Actuarial Review of
Self-Insurance Program
As of December 31, 2007

Missouri Department of Transportation

March 11, 2008

Orin M. Linden, Ph.D, FCAS, MAAA, ARM

Watson Wyatt
Worldwide

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March 11, 2008

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Dear Mr. Padgett:

We are pleased to provide our report on the Actuarial Review for the Self-Insurance Program as of December 31, 2007 for the Missouri Department of Transportation ("MoDOT"). This report documents the actuarial analyses completed by Watson Wyatt Insurance & Financial Services, Inc. ("Watson Wyatt") in relation to the loss experience for the MissouriDepartment of Transportation ("MoDOT") as of December 31, 2007 using data sent to us on January 28, 2008 as compiled by the MoDOT and other information as documented in the following report.

This report is provided for the internal use only of MoDOT's management. All other uses and distribution are prohibited without the express written consent of Watson Wyatt.

This is our final report and supersedes all previously published draft reports.

We will be pleased to answer any questions related to Watson Wyatt's actuarial analyses for this report. I can be reached at 212-252-8077 or orin.linden@watsonwyatt.com.

Yours truly,

Orin M. Linden

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Executive Summary

Watson Wyatt Insurance Financial Services, Inc. (WWIFS) has analyzed loss experience for the Missouri Department of Transportation ("MoDOT") as of December 31, 2007 using data sent to us on January 28, 2008 as compiled by the MoDOT and other information as documented in the following report. We have estimated the required reserve for the year ending December 31, 2007, as well as the indicated funding at December 31, 2007 for losses incurred in 2008. Throughout our work, we have relied on the data and other information provided to us without independent verification.

In order to facilitate use of the estimates, we have developed a range of lower and higher projections in addition to the best estimate projection.

Best Estimate and Range of Undiscounted Required Reserves as of December 31, 2007

Program	Lower Range $000's	Best Estimate $000's	Upper Range $000's
Highway & Transportation WC	15,717	16,544	17,371
State Highway Patrol WC	8,127	8,554	8,982
Fleet Vehicle Liability	1,923	2,024	2,125
General Liability	32,031	33,716	35,402
Total	**57,797**	**60,839**	**63,881**

Best Estimate and Range of Discounted Required Reserves as of December 31, 2007
(Discounted at a rate of 4.5%)

Program	Lower Range $000's	Best Estimate $000's	Upper Range $000's
Highway & Transportation WC	13,382	14,087	14,791
State Highway Patrol WC	6,680	7,032	7,384
Fleet Vehicle Liability	1,805	1,900	1,995
General Liability	28,457	29,955	31,453
Total	**50,325**	**52,973**	**55,622**

The range, with respect to estimates of undiscounted unpaid loss amounts as of December 31, 2007, derived in this report is between $58 million and $64 million. The range, with respect to estimates of unpaid loss amounts discounted at 4.5% as of December 31, 2007, derived in this report is between $50 million and $56 million. We note that, compared to the balance in the trust fund at year-end 2007, we estimate a $15.8 million redundancy on a best estimate basis. This amount may be applied to our

estimate of required funding for claims occurring in 2008 of $16.8 million (discounted at 4.5%). The net requirement of $1.0 million may be funded by payments of $0.268 million per quarter.

This funding breaks down as follows:

Program	Quarterly Contribution
Highway & Transportation WC	$608,891
State Highway Patrol WC	$161,605
Fleet Vehicle Liability	$56,283
General Liability	-$558,366
Total	**$268,413**

We again note that this our best estimate of the 2008 funding requirement. We believe a range of up to $400,000 ($1.6 million annually) would be appropriate. The ranges are based on projections using different but reasonable judgments.

The discount rate used of 4.5% is the same as that used in our previous report and is consistent with current expected earnings by MoDOT on funds held for these liabilities. Should the actual earnings rate increase or decrease, the discounted liability figures cited above will have a corresponding change.

Finally, we also note that the redundancy of $15.8 million is an increase over last year's redundancy of $6.0 million. This increase is primarily due to the favorable development of calendar year incurred losses in 2007, primarily in General liability.

We note that this is our best estimate of loss reserves based on the loss experience of MoDOT through year end, 2007. The ultimate costs of these losses depend on many factors that cannot be known with certainty at this time. In addition, it is possible that the apparent beneficial effects of tort reform that has led to a decrease in funding requirements over the last two years may fail to hold. If this is the case, these decreases may ultimately need to be reversed or increased to even higher limits. Therefore it is possible for actual loss experience to deviate materially from the estimates promulgated in this report.

The report has been completed in accordance with the engagement agreement dated January 16, 2007. It is must be read in its entirety. Any questions regarding this report should be referred to Orin Linden, Property & Casualty Actuarial Practice Leader at orin.Linden@watsonwyatt.com or at 212-252-8077.

* * * *

Introduction

1. PURPOSE

Watson Wyatt Insurance & Financial Services, Inc. (WWIFS) has been engaged by the State of Missouri Department of Transportation to evaluate its liability for self-insured operations as of December 31, 2007 and to estimate required contributions to self-insurance funding for 2008. Distinct estimates are to be provided for each of:

A. Workers' Compensation – Highway and Transportation Workers (HTW),

B. Workers' Compensation – State Highway Patrol (SHP),

C. Fleet Vehicle Liability (FVL), and

D. General Liability (GL).

The estimates for each category are to include:

a. Evaluation of alternative actuarial methods and selection of a best estimate for the value of undiscounted liability as of December 31, 2007;

b. Derivation of corresponding discounted liabilities;

c. Allocation of these estimates to ten districts and central office ('troops' for State Highway Patrol) on the basis of reported losses;

d. Estimation of costs associated with claims incurred during 2008;

e. Comparison of estimates to actual experience in 2007;

f. Estimation of discounted liabilities as of December 31, 2008; and

g. Description of ranges and uncertainty associated with these estimates.

The estimates for each category are to be combined to identify funding to achieve a trust fund balance corresponding to estimated discounted liabilities as of December 31, 2008.

The terms and conditions for this engagement are contained in our engagement agreement dated January 16, 2007.

2. ORGANIZATION

Details of the organization of this Watson Wyatt report are presented in the Table of Contents. The organization of this report is as follows:

- Table of Contents
- Executive Summary – A summary of the structure and limitations of the report and its key findings.
- Introduction – Information on the nature, purpose, and scope of the engagement.
- Considerations – A summary of key characteristics of the self-insurance program, including operations, claims handling, and other background information relevant to the evaluation of actuarial methods.
- Analysis – The actuarial analysis leading to the conclusions of the report. The analysis is tied to exhibits following the conclusion of the report.
- Conclusion – The results of the analysis.

3. RELIANCES

This report and any written or oral advice provided in connection with it must not be relied upon except by the Missouri Department of Transportation (MoDOT). Draft versions of it must not be relied upon by any person for any purpose. If reliance is placed contrary to the guidelines set out here, Watson Wyatt may disclaim any and all liability which may arise. Any reference to Watson Wyatt in any reports, accounts, or other published documents is not authorized without our prior written consent.

4. USE AND DISTRIBUTION

The report has been prepared by Watson Wyatt on an agreed basis to meet the specific purposes of MoDOT, and must not be relied upon for any other purpose. It is subject to the terms and limitations, set out in the engagement agreement dated January 16, 2007. It has been prepared for use by persons technically competent in the areas covered. Except with the prior written consent of Watson Wyatt, this report and any written or oral advice provided in connection with it must not be reproduced, distributed, or communicated, in whole or in part, to any other person.

Watson Wyatt requests that any permitted distribution of the report be in its entirety, including exhibits. The report must be considered in its entirety – individual sections, if considered in isolation, may be misleading.

Watson Wyatt assumes no responsibility for any loss or damage that might arise from any use of, or reliance upon, this report other than for the purposes set forth herein.

5. Assumptions and Limitations

Watson Wyatt has relied upon information and reports provided by MoDOT with neither independent verification nor audit. In particular, Watson Wyatt is not an audit firm and has not reviewed any reconciliation of data used in the reports provided to accounting and ledger systems. Although this Watson Wyatt report assumes these communications to be reliable, Watson Wyatt has not attempted to audit this information and cannot guarantee the accuracy of the communicated information on which this report is based.

Casualty claim reserves are estimates of obligations which are highly uncertain. Reasons for this uncertainty include the effects of future case law and court decisions, future legislative and regulatory action, future medical cost inflation, and future economic conditions. Notwithstanding any conclusions in our review about the reasonableness of the reserve estimates reviewed, Watson Wyatt makes no warranty as to the ultimate adequacy of the reserve estimates. We have employed reasonable actuarial techniques, professional standards, and judgments in our review, and we believe the conclusions in this report are reasonable given the information available at the date of issuance of this report.

The report is a casualty actuarial analysis of data, conditions and practices communicated to Watson Wyatt. The findings in this report are based upon appropriate actuarial assumptions and methods and documented in this report. Watson Wyatt believes we have performed the study and prepared this report in accordance with all relevant Actuarial Standards of Practice.

6. Watson Wyatt Consulting Team

Orin M. Linden, FCAS, MAAA, of our New York office is the engagement actuary responsible for performance of the analysis and preparation of this Watson Wyatt report.

Our consultants are available to answer questions regarding this report. Watson Wyatt expects and looks forward to all users contacting us regarding any matter in question.

Considerations

The purpose of this Watson Wyatt report is to evaluate the liability for self-insured operations as of December 31, 2007 and corresponding contributions to self-insurance funding for 2008 for the Missouri Department of Transportation (MoDOT). This section of the report presents various considerations pertaining to background, business context, nature of operations, etc. The considerations in turn motivate the design and structure of the analysis generating the conclusions in this report.

1. SELF-INSURANCE PROGRAM

The Missouri Department of Transportation began its self-insurance program in 1987. The program covers four types of exposures, namely:

A. Workers' Compensation – Highway and Transportation Workers (HTW),

B. Workers' Compensation – State Highway Patrol (SHP),

C. Fleet Vehicle Liability (FVL), and

D. General Liability (GL).

For each of these exposures, staff at the risk management department of MoDOT have responsibility for the adjustment of claims and the management of a risk management information system (Riskmaster).

2. TRUST FUND ACCOUNT / INTEREST RATE

At December 31, 2007, funding for the self-insurance program totaled assets of $68,768,608[1]. Funds in the account are used to pay losses and allocated loss adjustment expense for the self-insured program.

Funds in the account earn interest. Investigation of the quality of assets, probable future interest rate, and other considerations related to investments are beyond the scope of this engagement. In order to match estimated unpaid loss and allocated loss adjustment expense to the trust account, estimates in this report are discounted at a 4.5% rate, which is provided by MoDOT and consistent with their expectations. We note that while this is consistent with the current return, we have not reviewed the long-term sustainability of the interest rate provided by MoDOT.

Effects of discounting at other rates of interest are separately illustrated for HTW, SHP, FVL and GL in Exhibits 11, and summarized in All-Exhibit 6.

3. SOVEREIGN IMMUNITY IN MISSOURI

Missouri law regarding sovereign immunity applies to self-insured fleet and general liability. Key sections of the law are sections 537.600 through 537.615 of the Revised Statutes of Missouri.

Sovereign immunity applies to the Missouri Department of Transportation subject to two exceptions:

1. Automobile Liability – Injuries directly resulting from the negligent acts or omissions by public employees arising out of the operation of motor vehicles or motorized vehicles within the course of their employment.[2]

2. Property Liability – Injuries caused by the condition of a public entity's property if the plaintiff establishes that the property was in dangerous condition at the time of injury, that the injury directly resulted from the dangerous condition, that the dangerous condition created a reasonably foreseeable risk of harm of the kind of injury which was incurred, and that either a negligent or wrongful act or omission of an employee of the public entity within the course of employment created the dangerous condition or a public entity had actual or constructive notice of the dangerous condition in sufficient time prior to the injury to have taken measures to protect against the dangerous condition.[3]

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[1] From MoDOT Statement sent January 14, 2008.
[2] Revised Statutes of Missouri, Chapter 537, Section 537.600(1).
[3] Revised Statutes of Missouri, Chapter 537, Section 537.600(2).

The following Sovereign Immunity Limits apply to claims arising from the two exceptions.

Table 1.
Missouri Sovereign Immunity Limits[4][5]

Period for Accident or Occurrence	Limit Applicable per Person in Single Accident or Occurrence	Aggregate Limit Applicable per Single Act or Occurrence
Prior to 8/1999[6]	$100,000	$1,000,000
8/1999 to 2000	$300,000	$2,000,000
2000	$305,021	$2,033,473
2001	$311,913	$2,079,420
2002	$316,656	$2,111,043
2003	$321,798	$2,145,322
2004	$328,011	$2,186,741
2005	$335,118	$2,234,121
2006	$345,499	$2,303,326
2007	$355,396	$2,369,306
2008	$362,849	$2,418,992

However, if the public entity has purchased insurance, the entity is deemed to have waived its sovereign immunity to the extent of such coverage.[7] Accordingly, MoDOT has not purchased insurance for layers of loss in excess of sovereign immunity limits.

For purposes of this report, no explicit adjustments are introduced to specifically address the change in sovereign immunity limits enacted in 1999.

4. Missouri Tort Reform Law

In May 2005 House Bill 393 of the Missouri legislature was enacted into law to become effective August 28, 2005. The bill was designed to reduce the flow of employers out of Missouri and to encourage employers to enter the state by changing Missouri law regarding claims for damages and their payment.

Changes introduced by HB393 significantly affect tort proceedings in Missouri. Examples of changes[8] are:

a. Stricter rules regarding the determination of venue,

[4] A history of sovereign immunity law in Missouri is presented in Burt, James A. "The Tortured Trail of Sovereign Immunity in Missouri" (Journal of the Missouri Bar, volume 54 no. 4; July-August 1998) available at http://www.mobar.org/journal/1998/julaug/burt.htm page 5 of section IIIC.
[5] Limits for 2000 and subsequently are available at http://www.insurance.mo.gov/industry/sovimmunity.htm.
[6] Values prior to 1992 were not identified in conjunction with preparation of this report.
[7] Burt, James A., Op cit.,. section IIIC.
[8] See for example http://www.house.state.m.us/bills051/bilsum/truly/sHB393T.htm

b. Imposition of a $350,000 aggregate cap on non-economic damages for all plaintiffs combined,

c. Setting the criterion for joint and several liability on a finding that a defendant is 51% or more at fault (as opposed to 1% under prior law) with no joint and several liability for punitive damages,

d. Calculation of prejudgment interest beginning at 90 days as opposed to 60 days.

Consistent with the change in tort law, MoDOT claims experience shows a significant increase in liability losses during 2005. The implications of this one-time spike in loss activity for future loss years are not certain. For example, a successful constitutional challenge could vitiate the reforms.

Data used in this report incorporates information regarding the 2005 claims. The effects of these changes on this report are twofold. On average, 2005 claims closed for lesser amounts in 2006 than the amounts initially reserved. Also, the 2005 accident year point was not included in the trend line shown in Exhibit 14 for GL.

It appears that the effects of these reforms may be continuing. In particular, the actual experience of MoDOT for general liability was favorable in 2007 leading to a reduction in previous estimates and a redundancy in MoDOT's funds held. Should these changes in law be changes or otherwise erode, this redundancy may fail to materialize and additional funding requirements could be possible.

5. MISSOURI WORKERS' COMPENSATION LAW

Missouri workers' compensation law was also reformed in 2005. Senate Bill 1 and Senate Bill 130 became law effective August 28, 2005. Among the changes[9] becoming law are:

a. Administrative Law Judges are now required to construe the law "strictly", as opposed to "liberally" before the reform. Evidence is to be weighed "impartially" without giving the benefit of doubt to the injured worker.

b. For an injury to be covered, work must be the "prevailing" factor as opposed to a "substantial" factor in causing traumatic injury, occupational disease, or repetitive injury.

c. "Idiopathic" injuries[10] are not compensable.

[9] Division of Workers' Compensation of the Missouri Department of Labor and Industrial Relations, "How the Changes in the Workers' Compensation Law Affect You"

[10] An idiopathic injury is one that is innate or is a peculiar weakness personal to the employee and unrelated to employment.

d. Firemen and police officers (presumably including state highway patrol) have to establish a direct causal relationship in order to receive workers' compensation benefits for diseases of the lungs or respiratory tract, hypotension, hypertension, or diseases of the heart or cardiovascular system.

e. Under the new law, an injured worker is disqualified from receiving unemployment compensation and temporary total benefits at the same time whereas the prior law afforded a dollar for dollar credit reducing the workers compensation benefit for unemployment benefits.

The reforms are likely to reduce workers' compensation costs but the reductions cannot be guaranteed. Although a Missouri Supreme Court decision[11] sustained the changes in January of 2007, constitutional challenges in the future might succeed.

In addition, another January 2007 ruling by the Missouri Supreme Court[12] stated that surviving spouses and dependants were entitled to continue receiving benefits even after the death of the injured employee. Potential losses pursuant to this decision depend on past reasons for closing claims and are beyond the scope of the estimates in this report.

6. Missouri Taxes, Assessments and Surcharges

With respect to workers' compensation, research for this report identified three Missouri taxes and surcharges that apply – the workers' compensation administrative tax, the workers' compensation administrative tax surcharge, and the second injury fund surcharge. Self-insurers are not subject to the administrative tax surcharge.

Both the administrative tax and the second injury fund surcharge are based on estimated premiums for the respective self-insurance years and are paid annually. Although payments for any year have been made quarterly in the following year, beginning in 2006 the current tax rate will apply to payments in the current year based on prior year estimated earned premium. Thus, if a self-insurance program is discontinued, there are no assessments in future years as self-insured claims are run off. However, the self-insured entity continues to be liable for any unpaid quarterly amounts as of the termination date.

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[11] Gary Marble, "Verdict still out on Missouri's workers' comp." *Joplin Independent*, 17 January 2007. Http://www.joplinindependent.com/display_article.php/cjackson1169068987. Accessed 26 February 2007.

[12] Gary Marble, "Verdict still out on Missouri's workers' comp." *Joplin Independent*, 17 January 2007. Http://www.joplinindependent.com/display_article.php/cjackson1169068987. Accessed 26 February 2007.

MoDOT pays these costs out of its self-insurance trust fund. However, they fund these costs on a pay-as-you-go basis.

Accordingly, as we have been directed by MoDOT, no estimates for future tax and surcharges are incorporated in the estimated workers' compensation liabilities in this report.

With respect to self-insurance for fleet liability and general liability, research for this report did not identify any specific taxes, assessments and surcharges that apply and, accordingly, estimates of liabilities are not adjusted to incorporate any taxes, assessments or surcharges.

7. Sources of Data

Data in this report is from one of two sources:

a. For valuations as of December 31, 2006 and earlier, the report to MoDOT entitled "Missouri Department of Transportation Actuarial Review of Self-Insurance Program" by Watson Wyatt, issued May 17, 2007.

b. For valuations as of December 31, 2007, Riskmaster reports sent to WWIFS on January 23, 2008 by Roberta Matthews, Claims Administration Manager. Riskmaster is a product of Computer Sciences Corporation (CSC).

No adjustments to data from these sources have been made in the report. For both sources, values identified as losses in this report included allocated loss adjustment expense[13]. Estimation of the unallocated loss adjustment expense is beyond the scope of this report.

8. Salvage, Subrogation and Recoveries

Salvage, subrogation and the like are not explicitly identified in gross estimates presented in this report. However, insofar as downward development in some values of paid is observed, it appears that some credits for collections is included in the data. No adjustment is made in this report to adjust for such collections and recoveries.

[13] Expenses incurred in investigating and settling claims that are assigned to specific claims or groups of claims.

9. GOVERNMENT ACCOUNTING STANDARDS

Government Accounting Standards (GAS) are issued by the Government Accounting Standards Board (GASB)[14]. Currently, 49 GAS have been issued. GAS 10 "Accounting and Financial Reporting for Risk Financing and Related Insurance Issues" issued in November 1989 is the basis for financial reporting of government self-insurance programs. GAS 10 has been modified by subsequent GAS.

Evaluation of compliance with GAS in the preparation of government financial statements is the work of professional accountants. This report is designed to provide appropriate information for professional accountants to rely on the results in this report in preparing financial statements in accordance with GAS. Further information in this regard may be obtained with the approval of MoDOT by contacting WWIFS.

10. ACTUARIAL STANDARDS OF PRACTICE

This report has been prepared by an engagement actuary who is a Member of the American Academy of Actuaries (MAAA) and a Fellow of the Casualty Actuarial Society (FCAS). As such, the work of this actuary is subject to the codes of professional conduct and actuarial standards applicable to members of the respective societies.

11. UNCERTAINTY AND RISKS OF ADVERSE DEVIATION

Estimates in this report are subject to uncertainty, including possible adverse deviation, in several ways. To afford a measure of the effects of uncertainty, ranges are presented in several exhibits.

There are also significant sources of uncertainty not subject to such measurement. First and foremost is the effect of the 2005 reform on future development patterns. Available data through 2007 suggests less pronounced development and is incorporated in the selection of development patterns used in this report. In this sense, this report recognizes the resulting less pronounced future development. In addition, the very nature of self-insurance involves the funding of an uncertain number of claims with uncertain claim characteristics and uncertain costs.

Also, the January 2007 Missouri Supreme Court ruling allowing benefit claims by surviving dependants is expected to add to the uncertainty in the future. Since one cannot determine which claims are affected, there is no direct way of measuring the impact at this time.

[14] Government Accounting Standards Board of the Financial Accounting Foundation, P.O.Box 5116 [401 Merritt 7], Norwalk, Connecticut 06856-5116.

While WWIFS believes that the methods and selections in this report are reasonable in light of available data, the nature of operations, and the other considerations mentioned above, there can, of course, be no guaranty as to the accuracy of the estimates in this report.

Table 2.
Comparison of Prior[15] and Current[16] Watson Wyatt Estimates of Ultimate Funding

Year	HTW Prior	HTW Current	SHP Prior	SHP Current
1987	$1,725,471	$1,725,471	$1,125,233	$1,125,233
1988	$2,900,358	$3,022,698	$297,871	$291,772
1989	$3,286,351	$3,320,055	$297,100	$290,932
1990	$4,245,212	$4,229,794	$178,866	$175,977
1991	$4,533,298	$4,544,816	$178,046	$175,171
1992	$4,209,255	$4,234,814	$444,336	$437,160
1993	$3,564,808	$3,605,688	$915,266	$894,033
1994	$3,619,676	$3,660,308	$997,584	$974,394
1995	$3,891,071	$4,040,436	$455,820	$440,345
1996	$6,269,512	$6,405,104	$2,949,712	$2,966,687
1997	$6,530,444	$6,618,350	$1,049,414	$1,045,153
1998	$5,918,731	$6,061,119	$1,677,849	$1,659,335
1999	$5,685,113	$5,741,111	$2,783,676	$2,651,801
2000	$6,848,729	$6,988,679	$1,199,932	$1,189,464
2001	$11,437,202	$11,863,224	$1,827,514	$1,768,325
2002	$6,970,695	$7,082,926	$2,234,846	$2,173,349
2003	$5,316,588	$5,373,338	$1,617,082	$1,527,970
2004	$7,630,356	$7,715,149	$2,318,472	$2,072,850
2005	$6,116,555	$5,635,404	$3,386,933	$3,372,740
2006	$5,940,196	$5,016,383	$1,510,866	$2,000,000
2007	$8,058,543	$5,500,000	$2,608,801	$2,000,000
Total	$114,698,164	$112,384,867	$30,055,220	$29,232,691

[15] From the Watson Wyatt May 17, 2007 report.
[16] From this report

Table 2. (continued)

Year	FVL Prior	FVL Current	GL Prior	GL Current
1987	$790,325	$790,325	$262,429	$262,429
1988	$517,686	$517,686	$1,348,310	$1,348,307
1989	$395,679	$395,679	$1,195,396	$1,195,394
1990	$470,585	$470,585	$996,493	$996,491
1991	$435,976	$435,976	$1,060,949	$1,060,947
1992	$315,255	$315,255	$566,636	$566,634
1993	$733,385	$733,385	$641,436	$641,435
1994	$532,222	$532,222	$1,384,625	$1,260,632
1995	$715,274	$715,274	$687,951	$677,754
1996	$807,603	$807,603	$853,908	$844,819
1997	$963,492	$963,492	$1,251,102	$1,238,523
1998	$762,236	$760,875	$653,560	$617,797
1999	$1,248,405	$1,248,405	$1,324,466	$1,312,211
2000	$2,117,985	$2,117,985	$7,205,914	$6,744,872
2001	$947,443	$945,753	$5,878,674	$5,753,621
2002	$795,857	$786,428	$4,769,281	$4,405,955
2003	$779,411	$805,445	$8,173,661	$6,891,930
2004	$1,755,742	$1,593,699	$8,083,598	$8,323,223
2005	$855,046	$827,316	$12,101,539	$8,380,760
2006	$825,538	$935,491	$8,068,361	$8,500,000
2007	$1,264,874	$850,000	$7,559,238	$8,500,000
Total	$18,030,018	$17,548,877	$74,067,528	$69,523,736

Table 2. (continued)

Year	Overall Prior	Overall Current
1987	$3,903,458	$3,903,458
1988	$5,064,225	$5,180,463
1989	$5,174,527	$5,202,060
1990	$5,891,156	$5,872,847
1991	$6,208,269	$6,216,910
1992	$5,535,481	$5,553,862
1993	$5,854,895	$5,874,540
1994	$6,534,108	$6,427,556
1995	$5,750,115	$5,873,808
1996	$10,880,735	$11,024,214
1997	$9,794,453	$9,865,519
1998	$9,012,377	$9,099,126
1999	$11,041,660	$10,953,528
2000	$17,372,560	$17,041,000
2001	$20,090,832	$20,330,924
2002	$14,770,678	$14,448,659
2003	$15,886,742	$14,598,683
2004	$19,788,168	$19,704,921
2005	$22,460,073	$18,216,220
2006	$16,344,960	$16,451,874
2007	$19,491,456	$16,850,000
Total	$236,850,929	$228,690,171

Analysis

Overall results are consolidated in seven exhibits headed "ALL" which address funding. For each category, a set of fourteen exhibits are presented.

Exhibits are arranged into four categories as follows:

HTW - Workers' Compensation – Highway and Transportation Workers,

SHP - Workers' Compensation – State Highway Patrol,

FVL - Fleet Vehicle Liability, and

GL - General Liability.

1. OVERALL FUNDING AT DECEMBER 31, 2007

The seven summary exhibits (ALL-Exhibits 1 through 7) are based on the fourteen exhibits for each of the four categories. ALL-Exhibit 1 compares trust fund amounts at the end of 2007 to a corresponding present value for unpaid losses. The indication is a funding decrease of approximately $15.8 million as of year end 2007.

Comparison of the indicated funding requirement to the changes in actuarial estimates presented in ALL-Exhibit 5 indicates that the major cause of the indicated decrease in funding is the additional reserves posted in 2005 in relation to general liability claims associated with tort reform. Favorable development has occurred in 2006 and 2007 reversing the need for this increase.

A corresponding range of estimates is derived in the bottom of the exhibit based on the minimum, selected, and maximum values in the respective Exhibits 6. There are many ways to derive ranges. The range in the exhibit does not have a probabilistic interpretation but simply represents the possible range for selected values had different weights been used in Exhibit 6 for each of HTW, SHP, FVL, and GL. The ultimate range of reserves selected is judgmentally set at plus or minus 5% of the expected value. This range is commonly used for similar liabilities.

2. OVERALL FUNDING AT DECEMBER 31, 2008

ALL-Exhibit 2 recognizes the need to fund loss payments during 2008 in addition to unpaid losses at the end of 2007. In addition, it recognizes the contribution of investment income to indicated funding requirements.

3. INDICATED FUNDING FOR 2008

ALL-Exhibit 3 indicates that quarterly contributions $0.268 million corresponding to an annual contribution of approximately $1.0 million will fund both losses paid in 2008 and balance to unpaid losses at December 31, 2008 on a basis consistent with the estimates in this report.

4. PAID LOSS, CASE RESERVE & IBNR LOSS COMPONENTS OF LOSS BY LOSS YEAR

ALL-Exhibit 4 presents paid loss, case reserve and IBNR loss components of estimate ultimate losses by loss year as estimated in this report.

5. COMPARISON OF ACTUARIAL ESTIMATES OF ULTIMATE

ALL-Exhibit 5 compares estimates of ultimate by loss year for the current and preceding two actuarial reports. The largest single difference is attributable to 2005 general liability and may be the result of Missouri tort reform. In the graph on Exhibit 14 of GL, the 2005 data point has been removed in the fitting process.

6. ESTIMATES OF DISCOUNTED RESERVES

ALL-Exhibit 6 summarizes the estimates of total discounted reserves by line, under three discount rate scenarios. 3.5% and 5.5% have been used in addition to the selected 4.5%.

7. COMPARISON OF ACTUAL AND EXPECTED LOSSES

ALL-Exhibit 7 summarizes the differences between actual and expected losses through 2007. As can be seen, the actual development for HTW, SHP and FVL are near, but slightly better than that expected in 2007. GL has experienced a considerable amount of favorable development in 2007.

8. DEVELOPMENT PATTERNS FOR REPORTED LOSS

Exhibit 1a presents the triangle of reported losses[17] as of year-ends since inception of the self-insurance program for the respective category.

Exhibit 1b presents development ratios based on the triangle in Exhibit 1a and derives corresponding estimates of ultimate losses. Development factors are derived using five methods with the minimum, median, and maximum determining a range of estimates based on paid losses.

[17] The term “losses” includes allocated loss adjustment expense.

9. Development Patterns for Paid Loss

Exhibit 2a presents the triangle of paid losses as of year-ends since inception of the self-insurance program for the respective category.

Exhibit 2b presents development ratios based on the triangle in Exhibit 2a and derives corresponding estimates of ultimate losses. Development factors are derived using five methods with the minimum, median, and maximum determining a range of estimates based on paid losses.

10. Development Patterns for Claim Counts

Exhibit 3a presents the triangle of reported claim counts as of year-ends since inception of the self-insurance program for the respective category.

Exhibit 3b presents development ratios based on the triangle in Exhibit 3a and derives corresponding estimates of ultimate claim counts. Development factors are derived using five methods with the minimum, median, and maximum determining a range of estimates based on claim counts.

11. Development Patterns for Average Severity

Exhibit 4a presents the triangle of reported average claim severities as of year-ends since inception of the self-insurance program for the respective category.

Exhibit 4b presents development ratios based on the triangle in Exhibit 4a and derives corresponding estimates of ultimate average severities. Development factors are derived using five methods with the minimum, median, and maximum determining a range of estimates.

12. Estimates Based on Reported Loss

Exhibit 5 recapitulates the minimum, selected (median), and maximum estimates of ultimate losses based on experience for reported loss. Corresponding values for unpaid losses are shown on the right side of the exhibit.

13. Estimates Based on Paid Loss

Exhibit 6 recapitulates the minimum, selected (median), and maximum estimates of ultimate losses based on experience for paid loss. Corresponding values for unpaid losses are shown on the right side of the exhibit.

Exhibit SHP-Exhibit 6 includes a tail factor of 1.277 corresponding to a large difference between paid and reported losses for the 1987 year at December 31, 2007. This difference stems from one claim (File HPWCI8700103), in which reserves were increased based on a reevaluation and lengthening of the life expectancy.

14. Estimates Based on Counts and Average Severities

Exhibits 7a, 7b, 7c determined minimum, selected, and maximum estimates of ultimate losses, respectively, using a counts and averages approach. Minimum estimates for claims are combined with minimum estimates for average severity, selected with selected, and maximum with maximum. Unpaid losses are shown in the rightmost column in the exhibit.

15. Selected Estimates for Undiscounted Unpaid Losses

Exhibit 8 derives selected values for ultimate losses as a weighted average of the selections based on reported losses, paid losses, and count & averages. However, reported loss amounts are used substituted for paid losses and counts & averages when reported losses are higher. Corresponding unpaid losses are shown on the right side of the exhibit.

16. Development Patterns Implied by Selections

Exhibit 9 derives implicit development factors for reported and paid losses corresponding to the selected ultimate loss in Exhibit 8. In addition, case reserves and incurred but not reported (IBNR) reserves are shown at the right of the exhibit.

17. Cumulative Payment Patterns

In order to derive discounted funding levels comparable to trust fund level, the dollar value of payments in future years must be estimated. Exhibit 10 presents the derivation of cumulative payments by year-end over a 20-year period.

18. Discounted Reserves and Ranges

Exhibit 11 uses the cumulative payment patterns presented in Exhibit 10 to derive expected payments by year and corresponding discounted values for future payments at various interest rates.

19. Discounted Future Payments

Exhibit 12 presents discounted payments by loss year and determines aggregate values for discounted losses at December 31, 2007 and at December 31, 2008.

20. Allocation to Districts

Exhibit 13 concerns allocations to districts/troops based on reported losses. Exhibit 13a presents reported losses by district as of December 31, 2007. Exhibit 13b presents corresponding development factors derived in Exhibit 9.

Exhibit 13c presents estimates of ultimate loss by district (troop in the case of SHP). The exhibit presumes that reported losses by district will exhibit development similar to overall development for the respective category. Tests of this hypothesis are beyond the scope of this report.

Finally, Exhibit 13d presents each districts estimate of ultimate losses as a percentage of overall losses for the category. Both an all-year and a three-year average are shown.

21. Estimates for Loss Year 2008

Exhibit 14 fits a trend line to the selected estimates of ultimate losses for the respective category. For general liability, the 2005 year is omitted from the sample use to derive the 2008 estimate to avoid assigning the impacts of tort reform to the 2008 year.

Payments patterns are used to prorate the estimate into portions paid and unpaid as of December 31, 2008, and to derive a discounted value for the unpaid losses as of December 31, 2008.

Conclusions

- Our best estimate of the discounted required reserves (discounted at 4.5%) as of December 31, 2007 to be $53 million. We believe a reasonable range for the estimate is $50 million to $56 million, which represents a plus or minus 5.0% band around our best estimate.
- The redundancy as of year-end 2007 is estimated to be $15.8 million on a discounted best estimate basis.
- The estimated discounted value of unpaid losses as of year-end 2008 that are associated with 2008 is $13.3 million.
- The undiscounted value of estimated payments made during 2008 that are associated with 2008 is $4.2 million.
- The total of the above two figures discounted to mid-year 2008 is $16.8 million and represents our best estimate of MoDOT's funding requirement for 2008. A range of reasonableness about this amount would be $16.0 million to $17.6 million.
- With a discount rate of 4.5%, the indicated funding can be achieved through the redundancy of $15.8 million and quarterly payments of $0.268 million over the next four quarters. Such a funding level is expected to reduce the fund redundancy to approximately zero.
- A reasonable range for the above quarterly payments is estimated to be up to $400,000.
- The by-line breakdown of the quarterly contribution can be summarized as follows:

Program	Quarterly Contribution
Highway & Transportation WC	$608,891
State Highway Patrol WC	$161,605
Fleet Vehicle Liability	$56,283
General Liability	-$558,366
Total	**$268,413**

Additional Discretionary Surplus

MoDOT has requested that we provide guidance in selecting a level of buffer fund above expected losses to have greater confidence that funding will be sufficient to cover losses. We note that there is no one accepted approach to this question. Further, the actual funding for such a cushion is highly dependent on an entity's tolerance for risk and financial circumstances. The computations below may be utilized as guidance. However, MoDOT, at its own discretion, may choose to hold an additional amount of surplus based on one of the following methods or choose a differing approach.

- Reserves are often held on an undiscounted basis. This creates an inherent 'cushion' of expected future investment income. Applying this approach to calculate an additional surplus to hold on top of MoDOT's discounted funding requirements would result in the following:

Program	Undiscounted Reserves	Discounted Reserves	Implied Discount	Surplus Percentage
HTW	$16,544,115	$14,086,760	$2,457,355	14.9%
SHP	$8,554,419	$7,032,077	$1,522,342	17.8%
FVL	$2,024,004	$1,899,804	$124,200	6.1%
GL	$33,716,590	$29,954,848	$3,761,742	11.2%
Overall	$60,839,128	$52,973,488	$7,865,640	12.9%

- Another approach involves a probability of ruin analysis. This involves estimating the amount of additional funding it would take to be confident to some selected probability that the total funding will be sufficient to cover costs. For purposes of this analysis, we have assumed that it is appropriate to utilize a normal distribution to make this estimate. We note, other choices are possible which would give higher or lower funding levels. Thus, in the chart below we are using a normal distribution assumption to estimate amounts of surplus required in order to avoid ruin scenarios at specified levels of confidence. By applying a Z-score to our estimate of the standard deviation of the reserves, we can calculate the amount required to be held.

A **95%** survival scenario (Z-score = 1.65) would be as follows:

Program	Discounted Reserves	Standard Deviation	Required Amount (1.65 × S.D.)	Surplus Percentage
HTW	$14,086,760	$1,871,669	$3,088,254	14.8%
SHP	$7,032,077	$1,471,500	$2,427,974	26.2%
FVL	$1,899,804	$362,151	$597,549	19.6%
GL	$29,954,848	$6,017,183	$9,928,352	27.1%
Overall	$52,973,488	-	$16,042,129	23.0%

Alternatively, an **80%** survival level (Z-score = 0.84) would give the following results:

Program	Discounted Reserves	Standard Deviation	Required Amount (.84 × S.D.)	Surplus Percentage
HTW	$14,086,760	$1,871,669	$1,572,202	7.5%
SHP	$7,032,077	$1,471,500	$1,236,060	13.4%
FVL	$1,899,804	$362,151	$304.027	10.0%
GL	$29,954,848	$6,017,183	$5,054,434	13.8%
Overall	$52,973,488	-	$8,166,902	11.7%

We obtained our variance (and subsequent standard deviation) figures in two steps. First, we calculated the variance of the estimates of ultimate losses across our different methodologies for each program. This was done for both reported losses as well as paid losses, and the larger of the two amounts was chosen. For the second step, we added the variance of the by-year estimated ultimate losses from Exhibit 14 using years 2001-2007 and discounted using the implied discount factor for each program.

The two pages following this one show the calculation steps for the 80% survival scenario. The 95% case would be similar.

Any user of this report with questions or comments is urged to contact Watson Wyatt's lead consultant on this engagement:

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Watson Wyatt Worldwide

From Exhibit 2 — A. Reported Losses

			HTW	SHP	FVL	GL
Unwtd Last	3		111,334,399	28,144,132	17,337,846	65,753,738
Wtd Last	3		111,823,232	28,850,102	17,227,449	63,074,916
Unwtd Last	24		111,630,764	26,574,640	17,142,017	52,674,845
Wtd Last	24		112,218,478	27,781,937	16,873,126	58,381,931
Unwtd Last	24	Exc Hi/Lo	109,889,192	26,503,856	17,203,217	52,505,044
		Variance	7.96742E+11	1.03515E+12	30153189150	3.58575E+13
		Standard Deviation	892,604	1,017,424	173,647	5,988,114

From Exhibit 2 — B. Paid Losses

			HTW	SHP	FVL	GL
Unwtd Last	3		107,819,551	26,082,015	16,098,892	60,720,491
Wtd Last	3		108,265,601	26,712,337	16,093,644	60,583,753
Unwtd Last	24		111,305,799	25,893,880	16,492,669	63,838,413
Wtd Last	24		111,040,871	28,319,667	16,378,600	65,110,977
Unwtd Last	24	Exc Hi/Lo	108,831,699	24,609,858	16,368,856	54,643,274
		Variance	2.60457E+12	1.82883E+12	32540101620	1.64035E+13
		Standard Deviation	1,613,868	1,352,344	180,389	4,050,122

From Exhibit 14 — C. Selected Ultimates by Year, 2001-2007

	HTW	SHP	FVL	GL
2001	11,863,224	1,768,325	945,753	5,753,621
2002	7,082,926	2,173,349	786,428	4,405,955
2003	5,373,338	1,527,970	805,445	6,891,930
2004	7,715,149	2,072,850	1,593,699	8,323,223
2005	5,635,404	3,372,740	827,316	8,380,760
2006	5,016,383	2,000,000	935,491	8,500,000
2007	5,500,000	2,000,000	850,000	8,500,000
Variance	1.14236E+12	4.80743E+11	1.11696E+11	4.76562E+11
Standard Deviation	1,068,812	693,356	334,209	690,335

D. Ultimates discounted by implied discount factors

	HTW	SHP	FVL	GL
Implied Discount factor from Exhibit 14	0.887	0.837	0.940	0.856
Discounted Standard Deviation	947,932	580,067	314,027	590,744

E. Selected Variance (and Standard Deviation)
Maximum Variance of (A.) or (B.) plus square of (D.)

	HTW	SHP	FVL	GL
Variance	3,503,146,067,263	2.16531E+12	1.31153E+11	3.62065E+13
Standard Deviation	1,871,669	1,471,500	362,151	6,017,183

From Exhibit All-2

F. Funding

	2008 Payments	Unpaid at 12/31/2008
HTW	7,109,714	14,607,891
SHP	2,570,603	7,041,581
FVL	1,571,807	1,580,560
GL	7,708,850	30,341,863
Total	18,960,974	53,571,896

G. Funding discounted to 12/31/2007 using 4.5%

	2008 Payments	Unpaid at 12/31/2008	Total
HTW	6,954,950	13,978,843	20,933,792
SHP	2,514,646	6,738,355	9,253,001
FVL	1,537,592	1,512,498	3,050,090
GL	7,541,044	29,035,276	36,576,320
Total	18,548,231	51,264,972	69,813,203

Probability of Ruin Calculation

80% Survival
Z statistic : 0.84

H. Standard Deviations multiplied by Z-Statistic (E.) × Z-Statistic

HTW	1,572,202
SHP	1,236,060
FVL	304,207
GL	5,054,434
Total	8,166,902

Percent to Indicated Funding (H ÷ G)

HTW	**7.5%**
SHP	**13.4%**
FVL	**10.0%**
GL	**13.8%**
Total	**11.7%**

Missouri Department of Transportation
Actuarial Review of Self-Insurance Program
Overview of Exhibits

[A] Topics	[B] Exhibit #	[C] Exhibit Title
Overall Exhibits	All-1	Analysis of Overall Funding at December 31, 2007 using a 4.50% Discount Rate
	All-2	Analysis of Overall Funding at December 31, 2008 using a 4.50% Discount Rate
	All-3	Analysis for Indicated Funding for 2007 using a 4.50% Discount Rate
	All-4	Paid Loss, Case Reserve and IBNR Reserve Components of Undiscounted Incurred Loss
	All-5	Comparison of Actuarial Estimates
	All-6	Estimates of Discounted Reserves
	All-7	Comparison of Actual and Expected Losses
Highway and Transportation Workers (HTW)	1	Reported Losses and ALAE
	2	Paid Losses and ALAE
	3	Reported Claims
	4	Average Severity - Ratio of Reported Losses and ALAE to Reported Claims
	5	Estimate of Ultimate using Reported Losses and ALAE
	6	Estimate of Ultimate using Paid Losses and ALAE
	7	Estimate of Ultimate using Counts and Averages
	8	Selected Estimates for Unpaid Losses
	9	Development Factors and Reserves for Selected Ultimates
	10	Cumulative Payment Pattern
	11	Discounted Reserves
	12	Discounted Payments by Loss Year
	13a	Allocation by District - Reported Losses and ALAE
	13b	Allocation by District - Factors to Ultimate
	13c	Allocation by District - Estimated Ultimates
	13d	Allocation to District - Percentages
	14	Fitted Trend Line - Selected Ultimate
State Highway Patrol (SHP)	1	Reported Losses and ALAE
	2	Paid Losses and ALAE
	3	Reported Claims
	4	Average Severity - Ratio of Reported Losses and ALAE to Reported Claims
	5	Estimate of Ultimate using Reported Losses and ALAE
	1	Reported Losses and ALAE
	2	Paid Losses and ALAE
	3	Reported Claims
	4	Average Severity - Ratio of Reported Losses and ALAE to Reported Claims
	5	Estimate of Ultimate using Reported Losses and ALAE
	6	Estimate of Ultimate using Paid Losses and ALAE
	7	Estimate of Ultimate using Counts and Averages
	8	Selected Estimates for Unpaid Losses
	9	Development Factors and Reserves for Selected Ultimates
	10	Cumulative Payment Pattern
	11	Discounted Reserves
	12	Discounted Payments by Loss Year
	13a	Allocation by Troop - Reported Losses and ALAE
	13b	Allocation by Troop - Factors to Ultimate
	13c	Allocation by Troop - Estimated Ultimates
	13d	Allocation to Troop - Percentages
	14	Fitted Trend Line - Selected Ultimate

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Missouri Department of Transportation
Actuarial Review of Self-Insurance Program
Overview of Exhibits

[A] Topics	[B] Exhibit #	[C] Exhibit Title
Fleet Vehicle Liability (FVL)	1	Reported Losses and ALAE
	2	Paid Losses and ALAE
	3	Reported Claims
	4	Average Severity - Ratio of Reported Losses and ALAE to Reported Claims
	5	Estimate of Ultimate using Reported Losses and ALAE
	1	Reported Losses and ALAE
	2	Paid Losses and ALAE
	3	Reported Claims
	4	Average Severity - Ratio of Reported Losses and ALAE to Reported Claims
	5	Estimate of Ultimate using Reported Losses and ALAE
	6	Estimate of Ultimate using Paid Losses and ALAE
	7	Estimate of Ultimate using Counts and Averages
	8	Selected Estimates for Unpaid Losses
	9	Development Factors and Reserves for Selected Ultimates
	10	Cumulative Payment Pattern
	11	Discounted Reserves
	12	Discounted Payments by Loss Year
	13a	Allocation by District - Reported Losses and ALAE
	13b	Allocation by District - Factors to Ultimate
	13c	Allocation by District - Estimated Ultimates
	13d	Allocation to District - Percentages
	14	Fitted Trend Line - Selected Ultimate
General Liability (GL)	1	Reported Losses and ALAE
	2	Paid Losses and ALAE
	3	Reported Claims
	4	Average Severity - Ratio of Reported Losses and ALAE to Reported Claims
	5	Estimate of Ultimate using Reported Losses and ALAE
	1	Reported Losses and ALAE
	2	Paid Losses and ALAE
	3	Reported Claims
	4	Average Severity - Ratio of Reported Losses and ALAE to Reported Claims
	5	Estimate of Ultimate using Reported Losses and ALAE
	6	Estimate of Ultimate using Paid Losses and ALAE
	7	Estimate of Ultimate using Counts and Averages
	8	Selected Estimates for Unpaid Losses
	9	Development Factors and Reserves for Selected Ultimates
	10	Cumulative Payment Pattern
	11	Discounted Reserves
	12	Discounted Payments by Loss Year
	13a	Allocation by District - Reported Losses and ALAE
	13b	Allocation by District - Factors to Ultimate
	13c	Allocation by District - Estimated Ultimates
	13d	Allocation to District - Percentages
	14	Fitted Trend Line - Selected Ultimate

