.
- Paid to Date is Paid in Calendar Period plus Paid to Date from previous calendar period. For example, $\$4,162,514 = \$736,986 + \$3,425,528$.
- Outstanding Liability is Ultimate Loss minus Paid to Date. For example, $\$3,630,472 = \$7,056,000 - \$3,425,528$.

This exhibit shows the calculation of the liability for outstanding claims as of the date of evaluation, the end of the current fiscal year, and the end of the coming fiscal year. It also shows the expected claims payout during the remainder of the current fiscal year and the coming fiscal year. Refer to the Totals at the end of the exhibit for the balance sheet information. The top parts of the exhibit show information for each program year.

Municipal Pooling Authority - Workers' Compensation

Short- and Long-Term Liabilities

<u>Liabilities as of 10/31/15:</u>		<u>Expected</u>	<u>Discounted</u>
<u>Current (Short Term)</u>	Loss and ALAE:	\$3,541,896	\$3,498,436
	ULAE:	191,516	189,166
	Short-Term Loss and LAE:	<u>\$3,733,412</u>	<u>\$3,687,602</u>
<u>Non-Current (Long Term)</u>	Loss and ALAE:	\$25,919,047	\$21,832,051
	ULAE:	1,401,484	1,180,494
	Long-Term Loss and LAE:	<u>\$27,320,531</u>	<u>\$23,012,545</u>
<u>Total Liability</u>	Loss and ALAE:	\$29,460,943	\$25,330,487
	ULAE:	1,593,000	1,369,660
	Total Loss and LAE:	<u>\$31,053,943</u>	<u>\$26,700,147</u>
<u>Liabilities as of 6/30/16:</u>			
<u>Current (Short Term)</u>	Loss and ALAE:	\$5,659,461	\$5,590,017
	ULAE:	306,063	302,308
	Short-Term Loss and LAE:	<u>\$5,965,524</u>	<u>\$5,892,325</u>
<u>Non-Current (Long Term)</u>	Loss and ALAE:	\$24,721,506	\$20,546,215
	ULAE:	1,336,937	1,111,137
	Long-Term Loss and LAE:	<u>\$26,058,443</u>	<u>\$21,657,352</u>
<u>Total Liability</u>	Loss and ALAE:	\$30,380,967	\$26,136,232
	ULAE:	1,643,000	1,413,445
	Total Loss and LAE:	<u>\$32,023,967</u>	<u>\$27,549,677</u>