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Missouri Department of Transportation
Watson Wyatt Actuarial Report
Analysis of Overall Funding at December 31, 2007 using a 4.50% Discount Rate

Indicated Funding

1	Total Assets as of December 31, 2007		$68,768,608
2	Estimated Discounted Value of Unpaid Losses at December 31, 2007		
	a. Workers' Compensation - Highway and Transportation Workers (HTW)	$14,086,760	
	b. Workers' Compensation - State Highway Patrol (SHP)	$7,032,077	
	c. Fleet Vehicle Liability (FVL)	$1,899,804	
	d. General Liability (GL)	$29,954,848	
	e. Total		$52,973,488
3	Indicated Increase (Decrease) in Funding		
	a. Dollars: (2e) - (1)		-$15,795,120
	b. Percent: (3a) ÷ (1)		-23.0%

Range and Uncertainty

		Low	Selected	High
4	Estimated Unpaid Loss at 12/31/07			
	a. Workers' Compensation - Highway and Transportation Workers (HTW)	$15,716,909	$16,544,115	$17,371,321
	b. Workers' Compensation - State Highway Patrol (SHP)	$8,126,698	$8,554,419	$8,982,140
	c. Fleet Vehicle Liability (FVL)	$1,922,804	$2,024,004	$2,125,204
	d. General Liability (GL)	$32,030,761	$33,716,590	$35,402,420
	e. Total	$57,797,172	$60,839,128	$63,881,084
	f. Percentage of selected value	0.950	1.000	1.050
5	Approximate Funding Indication: (4f) × (2e)	$50,324,814	$52,973,488	$55,622,163
6	Indicated Increase (Decrease) in Funding			
	a. Dollars: (5) - (1)	-$18,443,794	-$15,795,120	-$13,146,445
	b. Percent: (6a) ÷ (1)	-26.8%	-23.0%	-19.1%

Notes:

1 From MoDOT Statement sent January 14, 2008.
2 Values from HTW Exhibit 12, SHP Exhibit 12, FVL Exhibit 12, and GL Exhibit 12.
3 Calculations
4 "Selected" from HTW Exhibit 8, SHP Exhibit 8, FVL Exhibit 8, and GL Exhibit 8. Low/High values are chosen to be -/+ 5.0% of Selected.
5 Calculation
6 Calculations

Missouri Department of Transportation
Watson Wyatt Actuarial Report
Analysis of Overall Funding at December 31, 2008 using a 4.50% Discount Rate

Indicated Funding

1. Estimated Payments during 2008

		Years before 2008	2008	All Years
a	Workers' Compensation - Highway and Transportation Workers (HTW)	$4,655,212	$2,454,501	$7,109,714
b	Workers' Compensation - State Highway Patrol (SHP)	$1,885,767	$684,836	$2,570,603
c	Fleet Vehicle Liability (FVL)	$892,219	$679,588	$1,571,807
d	General Liability (GL)	$7,294,300	$414,550	$7,708,850
e	Total Estimated Value	$14,727,499	$4,233,475	$18,960,974
f	Discount factor at 4.50%			0.9782
g	Estimated Value at December 31, 2007			$18,548,231

2. Estimated Discounted Value of Unpaid Losses at December 31, 2008

		Years before 2008	2008	All Years
a	Workers' Compensation - Highway and Transportation Workers (HTW)	$9,961,864	$4,646,026	$14,607,891
b	Workers' Compensation - State Highway Patrol (SHP)	$5,420,788	$1,620,793	$7,041,581
c	Fleet Vehicle Liability (FVL)	$1,073,223	$507,337	$1,580,560
d	General Liability (GL)	$23,846,200	$6,495,663	$30,341,863
e	Total	$40,302,076	$13,269,820	$53,571,896
f	Discount factor at 4.50%			0.9569
g	Estimated Discounted Value at December 31, 2007			$51,264,972

3. Indicated Funding at 12/31/07 for Losses Incurred through 12/31/08 (1g + 2g) $69,813,203

Range and Uncertainty

	Low	Selected	High
4 Estimated Unpaid Loss at 12/31/07			
a. Workers' Compensation - Highway and Transportation Workers (HTW)	$15,716,909	$16,544,115	$17,371,321
b. Workers' Compensation - State Highway Patrol (SHP)	$8,126,698	$8,554,419	$8,982,140
c. Fleet Vehicle Liability (FVL)	$1,922,804	$2,024,004	$2,125,204
d. General Liability (GL)	$32,030,761	$33,716,590	$35,402,420
e. Total	$57,797,172	$60,839,128	$63,881,084
f. Percentage of selected value	0.950	1.000	1.050
5 Approximate Funding Indication: (4f) × (2e)	$50,893,301	$53,571,896	$56,250,490
6 Indicated Increase (Decrease) in Funding			
a. Dollars: (5) - (1) from ALL - Exhibit 1	-$17,875,307	-$15,196,712	-$12,518,118
b. Percent: (6a) ÷ (1) from ALL - Exhibit 1	-26.0%	-22.1%	-18.2%

Notes:

1 For accident years before 2008, entries in column (2) for payment year 2007 from HTW Exhibit 11, SHP Exhibit 11, FVL Exhibit 11, and GL Exhibit 11.
For accident year 2008, row c value carried forward from 2008 in HTW Exhibit 14, SHP Exhibit 14, FVL Exhibit 14, and GL Exhibit 14.
2 For years before 2008, values from HTW Exhibit 12, SHP Exhibit 12, FVL Exhibit 12, and GL Exhibit 12.
For 2008, values from HTW Exhibit 14, SHP Exhibit 14, FVL Exhibit 14, and GL Exhibit 14.
3 Calculations
4 "Selected" from HTW Exhibit 8, SHP Exhibit 8, FVL Exhibit 8, and GL Exhibit 8. Low/High values are chosen to be -/+ 5.0% of Selected.
5 Calculation
6 Calculations

Missouri Department of Transportation
Watson Wyatt Actuarial Report
Analysis of Indicated Funding for 2008 using a 4.50% Discount Rate

1	Indicated Funding at 12/31/07 for Losses Incurred through 12/31/08		$69,813,203
2	Total Assets as of December 31, 2007		$68,768,608
3	Indicated Additional Funding valued at December 31, 2007		
a	Dollars: (2) - (1)		$1,044,595
b	Percent: (2) ÷ (1)		101.5%
4	By-line Allocation		
a	Estimated Payments made during 2008 that are associated with 2008 (discounted at 4.5%)		
		Workers' Compensation - Highway and Transportation Workers (HTW)	$2,401,072
		Workers' Compensation - State Highway Patrol (SHP)	$669,928
		Fleet Vehicle Liability (FVL)	$664,795
		General Liability (GL)	$405,526
		Total	$4,141,321
b	Estimated Value of Unpaid Losses as of Year-End 2008 that are associated with 2008 (discounted at 4.5%)		
		Workers' Compensation - Highway and Transportation Workers (HTW)	$4,445,958
		Workers' Compensation - State Highway Patrol (SHP)	$1,550,998
		Fleet Vehicle Liability (FVL)	$485,490
		General Liability (GL)	$6,215,946
		Total	$12,698,392
c	Indicated Funding Surplus as of 12/31/2007		
		Workers' Compensation - Highway and Transportation Workers (HTW)	$4,477,378
		Workers' Compensation - State Highway Patrol (SHP)	$1,592,001
		Fleet Vehicle Liability (FVL)	$931,246
		General Liability (GL)	$8,794,494
		Total	$15,795,120
d	Indicated Additional Funding valued at December 31, 2007		
= (4a + 4b - 4c)			
		Workers' Compensation - Highway and Transportation Workers (HTW)	$2,369,652
		Workers' Compensation - State Highway Patrol (SHP)	$628,925
		Fleet Vehicle Liability (FVL)	$219,039
		General Liability (GL)	-$2,173,023
		Total	$1,044,593

5 Indicated Additional Funding as Schedule of Level Quarterly Deposits — 4.50% Discount rate

			HTW	SHP	FVL	GL	Total
a	Deposit at	3/31/2007	$608,891	$161,605	$56,283	-$558,366	$268,413
b	Deposit at	6/30/2007	$608,891	$161,605	$56,283	-$558,366	$268,413
c	Deposit at	9/30/2007	$608,891	$161,605	$56,283	-$558,366	$268,413
d	Deposit at	12/31/2007	$608,891	$161,605	$56,283	-$558,366	$268,413
Total							

Notes:
1 ALL - Exhibit 2, Item 3
2 From MoDOT Statement sent January 14, 2008.
3 Calculation
4 4a and 4b are from Exhibit-ALL 2; Allocation of 4c is based on change by line in Estimates of Ultimates (Exhibit-ALL 5)
5 Calculations

Missouri Department of Transportation
Watson Wyatt Actuarial Report
Paid Loss, Case Reserve and IBNR Reserve Components of Undiscounted Incurred Loss

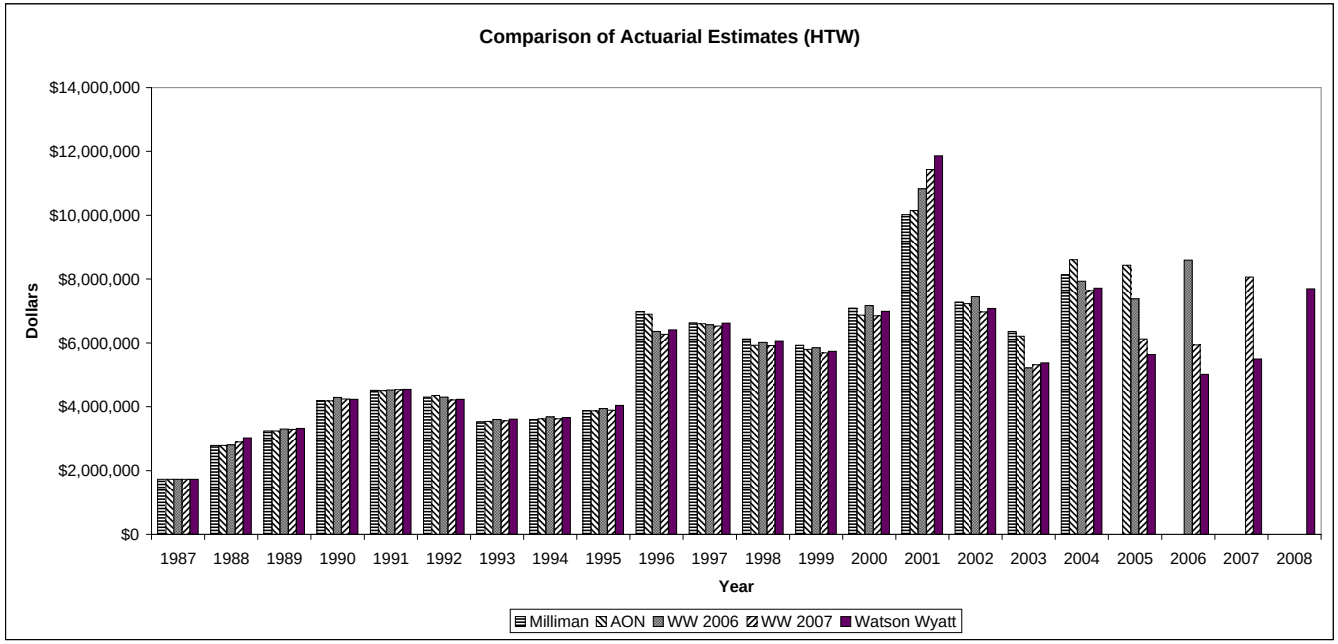
	HTW				SHP				FVL				GL				Overall			
Year	Paid Loss	Case Reserve	IBNR Reserve	Incurred Loss	Paid Loss	Case Reserve	IBNR Reserve	Incurred Loss	Paid Loss	Case Reserve	IBNR Reserve	Incurred Loss	Paid Loss	Case Reserve	IBNR Reserve	Incurred Loss	Paid Loss	Case Reserve	IBNR Reserve	Incurred Loss
Dollar Amounts																				
1987	$1,725,471	$0	$0	$1,725,471	$908,261	$216,972	$0	$1,125,233	$790,325	$0	$0	$790,325	$262,429	$0	$0	$262,429	$3,686,486	$216,972	$0	$3,903,458
1988	$2,809,997	$212,701	$0	$3,022,698	$291,772	$0	$0	$291,772	$517,686	$0	$0	$517,686	$1,348,307	$0	$0	$1,348,307	$4,967,761	$212,701	$0	$5,180,463
1989	$3,228,445	$57,906	$33,704	$3,320,055	$287,212	$0	$3,720	$290,932	$395,679	$0	$0	$395,679	$1,195,394	$0	$0	$1,195,394	$5,106,729	$57,906	$37,424	$5,202,060
1990	$4,157,699	$0	$72,095	$4,229,794	$171,926	$0	$4,052	$175,977	$470,585	$0	$0	$470,585	$996,490	$0	$0	$996,491	$5,796,701	$0	$76,146	$5,872,847
1991	$4,311,537	$164,913	$68,366	$4,544,816	$171,138	$0	$4,033	$175,171	$435,976	$0	$0	$435,976	$1,060,947	$0	$0	$1,060,947	$5,979,597	$164,913	$72,399	$6,216,910
1992	$4,129,753	$0	$105,061	$4,234,814	$427,095	$0	$10,064	$437,160	$315,255	$0	$0	$315,255	$566,634	$0	$0	$566,634	$5,438,737	$0	$115,126	$5,553,862
1993	$3,505,500	$15,217	$84,971	$3,605,688	$837,827	$47,311	$8,895	$894,033	$733,385	$0	$0	$733,385	$641,435	$0	$0	$641,435	$5,718,146	$62,528	$93,866	$5,874,540
1994	$3,563,530	$2,593	$94,185	$3,660,308	$949,272	$11,221	$13,902	$974,394	$532,222	$0	$0	$532,222	$1,260,632	$0	$0	$1,260,632	$6,305,656	$13,814	$108,087	$6,427,556
1995	$3,829,896	$158,064	$52,476	$4,040,436	$428,711	$1,948	$9,686	$440,345	$715,274	$0	$0	$715,274	$677,664	$0	$90	$677,754	$5,651,545	$160,012	$62,252	$5,873,808
1996	$6,170,977	$83,726	$150,401	$6,405,104	$2,582,108	$337,413	$47,166	$2,966,687	$807,603	$0	$0	$807,603	$844,706	$0	$113	$844,819	$10,405,394	$421,140	$197,680	$11,024,214
1997	$6,288,884	$197,285	$132,181	$6,618,350	$990,484	$33,325	$21,345	$1,045,153	$958,165	$5,327	$0	$963,492	$1,238,358	$0	$165	$1,238,523	$9,475,891	$235,937	$153,691	$9,865,519
1998	$5,789,650	$64,661	$206,808	$6,061,119	$1,281,328	$324,424	$53,583	$1,659,335	$727,426	$33,449	$0	$760,875	$617,714	$0	$82	$617,797	$8,416,119	$422,534	$260,473	$9,099,126
1999	$5,491,889	$26,959	$222,263	$5,741,111	$2,227,407	$315,177	$109,217	$2,651,801	$1,125,627	$122,778	$0	$1,248,405	$1,282,645	$0	$29,567	$1,312,211	$10,127,567	$464,915	$361,047	$10,953,528
2000	$6,584,941	$127,184	$276,553	$6,988,679	$985,459	$77,742	$126,264	$1,189,464	$2,117,985	$0	$0	$2,117,985	$4,935,224	$1,809,648	$0	$6,744,872	$14,623,609	$2,014,575	$402,816	$17,041,000
2001	$9,895,866	$1,681,512	$285,846	$11,863,224	$1,385,745	$179,125	$203,455	$1,768,325	$945,753	$0	$0	$945,753	$3,781,402	$1,972,220	$0	$5,753,621	$16,008,766	$3,832,857	$489,301	$20,330,924
2002	$6,205,316	$590,539	$287,071	$7,082,926	$1,600,402	$309,496	$263,451	$2,173,349	$668,235	$118,193	$0	$786,428	$3,023,318	$1,382,637	$0	$4,405,955	$11,497,272	$2,400,865	$550,521	$14,448,659
2003	$4,454,160	$692,095	$227,083	$5,373,338	$1,143,362	$114,584	$270,024	$1,527,970	$714,219	$91,226	$0	$805,445	$4,545,267	$1,809,118	$537,545	$6,891,930	$10,857,008	$2,707,023	$1,034,652	$14,598,683
2004	$5,893,353	$1,444,186	$377,610	$7,715,149	$1,479,776	$170,178	$422,896	$2,072,850	$1,016,373	$565,141	$12,185	$1,593,699	$3,653,783	$4,669,441	$0	$8,323,223	$12,043,285	$6,848,946	$812,690	$19,704,921
2005	$3,998,352	$1,006,039	$631,013	$5,635,404	$1,509,400	$1,499,327	$364,013	$3,372,740	$696,463	$71,893	$58,959	$827,316	$2,598,115	$4,976,554	$806,091	$8,380,760	$8,802,331	$7,553,814	$1,860,075	$18,216,220
2006	$2,681,318	$1,678,730	$656,336	$5,016,383	$778,279	$264,553	$957,168	$2,000,000	$507,198	$397,426	$30,867	$935,491	$1,020,617	$2,362,191	$5,117,191	$8,500,000	$4,987,412	$4,702,900	$6,761,562	$16,451,874
2007	$1,124,219	$1,121,686	$3,254,094	$5,500,000	$241,309	$331,954	$1,426,737	$2,000,000	$333,441	$52,545	$464,014	$850,000	$256,064	$889,953	$7,353,983	$8,500,000	$1,955,033	$2,396,138	$12,498,829	$16,850,000
Subtotal	$95,840,752	$9,325,999	$7,218,116	$112,384,867	$20,678,272	$4,234,750	$4,319,669	$29,232,691	$15,524,873	$1,457,979	$566,025	$17,548,877	$35,807,145	$19,871,762	$13,844,828	$69,523,736	$167,851,043	$34,890,489	$25,948,639	$228,690,171
2008	$0	$0	$7,692,990	$7,692,990	$0	$0	$2,622,175	$2,622,175	$0	$0	$1,219,530	$1,219,530	$0	$0	$8,005,281	$8,005,281	$0	$0	$19,539,976	$19,539,976
Total	$95,840,752	$9,325,999	$14,911,106	$120,077,857	$20,678,272	$4,234,750	$6,941,845	$31,854,867	$15,524,873	$1,457,979	$1,785,556	$18,768,408	$35,807,145	$19,871,762	$21,850,109	$77,529,016	$167,851,043	$34,890,489	$45,488,614	$248,230,147
Percentages																				
1987	100.0%	0.0%	0.0%	100.0%	80.7%	19.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	94.4%	5.6%	0.0%	100.0%
1988	93.0%	7.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	95.9%	4.1%	0.0%	100.0%
1989	97.2%	1.7%	1.0%	100.0%	98.7%	0.0%	1.3%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	98.2%	1.1%	0.7%	100.0%
1990	98.3%	0.0%	1.7%	100.0%	97.7%	0.0%	2.3%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	98.7%	0.0%	1.3%	100.0%
1991	94.9%	3.6%	1.5%	100.0%	97.7%	0.0%	2.3%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	96.2%	2.7%	1.2%	100.0%
1992	97.5%	0.0%	2.5%	100.0%	97.7%	0.0%	2.3%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	97.9%	0.0%	2.1%	100.0%
1993	97.2%	0.4%	2.4%	100.0%	93.7%	5.3%	1.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	97.3%	1.1%	1.6%	100.0%
1994	97.4%	0.1%	2.6%	100.0%	97.4%	1.2%	1.4%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	98.1%	0.2%	1.7%	100.0%
1995	94.8%	3.9%	1.3%	100.0%	97.4%	0.4%	2.2%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	96.2%	2.7%	1.1%	100.0%
1996	96.3%	1.3%	2.3%	100.0%	87.0%	11.4%	1.6%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	94.4%	3.8%	1.8%	100.0%
1997	95.0%	3.0%	2.0%	100.0%	94.8%	3.2%	2.0%	100.0%	99.4%	0.6%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	96.1%	2.4%	1.6%	100.0%
1998	95.5%	1.1%	3.4%	100.0%	77.2%	19.6%	3.2%	100.0%	95.6%	4.4%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	92.5%	4.6%	2.9%	100.0%
1999	95.7%	0.5%	3.9%	100.0%	84.0%	11.9%	4.1%	100.0%	90.2%	9.8%	0.0%	100.0%	97.7%	0.0%	2.3%	100.0%	92.5%	4.2%	3.3%	100.0%
2000	94.2%	1.8%	4.0%	100.0%	82.8%	6.5%	10.6%	100.0%	100.0%	0.0%	0.0%	100.0%	73.2%	26.8%	0.0%	100.0%	85.8%	11.8%	2.4%	100.0%
2001	83.4%	14.2%	2.4%	100.0%	78.4%	10.1%	11.5%	100.0%	100.0%	0.0%	0.0%	100.0%	65.7%	34.3%	0.0%	100.0%	78.7%	18.9%	2.4%	100.0%
2002	87.6%	8.3%	4.1%	100.0%	73.6%	14.2%	12.1%	100.0%	85.0%	15.0%	0.0%	100.0%	68.6%	31.4%	0.0%	100.0%	79.6%	16.6%	3.8%	100.0%
2003	82.9%	12.9%	4.2%	100.0%	74.8%	7.5%	17.7%	100.0%	88.7%	11.3%	0.0%	100.0%	66.0%	26.2%	7.8%	100.0%	74.4%	18.5%	7.1%	100.0%
2004	76.4%	18.7%	4.9%	100.0%	71.4%	8.2%	20.4%	100.0%	63.8%	35.5%	0.8%	100.0%	43.9%	56.1%	0.0%	100.0%	61.1%	34.8%	4.1%	100.0%
2005	71.0%	17.9%	11.2%	100.0%	44.8%	44.5%	10.8%	100.0%	84.2%	8.7%	7.1%	100.0%	31.0%	59.4%	9.6%	100.0%	48.3%	41.5%	10.2%	100.0%
2006	53.5%	33.5%	13.1%	100.0%	38.9%	13.2%	47.9%	100.0%	54.2%	42.5%	3.3%	100.0%	12.0%	27.8%	60.2%	100.0%	30.3%	28.6%	41.1%	100.0%
2007	20.4%	20.4%	59.2%	100.0%	12.1%	16.6%	71.3%	100.0%	39.2%	6.2%	54.6%	100.0%	3.0%	10.5%	86.5%	100.0%	11.6%	14.2%	74.2%	100.0%
Subtotal	85.3%	8.3%	6.4%	100.0%	70.7%	14.5%	14.8%	100.0%	88.5%	8.3%	3.2%	100.0%	51.5%	28.6%	19.9%	100.0%	73.4%	15.3%	11.3%	100.0%
2008	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%
Total	79.8%	7.8%	12.4%	100.0%	64.9%	13.3%	21.8%	100.0%	82.7%	7.8%	9.5%	100.0%	46.2%	25.6%	28.2%	100.0%	67.6%	14.1%	18.3%	100.0%

Missouri Department of Transportation
Watson Wyatt Actuarial Report
Comparison of Actuarial Estimates

Highway & Transportation Workers (HTW)

Year	Milliman	AON	WW 2006	WW 2007	Watson Wyatt
1987	$1,725,471	$1,725,471	$1,727,471	$1,725,471	$1,725,471
1988	$2,784,048	$2,784,000	$2,803,938	$2,900,358	$3,022,698
1989	$3,234,849	$3,239,000	$3,302,190	$3,286,351	$3,320,055
1990	$4,194,154	$4,186,113	$4,289,787	$4,245,212	$4,229,794
1991	$4,511,445	$4,500,000	$4,518,913	$4,533,298	$4,544,816
1992	$4,302,576	$4,350,000	$4,306,966	$4,209,255	$4,234,814
1993	$3,527,023	$3,539,000	$3,602,283	$3,564,808	$3,605,688
1994	$3,599,100	$3,625,000	$3,680,818	$3,619,676	$3,660,308
1995	$3,869,743	$3,875,000	$3,938,127	$3,891,071	$4,040,436
1996	$6,978,237	$6,900,000	$6,358,200	$6,269,512	$6,405,104
1997	$6,630,208	$6,600,000	$6,569,803	$6,530,444	$6,618,350
1998	$6,122,489	$5,925,000	$6,018,837	$5,918,731	$6,061,119
1999	$5,928,078	$5,800,000	$5,842,942	$5,685,113	$5,741,111
2000	$7,088,283	$6,870,000	$7,175,317	$6,848,729	$6,988,679
2001	$10,019,489	$10,150,000	$10,829,521	$11,437,202	$11,863,224
2002	$7,285,596	$7,230,000	$7,447,803	$6,970,695	$7,082,926
2003	$6,359,826	$6,210,000	$5,212,219	$5,316,588	$5,373,338
2004	$8,134,485	$8,600,000	$7,932,549	$7,630,356	$7,715,149
2005	xx	$8,437,881	$7,384,244	$6,116,555	$5,635,404
2006	xx	xx	$8,598,949	$5,940,196	$5,016,383
2007	xx	xx	xx	$8,058,543	$5,500,000
2008	xx	xx	xx	xx	$7,692,990
Sum thru 2003	$88,160,615	$87,508,584	$87,625,135	$86,952,515	$88,517,932
Sum thru 2004	$96,295,100	$96,108,584	$95,557,684	$94,582,870	$96,233,080
Sum thru 2005	xx	$104,546,465	$102,941,929	$100,699,425	$101,868,484
Sum thru 2006	xx	xx	$111,540,877	$106,639,621	$106,884,867
Sum thru 2007	xx	xx	xx	$114,698,164	$112,384,867
Sum thru 2008	xx	xx	xx	xx	$120,077,857
% Change	xx	-0.7%	0.1%	-0.8%	1.8%
	xx	-0.2%	-0.6%	-1.0%	1.7%
	xx	xx	-1.5%	-2.2%	1.2%
	xx	xx	xx	-4.4%	0.2%
	xx	xx	xx	xx	-2.0%
	xx	xx	xx	xx	xx

Milliman = April 12, 2004 report
AON = July 8, 2005 report
WW 2006 = Watson Wyatt April 20, 2006 report
WW 2007 = Watson Wyatt May 17, 2007 report
Watson Wyatt = this report



Missouri Department of Transportation
Watson Wyatt Actuarial Report
Comparison of Actuarial Estimates

State Highway Patrol (SHP)

Year	Milliman	AON	WW 2006	WW 2007	Watson Wyatt
1987	$895,235	$900,000	$967,304	$1,125,233	$1,125,233
1988	$291,772	$291,772	$328,313	$297,871	$291,772
1989	$287,212	$287,212	$326,036	$297,100	$290,932
1990	$171,926	$171,926	$196,365	$178,866	$175,977
1991	$171,138	$171,138	$195,465	$178,046	$175,171
1992	$427,095	$427,095	$487,807	$444,336	$437,160
1993	$914,959	$915,000	$980,423	$915,266	$894,033
1994	$985,560	$977,000	$1,048,449	$997,584	$974,394
1995	$443,666	$440,000	$487,794	$455,820	$440,345
1996	$2,430,492	$2,500,000	$2,887,207	$2,949,712	$2,966,687
1997	$898,952	$895,000	$1,128,844	$1,049,414	$1,045,153
1998	$1,242,970	$1,420,000	$1,572,168	$1,677,849	$1,659,335
1999	$2,549,705	$2,575,000	$2,887,295	$2,783,676	$2,651,801
2000	$1,166,090	$1,165,000	$1,314,592	$1,199,932	$1,189,464
2001	$1,749,323	$1,650,000	$1,974,590	$1,827,514	$1,768,325
2002	$2,139,806	$2,100,000	$2,458,115	$2,234,846	$2,173,349
2003	$1,923,951	$1,560,000	$1,745,130	$1,617,082	$1,527,970
2004	$1,646,180	$2,000,000	$2,600,070	$2,318,472	$2,072,850
2005	xx	$2,172,574	$4,545,175	$3,386,933	$3,372,740
2006	xx	xx	$3,120,778	$1,510,866	$2,000,000
2007	xx	xx	xx	$2,608,801	$2,000,000
2008	xx	xx	xx	xx	$2,622,175
Sum thru 2003	$18,689,852	$18,446,143	$20,985,895	$20,230,149	$40,017,250
Sum thru 2004	$20,336,032	$20,446,143	$23,585,965	$22,548,621	$21,859,951
Sum thru 2005	xx	$22,618,717	$28,131,140	$25,935,554	$25,232,691
Sum thru 2006	xx	xx	$31,251,918	$27,446,419	$27,232,691
Sum thru 2007	xx	xx	xx	$30,055,220	$29,232,691
Sum thru 2008	xx	xx	xx	xx	$31,854,867
% Change	xx	-1.3%	13.8%	-3.6%	97.8%
	xx	0.5%	15.4%	-4.4%	-3.1%
	xx	xx	24.4%	-7.8%	-2.7%
	xx	xx	xx	-12.2%	-0.8%
	xx	xx	xx	xx	-2.7%
	xx	xx	xx	xx	xx

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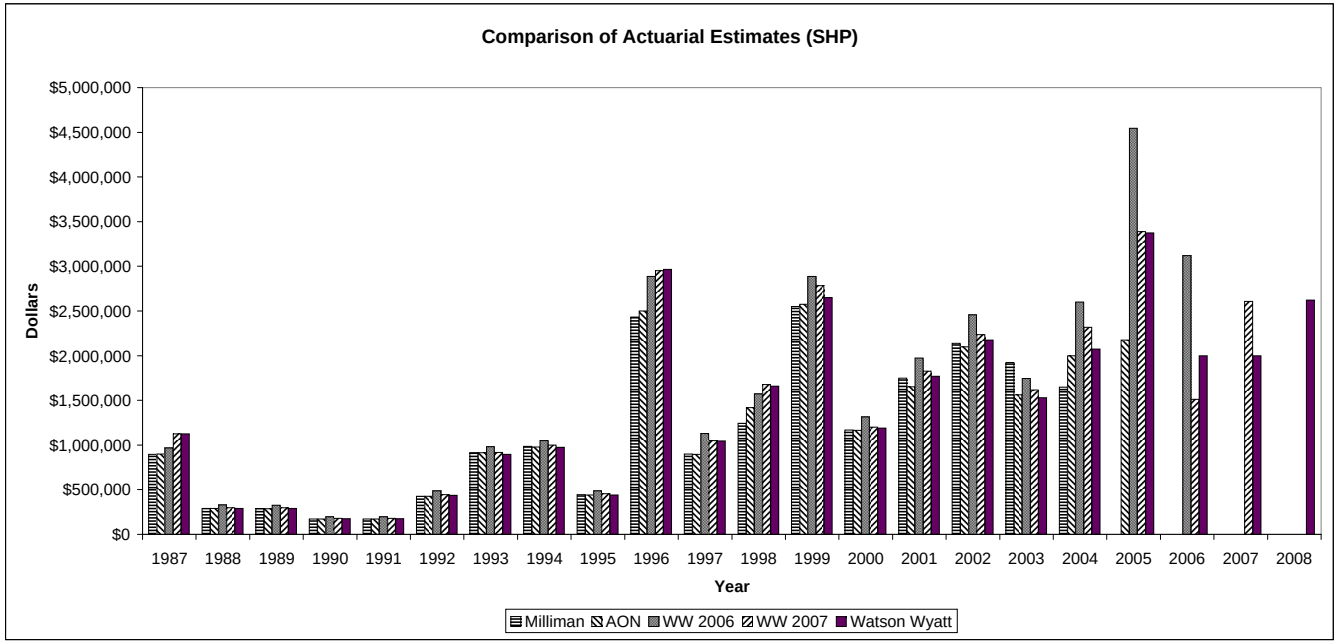

Missouri Department of Transportation
Watson Wyatt Actuarial Report
Comparison of Actuarial Estimates

Fleet Vehicle Liability (FVL)

Year	Milliman	AON	WW 2006	WW 2007	Watson Wyatt
1987	$790,325	$790,325	$790,325	$790,325	$790,325
1988	$517,686	$517,686	$517,686	$517,686	$517,686
1989	$395,679	$395,679	$395,679	$395,679	$395,679
1990	$470,585	$470,585	$470,585	$470,585	$470,585
1991	$435,976	$435,976	$435,976	$435,976	$435,976
1992	$315,255	$315,255	$315,254	$315,255	$315,255
1993	$733,385	$733,385	$733,384	$733,385	$733,385
1994	$532,222	$532,222	$532,222	$532,222	$532,222
1995	$715,274	$715,274	$713,845	$715,274	$715,274
1996	$811,854	$812,000	$789,024	$807,603	$807,603
1997	$991,471	$990,000	$940,704	$963,492	$963,492
1998	$795,370	$783,000	$727,199	$762,236	$760,875
1999	$1,134,024	$1,180,000	$1,214,144	$1,248,405	$1,248,405
2000	$2,235,642	$2,262,000	$2,128,738	$2,117,985	$2,117,985
2001	$1,172,888	$1,043,000	$953,658	$947,443	$945,753
2002	$1,128,089	$1,021,000	$691,995	$795,857	$786,428
2003	$1,357,660	$1,000,000	$774,249	$779,411	$805,445
2004	$1,443,800	$1,425,000	$1,547,337	$1,755,742	$1,593,699
2005	xx	$1,452,396	$910,160	$855,046	$827,316
2006	xx	xx	$1,262,143	$825,538	$935,491
2007	xx	xx	xx	$1,264,874	$850,000
2008	xx	xx	xx	xx	$1,219,530
Sum thru 2003	$14,533,385	$13,997,387	$13,124,667	$13,328,818	$13,342,372
Sum thru 2004	$15,977,185	$15,422,387	$14,672,004	$15,084,560	$14,936,071
Sum thru 2005	xx	$16,874,783	$15,582,164	$15,939,606	$15,763,386
Sum thru 2006	xx	xx	$16,844,307	$16,765,144	$16,698,877
Sum thru 2007	xx	xx	xx	$18,030,018	$17,548,877
Sum thru 2008	xx	xx	xx	xx	$18,768,408
% Change	xx	-3.7%	-6.2%	1.6%	0.1%
	xx	-3.5%	-4.9%	2.8%	-1.0%
	xx	xx	-7.7%	2.3%	-1.1%
	xx	xx	xx	-0.5%	-0.4%
	xx	xx	xx	xx	-2.7%
	xx	xx	xx	xx	xx

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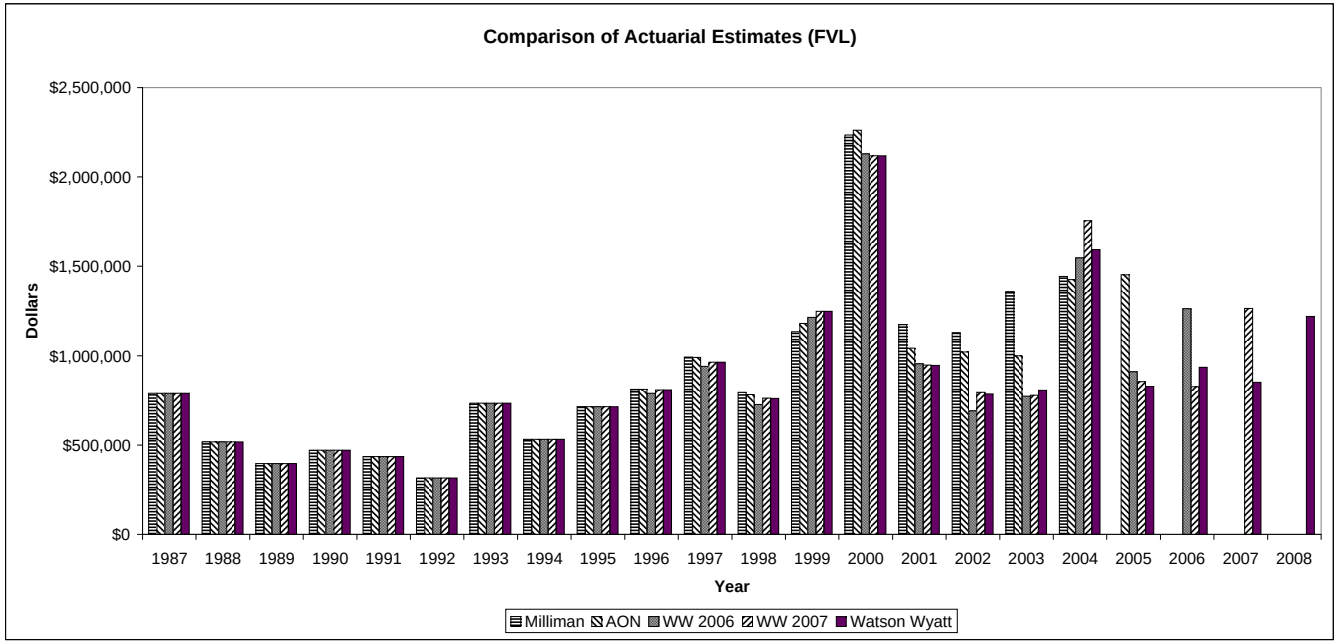

Missouri Department of Transportation
Watson Wyatt Actuarial Report
Comparison of Actuarial Estimates

General Liability (GL)

Year	Milliman	AON	WW 2006	WW 2007	Watson Wyatt
1987	$262,429	$262,429	$262,429	$262,429	$262,429
1988	$1,348,307	$1,348,307	$1,348,308	$1,348,310	$1,348,307
1989	$1,195,394	$1,195,394	$1,195,394	$1,195,396	$1,195,394
1990	$996,490	$996,490	$996,491	$996,493	$996,491
1991	$1,060,947	$1,060,947	$1,060,947	$1,060,949	$1,060,947
1992	$570,228	$566,634	$566,635	$566,636	$566,634
1993	$659,088	$643,000	$640,947	$641,436	$641,435
1994	$1,264,418	$1,259,625	$1,254,885	$1,384,625	$1,260,632
1995	$765,427	$677,664	$669,404	$687,951	$677,754
1996	$1,164,486	$844,706	$826,809	$853,908	$844,819
1997	$1,139,793	$1,100,000	$1,098,193	$1,251,102	$1,238,523
1998	$758,633	$665,000	$654,053	$653,560	$617,797
1999	$1,782,958	$1,580,000	$1,294,947	$1,324,466	$1,312,211
2000	$5,371,316	$5,133,000	$4,390,395	$7,205,914	$6,744,872
2001	$6,006,022	$6,100,000	$4,607,146	$5,878,674	$5,753,621
2002	$4,511,910	$4,464,000	$3,799,281	$4,769,281	$4,405,955
2003	$5,361,663	$5,451,000	$7,714,649	$8,173,661	$6,891,930
2004	$5,772,680	$7,068,000	$7,800,123	$8,083,598	$8,323,223
2005	xx	$6,429,333	$20,568,644	$12,101,539	$8,380,760
2006	xx	xx	$5,830,017	$8,068,361	$8,500,000
2007	xx	xx	xx	$7,559,238	$8,500,000
2008	xx	xx	xx	xx	$8,005,281
Sum thru 2003	$34,219,509	$33,348,196	$32,380,911	$38,254,791	$35,819,752
Sum thru 2004	$39,992,189	$40,416,196	$40,181,034	$46,338,389	$44,142,975
Sum thru 2005	xx	$46,845,529	$60,749,678	$58,439,928	$52,523,736
Sum thru 2006	xx	xx	$66,579,695	$66,508,289	$61,023,736
Sum thru 2007	xx	xx	xx	$74,067,528	$69,523,736
Sum thru 2008	xx	xx	xx	xx	$77,529,016
% Change	xx	-2.5%	-2.9%	18.1%	-6.4%
	xx	1.1%	-0.6%	15.3%	-4.7%
	xx	xx	29.7%	-3.8%	-10.1%
	xx	xx	xx	-0.1%	-8.2%
	xx	xx	xx	xx	-6.1%
	xx	xx	xx	xx	xx

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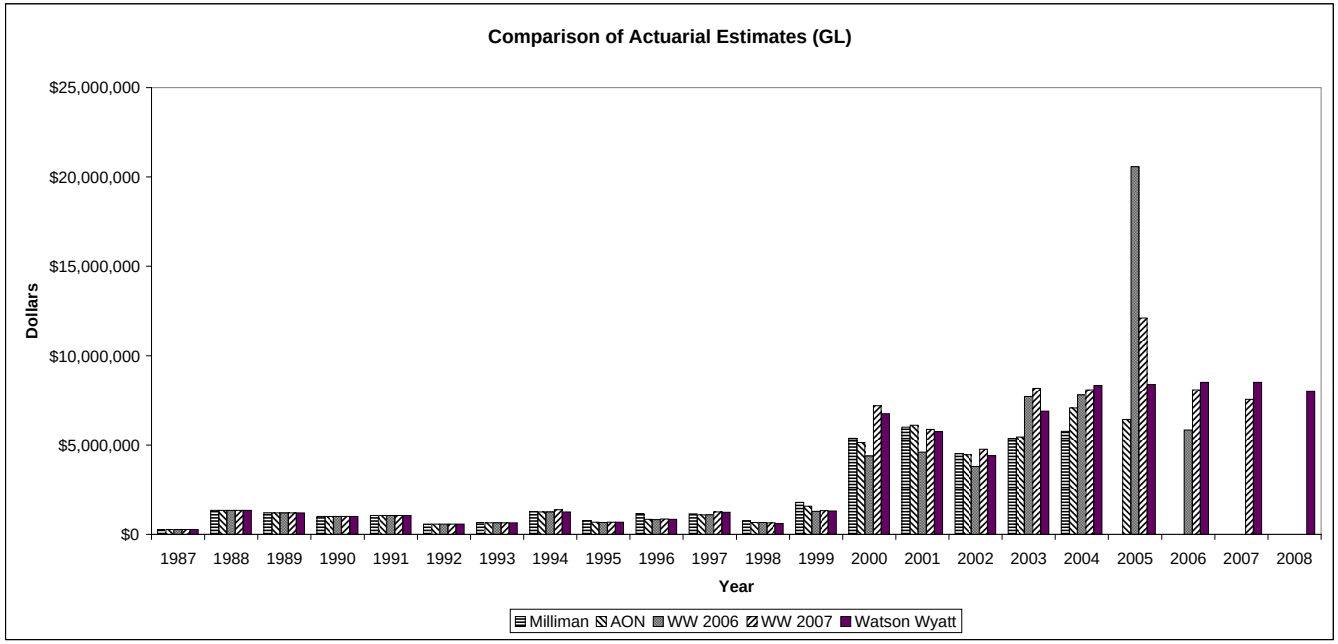

Missouri Department of Transportation
Watson Wyatt Actuarial Report
Comparison of Actuarial Estimates

		Overall			
Year	Milliman	AON	WW 2006	WW 2007	Watson Wyatt
1987	$3,673,460	$3,678,225	$3,747,528	$3,903,458	$3,903,458
1988	$4,941,813	$4,941,765	$4,998,245	$5,064,225	$5,180,463
1989	$5,113,134	$5,117,285	$5,219,299	$5,174,527	$5,202,060
1990	$5,833,155	$5,825,114	$5,953,227	$5,891,156	$5,872,847
1991	$6,179,506	$6,168,061	$6,211,301	$6,208,269	$6,216,910
1992	$5,615,154	$5,658,984	$5,676,662	$5,535,481	$5,553,862
1993	$5,834,455	$5,830,385	$5,957,037	$5,854,895	$5,874,540
1994	$6,381,300	$6,393,847	$6,516,373	$6,534,108	$6,427,556
1995	$5,794,110	$5,707,938	$5,809,169	$5,750,115	$5,873,808
1996	$11,385,069	$11,056,706	$10,861,240	$10,880,735	$11,024,214
1997	$9,660,424	$9,585,000	$9,737,543	$9,794,453	$9,865,519
1998	$8,919,462	$8,793,000	$8,972,256	$9,012,377	$9,099,126
1999	$11,394,765	$11,135,000	$11,239,328	$11,041,660	$10,953,528
2000	$15,861,331	$15,430,000	$15,009,042	$17,372,560	$17,041,000
2001	$18,947,722	$18,943,000	$18,364,916	$20,090,832	$20,330,924
2002	$15,065,401	$14,815,000	$14,397,194	$14,770,678	$14,448,659
2003	$15,003,100	$14,221,000	$15,446,247	$15,886,742	$14,598,683
2004	$16,997,145	$19,093,000	$19,880,080	$19,788,168	$19,704,921
2005	xx	$18,492,184	$33,408,223	$22,460,073	$18,216,220
2006	xx	xx	$18,811,886	$16,344,960	$16,451,874
2007	xx	xx	xx	$19,491,456	$16,850,000
2008	xx	xx	xx	xx	$19,539,976
Sum thru 2003	$155,603,361	$153,300,310	$154,116,608	$158,766,272	$157,467,157
Sum thru 2004	$172,600,506	$172,393,310	$173,996,688	$178,554,440	$177,172,078
Sum thru 2005	xx	$190,885,494	$207,404,911	$201,014,513	$195,388,298
Sum thru 2006	xx	xx	$226,216,797	$217,359,473	$211,840,171
Sum thru 2007	xx	xx	xx	$236,850,929	$228,690,171
Sum thru 2008	xx	xx	xx	xx	$248,230,147
% Change	xx	-1.5%	0.5%	3.0%	-0.8%
	xx	-0.1%	0.9%	2.6%	-0.8%
	xx	xx	8.7%	-3.1%	-2.8%
	xx	xx	xx	-3.9%	-2.5%
	xx	xx	xx	xx	-3.4%
	xx	xx	xx	xx	xx

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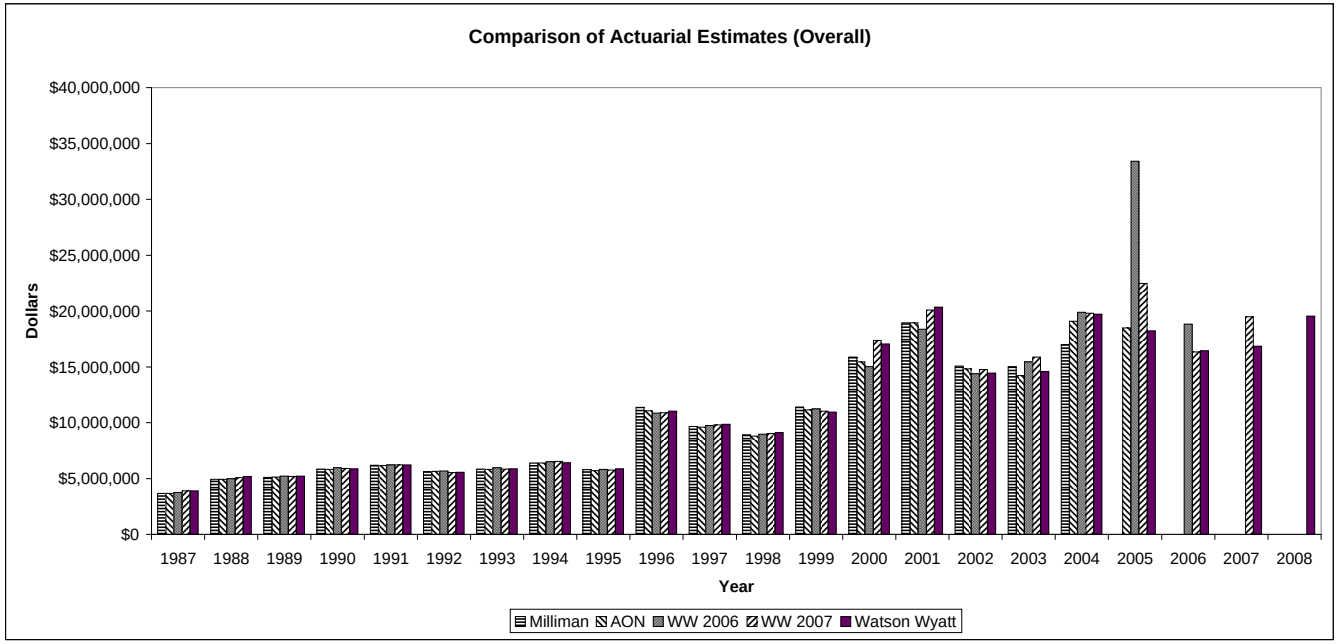

Missouri Department of Transportation
Watson Wyatt Actuarial Report
Estimates of Discounted Reserves

	(1)	(2)	(3)
	3.50% Discount Factor Total Discounted Expected Payments	4.50% Discount Factor Total Discounted Expected Payments	5.50% Discount Factor Total Discounted Expected Payments
Highway & Transportation Workers (HTW)	14,553,715	14,086,760	13,655,832
State Highway Patrol (SHP)	7,317,438	7,032,049	6,769,420
Fleet Vehicle Liability (FVL)	1,925,936	1,899,805	1,874,448
General Liability (GL)	30,719,322	29,954,854	29,226,459
TOTALS	**$54,516,410**	**$52,973,468**	**$51,526,159**

Column	Notes
(1)	Discounted using: ((1.035)^(0.5 + Payment Year - 2008)) ^ (-1)
(2)	Discounted using: ((1.045)^(0.5 + Payment Year - 2008)) ^ (-1)
(3)	Discounted using: ((1.055)^(0.5 + Payment Year - 2008)) ^ (-1)

Missouri Department of Transportation
Watson Wyatt Actuarial Report
Comparison of Actual and Expected Losses

Highway & Transportation Workers (HTW)

Year	Cumulative Development Factors	Implied Development Factors	Adjusted Implied Development Factors*	2006 Reported Losses	Expected Development	2007 Reported Losses	Actual Development	Actual minus Expected
1987	1.000	1.000	1.000	1,725,471	-	1,725,471	-	-
1988	1.000	1.000	1.000	2,900,358	-	3,022,698	122,340	122,340
1989	1.000	1.000	1.000	3,286,351	-	3,286,351	-	-
1990	1.014	1.014	**1.003**	4,186,113	12,558	4,157,699	(28,414)	(40,972)
1991	1.010	0.996	**1.003**	4,488,014	13,464	4,476,450	(11,564)	(25,028)
1992	1.019	1.009	**1.005**	4,129,753	20,649	4,129,753	-	(20,649)
1993	1.013	0.993	**1.005**	3,520,717	17,604	3,520,717	-	(17,604)
1994	1.015	1.002	**1.005**	3,566,123	17,831	3,566,123	-	(17,831)
1995	1.016	1.001	**1.005**	3,829,428	19,147	3,987,960	158,532	139,385
1996	1.017	1.001	**1.005**	6,164,224	30,821	6,254,703	90,479	59,658
1997	1.006	0.990	**1.001**	6,488,626	6,489	6,486,169	(2,457)	(8,946)
1998	1.015	1.008	1.008	5,831,294	49,537	5,854,311	23,018	(26,519)
1999	1.030	1.015	**1.000**	5,518,848	-	5,518,848	-	-
2000	1.029	0.998	**1.010**	6,658,704	66,587	6,712,126	53,422	(13,165)
2001	1.000	0.972	**1.000**	11,437,202	-	11,577,378	140,176	140,176
2002	1.035	1.035	**1.020**	6,737,635	134,753	6,795,856	58,221	(76,532)
2003	1.041	1.006	**1.025**	5,105,882	127,647	5,146,255	40,373	(87,274)
2004	1.078	1.036	**1.020**	7,076,242	141,525	7,337,539	261,297	119,772
2005	1.282	1.189	**1.150**	4,771,511	715,727	5,004,392	232,881	(482,846)
2006	1.632	1.273	1.273	3,639,996	993,937	4,360,047	720,051	(273,886)
				101,062,490	2,368,274	102,920,845	1,858,356	(509,918)

* Factors in bold have been manually smoothed

Missouri Department of Transportation
Watson Wyatt Actuarial Report
Comparison of Actual and Expected Losses

State Highway Patrol (SHP)

Year	Cumulative Development Factors	Implied Development Factors	Adjusted Implied Development Factors*	2006 Reported Losses	Expected Development	2007 Reported Losses	Actual Development	Actual minus Expected
1987	1.000	1.000	1.000	1,125,233	-	1,125,233	-	-
1988	1.021	1.021	1.021	291,772	6,100	291,772	-	(6,100)
1989	1.034	1.013	1.013	287,212	3,805	287,212	-	(3,805)
1990	1.040	1.006	1.006	171,926	987	171,926	-	(987)
1991	1.040	1.000	1.000	171,138	(0)	171,138	-	0
1992	1.040	1.000	1.000	427,095	(0)	427,095	-	0
1993	1.010	0.971	**1.000**	906,160	-	885,138	(21,022)	(21,022)
1994	1.039	1.028	**1.000**	960,492	-	960,492	-	-
1995	1.058	1.019	**1.000**	430,659	-	430,659	-	-
1996	1.010	0.954	**1.000**	2,921,021	-	2,919,521	(1,500)	(1,500)
1997	1.078	1.067	**1.010**	973,808	9,738	1,023,808	50,000	40,262
1998	1.045	0.970	**1.010**	1,605,753	16,058	1,605,753	-	(16,058)
1999	1.094	1.047	**1.010**	2,545,093	25,451	2,542,584	(2,509)	(27,960)
2000	1.099	1.005	1.005	1,091,581	5,507	1,063,201	(28,380)	(33,888)
2001	1.157	1.052	1.052	1,579,732	82,762	1,564,870	(14,862)	(97,624)
2002	1.165	1.007	1.007	1,918,908	12,929	1,909,899	(9,009)	(21,938)
2003	1.282	1.101	**1.010**	1,260,900	12,609	1,257,945	(2,955)	(15,564)
2004	1.428	1.113	**1.010**	1,623,792	16,238	1,649,954	26,163	9,925
2005	1.161	0.813	**1.010**	2,917,955	29,180	3,008,727	90,772	61,592
2006	1.813	1.562	1.562	833,241	468,420	1,042,832	209,591	(258,829)
				24,043,471	689,783	24,339,759	296,288	(393,494)

* Factors in bold have been manually smoothed

Missouri Department of Transportation
Watson Wyatt Actuarial Report
Comparison of Actual and Expected Losses

Fleet Vehicle Liability (FVL)

Year	Cumulative Development Factors	Implied Development Factors	Adjusted Implied Development Factors*	2006 Reported Losses	Expected Development	2007 Reported Losses	Actual Development	Actual minus Expected
1987	1.000	1.000	1.000	790,325	-	790,325	-	-
1988	1.000	1.000	1.000	517,686	-	517,686	-	-
1989	1.000	1.000	1.000	395,679	-	395,679	-	-
1990	1.000	1.000	1.000	470,585	-	470,585	-	-
1991	1.000	1.000	1.000	435,976	-	435,976	-	-
1992	1.000	1.000	1.000	315,255	0	315,255	-	(0)
1993	1.000	1.000	1.000	733,385	(0)	733,385	-	0
1994	1.000	1.000	1.000	532,222	-	532,222	-	-
1995	1.000	1.000	1.000	715,274	-	715,274	-	-
1996	1.000	1.000	1.000	807,603	-	807,603	-	-
1997	1.000	1.000	1.000	963,492	-	963,492	-	-
1998	1.000	1.000	1.000	762,236	-	760,875	(1,362)	(1,362)
1999	1.000	1.000	1.000	1,248,405	-	1,248,405	-	-
2000	1.000	1.000	1.000	2,117,985	-	2,117,985	-	-
2001	1.002	1.002	1.002	945,753	1,690	945,753	-	(1,690)
2002	1.012	1.010	1.010	786,428	8,010	786,428	-	(8,010)
2003	1.076	1.063	**1.010**	724,445	7,244	805,445	81,000	73,756
2004	1.000	0.929	**1.020**	1,755,742	35,115	1,581,514	(174,228)	(209,342)
2005	1.062	1.062	**1.020**	804,868	16,097	768,356	(36,512)	(52,609)
2006	1.709	1.608	1.608	483,160	293,931	904,624	421,464	127,533
				16,306,503	362,087	16,596,866	290,363	(71,724)

* Factors in bold have been manually smoothed

Missouri Department of Transportation
Watson Wyatt Actuarial Report
Comparison of Actual and Expected Losses

General Liability (GL)

Year	Cumulative Development Factors	Implied Development Factors	Adjusted Implied Development Factors*	2006 Reported Losses	Expected Development	2007 Reported Losses	Actual Development	Actual minus Expected
1987	1.000	1.000	1.000	262,429	-	262,429	-	-
1988	1.000	1.000	1.000	1,348,307	3	1,348,307	-	(3)
1989	1.000	1.000	1.000	1,195,394	1	1,195,394	-	(1)
1990	1.000	1.000	1.000	996,490	0	996,490	-	(0)
1991	1.000	1.000	1.000	1,060,947	(0)	1,060,947	-	0
1992	1.000	1.000	1.000	566,634	0	566,634	-	(0)
1993	1.000	1.000	1.000	641,435	(0)	641,435	-	0
1994	1.000	1.000	1.000	1,384,625	(3)	1,260,632	(123,993)	(123,990)
1995	1.015	1.015	**1.000**	677,664	-	677,664	-	-
1996	1.011	0.996	**1.000**	844,706	-	844,706	-	-
1997	1.010	0.999	**1.000**	1,238,358	-	1,238,358	-	-
1998	1.024	1.014	**1.000**	637,966	-	617,714	(20,252)	(20,252)
1999	1.025	1.001	1.001	1,291,581	1,284	1,282,645	(8,937)	(10,221)
2000	1.000	0.975	**1.000**	7,205,914	-	6,744,872	(461,042)	(461,042)
2001	1.000	1.000	1.000	5,878,674	-	5,753,621	(125,053)	(125,053)
2002	1.025	1.025	1.025	4,654,365	114,916	4,405,955	(248,409)	(363,325)
2003	1.098	1.071	**1.050**	7,446,632	372,332	6,354,385	(1,092,246)	(1,464,578)
2004	1.104	1.006	**1.070**	7,320,186	512,413	8,323,223	1,003,037	490,624
2005	1.728	1.565	1.565	7,003,074	3,955,600	7,574,669	571,595	(3,384,005)
2006	3.983	2.305	2.305	2,025,852	2,643,251	3,382,809	1,356,957	(1,286,294)
				53,681,233	7,599,796	54,532,891	851,658	(6,748,138)

* Factors in bold have been manually smoothed

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Reported Losses and ALAE

All amounts in thousands ('000s)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987	1,923	2,026	1,809	1,779	1,742	1,768	1,720	1,716	1,715	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,727	1,725	1,725	1,725	1,725
1988	2,624	2,710	2,648	2,530	2,585	2,457	2,614	2,748	2,746	2,756	2,756	2,757	2,757	2,757	2,777	2,777	2,777	2,900	2,900	3,023		2,900	3,023
1989	2,591	3,084	3,478	3,591	3,298	3,306	3,256	3,518	3,523	3,325	3,225	3,225	3,225	3,232	3,230	3,230	3,286	3,286	3,286			3,286	3,286
1990	3,038	4,011	4,307	4,149	4,163	4,156	4,177	4,221	4,262	4,262	4,276	4,276	4,283	4,186	4,186	4,186	4,186	4,158				4,186	4,158
1991	2,845	3,921	3,758	3,842	3,909	3,966	3,993	4,047	4,255	4,222	4,353	4,472	4,472	4,472	4,488	4,488	4,476					4,488	4,476
1992	3,388	3,821	3,934	3,559	3,626	3,725	3,963	4,042	4,023	4,241	4,241	4,265	4,320	4,228	4,130	4,130						4,130	4,130
1993	2,956	3,286	3,132	3,440	3,571	3,564	3,554	3,556	3,567	3,569	3,510	3,510	3,521	3,521	3,521							3,521	3,521
1994	2,046	2,911	3,267	3,478	3,560	3,540	3,566	3,572	3,572	3,574	3,572	3,566	3,566	3,566								3,566	3,566
1995	2,676	3,433	3,744	3,768	3,764	3,788	3,829	3,833	3,830	3,817	3,830	3,829	3,988									3,829	3,988
1996	3,990	4,721	5,174	5,338	5,602	5,901	6,683	6,705	6,727	6,148	6,164	6,255										6,164	6,255
1997	3,905	5,450	5,888	5,982	6,361	6,445	6,454	6,477	6,483	6,489	6,486											6,489	6,486
1998	4,067	4,890	5,176	5,474	5,739	5,802	5,814	5,811	5,831	5,854												5,831	5,854
1999	3,256	5,048	5,401	5,448	5,472	5,534	5,513	5,519	5,519													5,519	5,519
2000	4,362	6,079	6,315	6,466	6,517	7,062	6,659	6,712														6,659	6,712
2001	6,296	8,612	9,064	9,580	10,909	11,437	11,577															11,437	11,577
2002	5,068	5,938	6,585	6,940	6,738	6,796																6,738	6,796
2003	3,102	4,122	4,658	5,106	5,146																	5,106	5,146
2004	5,128	6,819	7,076	7,338																		7,076	7,338
2005	4,260	4,772	5,004																			4,772	5,004
2006	3,640	4,360																				3,640	4,360
2007	2,246																						2,246
																						101,062	105,167

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Reported Losses and ALAE

Development Ratios

Exposure		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	**Change in diagonals**	**Sum of diagonals**
1987	xx	1.054	0.892	0.984	0.979	1.015	0.973	0.998	1.000	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	0.999	1.000		1,923,321	1,923,321
1988	xx	1.033	0.977	0.955	1.021	0.950	1.064	1.051	0.999	1.003	1.000	1.000	1.000	1.000	1.007	1.000	1.000	1.045	1.000	1.042			2,727,143	4,650,464
1989	xx	1.190	1.128	1.033	0.918	1.002	0.985	1.081	1.001	0.944	0.970	1.000	1.000	1.002	0.999	1.000	1.017	1.000	1.000				2,458,512	7,108,976
1990	xx	1.320	1.074	0.963	1.004	0.998	1.005	1.010	1.010	1.000	1.003	1.000	1.002	0.977	1.000	1.000	1.000	0.993					3,440,718	10,549,694
1991	xx	1.378	0.958	1.022	1.018	1.015	1.007	1.014	1.051	0.992	1.031	1.027	1.000	1.000	1.004	1.000	0.997						4,056,532	14,606,226
1992	xx	1.128	1.029	0.905	1.019	1.027	1.064	1.020	0.995	1.054	1.000	1.006	1.013	0.979	0.977	1.000							4,954,757	19,560,983
1993	xx	1.112	0.953	1.098	1.038	0.998	0.997	1.001	1.003	1.001	0.984	1.000	1.003	1.000	1.000								2,596,726	22,157,709
1994	xx	1.423	1.122	1.064	1.024	0.994	1.007	1.002	1.000	1.000	0.999	0.998	1.000	1.000									2,749,667	24,907,376
1995	xx	1.283	1.091	1.006	0.999	1.006	1.011	1.001	0.999	0.996	1.004	1.000	1.041										3,155,785	28,063,161
1996	xx	1.183	1.096	1.032	1.049	1.053	1.132	1.003	1.003	0.914	1.003	1.015											5,826,459	33,889,620
1997	xx	1.396	1.080	1.016	1.063	1.013	1.001	1.003	1.001	1.001	1.000												5,471,102	39,360,722
1998	xx	1.202	1.058	1.058	1.048	1.011	1.002	0.999	1.004	1.004													6,300,403	45,661,125
1999	xx	1.551	1.070	1.009	1.004	1.011	0.996	1.001	1.000														4,835,632	50,496,757
2000	xx	1.394	1.039	1.024	1.008	1.084	0.943	1.008															6,811,652	57,308,409
2001	xx	1.368	1.052	1.057	1.139	1.048	1.012																9,749,700	67,058,109
2002	xx	1.172	1.109	1.054	0.971	1.009																	8,957,254	76,015,363
2003	xx	1.329	1.130	1.096	1.008																		4,557,482	80,572,845
2004	xx	1.330	1.038	1.037																			7,519,492	88,092,337
2005	xx	1.120	1.049																				8,243,658	96,335,995
2006	xx	1.198																					4,726,495	101,062,490
2007	xx																						4,104,262	105,166,751

Discrete Dev. Ratios

Unwtd Last	3	1.216	1.072	1.062	1.039	1.047	0.984	1.003	1.001	0.973	1.002	1.004	1.015	0.993	0.993	1.000	1.005	1.013	1.000	1.021	1.000	1.000
Wtd Last	3	1.224	1.065	1.058	1.054	1.047	0.988	1.003	1.001	0.971	1.002	1.006	1.015	0.992	0.993	1.000	1.004	1.009	1.000	1.026	1.000	1.000
Unwtd Last	24	1.258	1.050	1.023	1.018	1.015	1.013	1.014	1.005	0.993	0.999	1.005	1.007	0.995	0.998	1.000	1.003	1.009	1.000	1.021	1.000	1.000
Wtd Last	24	1.265	1.056	1.028	1.028	1.022	1.013	1.011	1.005	0.989	1.000	1.006	1.007	0.993	0.997	1.000	1.003	1.008	1.000	1.026	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.254	1.054	1.026	1.017	1.014	1.010	1.009	1.002	0.995	0.999	1.003	1.003	0.996	1.001	1.000	1.000	1.000	1.000	1.021	1.000	1.000

Cumulative Dev. Ratios

Unwtd Last	3	1.516	1.246	1.163	1.094	1.053	1.006	1.022	1.020	1.018	1.046	1.044	1.040	1.025	1.032	1.039	1.039	1.034	1.021	1.021	1.000	1.000
Wtd Last	3	1.539	1.257	1.180	1.115	1.058	1.011	1.023	1.020	1.018	1.048	1.047	1.040	1.024	1.033	1.040	1.040	1.036	1.026	1.026	1.000	1.000
Unwtd Last	24	1.485	1.180	1.124	1.099	1.079	1.063	1.049	1.035	1.030	1.037	1.038	1.033	1.026	1.032	1.034	1.034	1.031	1.021	1.021	1.000	1.000
Wtd Last	24	1.529	1.209	1.145	1.114	1.084	1.060	1.047	1.036	1.030	1.042	1.041	1.035	1.028	1.035	1.037	1.037	1.034	1.026	1.026	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.452	1.158	1.098	1.071	1.053	1.038	1.028	1.018	1.016	1.022	1.023	1.020	1.017	1.021	1.021	1.021	1.021	1.021	1.021	1.000	1.000

Estimated Values

	Loss Year	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**	**1988**	**1987**	Sum	**Ultimate Incl. Tail**
Unwtd Last	3	3,403,689	5,434,793	5,817,704	8,029,481	5,419,425	6,835,787	11,837,493	6,843,599	5,618,579	6,125,918	6,773,900	6,504,379	4,086,780	3,680,685	3,657,673	4,290,400	4,627,566	4,244,620	3,353,759	3,022,698	1,725,471	111,334,399	111,334,399
Wtd Last	3	3,456,423	5,480,958	5,905,005	8,182,548	5,445,154	6,868,761	11,841,707	6,844,172	5,619,031	6,137,873	6,788,950	6,506,506	4,085,285	3,682,934	3,660,550	4,293,774	4,636,731	4,266,893	3,371,808	3,022,698	1,725,471	111,823,232	111,823,232
Unwtd Last	24	3,334,173	5,144,892	5,624,879	8,062,384	5,553,136	7,226,592	12,149,070	6,948,122	5,683,729	6,071,818	6,731,218	6,461,243	4,092,911	3,679,182	3,639,086	4,268,598	4,613,183	4,244,620	3,353,759	3,022,698	1,725,471	111,630,764	111,630,764
Wtd Last	24	3,433,346	5,269,262	5,729,245	8,171,364	5,576,340	7,206,763	12,123,293	6,951,909	5,686,586	6,098,986	6,755,337	6,475,185	4,098,656	3,689,199	3,651,916	4,283,647	4,630,575	4,266,893	3,371,808	3,022,698	1,725,471	112,218,478	112,218,478
Unwtd Last	24 Exc Hi/Lo	3,261,429	5,047,561	5,494,724	7,855,252	5,417,752	7,052,723	11,900,719	6,834,788	5,609,502	5,981,844	6,633,071	6,380,071	4,057,722	3,641,463	3,592,932	4,214,460	4,568,269	4,242,980	3,353,759	3,022,698	1,725,471	109,889,192	109,889,192

Selected Method :	Unwtd Last 24	All periods combined	111,630,764
Minimum Method:	Unwtd Last 24 Exc Hi/Lo	All periods combined	109,889,192
Maximum Method:	Wtd Last 24	All periods combined	112,218,478

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Paid Losses and ALAE

All amounts in thousands ('000s)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987	400	1,071	1,346	1,527	1,658	1,671	1,711	1,715	1,715	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725
1988	598	1,155	1,517	1,750	1,897	1,975	2,085	2,144	2,211	2,271	2,323	2,376	2,420	2,464	2,537	2,591	2,646	2,701	2,755	2,810		2,755	2,810
1989	908	1,592	2,042	2,481	2,636	2,770	2,869	3,013	3,046	3,111	3,124	3,135	3,140	3,163	3,179	3,191	3,204	3,216	3,228			3,216	3,228
1990	990	2,423	3,084	3,581	3,801	3,871	3,934	4,008	4,052	4,066	4,167	4,175	4,181	4,186	4,186	4,186	4,186	4,158				4,186	4,158
1991	944	2,106	2,698	3,175	3,757	3,901	3,949	3,980	4,001	4,048	4,233	4,250	4,265	4,282	4,295	4,309	4,312					4,309	4,312
1992	987	2,013	2,708	3,180	3,409	3,582	3,813	3,924	3,967	4,003	4,036	4,089	4,120	4,127	4,130	4,130						4,130	4,130
1993	842	1,800	2,385	2,782	3,000	3,123	3,243	3,314	3,380	3,420	3,443	3,458	3,473	3,489	3,505							3,489	3,505
1994	746	2,171	2,805	3,144	3,363	3,463	3,520	3,558	3,562	3,564	3,564	3,564	3,564	3,564								3,564	3,564
1995	1,087	2,289	2,980	3,282	3,429	3,599	3,650	3,696	3,725	3,751	3,777	3,803	3,830									3,803	3,830
1996	1,240	3,374	4,034	3,608	4,980	5,449	5,675	5,839	6,037	6,079	6,108	6,171										6,108	6,171
1997	1,436	3,322	4,590	5,044	5,310	5,874	5,946	6,039	6,140	6,206	6,289											6,206	6,289
1998	1,651	3,646	4,641	5,055	5,411	5,546	5,615	5,666	5,704	5,790												5,704	5,790
1999	1,437	3,492	4,649	5,111	5,251	5,391	5,466	5,491	5,492													5,491	5,492
2000	1,824	4,239	5,415	5,738	5,928	6,196	6,494	6,585														6,494	6,585
2001	1,989	5,298	6,882	7,958	8,631	9,249	9,896															9,249	9,896
2002	1,725	3,831	5,294	5,866	6,113	6,205																6,113	6,205
2003	1,153	2,841	3,718	4,209	4,454																	4,209	4,454
2004	2,276	4,278	5,174	5,893																		5,174	5,893
2005	1,991	3,482	3,998																			3,482	3,998
2006	1,506	2,681																				1,506	2,681
2007	1,124																						1,124
																						90,911	95,841

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For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Paid Losses and ALAE

Development Ratios

		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	**Change in diagonals**	**Sum of diagonals**
1987	xx	2.678	1.256	1.134	1.086	1.008	1.024	1.003	1.000	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		400,030	400,030
1988	xx	1.931	1.314	1.154	1.084	1.041	1.055	1.029	1.031	1.027	1.023	1.023	1.019	1.018	1.030	1.021	1.021	1.021	1.020	1.020			1,269,322	1,669,352
1989	xx	1.754	1.283	1.215	1.063	1.051	1.036	1.050	1.011	1.021	1.004	1.003	1.002	1.007	1.005	1.004	1.004	1.004	1.004				1,738,997	3,408,349
1990	xx	2.446	1.273	1.161	1.062	1.018	1.016	1.019	1.011	1.004	1.025	1.002	1.001	1.001	1.000	1.000	1.000	0.993					2,218,338	5,626,687
1991	xx	2.232	1.281	1.177	1.183	1.038	1.012	1.008	1.005	1.012	1.046	1.004	1.003	1.004	1.003	1.003	1.001						3,190,423	8,817,110
1992	xx	2.040	1.345	1.174	1.072	1.051	1.065	1.029	1.011	1.009	1.008	1.013	1.008	1.002	1.001	1.000							3,408,835	12,225,945
1993	xx	2.139	1.325	1.166	1.079	1.041	1.038	1.022	1.020	1.012	1.007	1.004	1.004	1.005	1.005								3,230,071	15,456,016
1994	xx	2.910	1.292	1.121	1.069	1.030	1.017	1.011	1.001	1.000	1.000	1.000	1.000	1.000									3,345,265	18,801,281
1995	xx	2.105	1.302	1.101	1.045	1.049	1.014	1.013	1.008	1.007	1.007	1.007	1.007										4,377,634	23,178,915
1996	xx	2.722	1.196	0.894	1.380	1.094	1.041	1.029	1.034	1.007	1.005	1.010											4,129,282	27,308,197
1997	xx	2.312	1.382	1.099	1.053	1.106	1.012	1.016	1.017	1.011	1.013												5,208,345	32,516,542
1998	xx	2.209	1.273	1.089	1.070	1.025	1.013	1.009	1.007	1.015													5,262,600	37,779,142
1999	xx	2.431	1.331	1.099	1.027	1.027	1.014	1.004	1.000														4,853,543	42,632,685
2000	xx	2.324	1.278	1.060	1.033	1.045	1.048	1.014															7,243,480	49,876,165
2001	xx	2.664	1.299	1.156	1.084	1.072	1.070																7,142,081	57,018,246
2002	xx	2.221	1.382	1.108	1.042	1.015																	8,061,535	65,079,781
2003	xx	2.465	1.309	1.132	1.058																		5,871,010	70,950,791
2004	xx	1.880	1.209	1.139																			7,352,258	78,303,049
2005	xx	1.749	1.148																				6,780,113	85,083,162
2006	xx	1.781																					5,828,182	90,911,343
2007	xx																						4,929,409	95,840,752

Discrete Dev. Ratios

Unwtd Last	3	1.803	1.222	1.126	1.062	1.044	1.044	1.009	1.008	1.011	1.008	1.006	1.004	1.002	1.003	1.001	1.002	1.006	1.008	1.010	1.000	1.000
Wtd Last	3	1.809	1.216	1.126	1.065	1.047	1.049	1.009	1.008	1.011	1.009	1.007	1.004	1.002	1.003	1.001	1.001	1.004	1.009	1.012	1.000	1.000
Unwtd Last	24	2.250	1.288	1.121	1.088	1.044	1.032	1.018	1.012	1.011	1.013	1.007	1.005	1.005	1.006	1.005	1.005	1.004	1.008	1.010	1.000	1.000
Wtd Last	24	2.220	1.285	1.112	1.082	1.048	1.034	1.017	1.012	1.010	1.013	1.007	1.005	1.004	1.005	1.004	1.004	1.003	1.009	1.012	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	2.241	1.291	1.129	1.072	1.043	1.030	1.017	1.011	1.010	1.010	1.005	1.004	1.003	1.003	1.002	1.002	1.002	1.004	1.010	1.000	1.000

Cumulative Dev. Ratios

Unwtd Last	3	3.102	1.720	1.408	1.250	1.177	1.128	1.080	1.070	1.062	1.050	1.042	1.036	1.032	1.030	1.027	1.026	1.024	1.018	1.010	1.000	1.000
Wtd Last	3	3.134	1.733	1.425	1.266	1.189	1.135	1.082	1.072	1.064	1.052	1.043	1.036	1.032	1.030	1.027	1.026	1.025	1.021	1.012	1.000	1.000
Unwtd Last	24	4.241	1.885	1.463	1.305	1.200	1.149	1.114	1.094	1.081	1.069	1.056	1.049	1.044	1.039	1.033	1.028	1.023	1.018	1.010	1.000	1.000
Wtd Last	24	4.135	1.863	1.449	1.303	1.204	1.149	1.111	1.093	1.079	1.068	1.055	1.048	1.043	1.038	1.033	1.029	1.024	1.021	1.012	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	4.085	1.823	1.412	1.250	1.166	1.118	1.085	1.067	1.056	1.045	1.034	1.029	1.025	1.022	1.019	1.017	1.016	1.014	1.010	1.000	1.000

Estimated Values

	Loss Year	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**	**1988**	**1987**	Sum	**Ultimate Incl. Tail**
Unwtd Last	3	3,487,147	4,612,186	5,627,771	7,364,763	5,243,052	6,996,570	10,687,513	7,047,291	5,831,377	6,081,133	6,550,584	6,391,458	3,951,490	3,669,121	3,599,048	4,235,489	4,415,272	4,232,426	3,260,392	2,809,997	1,725,471	107,819,551	107,819,551
Wtd Last	3	3,523,570	4,645,784	5,697,570	7,460,959	5,296,797	7,045,622	10,711,530	7,061,132	5,841,268	6,091,910	6,560,701	6,395,683	3,953,845	3,671,464	3,601,677	4,238,486	4,419,324	4,245,077	3,267,735	2,809,997	1,725,471	108,265,601	108,265,601
Unwtd Last	24	4,768,025	5,054,864	5,851,132	7,692,444	5,345,160	7,129,547	11,020,516	7,202,166	5,935,817	6,190,125	6,640,644	6,473,356	3,997,822	3,702,689	3,619,842	4,244,654	4,408,711	4,232,426	3,260,392	2,809,997	1,725,471	111,305,799	111,305,799
Wtd Last	24	4,649,092	4,995,485	5,794,875	7,677,639	5,362,737	7,128,924	10,999,184	7,194,555	5,927,535	6,184,544	6,632,230	6,464,860	3,993,479	3,700,354	3,621,107	4,249,189	4,416,803	4,245,076	3,267,735	2,809,997	1,725,471	111,040,871	111,040,871
Unwtd Last	24 Exc Hi/Lo	4,592,403	4,887,873	5,645,930	7,367,913	5,193,540	6,939,260	10,741,418	7,029,236	5,798,493	6,050,421	6,505,481	6,348,966	3,925,833	3,641,435	3,572,290	4,201,030	4,379,350	4,214,968	3,260,392	2,809,997	1,725,471	108,831,699	108,831,699

Selected Method :	Unwtd Last 24 Exc Hi/Lo	All periods combined	108,831,699
Minimum Method:	Unwtd Last 3	All periods combined	107,819,551
Maximum Method:	Unwtd Last 24	All periods combined	111,305,799

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Reported Claims

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987	790	825	828	829	829	829	829	829	830	830	830	830	830	830	830	830	830	830	831	831	831	831	831
1988	835	886	889	889	889	889	889	890	890	890	890	890	890	890	890	890	890	890	890	890		890	890
1989	820	888	889	889	889	889	888	888	888	888	888	888	888	889	889	889	889	889	889			889	889
1990	813	910	914	914	914	913	913	913	911	911	911	911	913	913	913	913	913	913				913	913
1991	903	1,009	1,010	1,012	1,011	1,012	1,012	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011	1,011					1,011	1,011
1992	955	1,029	1,030	1,034	1,035	1,035	1,036	1,036	1,036	1,036	1,036	1,036	1,036	1,036	1,036	1,036						1,036	1,036
1993	1,104	1,160	1,159	1,162	1,163	1,166	1,166	1,166	1,166	1,167	1,167	1,167	1,167	1,167	1,167							1,167	1,167
1994	1,064	1,161	1,165	1,165	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167								1,167	1,167
1995	1,059	1,176	1,177	1,179	1,179	1,179	1,179	1,179	1,179	1,179	1,179	1,179	1,179									1,179	1,179
1996	1,147	1,183	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191										1,191	1,191
1997	992	1,032	1,032	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035											1,035	1,035
1998	1,036	1,037	1,039	1,039	1,041	1,041	1,042	1,042	1,042	1,042												1,042	1,042
1999	1,051	1,087	1,091	1,093	1,093	1,093	1,093	1,093	1,093													1,093	1,093
2000	1,044	1,109	1,112	1,113	1,113	1,113	1,113	1,113														1,113	1,113
2001	934	971	972	973	974	974	974															974	974
2002	944	1,002	1,005	1,007	1,007	1,007																1,007	1,007
2003	862	891	892	893	893																	893	893
2004	1,002	1,024	1,024	1,024																		1,024	1,024
2005	974	979	979																			979	979
2006	856	868																				856	868
2007	691																						691
																						20,290	20,993

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Reported Claims

Development Ratios

		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	**Change in diagonals**	**Sum of diagonals**
1987	xx	1.044	1.004	1.001	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000		790	790
1988	xx	1.061	1.003	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			870	1,660
1989	xx	1.083	1.001	1.000	1.000	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000				874	2,534
1990	xx	1.119	1.004	1.000	1.000	0.999	1.000	1.000	0.998	1.000	1.000	1.000	1.002	1.000	1.000	1.000	1.000	1.000					885	3,419
1991	xx	1.117	1.001	1.002	0.999	1.001	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						1,001	4,420
1992	xx	1.077	1.001	1.004	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							1,065	5,485
1993	xx	1.051	0.999	1.003	1.001	1.003	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000								1,179	6,664
1994	xx	1.091	1.003	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000									1,123	7,787
1995	xx	1.110	1.001	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000										1,158	8,945
1996	xx	1.031	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000											1,273	10,218
1997	xx	1.040	1.000	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000												1,030	11,248
1998	xx	1.001	1.002	1.000	1.002	1.000	1.001	1.000	1.000	1.000													1,089	12,337
1999	xx	1.034	1.004	1.002	1.000	1.000	1.000	1.000	1.000														1,052	13,389
2000	xx	1.062	1.003	1.001	1.000	1.000	1.000	1.000															1,085	14,474
2001	xx	1.040	1.001	1.001	1.001	1.000	1.000																1,003	15,477
2002	xx	1.061	1.003	1.002	1.000	1.000																	992	16,469
2003	xx	1.034	1.001	1.001	1.000																		922	17,391
2004	xx	1.022	1.000	1.000																			1,036	18,427
2005	xx	1.005	1.000																				1,001	19,428
2006	xx	1.014																					862	20,290
2007	xx																						703	20,993

Discrete Dev. Ratios

Unwtd Last	3	1.014	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.014	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000
Unwtd Last	24	1.055	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.054	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.054	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Cumulative Dev. Ratios

Unwtd Last	3	1.016	1.002	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.016	1.003	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000
Unwtd Last	24	1.060	1.005	1.003	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.059	1.005	1.003	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.058	1.003	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Estimated Values

	Loss Year	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**	**1988**	**1987**	Sum	**Ultimate Incl. Tail**
Unwtd Last	3	702	870	981	1,025	893	1,007	974	1,113	1,093	1,042	1,035	1,191	1,179	1,167	1,167	1,036	1,011	913	889	890	831	21,014	21,014
Wtd Last	3	702	870	981	1,025	894	1,008	975	1,114	1,094	1,043	1,036	1,192	1,180	1,168	1,168	1,037	1,012	914	890	890	831	21,025	21,025
Unwtd Last	24	732	872	981	1,025	894	1,008	975	1,114	1,094	1,043	1,036	1,192	1,180	1,167	1,167	1,036	1,011	913	889	890	831	21,052	21,052
Wtd Last	24	732	872	981	1,025	894	1,008	975	1,114	1,094	1,043	1,036	1,192	1,180	1,167	1,167	1,036	1,011	913	889	890	831	21,051	21,051
Unwtd Last	24 Exc Hi/Lo	731	871	980	1,024	893	1,007	974	1,113	1,093	1,042	1,035	1,191	1,179	1,167	1,167	1,036	1,011	913	889	890	831	21,038	21,038

Selected Method :	Unwtd Last 24 Exc Hi/Lo	All periods combined	21,038
Minimum Method:	Unwtd Last 3	All periods combined	21,014
Maximum Method:	Unwtd Last 24	All periods combined	21,052

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Average Severity - Ratio of Reported Losses and ALAE to Reported Claims

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987	2,435	2,456	2,184	2,146	2,102	2,133	2,074	2,070	2,067	2,078	2,079	2,079	2,079	2,079	2,079	2,079	2,079	2,079	2,079	2,076	2,076	2,076	2,076
1988	3,142	3,058	2,979	2,846	2,907	2,763	2,941	3,088	3,086	3,096	3,097	3,098	3,097	3,097	3,120	3,120	3,120	3,259	3,259	3,396		3,259	3,396
1989	3,160	3,473	3,912	4,040	3,710	3,719	3,666	3,962	3,967	3,744	3,632	3,632	3,632	3,636	3,633	3,633	3,697	3,697	3,697			3,697	3,697
1990	3,737	4,407	4,713	4,539	4,555	4,552	4,575	4,623	4,678	4,678	4,693	4,693	4,691	4,585	4,585	4,585	4,585	4,554				4,585	4,554
1991	3,151	3,886	3,720	3,796	3,867	3,919	3,945	4,003	4,209	4,176	4,306	4,423	4,423	4,423	4,439	4,439	4,428					4,439	4,428
1992	3,548	3,714	3,819	3,442	3,504	3,599	3,826	3,902	3,883	4,094	4,094	4,117	4,170	4,081	3,986	3,986						3,986	3,986
1993	2,677	2,833	2,702	2,961	3,071	3,057	3,048	3,050	3,059	3,059	3,008	3,008	3,017	3,017	3,017							3,017	3,017
1994	1,923	2,508	2,805	2,985	3,051	3,034	3,056	3,060	3,061	3,063	3,061	3,056	3,056	3,056								3,056	3,056
1995	2,527	2,919	3,181	3,196	3,192	3,213	3,248	3,251	3,249	3,237	3,249	3,248	3,382									3,248	3,382
1996	3,479	3,991	4,344	4,482	4,704	4,955	5,611	5,630	5,648	5,162	5,176	5,252										5,176	5,252
1997	3,936	5,281	5,706	5,780	6,146	6,228	6,236	6,258	6,263	6,269	6,267											6,269	6,267
1998	3,926	4,716	4,982	5,269	5,513	5,574	5,580	5,576	5,596	5,618												5,596	5,618
1999	3,098	4,644	4,950	4,984	5,007	5,063	5,044	5,049	5,049													5,049	5,049
2000	4,178	5,482	5,679	5,809	5,855	6,345	5,983	6,031														5,983	6,031
2001	6,741	8,869	9,325	9,846	11,200	11,743	11,886															11,743	11,886
2002	5,368	5,926	6,552	6,892	6,691	6,749																6,691	6,749
2003	3,598	4,626	5,222	5,718	5,763																	5,718	5,763
2004	5,118	6,659	6,910	7,166																		6,910	7,166
2005	4,374	4,874	5,112																			4,874	5,112
2006	4,252	5,023																				4,252	5,023
2007	3,250																						3,250
																						99,624	104,758

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Average Severity - Ratio of Reported Losses and ALAE to Reported Claims

Development Ratios

Exposure:		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	**Change in diagonals**	**Sum of diagonals**
1987	xx	1.009	0.889	0.983	0.979	1.015	0.973	0.998	0.998	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	1.000		2,435	2,435
1988	xx	0.973	0.974	0.955	1.021	0.950	1.064	1.050	0.999	1.003	1.000	1.000	1.000	1.000	1.007	1.000	1.000	1.045	1.000	1.042			3,164	5,599
1989	xx	1.099	1.127	1.033	0.918	1.002	0.986	1.081	1.001	0.944	0.970	1.000	1.000	1.001	0.999	1.000	1.017	1.000	1.000				2,803	8,402
1990	xx	1.179	1.069	0.963	1.004	0.999	1.005	1.010	1.012	1.000	1.003	1.000	0.999	0.977	1.000	1.000	1.000	0.993					3,933	12,335
1991	xx	1.234	0.957	1.020	1.019	1.014	1.007	1.015	1.051	0.992	1.031	1.027	1.000	1.000	1.004	1.000	0.997						4,083	16,418
1992	xx	1.047	1.028	0.901	1.018	1.027	1.063	1.020	0.995	1.054	1.000	1.006	1.013	0.979	0.977	1.000							4,809	21,227
1993	xx	1.058	0.954	1.096	1.037	0.995	0.997	1.001	1.003	1.000	0.984	1.000	1.003	1.000	1.000								1,971	23,198
1994	xx	1.304	1.118	1.064	1.022	0.994	1.007	1.002	1.000	1.000	0.999	0.998	1.000	1.000									2,458	25,656
1995	xx	1.155	1.090	1.005	0.999	1.006	1.011	1.001	0.999	0.996	1.004	1.000	1.041										2,763	28,419
1996	xx	1.147	1.089	1.032	1.049	1.053	1.132	1.003	1.003	0.914	1.003	1.015											4,868	33,287
1997	xx	1.342	1.080	1.013	1.063	1.013	1.001	1.003	1.001	1.001	1.000												5,186	38,473
1998	xx	1.201	1.056	1.058	1.046	1.011	1.001	0.999	1.004	1.004													5,807	44,280
1999	xx	1.499	1.066	1.007	1.004	1.011	0.996	1.001	1.000														4,592	48,872
2000	xx	1.312	1.036	1.023	1.008	1.084	0.943	1.008															6,295	55,167
2001	xx	1.316	1.051	1.056	1.138	1.048	1.012																9,645	64,812
2002	xx	1.104	1.106	1.052	0.971	1.009																	8,854	73,666
2003	xx	1.286	1.129	1.095	1.008																		4,715	78,381
2004	xx	1.301	1.038	1.037																			7,481	85,862
2005	xx	1.114	1.049																				8,337	94,199
2006	xx	1.181																					5,425	99,624
2007	xx																						5,134	104,758

Discrete Dev. Ratios

Unwtd Last	3	1.199	1.072	1.061	1.039	1.047	0.984	1.003	1.001	0.973	1.002	1.004	1.015	0.993	0.993	1.000	1.005	1.013	1.000	1.021	1.000	1.000
Wtd Last	3	1.205	1.067	1.058	1.053	1.046	0.990	1.003	1.002	0.974	1.002	1.006	1.015	0.991	0.993	1.000	1.004	1.009	1.000	1.025	1.000	1.000
Unwtd Last	24	1.193	1.048	1.022	1.018	1.015	1.013	1.014	1.005	0.993	0.999	1.005	1.006	0.995	0.998	1.000	1.003	1.009	1.000	1.021	1.000	1.000
Wtd Last	24	1.201	1.053	1.026	1.027	1.021	1.012	1.012	1.005	0.990	1.000	1.006	1.006	0.993	0.998	1.000	1.003	1.008	1.000	1.025	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.188	1.052	1.025	1.017	1.014	1.010	1.009	1.002	0.995	0.999	1.003	1.002	0.996	1.001	1.000	1.000	1.000	1.000	1.021	1.000	1.000

Cumulative Dev. Ratios

Unwtd Last	3	1.491	1.244	1.160	1.093	1.053	1.005	1.022	1.019	1.018	1.046	1.044	1.040	1.024	1.032	1.038	1.038	1.033	1.020	1.021	1.000	1.000
Wtd Last	3	1.519	1.261	1.182	1.117	1.060	1.014	1.024	1.021	1.020	1.047	1.045	1.039	1.023	1.032	1.039	1.039	1.035	1.025	1.025	1.000	1.000
Unwtd Last	24	1.401	1.175	1.121	1.097	1.078	1.062	1.049	1.034	1.029	1.036	1.037	1.032	1.026	1.031	1.033	1.033	1.030	1.020	1.021	1.000	1.000
Wtd Last	24	1.442	1.201	1.140	1.111	1.082	1.060	1.047	1.035	1.029	1.040	1.039	1.033	1.027	1.034	1.037	1.037	1.033	1.025	1.025	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.371	1.153	1.096	1.070	1.052	1.037	1.028	1.018	1.016	1.022	1.022	1.020	1.017	1.021	1.021	1.021	1.021	1.021	1.021	1.000	1.000

Estimated Values

	Loss Year	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**	**1988**	**1987**	Sum	**Ultimate Incl. Tail**
Unwtd Last	3	4,846	6,247	5,932	7,835	6,066	6,786	12,149	6,146	5,138	5,877	6,542	5,459	3,465	3,153	3,133	4,140	4,575	4,647	3,773	3,396	2,076	111,382	111,382
Wtd Last	3	4,939	6,336	6,042	8,003	6,110	6,841	12,174	6,158	5,148	5,883	6,551	5,457	3,461	3,154	3,136	4,143	4,583	4,670	3,791	3,396	2,076	112,053	112,053
Unwtd Last	24	4,555	5,901	5,731	7,863	6,212	7,170	12,463	6,238	5,196	5,823	6,498	5,421	3,470	3,151	3,117	4,119	4,561	4,647	3,773	3,396	2,076	111,381	111,381
Wtd Last	24	4,688	6,031	5,828	7,959	6,235	7,151	12,449	6,240	5,196	5,840	6,514	5,427	3,474	3,160	3,127	4,132	4,576	4,669	3,790	3,396	2,076	111,959	111,959
Unwtd Last	24 Exc Hi/Lo	4,455	5,794	5,603	7,665	6,064	7,001	12,215	6,139	5,130	5,739	6,407	5,356	3,442	3,120	3,079	4,068	4,519	4,647	3,773	3,396	2,076	109,688	109,688

Selected Method :	Unwtd Last 3	All periods combined	111,382
Minimum Method:	Unwtd Last 24 Exc Hi/Lo	All periods combined	109,688
Maximum Method:	Wtd Last 3	All periods combined	112,053