		<u>Discounted with a Margin for Contingencies</u>				
		70%	75%	80%	85%	90%
		<u>Confidence</u>	<u>Confidence</u>	<u>Confidence</u>	<u>Confidence</u>	<u>Confidence</u>
<u>Liabilities as of 10/31/15:</u>						
<u>Current (Short Term)</u>	Loss and ALAE:	\$3,785,308	\$3,897,258	\$4,030,198	\$4,191,126	\$4,401,032
	ULAE:	204,678	210,731	217,919	226,621	237,971
	Short-Term Loss and LAE:	<u>\$3,989,986</u>	<u>\$4,107,989</u>	<u>\$4,248,117</u>	<u>\$4,417,747</u>	<u>\$4,639,003</u>
<u>Non-Current (Long Term)</u>	Loss and ALAE:	\$23,622,279	\$24,320,905	\$25,150,523	\$26,154,797	\$27,464,721
	ULAE:	1,277,294	1,315,070	1,359,929	1,414,232	1,485,061
	Long-Term Loss and LAE:	<u>\$24,899,573</u>	<u>\$25,635,975</u>	<u>\$26,510,452</u>	<u>\$27,569,029</u>	<u>\$28,949,782</u>
<u>Total Liability</u>	Loss and ALAE:	\$27,407,587	\$28,218,163	\$29,180,721	\$30,345,923	\$31,865,753
	ULAE:	1,481,972	1,525,801	1,577,848	1,640,853	1,723,032
	Total Loss and LAE:	<u>\$28,889,559</u>	<u>\$29,743,964</u>	<u>\$30,758,569</u>	<u>\$31,986,776</u>	<u>\$33,588,785</u>
<u>Liabilities as of 6/30/16:</u>						
<u>Current (Short Term)</u>	Loss and ALAE:	\$6,048,398	\$6,227,279	\$6,439,700	\$6,696,840	\$7,032,241
	ULAE:	327,097	336,771	348,259	362,165	380,303
	Short-Term Loss and LAE:	<u>\$6,375,495</u>	<u>\$6,564,050</u>	<u>\$6,787,959</u>	<u>\$7,059,005</u>	<u>\$7,412,544</u>
<u>Non-Current (Long Term)</u>	Loss and ALAE:	\$22,231,005	\$22,888,483	\$23,669,239	\$24,614,366	\$25,847,139
	ULAE:	1,202,251	1,237,807	1,280,030	1,331,142	1,397,811
	Long-Term Loss and LAE:	<u>\$23,433,256</u>	<u>\$24,126,290</u>	<u>\$24,949,269</u>	<u>\$25,945,508</u>	<u>\$27,244,950</u>
<u>Total Liability</u>	Loss and ALAE:	\$28,279,403	\$29,115,762	\$30,108,939	\$31,311,206	\$32,879,380
	ULAE:	1,529,348	1,574,578	1,628,289	1,693,307	1,778,114
	Total Loss and LAE:	<u>\$29,808,751</u>	<u>\$30,690,340</u>	<u>\$31,737,228</u>	<u>\$33,004,513</u>	<u>\$34,657,494</u>

Note: Current (short term) liabilities are the portion of the total estimated liability shown on Appendix F that is expected to be paid out within the coming year. Totals may vary from Exhibit 1, due to rounding.

Municipal Pooling Authority - Workers' Compensation

Discount Factors to be Applied to Overall Reserves

Accident Year	Full Value of Reserve at 10/31/15 (A)	Discount Factor (B)	Discounted Reserve at 10/31/15 (C)	Full Value of Reserve at 6/30/16 (D)	Discount Factor (E)	Discounted Reserve at 6/30/16 (F)
Prior	\$615,700	0.988	\$608,145	\$606,464	0.988	\$599,022
1995-1996	104,662	0.973	101,886	81,008	0.988	80,014
1996-1997	64,446	0.954	61,458	58,130	0.966	56,175
1997-1998	119,103	0.936	111,440	109,098	0.947	103,347
1998-1999	54,969	0.919	50,519	50,901	0.930	47,330
1999-2000	253,931	0.904	229,522	234,886	0.914	214,604
2000-2001	496,371	0.890	441,810	463,114	0.899	416,337
2001-2002	227,022	0.877	199,104	211,812	0.886	187,587
2002-2003	355,424	0.866	307,659	324,502	0.873	283,203
2003-2004	304,657	0.856	260,697	273,582	0.862	235,843
2004-2005	381,902	0.848	323,796	352,877	0.853	300,840
2005-2006	600,637	0.841	505,095	558,592	0.846	472,297
2006-2007	507,377	0.835	423,810	470,846	0.839	394,873
2007-2008	969,470	0.833	807,514	884,157	0.834	737,053
2008-2009	1,317,871	0.834	1,098,697	1,187,402	0.833	988,637
2009-2010	2,092,907	0.834	1,746,065	1,898,267	0.834	1,583,597
2010-2011	2,094,869	0.837	1,752,669	1,868,623	0.834	1,558,991
2011-2012	2,623,949	0.841	2,205,465	2,327,443	0.838	1,949,982
2012-2013	3,434,200	0.849	2,915,384	2,936,241	0.842	2,471,898
2013-2014	4,374,063	0.862	3,769,317	3,630,472	0.852	3,094,817
2014-2015	5,982,127	0.875	5,235,045	4,905,344	0.866	4,249,889
2015-2016	2,485,286	0.875	2,175,390	6,947,206	0.879	6,109,896
Totals	\$29,460,943		\$25,330,487	\$30,380,967		\$26,136,232

(G) Discount Factor at 10/31/15 for Overall Reserve: 0.860
(H) Discount Factor at 6/30/16 for Overall Reserve: 0.860

Notes:

- (A) From Appendix F, Outstanding Liability at 10/31/15.
- (B) Based on Appendix H, Page 2, Column (E).
- (C) (A) x (B).
- (D) From Appendix F, Outstanding Liability at 6/30/16.
- (E) Based on Appendix H, Page 2, Column (E).
- (F) (D) x (E).
- (G) Total of (C) / Total of (A).
- (H) Total of (F) / Total of (D).

This exhibit shows the expected impact of anticipated investment income on the liability for outstanding claims at the date of evaluation and the end of the current fiscal year. For example, if the discount factor in item (G) is 0.860, the discounted liability for outstanding claims is 86.0% of the full value.

Municipal Pooling Authority - Workers' Compensation

Calculation of Discount Factors

Payment Year (A)	Payment Pattern (B)	Discounted* Reserves (C)	Undiscounted Reserves (D)	Discount Factor (E)
22	7.3%	0.072	0.073	0.988
21	0.9%	0.080	0.083	0.966
20	0.9%	0.087	0.092	0.947
19	0.9%	0.094	0.101	0.930
18	0.9%	0.100	0.110	0.914
17	0.9%	0.107	0.119	0.899
16	1.0%	0.114	0.129	0.886
15	1.0%	0.121	0.139	0.873
14	1.2%	0.130	0.150	0.862
13	1.3%	0.139	0.163	0.853
12	1.6%	0.151	0.179	0.846
11	1.7%	0.164	0.195	0.839
10	2.0%	0.179	0.215	0.834
9	2.7%	0.201	0.242	0.833
8	3.5%	0.231	0.276	0.834
7	3.7%	0.261	0.313	0.834
6	5.0%	0.304	0.363	0.838
5	6.1%	0.357	0.424	0.842
4	9.8%	0.445	0.522	0.852
3	14.9%	0.581	0.671	0.866
2	21.2%	0.776	0.883	0.879
1	11.7%	0.873	1.000	0.873

(F) Discount Factor for Future Funding: 0.884

* Assumed Investment Rate: 2.5%

Notes:

- (A) This is the year of payment relative to the accident year. For example, year 7 refers to payments made in the seventh year after the inception of the accident year. We assume that payments are made at midyear.
- (B) Percent of ultimate loss paid this year. This payment pattern is based on the paid loss development pattern selected in Appendix B, Page 2.
- (C) Discounted Reserves at the beginning of this year is next year's Discounted Reserves discounted one year plus this year's payments discounted six months. For example, in year 2, $77.6\% = [58.1\% / 1.025] + [21.2\% / (1.012)]$.
- (D) Summation of future (B) values. This is the percent of ultimate loss unpaid at the beginning of the year.
- (E) (C) / (D).
- (F) (E) at year 1, with interest accumulated for six months. We assume that the required funding is deposited at the middle of the first year.

This exhibit shows the calculation of the effect of anticipated investment income on future claims costs. Thus, if the discount factor in item (F) is 0.88, on a discounted basis, \$0.88 must be budgeted for every \$1 that will actually be paid on claims that will be incurred in the next fiscal year.

Municipal Pooling Authority - Workers' Compensation

Confidence Level Table

Probability	Projected Losses	Outstanding Losses
95%	1.461	1.354
90	1.334	1.258
85	1.255	1.198
80	1.196	1.152
75	1.148	1.114
70	1.106	1.082
65	1.068	1.053
60	1.034	1.026
55	1.002	1.002
50	0.971	0.978
45	0.942	0.955
40	0.912	0.932
35	0.883	0.909
30	0.853	0.886
25	0.822	0.861

To read table: For the above retention, there is a 90% chance that final loss settlements will be less than 1.334 times the average expected amount of losses.