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Estimate of Ultimate using Reported Losses and ALAE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
		Minimum Method: Unwtd Last 24 Exc Hi/Lo		Selected Method: Unwtd Last 24		Maximum Method: Wtd Last 24			Minimum: Unwtd Last 24	Selected: Unwtd Last 24	Maximum: Wtd Last 24
Period	Reported Loss	Factor to Ultimate	Estimated Ultimate	Factor to Ultimate	Estimated Ultimate	Factor to Ultimate	Estimated Ultimate	Paid Loss	Unpaid Loss	Unpaid Loss	Unpaid Loss
1987	1,725,471	1.000	1,725,471	1.000	1,725,471	1.000	1,725,471	1,725,471	0	0	0
1988	3,022,698	1.000	3,022,698	1.000	3,022,698	1.000	3,022,698	2,809,997	212,701	212,701	212,701
1989	3,286,351	1.021	3,353,759	1.021	3,353,759	1.026	3,371,808	3,228,445	125,314	125,314	143,363
1990	4,157,699	1.021	4,242,980	1.021	4,244,620	1.026	4,266,893	4,157,699	85,281	86,921	109,193
1991	4,476,450	1.021	4,568,269	1.031	4,613,183	1.034	4,630,575	4,311,537	256,733	301,646	319,038
1992	4,129,753	1.021	4,214,460	1.034	4,268,598	1.037	4,283,647	4,129,753	84,708	138,845	153,894
1993	3,520,717	1.021	3,592,932	1.034	3,639,086	1.037	3,651,916	3,505,500	87,433	133,586	146,416
1994	3,566,123	1.021	3,641,463	1.032	3,679,182	1.035	3,689,199	3,563,530	77,934	115,652	125,669
1995	3,987,960	1.017	4,057,722	1.026	4,092,911	1.028	4,098,656	3,829,896	227,826	263,015	268,760
1996	6,254,703	1.020	6,380,071	1.033	6,461,243	1.035	6,475,185	6,170,977	209,094	290,266	304,208
1997	6,486,169	1.023	6,633,071	1.038	6,731,218	1.041	6,755,337	6,288,884	344,188	442,335	466,453
1998	5,854,311	1.022	5,981,844	1.037	6,071,818	1.042	6,098,986	5,789,650	192,194	282,167	309,336
1999	5,518,848	1.016	5,609,502	1.030	5,683,729	1.030	5,686,586	5,491,889	117,613	191,841	194,697
2000	6,712,126	1.018	6,834,788	1.035	6,948,122	1.036	6,951,909	6,584,941	249,846	363,180	366,968
2001	11,577,378	1.028	11,900,719	1.049	12,149,070	1.047	12,123,293	9,895,866	2,004,853	2,253,205	2,227,427
2002	6,795,856	1.038	7,052,723	1.063	7,226,592	1.060	7,206,763	6,205,316	847,407	1,021,276	1,001,447
2003	5,146,255	1.053	5,417,752	1.079	5,553,136	1.084	5,576,340	4,454,160	963,592	1,098,976	1,122,180
2004	7,337,539	1.071	7,855,252	1.099	8,062,384	1.114	8,171,364	5,893,353	1,961,899	2,169,032	2,278,011
2005	5,004,392	1.098	5,494,724	1.124	5,624,879	1.145	5,729,245	3,998,352	1,496,372	1,626,526	1,730,892
2006	4,360,047	1.158	5,047,561	1.180	5,144,892	1.209	5,269,262	2,681,318	2,366,244	2,463,575	2,587,945
2007	2,245,906	1.452	3,261,429	1.485	3,334,173	1.529	3,433,346	1,124,219	2,137,209	2,209,953	2,309,127
TOTAL	105,166,751	xx	109,889,192	xx	111,630,764	xx	112,218,478	95,840,752	14,048,440	15,790,012	16,377,726

Column	Notes
(1)	Exhibit 1a
(2)	Exhibit 1b
(3)	(1) × (2)
(4)	Exhibit 1b
(5)	(1) × (4)
(6)	Exhibit 1b

Column	Notes
(7)	(1) × (6)
(8)	Exhibit 2a
(9)	(3) - (8)
(10)	(5) - (8)
(11)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Estimate of Ultimate using Paid Losses and ALAE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Minimum Method: Unwtd Last 3		Selected Method: Unwtd Last 24 Exc Hi/Lo		Maximum Method: Unwtd Last 24		Minimum: Unwtd Last 3	Selected: Unwtd Last 24 Exc Hi/Lo	Maximum: Unwtd Last 24
Period	Paid Loss	Factor to Ultimate*	Estimated Ultimate	Factor to Ultimate*	Estimated Ultimate	Factor to Ultimate*	Estimated Ultimate	Unpaid Loss	Unpaid Loss	Unpaid Loss
1987	1,725,471	1.000	1,725,471	1.000	1,725,471	1.000	1,725,471	0	0	0
1988	2,809,997	1.000	2,809,997	1.000	2,809,997	1.000	2,809,997	0	0	0
1989	3,228,445	1.010	3,260,392	1.010	3,260,392	1.010	3,260,392	31,947	31,947	31,947
1990	4,157,699	1.018	4,232,426	1.014	4,214,968	1.018	4,232,426	74,727	57,269	74,727
1991	4,311,537	1.024	4,415,272	1.016	4,379,350	1.023	4,408,711	103,736	67,814	97,175
1992	4,129,753	1.026	4,235,489	1.017	4,201,030	1.028	4,244,654	105,737	71,277	114,901
1993	3,505,500	1.027	3,599,048	1.019	3,572,290	1.033	3,619,842	93,548	66,790	114,342
1994	3,563,530	1.030	3,669,121	1.022	3,641,435	1.039	3,702,689	105,591	77,905	139,159
1995	3,829,896	1.032	3,951,490	1.025	3,925,833	1.044	3,997,822	121,594	95,937	167,926
1996	6,170,977	1.036	6,391,458	1.029	6,348,966	1.049	6,473,356	220,481	177,989	302,379
1997	6,288,884	1.042	6,550,584	1.034	6,505,481	1.056	6,640,644	261,700	216,598	351,760
1998	5,789,650	1.050	6,081,133	1.045	6,050,421	1.069	6,190,125	291,483	260,771	400,475
1999	5,491,889	1.062	5,831,377	1.056	5,798,493	1.081	5,935,817	339,489	306,604	443,928
2000	6,584,941	1.070	7,047,291	1.067	7,029,236	1.094	7,202,166	462,349	444,294	617,224
2001	9,895,866	1.080	10,687,513	1.085	10,741,418	1.114	11,020,516	791,647	845,552	1,124,650
2002	6,205,316	1.128	6,996,570	1.118	6,939,260	1.149	7,129,547	791,254	733,944	924,231
2003	4,454,160	1.177	5,243,052	1.166	5,193,540	1.200	5,345,160	788,892	739,380	891,000
2004	5,893,353	1.250	7,364,763	1.250	7,367,913	1.305	7,692,444	1,471,410	1,474,561	1,799,092
2005	3,998,352	1.408	5,627,771	1.412	5,645,930	1.463	5,851,132	1,629,419	1,647,577	1,852,780
2006	2,681,318	1.720	4,612,186	1.823	4,887,873	1.885	5,054,864	1,930,868	2,206,556	2,373,547
2007	1,124,219	3.102	3,487,147	4.085	4,592,403	4.241	4,768,025	2,362,927	3,468,183	3,643,806
TOTAL	95,840,752	xx	107,819,551	xx	108,831,699	xx	111,305,799	11,978,799	12,990,946	15,465,047

Column	Notes
(1)	Exhibit 2a
(2)	Exhibit 2b
(3)	(1) × (2)
(4)	Exhibit 2b
(5)	(1) × (4)
(6)	Exhibit 2b

Column	Notes
(7)	(1) × (6)
(8)	(3) - (1)
(9)	(5) - (1)
(10)	(7) - (1)

* Tail factors for 1987 adjusted to balance paid loss and reported loss.
Rptd Loss of 1,725,471 ÷ Paid Loss of 1,725,471 = 1.000

Missouri Department of Transportation
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Highway and Transportation Workers' Compensation
Estimate of Ultimate using Counts and Averages

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Minimum Claims Method: Unwtd Last 3			Minimum Severity Method: Unwtd Last 24 Exc Hi/Lo					
Period	Reported Claims	Claims Development	Estimated Ultimate Claims	Average severity	Severity Development	Estimated Ultimate Severity	Estimated Ultimate Losses	Paid Losses	Unpaid Losses
1987	831	0	831	2,076	0	2,076	1,725,471	1,725,471	0
1988	890	0	890	3,396	0	3,396	3,022,698	2,809,997	212,701
1989	889	0	889	3,697	76	3,773	3,353,759	3,228,445	125,314
1990	913	0	913	4,554	93	4,647	4,244,685	4,157,699	86,985
1991	1,011	0	1,011	4,428	91	4,519	4,570,104	4,311,537	258,567
1992	1,036	0	1,036	3,986	82	4,068	4,216,153	4,129,753	86,400
1993	1,167	0	1,167	3,017	62	3,079	3,594,375	3,505,500	88,875
1994	1,167	0	1,167	3,056	65	3,120	3,642,926	3,563,530	79,396
1995	1,179	0	1,179	3,382	59	3,442	4,059,351	3,829,896	229,455
1996	1,191	0	1,191	5,252	104	5,356	6,380,989	6,170,977	210,012
1997	1,035	0	1,035	6,267	140	6,407	6,634,025	6,288,884	345,142
1998	1,042	0	1,042	5,618	121	5,739	5,982,704	5,789,650	193,054
1999	1,093	0	1,093	5,049	81	5,130	5,609,825	5,491,889	117,936
2000	1,113	0	1,113	6,031	109	6,139	6,835,809	6,584,941	250,868
2001	974	0	974	11,886	329	12,215	11,902,322	9,895,866	2,006,456
2002	1,007	0	1,007	6,749	253	7,001	7,053,200	6,205,316	847,884
2003	893	0	893	5,763	301	6,064	5,417,173	4,454,160	963,013
2004	1,024	1	1,025	7,166	499	7,665	7,854,714	5,893,353	1,961,362
2005	979	2	981	5,112	491	5,603	5,495,008	3,998,352	1,496,655
2006	868	2	870	5,023	770	5,794	5,039,656	2,681,318	2,358,338
2007	691	11	702	3,250	1,204	4,455	3,127,017	1,124,219	2,002,798
TOTAL	20,993	21	21,014	104,758	4,930	109,688	109,761,966	95,840,752	13,921,213

Column	Notes
(1)	Exhibit 3a
(2)	(3) - (1)
(3)	Exhibit 3b
(4)	Exhibit 4a
(5)	(6) - (4)

Column	Notes
(6)	Exhibit 4b
(7)	(3) × (6)
(8)	Exhibit 2a
(9)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Estimate of Ultimate using Counts and Averages

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Selected Claims Method: Unwtd Last 24 Exc Hi/Lo			Selected Severity Method: Unwtd Last 3					
Period	Reported Claims	Claims Development	Estimated Ultimate Claims	Average severity	Severity Development	Estimated Ultimate Severity	Estimated Ultimate Losses	Paid Losses	Unpaid Losses
1987	831	0	831	2,076	0	2,076	1,725,471	1,725,471	0
1988	890	0	890	3,396	0	3,396	3,022,698	2,809,997	212,701
1989	889	0	889	3,697	76	3,773	3,353,759	3,228,445	125,314
1990	913	0	913	4,554	93	4,647	4,242,916	4,157,699	85,217
1991	1,011	0	1,011	4,428	148	4,575	4,625,708	4,311,537	314,171
1992	1,036	0	1,036	3,986	153	4,140	4,288,678	4,129,753	158,926
1993	1,167	0	1,167	3,017	116	3,133	3,656,205	3,505,500	150,705
1994	1,167	0	1,167	3,056	97	3,153	3,679,207	3,563,530	115,677
1995	1,179	0	1,179	3,382	82	3,465	4,085,139	3,829,896	255,243
1996	1,191	0	1,191	5,252	207	5,459	6,501,768	6,170,977	330,791
1997	1,035	0	1,035	6,267	275	6,542	6,771,180	6,288,884	482,297
1998	1,042	0	1,042	5,618	258	5,877	6,123,459	5,789,650	333,808
1999	1,093	0	1,093	5,049	89	5,138	5,616,324	5,491,889	124,435
2000	1,113	0	1,113	6,031	116	6,146	6,840,852	6,584,941	255,910
2001	974	0	974	11,886	262	12,149	11,832,741	9,895,866	1,936,876
2002	1,007	0	1,007	6,749	37	6,786	6,833,548	6,205,316	628,231
2003	893	0	893	5,763	303	6,066	5,418,033	4,454,160	963,873
2004	1,024	0	1,024	7,166	670	7,835	8,026,853	5,893,353	2,133,500
2005	979	1	980	5,112	820	5,932	5,816,006	3,998,352	1,817,653
2006	868	3	871	5,023	1,224	6,247	5,441,373	2,681,318	2,760,056
2007	691	40	731	3,250	1,596	4,846	3,543,177	1,124,219	2,418,958
TOTAL	20,993	45	21,038	104,758	6,624	111,382	111,445,096	95,840,752	15,604,343

Column	Notes
(1)	Exhibit 3a
(2)	(3) - (1)
(3)	Exhibit 3b
(4)	Exhibit 4a
(5)	(6) - (4)

Column	Notes
(6)	Exhibit 4b
(7)	(3) × (6)
(8)	Exhibit 2a
(9)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Estimate of Ultimate using Counts and Averages

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Maximum Claims Method: Unwtd Last 24			Maximum Severity Method: Wtd Last 3					
Period	Reported Claims	Claims Development	Estimated Ultimate Claims	Average severity	Severity Development	Estimated Ultimate Severity	Estimated Ultimate Losses	Paid Losses	Unpaid Losses
1987	831	0	831	2,076	0	2,076	1,725,471	1,725,471	0
1988	890	0	890	3,396	0	3,396	3,022,698	2,809,997	212,701
1989	889	0	889	3,697	94	3,791	3,369,822	3,228,445	141,377
1990	913	0	913	4,554	116	4,670	4,264,969	4,157,699	107,270
1991	1,011	0	1,011	4,428	155	4,583	4,635,392	4,311,537	323,855
1992	1,036	0	1,036	3,986	157	4,143	4,294,000	4,129,753	164,248
1993	1,167	0	1,167	3,017	119	3,136	3,660,742	3,505,500	155,242
1994	1,167	0	1,167	3,056	99	3,154	3,682,662	3,563,530	119,132
1995	1,179	1	1,180	3,382	79	3,461	4,083,062	3,829,896	253,166
1996	1,191	1	1,192	5,252	205	5,457	6,503,956	6,170,977	332,979
1997	1,035	1	1,036	6,267	284	6,551	6,785,884	6,288,884	497,000
1998	1,042	1	1,043	5,618	264	5,883	6,134,421	5,789,650	344,771
1999	1,093	1	1,094	5,049	99	5,148	5,631,944	5,491,889	140,055
2000	1,113	1	1,114	6,031	128	6,158	6,859,521	6,584,941	274,579
2001	974	1	975	11,886	288	12,174	11,867,302	9,895,866	1,971,437
2002	1,007	1	1,008	6,749	92	6,841	6,894,826	6,205,316	689,509
2003	893	1	894	5,763	347	6,110	5,461,791	4,454,160	1,007,631
2004	1,024	1	1,025	7,166	837	8,003	8,205,655	5,893,353	2,312,302
2005	979	2	981	5,112	930	6,042	5,930,114	3,998,352	1,931,762
2006	868	4	872	5,023	1,313	6,336	5,524,770	2,681,318	2,843,453
2007	691	41	732	3,250	4248	4,939	3,616,507	1,124,219	2,492,288
TOTAL	20,993	59	21,052	xx	xx	112,053	112,155,509	95,840,752	16,314,757

Column	Notes
(1)	Exhibit 3a
(2)	(3) - (1)
(3)	Exhibit 3b
(4)	Exhibit 4a
(5)	(6) - (4)

Column	Notes
(6)	Exhibit 4b
(7)	(3) × (6)
(8)	Exhibit 2a
(9)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Selected Estimates for Unpaid Losses

		Selected Ultimates					Estimated Unpaid Losses			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Weights		50%	50%	0%	100%		50%	50%	0%	100%
Loss year	Reported Losses	Reported Method	Paid Method	Counts/Averages	Selected	Paid Losses	Reported Method	Paid Method	Counts/Averages	Selected
1987	1,725,471	1,725,471	1,725,471	1,725,471	1,725,471	1,725,471	0	0	0	0
1988	3,022,698	3,022,698	3,022,698	3,022,698	3,022,698	2,809,997	212,701	212,701	212,701	212,701
1989	3,286,351	3,353,759	3,286,351	3,353,759	3,320,055	3,228,445	125,314	57,906	125,314	91,610
1990	4,157,699	4,244,620	4,214,968	4,242,916	4,229,794	4,157,699	86,921	57,269	85,217	72,095
1991	4,476,450	4,613,183	4,476,450	4,625,708	4,544,816	4,311,537	301,646	164,913	314,171	233,280
1992	4,129,753	4,268,598	4,201,030	4,288,678	4,234,814	4,129,753	138,845	71,277	158,926	105,061
1993	3,520,717	3,639,086	3,572,290	3,656,205	3,605,688	3,505,500	133,586	66,790	150,705	100,188
1994	3,566,123	3,679,182	3,641,435	3,679,207	3,660,308	3,563,530	115,652	77,905	115,677	96,778
1995	3,987,960	4,092,911	3,987,960	4,085,139	4,040,436	3,829,896	263,015	158,064	255,243	210,540
1996	6,254,703	6,461,243	6,348,966	6,501,768	6,405,104	6,170,977	290,266	177,989	330,791	234,127
1997	6,486,169	6,731,218	6,505,481	6,771,180	6,618,350	6,288,884	442,335	216,598	482,297	329,466
1998	5,854,311	6,071,818	6,050,421	6,123,459	6,061,119	5,789,650	282,167	260,771	333,808	271,469
1999	5,518,848	5,683,729	5,798,493	5,616,324	5,741,111	5,491,889	191,841	306,604	124,435	249,222
2000	6,712,126	6,948,122	7,029,236	6,840,852	6,988,679	6,584,941	363,180	444,294	255,910	403,737
2001	11,577,378	12,149,070	11,577,378	11,832,741	11,863,224	9,895,866	2,253,205	1,681,512	1,936,876	1,967,359
2002	6,795,856	7,226,592	6,939,260	6,833,548	7,082,926	6,205,316	1,021,276	733,944	628,231	877,610
2003	5,146,255	5,553,136	5,193,540	5,418,033	5,373,338	4,454,160	1,098,976	739,380	963,873	919,178
2004	7,337,539	8,062,384	7,367,913	8,026,853	7,715,149	5,893,353	2,169,032	1,474,561	2,133,500	1,821,796
2005	5,004,392	5,624,879	5,645,930	5,816,006	5,635,404	3,998,352	1,626,526	1,647,577	1,817,653	1,637,052
2006	4,360,047	5,144,892	4,887,873	5,441,373	5,016,383	2,681,318	2,463,575	2,206,556	2,760,056	2,335,065
2007	2,245,906	3,334,173	4,592,403	3,543,177	**5,500,000**	1,124,219	2,209,953	3,468,183	2,418,958	4,375,781
TOTAL	105,166,751	111,630,764	110,065,546	111,445,096	112,384,867	95,840,752	15,790,012	14,224,794	15,604,343	16,544,115

Column	Notes	Column	Notes
(1)	Exhibit 1a	(6)	Exhibit 2a
(2)	Maximum of Exhibit 5 and Column (1)	(7)	(2) - (6)
(3)	Maximum of Exhibit 6 and Column (1)	(8)	(3) - (6)
(4)	Maximum of Exhibit 7b and Column (1)	(9)	(4) - (6)
(5)	Weighted Average of (2), (3), (4); Bolded figures are judgmental selections	(10)	(5) - (6)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Implied Development Factors and Reserves for Selected Ultimates

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Loss year	Maturity	Selected Ultimates	Reported at 12/07	Factor to Ult	Paid at 12/07	Factor to Ult	Incremental Factor	Case Reserves	IBNR Estimate
1987	252	1,725,471	1,725,471	1.000	1,725,471	1.000	1.000	$0	$0
1988	240	3,022,698	3,022,698	1.000	2,809,997	1.000	1.000	$212,701	$0
1989	228	3,320,055	3,286,351	1.010	3,228,445	1.012	1.012	$57,906	$33,704
1990	216	4,229,794	4,157,699	1.017	4,157,699	1.021	1.009	$0	$72,095
1991	204	4,544,816	4,476,450	1.015	4,311,537	1.025	1.004	$164,913	$68,366
1992	192	4,234,814	4,129,753	1.025	4,129,753	1.026	1.001	$0	$105,061
1993	180	3,605,688	3,520,717	1.024	3,505,500	1.027	1.001	$15,217	$84,971
1994	168	3,660,308	3,566,123	1.026	3,563,530	1.030	1.003	$2,593	$94,185
1995	156	4,040,436	3,987,960	1.013	3,829,896	1.032	1.002	$158,064	$52,476
1996	144	6,405,104	6,254,703	1.024	6,170,977	1.036	1.004	$83,726	$150,401
1997	132	6,618,350	6,486,169	1.020	6,288,884	1.043	1.007	$197,285	$132,181
1998	120	6,061,119	5,854,311	1.035	5,789,650	1.052	1.009	$64,661	$206,808
1999	108	5,741,111	5,518,848	1.040	5,491,889	1.064	1.011	$26,959	$222,263
2000	96	6,988,679	6,712,126	1.041	6,584,941	1.072	1.008	$127,184	$276,553
2001	84	11,863,224	11,577,378	1.025	9,895,866	1.082	1.009	$1,681,512	$285,846
2002	72	7,082,926	6,795,856	1.042	6,205,316	1.135	1.049	$590,539	$287,071
2003	60	5,373,338	5,146,255	1.044	4,454,160	1.189	1.047	$692,095	$227,083
2004	48	7,715,149	7,337,539	1.051	5,893,353	1.266	1.065	$1,444,186	$377,610
2005	36	5,635,404	5,004,392	1.126	3,998,352	1.425	1.126	$1,006,039	$631,013
2006	24	5,016,383	4,360,047	1.151	2,681,318	1.733	1.216	$1,678,730	$656,336
2007	12	5,500,000	2,245,906	2.449	1,124,219	3.134	1.809	$1,121,686	$3,254,094
TOTAL	xx	112,384,867	105,166,751	xx	95,840,752	xx	xx	$9,325,999	$7,218,116

Column	Notes
(1)	Exhibit 8
(2)	Exhibit 1a
(3)	(1) ÷ (2)
(4)	Exhibit 2a

Column	Notes
(5)	Exhibit 2b, Weighted Last 3 Factors
(6)	Incremental division of column (5)
(7)	(2) - (4)
(8)	(1) - (2)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Cumulative Payment Pattern

Estimated Cumulative Payments

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	TOTAL
Selected Ultimates	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,405,104	6,618,350	6,061,119	5,741,111	6,988,679	11,863,224	7,082,926	5,373,338	7,715,149	5,635,404	5,016,383	5,500,000	112,384,867
Estimated Unpaid Losses	0	212,701	91,610	72,095	233,280	105,061	100,188	96,778	210,540	234,127	329,466	271,469	249,222	403,737	1,967,359	877,610	919,178	1,821,796	1,637,052	2,335,065	4,375,781	16,544,115
Paid as of 12/31/07	1,725,471	2,809,997	3,228,445	4,157,699	4,311,537	4,129,753	3,505,500	3,563,530	3,829,896	6,170,977	6,288,884	5,789,650	5,491,889	6,584,941	9,895,866	6,205,316	4,454,160	5,893,353	3,998,352	2,681,318	1,124,219	95,840,752
2008	1,725,471	3,022,698	3,320,055	4,187,680	4,347,946	4,134,929	3,509,437	3,572,401	3,842,998	6,196,199	6,338,960	5,834,436	5,534,371	6,630,597	10,120,895	6,522,597	4,684,225	6,335,767	4,482,096	3,369,462	2,782,745	100,495,965
2009	1,725,471	3,022,698	3,320,055	4,229,794	4,429,814	4,150,518	3,514,180	3,575,856	3,861,097	6,209,199	6,369,057	5,868,890	5,568,478	6,691,636	10,317,923	6,586,688	4,933,358	6,681,019	4,762,171	3,856,122	3,583,521	103,257,545
2010	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,185,572	3,528,462	3,580,017	3,868,145	6,227,157	6,384,571	5,889,598	5,594,717	6,740,640	10,581,333	6,642,804	4,983,684	7,054,885	4,980,736	4,137,886	4,149,834	105,372,877
2011	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,560,576	3,592,549	3,876,634	6,234,151	6,406,001	5,900,272	5,610,487	6,778,340	10,792,814	6,717,827	5,027,747	7,130,407	5,217,417	4,357,769	4,477,716	106,758,353
2012	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,620,726	3,902,199	6,242,574	6,414,347	5,915,017	5,618,616	6,800,999	10,955,506	6,778,059	5,086,656	7,196,531	5,265,227	4,595,876	4,733,588	107,809,257
2013	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	3,959,684	6,267,941	6,424,398	5,920,759	5,629,845	6,812,679	11,053,292	6,824,396	5,133,952	7,284,935	5,307,088	4,643,974	5,010,667	108,617,252
2014	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,324,980	6,454,669	5,927,674	5,634,218	6,828,812	11,103,695	6,852,247	5,170,336	7,355,909	5,363,052	4,686,087	5,066,637	109,152,397
2015	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,405,104	6,522,735	5,948,502	5,639,484	6,835,095	11,173,319	6,866,602	5,192,205	7,410,510	5,407,984	4,742,389	5,115,643	109,643,653
2016	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,405,104	6,618,350	5,995,333	5,655,346	6,842,662	11,200,433	6,886,432	5,203,477	7,443,328	5,442,549	4,787,591	5,181,161	110,045,847
2017	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,405,104	6,618,350	6,061,119	5,691,011	6,865,452	11,233,088	6,894,155	5,219,048	7,460,244	5,463,325	4,822,365	5,233,761	110,351,102
2018	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,405,104	6,618,350	6,061,119	5,741,111	6,916,695	11,331,437	6,903,455	5,225,111	7,483,610	5,474,034	4,843,266	5,274,227	110,661,601
2019	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,405,104	6,618,350	6,061,119	5,741,111	6,988,679	11,552,578	6,931,466	5,232,414	7,492,710	5,488,826	4,854,040	5,298,549	111,049,027
2020	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,405,104	6,618,350	6,061,119	5,741,111	6,988,679	11,863,224	6,994,450	5,254,409	7,503,670	5,494,587	4,868,921	5,311,085	111,488,790
2021	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,405,104	6,618,350	6,061,119	5,741,111	6,988,679	11,863,224	7,082,926	5,303,865	7,536,676	5,501,525	4,874,717	5,328,403	111,689,779
2022	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,405,104	6,618,350	6,061,119	5,741,111	6,988,679	11,863,224	7,082,926	5,373,338	7,610,893	5,522,420	4,881,696	5,335,147	111,868,088
2023	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,405,104	6,618,350	6,061,119	5,741,111	6,988,679	11,863,224	7,082,926	5,373,338	7,715,149	5,569,404	4,902,718	5,343,269	112,048,471
2024	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,405,104	6,618,350	6,061,119	5,741,111	6,988,679	11,863,224	7,082,926	5,373,338	7,715,149	5,635,404	4,949,985	5,367,731	112,186,200
2025	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,405,104	6,618,350	6,061,119	5,741,111	6,988,679	11,863,224	7,082,926	5,373,338	7,715,149	5,635,404	5,016,383	5,422,734	112,307,602
2026	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,405,104	6,618,350	6,061,119	5,741,111	6,988,679	11,863,224	7,082,926	5,373,338	7,715,149	5,635,404	5,016,383	5,500,000	112,384,867
2027	1,725,471	3,022,698	3,320,055	4,229,794	4,544,816	4,234,814	3,605,688	3,660,308	4,040,436	6,405,104	6,618,350	6,061,119	5,741,111	6,988,679	11,863,224	7,082,926	5,373,338	7,715,149	5,635,404	5,016,383	5,500,000	112,384,867

Percentage Paid

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
2008	1.000	1.000	1.000	0.416	0.156	0.049	0.039	0.092	0.062	0.108	0.152	0.165	0.170	0.113	0.114	0.362	0.250	0.243	0.295	0.295	0.379
2009	0.000	0.000	0.000	0.584	0.351	0.148	0.047	0.036	0.086	0.056	0.091	0.127	0.137	0.151	0.100	0.073	0.271	0.190	0.171	0.208	0.183
2010	0.000	0.000	0.000	0.000	0.493	0.334	0.143	0.043	0.033	0.077	0.047	0.076	0.105	0.121	0.134	0.064	0.055	0.205	0.134	0.121	0.129
2011	0.000	0.000	0.000	0.000	0.000	0.469	0.321	0.129	0.040	0.030	0.065	0.039	0.063	0.093	0.107	0.085	0.048	0.041	0.145	0.094	0.075
2012	0.000	0.000	0.000	0.000	0.000	0.000	0.450	0.291	0.121	0.036	0.025	0.054	0.033	0.056	0.083	0.069	0.064	0.036	0.029	0.102	0.058
2013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.409	0.273	0.108	0.031	0.021	0.045	0.029	0.050	0.053	0.051	0.049	0.026	0.021	0.063
2014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.384	0.244	0.092	0.025	0.018	0.040	0.026	0.032	0.040	0.039	0.034	0.018	0.013
2015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.342	0.207	0.077	0.021	0.016	0.035	0.016	0.024	0.030	0.027	0.024	0.011
2016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.290	0.173	0.064	0.019	0.014	0.023	0.012	0.018	0.021	0.019	0.015
2017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.242	0.143	0.056	0.017	0.009	0.017	0.009	0.013	0.015	0.012
2018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.201	0.127	0.050	0.011	0.007	0.013	0.007	0.009	0.009
2019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.178	0.112	0.032	0.008	0.005	0.009	0.005	0.006
2020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.158	0.072	0.024	0.006	0.004	0.006	0.003
2021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.101	0.054	0.018	0.004	0.002	0.004
2022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.076	0.041	0.013	0.003	0.002
2023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.057	0.029	0.009	0.002
2024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.020	0.006
2025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.028	0.013
2026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018
2027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Notes

The purpose of this exhibit is to derive a stream of annual payments based on the estimates in Exhibit 9.
This exhibit derives estimated cumulative payments for each loss year through 2007. Exhibit 11 derives the annual payments as differences between successive cumulative payments for all years.
Selected ultimate loss values are from Exhibit 9 column (1).
Paid loss as of December 31, 2007 is from Exhibit (9) column (5).
Unpaid loss as of December 31, 2007 is derived by subtraction of paid loss from ultimate loss.
Totals are carried forward to Exhibit 11.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Discounted Reserves

Discounted Reserves								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Payment year	Total Paid	Expected Payments by Year	3.50% Discount Factor	Discounted Expected Payments	4.50% Discount Factor	Discounted Expected Payments	5.50% Discount Factor	Discounted Expected Payments
2007	95,840,752	xx	xx	xx	xx	xx	xx	xx
2008	100,495,965	4,655,212	0.983	4,575,824	0.978	4,553,878	0.974	4,532,244
2009	103,257,545	2,761,580	0.950	2,622,691	0.936	2,585,135	0.923	2,548,466
2010	105,372,877	2,115,333	0.918	1,941,010	0.896	1,894,907	0.875	1,850,323
2011	106,758,353	1,385,476	0.887	1,228,310	0.857	1,187,660	0.829	1,148,723
2012	107,809,257	1,050,903	0.857	900,184	0.820	862,064	0.786	825,899
2013	108,617,252	807,995	0.828	668,708	0.785	634,262	0.745	601,894
2014	109,152,397	535,145	0.800	427,917	0.751	401,990	0.706	377,860
2015	109,643,653	491,256	0.773	379,538	0.719	353,131	0.669	328,787
2016	110,045,847	402,194	0.746	300,222	0.688	276,660	0.634	255,146
2017	110,351,102	305,256	0.721	220,156	0.658	200,937	0.601	183,555
2018	110,661,601	310,499	0.697	216,364	0.630	195,586	0.570	176,974
2019	111,049,027	387,426	0.673	260,840	0.603	233,535	0.540	209,308
2020	111,488,790	439,763	0.650	286,065	0.577	253,667	0.512	225,197
2021	111,689,779	200,989	0.628	126,322	0.552	110,944	0.485	97,558
2022	111,868,088	178,309	0.607	108,277	0.528	94,186	0.460	82,037
2023	112,048,471	180,383	0.587	105,833	0.505	91,179	0.436	78,665
2024	112,186,200	137,729	0.567	78,075	0.484	66,620	0.413	56,933
2025	112,307,602	121,402	0.548	66,492	0.463	56,194	0.392	47,567
2026	112,384,867	77,266	0.529	40,887	0.443	34,224	0.371	28,696
2027	112,384,867	-	0.511	-	0.424	-	0.352	-
TOTAL	xx	16,544,115	xx	14,553,715	xx	14,086,760	xx	13,655,832

Column	Notes
(1)	Exhibit 10 TOTAL column
(2)	Successive differences in (1)
(3)	((1.035)^(0.5 + Payment Year - 2008)) ^ (-1)
(4)	(2) × (3)
(5)	((1.045)^(0.5 + Payment Year - 2008)) ^ (-1)
(6)	(2) × (5)
(7)	((1.055)^(0.5 + Payment Year - 2008)) ^ (-1)
(8)	(2) × (7)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Discounted Payments by Loss Year

Loss Year	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	12/31/07	12/31/08
Estimated Unpaid Losses	0	212,701	91,610	72,095	233,280	105,061	100,188	96,778	210,540	234,127	329,466	271,469	249,222	403,737	1,967,359	877,610	919,178	1,821,796	1,637,052	2,335,065	4,375,781	16,544,115	11,888,902
Paid as of 12/31/07	1,725,471	2,809,997	3,228,445	4,157,699	4,311,537	4,129,753	3,505,500	3,563,530	3,829,896	6,170,977	6,288,884	5,789,650	5,491,889	6,584,941	9,895,866	6,205,316	4,454,160	5,893,353	3,998,352	2,681,318	1,124,219	95,840,752	100,495,965
2008	0	208,071	89,616	29,327	35,616	5,063	3,851	8,678	12,817	24,673	48,986	43,811	41,557	44,662	220,131	310,373	225,057	432,784	473,213	673,165	1,622,423	4,553,875	0
2009	0	0	0	39,423	76,637	14,594	4,439	3,234	16,942	12,170	28,175	32,253	31,928	57,138	184,439	59,996	233,215	323,192	262,180	455,565	749,612	2,585,133	2,701,464
2010	0	0	0	0	103,019	31,401	12,794	3,727	6,314	16,087	13,897	18,550	23,505	43,898	235,963	50,269	45,081	334,909	195,790	252,403	507,301	1,894,908	1,980,178
2011	0	0	0	0	0	42,211	27,529	10,742	7,277	5,995	18,370	9,150	13,519	32,317	181,285	64,311	37,772	64,739	202,887	188,488	281,067	1,187,660	1,241,105
2012	0	0	0	0	0	0	37,006	23,115	20,971	6,909	6,846	12,095	6,668	18,587	133,458	49,409	48,323	54,242	39,219	195,321	209,894	862,064	900,856
2013	0	0	0	0	0	0	0	31,071	45,125	19,913	7,890	4,507	8,815	9,169	76,760	36,374	37,126	69,395	32,860	37,756	217,502	634,262	662,804
2014	0	0	0	0	0	0	0	0	60,659	42,847	22,739	5,195	3,285	12,119	37,862	20,921	27,332	53,315	42,040	31,634	42,044	401,992	420,081
2015	0	0	0	0	0	0	0	0	0	57,596	48,928	14,972	3,786	4,516	50,048	10,320	15,720	39,249	32,298	40,472	35,227	353,132	369,023
2016	0	0	0	0	0	0	0	0	0	0	65,771	32,215	10,910	5,205	18,651	13,641	7,754	22,575	23,777	31,093	45,068	276,660	289,110
2017	0	0	0	0	0	0	0	0	0	0	0	43,304	23,477	15,002	21,495	5,083	10,250	11,135	13,676	22,890	34,625	200,937	209,979
2018	0	0	0	0	0	0	0	0	0	0	0	0	31,559	32,279	61,951	5,859	3,820	14,718	6,746	13,166	25,490	195,587	204,388
2019	0	0	0	0	0	0	0	0	0	0	0	0	0	43,391	133,301	16,885	4,402	5,485	8,916	6,494	14,661	233,535	244,044
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	179,189	36,331	12,687	6,321	3,323	8,584	7,232	253,668	265,083
2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48,838	27,299	18,219	3,830	3,199	9,559	110,944	115,936
2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36,697	39,203	11,037	3,687	3,562	94,186	98,425
2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52,699	23,749	10,626	4,105	91,179	95,282
2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31,925	22,863	11,832	66,620	69,618
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30,734	25,460	56,194	58,723
2026	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34,224	34,224	35,765
2027	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Payments after valuation	0	208,071	89,616	68,751	215,273	93,270	85,619	80,567	170,104	186,191	261,603	216,052	199,009	318,283	1,534,533	728,608	772,535	1,542,180	1,407,466	2,028,141	3,880,889	14,086,760	9,961,864
TOTAL	1,725,471	3,018,068	3,318,061	4,226,450	4,526,810	4,223,022	3,591,119	3,644,097	4,000,000	6,357,168	6,550,487	6,005,702	5,690,897	6,903,225	11,430,398	6,933,925	5,226,695	7,435,533	5,405,818	4,709,459	5,005,109	xx	xx

Notes
Selected Estimated Reserves from Exhibit 8.
Valuation at 12/31/08 are payments increased by an interest rate of 4.5%

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Allocation by District - Reported Losses and ALAE

Reported losses for each District by loss year as of 12/31/07

Loss year	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	District 10	Central Office	TOTAL
1987	43,206	82,198	23,835	314,181	165,023	628,172	69,191	22,326	34,826	172,271	170,243	1,725,471
1988	565,348	8,939	319,485	174,755	261,861	1,331,596	18,741	72,450	120,382	86,363	62,777	3,022,698
1989	52,832	103,642	253,835	540,483	360,273	776,801	76,177	89,668	318,543	381,779	332,318	3,286,351
1990	294,364	88,415	401,777	570,199	127,521	920,112	180,009	471,096	94,535	465,565	544,108	4,157,699
1991	216,147	301,640	335,161	379,060	400,454	1,012,628	267,709	116,694	678,567	509,800	258,591	4,476,450
1992	75,022	200,126	284,190	421,551	484,612	1,015,139	291,430	19,539	736,030	132,981	469,134	4,129,753
1993	226,196	94,616	330,985	429,659	287,294	996,151	62,092	149,515	72,096	223,342	648,772	3,520,717
1994	137,319	281,411	148,325	455,466	191,759	954,052	102,104	224,449	221,629	188,714	660,895	3,566,123
1995	360,178	232,113	192,338	337,760	256,413	835,193	158,011	302,245	623,840	245,360	444,510	3,987,960
1996	223,148	264,987	378,222	536,338	162,432	3,300,652	146,840	235,278	174,657	481,220	350,931	6,254,703
1997	232,377	124,669	337,105	493,106	388,135	2,299,077	317,454	683,421	150,244	990,102	470,478	6,486,169
1998	288,491	424,218	271,985	506,847	367,409	1,921,292	391,257	275,384	276,104	486,896	644,427	5,854,311
1999	209,249	457,252	382,024	465,866	244,158	1,354,463	418,315	253,491	670,988	591,760	471,284	5,518,848
2000	150,663	783,624	563,572	728,982	880,493	1,620,154	517,376	479,055	310,217	339,234	338,756	6,712,126
2001	617,956	163,345	483,983	1,323,092	843,850	1,668,775	392,072	273,678	688,520	4,763,361	358,747	11,577,378
2002	264,037	371,964	462,631	450,944	732,225	1,378,722	544,376	369,355	600,471	732,641	888,490	6,795,856
2003	56,042	410,454	186,260	1,007,854	284,278	1,082,053	674,518	587,275	352,169	199,875	305,475	5,146,255
2004	404,957	307,824	511,305	1,054,298	448,927	1,077,896	1,393,674	731,659	373,486	600,353	433,161	7,337,539
2005	323,238	134,707	410,561	604,879	681,563	1,245,731	433,224	47,111	552,669	373,241	197,467	5,004,392
2006	213,805	382,589	524,685	368,634	139,200	1,136,084	392,598	405,761	132,317	411,548	252,826	4,360,047
2007	157,284	157,813	120,539	278,917	65,623	497,382	309,603	294,015	114,447	125,147	125,136	2,245,906
TOTAL	5,111,856	5,376,545	6,922,805	11,442,873	7,773,503	27,052,125	7,156,770	6,103,463	7,296,737	12,501,551	8,428,523	105,166,751

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Allocation by District - Factors to Ultimate

Development factors to ultimate for reported loss from Exhibit 9

Loss year	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	District 10	Central Office
1987	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1988	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1989	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010
1990	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017
1991	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
1992	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
1993	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024
1994	1.026	1.026	1.026	1.026	1.026	1.026	1.026	1.026	1.026	1.026	1.026
1995	1.013	1.013	1.013	1.013	1.013	1.013	1.013	1.013	1.013	1.013	1.013
1996	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024
1997	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
1998	1.035	1.035	1.035	1.035	1.035	1.035	1.035	1.035	1.035	1.035	1.035
1999	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
2000	1.041	1.041	1.041	1.041	1.041	1.041	1.041	1.041	1.041	1.041	1.041
2001	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2002	1.042	1.042	1.042	1.042	1.042	1.042	1.042	1.042	1.042	1.042	1.042
2003	1.044	1.044	1.044	1.044	1.044	1.044	1.044	1.044	1.044	1.044	1.044
2004	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051
2005	1.126	1.126	1.126	1.126	1.126	1.126	1.126	1.126	1.126	1.126	1.126
2006	1.151	1.151	1.151	1.151	1.151	1.151	1.151	1.151	1.151	1.151	1.151
2007	2.449	2.449	2.449	2.449	2.449	2.449	2.449	2.449	2.449	2.449	2.449

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Allocation by District - Estimated Ultimates

Products of values in Exhibit 13a and corresponding values in Exhibit 13b.