This exhibit shows the loads that must be applied to bring estimated losses at the expected level to the various indicated confidence levels.

Municipal Pooling Authority - Workers' Compensation

Program History

Policy Year Start Date	Policy Year End Date	Policy Year	Self-Insured Retention	
			Per Occurrence	Aggregate
7/1/1978	6/30/1986	1978-1986	200,000	(none)
7/1/1986	6/30/1988	1986-1988	250,000	(none)
7/1/1988	6/30/1990	1988-1990	300,000	(none)
7/1/1990	6/30/1993	1990-1993	350,000	(none)
7/1/1998	6/30/1999	1998-1999	350,000	(none)
7/1/1999	6/30/2000	1999-2000	350,000	(none)
7/1/2000	6/30/2001	2000-2001	350,000	(none)
7/1/2001	6/30/2002	2001-2002	350,000	(none)
7/1/2002	6/30/2003	2002-2003	400,000	(none)
7/1/2003	6/30/2004	2003-2004	500,000	(none)
7/1/2004	6/30/2005	2004-2005	500,000	(none)
7/1/2005	6/30/2006	2005-2006	500,000	(none)
7/1/2006	6/30/2007	2006-2007	500,000	(none)
7/1/2007	6/30/2008	2007-2008	500,000	(none)
7/1/2008	6/30/2009	2008-2009	500,000	(none)
7/1/2009	6/30/2010	2009-2010	500,000	(none)
7/1/2010	6/30/2011	2010-2011	500,000	(none)
7/1/2011	6/30/2012	2011-2012	500,000	(none)
7/1/2012	6/30/2013	2012-2013	500,000	(none)
7/1/2013	6/30/2014	2013-2014	500,000	(none)
7/1/2014	6/30/2015	2014-2015	500,000	(none)
7/1/2015	6/30/2016	2015-2016	500,000	(none)
7/1/2016	6/30/2017	2016-2017	500,000	(none)
	Third Party Claims Administrator		Begin Date	End Date
	MPA's Risk Management Department		7/1/1978	Current

This exhibit summarizes some of the key facts about the history of the program.

Municipal Pooling Authority - Workers' Compensation

Estimated Total Assets as of 6/30/16

(A) <u>Total Assets as of 6/30/15:</u>		\$29,588,000
(B) <u>Total Income to Fund during 2015-2016</u>		
Contributions:		\$10,930,000
Interest:		261,000
Other:		0
Total Income:		<u>\$11,191,000</u>
(C) <u>Total Payments from Fund during 2015-2016</u>		
Loss and ALAE:		\$6,051,000
Excess Premium	Rate: \$0.5501	1,341,000
Claims Administration		279,000
Department Personnel		865,000
DOC Expense Paid		124,000
G&A Expense Paid		460,000
Member Dividend/Rebates Payable:		0
Total Payments:		<u>\$9,120,000</u>
(D) <u>Estimated Total Assets as of 6/30/16:</u>		\$31,659,000

Notes:

- (A) Provided by the Authority.
- (B) Provided by the Authority.
- (C) Provided by the Authority. Loss and ALAE paid is estimated in Appendix F.
- (D) (A) + (B) - (C).

Municipal Pooling Authority - Workers' Compensation

Incurred Losses as of 10/31/15

Accident Year (A)	Unlimited Incurred (B)	Additions to Losses (C)	Subtractions from Losses (D)	Adjusted Incurred (E)	Incurred Over SIR (F)	Incurred Over \$100,000 (G)	Incurred Capped at \$100,000 (H)	Incurred \$100,000 to SIR Layer (I)	Incurred Capped at SIR (J)	Incurred Capped at SIR & Aggregate (K)
Prior	\$20,117,828	\$0	\$0	\$20,117,828	\$847,819	\$3,063,148	\$17,054,680	\$2,215,329	\$19,270,010	\$19,270,010
1995-1996	1,586,309	0	0	1,586,309	0	287,183	1,299,126	287,183	1,586,309	1,586,309
1996-1997	2,792,477	0	0	2,792,477	138,386	633,076	2,159,400	494,690	2,654,090	2,654,090
1997-1998	4,125,703	0	0	4,125,703	556,523	1,603,035	2,522,669	1,046,512	3,569,180	3,569,180
1998-1999	4,853,212	0	0	4,853,212	1,550,815	2,408,931	2,444,281	858,116	3,302,397	3,302,397
1999-2000	3,006,393	0	0	3,006,393	0	213,674	2,792,718	213,674	3,006,393	3,006,393
2000-2001	4,500,759	0	0	4,500,759	440,140	1,656,126	2,844,632	1,215,986	4,060,618	4,060,618
2001-2002	2,406,509	0	0	2,406,509	0	287,579	2,118,930	287,579	2,406,509	2,406,509
2002-2003	3,735,045	0	0	3,735,045	0	498,434	3,236,611	498,434	3,735,045	3,735,045
2003-2004	4,066,491	0	0	4,066,491	809,858	1,341,813	2,724,678	531,956	3,256,634	3,256,634
2004-2005	3,140,069	0	0	3,140,069	538,120	1,229,730	1,910,339	691,610	2,601,949	2,601,949
2005-2006	3,028,934	0	0	3,028,934	0	695,776	2,333,157	695,776	3,028,934	3,028,934
2006-2007	3,476,542	0	0	3,476,542	0	706,860	2,769,682	706,860	3,476,542	3,476,542
2007-2008	4,226,374	0	0	4,226,374	0	943,287	3,283,087	943,287	4,226,374	4,226,374
2008-2009	14,898,965	0	0	14,898,965	9,934,903	11,655,932	3,243,033	1,721,029	4,964,062	4,964,062
2009-2010	7,772,029	0	0	7,772,029	1,130,763	3,130,604	4,641,425	1,999,841	6,641,266	6,641,266
2010-2011	5,266,697	0	0	5,266,697	0	1,092,393	4,174,304	1,092,393	5,266,697	5,266,697
2011-2012	5,493,482	0	0	5,493,482	0	950,238	4,543,244	950,238	5,493,482	5,493,482
2012-2013	5,912,797	0	0	5,912,797	0	1,463,724	4,449,073	1,463,724	5,912,797	5,912,797
2013-2014	5,336,240	0	0	5,336,240	218,655	1,204,435	4,131,805	985,780	5,117,584	5,117,584
2014-2015	3,206,855	0	0	3,206,855	0	86,024	3,120,831	86,024	3,206,855	3,206,855
2015-2016	561,760	0	0	561,760	0	0	561,760	0	561,760	561,760
Total	\$113,511,470	\$0	\$0	\$113,511,470	\$16,165,982	\$35,152,003	\$78,359,467	\$18,986,021	\$97,345,488	\$97,345,488

Notes:

- (A) Years are 7/1 to 6/30.
- (B) Provided by the Authority. Amounts are gross of recoveries and do not include 4850.
- (C) No adjustments were made.
- (D) No adjustments were made.
- (E) (B) + (C) - (D).
- (F) Sum of incurred losses in excess of SIR.
- (G) Sum of incurred losses in excess of \$100,000.
- (H) (E) - (G).
- (I) (G) - (F).
- (J) (E) - (F).
- (K) Minimum of (J) and the aggregate stop loss. See Appendix J.