Loss year	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	District 10	Central Office	TOTAL
1987	43,206	82,198	23,835	314,181	165,023	628,172	69,191	22,326	34,826	172,271	170,243	1,725,471
1988	565,348	8,939	319,485	174,755	261,861	1,331,596	18,741	72,450	120,382	86,363	62,777	3,022,698
1989	53,374	104,705	256,438	546,026	363,968	784,768	76,958	90,587	321,810	385,695	335,727	3,320,055
1990	299,468	89,948	408,744	580,087	129,732	936,067	183,131	479,265	96,174	473,637	553,543	4,229,794
1991	219,448	306,247	340,280	384,849	406,570	1,028,093	271,797	118,476	688,930	517,586	262,541	4,544,816
1992	76,930	205,217	291,420	432,275	496,940	1,040,964	298,844	20,036	754,755	136,364	481,069	4,234,814
1993	231,655	96,899	338,973	440,029	294,227	1,020,192	63,591	153,123	73,836	228,732	664,430	3,605,688
1994	140,945	288,843	152,243	467,496	196,824	979,249	104,801	230,377	227,482	193,698	678,350	3,660,308
1995	364,917	235,168	194,868	342,204	259,787	846,183	160,090	306,223	632,049	248,588	450,359	4,040,436
1996	228,513	271,359	387,317	549,235	166,337	3,380,020	150,371	240,936	178,857	492,792	359,369	6,405,104
1997	237,113	127,210	343,975	503,155	396,044	2,345,930	323,924	697,348	153,306	1,010,280	480,066	6,618,350
1998	298,682	439,204	281,594	524,752	380,388	1,989,163	405,079	285,112	285,858	504,096	667,192	6,061,119
1999	217,676	475,667	397,410	484,628	253,991	1,409,012	435,161	263,699	698,011	615,592	490,264	5,741,111
2000	156,871	815,911	586,792	759,017	916,771	1,686,908	538,693	498,793	322,998	353,211	352,713	6,988,679
2001	633,213	167,378	495,933	1,355,759	864,684	1,709,978	401,753	280,435	705,519	4,880,969	367,604	11,863,224
2002	275,190	387,676	482,174	469,993	763,156	1,436,962	567,371	384,957	625,837	763,589	926,021	7,082,926
2003	58,515	428,566	194,479	1,052,327	296,822	1,129,799	704,282	613,189	367,709	208,695	318,954	5,373,338
2004	425,797	323,666	537,618	1,108,555	472,030	1,133,367	1,465,397	769,312	392,707	631,248	455,453	7,715,149
2005	363,996	151,692	462,330	681,149	767,503	1,402,807	487,850	53,051	622,356	420,303	222,366	5,635,404
2006	245,990	440,182	603,668	424,126	160,154	1,307,103	451,697	466,842	152,235	473,500	290,885	5,016,383
2007	385,172	386,468	295,189	683,040	160,705	1,218,040	758,186	720,013	280,268	306,473	306,445	5,500,000
TOTAL	5,522,020	5,833,141	7,394,763	12,277,639	8,173,519	28,744,374	7,936,906	6,766,550	7,735,905	13,103,681	8,896,368	112,384,867

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Allocation to District - Percentages

District Estimated Ultimate Losses as Percentage of Overall Estimated Ultimate Losses in Exhibit 13c

Loss year	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	District 10	Central Office	TOTAL
1987	2.50%	4.76%	1.38%	18.21%	9.56%	36.41%	4.01%	1.29%	2.02%	9.98%	9.87%	100.00%
1988	18.70%	0.30%	10.57%	5.78%	8.66%	44.05%	0.62%	2.40%	3.98%	2.86%	2.08%	100.00%
1989	1.61%	3.15%	7.72%	16.45%	10.96%	23.64%	2.32%	2.73%	9.69%	11.62%	10.11%	100.00%
1990	7.08%	2.13%	9.66%	13.71%	3.07%	22.13%	4.33%	11.33%	2.27%	11.20%	13.09%	100.00%
1991	4.83%	6.74%	7.49%	8.47%	8.95%	22.62%	5.98%	2.61%	15.16%	11.39%	5.78%	100.00%
1992	1.82%	4.85%	6.88%	10.21%	11.73%	24.58%	7.06%	0.47%	17.82%	3.22%	11.36%	100.00%
1993	6.42%	2.69%	9.40%	12.20%	8.16%	28.29%	1.76%	4.25%	2.05%	6.34%	18.43%	100.00%
1994	3.85%	7.89%	4.16%	12.77%	5.38%	26.75%	2.86%	6.29%	6.21%	5.29%	18.53%	100.00%
1995	9.03%	5.82%	4.82%	8.47%	6.43%	20.94%	3.96%	7.58%	15.64%	6.15%	11.15%	100.00%
1996	3.57%	4.24%	6.05%	8.57%	2.60%	52.77%	2.35%	3.76%	2.79%	7.69%	5.61%	100.00%
1997	3.58%	1.92%	5.20%	7.60%	5.98%	35.45%	4.89%	10.54%	2.32%	15.26%	7.25%	100.00%
1998	4.93%	7.25%	4.65%	8.66%	6.28%	32.82%	6.68%	4.70%	4.72%	8.32%	11.01%	100.00%
1999	3.79%	8.29%	6.92%	8.44%	4.42%	24.54%	7.58%	4.59%	12.16%	10.72%	8.54%	100.00%
2000	2.24%	11.67%	8.40%	10.86%	13.12%	24.14%	7.71%	7.14%	4.62%	5.05%	5.05%	100.00%
2001	5.34%	1.41%	4.18%	11.43%	7.29%	14.41%	3.39%	2.36%	5.95%	41.14%	3.10%	100.00%
2002	3.89%	5.47%	6.81%	6.64%	10.77%	20.29%	8.01%	5.44%	8.84%	10.78%	13.07%	100.00%
2003	1.09%	7.98%	3.62%	19.58%	5.52%	21.03%	13.11%	11.41%	6.84%	3.88%	5.94%	100.00%
2004	5.52%	4.20%	6.97%	14.37%	6.12%	14.69%	18.99%	9.97%	5.09%	8.18%	5.90%	100.00%
2005	6.46%	2.69%	8.20%	12.09%	13.62%	24.89%	8.66%	0.94%	11.04%	7.46%	3.95%	100.00%
2006	4.90%	8.77%	12.03%	8.45%	3.19%	26.06%	9.00%	9.31%	3.03%	9.44%	5.80%	100.00%
2007	7.00%	7.03%	5.37%	12.42%	2.92%	22.15%	13.79%	13.09%	5.10%	5.57%	5.57%	100.00%
Averages												
All Years	4.91%	5.19%	6.58%	10.92%	7.27%	25.58%	7.06%	6.02%	6.88%	11.66%	7.92%	100.00%
Last 3 Yrs	6.16%	6.06%	8.43%	11.07%	6.74%	24.32%	10.51%	7.68%	6.53%	7.43%	5.07%	100.00%

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Highway and Transportation Workers' Compensation
Fitted Trend Line - Selected Ultimate

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Loss year	index	sample	Selected ultimates	basis of fit	basis of fit squared	Sample Ultimate	sample product	Fitted values
1987	0	1	1,725,471	0	0	1,725,471	0	3,223,179
1988	1	1	3,022,698	1	1	3,022,698	3,022,698	3,436,027
1989	2	1	3,320,055	2	4	3,320,055	6,640,110	3,648,876
1990	3	1	4,229,794	3	9	4,229,794	12,689,382	3,861,724
1991	4	1	4,544,816	4	16	4,544,816	18,179,266	4,074,572
1992	5	1	4,234,814	5	25	4,234,814	21,174,069	4,287,420
1993	6	1	3,605,688	6	36	3,605,688	21,634,126	4,500,268
1994	7	1	3,660,308	7	49	3,660,308	25,622,158	4,713,116
1995	8	1	4,040,436	8	64	4,040,436	32,323,485	4,925,964
1996	9	1	6,405,104	9	81	6,405,104	57,645,940	5,138,812
1997	10	1	6,618,350	10	100	6,618,350	66,183,499	5,351,660
1998	11	1	6,061,119	11	121	6,061,119	66,672,313	5,564,508
1999	12	1	5,741,111	12	144	5,741,111	68,893,332	5,777,357
2000	13	1	6,988,679	13	169	6,988,679	90,852,823	5,990,205
2001	14	1	11,863,224	14	196	11,863,224	166,085,137	6,203,053
2002	15	1	7,082,926	15	225	7,082,926	106,243,894	6,415,901
2003	16	1	5,373,338	16	256	5,373,338	85,973,405	6,628,749
2004	17	1	7,715,149	17	289	7,715,149	131,157,530	6,841,597
2005	18	1	5,635,404	18	324	5,635,404	101,437,275	7,054,445
2006	19	1	5,016,383	19	361	5,016,383	95,311,273	7,267,293
2007	20	1	5,500,000	20	400	5,500,000	110,000,000	7,480,141
2008	21	0		0	0	0	0	7,692,990
TOTAL		21	112,384,867	210	2,870	112,384,867	1,287,741,714	120,077,857

Notes on Trend Factor Calculation

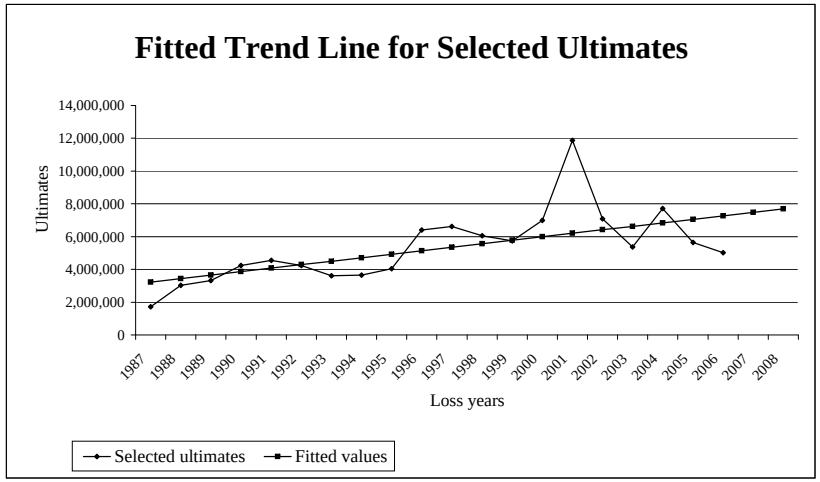
Column	Notes
(1)	Selected
(2)	Selected
(3)	Exhibit 8
(4)	(1) × (2)
(5)	(1) ^ 2 × (2)
(6)	(2) × (3)
(7)	(4) × (6)
(8)	y intercept + slope × (1)

slope	212,848	[(2) × (7) - (4) × (6)] ÷ [(2) × (5) - (4) ^ 2]
y intercept	3,223,179	[(6) - {(3) × (4)}] ÷ (2)

Values Carried Forward for Loss Year 2008

Row	2008 Estimates	
a	2008 Incurred	7,692,990
b	2008 Paid Development Factor	3.134
c	Loss year 2008 Paid at 12/31/08	2,454,501
d	Loss year 2008 Unpaid at 12/31/08	5,238,488
e	Loss year 2007 Unpaid at 12/31/07	4,375,781
f	Loss year 2007 Discounted at 12/31/07	3,880,889
g	Implied Discount Factor	0.887
h	2008 Discounted Unpaid Loss at 12/31/08	4,646,026

Row	Notes
a	Column 8, table above
b	Exhibit 9, Column 5, 12 months maturity
c	= a ÷ b
d	= a - c
e	Exhibit 12
f	Exhibit 12
g	= f ÷ e
h	= g × d



Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Reported Losses and ALAE

All amounts in thousands ('000s)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987	757	701	716	722	751	738	738	738	895	895	895	895	895	895	895	895	895	895	967	1,125	1,125	1,125	1,125
1988	374	414	404	371	378	295	295	292	292	292	292	292	292	292	292	292	292	292	292	292		292	292
1989	188	278	301	301	308	281	293	287	287	287	287	287	287	287	287	287	287	287	287			287	287
1990	94	221	230	206	207	204	204	204	172	172	172	172	172	172	172	172	172	172				172	172
1991	159	264	201	301	443	434	171	171	171	171	171	171	171	171	171	171	171					171	171
1992	344	410	409	402	409	432	429	427	427	427	427	427	427	427	427	427						427	427
1993	763	867	826	861	884	915	915	915	907	909	911	910	906	906	885							906	885
1994	579	745	839	974	964	963	949	967	967	967	967	873	960	960								960	960
1995	336	384	435	428	426	431	431	431	431	431	431	431	431									431	431
1996	1,525	1,645	1,838	2,144	2,172	2,204	2,408	2,412	2,433	2,592	2,921	2,920										2,921	2,920
1997	500	657	724	737	811	823	873	869	964	974	1,024											974	1,024
1998	708	783	849	952	1,116	1,219	1,369	1,369	1,606	1,606												1,606	1,606
1999	1,685	2,163	2,428	2,504	2,465	2,474	2,545	2,545	2,543													2,545	2,543
2000	899	1,018	1,063	1,105	1,112	1,125	1,092	1,063														1,092	1,063
2001	1,521	1,555	1,548	1,573	1,540	1,580	1,565															1,580	1,565
2002	1,630	1,891	1,868	1,933	1,919	1,910																1,919	1,910
2003	1,183	1,258	1,138	1,261	1,258																	1,261	1,258
2004	1,210	1,588	1,624	1,650																		1,624	1,650
2005	2,972	2,918	3,009																			2,918	3,009
2006	833	1,043																				833	1,043
2007	573																						573
																						24,043	24,913

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
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Development Ratios

Exposure		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	**Change in diagonals**	**Sum of diagonals**
1987	xx	0.925	1.022	1.008	1.040	0.983	1.000	1.000	1.213	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.081	1.163	1.000		757,460	757,460
1988	xx	1.106	0.976	0.919	1.019	0.780	1.000	0.990	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			317,084	1,074,544
1989	xx	1.479	1.084	1.000	1.021	0.913	1.042	0.981	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				243,101	1,317,645
1990	xx	2.361	1.040	0.894	1.005	0.988	1.000	1.002	0.839	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					179,856	1,497,501
1991	xx	1.663	0.761	1.495	1.473	0.978	0.395	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						305,934	1,803,435
1992	xx	1.191	0.997	0.984	1.017	1.055	0.994	0.996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							452,764	2,256,199
1993	xx	1.136	0.953	1.043	1.026	1.036	1.000	1.000	0.990	1.003	1.002	0.999	0.996	1.000	0.977								663,981	2,920,180
1994	xx	1.288	1.126	1.160	0.991	0.999	0.985	1.019	1.000	1.000	1.000	0.903	1.100	1.000									755,154	3,675,334
1995	xx	1.143	1.133	0.985	0.995	1.010	1.001	1.000	1.000	1.000	0.999	1.000	1.000										761,417	4,436,751
1996	xx	1.078	1.118	1.167	1.013	1.015	1.093	1.002	1.009	1.065	1.127	0.999											1,693,793	6,130,544
1997	xx	1.315	1.102	1.017	1.101	1.015	1.061	0.995	1.109	1.010	1.051												587,524	6,718,068
1998	xx	1.106	1.085	1.121	1.172	1.092	1.123	1.000	1.173	1.000													1,039,018	7,757,086
1999	xx	1.284	1.122	1.031	0.985	1.004	1.029	1.000	0.999														2,128,494	9,885,580
2000	xx	1.133	1.044	1.039	1.007	1.012	0.970	0.974															1,474,123	11,359,703
2001	xx	1.022	0.995	1.016	0.979	1.026	0.991																2,123,560	13,483,263
2002	xx	1.161	0.988	1.035	0.992	0.995																	2,166,063	15,649,326
2003	xx	1.064	0.905	1.108	0.998																		1,599,086	17,248,412
2004	xx	1.313	1.022	1.016																			1,469,161	18,717,573
2005	xx	0.982	1.031																				3,576,230	22,293,803
2006	xx	1.252																					1,749,668	24,043,471
2007	xx																						869,551	24,913,022

Discrete Dev. Ratios

Unwtd Last	3	1.182	0.986	1.053	0.990	1.011	0.996	0.991	1.094	1.025	1.059	0.968	1.032	1.000	0.992	1.000	1.000	1.000	*1.010*	*1.010*	*1.000*	1.000
Wtd Last	3	1.106	1.001	1.046	0.990	1.010	1.004	0.994	1.069	1.034	1.095	0.978	1.038	1.000	0.986	1.000	1.000	1.000	*1.010*	*1.010*	*1.000*	1.000
Unwtd Last	24	1.250	1.027	1.058	1.049	0.994	0.979	0.997	1.026	1.007	1.016	0.990	1.011	1.000	0.997	1.000	1.000	1.000	*1.010*	*1.010*	*1.000*	1.000
Wtd Last	24	1.139	1.035	1.056	1.023	1.008	1.011	0.998	1.040	1.018	1.047	0.987	1.019	1.000	0.993	1.000	1.000	1.000	*1.010*	*1.010*	*1.000*	1.000
Unwtd Last	24 Exc Hi/Lo	1.206	1.036	1.041	1.025	1.002	1.013	0.997	1.025	1.001	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	*1.010*	*1.010*	*1.000*	1.000

Cumulative Dev. Ratios

Unwtd Last	3	1.456	1.232	1.249	1.186	1.199	1.186	1.190	1.200	1.097	1.070	1.011	1.045	1.012	1.012	1.020	1.020	1.020	1.020	1.010	1.000	1.000
Wtd Last	3	1.428	1.290	1.289	1.232	1.245	1.233	1.228	1.235	1.155	1.117	1.021	1.044	1.006	1.006	1.020	1.020	1.020	1.020	1.010	1.000	1.000
Unwtd Last	24	1.474	1.179	1.149	1.086	1.035	1.042	1.064	1.068	1.041	1.034	1.017	1.028	1.017	1.017	1.020	1.020	1.020	1.020	1.010	1.000	1.000
Wtd Last	24	1.464	1.285	1.242	1.176	1.149	1.140	1.128	1.129	1.086	1.067	1.019	1.032	1.013	1.013	1.020	1.020	1.020	1.020	1.010	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.421	1.178	1.137	1.093	1.066	1.064	1.051	1.054	1.027	1.026	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.010	1.000	1.000

Estimated Values

	Loss Year	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**	**1988**	**1987**	Sum	**Ultimate Incl. Tail**
Unwtd Last	3	834,739	1,284,617	3,758,898	1,957,629	1,507,884	2,264,692	1,862,181	1,276,189	2,790,217	1,718,760	1,034,854	3,049,680	435,917	972,220	902,928	435,680	174,578	175,381	290,084	291,772	1,125,233	28,144,132	28,144,132
Wtd Last	3	818,408	1,345,594	3,878,076	2,032,623	1,566,140	2,355,361	1,921,565	1,312,867	2,937,298	1,794,410	1,045,246	3,047,579	433,176	966,105	902,928	435,680	174,578	175,381	290,084	291,772	1,125,233	28,850,102	28,850,102
Unwtd Last	24	844,970	1,229,719	3,456,253	1,791,896	1,302,447	1,989,985	1,665,713	1,135,012	2,646,600	1,660,345	1,041,660	2,999,975	437,859	976,550	902,928	435,680	174,578	175,381	290,084	291,772	1,125,233	26,574,640	26,574,640
Wtd Last	24	839,475	1,340,404	3,736,753	1,939,781	1,445,565	2,178,151	1,764,629	1,200,796	2,761,018	1,712,918	1,043,292	3,013,854	436,384	973,260	902,929	435,680	174,578	175,381	290,084	291,772	1,125,233	27,781,937	27,781,937
Unwtd Last	24 Exc Hi/Lo	814,804	1,228,750	3,422,330	1,803,485	1,341,103	2,032,160	1,644,167	1,120,219	2,612,361	1,647,371	1,044,132	2,978,203	439,315	979,798	902,929	435,680	174,578	175,381	290,084	291,772	1,125,233	26,503,856	26,503,856

Selected Method :	Wtd Last 24	All periods combined	27,781,937
Minimum Method:	Unwtd Last 24 Exc Hi/Lo	All periods combined	26,503,856
Maximum Method:	Wtd Last 3	All periods combined	28,850,102

NOTE: 1987 Development in Periods 18-20 is an anomaly related to one case. Therefore, selections closer to unity were made for the factors in italics.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Paid Losses and ALAE

All amounts in thousands ('000s)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987	134	208	318	368	467	500	527	555	582	609	637	664	691	714	726	772	800	827	854	881	908	881	908
1988	53	136	183	242	258	291	291	292	292	292	292	292	292	292	292	292	292	292	292	292		292	292
1989	69	165	196	245	248	274	286	287	287	287	287	287	287	287	287	287	287	287	287			287	287
1990	50	106	152	194	204	204	204	204	172	172	172	172	172	172	172	172	172	172				172	172
1991	43	122	132	154	162	163	171	171	171	171	171	171	171	171	171	171	171					171	171
1992	93	204	324	374	405	408	427	427	427	427	427	427	427	427	427	427						427	427
1993	156	336	497	568	605	648	667	691	702	749	771	792	816	836	838							836	838
1994	255	584	750	919	941	948	949	949	949	949	949	949	949	949								949	949
1995	152	276	339	403	424	428	429	429	429	429	429	429	429									429	429
1996	438	1,123	1,315	1,637	1,770	1,883	2,003	2,040	2,245	2,476	2,509	2,582										2,509	2,582
1997	196	410	604	671	689	762	810	859	960	968	990											968	990
1998	237	501	680	779	971	1,025	1,126	1,184	1,224	1,281												1,224	1,281
1999	381	840	1,236	1,492	1,751	1,937	2,061	2,154	2,227													2,154	2,227
2000	214	532	702	782	823	840	886	985														886	985
2001	284	734	1,001	1,169	1,258	1,308	1,386															1,308	1,386
2002	442	985	1,217	1,425	1,512	1,600																1,512	1,600
2003	324	792	996	1,101	1,143																	1,101	1,143
2004	549	1,233	1,433	1,480																		1,433	1,480
2005	792	1,263	1,509																			1,263	1,509
2006	388	778																				388	778
2007	241																						241
																						19,192	20,678

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Paid Losses and ALAE

Development Ratios

		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	**Change in diagonals**	**Sum of diagonals**
1987	xx	1.549	1.528	1.156	1.270	1.070	1.054	1.054	1.049	1.047	1.045	1.043	1.041	1.033	1.018	1.063	1.035	1.034	1.033	1.032	1.031		134,486	134,486
1988	xx	2.563	1.343	1.323	1.065	1.130	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			126,991	261,477
1989	xx	2.397	1.185	1.254	1.013	1.105	1.043	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				261,967	523,444
1990	xx	2.099	1.437	1.278	1.050	1.000	1.000	1.002	0.839	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					242,882	766,326
1991	xx	2.874	1.077	1.168	1.057	1.004	1.050	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						286,694	1,053,020
1992	xx	2.197	1.588	1.154	1.082	1.007	1.047	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							317,090	1,370,110
1993	xx	2.151	1.480	1.145	1.064	1.072	1.028	1.036	1.016	1.068	1.029	1.027	1.030	1.025	1.002								382,538	1,752,648
1994	xx	2.286	1.285	1.224	1.024	1.008	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000									641,304	2,393,952
1995	xx	1.821	1.227	1.189	1.053	1.010	1.001	1.000	1.000	1.000	1.000	1.000	1.000										739,296	3,133,248
1996	xx	2.561	1.171	1.245	1.081	1.064	1.063	1.019	1.100	1.103	1.013	1.029											860,665	3,993,913
1997	xx	2.091	1.474	1.110	1.027	1.107	1.063	1.061	1.116	1.009	1.023												1,185,887	5,179,800
1998	xx	2.116	1.357	1.145	1.247	1.056	1.098	1.052	1.034	1.046													785,753	5,965,553
1999	xx	2.207	1.472	1.207	1.173	1.106	1.064	1.045	1.034														1,236,763	7,202,316
2000	xx	2.484	1.321	1.114	1.052	1.020	1.055	1.112															1,103,386	8,305,702
2001	xx	2.583	1.364	1.168	1.076	1.040	1.059																1,252,414	9,558,116
2002	xx	2.230	1.236	1.171	1.061	1.058																	1,796,314	11,354,430
2003	xx	2.446	1.258	1.105	1.038																		1,661,685	13,016,115
2004	xx	2.244	1.162	1.032																			2,048,073	15,064,188
2005	xx	1.596	1.195																				2,556,950	17,621,138
2006	xx	2.006																					1,570,922	19,192,060
2007	xx																						1,486,212	20,678,272

Discrete Dev. Ratios

Unwtd Last	3	1.949	1.205	1.103	1.058	1.039	1.060	1.070	1.062	1.053	1.012	1.010	1.010	1.008	1.001	1.000	1.000	1.000	1.011	1.016	1.000	1.000
Wtd Last	3	1.894	1.198	1.099	1.059	1.043	1.061	1.061	1.051	1.067	1.014	1.019	1.011	1.009	1.001	1.000	1.000	1.000	1.019	1.024	1.000	1.000
Unwtd Last	24	2.225	1.324	1.177	1.084	1.054	1.042	1.028	1.015	1.023	1.010	1.010	1.008	1.007	1.003	1.011	1.007	1.008	1.011	1.016	1.000	1.000
Wtd Last	24	2.158	1.288	1.160	1.088	1.059	1.052	1.036	1.041	1.044	1.014	1.018	1.012	1.011	1.005	1.022	1.016	1.018	1.019	1.024	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	2.227	1.323	1.177	1.077	1.052	1.041	1.023	1.021	1.017	1.007	1.007	1.004	1.004	1.000	1.000	1.000	1.000	1.000	1.016	1.000	1.000

Cumulative Dev. Ratios

Unwtd Last	3	3.860	1.981	1.644	1.491	1.408	1.355	1.279	1.196	1.126	1.070	1.057	1.047	1.036	1.028	1.027	1.027	1.027	1.027	1.016	1.000	1.000
Wtd Last	3	3.829	2.022	1.688	1.537	1.451	1.391	1.311	1.235	1.175	1.102	1.086	1.066	1.054	1.045	1.043	1.043	1.043	1.043	1.024	1.000	1.000
Unwtd Last	24	4.817	2.165	1.635	1.389	1.281	1.216	1.167	1.136	1.120	1.095	1.084	1.073	1.065	1.057	1.054	1.043	1.036	1.027	1.016	1.000	1.000
Wtd Last	24	5.152	2.387	1.854	1.599	1.469	1.388	1.319	1.273	1.223	1.171	1.155	1.134	1.121	1.108	1.103	1.079	1.062	1.043	1.024	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	4.515	2.028	1.533	1.302	1.209	1.150	1.105	1.080	1.058	1.040	1.032	1.025	1.021	1.016	1.016	1.016	1.016	1.016	1.016	1.000	1.000

Estimated Values

	Loss Year	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**	**1988**	**1987**	Sum	**Ultimate Incl. Tail**
Unwtd Last	3	931,426	1,541,559	2,481,515	2,205,919	1,610,374	2,168,547	1,772,020	1,178,132	2,508,516	1,370,813	1,047,014	2,703,083	444,306	975,528	860,473	438,640	175,764	176,573	291,780	291,772	908,261	26,082,015	26,082,015
Wtd Last	3	923,949	1,573,337	2,547,807	2,273,760	1,658,999	2,226,059	1,816,942	1,217,291	2,617,963	1,411,629	1,075,986	2,752,952	452,076	991,617	874,264	445,670	178,581	179,403	294,021	291,772	908,261	26,712,337	26,712,337
Unwtd Last	24	1,162,413	1,684,967	2,468,025	2,055,688	1,464,904	1,946,203	1,617,559	1,119,378	2,493,804	1,402,486	1,073,465	2,770,973	456,456	1,003,341	883,101	445,476	177,257	176,573	291,780	291,772	908,261	25,893,880	25,893,880
Wtd Last	24	1,243,148	1,858,095	2,798,749	2,366,343	1,679,860	2,220,866	1,828,324	1,254,740	2,723,269	1,500,571	1,144,252	2,929,362	480,489	1,051,829	923,859	460,747	181,709	179,403	294,021	291,772	908,261	28,319,667	28,319,667
Unwtd Last	24 Exc Hi/Lo	1,089,429	1,578,089	2,313,196	1,926,878	1,382,784	1,839,898	1,530,844	1,064,272	2,355,563	1,332,165	1,022,417	2,646,686	437,538	964,725	851,153	433,888	173,860	174,660	291,780	291,772	908,261	24,609,858	24,609,858

Selected Method :	Unwtd Last 3	All periods combined	26,082,015
Minimum Method:	Unwtd Last 24 Exc Hi/Lo	All periods combined	24,609,858
Maximum Method:	Wtd Last 24	All periods combined	28,319,667

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Reported Claims

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987	106	116	116	116	116	116	116	116	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
1988	92	100	100	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102		102	102
1989	128	147	147	147	148	148	148	148	148	147	147	147	147	147	147	147	147	147	147			147	147
1990	114	139	139	139	139	139	139	139	139	139	139	139	139	139	139	139	139	139				139	139
1991	107	125	127	128	128	128	128	129	129	129	129	129	129	129	129	129	129					129	129
1992	107	120	120	119	119	119	119	119	119	119	119	119	119	119	119	119						119	119
1993	191	206	206	206	207	204	204	204	204	204	204	204	204	204	204							204	204
1994	201	232	233	233	232	232	232	232	232	232	232	232	232	232								232	232
1995	208	231	232	231	231	231	231	231	231	231	231	231	231									231	231
1996	243	251	253	253	253	253	253	253	253	253	253	253										253	253
1997	240	257	257	257	257	257	257	257	257	257	257											257	257
1998	273	274	274	274	274	274	274	274	274	274												274	274
1999	233	254	255	255	255	255	256	256	256													256	256
2000	230	249	249	249	249	249	249	249														249	249
2001	248	258	259	259	259	259	259															259	259
2002	217	233	233	234	234	234																234	234
2003	228	235	236	236	236																	236	236
2004	238	242	242	244																		242	244
2005	249	250	250																			250	250
2006	197	204																				197	204
2007	212																						212
																						4,125	4,346

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Reported Claims

Development Ratios

		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	**Change in diagonals**	**Sum of diagonals**
1987	xx	1.094	1.000	1.000	1.000	1.000	1.000	1.000	0.991	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		106	106
1988	xx	1.087	1.000	1.020	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			102	208
1989	xx	1.148	1.000	1.000	1.007	1.000	1.000	1.000	1.000	0.993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				136	344
1990	xx	1.219	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					133	477
1991	xx	1.168	1.016	1.008	1.000	1.000	1.000	1.008	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						134	611
1992	xx	1.121	1.000	0.992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							125	736
1993	xx	1.079	1.000	1.000	1.005	0.986	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000								207	943
1994	xx	1.154	1.004	1.000	0.996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000									217	1,160
1995	xx	1.111	1.004	0.996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000										237	1,397
1996	xx	1.033	1.008	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000											267	1,664
1997	xx	1.071	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000												250	1,914
1998	xx	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000													287	2,201
1999	xx	1.090	1.004	1.000	1.000	1.000	1.004	1.000	1.000														234	2,435
2000	xx	1.083	1.000	1.000	1.000	1.000	1.000	1.000															251	2,686
2001	xx	1.040	1.004	1.000	1.000	1.000	1.000																268	2,954
2002	xx	1.074	1.000	1.004	1.000	1.000																	227	3,181
2003	xx	1.031	1.004	1.000	1.000																		245	3,426
2004	xx	1.017	1.000	1.008																			245	3,671
2005	xx	1.004	1.000																				256	3,927
2006	xx	1.036																					198	4,125
2007	xx																						221	4,346

Discrete Dev. Ratios

Unwtd Last	3	1.019	1.001	1.004	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.018	1.001	1.004	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.004	1.000	1.000
Unwtd Last	24	1.083	1.002	1.002	1.000	0.999	1.000	1.001	0.999	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.071	1.002	1.001	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.080	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Cumulative Dev. Ratios

Unwtd Last	3	1.026	1.007	1.005	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.029	1.011	1.010	1.006	1.006	1.006	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.000	1.000
Unwtd Last	24	1.086	1.003	1.001	0.999	0.999	1.000	0.999	0.999	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.074	1.003	1.000	0.999	0.999	1.000	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.083	1.003	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Estimated Values

	Loss Year	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**	**1988**	**1987**	Sum	**Ultimate Incl. Tail**
Unwtd Last	3	217	205	251	244	236	234	259	249	256	274	257	253	231	232	204	119	129	139	147	102	115	4,355	4,355
Wtd Last	3	218	206	252	245	237	235	260	250	257	275	258	254	232	233	205	120	130	140	148	102	115	4,372	4,372
Unwtd Last	24	230	205	250	244	236	234	259	249	256	274	257	253	231	232	204	119	129	139	147	102	115	4,364	4,364
Wtd Last	24	228	205	250	244	236	234	259	249	256	274	257	253	231	232	204	119	129	139	147	102	115	4,361	4,361
Unwtd Last	24 Exc Hi/Lo	230	205	250	244	236	234	259	249	256	274	257	253	231	232	204	119	129	139	147	102	115	4,365	4,365

Selected Method :	Unwtd Last 24	All periods combined	4,364
Minimum Method:	Unwtd Last 3	All periods combined	4,355
Maximum Method:	Wtd Last 3	All periods combined	4,372

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Average Severity - Ratio of Reported Losses and ALAE to Reported Claims

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987	7,146	6,040	6,172	6,224	6,472	6,363	6,363	6,363	7,785	7,785	7,785	7,785	7,785	7,785	7,785	7,785	7,785	7,785	8,411	9,785	9,785	9,785	9,785
1988	4,065	4,136	4,037	3,638	3,706	2,889	2,889	2,861	2,861	2,861	2,861	2,861	2,861	2,861	2,861	2,861	2,861	2,861	2,861	2,861		2,861	2,861
1989	1,469	1,892	2,050	2,050	2,079	1,899	1,978	1,941	1,941	1,954	1,954	1,954	1,954	1,954	1,954	1,954	1,954	1,954	1,954			1,954	1,954
1990	822	1,591	1,655	1,480	1,487	1,468	1,468	1,471	1,234	1,237	1,237	1,237	1,237	1,237	1,237	1,237	1,237	1,237				1,237	1,237
1991	1,487	2,116	1,585	2,351	3,463	3,387	1,337	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327					1,327	1,327
1992	3,217	3,416	3,406	3,380	3,437	3,626	3,604	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589	3,589						3,589	3,589
1993	3,994	4,207	4,010	4,181	4,270	4,487	4,487	4,487	4,444	4,455	4,465	4,458	4,442	4,442	4,339							4,442	4,339
1994	2,880	3,213	3,602	4,179	4,157	4,151	4,090	4,167	4,167	4,167	4,167	3,765	4,140	4,140								4,140	4,140
1995	1,615	1,662	1,875	1,854	1,846	1,864	1,867	1,867	1,867	1,867	1,864	1,864	1,864									1,864	1,864
1996	6,276	6,552	7,265	8,476	8,585	8,710	9,520	9,535	9,618	10,247	11,546	11,540										11,546	11,540
1997	2,083	2,558	2,818	2,866	3,155	3,203	3,398	3,382	3,750	3,789	3,984											3,789	3,984
1998	2,593	2,857	3,100	3,476	4,072	4,447	4,995	4,995	5,860	5,860												5,860	5,860
1999	7,231	8,517	9,523	9,818	9,666	9,701	9,940	9,942	9,932													9,942	9,932
2000	3,909	4,089	4,269	4,437	4,467	4,519	4,384	4,270														4,384	4,270
2001	6,134	6,026	5,975	6,072	5,946	6,099	6,042															6,099	6,042
2002	7,509	8,116	8,017	8,263	8,200	8,162																8,200	8,162
2003	5,187	5,354	4,823	5,343	5,330																	5,343	5,330
2004	5,083	6,563	6,710	6,762																		6,710	6,762
2005	11,938	11,672	12,035																			11,672	12,035
2006	4,230	5,112																				4,230	5,112
2007	2,704																						2,704
																						108,973	112,828

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
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Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Average Severity - Ratio of Reported Losses and ALAE to Reported Claims

Development Ratios

Exposure:		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	**Change in diagonals**	**Sum of diagonals**
1987	xx	0.845	1.022	1.008	1.040	0.983	1.000	1.000	1.224	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.081	1.163	1.000		7,146	7,146
1988	xx	1.018	0.976	0.901	1.019	0.780	1.000	0.990	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			2,958	10,104
1989	xx	1.288	1.084	1.000	1.014	0.913	1.042	0.981	1.000	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				1,673	11,778
1990	xx	1.936	1.040	0.894	1.005	0.988	1.000	1.002	0.839	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					1,197	12,975
1991	xx	1.423	0.749	1.483	1.473	0.978	0.395	0.993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						2,263	15,238
1992	xx	1.062	0.997	0.993	1.017	1.055	0.994	0.996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							3,869	19,107
1993	xx	1.053	0.953	1.043	1.021	1.051	1.000	1.000	0.990	1.003	1.002	0.999	0.996	1.000	0.977								2,699	21,805
1994	xx	1.116	1.121	1.160	0.995	0.999	0.985	1.019	1.000	1.000	1.000	0.903	1.100	1.000									3,674	25,480
1995	xx	1.029	1.128	0.989	0.995	1.010	1.001	1.000	1.000	1.000	0.999	1.000	1.000										4,293	29,773
1996	xx	1.044	1.109	1.167	1.013	1.015	1.093	1.002	1.009	1.065	1.127	0.999											6,827	36,600
1997	xx	1.228	1.102	1.017	1.101	1.015	1.061	0.995	1.109	1.010	1.051												1,378	37,977
1998	xx	1.102	1.085	1.121	1.172	1.092	1.123	1.000	1.173	1.000													3,700	41,677
1999	xx	1.178	1.118	1.031	0.985	1.004	1.025	1.000	0.999														8,941	50,618
2000	xx	1.046	1.044	1.039	1.007	1.012	0.970	0.974															5,552	56,170
2001	xx	0.982	0.992	1.016	0.979	1.026	0.991																8,145	64,315
2002	xx	1.081	0.988	1.031	0.992	0.995																	9,342	73,657
2003	xx	1.032	0.901	1.108	0.998																		6,355	80,012
2004	xx	1.291	1.022	1.008																			5,920	85,933
2005	xx	0.978	1.031																				14,500	100,432
2006	xx	1.209																					8,540	108,973
2007	xx																						3,855	112,828

Discrete Dev. Ratios

Unwtd Last	3	1.159	0.985	1.049	0.990	1.011	0.995	0.991	1.094	1.025	1.059	0.968	1.032	1.000	0.992	1.000	1.000	1.000	1.027	1.082	1.000	1.000
Wtd Last	3	1.099	0.999	1.042	0.990	1.009	1.002	0.994	1.067	1.035	1.094	0.977	1.036	1.000	0.989	1.000	1.000	1.000	1.050	1.122	1.000	1.000
Unwtd Last	24	1.147	1.024	1.056	1.048	0.995	0.979	0.997	1.026	1.007	1.016	0.990	1.011	1.000	0.997	1.000	1.000	1.000	1.027	1.082	1.000	1.000
Wtd Last	24	1.077	1.026	1.049	1.029	1.000	0.993	0.998	1.044	1.014	1.035	0.990	1.012	1.000	0.996	1.000	1.000	1.000	1.050	1.122	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.120	1.034	1.039	1.025	1.003	1.012	0.997	1.025	1.002	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.082	1.000	1.000

Cumulative Dev. Ratios

Unwtd Last	3	1.544	1.332	1.353	1.290	1.303	1.289	1.296	1.307	1.195	1.165	1.101	1.137	1.102	1.102	1.111	1.111	1.111	1.111	1.082	1.000	1.000
Wtd Last	3	1.619	1.473	1.475	1.415	1.430	1.417	1.414	1.422	1.333	1.288	1.178	1.206	1.165	1.165	1.178	1.178	1.178	1.178	1.122	1.000	1.000
Unwtd Last	24	1.469	1.280	1.250	1.184	1.129	1.135	1.160	1.164	1.134	1.126	1.108	1.119	1.107	1.107	1.111	1.111	1.111	1.111	1.082	1.000	1.000
Wtd Last	24	1.520	1.412	1.376	1.312	1.275	1.276	1.284	1.287	1.233	1.216	1.175	1.187	1.172	1.172	1.178	1.178	1.178	1.178	1.122	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.396	1.247	1.205	1.159	1.131	1.128	1.114	1.118	1.090	1.088	1.081	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.000	1.000

Estimated Values

	Loss Year	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**	**1988**	**1987**	Sum	**Ultimate Incl. Tail**
Unwtd Last	3	4,176	6,810	16,282	8,724	6,947	10,523	7,828	5,580	11,867	6,830	4,384	13,124	2,055	4,563	4,819	3,986	1,473	1,374	2,113	2,861	9,785	136,104	136,104
Wtd Last	3	4,377	7,531	17,746	9,571	7,622	11,567	8,543	6,073	13,240	7,550	4,693	13,916	2,171	4,821	5,109	4,226	1,562	1,456	2,192	2,861	9,785	146,610	146,610
Unwtd Last	24	3,971	6,545	15,045	8,004	6,018	9,264	7,008	4,970	11,262	6,598	4,413	12,910	2,064	4,583	4,819	3,986	1,473	1,374	2,113	2,861	9,785	129,066	129,066
Wtd Last	24	4,111	7,217	16,562	8,872	6,797	10,413	7,761	5,496	12,247	7,124	4,681	13,697	2,186	4,854	5,110	4,227	1,562	1,457	2,192	2,861	9,785	139,209	139,209
Unwtd Last	24 Exc Hi/Lo	3,775	6,372	14,504	7,840	6,030	9,206	6,731	4,773	10,827	6,375	4,308	12,482	2,017	4,478	4,693	3,882	1,435	1,338	2,113	2,861	9,785	125,825	125,825

Selected Method :	Unwtd Last 3	All periods combined	136,104
Minimum Method:	Unwtd Last 24 Exc Hi/Lo	All periods combined	125,825
Maximum Method:	Wtd Last 3	All periods combined	146,610

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
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Estimate of Ultimate using Reported Losses and ALAE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
		Minimum Method: Unwtd Last 24 Exc Hi/Lo		Selected Method: Wtd Last 24		Maximum Method: Wtd Last 3			Minimum: Unwtd Last 24	Selected: Wtd Last 24	Maximum: Wtd Last 3
Period	Reported Loss	Factor to Ultimate	Estimated Ultimate	Factor to Ultimate	Estimated Ultimate	Factor to Ultimate	Estimated Ultimate	Paid Loss	Unpaid Loss	Unpaid Loss	Unpaid Loss
1987	1,125,233	1.000	1,125,233	1.000	1,125,233	1.000	1,125,233	908,261	216,972	216,972	216,972
1988	291,772	1.000	291,772	1.000	291,772	1.000	291,772	291,772	0	0	0
1989	287,212	1.010	290,084	1.010	290,084	1.010	290,084	287,212	2,872	2,872	2,872
1990	171,926	1.020	175,381	1.020	175,381	1.020	175,381	171,926	3,456	3,456	3,456
1991	171,138	1.020	174,578	1.020	174,578	1.020	174,578	171,138	3,440	3,440	3,440
1992	427,095	1.020	435,680	1.020	435,680	1.020	435,680	427,095	8,585	8,584	8,584
1993	885,138	1.020	902,929	1.020	902,929	1.020	902,928	837,827	65,102	65,102	65,101
1994	960,492	1.020	979,798	1.013	973,260	1.006	966,105	949,272	30,526	23,988	16,834
1995	430,659	1.020	439,315	1.013	436,384	1.006	433,176	428,711	10,604	7,672	4,464
1996	2,919,521	1.020	2,978,203	1.032	3,013,854	1.044	3,047,579	2,582,108	396,096	431,746	465,472
1997	1,023,808	1.020	1,044,132	1.019	1,043,292	1.021	1,045,246	990,484	53,648	52,808	54,762
1998	1,605,753	1.026	1,647,371	1.067	1,712,918	1.117	1,794,410	1,281,328	366,043	431,590	513,081
1999	2,542,584	1.027	2,612,361	1.086	2,761,018	1.155	2,937,298	2,227,407	384,955	533,611	709,891
2000	1,063,201	1.054	1,120,219	1.129	1,200,796	1.235	1,312,867	985,459	134,760	215,338	327,409
2001	1,564,870	1.051	1,644,167	1.128	1,764,629	1.228	1,921,565	1,385,745	258,422	378,884	535,820
2002	1,909,899	1.064	2,032,160	1.140	2,178,151	1.233	2,355,361	1,600,402	431,758	577,749	754,958
2003	1,257,945	1.066	1,341,103	1.149	1,445,565	1.245	1,566,140	1,143,362	197,741	302,204	422,778
2004	1,649,954	1.093	1,803,485	1.176	1,939,781	1.232	2,032,623	1,479,776	323,709	460,005	552,847
2005	3,008,727	1.137	3,422,330	1.242	3,736,753	1.289	3,878,076	1,509,400	1,912,929	2,227,352	2,368,676
2006	1,042,832	1.178	1,228,750	1.285	1,340,404	1.290	1,345,594	778,279	450,471	562,125	567,315
2007	573,263	1.421	814,804	1.464	839,475	1.428	818,408	241,309	573,496	598,167	577,100
TOTAL	24,913,022	xx	26,503,856	xx	27,781,937	xx	28,850,102	20,678,272	5,825,583	7,103,665	8,171,830

Column	Notes
(1)	Exhibit 1a
(2)	Exhibit 1b
(3)	(1) × (2)
(4)	Exhibit 1b
(5)	(1) × (4)
(6)	Exhibit 1b

Column	Notes
(7)	(1) × (6)
(8)	Exhibit 2a
(9)	(3) - (8)
(10)	(5) - (8)
(11)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Estimate of Ultimate using Paid Losses and ALAE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Minimum Method: Unwtd Last 24 Exc Hi/Lo		Selected Method: Unwtd Last 3		Maximum Method: Wtd Last 24		Minimum: Unwtd Last 24 Exc Hi/Lo	Selected: Unwtd Last 3	Maximum: Wtd Last 24
Period	Paid Loss	Factor to Ultimate*	Estimated Ultimate	Factor to Ultimate*	Estimated Ultimate	Factor to Ultimate*	Estimated Ultimate	Unpaid Loss	Unpaid Loss	Unpaid Loss
1987	908,261	1.239	1,125,233	1.239	1,125,233	1.239	1,125,233	216,972	216,972	216,972
1988	291,772	1.000	291,772	1.000	291,772	1.000	291,772	0	0	0
1989	287,212	1.016	291,780	1.016	291,780	1.024	294,021	4,568	4,568	6,810
1990	171,926	1.016	174,660	1.027	176,573	1.043	179,403	2,734	4,647	7,477
1991	171,138	1.016	173,860	1.027	175,764	1.062	181,709	2,722	4,626	10,571
1992	427,095	1.016	433,888	1.027	438,640	1.079	460,747	6,793	11,544	33,652
1993	837,827	1.016	851,153	1.027	860,473	1.103	923,859	13,326	22,646	86,032
1994	949,272	1.016	964,725	1.028	975,528	1.108	1,051,829	15,453	26,256	102,557
1995	428,711	1.021	437,538	1.036	444,306	1.121	480,489	8,827	15,595	51,777
1996	2,582,108	1.025	2,646,686	1.047	2,703,083	1.134	2,929,362	64,579	120,975	347,254
1997	990,484	1.032	1,022,417	1.057	1,047,014	1.155	1,144,252	31,933	56,530	153,768
1998	1,281,328	1.040	1,332,165	1.070	1,370,813	1.171	1,500,571	50,836	89,485	219,243
1999	2,227,407	1.058	2,355,563	1.126	2,508,516	1.223	2,723,269	128,156	281,109	495,862
2000	985,459	1.080	1,064,272	1.196	1,178,132	1.273	1,254,740	78,814	192,673	269,281
2001	1,385,745	1.105	1,530,844	1.279	1,772,020	1.319	1,828,324	145,099	386,275	442,579
2002	1,600,402	1.150	1,839,898	1.355	2,168,547	1.388	2,220,866	239,495	568,145	620,464
2003	1,143,362	1.209	1,382,784	1.408	1,610,374	1.469	1,679,860	239,422	467,012	536,499
2004	1,479,776	1.302	1,926,878	1.491	2,205,919	1.599	2,366,343	447,102	726,143	886,567
2005	1,509,400	1.533	2,313,196	1.644	2,481,515	1.854	2,798,749	803,796	972,115	1,289,349
2006	778,279	2.028	1,578,089	1.981	1,541,559	2.387	1,858,095	799,810	763,280	1,079,816
2007	241,309	4.515	1,089,429	3.860	931,426	5.152	1,243,148	848,120	690,117	1,001,839
TOTAL	20,678,272	xx	24,826,830	xx	26,298,987	xx	28,536,639	4,148,558	5,620,715	7,858,367

Column	Notes
(1)	Exhibit 2a
(2)	Exhibit 2b
(3)	(1) × (2)
(4)	Exhibit 2b
(5)	(1) × (4)
(6)	Exhibit 2b

Column	Notes
(7)	(1) × (6)
(8)	(3) - (1)
(9)	(5) - (1)
(10)	(7) - (1)

* Tail factors for 1987 adjusted to balance paid loss and reported loss.
Rptd Loss of 1,125,233 ÷ Paid Loss of 908,261 = 1.239

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Estimate of Ultimate using Counts and Averages

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Minimum Claims Method: Unwtd Last 3			Minimum Severity Method: Unwtd Last 24 Exc Hi/Lo					
Period	Reported Claims	Claims Development	Estimated Ultimate Claims	Average severity	Severity Development	Estimated Ultimate Severity	Estimated Ultimate Losses	Paid Losses	Unpaid Losses
1987	115	0	115	9,785	0	9,785	1,125,233	908,261	216,972
1988	102	0	102	2,861	0	2,861	291,772	291,772	0
1989	147	0	147	1,954	159	2,113	310,658	287,212	23,446
1990	139	0	139	1,237	101	1,338	185,961	171,926	14,035
1991	129	0	129	1,327	108	1,435	185,109	171,138	13,971
1992	119	0	119	3,589	293	3,882	461,961	427,095	34,866
1993	204	0	204	4,339	354	4,693	957,395	837,827	119,568
1994	232	0	232	4,140	338	4,478	1,038,901	949,272	89,629
1995	231	0	231	1,864	152	2,017	465,815	428,711	37,104
1996	253	0	253	11,540	942	12,482	3,157,853	2,582,108	575,746
1997	257	0	257	3,984	324	4,308	1,107,116	990,484	116,632
1998	274	0	274	5,860	515	6,375	1,746,743	1,281,328	465,415
1999	256	0	256	9,932	895	10,827	2,771,825	2,227,407	544,418
2000	249	0	249	4,270	504	4,773	1,188,599	985,459	203,140
2001	259	0	259	6,042	689	6,731	1,743,399	1,385,745	357,654
2002	234	0	234	8,162	1,044	9,206	2,156,968	1,600,402	556,566
2003	236	0	236	5,330	700	6,030	1,425,013	1,143,362	281,652
2004	244	0	244	6,762	1,078	7,840	1,915,382	1,479,776	435,605
2005	250	1	251	12,035	2,469	14,504	3,645,881	1,509,400	2,136,481
2006	204	1	205	5,112	1,260	6,372	1,308,954	778,279	530,675
2007	212	5	217	2,704	1,071	3,775	820,998	241,309	579,690
TOTAL	4,346	9	4,355	112,828	12,997	125,825	28,011,535	20,678,272	7,333,263