Municipal Pooling Authority - Workers' Compensation

Paid Losses as of 10/31/15

Accident Year (A)	Unlimited Paid (B)	Additions to Losses (C)	Subtractions from Losses (D)	Adjusted Paid (E)	Paid Over SIR (F)	Paid Over \$100,000 (G)	Paid Capped at \$100,000 (H)	Paid \$100,000 to SIR Layer (I)	Paid Capped at SIR (J)	Paid Capped at SIR & Aggregate (K)
Prior	\$19,496,799	\$0	\$0	\$19,496,799	\$746,499	\$2,578,591	\$16,918,207	\$1,832,093	\$18,750,300	\$18,750,300
1995-1996	1,492,338	0	0	1,492,338	0	215,920	1,276,418	215,920	1,492,338	1,492,338
1996-1997	2,751,940	0	0	2,751,940	138,386	622,694	2,129,246	484,308	2,613,554	2,613,554
1997-1998	3,744,375	0	0	3,744,375	251,478	1,261,335	2,483,040	1,009,857	3,492,897	3,492,897
1998-1999	4,850,846	0	0	4,850,846	1,550,815	2,408,931	2,441,914	858,116	3,300,031	3,300,031
1999-2000	2,813,069	0	0	2,813,069	0	82,852	2,730,217	82,852	2,813,069	2,813,069
2000-2001	3,673,629	0	0	3,673,629	0	890,129	2,783,499	890,129	3,673,629	3,673,629
2001-2002	2,260,978	0	0	2,260,978	0	208,642	2,052,336	208,642	2,260,978	2,260,978
2002-2003	3,540,576	0	0	3,540,576	0	435,744	3,104,832	435,744	3,540,576	3,540,576
2003-2004	3,934,201	0	0	3,934,201	809,858	1,294,187	2,640,014	484,329	3,124,343	3,124,343
2004-2005	2,477,314	0	0	2,477,314	88,215	718,407	1,758,906	630,192	2,389,098	2,389,098
2005-2006	2,664,363	0	0	2,664,363	0	440,871	2,223,493	440,871	2,664,363	2,664,363
2006-2007	3,295,623	0	0	3,295,623	0	553,585	2,742,038	553,585	3,295,623	3,295,623
2007-2008	3,727,530	0	0	3,727,530	0	610,199	3,117,331	610,199	3,727,530	3,727,530
2008-2009	6,748,080	0	0	6,748,080	2,388,952	3,775,657	2,972,424	1,386,705	4,359,129	4,359,129
2009-2010	6,050,364	0	0	6,050,364	352,271	2,039,050	4,011,314	1,686,779	5,698,093	5,698,093
2010-2011	4,031,131	0	0	4,031,131	0	507,434	3,523,697	507,434	4,031,131	4,031,131
2011-2012	4,201,051	0	0	4,201,051	0	523,659	3,677,392	523,659	4,201,051	4,201,051
2012-2013	3,861,800	0	0	3,861,800	0	471,289	3,390,511	471,289	3,861,800	3,861,800
2013-2014	2,681,937	0	0	2,681,937	0	430,707	2,251,230	430,707	2,681,937	2,681,937
2014-2015	1,222,873	0	0	1,222,873	0	0	1,222,873	0	1,222,873	1,222,873
2015-2016	64,714	0	0	64,714	0	0	64,714	0	64,714	64,714
Total	\$89,585,528	\$0	\$0	\$89,585,528	\$6,326,474	\$20,069,883	\$69,515,645	\$13,743,409	\$83,259,054	\$83,259,054

Notes:

- (A) Years are 7/1 to 6/30.
- (B) Provided by the Authority. Amounts are gross of recoveries and do not include 4850.
- (C) No adjustments were made.
- (D) No adjustments were made.
- (E) (B) + (C) - (D).
- (F) Sum of paid losses in excess of SIR.
- (G) Sum of paid losses in excess of \$100,000.
- (H) (E) - (G).
- (I) (G) - (F).
- (J) (E) - (F).
- (K) Minimum of (J) and the aggregate stop loss. See Appendix J.

Municipal Pooling Authority - Workers' Compensation

Case Reserves as of 10/31/15

Accident Year (A)	Unlimited Reserves (B)	Additions to Losses (C)	Subtractions from Losses (D)	Adjusted Reserves (E)	Reserves Over SIR (F)	Reserves Over \$100,000 (G)	Reserves Capped at \$100,000 (H)	Reserves \$100,000 to SIR Layer (I)	Reserves Capped at SIR (J)	Reserves Capped at SIR & Aggregate (K)
Prior	\$621,030	\$0	\$0	\$621,030	\$101,320	\$484,557	\$136,473	\$383,236	\$519,709	\$519,709
1995-1996	93,971	0	0	93,971	0	71,263	22,708	71,263	93,971	93,971
1996-1997	40,537	0	0	40,537	0	10,382	30,155	10,382	40,537	40,537
1997-1998	381,329	0	0	381,329	305,045	341,700	39,629	36,655	76,284	76,284
1998-1999	2,367	0	0	2,367	0	0	2,367	0	2,367	2,367
1999-2000	193,324	0	0	193,324	0	130,823	62,502	130,823	193,324	193,324
2000-2001	827,130	0	0	827,130	440,140	765,997	61,133	325,857	386,990	386,990
2001-2002	145,532	0	0	145,532	0	78,937	66,594	78,937	145,532	145,532
2002-2003	194,469	0	0	194,469	0	62,690	131,779	62,690	194,469	194,469
2003-2004	132,291	0	0	132,291	0	47,627	84,664	47,627	132,291	132,291
2004-2005	662,756	0	0	662,756	449,905	511,323	151,433	61,418	212,851	212,851
2005-2006	364,570	0	0	364,570	0	254,906	109,664	254,906	364,570	364,570
2006-2007	180,919	0	0	180,919	0	153,275	27,644	153,275	180,919	180,919
2007-2008	498,844	0	0	498,844	0	333,088	165,756	333,088	498,844	498,844
2008-2009	8,150,884	0	0	8,150,884	7,545,951	7,880,276	270,609	334,325	604,934	604,934
2009-2010	1,721,664	0	0	1,721,664	778,492	1,091,553	630,111	313,062	943,173	943,173
2010-2011	1,235,566	0	0	1,235,566	0	584,959	650,607	584,959	1,235,566	1,235,566
2011-2012	1,292,431	0	0	1,292,431	0	426,579	865,852	426,579	1,292,431	1,292,431
2012-2013	2,050,997	0	0	2,050,997	0	992,435	1,058,562	992,435	2,050,997	2,050,997
2013-2014	2,654,303	0	0	2,654,303	218,655	773,728	1,880,575	555,072	2,435,647	2,435,647
2014-2015	1,983,982	0	0	1,983,982	0	86,024	1,897,959	86,024	1,983,982	1,983,982
2015-2016	497,046	0	0	497,046	0	0	497,046	0	497,046	497,046
Total	\$23,925,942	\$0	\$0	\$23,925,942	\$9,839,508	\$15,082,120	\$8,843,821	\$5,242,612	\$14,086,434	\$14,086,434

Notes:

- (A) Years are 7/1 to 6/30.
- (B) Appendix L, Page 1, Column (B) - Appendix L, Page 2, Column (B).
- (C) Appendix L, Page 1, Column (C) - Appendix L, Page 2, Column (C).
- (D) Appendix L, Page 1, Column (D) - Appendix L, Page 2, Column (D).
- (E) (B) + (C) - (D).
- (F) Sum of case reserves in excess of SIR.
- (G) Sum of case reserves in excess of \$100,000.
- (H) (E) - (G).
- (I) (G) - (F).
- (J) (E) - (F).
- (K) Minimum of (J) and the aggregate stop loss. See Appendix J.