Column	Notes
(1)	Exhibit 3a
(2)	(3) - (1)
(3)	Exhibit 3b
(4)	Exhibit 4a
(5)	(6) - (4)
(6)	Exhibit 4b
(7)	(3) × (6)
(8)	Exhibit 2a
(9)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Estimate of Ultimate using Counts and Averages

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Selected Claims Method: Unwtd Last 24			Selected Severity Method: Unwtd Last 3					
Period	Reported Claims	Claims Development	Estimated Ultimate Claims	Average severity	Severity Development	Estimated Ultimate Severity	Estimated Ultimate Losses	Paid Losses	Unpaid Losses
1987	115	0	115	9,785	0	9,785	1,125,233	908,261	216,972
1988	102	0	102	2,861	0	2,861	291,772	291,772	0
1989	147	0	147	1,954	159	2,113	310,658	287,212	23,446
1990	139	0	139	1,237	137	1,374	190,951	171,926	19,025
1991	129	0	129	1,327	147	1,473	190,076	171,138	18,938
1992	119	0	119	3,589	397	3,986	474,357	427,095	47,261
1993	204	0	204	4,339	480	4,819	983,085	837,827	145,258
1994	232	0	232	4,140	423	4,563	1,058,528	949,272	109,256
1995	231	0	231	1,864	190	2,055	474,616	428,711	45,904
1996	253	0	253	11,540	1,585	13,124	3,320,414	2,582,108	738,306
1997	257	0	257	3,984	400	4,384	1,126,722	990,484	136,238
1998	274	0	274	5,860	969	6,830	1,871,342	1,281,328	590,013
1999	256	0	256	9,932	1,935	11,867	3,036,206	2,227,407	808,799
2000	249	0	249	4,270	1,310	5,580	1,387,779	985,459	402,320
2001	259	0	259	6,042	1,786	7,828	2,026,139	1,385,745	640,394
2002	234	0	234	8,162	2,361	10,523	2,461,421	1,600,402	861,019
2003	236	0	236	5,330	1,617	6,947	1,637,387	1,143,362	494,025
2004	244	0	244	6,762	1,961	8,724	2,126,679	1,479,776	646,902
2005	250	0	250	12,035	4,247	16,282	4,073,288	1,509,400	2,563,888
2006	204	1	205	5,112	1,699	6,810	1,393,526	778,279	615,247
2007	212	18	230	2,704	1,472	4,176	961,850	241,309	720,541
TOTAL	4,346	18	4,364	112,828	23,277	136,104	30,522,027	20,678,272	9,843,755

Column	Notes
(1)	Exhibit 3a
(2)	(3) - (1)
(3)	Exhibit 3b
(4)	Exhibit 4a
(5)	(6) - (4)

Column	Notes
(6)	Exhibit 4b
(7)	(3) × (6)
(8)	Exhibit 2a
(9)	(7) - (8)

Missouri Department of Transportation
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Estimate of Ultimate using Counts and Averages

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Maximum Claims Method: Wtd Last 3			Maximum Severity Method: Wtd Last 3					
Period	Reported Claims	Claims Development	Estimated Ultimate Claims	Average severity	Severity Development	Estimated Ultimate Severity	Estimated Ultimate Losses	Paid Losses	Unpaid Losses
1987	115	0	115	9,785	0	9,785	1,125,233	908,261	216,972
1988	102	0	102	2,861	0	2,861	291,772	291,772	0
1989	147	1	148	1,954	238	2,192	323,536	287,212	36,324
1990	139	1	140	1,237	220	1,456	203,303	171,926	31,377
1991	129	1	130	1,327	235	1,562	202,371	171,138	31,233
1992	119	1	120	3,589	637	4,226	505,041	427,095	77,946
1993	204	1	205	4,339	770	5,109	1,046,676	837,827	208,850
1994	232	1	233	4,140	681	4,821	1,123,276	949,272	174,004
1995	231	1	232	1,864	307	2,171	503,647	428,711	74,935
1996	253	1	254	11,540	2,377	13,916	3,535,714	2,582,108	953,607
1997	257	1	258	3,984	709	4,693	1,211,096	990,484	220,612
1998	274	1	275	5,860	1,690	7,550	2,077,582	1,281,328	796,254
1999	256	1	257	9,932	3,308	13,240	3,403,876	2,227,407	1,176,469
2000	249	1	250	4,270	1,803	6,073	1,518,519	985,459	533,061
2001	259	1	260	6,042	2,501	8,543	2,222,057	1,385,745	836,312
2002	234	1	235	8,162	3,405	11,567	2,721,740	1,600,402	1,121,337
2003	236	1	237	5,330	2,291	7,622	1,808,705	1,143,362	665,343
2004	244	1	245	6,762	2,808	9,571	2,348,191	1,479,776	868,415
2005	250	2	252	12,035	5,711	17,746	4,479,845	1,509,400	2,970,445
2006	204	2	206	5,112	2,419	7,531	1,553,430	778,279	775,151
2007	212	6	218	2,704	4165	4,377	954,676	241,309	713,367
TOTAL	4,346	26	4,372	xx	xx	146,610	33,160,284	20,678,272	12,482,012

Column	Notes
(1)	Exhibit 3a
(2)	(3) - (1)
(3)	Exhibit 3b
(4)	Exhibit 4a
(5)	(6) - (4)

Column	Notes
(6)	Exhibit 4b
(7)	(3) × (6)
(8)	Exhibit 2a
(9)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Selected Estimates for Unpaid Losses

		Selected Ultimates					Estimated Unpaid Losses			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Weights		50%	50%	0%	100%		50%	50%	0%	100%
Loss year	Reported Losses	Reported Method	Paid Method	Counts/Averages	Selected	Paid Losses	Reported Method	Paid Method	Counts/Averages	Selected
1987	1,125,233	1,125,233	1,125,233	1,125,233	1,125,233	908,261	216,972	216,972	216,972	216,972
1988	291,772	291,772	291,772	291,772	291,772	291,772	0	0	0	0
1989	287,212	290,084	291,780	310,658	290,932	287,212	2,872	4,568	23,446	3,720
1990	171,926	175,381	176,573	190,951	175,977	171,926	3,456	4,647	19,025	4,052
1991	171,138	174,578	175,764	190,076	175,171	171,138	3,440	4,626	18,938	4,033
1992	427,095	435,680	438,640	474,357	437,160	427,095	8,584	11,544	47,261	10,064
1993	885,138	902,929	885,138	983,085	894,033	837,827	65,102	47,311	145,258	56,206
1994	960,492	973,260	975,528	1,058,528	974,394	949,272	23,988	26,256	109,256	25,122
1995	430,659	436,384	444,306	474,616	440,345	428,711	7,672	15,595	45,904	11,634
1996	2,919,521	3,013,854	2,919,521	3,320,414	2,966,687	2,582,108	431,746	337,413	738,306	384,580
1997	1,023,808	1,043,292	1,047,014	1,126,722	1,045,153	990,484	52,808	56,530	136,238	54,669
1998	1,605,753	1,712,918	1,605,753	1,871,342	1,659,335	1,281,328	431,590	324,424	590,013	378,007
1999	2,542,584	2,761,018	2,542,584	3,036,206	2,651,801	2,227,407	533,611	315,177	808,799	424,394
2000	1,063,201	1,200,796	1,178,132	1,387,779	1,189,464	985,459	215,338	192,673	402,320	204,006
2001	1,564,870	1,764,629	1,772,020	2,026,139	1,768,325	1,385,745	378,884	386,275	640,394	382,580
2002	1,909,899	2,178,151	2,168,547	2,461,421	2,173,349	1,600,402	577,749	568,145	861,019	572,947
2003	1,257,945	1,445,565	1,610,374	1,637,387	1,527,970	1,143,362	302,204	467,012	494,025	384,608
2004	1,649,954	1,939,781	2,205,919	2,126,679	2,072,850	1,479,776	460,005	726,143	646,902	593,074
2005	3,008,727	3,736,753	3,008,727	4,073,288	3,372,740	1,509,400	2,227,352	1,499,327	2,563,888	1,863,340
2006	1,042,832	1,340,404	1,541,559	1,393,526	**2,000,000**	778,279	562,125	763,280	615,247	1,221,721
2007	573,263	839,475	931,426	961,850	**2,000,000**	241,309	598,167	690,117	720,541	1,758,691
TOTAL	24,913,022	27,781,937	27,336,310	30,522,027	29,232,691	20,678,272	7,103,665	6,658,038	9,843,755	8,554,419

Column	Notes	Column	Notes
(1)	Exhibit 1a	(6)	Exhibit 2a
(2)	Maximum of Exhibit 5 and Column (1)	(7)	(2) - (6)
(3)	Maximum of Exhibit 6 and Column (1)	(8)	(3) - (6)
(4)	Maximum of Exhibit 7b and Column (1)	(9)	(4) - (6)
(5)	Weighted Average of (2), (3), (4); Bolded figures are judgmental selections	(10)	(5) - (6)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Implied Development Factors and Reserves for Selected Ultimates

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Loss year	Maturity	Selected Ultimates	Reported at 12/07	Factor to Ult	Paid at 12/07	Factor to Ult	Incremental Factor	Case Reserves	IBNR Estimate
1987	252	1,125,233	1,125,233	1.000	908,261	1.000	1.000	$216,972	$0
1988	240	291,772	291,772	1.000	291,772	1.000	1.000	$0	$0
1989	228	290,932	287,212	1.013	287,212	1.024	1.024	$0	$3,720
1990	216	175,977	171,926	1.024	171,926	1.043	1.019	$0	$4,052
1991	204	175,171	171,138	1.024	171,138	1.043	1.000	$0	$4,033
1992	192	437,160	427,095	1.024	427,095	1.043	1.000	$0	$10,064
1993	180	894,033	885,138	1.010	837,827	1.043	1.000	$47,311	$8,895
1994	168	974,394	960,492	1.014	949,272	1.045	1.001	$11,221	$13,902
1995	156	440,345	430,659	1.022	428,711	1.054	1.009	$1,948	$9,686
1996	144	2,966,687	2,919,521	1.016	2,582,108	1.066	1.011	$337,413	$47,166
1997	132	1,045,153	1,023,808	1.021	990,484	1.086	1.019	$33,325	$21,345
1998	120	1,659,335	1,605,753	1.033	1,281,328	1.102	1.014	$324,424	$53,583
1999	108	2,651,801	2,542,584	1.043	2,227,407	1.175	1.067	$315,177	$109,217
2000	96	1,189,464	1,063,201	1.119	985,459	1.235	1.051	$77,742	$126,264
2001	84	1,768,325	1,564,870	1.130	1,385,745	1.311	1.061	$179,125	$203,455
2002	72	2,173,349	1,909,899	1.138	1,600,402	1.391	1.061	$309,496	$263,451
2003	60	1,527,970	1,257,945	1.215	1,143,362	1.451	1.043	$114,584	$270,024
2004	48	2,072,850	1,649,954	1.256	1,479,776	1.537	1.059	$170,178	$422,896
2005	36	3,372,740	3,008,727	1.121	1,509,400	1.688	1.099	$1,499,327	$364,013
2006	24	2,000,000	1,042,832	1.918	778,279	2.022	1.198	$264,553	$957,168
2007	12	2,000,000	573,263	3.489	241,309	3.829	1.894	$331,954	$1,426,737
TOTAL	xx	29,232,691	24,913,022	xx	20,678,272	xx	xx	$4,234,750	$4,319,669

Column	Notes
(1)	Exhibit 8
(2)	Exhibit 1a
(3)	(1) ÷ (2)
(4)	Exhibit 2a

Column	Notes
(5)	Exhibit 2b, Weighted Last 3 Factors
(6)	Incremental division of column (5)
(7)	(2) - (4)
(8)	(1) - (2)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Cumulative Payment Pattern

Estimated Cumulative Payments

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	TOTAL
Selected Ultimates	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	974,394	440,345	2,966,687	1,045,153	1,659,335	2,651,801	1,189,464	1,768,325	2,173,349	1,527,970	2,072,850	3,372,740	2,000,000	2,000,000	29,232,691
Estimated Unpaid Losses	216,972	0	3,720	4,052	4,033	10,064	56,206	25,122	11,634	384,580	54,669	378,007	424,394	204,006	382,580	572,947	384,608	593,074	1,863,340	1,221,721	1,758,691	8,554,419
Paid as of 12/31/07	908,261	291,772	287,212	171,926	171,138	427,095	837,827	949,272	428,711	2,582,108	990,484	1,281,328	2,227,407	985,459	1,385,745	1,600,402	1,143,362	1,479,776	1,509,400	778,279	241,309	20,678,272
2008	1,125,233	291,772	290,932	173,726	171,138	427,095	837,826	949,876	430,732	2,646,409	1,002,458	1,333,917	2,389,212	1,029,662	1,461,305	1,689,568	1,180,178	1,544,964	1,776,280	1,014,638	797,119	22,564,039
2009	1,125,233	291,772	290,932	175,977	172,930	427,095	837,826	949,875	430,964	2,702,052	1,009,597	1,405,195	2,425,743	1,090,588	1,527,829	1,785,115	1,234,303	1,595,495	1,951,756	1,155,768	1,029,833	23,615,878
2010	1,125,233	291,772	290,932	175,977	175,171	431,567	837,825	949,875	430,963	2,708,413	1,015,774	1,447,687	2,475,258	1,104,344	1,619,521	1,869,237	1,292,302	1,669,784	2,087,777	1,248,562	1,168,787	24,416,761
2011	1,125,233	291,772	290,932	175,977	175,171	437,160	862,799	949,875	430,963	2,708,411	1,016,480	1,484,458	2,504,776	1,122,988	1,640,222	1,985,183	1,343,366	1,749,390	2,287,750	1,320,492	1,260,150	25,163,548
2012	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	430,963	2,708,407	1,016,480	1,488,661	2,530,319	1,134,103	1,668,281	2,011,361	1,413,748	1,819,476	2,502,036	1,426,241	1,330,971	25,832,094
2013	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	435,132	2,708,404	1,016,480	1,488,659	2,533,239	1,143,721	1,685,009	2,046,842	1,429,639	1,916,078	2,690,698	1,539,559	1,435,089	26,419,594
2014	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	440,345	2,823,160	1,016,479	1,488,657	2,533,238	1,144,821	1,699,483	2,067,994	1,451,177	1,937,888	2,950,734	1,639,326	1,546,659	27,091,007
2015	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	440,345	2,966,687	1,029,219	1,488,655	2,533,236	1,144,820	1,701,138	2,086,298	1,464,016	1,967,449	3,009,444	1,776,837	1,644,888	27,604,079
2016	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	440,345	2,966,687	1,045,153	1,564,489	2,533,235	1,144,820	1,701,138	2,088,390	1,475,127	1,985,072	3,089,018	1,807,883	1,780,278	27,972,682
2017	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	440,345	2,966,687	1,045,153	1,659,335	2,585,914	1,144,819	1,701,136	2,088,389	1,476,397	2,000,322	3,136,457	1,849,964	1,810,846	28,256,812
2018	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	440,345	2,966,687	1,045,153	1,659,335	2,651,801	1,164,655	1,701,136	2,088,388	1,476,397	2,002,065	3,177,507	1,875,050	1,852,277	28,451,843
2019	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	440,345	2,966,687	1,045,153	1,659,335	2,651,801	1,189,464	1,730,988	2,088,387	1,476,396	2,002,065	3,182,199	1,896,758	1,876,977	28,557,602
2020	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	440,345	2,966,687	1,045,153	1,659,335	2,651,801	1,189,464	1,768,325	2,126,136	1,476,396	2,002,064	3,182,198	1,899,239	1,898,350	28,656,540
2021	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	440,345	2,966,687	1,045,153	1,659,335	2,651,801	1,189,464	1,768,325	2,173,349	1,499,310	2,002,063	3,182,195	1,899,238	1,900,793	28,729,106
2022	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	440,345	2,966,687	1,045,153	1,659,335	2,651,801	1,189,464	1,768,325	2,173,349	1,527,970	2,033,514	3,182,193	1,899,237	1,900,792	28,789,212
2023	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	440,345	2,966,687	1,045,153	1,659,335	2,651,801	1,189,464	1,768,325	2,173,349	1,527,970	2,072,850	3,266,854	1,899,236	1,900,791	28,913,206
2024	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	440,345	2,966,687	1,045,153	1,659,335	2,651,801	1,189,464	1,768,325	2,173,349	1,527,970	2,072,850	3,372,740	1,944,006	1,900,790	29,063,861
2025	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	440,345	2,966,687	1,045,153	1,659,335	2,651,801	1,189,464	1,768,325	2,173,349	1,527,970	2,072,850	3,372,740	2,000,000	1,944,869	29,163,935
2026	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	440,345	2,966,687	1,045,153	1,659,335	2,651,801	1,189,464	1,768,325	2,173,349	1,527,970	2,072,850	3,372,740	2,000,000	2,000,000	29,219,066
2027	1,125,233	291,772	290,932	175,977	175,171	437,160	894,033	960,769	440,345	2,966,687	1,045,153	1,659,335	2,651,801	1,189,464	1,768,325	2,173,349	1,527,970	2,072,850	3,372,740	2,000,000	2,000,000	29,219,066

Percentage Paid

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
2008	1.000	1.000	1.000	0.444	0.000	0.000	0.000	0.024	0.174	0.167	0.219	0.139	0.381	0.217	0.198	0.156	0.096	0.110	0.143	0.193	0.316
2009	0.000	0.000	0.000	0.556	0.444	0.000	0.000	0.000	0.020	0.145	0.131	0.189	0.086	0.299	0.174	0.167	0.141	0.085	0.094	0.116	0.132
2010	0.000	0.000	0.000	0.000	0.556	0.444	0.000	0.000	0.000	0.017	0.113	0.112	0.117	0.067	0.240	0.147	0.151	0.125	0.073	0.076	0.079
2011	0.000	0.000	0.000	0.000	0.000	0.556	0.444	0.000	0.000	0.000	0.013	0.097	0.070	0.091	0.054	0.202	0.133	0.134	0.107	0.059	0.052
2012	0.000	0.000	0.000	0.000	0.000	0.000	0.556	0.434	0.000	0.000	0.000	0.011	0.060	0.054	0.073	0.046	0.183	0.118	0.115	0.087	0.040
2013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.542	0.358	0.000	0.000	0.000	0.007	0.047	0.044	0.062	0.041	0.163	0.101	0.093	0.059
2014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.448	0.298	0.000	0.000	0.000	0.005	0.038	0.037	0.056	0.037	0.140	0.082	0.063
2015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.373	0.233	0.000	0.000	0.000	0.004	0.032	0.033	0.050	0.032	0.113	0.056
2016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.291	0.201	0.000	0.000	0.000	0.004	0.029	0.030	0.043	0.025	0.077
2017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.251	0.124	0.000	0.000	0.000	0.003	0.026	0.025	0.034	0.017
2018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.155	0.097	0.000	0.000	0.000	0.003	0.022	0.021	0.024
2019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.122	0.078	0.000	0.000	0.000	0.003	0.018	0.014
2020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.098	0.066	0.000	0.000	0.000	0.002	0.012
2021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.082	0.060	0.000	0.000	0.000	0.001
2022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.075	0.053	0.000	0.000	0.000
2023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.066	0.045	0.000	0.000
2024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.057	0.037	0.000
2025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.025
2026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.031
2027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Notes

The purpose of this exhibit is to derive a stream of annual payments based on the estimates in Exhibit 9.
This exhibit derives estimated cumulative payments for each loss year through 2007. Exhibit 11 derives the annual payments as differences between successive cumulative payments for all years.
Selected ultimate loss values are from Exhibit 9 column (1).
Paid loss as of December 31, 2007 is from Exhibit (9) column (5).
Unpaid loss as of December 31, 2007 is derived by subtraction of paid loss from ultimate loss.
Totals are carried forward to Exhibit 11.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Discounted Reserves

Discounted Reserves								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Payment year	Total Paid	Expected Payments by Year	3.50% Discount Factor	Discounted Expected Payments	4.50% Discount Factor	Discounted Expected Payments	5.50% Discount Factor	Discounted Expected Payments
2007	20,678,272	xx	xx	xx	xx	xx	xx	xx
2008	22,564,039	1,885,767	0.983	1,853,608	0.978	1,844,718	0.974	1,835,954
2009	23,615,878	1,051,839	0.950	998,938	0.936	984,634	0.923	970,667
2010	24,416,761	800,883	0.918	734,883	0.896	717,428	0.875	700,548
2011	25,163,548	746,787	0.887	662,072	0.857	640,162	0.829	619,174
2012	25,832,094	668,546	0.857	572,664	0.820	548,414	0.786	525,406
2013	26,419,594	587,500	0.828	486,224	0.785	461,178	0.745	437,642
2014	27,091,007	671,413	0.800	536,880	0.751	504,352	0.706	474,077
2015	27,604,079	513,072	0.773	396,393	0.719	368,813	0.669	343,388
2016	27,972,682	368,603	0.746	275,148	0.688	253,554	0.634	233,837
2017	28,256,812	284,130	0.721	204,920	0.658	187,030	0.601	170,851
2018	28,451,843	195,031	0.697	135,904	0.630	122,852	0.570	111,161
2019	28,557,602	105,759	0.673	71,204	0.603	63,750	0.540	57,137
2020	28,656,540	98,937	0.650	64,358	0.577	57,070	0.512	50,665
2021	28,729,106	72,566	0.628	45,608	0.552	40,056	0.485	35,223
2022	28,789,212	60,106	0.607	36,499	0.528	31,749	0.460	27,654
2023	28,913,206	123,994	0.587	72,749	0.505	62,676	0.436	54,074
2024	29,063,861	150,655	0.567	85,402	0.484	72,873	0.413	62,276
2025	29,163,935	100,074	0.548	54,811	0.463	46,322	0.392	39,211
2026	29,219,066	55,131	0.529	29,174	0.443	24,420	0.371	20,475
2027	29,219,066	-	0.511	-	0.424	-	0.352	-
TOTAL	xx	8,540,794	xx	7,317,438	xx	7,032,049	xx	6,769,420

Column	Notes
(1)	Exhibit 10 TOTAL column
(2)	Successive differences in (1)
(3)	((1.035)^(0.5 + Payment Year - 2008)) ^ (-1)
(4)	(2) × (3)
(5)	((1.045)^(0.5 + Payment Year - 2008)) ^ (-1)
(6)	(2) × (5)
(7)	((1.055)^(0.5 + Payment Year - 2008)) ^ (-1)
(8)	(2) × (7)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Discounted Payments by Loss Year

Loss Year	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	12/31/07	12/31/08
Estimated Unpaid Losses	216,972	0	3,720	4,052	4,033	10,064	56,206	25,122	11,634	384,580	54,669	378,007	424,394	204,006	382,580	572,947	384,608	593,074	1,863,340	1,221,721	1,758,691	8,554,419	6,668,652
Paid as of 12/31/07	908,261	291,772	287,212	171,926	171,138	427,095	837,827	949,272	428,711	2,582,108	990,484	1,281,328	2,227,407	985,459	1,385,745	1,600,402	1,143,362	1,479,776	1,509,400	778,279	241,309	20,678,272	22,564,039
2008	212,249	0	3,639	1,761	0	0	0	591	1,977	62,902	11,714	51,444	158,283	43,241	73,915	87,224	36,015	63,769	261,071	231,214	543,711	1,844,720	0
2009	0	0	0	2,107	1,678	0	0	0	216	52,088	6,683	66,724	34,198	57,033	62,274	89,442	50,667	47,302	164,264	132,113	217,845	984,634	1,028,943
2010	0	0	0	0	2,007	4,006	0	0	0	5,698	5,533	38,064	44,355	12,323	82,137	75,356	51,955	66,548	121,847	83,125	124,474	717,430	749,714
2011	0	0	0	0	0	4,794	21,408	0	0	0	605	31,520	25,303	15,982	17,746	99,391	43,773	68,240	171,421	61,660	78,318	640,163	668,971
2012	0	0	0	0	0	0	25,622	8,936	0	(3)	0	3,448	20,953	9,118	23,017	21,474	57,735	57,493	175,780	86,747	58,095	548,415	573,094
2013	0	0	0	0	0	0	0	0	3,272	0	0	0	2,292	7,550	13,130	27,852	12,474	75,830	148,097	88,952	81,731	461,180	481,933
2014	0	0	0	0	0	0	0	0	3,916	86,202	0	0	0	826	10,873	15,889	16,179	16,383	195,333	74,943	83,809	504,354	527,050
2015	0	0	0	0	0	0	0	0	0	103,172	9,158	0	0	0	1,190	13,158	9,230	21,250	42,203	98,847	70,610	368,817	385,414
2016	0	0	0	0	0	0	0	0	0	0	10,961	52,165	0	0	0	1,439	7,643	12,122	54,738	21,357	93,132	253,556	264,966
2017	0	0	0	0	0	0	0	0	0	0	0	62,433	34,676	0	0	0	836	10,038	31,226	27,699	20,122	187,031	195,448
2018	0	0	0	0	0	0	0	0	0	0	0	0	41,503	12,495	0	0	0	1,098	25,858	15,802	26,098	122,853	128,382
2019	0	0	0	0	0	0	0	0	0	0	0	0	0	14,955	17,994	0	0	0	2,829	13,085	14,888	63,751	66,620
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21,537	21,775	0	0	0	1,432	12,329	57,072	59,640
2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26,061	12,649	0	(2)	0	1,349	40,057	41,859
2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15,139	16,613	0	0	0	31,752	33,181
2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,883	42,794	0	0	62,677	65,498
2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51,218	21,656	0	72,873	76,152
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25,918	20,404	46,322	48,406
2026	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24,420	24,420	25,519
2027	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Payments after valuation	212,249	0	3,639	3,868	3,685	8,800	47,031	9,527	9,381	310,059	44,654	305,798	361,564	173,521	323,814	479,061	314,294	476,571	1,488,677	984,549	1,471,334	7,032,077	5,420,788
TOTAL	1,120,510	291,772	290,851	175,794	174,823	435,896	884,857	958,799	438,092	2,892,167	1,035,138	1,587,126	2,588,971	1,158,980	1,709,559	2,079,464	1,457,656	1,956,347	2,998,077	1,762,828	1,712,643	xx	xx

Notes
Selected Estimated Reserves from Exhibit 8.
Valuation at 12/31/08 are payments increased by an interest rate of 4.5%

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Allocation by Troop - Reported Losses and ALAE

Reported losses for each Troop by loss year as of 12/31/07

Loss year	Troop A	Troop B	Troop C	Troop D	Troop E	Troop F	Troop G	Troop H	Troop I	Unused	Central Office	TOTAL
1987	21,144	32,176	200,821	437,063	12,862	4,482	-	374,569	15,008	-	27,108	1,125,233
1988	43,197	23,800	164,496	27,229	1,951	552	9,977	284	7,876	-	12,410	291,772
1989	24,939	1,767	164,378	19,594	4,501	2,001	971	3,199	2,394	-	63,468	287,212
1990	17,469	500	80,619	21,257	2,906	2,301	245	9,447	22,544	-	14,638	171,926
1991	10,546	20,693	33,528	3,775	11,273	8,355	260	13,535	5,435	-	63,737	171,138
1992	58,559	6,025	68,459	105,883	26,565	3,234	26,429	4,410	2,808	-	124,723	427,095
1993	476,436	1,301	101,233	66,159	3,434	31,578	5,868	16,455	6,386	-	176,288	885,138
1994	47,690	17,690	149,018	434,116	15,379	147,563	1,706	46,044	2,968	-	98,318	960,492
1995	30,637	51,884	83,715	62,020	40,825	11,244	3,531	29,978	24,921	-	91,904	430,659
1996	1,561,486	2,262	190,112	17,084	367,908	82,735	11,698	10,151	57,927	-	618,159	2,919,521
1997	31,740	3,192	76,614	54,073	111,877	39,908	360	15,451	17,536	-	673,057	1,023,808
1998	54,868	4,155	202,840	72,004	37,302	39,389	718	51,022	9,511	-	1,133,943	1,605,753
1999	166,325	18,769	323,130	61,441	585,602	43,438	240	873,115	48,971	-	421,552	2,542,584
2000	96,622	2,826	373,500	130,473	294,174	21,366	5,661	29,895	2,796	-	105,886	1,063,201
2001	104,622	311,762	154,402	100,520	534,623	83,942	15,100	8,732	56,651	-	194,516	1,564,870
2002	146,679	67,598	386,839	497,235	170,289	48,481	380,826	12,393	14,869	-	184,690	1,909,899
2003	353,457	1,926	208,885	212,845	17,896	41,031	71,879	30,624	73,503	-	245,900	1,257,945
2004	82,644	10,448	178,163	20,846	845,583	22,621	80,608	103,034	60,070	-	245,937	1,649,954
2005	559,425	7,742	692,653	548,856	41,748	6,550	816,616	167,195	26,990	-	140,952	3,008,727
2006	116,482	15,160	290,523	97,046	104,439	8,240	25,128	105,689	46,161	-	233,963	1,042,832
2007	51,196	6,000	109,139	29,553	14,000	20,000	22,500	130,423	6,444	-	184,007	573,263
TOTAL	4,056,165	607,680	4,233,064	3,019,073	3,245,136	669,011	1,480,323	2,035,643	511,770	-	5,055,157	24,913,022

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Allocation by Troop - Factors to Ultimate

Development factors to ultimate for reported loss from Exhibit 9

Loss year	Troop A	Troop B	Troop C	Troop D	Troop E	Troop F	Troop G	Troop H	Troop I	Unused	Central Office
1987	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1988	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1989	1.013	1.013	1.013	1.013	1.013	1.013	1.013	1.013	1.013	1.013	1.013
1990	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024
1991	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024
1992	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024
1993	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010
1994	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014
1995	1.022	1.022	1.022	1.022	1.022	1.022	1.022	1.022	1.022	1.022	1.022
1996	1.016	1.016	1.016	1.016	1.016	1.016	1.016	1.016	1.016	1.016	1.016
1997	1.021	1.021	1.021	1.021	1.021	1.021	1.021	1.021	1.021	1.021	1.021
1998	1.033	1.033	1.033	1.033	1.033	1.033	1.033	1.033	1.033	1.033	1.033
1999	1.043	1.043	1.043	1.043	1.043	1.043	1.043	1.043	1.043	1.043	1.043
2000	1.119	1.119	1.119	1.119	1.119	1.119	1.119	1.119	1.119	1.119	1.119
2001	1.130	1.130	1.130	1.130	1.130	1.130	1.130	1.130	1.130	1.130	1.130
2002	1.138	1.138	1.138	1.138	1.138	1.138	1.138	1.138	1.138	1.138	1.138
2003	1.215	1.215	1.215	1.215	1.215	1.215	1.215	1.215	1.215	1.215	1.215
2004	1.256	1.256	1.256	1.256	1.256	1.256	1.256	1.256	1.256	1.256	1.256
2005	1.121	1.121	1.121	1.121	1.121	1.121	1.121	1.121	1.121	1.121	1.121
2006	1.918	1.918	1.918	1.918	1.918	1.918	1.918	1.918	1.918	1.918	1.918
2007	3.489	3.489	3.489	3.489	3.489	3.489	3.489	3.489	3.489	3.489	3.489

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Allocation by Troop - Estimated Ultimates

Products of values in Exhibit 13a and corresponding values in Exhibit 13b.

Loss year	Troop A	Troop B	Troop C	Troop D	Troop E	Troop F	Troop G	Troop H	Troop I	Unused	Central Office	TOTAL
1987	21,144	32,176	200,821	437,063	12,862	4,482	-	374,569	15,008	-	27,108	1,125,233
1988	43,197	23,800	164,496	27,229	1,951	552	9,977	284	7,876	-	12,410	291,772
1989	25,262	1,790	166,507	19,848	4,559	2,027	984	3,240	2,425	-	64,290	290,932
1990	17,880	512	82,519	21,758	2,974	2,356	251	9,669	23,075	-	14,983	175,977
1991	10,795	21,181	34,318	3,864	11,539	8,552	266	13,854	5,563	-	65,239	175,171
1992	59,939	6,167	70,072	108,378	27,191	3,310	27,052	4,514	2,874	-	127,662	437,160
1993	481,224	1,314	102,250	66,824	3,468	31,896	5,927	16,620	6,450	-	178,060	894,033
1994	48,381	17,946	151,174	440,399	15,601	149,698	1,731	46,710	3,011	-	99,741	974,394
1995	31,326	53,051	85,597	63,415	41,744	11,496	3,611	30,652	25,481	-	93,971	440,345
1996	1,586,712	2,299	193,183	17,360	373,852	84,071	11,887	10,315	58,863	-	628,145	2,966,687
1997	32,402	3,259	78,211	55,200	114,209	40,740	367	15,774	17,901	-	687,089	1,045,153
1998	56,699	4,294	209,608	74,407	38,547	40,704	742	52,724	9,828	-	1,171,782	1,659,335
1999	173,470	19,576	337,010	64,080	610,757	45,304	250	910,620	51,075	-	439,660	2,651,801
2000	108,097	3,162	417,857	145,968	329,110	23,903	6,334	33,445	3,128	-	118,461	1,189,464
2001	118,224	352,296	174,476	113,589	604,131	94,856	17,063	9,867	64,017	-	219,806	1,768,325
2002	166,912	76,922	440,200	565,824	193,778	55,168	433,357	14,102	16,920	-	210,166	2,173,349
2003	429,329	2,340	253,723	258,534	21,737	49,839	87,308	37,197	89,281	-	298,683	1,527,970
2004	103,827	13,126	223,827	26,189	1,062,312	28,419	101,268	129,443	75,467	-	308,972	2,072,850
2005	627,107	8,679	776,454	615,259	46,799	7,343	915,415	187,423	30,256	-	158,005	3,372,740
2006	223,396	29,075	557,180	186,120	200,299	15,804	48,192	202,697	88,530	-	448,707	2,000,000
2007	178,614	20,933	380,765	103,105	48,843	69,776	78,498	455,018	22,482	-	641,964	2,000,000
TOTAL	4,543,937	693,897	5,100,249	3,414,414	3,766,264	770,295	1,750,481	2,558,738	619,512	0	6,014,906	29,232,691

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Allocation to Troop - Percentages

District Estimated Ultimate Losses as Percentage of Overall Estimated Ultimate Losses in Exhibit 13c

Loss year	Troop A	Troop B	Troop C	Troop D	Troop E	Troop F	Troop G	Troop H	Troop I	Unused	Central Office	TOTAL
1987	1.88%	2.86%	17.85%	38.84%	1.14%	0.40%	0.00%	33.29%	1.33%	0.00%	2.41%	100.00%
1988	14.81%	8.16%	56.38%	9.33%	0.67%	0.19%	3.42%	0.10%	2.70%	0.00%	4.25%	100.00%
1989	8.68%	0.62%	57.23%	6.82%	1.57%	0.70%	0.34%	1.11%	0.83%	0.00%	22.10%	100.00%
1990	10.16%	0.29%	46.89%	12.36%	1.69%	1.34%	0.14%	5.49%	13.11%	0.00%	8.51%	100.00%
1991	6.16%	12.09%	19.59%	2.21%	6.59%	4.88%	0.15%	7.91%	3.18%	0.00%	37.24%	100.00%
1992	13.71%	1.41%	16.03%	24.79%	6.22%	0.76%	6.19%	1.03%	0.66%	0.00%	29.20%	100.00%
1993	53.83%	0.15%	11.44%	7.47%	0.39%	3.57%	0.66%	1.86%	0.72%	0.00%	19.92%	100.00%
1994	4.97%	1.84%	15.51%	45.20%	1.60%	15.36%	0.18%	4.79%	0.31%	0.00%	10.24%	100.00%
1995	7.11%	12.05%	19.44%	14.40%	9.48%	2.61%	0.82%	6.96%	5.79%	0.00%	21.34%	100.00%
1996	53.48%	0.08%	6.51%	0.59%	12.60%	2.83%	0.40%	0.35%	1.98%	0.00%	21.17%	100.00%
1997	3.10%	0.31%	7.48%	5.28%	10.93%	3.90%	0.04%	1.51%	1.71%	0.00%	65.74%	100.00%
1998	3.42%	0.26%	12.63%	4.48%	2.32%	2.45%	0.04%	3.18%	0.59%	0.00%	70.62%	100.00%
1999	6.54%	0.74%	12.71%	2.42%	23.03%	1.71%	0.01%	34.34%	1.93%	0.00%	16.58%	100.00%
2000	9.09%	0.27%	35.13%	12.27%	27.67%	2.01%	0.53%	2.81%	0.26%	0.00%	9.96%	100.00%
2001	6.69%	19.92%	9.87%	6.42%	34.16%	5.36%	0.96%	0.56%	3.62%	0.00%	12.43%	100.00%
2002	7.68%	3.54%	20.25%	26.03%	8.92%	2.54%	19.94%	0.65%	0.78%	0.00%	9.67%	100.00%
2003	28.10%	0.15%	16.61%	16.92%	1.42%	3.26%	5.71%	2.43%	5.84%	0.00%	19.55%	100.00%
2004	5.01%	0.63%	10.80%	1.26%	51.25%	1.37%	4.89%	6.24%	3.64%	0.00%	14.91%	100.00%
2005	18.59%	0.26%	23.02%	18.24%	1.39%	0.22%	27.14%	5.56%	0.90%	0.00%	4.68%	100.00%
2006	11.17%	1.45%	27.86%	9.31%	10.01%	0.79%	2.41%	10.13%	4.43%	0.00%	22.44%	100.00%
2007	8.93%	1.05%	19.04%	5.16%	2.44%	3.49%	3.92%	22.75%	1.12%	0.00%	32.10%	100.00%
Averages												
All Years	15.54%	2.37%	17.45%	11.68%	12.88%	2.64%	5.99%	8.75%	2.12%	0.00%	20.58%	100.00%
Last 3 Yrs	13.96%	0.80%	23.25%	12.27%	4.01%	1.26%	14.13%	11.46%	1.92%	0.00%	16.94%	100.00%

Missouri Department of Transportation
Watson Wyatt Actuarial Study
State Highway Patrol Workers' Compensation
Fitted Trend Line - Selected Ultimate

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Loss year	index	sample	Selected ultimates	basis of fit	basis of fit squared	Sample Ultimate	sample product	Fitted values
1987	0	1	1,125,233	0	0	1,125,233	0	273,722
1988	1	1	291,772	1	1	291,772	291,772	385,553
1989	2	1	290,932	2	4	290,932	581,863	497,384
1990	3	1	175,977	3	9	175,977	527,932	609,215
1991	4	1	175,171	4	16	175,171	700,683	721,046
1992	5	1	437,160	5	25	437,160	2,185,799	832,877
1993	6	1	894,033	6	36	894,033	5,364,199	944,708
1994	7	1	974,394	7	49	974,394	6,820,758	1,056,540
1995	8	1	440,345	8	64	440,345	3,522,760	1,168,371
1996	9	1	2,966,687	9	81	2,966,687	26,700,187	1,280,202
1997	10	1	1,045,153	10	100	1,045,153	10,451,531	1,392,033
1998	11	1	1,659,335	11	121	1,659,335	18,252,688	1,503,864
1999	12	1	2,651,801	12	144	2,651,801	31,821,611	1,615,695
2000	13	1	1,189,464	13	169	1,189,464	15,463,034	1,727,526
2001	14	1	1,768,325	14	196	1,768,325	24,756,549	1,839,357
2002	15	1	2,173,349	15	225	2,173,349	32,600,238	1,951,189
2003	16	1	1,527,970	16	256	1,527,970	24,447,513	2,063,020
2004	17	1	2,072,850	17	289	2,072,850	35,238,449	2,174,851
2005	18	1	3,372,740	18	324	3,372,740	60,709,320	2,286,682
2006	19	1	2,000,000	19	361	2,000,000	38,000,000	2,398,513
2007	20	1	2,000,000	20	400	2,000,000	40,000,000	2,510,344
2008	21	0		0	0	0	0	2,622,175
TOTAL		21	29,232,691	210	2,870	29,232,691	378,436,888	31,854,867

Notes on Trend Factor Calculation

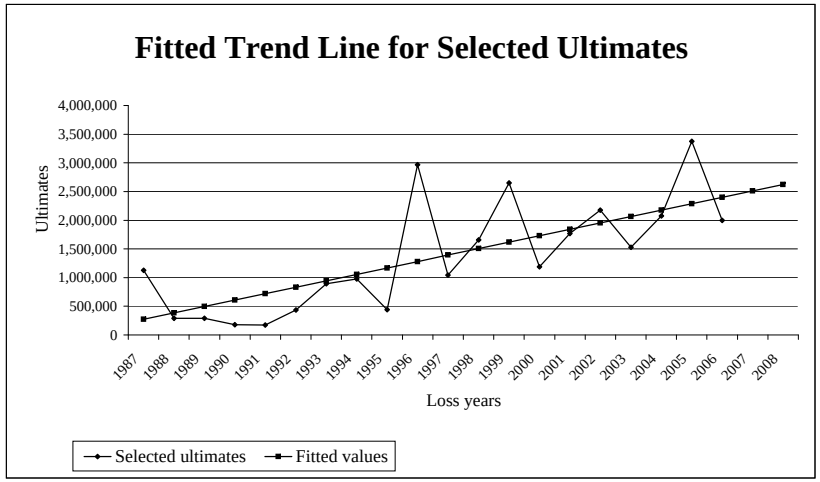
Column	Notes
(1)	Selected
(2)	Selected
(3)	Exhibit 8
(4)	(1) × (2)
(5)	(1) ^ 2 × (2)
(6)	(2) × (3)
(7)	(4) × (6)
(8)	y intercept + slope × (1)

slope	111,831	[(2) × (7) - (4) × (6)] ÷ [(2) × (5) - (4) ^ 2]
y intercept	273,722	[(6) - {(3) × (4)}] ÷ (2)

Values Carried Forward for Loss Year 2008

Row	2008 Estimates	
a	2008 Incurred	2,622,175
b	2008 Paid Development Factor	3.829
c	Loss year 2008 Paid at 12/31/08	684,836
d	Loss year 2008 Unpaid at 12/31/08	1,937,340
e	Loss year 2007 Unpaid at 12/31/07	1,758,691
f	Loss year 2007 Discounted at 12/31/07	1,471,334
g	Implied Discount Factor	0.837
h	2008 Discounted Unpaid Loss at 12/31/08	1,620,793

Row	Notes
a	Column 8, table above
b	Exhibit 9, Column 5, 12 months maturity
c	= a ÷ b
d	= a - c
e	Exhibit 12
f	Exhibit 12
g	= f ÷ e
h	= g × d



Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Reported Losses and ALAE

All amounts in thousands ('000s)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987	452	494	688	734	696	763	384	678	678	716	753	790	790	790	790	790	790	790	790	790	790	790	790
1988	380	465	363	532	682	619	613	610	610	610	564	518	518	518	518	518	518	518	518	518		518	518
1989	541	598	634	663	588	566	590	615	615	615	396	396	396	396	396	396	396	396	396			396	396
1990	321	433	472	504	471	484	475	473	473	471	471	471	471	471	471	471	471	471				471	471
1991	445	632	452	449	562	562	437	436	436	436	436	436	436	436	436	436	436					436	436
1992	246	299	273	323	315	315	315	315	315	315	315	315	315	315	315	315						315	315
1993	583	641	716	704	705	761	771	771	733	733	733	733	733	733	733							733	733
1994	503	578	567	532	533	532	532	532	532	532	532	532	532	532								532	532
1995	541	635	674	755	719	719	719	715	715	715	715	715	715									715	715
1996	790	745	802	830	819	855	855	812	812	808	808	808										808	808
1997	648	789	797	941	941	982	982	987	963	963	963											963	963
1998	545	695	688	737	743	778	778	762	762	761												762	761
1999	547	688	660	1,037	1,104	1,170	1,278	1,248	1,248													1,248	1,248
2000	1,661	2,958	2,201	2,169	2,154	2,144	2,118	2,118														2,118	2,118
2001	625	1,024	1,043	957	940	946	946															946	946
2002	735	850	870	673	786	786																786	786
2003	462	625	710	724	805																	724	805
2004	920	1,866	1,756	1,582																		1,756	1,582
2005	583	805	768																			805	768
2006	483	905																				483	905
2007	386																						386
																						16,307	16,983

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Reported Losses and ALAE

Development Ratios

Exposure		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	**Change in diagonals**	**Sum of diagonals**
1987	xx	1.093	1.393	1.067	0.947	1.097	0.504	1.765	1.000	1.055	1.052	1.050	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		451,927	451,927
1988	xx	1.223	0.781	1.466	1.281	0.908	0.990	0.995	1.000	1.000	0.925	0.919	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			422,136	874,063
1989	xx	1.106	1.060	1.045	0.887	0.963	1.042	1.042	1.000	1.000	0.644	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				819,939	1,694,002
1990	xx	1.347	1.091	1.068	0.935	1.026	0.982	0.996	1.000	0.995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					322,830	2,016,832
1991	xx	1.419	0.716	0.994	1.251	1.000	0.777	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						723,191	2,740,023
1992	xx	1.216	0.911	1.185	0.977	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							717,941	3,457,964
1993	xx	1.099	1.118	0.983	1.001	1.079	1.013	1.000	0.951	1.000	1.000	1.000	1.000	1.000	1.000								-28,239	3,429,725
1994	xx	1.148	0.982	0.937	1.004	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000									764,745	4,194,470
1995	xx	1.174	1.060	1.121	0.953	1.000	1.000	0.995	1.000	1.000	1.000	1.000	1.000										887,261	5,081,731
1996	xx	0.942	1.077	1.034	0.987	1.044	1.000	0.950	1.000	0.995	1.000	1.000											908,271	5,990,002
1997	xx	1.217	1.010	1.181	1.000	1.044	1.000	1.005	0.976	1.000	1.000												515,904	6,505,906
1998	xx	1.275	0.989	1.071	1.009	1.047	1.000	0.980	1.000	0.998													873,136	7,379,042
1999	xx	1.258	0.959	1.570	1.065	1.060	1.092	0.977	1.000														437,286	7,816,328
2000	xx	1.781	0.744	0.985	0.993	0.995	0.988	1.000															1,928,908	9,745,236
2001	xx	1.640	1.019	0.917	0.983	1.006	1.000																1,940,983	11,686,219
2002	xx	1.155	1.024	0.774	1.169	1.000																	798,019	12,484,238
2003	xx	1.351	1.137	1.020	1.112																		622,711	13,106,949
2004	xx	2.029	0.941	0.901																			1,072,156	14,179,105
2005	xx	1.380	0.955																				1,456,056	15,635,161
2006	xx	1.872																					671,342	16,306,503
2007	xx																						676,349	16,982,852

Discrete Dev. Ratios

Unwtd Last	3	1.761	1.011	0.898	1.088	1.000	1.027	0.985	0.992	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.800	0.981	0.893	1.076	0.999	1.019	0.989	0.992	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24	1.336	0.998	1.073	1.033	1.017	0.959	1.050	0.994	1.004	0.965	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.392	0.957	1.033	1.023	1.017	0.967	1.021	0.993	1.004	0.967	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.320	0.992	1.061	1.026	1.019	0.984	0.999	0.998	0.999	0.992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Cumulative Dev. Ratios

Unwtd Last	3	1.741	0.989	0.979	1.090	1.002	1.001	0.975	0.990	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.691	0.939	0.957	1.072	0.997	0.998	0.979	0.990	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24	1.454	1.088	1.090	1.015	0.983	0.967	1.009	0.960	0.966	0.962	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.361	0.977	1.022	0.989	0.967	0.950	0.983	0.963	0.969	0.966	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.410	1.068	1.077	1.015	0.990	0.972	0.988	0.989	0.991	0.992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Estimated Values

	Loss Year	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**	**1988**	**1987**	Sum	**Ultimate Incl. Tail**
Unwtd Last	3	672,048	894,661	751,866	1,723,095	806,708	787,432	922,307	2,095,893	1,245,482	760,874	963,492	807,602	715,273	532,222	733,385	315,255	435,976	470,585	395,679	517,686	790,325	17,337,846	17,337,846
Wtd Last	3	652,848	849,846	735,587	1,695,450	802,706	784,750	925,878	2,096,382	1,245,644	760,875	963,493	807,603	715,274	532,223	733,386	315,255	435,976	470,586	395,680	517,686	790,325	17,227,449	17,227,449
Unwtd Last	24	561,181	984,159	837,405	1,605,960	792,148	760,796	953,855	2,034,112	1,205,732	732,267	960,413	807,603	715,273	532,222	733,385	315,255	435,976	470,585	395,679	517,686	790,325	17,142,017	17,142,017
Wtd Last	24	525,251	884,219	785,027	1,563,741	778,686	747,239	929,346	2,038,833	1,210,056	734,701	962,039	807,603	715,273	532,222	733,385	315,254	435,976	470,585	395,679	517,686	790,325	16,873,126	16,873,126
Unwtd Last	24 Exc Hi/Lo	544,186	966,358	827,730	1,605,883	797,394	764,329	934,117	2,094,144	1,237,088	754,507	963,492	807,603	715,274	532,222	733,385	315,255	435,976	470,585	395,679	517,686	790,325	17,203,217	17,203,217

Selected Method :	Unwtd Last 24 Exc Hi/Lo	All periods combined	17,203,217
Minimum Method:	Wtd Last 24	All periods combined	16,873,126
Maximum Method:	Unwtd Last 3	All periods combined	17,337,846

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Paid Losses and ALAE

All amounts in thousands ('000s)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987	280	373	566	604	649	684	684	678	678	678	716	753	790	790	790	790	790	790	790	790	790	790	790
1988	139	310	332	371	499	521	609	610	610	610	564	518	518	518	518	518	518	518	518	518		518	518
1989	192	424	455	490	558	552	565	572	580	572	396	396	396	396	396	396	396	396	396			396	396
1990	145	322	376	386	386	470	470	471	471	471	471	471	471	471	471	471	471	471				471	471
1991	170	375	396	430	432	437	437	435	436	436	436	436	436	436	436	436	436					436	436
1992	120	191	219	300	315	315	315	315	315	315	315	315	315	315	315	315						315	315
1993	244	369	586	590	592	726	726	726	733	733	733	733	733	733	733							733	733
1994	253	509	531	531	532	532	532	532	532	532	532	532	532	532								532	532
1995	419	559	580	569	715	715	715	715	715	715	715	715	715									715	715
1996	484	631	683	688	786	802	803	808	808	808	808	808										808	808
1997	391	493	716	886	921	921	924	958	958	958	958											958	958
1998	429	617	675	675	727	728	729	729	729	727												729	727
1999	414	541	550	961	1,028	1,071	1,120	1,123	1,126													1,123	1,126
2000	360	1,535	2,015	2,118	2,118	2,118	2,118	2,118														2,118	2,118
2001	328	459	896	936	940	946	946															946	946
2002	380	570	663	668	668	668																668	668
2003	388	565	700	714	714																	714	714
2004	510	674	754	1,016																		754	1,016
2005	445	642	696																			642	696
2006	383	507																				383	507
2007	333																						333
																						14,748	15,525

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
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Development Ratios

		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	Change in diagonals	Sum of diagonals
1987	xx	1.335	1.515	1.067	1.076	1.054	1.000	0.991	1.000	1.000	1.055	1.052	1.050	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		279,752	279,752
1988	xx	2.237	1.068	1.117	1.346	1.044	1.170	1.000	1.000	1.000	0.925	0.919	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			232,384	512,136
1989	xx	2.209	1.075	1.077	1.138	0.989	1.023	1.012	1.014	0.987	0.692	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				555,774	1,067,910
1990	xx	2.226	1.169	1.027	1.000	1.217	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					435,507	1,503,417
1991	xx	2.212	1.055	1.085	1.006	1.010	1.000	0.996	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						462,846	1,966,263
1992	xx	1.588	1.147	1.369	1.050	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							578,753	2,545,016
1993	xx	1.512	1.587	1.007	1.003	1.227	1.000	1.000	1.010	1.000	1.000	1.000	1.000	1.000	1.000								435,559	2,980,575
1994	xx	2.016	1.042	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000									516,440	3,497,015
1995	xx	1.333	1.038	0.981	1.257	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000										1,072,415	4,569,430
1996	xx	1.305	1.081	1.007	1.143	1.020	1.001	1.006	1.000	1.000	1.000	1.000											676,234	5,245,664
1997	xx	1.260	1.454	1.237	1.040	1.000	1.004	1.037	1.000	1.000	1.000												606,282	5,851,946
1998	xx	1.437	1.095	1.000	1.077	1.001	1.001	1.000	1.000	0.998													688,358	6,540,304
1999	xx	1.307	1.016	1.747	1.070	1.042	1.046	1.002	1.003														793,615	7,333,919
2000	xx	4.267	1.312	1.051	1.000	1.000	1.000	1.000															813,572	8,147,491
2001	xx	1.400	1.951	1.045	1.005	1.006	1.000																1,570,244	9,717,735
2002	xx	1.499	1.164	1.008	1.000	1.000																	1,454,854	11,172,589
2003	xx	1.456	1.240	1.020	1.000																		1,192,752	12,365,341
2004	xx	1.321	1.119	1.348																			898,458	13,263,799
2005	xx	1.442	1.085																				802,434	14,066,233
2006	xx	1.325																					681,720	14,747,953
2007	xx																						776,920	15,524,873

Discrete Dev. Ratios

Unwtd Last	3	1.362	1.148	1.125	1.002	1.002	1.015	1.001	1.001	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.362	1.144	1.133	1.002	1.001	1.012	1.001	1.001	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24	1.734	1.222	1.122	1.071	1.038	1.016	1.003	1.002	0.999	0.970	0.997	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.648	1.219	1.106	1.056	1.029	1.014	1.004	1.002	0.999	0.973	0.998	1.008	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.620	1.191	1.092	1.058	1.028	1.006	1.001	1.001	1.000	0.992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Cumulative Dev. Ratios

Unwtd Last	3	1.795	1.318	1.148	1.020	1.018	1.016	1.001	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.795	1.317	1.152	1.016	1.014	1.013	1.001	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24	2.625	1.513	1.239	1.104	1.031	0.993	0.977	0.974	0.971	0.973	1.003	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	2.407	1.460	1.197	1.083	1.025	0.997	0.984	0.980	0.978	0.979	1.006	1.008	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	2.291	1.414	1.187	1.088	1.028	1.000	0.994	0.993	0.991	0.992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Estimated Values

	Loss Year	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	Sum	Ultimate Incl. Tail
Unwtd Last	3	598,615	668,311	799,375	1,036,595	727,247	679,051	946,692	2,118,505	1,124,925	727,425	958,165	807,602	715,273	532,222	733,385	315,255	435,976	470,585	395,679	517,686	790,325	16,098,892	16,098,892
Wtd Last	3	598,364	668,155	802,148	1,033,098	724,545	676,882	946,821	2,119,036	1,125,012	727,426	958,166	807,603	715,274	532,223	733,386	315,255	435,976	470,586	395,680	517,686	790,325	16,093,644	16,093,644
Unwtd Last	24	875,158	767,560	862,681	1,122,176	736,049	663,351	923,706	2,062,028	1,093,413	707,512	960,605	812,044	715,273	532,222	733,385	315,255	435,976	470,585	395,679	517,686	790,325	16,492,669	16,492,669
Wtd Last	24	802,456	740,661	834,006	1,100,396	732,335	666,176	930,262	2,075,459	1,100,556	712,087	964,035	813,785	715,273	532,222	733,385	315,254	435,976	470,585	395,679	517,686	790,325	16,378,600	16,378,600
Unwtd Last	24 Exc Hi/Lo	763,813	717,189	826,901	1,105,511	734,424	668,310	940,327	2,102,889	1,115,998	721,338	958,165	807,603	715,274	532,222	733,385	315,255	435,976	470,585	395,679	517,686	790,325	16,368,856	16,368,856

Selected Method :	Unwtd Last 24 Exc Hi/Lo	All periods combined	16,368,856
Minimum Method:	Wtd Last 3	All periods combined	16,093,644
Maximum Method:	Unwtd Last 24	All periods combined	16,492,669

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Reported Claims

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987	747	791	791	791	791	791	791	786	785	785	785	785	785	785	785	785	785	785	785	785	785	785	785
1988	743	836	836	836	836	836	834	834	834	834	834	834	834	834	834	834	834	834	834	834		834	834
1989	691	691	691	691	691	692	692	692	692	692	690	690	690	690	690	690	690	690	690			690	690
1990	720	810	810	810	815	811	811	811	811	811	811	811	811	811	811	811	811	811				811	811
1991	781	781	781	822	829	829	829	829	829	829	829	829	829	829	829	829	829					829	829
1992	657	657	696	688	688	688	688	688	688	688	688	688	688	688	688	688						688	688
1993	871	929	926	926	928	928	928	928	928	928	928	928	928	928	928							928	928
1994	838	847	849	849	850	850	850	850	850	850	850	850	850	850								850	850
1995	867	977	977	977	976	976	976	976	976	976	976	976	976									976	976
1996	917	963	963	963	963	963	963	963	863	963	963	963										963	963
1997	869	911	913	913	913	913	913	913	913	913	913											913	913
1998	790	862	836	835	835	835	835	835	835	835												835	835
1999	847	894	893	893	894	894	895	895	895													895	895
2000	762	881	882	883	883	883	883	883														883	883
2001	761	792	792	792	792	792	792															792	792
2002	720	803	803	803	803	803																803	803
2003	898	935	935	935	935																	935	935
2004	953	982	982	982																		982	982
2005	926	950	951																			950	951
2006	780	816																				780	816
2007	898																						898
																						17,122	18,057

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Reported Claims

Development Ratios

		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	**Change in diagonals**	**Sum of diagonals**
1987	xx	1.059	1.000	1.000	1.000	1.000	1.000	0.994	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		747	747
1988	xx	1.125	1.000	1.000	1.000	1.000	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			787	1,534
1989	xx	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				784	2,318
1990	xx	1.125	1.000	1.000	1.006	0.995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					720	3,038
1991	xx	1.000	1.000	1.052	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						871	3,909
1992	xx	1.000	1.059	0.989	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							657	4,566
1993	xx	1.067	0.997	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000								871	5,437
1994	xx	1.011	1.002	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000									975	6,412
1995	xx	1.127	1.000	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000										867	7,279
1996	xx	1.050	1.000	1.000	1.000	1.000	1.000	1.000	0.896	1.116	1.000	1.000											1,029	8,308
1997	xx	1.048	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000												917	9,225
1998	xx	1.091	0.970	0.999	1.000	1.000	1.000	1.000	1.000	1.000													833	10,058
1999	xx	1.055	0.999	1.000	1.001	1.000	1.001	1.000	1.000														918	10,976
2000	xx	1.156	1.001	1.001	1.000	1.000	1.000	1.000															783	11,759
2001	xx	1.041	1.000	1.000	1.000	1.000	1.000																878	12,637
2002	xx	1.115	1.000	1.000	1.000	1.000																	752	13,389
2003	xx	1.041	1.000	1.000	1.000																		983	14,372
2004	xx	1.030	1.000	1.000																			890	15,262
2005	xx	1.026	1.001																				1,056	16,318
2006	xx	1.046																					804	17,122
2007	xx																						935	18,057

Discrete Dev. Ratios

Unwtd Last	3	1.034	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.039	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.033	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.038	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000
Unwtd Last	24	1.061	1.002	1.002	1.001	1.000	1.000	1.000	0.992	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.060	1.001	1.002	1.001	1.000	1.000	1.000	0.991	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.059	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Cumulative Dev. Ratios

Unwtd Last	3	1.075	1.039	1.039	1.039	1.039	1.039	1.039	1.039	1.039	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.075	1.040	1.039	1.039	1.039	1.039	1.039	1.039	1.039	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000
Unwtd Last	24	1.067	1.005	1.004	1.002	1.000	1.001	1.001	1.001	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.064	1.004	1.003	1.001	1.000	1.000	1.000	1.001	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.060	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Estimated Values

	Loss Year	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**	**1988**	**1987**	Sum	**Ultimate Incl. Tail**
Unwtd Last	3	965	848	988	1,020	971	834	823	917	930	835	913	963	976	850	928	688	829	811	690	834	785	18,399	18,399
Wtd Last	3	965	848	988	1,021	972	835	823	917	930	836	914	964	977	851	929	688	830	811	690	834	785	18,406	18,406
Unwtd Last	24	958	820	955	984	935	804	793	884	903	835	913	963	976	850	928	688	829	811	690	834	785	18,137	18,137
Wtd Last	24	956	819	954	983	935	803	792	883	904	835	913	963	976	850	928	688	829	811	690	834	785	18,130	18,130
Unwtd Last	24 Exc Hi/Lo	951	817	952	983	935	803	792	883	895	835	913	963	976	850	928	688	829	811	690	834	785	18,112	18,112

Selected Method :	Unwtd Last 24	All periods combined	18,137
Minimum Method:	Unwtd Last 24 Exc Hi/Lo	All periods combined	18,112
Maximum Method:	Wtd Last 3	All periods combined	18,406

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Average Severity - Ratio of Reported Losses and ALAE to Reported Claims

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987	605	625	870	928	879	965	486	863	864	912	959	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007	1,007
1988	511	556	434	637	815	740	735	731	731	731	676	621	621	621	621	621	621	621	621	621		621	621
1989	783	866	918	959	851	818	852	888	888	888	573	573	573	573	573	573	573	573	573			573	573
1990	446	534	583	622	578	596	586	583	583	580	580	580	580	580	580	580	580	580				580	580
1991	570	809	579	547	678	678	527	526	526	526	526	526	526	526	526	526	526					526	526
1992	374	455	392	469	459	459	458	458	458	458	458	458	458	458	458	458						458	458
1993	669	690	774	761	760	820	831	831	790	790	790	790	790	790	790							790	790
1994	600	682	668	626	628	626	626	626	626	626	626	626	626	626								626	626
1995	624	650	689	773	737	737	737	733	733	733	733	733	733									733	733
1996	862	773	833	861	850	888	888	843	941	839	839	839										839	839
1997	746	866	873	1,031	1,031	1,076	1,076	1,082	1,055	1,055	1,055											1,055	1,055
1998	690	806	823	882	890	932	932	913	913	911												913	911
1999	646	770	739	1,161	1,235	1,309	1,428	1,395	1,395													1,395	1,395
2000	2,180	3,358	2,495	2,456	2,439	2,428	2,399	2,399														2,399	2,399
2001	821	1,293	1,317	1,208	1,187	1,194	1,194															1,194	1,194
2002	1,021	1,058	1,083	838	979	979																979	979
2003	515	668	760	775	861																	775	861
2004	965	1,900	1,788	1,611																		1,788	1,611
2005	630	847	808																			847	808
2006	619	1,109																				619	1,109
2007	430																						430
																						18,718	19,505

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Average Severity - Ratio of Reported Losses and ALAE to Reported Claims

Development Ratios

Exposure:		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	**Change in diagonals**	**Sum of diagonals**
1987	xx	1.032	1.393	1.067	0.947	1.097	0.504	1.776	1.001	1.055	1.052	1.050	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		605	605
1988	xx	1.087	0.781	1.466	1.281	0.908	0.993	0.995	1.000	1.000	0.925	0.919	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			531	1,136
1989	xx	1.106	1.060	1.045	0.887	0.961	1.042	1.042	1.000	1.000	0.645	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				1,073	2,209
1990	xx	1.198	1.091	1.068	0.929	1.031	0.982	0.996	1.000	0.995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					466	2,675
1991	xx	1.419	0.716	0.944	1.240	1.000	0.777	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						864	3,538
1992	xx	1.216	0.860	1.199	0.977	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							968	4,506
1993	xx	1.030	1.122	0.983	0.999	1.079	1.013	1.000	0.951	1.000	1.000	1.000	1.000	1.000	1.000								-103	4,403
1994	xx	1.136	0.979	0.937	1.002	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000									820	5,223
1995	xx	1.042	1.060	1.121	0.954	1.000	1.000	0.995	1.000	1.000	1.000	1.000	1.000										1,048	6,271
1996	xx	0.897	1.077	1.034	0.987	1.044	1.000	0.950	1.116	0.891	1.000	1.000											923	7,194
1997	xx	1.161	1.007	1.181	1.000	1.044	1.000	1.005	0.976	1.000	1.000												548	7,742
1998	xx	1.169	1.020	1.072	1.009	1.047	1.000	0.980	1.000	0.998													1,006	8,748
1999	xx	1.192	0.960	1.570	1.064	1.060	1.091	0.977	1.000														397	9,145
2000	xx	1.540	0.743	0.984	0.993	0.995	0.988	1.000															2,468	11,613
2001	xx	1.576	1.019	0.917	0.983	1.006	1.000																2,024	13,638
2002	xx	1.036	1.024	0.774	1.169	1.000																	1,102	14,739
2003	xx	1.298	1.137	1.020	1.112																		608	15,347
2004	xx	1.969	0.941	0.901																			1,195	16,542
2005	xx	1.345	0.954																				1,352	17,893
2006	xx	1.790																					825	18,718
2007	xx																						787	19,505

Discrete Dev. Ratios

Unwtd Last	3	1.701	1.010	0.898	1.088	1.000	1.026	0.985	0.992	0.963	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.742	0.982	0.888	1.074	0.999	1.018	0.989	0.992	0.964	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000
Unwtd Last	24	1.262	0.997	1.071	1.031	1.017	0.959	1.051	1.003	0.995	0.966	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.298	0.957	1.032	1.021	1.017	0.964	1.025	1.003	0.993	0.960	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.243	0.990	1.059	1.024	1.019	0.984	0.999	0.998	0.999	0.992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Cumulative Dev. Ratios

Unwtd Last	3	1.623	0.954	0.944	1.052	0.967	0.966	0.942	0.955	0.963	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.570	0.902	0.918	1.034	0.963	0.964	0.947	0.957	0.965	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000
Unwtd Last	24	1.370	1.085	1.088	1.016	0.985	0.969	1.010	0.961	0.958	0.963	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.256	0.968	1.011	0.980	0.960	0.944	0.980	0.956	0.953	0.959	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.322	1.064	1.074	1.015	0.991	0.972	0.988	0.989	0.991	0.992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Estimated Values

	Loss Year	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**	**1988**	**1987**	Sum	**Ultimate Incl. Tail**
Unwtd Last	3	698	1,058	763	1,693	833	946	1,124	2,292	1,344	911	1,055	839	733	626	790	458	526	580	573	621	1,007	19,470	19,470
Wtd Last	3	675	1,000	742	1,665	830	944	1,131	2,297	1,346	912	1,056	839	733	627	791	458	526	581	574	621	1,007	19,353	19,353
Unwtd Last	24	589	1,203	879	1,636	849	949	1,206	2,305	1,336	877	1,052	839	733	626	790	458	526	580	573	621	1,007	19,634	19,634
Wtd Last	24	540	1,073	817	1,578	827	925	1,170	2,293	1,329	874	1,054	839	733	626	790	458	526	580	573	621	1,007	19,234	19,234
Unwtd Last	24 Exc Hi/Lo	568	1,179	868	1,634	853	952	1,180	2,372	1,382	904	1,055	839	733	626	790	458	526	580	573	621	1,007	19,701	19,701

Selected Method :	Unwtd Last 3	All periods combined	19,470
Minimum Method:	Wtd Last 24	All periods combined	19,234
Maximum Method:	Unwtd Last 24 Exc Hi/Lo	All periods combined	19,701

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Estimate of Ultimate using Reported Losses and ALAE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
		Minimum Method: Wtd Last 24		Selected Method: Unwtd Last 24 Exc Hi/Lo		Maximum Method: Unwtd Last 3			Minimum: Wtd Last 24	Selected: Unwtd Last 24	Maximum: Unwtd Last 3
Period	Reported Loss	Factor to Ultimate	Estimated Ultimate	Factor to Ultimate	Estimated Ultimate	Factor to Ultimate	Estimated Ultimate	Paid Loss	Unpaid Loss	Unpaid Loss	Unpaid Loss
1987	790,325	1.000	790,325	1.000	790,325	1.000	790,325	790,325	0	0	0
1988	517,686	1.000	517,686	1.000	517,686	1.000	517,686	517,686	0	0	0
1989	395,679	1.000	395,679	1.000	395,679	1.000	395,679	395,679	0	0	0
1990	470,585	1.000	470,585	1.000	470,585	1.000	470,585	470,585	(0)	0	(0)
1991	435,976	1.000	435,976	1.000	435,976	1.000	435,976	435,976	(0)	0	(0)
1992	315,255	1.000	315,254	1.000	315,255	1.000	315,255	315,255	(0)	0	0
1993	733,385	1.000	733,385	1.000	733,385	1.000	733,385	733,385	(0)	0	0
1994	532,222	1.000	532,222	1.000	532,222	1.000	532,222	532,222	(0)	0	(0)
1995	715,274	1.000	715,273	1.000	715,274	1.000	715,273	715,274	(0)	0	(0)
1996	807,603	1.000	807,603	1.000	807,603	1.000	807,602	807,603	(0)	(0)	(0)
1997	963,492	0.998	962,039	1.000	963,492	1.000	963,492	958,165	3,873	5,327	5,326
1998	760,875	0.966	734,701	0.992	754,507	1.000	760,874	727,426	7,275	27,082	33,449
1999	1,248,405	0.969	1,210,056	0.991	1,237,088	0.998	1,245,482	1,125,627	84,430	111,461	119,855
2000	2,117,985	0.963	2,038,833	0.989	2,094,144	0.990	2,095,893	2,117,985	(79,151)	(23,841)	(22,092)
2001	945,753	0.983	929,346	0.988	934,117	0.975	922,307	945,753	(16,407)	(11,636)	(23,446)
2002	786,428	0.950	747,239	0.972	764,329	1.001	787,432	668,235	79,004	96,094	119,197
2003	805,445	0.967	778,686	0.990	797,394	1.002	806,708	714,219	64,467	83,174	92,489
2004	1,581,514	0.989	1,563,741	1.015	1,605,883	1.090	1,723,095	1,016,373	547,368	589,510	706,722
2005	768,356	1.022	785,027	1.077	827,730	0.979	751,866	696,463	88,564	131,267	55,402
2006	904,624	0.977	884,219	1.068	966,358	0.989	894,661	507,198	377,021	459,161	387,463
2007	385,986	1.361	525,251	1.410	544,186	1.741	672,048	333,441	191,810	210,745	338,608
TOTAL	16,982,852	xx	16,873,126	xx	17,203,217	xx	17,337,846	15,524,873	1,348,253	1,678,344	1,812,973

Column	Notes
(1)	Exhibit 1a
(2)	Exhibit 1b
(3)	(1) × (2)
(4)	Exhibit 1b
(5)	(1) × (4)
(6)	Exhibit 1b

Column	Notes
(7)	(1) × (6)
(8)	Exhibit 2a
(9)	(3) - (8)
(10)	(5) - (8)
(11)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Estimate of Ultimate using Paid Losses and ALAE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Minimum Method:		Selected Method:		Maximum Method:		Minimum:	Selected:	Maximum:
		Wtd Last 3		Unwtd Last 24 Exc Hi/Lo		Unwtd Last 24		Wtd Last 3	Unwtd Last 24 Exc Hi/Lo	Unwtd Last 24
Period	Paid Loss	Factor to Ultimate*	Estimated Ultimate	Factor to Ultimate*	Estimated Ultimate	Factor to Ultimate*	Estimated Ultimate	Unpaid Loss	Unpaid Loss	Unpaid Loss
1987	790,325	1.000	790,325	1.000	790,325	1.000	790,325	0	0	0
1988	517,686	1.000	517,686	1.000	517,686	1.000	517,686	0	0	0
1989	395,679	1.000	395,680	1.000	395,679	1.000	395,679	0	0	0
1990	470,585	1.000	470,586	1.000	470,585	1.000	470,585	0	0	(0)
1991	435,976	1.000	435,976	1.000	435,976	1.000	435,976	0	0	(0)
1992	315,255	1.000	315,255	1.000	315,255	1.000	315,255	0	0	(0)
1993	733,385	1.000	733,386	1.000	733,385	1.000	733,385	1	0	0
1994	532,222	1.000	532,223	1.000	532,222	1.000	532,222	0	0	(0)
1995	715,274	1.000	715,274	1.000	715,274	1.000	715,273	0	0	(0)
1996	807,603	1.000	807,603	1.000	807,603	1.005	812,044	0	0	4,442
1997	958,165	1.000	958,166	1.000	958,165	1.003	960,605	0	0	2,440
1998	727,426	1.000	727,426	0.992	721,338	0.973	707,512	0	(6,088)	(19,914)
1999	1,125,627	0.999	1,125,012	0.991	1,115,998	0.971	1,093,413	(614)	(9,629)	(32,214)
2000	2,117,985	1.000	2,119,036	0.993	2,102,889	0.974	2,062,028	1,051	(15,095)	(55,956)
2001	945,753	1.001	946,821	0.994	940,327	0.977	923,706	1,068	(5,426)	(22,047)
2002	668,235	1.013	676,882	1.000	668,310	0.993	663,351	8,647	75	(4,884)
2003	714,219	1.014	724,545	1.028	734,424	1.031	736,049	10,325	20,205	21,829
2004	1,016,373	1.016	1,033,098	1.088	1,105,511	1.104	1,122,176	16,725	89,138	105,803
2005	696,463	1.152	802,148	1.187	826,901	1.239	862,681	105,685	130,438	166,218
2006	507,198	1.317	668,155	1.414	717,189	1.513	767,560	160,957	209,992	260,363
2007	333,441	1.795	598,364	2.291	763,813	2.625	875,158	264,923	430,372	541,717
TOTAL	15,524,873	xx	16,093,644	xx	16,368,856	xx	16,492,669	568,771	843,982	967,795

Column	Notes
(1)	Exhibit 2a
(2)	Exhibit 2b
(3)	(1) × (2)
(4)	Exhibit 2b
(5)	(1) × (4)
(6)	Exhibit 2b

Column	Notes
(7)	(1) × (6)
(8)	(3) - (1)
(9)	(5) - (1)
(10)	(7) - (1)

* Tail factors for 1987 adjusted to balance paid loss and reported loss.
Rptd Loss of 790,325 ÷ Paid Loss of 790,325 = 1.000

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Estimate of Ultimate using Counts and Averages

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Minimum Claims Method: Unwtd Last 24 Exc Hi/Lo			Minimum Severity Method: Wtd Last 24					
Period	Reported Claims	Claims Development	Estimated Ultimate Claims	Average severity	Severity Development	Estimated Ultimate Severity	Estimated Ultimate Losses	Paid Losses	Unpaid Losses
1987	785	0	785	1,007	0	1,007	790,325	790,325	0
1988	834	0	834	621	0	621	517,686	517,686	0
1989	690	0	690	573	(0)	573	395,679	395,679	(0)
1990	811	0	811	580	(0)	580	470,585	470,585	(0)
1991	829	0	829	526	(0)	526	435,976	435,976	(0)
1992	688	0	688	458	(0)	458	315,254	315,255	(0)
1993	928	0	928	790	(0)	790	733,385	733,385	(0)
1994	850	0	850	626	(0)	626	532,222	532,222	(0)
1995	976	0	976	733	(0)	733	715,273	715,274	(0)
1996	963	0	963	839	(0)	839	807,603	807,603	(0)
1997	913	0	913	1,055	(1)	1,054	962,415	958,165	4,249
1998	835	0	835	911	(37)	874	729,903	727,426	2,478
1999	895	0	895	1,395	(65)	1,329	1,189,786	1,125,627	64,159
2000	883	0	883	2,399	(106)	2,293	2,024,492	2,117,985	(93,493)
2001	792	0	792	1,194	(24)	1,170	926,374	945,753	(19,379)
2002	803	0	803	979	(54)	925	742,691	668,235	74,456
2003	935	0	935	861	(34)	827	773,206	714,219	58,987
2004	982	1	983	1,611	(32)	1,578	1,550,961	1,016,373	534,588
2005	951	1	952	808	9	817	777,408	696,463	80,945
2006	816	1	817	1,109	(36)	1,073	876,080	507,198	368,883
2007	898	53	951	430	110	540	513,821	333,441	180,380
TOTAL	18,057	55	18,112	19,505	(271)	19,234	16,781,125	15,524,873	1,256,252

Column	Notes
(1)	Exhibit 3a
(2)	(3) - (1)
(3)	Exhibit 3b
(4)	Exhibit 4a
(5)	(6) - (4)

Column	Notes
(6)	Exhibit 4b
(7)	(3) × (6)
(8)	Exhibit 2a
(9)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Estimate of Ultimate using Counts and Averages

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Selected Claims Method: Unwtd Last 24			Selected Severity Method: Unwtd Last 3					
Period	Reported Claims	Claims Development	Estimated Ultimate Claims	Average severity	Severity Development	Estimated Ultimate Severity	Estimated Ultimate Losses	Paid Losses	Unpaid Losses
1987	785	0	785	1,007	0	1,007	790,325	790,325	0
1988	834	0	834	621	0	621	517,686	517,686	0
1989	690	0	690	573	0	573	395,679	395,679	(0)
1990	811	0	811	580	(0)	580	470,585	470,585	(0)
1991	829	0	829	526	(0)	526	435,976	435,976	(0)
1992	688	0	688	458	0	458	315,255	315,255	0
1993	928	0	928	790	0	790	733,385	733,385	0
1994	850	0	850	626	(0)	626	532,222	532,222	(0)
1995	976	0	976	733	(0)	733	715,273	715,274	(0)
1996	963	0	963	839	(0)	839	807,602	807,603	(0)
1997	913	0	913	1,055	(0)	1,055	963,492	958,165	5,326
1998	835	0	835	911	(0)	911	760,674	727,426	33,249
1999	895	8	903	1,395	(51)	1,344	1,213,788	1,125,627	88,162
2000	883	1	884	2,399	(107)	2,292	2,026,043	2,117,985	(91,941)
2001	792	1	793	1,194	(70)	1,124	891,167	945,753	(54,586)
2002	803	1	804	979	(33)	946	760,480	668,235	92,245
2003	935	0	935	861	(29)	833	778,927	714,219	64,708
2004	982	2	984	1,611	83	1,693	1,665,531	1,016,373	649,158
2005	951	4	955	808	(45)	763	728,400	696,463	31,937
2006	816	4	820	1,109	(51)	1,058	867,893	507,198	360,696
2007	898	60	958	430	268	698	668,297	333,441	334,856
TOTAL	18,057	80	18,137	19,505	(35)	19,470	17,038,682	15,524,873	1,513,808

Column	Notes
(1)	Exhibit 3a
(2)	(3) - (1)
(3)	Exhibit 3b
(4)	Exhibit 4a
(5)	(6) - (4)

Column	Notes
(6)	Exhibit 4b
(7)	(3) × (6)
(8)	Exhibit 2a
(9)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Estimate of Ultimate using Counts and Averages

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Maximum Claims Method: Wtd Last 3			Maximum Severity Method: Unwtd Last 24 Exc Hi/Lo					
Period	Reported Claims	Claims Development	Estimated Ultimate Claims	Average severity	Severity Development	Estimated Ultimate Severity	Estimated Ultimate Losses	Paid Losses	Unpaid Losses
1987	785	0	785	1,007	0	1,007	790,325	790,325	0
1988	834	0	834	621	0	621	517,686	517,686	0
1989	690	0	690	573	0	573	395,921	395,679	242
1990	811	0	811	580	0	580	470,873	470,585	287
1991	829	1	830	526	0	526	436,242	435,976	266
1992	688	0	688	458	0	458	315,447	315,255	192
1993	928	1	929	790	0	790	733,833	733,385	448
1994	850	1	851	626	0	626	532,547	532,222	325
1995	976	1	977	733	0	733	715,710	715,274	437
1996	963	1	964	839	0	839	808,096	807,603	493
1997	913	1	914	1,055	0	1,055	964,081	958,165	5,915
1998	835	1	836	911	(8)	904	754,968	727,426	27,542
1999	895	35	930	1,395	(13)	1,382	1,285,242	1,125,627	159,615
2000	883	34	917	2,399	(27)	2,372	2,175,911	2,117,985	57,926
2001	792	31	823	1,194	(15)	1,180	970,590	945,753	24,837
2002	803	32	835	979	(27)	952	794,630	668,235	126,394
2003	935	37	972	861	(8)	853	829,218	714,219	114,999
2004	982	39	1,021	1,611	24	1,634	1,667,820	1,016,373	651,447
2005	951	37	988	808	60	868	857,851	696,463	161,388
2006	816	32	848	1,109	71	1,179	1,000,568	507,198	493,370
2007	898	67	965	430	-330	568	548,400	333,441	214,959
TOTAL	18,057	349	18,406	xx	xx	19,701	17,565,956	15,524,873	2,041,083

Column	Notes
(1)	Exhibit 3a
(2)	(3) - (1)
(3)	Exhibit 3b
(4)	Exhibit 4a
(5)	(6) - (4)

Column	Notes
(6)	Exhibit 4b
(7)	(3) × (6)
(8)	Exhibit 2a
(9)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Selected Estimates for Unpaid Losses

		Selected Ultimates					Estimated Unpaid Losses			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Weights		50%	50%	0%	100%		50%	50%	0%	100%
Loss year	Reported Losses	Reported Method	Paid Method	Counts/Averages	Selected	Paid Losses	Reported Method	Paid Method	Counts/Averages	Selected
1987	790,325	790,325	790,325	790,325	790,325	790,325	0	0	0	0
1988	517,686	517,686	517,686	517,686	517,686	517,686	0	0	0	0
1989	395,679	395,679	395,679	395,679	395,679	395,679	0	0	0	0
1990	470,585	470,585	470,585	470,585	470,585	470,585	0	0	0	0
1991	435,976	435,976	435,976	435,976	435,976	435,976	0	0	0	0
1992	315,255	315,255	315,255	315,255	315,255	315,255	0	0	0	0
1993	733,385	733,385	733,385	733,385	733,385	733,385	0	0	0	0
1994	532,222	532,222	532,222	532,222	532,222	532,222	0	0	0	0
1995	715,274	715,274	715,274	715,274	715,274	715,274	0	0	0	0
1996	807,603	807,603	807,603	807,603	807,603	807,603	0	0	0	0
1997	963,492	963,492	963,492	963,492	963,492	958,165	5,327	5,327	5,327	5,327
1998	760,875	760,875	760,875	760,875	760,875	727,426	33,449	33,449	33,449	33,449
1999	1,248,405	1,248,405	1,248,405	1,248,405	1,248,405	1,125,627	122,778	122,778	122,778	122,778
2000	2,117,985	2,117,985	2,117,985	2,117,985	2,117,985	2,117,985	0	0	0	0
2001	945,753	945,753	945,753	945,753	945,753	945,753	0	0	0	0
2002	786,428	786,428	786,428	786,428	786,428	668,235	118,193	118,193	118,193	118,193
2003	805,445	805,445	805,445	805,445	805,445	714,219	91,226	91,226	91,226	91,226
2004	1,581,514	1,605,883	1,581,514	1,665,531	1,593,699	1,016,373	589,510	565,141	649,158	577,326
2005	768,356	827,730	826,901	768,356	827,316	696,463	131,267	130,438	71,893	130,853
2006	904,624	966,358	904,624	904,624	935,491	507,198	459,161	397,426	397,426	428,293
2007	385,986	544,186	763,813	668,297	**850,000**	333,441	210,745	430,372	334,856	516,559
TOTAL	16,982,852	17,286,529	17,419,224	17,349,180	17,548,877	15,524,873	1,761,656	1,894,351	1,824,306	2,024,004

Column	Notes	Column	Notes
(1)	Exhibit 1a	(6)	Exhibit 2a
(2)	Maximum of Exhibit 5 and Column (1)	(7)	(2) - (6)
(3)	Maximum of Exhibit 6 and Column (1)	(8)	(3) - (6)
(4)	Maximum of Exhibit 7b and Column (1)	(9)	(4) - (6)
(5)	Weighted Average of (2), (3), (4); Bolded figures are judgmental selections	(10)	(5) - (6)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Implied Development Factors and Reserves for Selected Ultimates

Loss year	Maturity	(1) Selected Ultimates	(2) Reported at 12/07	(3) Factor to Ult	(4) Paid at 12/07	(5) Factor to Ult	(6) Incremental Factor	(7) Case Reserves	(8) IBNR Estimate
1987	252	790,325	790,325	1.000	790,325	1.000	1.000	$0	$0
1988	240	517,686	517,686	1.000	517,686	1.000	1.000	$0	$0
1989	228	395,679	395,679	1.000	395,679	1.000	1.000	$0	$0
1990	216	470,585	470,585	1.000	470,585	1.000	1.000	$0	$0
1991	204	435,976	435,976	1.000	435,976	1.000	1.000	$0	$0
1992	192	315,255	315,255	1.000	315,255	1.000	1.000	$0	$0
1993	180	733,385	733,385	1.000	733,385	1.000	1.000	$0	$0
1994	168	532,222	532,222	1.000	532,222	1.000	1.000	$0	$0
1995	156	715,274	715,274	1.000	715,274	1.000	1.000	$0	$0
1996	144	807,603	807,603	1.000	807,603	1.000	1.000	$0	$0
1997	132	963,492	963,492	1.000	958,165	1.000	1.000	$5,327	$0
1998	120	760,875	760,875	1.000	727,426	1.000	1.000	$33,449	$0
1999	108	1,248,405	1,248,405	1.000	1,125,627	0.999	0.999	$122,778	$0
2000	96	2,117,985	2,117,985	1.000	2,117,985	1.000	1.001	$0	$0
2001	84	945,753	945,753	1.000	945,753	1.001	1.001	$0	$0
2002	72	786,428	786,428	1.000	668,235	1.013	1.012	$118,193	$0
2003	60	805,445	805,445	1.000	714,219	1.014	1.001	$91,226	$0
2004	48	1,593,699	1,581,514	1.008	1,016,373	1.016	1.002	$565,141	$12,185
2005	36	827,316	768,356	1.077	696,463	1.152	1.133	$71,893	$58,959
2006	24	935,491	904,624	1.034	507,198	1.317	1.144	$397,426	$30,867
2007	12	850,000	385,986	2.202	333,441	1.795	1.362	$52,545	$464,014
TOTAL	xx	17,548,877	16,982,852	xx	15,524,873	xx	xx	$1,457,979	$566,025

Column	Notes
(1)	Exhibit 8
(2)	Exhibit 1a
(3)	(1) ÷ (2)
(4)	Exhibit 2a

Column	Notes
(5)	Exhibit 2b, Weighted Last 3 Factors
(6)	Incremental division of column (5)
(7)	(2) - (4)
(8)	(1) - (2)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Cumulative Payment Pattern

Estimated Cumulative Payments

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	TOTAL
Selected Ultimates	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877
Estimated Unpaid Losses	0	0	0	0	0	0	0	0	0	0	5,327	33,449	122,778	0	0	118,193	91,226	577,326	130,853	428,293	516,559	2,024,004
Paid as of 12/31/07	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	958,165	727,426	1,125,627	2,117,985	945,753	668,235	714,219	1,016,373	696,463	507,198	333,441	15,524,873
2008	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	775,994	723,668	1,085,507	811,237	701,248	568,940	16,417,092
2009	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	798,226	1,138,140	813,162	906,708	696,282	16,889,445
2010	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,553,482	814,628	910,155	831,112	17,451,749
2011	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	826,196	912,779	833,374	17,508,419
2012	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	933,486	835,096	17,531,968
2013	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	848,684	17,547,561
2014	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877
2015	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877
2016	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877
2017	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877
2018	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877
2019	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877
2020	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877
2021	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877
2022	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877
2023	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877
2024	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877
2025	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877
2026	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877
2027	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,492	760,875	1,248,405	2,117,985	945,753	786,428	805,445	1,593,699	827,316	935,491	850,000	17,548,877

Percentage Paid

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
2008	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.912	0.104	0.120	0.877	0.453	0.456
2009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.088	0.817	0.091	0.015	0.480	0.247
2010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.079	0.719	0.011	0.008	0.261
2011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.070	0.088	0.006	0.004
2012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.048	0.003
2013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.026
2014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
2015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Notes

The purpose of this exhibit is to derive a stream of annual payments based on the estimates in Exhibit 9.
This exhibit derives estimated cumulative payments for each loss year through 2007. Exhibit 11 derives the annual payments as differences between successive cumulative payments for all years.
Selected ultimate loss values are from Exhibit 9 column (1).
Paid loss as of December 31, 2007 is from Exhibit (9) column (5).
Unpaid loss as of December 31, 2007 is derived by subtraction of paid loss from ultimate loss.
Totals are carried forward to Exhibit 11.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Discounted Reserves

Discounted Reserves								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Payment year	Total Paid	Expected Payments by Year	3.50% Discount Factor	Discounted Expected Payments	4.50% Discount Factor	Discounted Expected Payments	5.50% Discount Factor	Discounted Expected Payments
2007	15,524,873	xx	xx	xx	xx	xx	xx	xx
2008	16,417,092	892,219	0.983	877,003	0.978	872,797	0.974	868,651
2009	16,889,445	472,353	0.950	448,597	0.936	442,173	0.923	435,901
2010	17,451,749	562,304	0.918	515,965	0.896	503,710	0.875	491,858
2011	17,508,419	56,670	0.887	50,241	0.857	48,578	0.829	46,986
2012	17,531,968	23,549	0.857	20,172	0.820	19,317	0.786	18,507
2013	17,547,561	15,594	0.828	12,906	0.785	12,241	0.745	11,616
2014	17,548,877	1,316	0.800	1,052	0.751	988	0.706	929
2015	17,548,877	-	0.773	-	0.719	-	0.669	-
2016	17,548,877	-	0.746	-	0.688	-	0.634	-
2017	17,548,877	-	0.721	-	0.658	-	0.601	-
2018	17,548,877	-	0.697	-	0.630	-	0.570	-
2019	17,548,877	-	0.673	-	0.603	-	0.540	-
2020	17,548,877	-	0.650	-	0.577	-	0.512	-
2021	17,548,877	-	0.628	-	0.552	-	0.485	-
2022	17,548,877	-	0.607	-	0.528	-	0.460	-
2023	17,548,877	-	0.587	-	0.505	-	0.436	-
2024	17,548,877	-	0.567	-	0.484	-	0.413	-
2025	17,548,877	-	0.548	-	0.463	-	0.392	-
2026	17,548,877	-	0.529	-	0.443	-	0.371	-
2027	17,548,877	-	0.511	-	0.424	-	0.352	-
TOTAL	xx	2,024,004	xx	1,925,936	xx	1,899,805	xx	1,874,448

Column	Notes
(1)	Exhibit 10 TOTAL column
(2)	Successive differences in (1)
(3)	((1.035)^(0.5 + Payment Year - 2008)) ^ (-1)
(4)	(2) × (3)
(5)	((1.045)^(0.5 + Payment Year - 2008)) ^ (-1)
(6)	(2) × (5)
(7)	((1.055)^(0.5 + Payment Year - 2008)) ^ (-1)
(8)	(2) × (7)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Discounted Payments by Loss Year

Loss Year	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	12/31/07	12/31/08
Estimated Unpaid Losses	0	0	0	0	0	0	0	0	0	0	5,327	33,449	122,778	0	0	118,193	91,226	577,326	130,853	428,293	516,559	2,024,004	1,131,785
Paid as of 12/31/07	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	958,165	727,426	1,125,627	2,117,985	945,753	668,235	714,219	1,016,373	696,463	507,198	333,441	15,524,873	16,417,092
2008	0	0	0	0	0	0	0	0	0	0	5,211	32,721	120,105	0	0	105,413	9,242	67,629	112,276	189,826	230,373	872,796	0
2009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,767	69,795	49,270	1,802	192,333	119,206	442,173	462,071
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,467	372,062	1,313	3,088	120,780	503,710	526,377
2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34,474	9,915	2,249	1,939	48,578	50,764
2012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	919	16,986	1,413	19,317	20,187
2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,574	10,667	12,241	12,792
2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	989	989	1,033
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Payments after valuation	0	0	0	0	0	0	0	0	0	0	5,211	32,721	120,105	0	0	115,181	85,504	523,435	126,225	406,056	485,366	1,899,804	1,073,223
TOTAL	790,325	517,686	395,679	470,585	435,976	315,255	733,385	532,222	715,274	807,603	963,376	760,147	1,245,732	2,117,985	945,753	783,416	799,724	1,539,808	822,688	913,253	818,807	xx	xx

Notes
Selected Estimated Reserves from Exhibit 8.
Valuation at 12/31/08 are payments increased by an interest rate of 4.5%

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Allocation by District - Reported Losses and ALAE

Reported losses for each District by loss year as of 12/31/07

Loss year	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	District 10	Central Office	TOTAL
1987	19,862	4,850	9,301	350,149	23,370	186,170	19,511	42,292	118,497	14,946	1,378	790,325
1988	11,280	1,449	63,432	176,154	5,873	100,192	18,411	27,928	96,436	6,880	9,650	517,686
1989	5,166	27,756	5,827	133,411	13,613	49,086	2,144	82,252	3,722	51,171	21,531	395,679
1990	14,609	12,722	88,408	73,341	62,489	110,530	55,539	13,161	8,909	20,354	10,525	470,585
1991	33,335	123,249	19,212	102,934	28,851	55,729	8,756	26,678	7,770	21,153	8,307	435,976
1992	7,413	3,567	5,392	47,187	15,275	46,477	9,532	27,517	41,840	108,024	3,031	315,255
1993	150,492	28,115	126,188	69,220	154,714	109,408	14,961	21,637	25,216	28,364	5,072	733,385
1994	124,024	21,161	23,490	183,621	17,492	72,320	20,227	28,209	13,422	17,375	10,881	532,222
1995	64,292	65,395	19,128	79,688	130,371	177,372	40,844	51,679	22,734	60,155	3,616	715,274
1996	26,783	15,934	204,342	243,837	31,399	130,660	15,793	40,812	31,579	44,485	21,979	807,603
1997	25,177	293,911	28,894	124,990	79,950	124,298	128,933	29,103	28,046	87,055	13,136	963,492
1998	9,567	130,976	19,615	104,811	45,310	226,285	84,457	42,518	9,545	26,589	61,201	760,875
1999	448,510	13,937	30,097	57,363	30,507	354,693	64,010	68,125	48,563	125,356	7,243	1,248,405
2000	103,981	187,277	31,318	107,286	53,093	114,450	29,728	719,904	742,030	19,994	8,923	2,117,985
2001	14,729	65,080	105,390	374,787	13,576	207,726	31,282	34,783	53,143	42,769	2,488	945,753
2002	128,760	20,148	44,606	69,196	42,086	188,742	34,567	74,991	62,883	77,227	43,221	786,428
2003	23,817	22,660	25,295	72,248	65,955	165,132	32,821	60,356	131,174	54,238	151,747	805,445
2004	6,340	14,833	535,124	143,156	63,896	252,708	47,956	342,904	20,748	142,833	11,015	1,581,514
2005	42,482	41,925	60,469	86,165	81,251	232,624	33,178	57,956	48,221	79,148	4,937	768,356
2006	10,134	40,620	12,269	345,029	169,109	85,874	30,851	43,642	34,703	126,311	6,081	904,624
2007	22,878	61,287	8,615	87,949	23,554	71,197	22,529	28,605	16,027	39,895	3,450	385,986
TOTAL	1,293,632	1,196,853	1,466,413	3,032,523	1,151,735	3,061,672	746,031	1,865,051	1,565,208	1,194,322	409,412	16,982,852

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Allocation by District - Factors to Ultimate

Development factors to ultimate for reported loss from Exhibit 9

Loss year	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	District 10	Central Office
1987	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1988	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1989	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004	1.008	1.008	1.008	1.008	1.008	1.008	1.008	1.008	1.008	1.008	1.008
2005	1.077	1.077	1.077	1.077	1.077	1.077	1.077	1.077	1.077	1.077	1.077
2006	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034
2007	2.202	2.202	2.202	2.202	2.202	2.202	2.202	2.202	2.202	2.202	2.202

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Allocation by District - Estimated Ultimates

Products of values in Exhibit 13a and corresponding values in Exhibit 13b.