Municipal Pooling Authority - Workers' Compensation

Claim Counts as of 10/31/15

Accident Year (A)	Reported Claims (B)	Additions to Reported Claims (C)	Subtractions from Reported Claims (D)	Adjusted Reported Claims (E)	Closed Claims (F)	Additions to Closed Claims (G)	Subtractions from Closed Claims (H)	Adjusted Closed Claims (I)	Open Claims (J)	Adjusted Open Claims (K)
Prior	5,070	0	0	5,070	5,045	0	0	5,045	25	25
1995-1996	374	0	0	374	370	0	0	370	4	4
1996-1997	344	0	0	344	340	0	0	340	4	4
1997-1998	363	0	0	363	359	0	0	359	4	4
1998-1999	360	0	0	360	359	0	0	359	1	1
1999-2000	378	0	0	378	373	0	0	373	5	5
2000-2001	341	0	0	341	332	0	0	332	9	9
2001-2002	337	0	0	337	333	0	0	333	4	4
2002-2003	420	0	0	420	414	0	0	414	6	6
2003-2004	433	0	0	433	427	0	0	427	6	6
2004-2005	358	0	0	358	347	0	0	347	11	11
2005-2006	372	0	0	372	360	0	0	360	12	12
2006-2007	401	0	0	401	394	0	0	394	7	7
2007-2008	418	0	0	418	401	0	0	401	17	17
2008-2009	349	0	0	349	329	0	0	329	20	20
2009-2010	410	0	0	410	368	0	0	368	42	42
2010-2011	347	0	0	347	316	0	0	316	31	31
2011-2012	337	0	0	337	288	0	0	288	49	49
2012-2013	340	0	0	340	288	0	0	288	52	52
2013-2014	324	0	0	324	253	0	0	253	71	71
2014-2015	322	0	0	322	222	0	0	222	100	100
2015-2016	98	0	0	98	17	0	0	17	81	81
Total	12,496	0	0	12,496	11,935	0	0	11,935	561	561

Notes:

- (A) Years are 7/1 to 6/30.
- (B) Provided by the Authority.
- (C) No adjustments were made.
- (D) No adjustments were made.
- (E) (B) + (C) - (D).
- (F) Provided by the Authority.
- (G) No adjustments were made.
- (H) No adjustments were made.
- (I) (F) + (G) - (H).
- (J) (B) - (F).
- (K) (E) - (I).

Municipal Pooling Authority - Workers' Compensation

Exposure Measures

Accident Year	Total Payroll (\$00) (A)	Inflation Trend Factor (B)	Trended Payroll (\$00) (C)
Prior			
1995-1996	682,760	1.638	1,118,361
1996-1997	715,920	1.598	1,144,040
1997-1998	817,990	1.559	1,275,246
1998-1999	861,530	1.521	1,310,387
1999-2000	909,810	1.484	1,350,158
2000-2001	1,010,580	1.448	1,463,320
2001-2002	1,083,670	1.413	1,531,226
2002-2003	1,370,060	1.379	1,889,313
2003-2004	1,613,586	1.345	2,170,273
2004-2005	1,696,191	1.312	2,225,402
2005-2006	1,982,038	1.280	2,537,008
2006-2007	2,138,617	1.249	2,671,132
2007-2008	2,385,784	1.219	2,908,270
2008-2009	2,488,907	1.189	2,959,310
2009-2010	2,508,004	1.160	2,909,285
2010-2011	2,386,521	1.132	2,701,542
2011-2012	2,316,212	1.104	2,557,098
2012-2013	2,268,586	1.077	2,443,267
2013-2014	2,308,500	1.051	2,426,233
2014-2015	2,413,449	1.025	2,473,785
2015-2016	2,437,583	1.000	2,437,583
2016-2017	2,461,959	1.000	2,461,959

Notes:

- (A) Provided by the Authority.
- (B) Based on WCIRB.
- (C) (A) x (B).