Loss year	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	District 10	Central Office	TOTAL
1987	19,862	4,850	9,301	350,149	23,370	186,170	19,511	42,292	118,497	14,946	1,378	790,325
1988	11,280	1,449	63,432	176,154	5,873	100,192	18,411	27,928	96,436	6,880	9,650	517,686
1989	5,166	27,756	5,827	133,411	13,613	49,086	2,144	82,252	3,722	51,171	21,531	395,679
1990	14,609	12,722	88,408	73,341	62,489	110,530	55,539	13,161	8,909	20,354	10,525	470,585
1991	33,335	123,249	19,212	102,934	28,851	55,729	8,756	26,678	7,770	21,153	8,307	435,976
1992	7,413	3,567	5,392	47,187	15,275	46,477	9,532	27,517	41,840	108,024	3,031	315,255
1993	150,492	28,115	126,188	69,220	154,714	109,408	14,961	21,637	25,216	28,364	5,072	733,385
1994	124,024	21,161	23,490	183,621	17,492	72,320	20,227	28,209	13,422	17,375	10,881	532,222
1995	64,292	65,395	19,128	79,688	130,371	177,372	40,844	51,679	22,734	60,155	3,616	715,274
1996	26,783	15,934	204,342	243,837	31,399	130,660	15,793	40,812	31,579	44,485	21,979	807,603
1997	25,177	293,911	28,894	124,990	79,950	124,298	128,933	29,103	28,046	87,055	13,136	963,492
1998	9,567	130,976	19,615	104,811	45,310	226,285	84,457	42,518	9,545	26,589	61,201	760,875
1999	448,510	13,937	30,097	57,363	30,507	354,693	64,010	68,125	48,563	125,356	7,243	1,248,405
2000	103,981	187,277	31,318	107,286	53,093	114,450	29,728	719,904	742,030	19,994	8,923	2,117,985
2001	14,729	65,080	105,390	374,787	13,576	207,726	31,282	34,783	53,143	42,769	2,488	945,753
2002	128,760	20,148	44,606	69,196	42,086	188,742	34,567	74,991	62,883	77,227	43,221	786,428
2003	23,817	22,660	25,295	72,248	65,955	165,132	32,821	60,356	131,174	54,238	151,747	805,445
2004	6,389	14,947	539,247	144,259	64,388	254,655	48,326	345,546	20,908	143,934	11,100	1,593,699
2005	45,742	45,143	65,109	92,777	87,486	250,474	35,724	62,403	51,921	85,222	5,316	827,316
2006	10,480	42,006	12,688	356,802	174,880	88,804	31,904	45,131	35,887	130,620	6,289	935,491
2007	50,381	134,962	18,972	193,678	51,869	156,787	49,613	62,992	35,295	87,854	7,597	850,000
TOTAL	1,324,790	1,275,246	1,485,951	3,157,740	1,192,548	3,169,989	777,083	1,908,017	1,589,519	1,253,766	414,231	17,548,877

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Allocation to District - Percentages

District Estimated Ultimate Losses as Percentage of Overall Estimated Ultimate Losses in Exhibit 13c

Loss year	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	District 10	Central Office	TOTAL
1987	2.51%	0.61%	1.18%	44.30%	2.96%	23.56%	2.47%	5.35%	14.99%	1.89%	0.17%	100.00%
1988	2.18%	0.28%	12.25%	34.03%	1.13%	19.35%	3.56%	5.39%	18.63%	1.33%	1.86%	100.00%
1989	1.31%	7.01%	1.47%	33.72%	3.44%	12.41%	0.54%	20.79%	0.94%	12.93%	5.44%	100.00%
1990	3.10%	2.70%	18.79%	15.59%	13.28%	23.49%	11.80%	2.80%	1.89%	4.33%	2.24%	100.00%
1991	7.65%	28.27%	4.41%	23.61%	6.62%	12.78%	2.01%	6.12%	1.78%	4.85%	1.91%	100.00%
1992	2.35%	1.13%	1.71%	14.97%	4.85%	14.74%	3.02%	8.73%	13.27%	34.27%	0.96%	100.00%
1993	20.52%	3.83%	17.21%	9.44%	21.10%	14.92%	2.04%	2.95%	3.44%	3.87%	0.69%	100.00%
1994	23.30%	3.98%	4.41%	34.50%	3.29%	13.59%	3.80%	5.30%	2.52%	3.26%	2.04%	100.00%
1995	8.99%	9.14%	2.67%	11.14%	18.23%	24.80%	5.71%	7.23%	3.18%	8.41%	0.51%	100.00%
1996	3.32%	1.97%	25.30%	30.19%	3.89%	16.18%	1.96%	5.05%	3.91%	5.51%	2.72%	100.00%
1997	2.61%	30.50%	3.00%	12.97%	8.30%	12.90%	13.38%	3.02%	2.91%	9.04%	1.36%	100.00%
1998	1.26%	17.21%	2.58%	13.78%	5.96%	29.74%	11.10%	5.59%	1.25%	3.49%	8.04%	100.00%
1999	35.93%	1.12%	2.41%	4.59%	2.44%	28.41%	5.13%	5.46%	3.89%	10.04%	0.58%	100.00%
2000	4.91%	8.84%	1.48%	5.07%	2.51%	5.40%	1.40%	33.99%	35.03%	0.94%	0.42%	100.00%
2001	1.56%	6.88%	11.14%	39.63%	1.44%	21.96%	3.31%	3.68%	5.62%	4.52%	0.26%	100.00%
2002	16.37%	2.56%	5.67%	8.80%	5.35%	24.00%	4.40%	9.54%	8.00%	9.82%	5.50%	100.00%
2003	2.96%	2.81%	3.14%	8.97%	8.19%	20.50%	4.07%	7.49%	16.29%	6.73%	18.84%	100.00%
2004	0.40%	0.94%	33.84%	9.05%	4.04%	15.98%	3.03%	21.68%	1.31%	9.03%	0.70%	100.00%
2005	5.53%	5.46%	7.87%	11.21%	10.57%	30.28%	4.32%	7.54%	6.28%	10.30%	0.64%	100.00%
2006	1.12%	4.49%	1.36%	38.14%	18.69%	9.49%	3.41%	4.82%	3.84%	13.96%	0.67%	100.00%
2007	5.93%	15.88%	2.23%	22.79%	6.10%	18.45%	5.84%	7.41%	4.15%	10.34%	0.89%	100.00%
Averages												
All Years	7.55%	7.27%	8.47%	17.99%	6.80%	18.06%	4.43%	10.87%	9.06%	7.14%	2.36%	100.00%
Last 3 Yrs	4.08%	8.50%	3.70%	24.62%	12.03%	18.99%	4.49%	6.53%	4.71%	11.62%	0.73%	100.00%

Missouri Department of Transportation
Watson Wyatt Actuarial Study
Fleet Vehicle Liability
Fitted Trend Line - Selected Ultimate

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Loss year	index	sample	Selected ultimates	basis of fit	basis of fit squared	Sample Ultimate	sample product	Fitted values
1987	0	1	790,325	0	0	790,325	0	486,689
1988	1	1	517,686	1	1	517,686	517,686	521,586
1989	2	1	395,679	2	4	395,679	791,359	556,483
1990	3	1	470,585	3	9	470,585	1,411,756	591,380
1991	4	1	435,976	4	16	435,976	1,743,903	626,277
1992	5	1	315,255	5	25	315,255	1,576,273	661,175
1993	6	1	733,385	6	36	733,385	4,400,309	696,072
1994	7	1	532,222	7	49	532,222	3,725,556	730,969
1995	8	1	715,274	8	64	715,274	5,722,188	765,866
1996	9	1	807,603	9	81	807,603	7,268,426	800,764
1997	10	1	963,492	10	100	963,492	9,634,923	835,661
1998	11	1	760,875	11	121	760,875	8,369,624	870,558
1999	12	1	1,248,405	12	144	1,248,405	14,980,860	905,455
2000	13	1	2,117,985	13	169	2,117,985	27,533,800	940,353
2001	14	1	945,753	14	196	945,753	13,240,543	975,250
2002	15	1	786,428	15	225	786,428	11,796,415	1,010,147
2003	16	1	805,445	16	256	805,445	12,887,128	1,045,044
2004	17	1	1,593,699	17	289	1,593,699	27,092,881	1,079,941
2005	18	1	827,316	18	324	827,316	14,891,680	1,114,839
2006	19	1	935,491	19	361	935,491	17,774,329	1,149,736
2007	20	1	850,000	20	400	850,000	17,000,000	1,184,633
2008	21	0		0	0	0	0	1,219,530
TOTAL		21	17,548,877	210	2,870	17,548,877	202,359,637	18,768,408

Notes on Trend Factor Calculation

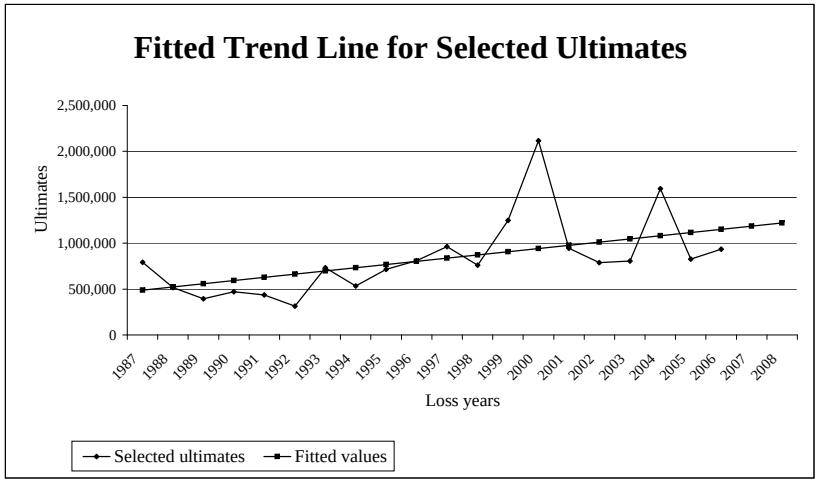
Column	Notes
(1)	Selected
(2)	Selected
(3)	Exhibit 8
(4)	(1) × (2)
(5)	(1) ^ 2 × (2)
(6)	(2) × (3)
(7)	(4) × (6)
(8)	y intercept + slope × (1)

slope	34,897	[(2) × (7) - (4) × (6)] ÷ [(2) × (5) - (4) ^ 2]
y intercept	486,689	[(6) - {(3) × (4)}] ÷ (2)

Values Carried Forward for Loss Year 2008

Row	2008 Estimates	
a	2008 Incurred	1,219,530
b	2008 Paid Development Factor	1.795
c	Loss year 2008 Paid at 12/31/08	679,588
d	Loss year 2008 Unpaid at 12/31/08	539,942
e	Loss year 2007 Unpaid at 12/31/07	516,559
f	Loss year 2007 Discounted at 12/31/07	485,366
g	Implied Discount Factor	0.940
h	2008 Discounted Unpaid Loss at 12/31/08	507,337

Row	Notes
a	Column 8, table above
b	Exhibit 9, Column 5, 12 months maturity
c	= a ÷ b
d	= a - c
e	Exhibit 12
f	Exhibit 12
g	= f ÷ e
h	= g × d



Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Reported Losses and ALAE

GL Exhibit 1a

All amounts in thousands ('000s)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987								327	244	287	280	272	265	262	262	262	262	262	262	262	262	262	262
1988							1,577	1,360	1,298	1,246	1,297	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348		1,348	1,348
1989						1,619	1,532	1,544	1,273	1,273	1,341	1,195	1,195	1,195	1,195	1,195	1,195	1,195	1,195			1,195	1,195
1990					1,425	1,467	1,529	1,100	1,078	1,050	996	996	996	996	996	996	996	996				996	996
1991				1,977	1,652	1,614	1,266	1,242	1,242	1,093	1,093	1,095	1,061	1,061	1,061	1,061	1,061					1,061	1,061
1992			1,183	1,042	1,008	748	783	789	708	708	580	570	567	567	567	567						567	567
1993		612	521	776	641	1,081	1,092	920	920	659	659	643	641	641	641							641	641
1994	658	758	1,342	1,488	1,643	1,685	1,653	1,658	1,114	1,264	1,260	1,260	1,385	1,261								1,385	1,261
1995	126	586	581	632	728	752	765	680	765	678	678	678	678									678	678
1996	422	682	1,032	1,436	1,275	1,486	1,164	1,164	845	845	845	845										845	845
1997	307	1,009	1,173	1,300	1,378	1,085	1,120	1,094	1,098	1,238	1,238											1,238	1,238
1998	426	775	845	863	720	720	645	738	638	618												638	618
1999	1,029	1,412	1,704	1,820	1,567	1,533	1,295	1,292	1,283													1,292	1,283
2000	468	1,578	2,829	4,810	4,670	5,992	7,206	6,745														7,206	6,745
2001	2,423	3,918	4,681	5,479	4,809	5,879	5,754															5,879	5,754
2002	863	2,717	3,343	4,382	4,654	4,406																4,654	4,406
2003	1,798	3,343	6,897	7,447	6,354																	7,447	6,354
2004	1,839	6,627	7,320	8,323																		7,320	8,323
2005	7,385	7,003	7,575																			7,003	7,575
2006	2,026	3,383																				2,026	3,383
2007	1,146																						1,146
																						53,681	55,679

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Reported Losses and ALAE

Development Ratios

Exposure		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	**Change in diagonals**	**Sum of diagonals**
1987	xx							-	0.746	1.180	0.974	0.973	0.972	0.991	1.000	1.000	1.000	1.000	1.000	1.000	1.000		0	0
1988	xx						-	0.862	0.954	0.960	1.041	1.039	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			0	0
1989	xx					-	0.946	1.007	0.824	1.000	1.054	0.891	1.000	1.000	1.000	1.000	1.000	1.000	1.000				0	0
1990	xx				-	1.029	1.042	0.719	0.981	0.974	0.949	1.000	1.000	1.000	1.000	1.000	1.000	1.000					0	0
1991	xx			-	0.836	0.977	0.784	0.981	1.000	0.880	1.000	1.001	0.969	1.000	1.000	1.000	1.000						0	0
1992	xx		-	0.881	0.967	0.742	1.047	1.008	0.897	1.000	0.819	0.983	0.994	1.000	1.000	1.000							0	0
1993	xx	-	0.851	1.489	0.826	1.686	1.009	0.843	1.000	0.716	1.000	0.975	0.998	1.000	1.000								0	0
1994	xx	1.152	1.771	1.108	1.105	1.025	0.981	1.003	0.672	1.135	0.996	1.000	1.099	0.910									9,376,429	9,376,429
1995	xx	4.635	0.991	1.087	1.153	1.032	1.017	0.889	1.126	0.885	1.000	1.000	1.000										-674,205	8,702,224
1996	xx	1.614	1.513	1.393	0.887	1.166	0.784	1.000	0.725	1.000	1.000	1.000											1,704,471	10,406,695
1997	xx	3.288	1.162	1.108	1.060	0.787	1.033	0.976	1.004	1.128	1.000												-795,762	9,610,933
1998	xx	1.819	1.091	1.021	0.835	0.999	0.897	1.143	0.864	0.968													2,157,560	11,768,493
1999	xx	1.372	1.207	1.068	0.861	0.979	0.844	0.998	0.993														2,185,232	13,953,725
2000	xx	3.371	1.793	1.700	0.971	1.283	1.203	0.936															275,279	14,229,004
2001	xx	1.617	1.195	1.170	0.878	1.222	0.979																4,149,426	18,378,430
2002	xx	3.149	1.230	1.311	1.062	0.947																	1,952,494	20,330,924
2003	xx	1.859	2.063	1.080	0.853																		6,369,854	26,700,778
2004	xx	3.604	1.105	1.137																			4,098,990	30,799,768
2005	xx	0.948	1.082																				17,275,259	48,075,027
2006	xx	1.670																					5,606,205	53,681,233
2007	xx																						1,997,675	55,678,908

Discrete Dev. Ratios

		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21
Unwtd Last	3	2.074	1.417	1.176	0.931	1.151	1.009	1.026	0.954	1.032	1.000	1.000	1.032	0.970	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.512	1.284	1.148	0.914	1.152	1.063	0.959	0.966	1.047	1.000	1.000	1.048	0.952	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24	2.315	1.312	1.196	0.946	1.067	0.967	0.951	0.907	0.986	0.985	0.986	1.004	0.988	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.740	1.323	1.249	0.972	1.149	1.067	0.955	0.899	0.977	0.993	0.986	1.010	0.983	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	2.229	1.285	1.179	0.938	1.041	0.962	0.955	0.908	0.993	0.996	0.992	0.995	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Cumulative Dev. Ratios

		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21
Unwtd Last	3	3.775	1.820	1.285	1.093	1.174	1.020	1.011	0.986	1.034	1.002	1.002	1.002	0.970	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	2.415	1.597	1.244	1.084	1.186	1.030	0.968	1.009	1.044	0.998	0.998	0.998	0.952	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24	2.902	1.253	0.955	0.799	0.844	0.791	0.818	0.860	0.949	0.963	0.978	0.991	0.988	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	2.791	1.604	1.213	0.971	0.999	0.869	0.815	0.853	0.949	0.972	0.979	0.993	0.983	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	2.678	1.201	0.935	0.793	0.845	0.812	0.844	0.884	0.974	0.981	0.985	0.993	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Estimated Values

	Loss Year	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**	**1988**	**1987**	Sum	**Ultimate Incl. Tail**
Unwtd Last	3	4,326,653	6,157,442	9,733,278	9,095,365	7,457,644	4,493,762	5,818,642	6,650,071	1,325,975	618,726	1,240,386	846,090	657,436	1,260,632	641,435	566,634	1,060,947	996,491	1,195,394	1,348,307	262,429	65,753,738	65,753,738
Wtd Last	3	2,767,842	5,402,269	9,421,315	9,020,691	7,535,226	4,536,847	5,571,162	6,807,444	1,339,574	616,397	1,235,718	842,905	645,256	1,260,633	641,435	566,635	1,060,948	996,491	1,195,394	1,348,307	262,429	63,074,916	63,074,916
Unwtd Last	24	3,325,645	4,239,758	7,237,128	6,646,641	5,366,038	3,485,931	4,709,293	5,802,974	1,217,136	594,734	1,210,723	837,271	669,305	1,260,632	641,435	566,634	1,060,947	996,491	1,195,394	1,348,307	262,429	52,674,845	52,674,845
Wtd Last	24	3,198,891	5,426,026	9,186,851	8,083,284	6,347,031	3,830,619	4,688,063	5,754,970	1,217,060	600,198	1,212,007	838,483	666,179	1,260,632	641,435	566,634	1,060,947	996,491	1,195,394	1,348,307	262,429	58,381,931	58,381,931
Unwtd Last	24 Exc Hi/Lo	3,068,511	4,063,929	7,079,820	6,596,858	5,371,171	3,578,747	4,858,897	5,964,532	1,249,049	605,731	1,219,800	839,097	676,633	1,260,632	641,435	566,634	1,060,947	996,490	1,195,394	1,348,307	262,429	52,505,044	52,505,044

Selected Method :	Wtd Last 24	All periods combined	58,381,931
Minimum Method:	Unwtd Last 24 Exc Hi/Lo	All periods combined	52,505,044
Maximum Method:	Unwtd Last 3	All periods combined	65,753,738

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Paid Losses and ALAE

All amounts in thousands ('000s)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987								187	244	247	252	257	262	262	262	262	262	262	262	262	262	262	262
1988							1,155	1,179	1,186	1,186	1,267	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348		1,348	1,348
1989						734	803	833	938	996	1,196	1,195	1,195	1,195	1,195	1,195	1,195	1,195	1,195			1,195	1,195
1990					592	800	936	977	996	996	996	996	996	996	996	996	996	996				996	996
1991				798	852	874	882	1,044	1,047	1,048	1,051	1,053	1,061	1,061	1,061	1,061	1,061					1,061	1,061
1992			231	314	479	497	504	516	556	557	567	567	567	567	567	567						567	567
1993		64	69	86	190	617	636	636	641	641	641	641	641	641	641							641	641
1994	314	382	449	877	899	1,012	1,025	1,032	1,059	1,259	1,260	1,260	1,260	1,261								1,260	1,261
1995	59	174	257	319	420	437	558	597	678	678	678	678	678									678	678
1996	95	182	444	492	555	825	843	843	845	845	845	845										845	845
1997	67	272	454	568	670	745	945	1,089	1,089	1,238	1,238											1,238	1,238
1998	130	217	230	341	495	541	546	618	618	618												618	618
1999	137	260	542	727	940	1,155	1,280	1,283	1,283													1,283	1,283
2000	143	421	2,088	2,266	2,355	3,094	3,900	4,935														3,900	4,935
2001	322	1,280	1,565	2,676	3,071	3,714	3,781															3,714	3,781
2002	158	410	1,632	2,187	2,649	3,023																2,649	3,023
2003	205	699	3,444	4,534	4,545																	4,534	4,545
2004	233	1,007	2,550	3,654																		2,550	3,654
2005	702	1,197	2,598																			1,197	2,598
2006	337	1,021																				337	1,021
2007	256																						256
																						30,873	35,807

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Paid Losses and ALAE

Development Ratios

		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	Change in diagonals	Sum of diagonals
1987	xx							-	1.305	1.013	1.021	1.021	1.020	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		0	0
1988	xx						-	1.021	1.006	1.000	1.068	1.064	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			0	0
1989	xx					-	1.093	1.038	1.125	1.062	1.201	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				0	0
1990	xx				-	1.352	1.170	1.043	1.020	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					0	0
1991	xx			-	1.068	1.025	1.010	1.183	1.002	1.002	1.003	1.002	1.008	1.000	1.000	1.000	1.000						0	0
1992	xx		-	1.360	1.527	1.038	1.014	1.023	1.079	1.001	1.018	1.000	1.000	1.000	1.000	1.000							0	0
1993	xx	-	1.085	1.237	2.222	3.241	1.030	1.000	1.008	1.000	1.000	1.000	1.000	1.000	1.000								0	0
1994	xx	1.217	1.176	1.953	1.025	1.125	1.013	1.007	1.027	1.189	1.000	1.000	1.000	1.001									4,074,380	4,074,380
1995	xx	2.945	1.480	1.241	1.317	1.039	1.277	1.071	1.135	1.000	1.000	1.000	1.000										627,347	4,701,727
1996	xx	1.912	2.439	1.109	1.128	1.485	1.022	1.000	1.002	1.000	1.000	1.000											657,089	5,358,816
1997	xx	4.034	1.668	1.251	1.181	1.111	1.269	1.152	1.000	1.137	1.000												947,730	6,306,546
1998	xx	1.675	1.059	1.481	1.453	1.091	1.010	1.131	1.000	1.000													1,440,321	7,746,867
1999	xx	1.896	2.083	1.341	1.294	1.229	1.108	1.002	1.000														987,667	8,734,534
2000	xx	2.939	4.957	1.085	1.039	1.314	1.260	1.266															526,723	9,261,257
2001	xx	3.972	1.222	1.710	1.147	1.210	1.018																1,500,930	10,762,187
2002	xx	2.601	3.976	1.340	1.211	1.141																	3,293,204	14,055,391
2003	xx	3.402	4.927	1.317	1.002																		1,668,786	15,724,177
2004	xx	4.321	2.532	1.433																			3,513,523	19,237,700
2005	xx	1.704	2.171																				6,106,375	25,344,075
2006	xx	3.024																					5,528,996	30,873,071
2007	xx																						4,934,074	35,807,145

Discrete Dev. Ratios

Unwtd Last	3	3.017	3.210	1.363	1.120	1.222	1.129	1.133	1.000	1.046	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	2.534	2.960	1.361	1.092	1.218	1.125	1.194	1.000	1.059	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24	2.742	2.367	1.374	1.278	1.339	1.100	1.072	1.055	1.034	1.028	1.009	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	2.612	2.521	1.422	1.156	1.275	1.183	1.125	1.032	1.042	1.031	1.010	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	2.737	2.251	1.347	1.217	1.194	1.092	1.061	1.037	1.021	1.012	1.003	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Cumulative Dev. Ratios

Unwtd Last	3	24.176	8.014	2.497	1.831	1.635	1.338	1.185	1.046	1.046	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	19.311	7.622	2.575	1.892	1.733	1.423	1.264	1.059	1.059	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24	20.394	7.438	3.142	2.287	1.790	1.337	1.216	1.134	1.075	1.040	1.012	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	20.604	7.887	3.129	2.201	1.903	1.492	1.262	1.121	1.087	1.043	1.012	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	15.039	5.495	2.441	1.812	1.488	1.247	1.142	1.076	1.038	1.016	1.004	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Estimated Values

	Loss Year	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	Sum	Ultimate Incl. Tail
Unwtd Last	3	6,190,707	8,179,447	6,486,721	6,691,174	7,429,476	4,045,310	4,481,513	5,162,752	1,341,778	617,879	1,238,688	844,932	677,845	1,260,632	641,435	566,634	1,060,947	996,491	1,195,394	1,348,307	262,429	60,720,491	60,720,491
Wtd Last	3	4,944,791	7,778,844	6,690,190	6,914,693	7,874,853	4,301,859	4,781,088	5,226,892	1,358,448	617,967	1,238,864	845,052	677,941	1,260,633	641,435	566,635	1,060,948	996,491	1,195,394	1,348,307	262,429	60,583,753	60,583,753
Unwtd Last	24	5,222,291	7,591,565	8,163,309	8,356,987	8,134,291	4,042,271	4,597,803	5,597,287	1,379,416	642,729	1,253,047	847,417	677,732	1,260,632	641,435	566,634	1,060,947	996,491	1,195,394	1,348,307	262,429	63,838,413	63,838,413
Wtd Last	24	5,276,030	8,049,930	8,128,578	8,040,416	8,650,423	4,512,224	4,771,609	5,534,383	1,393,751	644,348	1,253,036	846,225	677,757	1,260,632	641,435	566,634	1,060,947	996,491	1,195,394	1,348,307	262,429	65,110,977	65,110,977
Unwtd Last	24 Exc Hi/Lo	3,850,826	5,607,993	6,342,359	6,620,304	6,765,338	3,768,811	4,318,136	5,311,545	1,331,430	627,752	1,243,221	845,629	677,664	1,260,632	641,435	566,634	1,060,947	996,490	1,195,394	1,348,307	262,429	54,643,274	54,643,274

Selected Method :	Unwtd Last 3	All periods combined	60,720,491
Minimum Method:	Unwtd Last 24 Exc Hi/Lo	All periods combined	54,643,274
Maximum Method:	Wtd Last 24	All periods combined	65,110,977

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Reported Claims

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987								231	231	231	231	231	231	231	231	231	231	231	231	231	231	231	231
1988							411	411	411	411	411	411	411	411	411	411	411	411	411	411		411	411
1989						470	470	471	471	471	471	471	471	471	471	471	471	471	471			471	471
1990					709	710	710	710	709	710	710	710	710	710	710	710	710	710				710	710
1991				814	814	827	827	825	825	825	825	825	826	826	826	826	826					826	826
1992			1,108	1,108	1,108	1,108	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109						1,109	1,109
1993		951	951	951	951	951	951	951	951	951	951	950	950	950	950							950	950
1994	1,023	1,023	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024								1,024	1,024
1995	1,165	1,257	1,257	1,257	1,257	1,257	1,257	1,257	1,257	1,257	1,257	1,257	1,257									1,257	1,257
1996	1,661	1,661	1,661	1,661	1,661	1,661	1,661	1,661	1,661	1,661	1,661	1,661										1,661	1,661
1997	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167											1,167	1,167
1998	1,181	1,181	1,181	1,181	1,181	1,181	1,181	1,181	1,181	1,181												1,181	1,181
1999	980	983	986	988	989	988	988	988	988													988	988
2000	837	842	842	847	845	846	846	846														846	846
2001	1,961	1,967	1,971	1,976	1,976	1,976	1,976															1,976	1,976
2002	923	931	933	937	937	937																937	937
2003	980	984	989	990	990																	990	990
2004	1,323	1,331	1,332	1,333																		1,332	1,333
2005	1,100	1,099	1,103																			1,099	1,103
2006	1,256	1,261																				1,256	1,261
2007	1,004																						1,004
																						20,422	21,436

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Reported Claims

Development Ratios

		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	Change in diagonals	Sum of diagonals
1987	xx							-	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		0	0
1988	xx						-	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			0	0
1989	xx					-	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				0	0
1990	xx				-	1.001	1.000	1.000	0.999	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					0	0
1991	xx			-	1.000	1.016	1.000	0.998	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000						0	0
1992	xx		-	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000							0	0
1993	xx	-	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	1.000	1.000	1.000								0	0
1994	xx	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000									5,717	5,717
1995	xx	1.079	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000										1,166	6,883
1996	xx	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000											1,768	8,651
1997	xx	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000												1,167	9,818
1998	xx	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000													1,179	10,997
1999	xx	1.003	1.003	1.002	1.001	0.999	1.000	1.000	1.000														981	11,978
2000	xx	1.006	1.000	1.006	0.998	1.001	1.000	1.000															840	12,818
2001	xx	1.003	1.002	1.003	1.000	1.000	1.000																1,969	14,787
2002	xx	1.009	1.002	1.004	1.000	1.000																	931	15,718
2003	xx	1.004	1.005	1.001	1.000																		999	16,717
2004	xx	1.006	1.001	1.001																			1,330	18,047
2005	xx	0.999	1.004																				1,118	19,165
2006	xx	1.004																					1,257	20,422
2007	xx																						1,014	21,436

Discrete Dev. Ratios

Unwtd Last	3	1.003	1.003	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.003	1.003	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.002	1.000	1.000
Unwtd Last	24	1.009	1.001	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.069	1.073	1.054	1.048	1.033	1.029	1.018	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.003	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Cumulative Dev. Ratios

Unwtd Last	3	1.009	1.006	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.010	1.007	1.004	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.000	1.000
Unwtd Last	24	1.013	1.004	1.003	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.372	1.283	1.195	1.134	1.083	1.048	1.018	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	1.006	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Estimated Values

	Loss Year	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**	**1988**	**1987**	Sum	**Ultimate Incl. Tail**
Unwtd Last	3	1,013	1,268	1,106	1,334	990	937	1,976	846	988	1,181	1,167	1,661	1,257	1,024	950	1,109	826	710	471	411	231	21,455	21,455
Wtd Last	3	1,014	1,269	1,107	1,335	992	938	1,979	847	989	1,183	1,169	1,664	1,259	1,026	951	1,111	827	711	472	411	231	21,485	21,485
Unwtd Last	24	1,017	1,266	1,106	1,335	991	937	1,976	846	988	1,181	1,167	1,661	1,257	1,024	950	1,109	826	710	471	411	231	21,460	21,460
Wtd Last	24	1,378	1,618	1,318	1,512	1,072	982	2,012	846	988	1,181	1,167	1,661	1,257	1,024	950	1,109	826	710	471	411	231	22,724	22,724
Unwtd Last	24 Exc Hi/Lo	1,010	1,264	1,104	1,333	990	937	1,976	846	988	1,181	1,167	1,661	1,257	1,024	950	1,109	826	710	471	411	231	21,446	21,446

Selected Method :	Unwtd Last 24	All periods combined	21,460
Minimum Method:	Unwtd Last 24 Exc Hi/Lo	All periods combined	21,446
Maximum Method:	Wtd Last 24	All periods combined	22,724

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Average Severity - Ratio of Reported Losses and ALAE to Reported Claims

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	**12/31/06**	**12/31/07**
1987								1,414	1,055	1,245	1,212	1,179	1,147	1,136	1,136	1,136	1,136	1,136	1,136	1,136	1,136	1,136	1,136
1988							3,836	3,308	3,157	3,031	3,156	3,281	3,281	3,281	3,281	3,281	3,281	3,281	3,281	3,281		3,281	3,281
1989						3,445	3,260	3,277	2,702	2,702	2,847	2,538	2,538	2,538	2,538	2,538	2,538	2,538	2,538			2,538	2,538
1990					2,009	2,066	2,153	1,549	1,521	1,479	1,404	1,404	1,404	1,404	1,404	1,404	1,404	1,404				1,404	1,404
1991				2,428	2,030	1,952	1,530	1,506	1,506	1,325	1,325	1,327	1,284	1,284	1,284	1,284	1,284					1,284	1,284
1992			1,067	941	909	675	706	712	638	638	523	514	511	511	511	511						511	511
1993		644	548	816	674	1,137	1,148	968	968	693	693	676	675	675	675							675	675
1994	643	741	1,311	1,453	1,605	1,645	1,614	1,619	1,088	1,235	1,230	1,230	1,352	1,231								1,352	1,231
1995	109	466	462	502	579	598	608	541	609	539	539	539	539									539	539
1996	254	411	621	865	767	895	701	701	509	509	509	509										509	509
1997	263	865	1,005	1,114	1,181	929	960	937	941	1,061	1,061											1,061	1,061
1998	361	656	716	730	610	609	546	625	540	523												540	523
1999	1,050	1,437	1,728	1,842	1,584	1,552	1,310	1,307	1,298													1,307	1,298
2000	559	1,874	3,360	5,679	5,526	7,082	8,518	7,973														8,518	7,973
2001	1,236	1,992	2,375	2,773	2,434	2,975	2,912															2,975	2,912
2002	935	2,919	3,583	4,676	4,967	4,702																4,967	4,702
2003	1,835	3,397	6,973	7,522	6,419																	7,522	6,419
2004	1,390	4,979	5,496	6,244																		5,496	6,244
2005	6,713	6,372	6,867																			6,372	6,867
2006	1,613	2,683																				1,613	2,683
2007	1,141																						1,141
																						53,600	54,930

For valuations 2006 & prior, values are taken from the Missouri Department of Transportation Actuarial Review of Self-Insurance Program as of December 31, 2006 by Watson Wyatt.
For the 2007 valuation, values were from RiskMaster reports sent January 23, 2008 by Roberta Matthews, Claims Administration Manager.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Average Severity - Ratio of Reported Losses and ALAE to Reported Claims

Development Ratios

Exposure:		2/1	3/2	4/3	5/4	6/5	7/6	8/7	9/8	10/9	11/10	12/11	13/12	14/13	15/14	16/15	17/16	18/17	19/18	20/19	21/20	Ult/21	**Change in diagonals**	**Sum of diagonals**
1987	xx							-	0.746	1.180	0.974	0.973	0.972	0.991	1.000	1.000	1.000	1.000	1.000	1.000	1.000		0	0
1988	xx						-	0.862	0.954	0.960	1.041	1.039	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			0	0
1989	xx					-	0.946	1.005	0.824	1.000	1.054	0.891	1.000	1.000	1.000	1.000	1.000	1.000	1.000				0	0
1990	xx				-	1.028	1.042	0.719	0.982	0.973	0.949	1.000	1.000	1.000	1.000	1.000	1.000	1.000					0	0
1991	xx			-	0.836	0.962	0.784	0.984	1.000	0.880	1.000	1.001	0.968	1.000	1.000	1.000	1.000						0	0
1992	xx		-	0.881	0.967	0.742	1.046	1.008	0.897	1.000	0.819	0.983	0.994	1.000	1.000	1.000							0	0
1993	xx	-	0.851	1.489	0.826	1.686	1.009	0.843	1.000	0.716	1.000	0.976	0.998	1.000	1.000								0	0
1994	xx	1.152	1.770	1.108	1.105	1.025	0.981	1.003	0.672	1.135	0.996	1.000	1.099	0.910									15,487	15,487
1995	xx	4.296	0.991	1.087	1.153	1.032	1.017	0.889	1.126	0.885	1.000	1.000	1.000										-1,431	14,056
1996	xx	1.614	1.513	1.393	0.887	1.166	0.784	1.000	0.725	1.000	1.000	1.000											1,485	15,542
1997	xx	3.288	1.162	1.108	1.060	0.787	1.033	0.976	1.004	1.128	1.000												-1,579	13,963
1998	xx	1.819	1.091	1.021	0.835	0.999	0.897	1.143	0.864	0.968													1,898	15,861
1999	xx	1.368	1.203	1.066	0.860	0.980	0.844	0.998	0.993														2,059	17,919
2000	xx	3.351	1.793	1.690	0.973	1.282	1.203	0.936															175	18,095
2001	xx	1.612	1.192	1.167	0.878	1.222	0.979																3,066	21,161
2002	xx	3.122	1.227	1.305	1.062	0.947																	1,740	22,900
2003	xx	1.852	2.053	1.079	0.853																		6,456	29,356
2004	xx	3.583	1.104	1.136																			3,456	32,812
2005	xx	0.949	1.078																				16,029	48,841
2006	xx	1.663																					4,759	53,600
2007	xx																						1,331	54,930

Discrete Dev. Ratios

Unwtd Last	3	2.065	1.411	1.173	0.931	1.150	1.009	1.026	0.954	1.032	1.000	1.000	1.032	0.970	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	1.444	1.311	1.149	0.923	1.142	1.097	0.955	0.969	1.052	1.000	1.000	1.049	0.952	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24	2.282	1.310	1.195	0.946	1.066	0.967	0.951	0.907	0.985	0.985	0.986	1.003	0.988	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	1.736	1.350	1.285	0.998	1.217	1.166	0.983	0.895	0.983	1.003	0.982	1.003	0.989	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	2.220	1.284	1.178	0.938	1.039	0.962	0.955	0.908	0.993	0.996	0.992	0.995	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Cumulative Dev. Ratios

Unwtd Last	3	3.736	1.809	1.282	1.092	1.173	1.020	1.011	0.986	1.034	1.002	1.002	1.002	0.970	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	3	2.447	1.694	1.292	1.124	1.218	1.067	0.972	1.018	1.051	1.000	1.000	1.000	0.953	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24	2.848	1.248	0.953	0.798	0.843	0.791	0.818	0.860	0.949	0.963	0.978	0.991	0.988	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Wtd Last	24	3.608	2.079	1.540	1.198	1.200	0.987	0.846	0.861	0.961	0.977	0.975	0.992	0.989	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Unwtd Last	24 Exc Hi/Lo	2.659	1.197	0.933	0.792	0.844	0.812	0.845	0.884	0.974	0.981	0.985	0.993	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Estimated Values

	Loss Year	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**	**1998**	**1997**	**1996**	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**	**1988**	**1987**	Sum	**Ultimate Incl. Tail**
Unwtd Last	3	4,264	4,853	8,802	6,820	7,530	4,796	2,945	7,861	1,342	524	1,063	509	523	1,231	675	511	1,284	1,404	2,538	3,281	1,136	63,891	63,891
Wtd Last	3	2,793	4,544	8,872	7,021	7,819	5,017	2,831	8,119	1,365	523	1,061	508	514	1,231	675	511	1,285	1,404	2,539	3,281	1,136	63,047	63,047
Unwtd Last	24	3,251	3,348	6,544	4,980	5,413	3,720	2,383	6,859	1,232	504	1,037	504	532	1,231	675	511	1,284	1,404	2,538	3,281	1,136	52,368	52,368
Wtd Last	24	4,119	5,577	10,577	7,482	7,703	4,639	2,464	6,862	1,248	511	1,034	505	533	1,231	675	511	1,284	1,404	2,538	3,281	1,136	65,313	65,313
Unwtd Last	24 Exc Hi/Lo	3,035	3,212	6,404	4,942	5,418	3,820	2,459	7,051	1,264	513	1,045	505	538	1,231	675	511	1,284	1,404	2,538	3,281	1,136	52,266	52,266

Selected Method :	Wtd Last 3	All periods combined	63,047
Minimum Method:	Unwtd Last 24 Exc Hi/Lo	All periods combined	52,266
Maximum Method:	Wtd Last 24	All periods combined	65,313

NOTE: Tail factor of unity was selected

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Estimate of Ultimate using Reported Losses and ALAE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
		Minimum Method: Unwtd Last 24 Exc Hi/Lo		Selected Method: Wtd Last 24		Maximum Method: Unwtd Last 3			Minimum: Unwtd Last 24	Selected: Wtd Last 24	Maximum: Unwtd Last 3
Period	Reported Loss	Factor to Ultimate	Estimated Ultimate	Factor to Ultimate	Estimated Ultimate	Factor to Ultimate	Estimated Ultimate	Paid Loss	Unpaid Loss	Unpaid Loss	Unpaid Loss
1987	262,429	1.000	262,429	1.000	262,429	1.000	262,429	262,429	0	0	0
1988	1,348,307	1.000	1,348,307	1.000	1,348,307	1.000	1,348,307	1,348,307	0	0	0
1989	1,195,394	1.000	1,195,394	1.000	1,195,394	1.000	1,195,394	1,195,394	0	0	0
1990	996,490	1.000	996,490	1.000	996,491	1.000	996,491	996,490	0	0	0
1991	1,060,947	1.000	1,060,947	1.000	1,060,947	1.000	1,060,947	1,060,947	0	0	0
1992	566,634	1.000	566,634	1.000	566,634	1.000	566,634	566,634	0	(0)	0
1993	641,435	1.000	641,435	1.000	641,435	1.000	641,435	641,435	0	0	0
1994	1,260,632	1.000	1,260,632	1.000	1,260,632	1.000	1,260,632	1,260,632	0	0	0
1995	677,664	0.998	676,633	0.983	666,179	0.970	657,436	677,664	(1,031)	(11,485)	(20,228)
1996	844,706	0.993	839,097	0.993	838,483	1.002	846,090	844,706	(5,609)	(6,223)	1,383
1997	1,238,358	0.985	1,219,800	0.979	1,212,007	1.002	1,240,386	1,238,358	(18,558)	(26,351)	2,028
1998	617,714	0.981	605,731	0.972	600,198	1.002	618,726	617,714	(11,983)	(17,516)	1,011
1999	1,282,645	0.974	1,249,049	0.949	1,217,060	1.034	1,325,975	1,282,645	(33,595)	(65,585)	43,331
2000	6,744,872	0.884	5,964,532	0.853	5,754,970	0.986	6,650,071	4,935,224	1,029,308	819,746	1,714,847
2001	5,753,621	0.844	4,858,897	0.815	4,688,063	1.011	5,818,642	3,781,402	1,077,495	906,661	2,037,240
2002	4,405,955	0.812	3,578,747	0.869	3,830,619	1.020	4,493,762	3,023,318	555,428	807,300	1,470,444
2003	6,354,385	0.845	5,371,171	0.999	6,347,031	1.174	7,457,644	4,545,267	825,904	1,801,764	2,912,377
2004	8,323,223	0.793	6,596,858	0.971	8,083,284	1.093	9,095,365	3,653,783	2,943,076	4,429,501	5,441,582
2005	7,574,669	0.935	7,079,820	1.213	9,186,851	1.285	9,733,278	2,598,115	4,481,705	6,588,736	7,135,162
2006	3,382,809	1.201	4,063,929	1.604	5,426,026	1.820	6,157,442	1,020,617	3,043,312	4,405,409	5,136,824
2007	1,146,017	2.678	3,068,511	2.791	3,198,891	3.775	4,326,653	256,064	2,812,447	2,942,827	4,070,589
TOTAL	55,678,908	xx	52,505,044	xx	58,381,931	xx	65,753,738	35,807,145	16,697,898	22,574,785	29,946,592

Column	Notes
(1)	Exhibit 1a
(2)	Exhibit 1b
(3)	(1) × (2)
(4)	Exhibit 1b
(5)	(1) × (4)
(6)	Exhibit 1b

Column	Notes
(7)	(1) × (6)
(8)	Exhibit 2a
(9)	(3) - (8)
(10)	(5) - (8)
(11)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Estimate of Ultimate using Paid Losses and ALAE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Minimum Method: Unwtd Last 24 Exc Hi/Lo		Selected Method: Unwtd Last 3		Maximum Method: Wtd Last 24		Minimum: Unwtd Last 24 Exc Hi/Lo	Selected: Unwtd Last 3	Maximum: Wtd Last 24
Period	Paid Loss	Factor to Ultimate*	Estimated Ultimate	Factor to Ultimate*	Estimated Ultimate	Factor to Ultimate*	Estimated Ultimate	Unpaid Loss	Unpaid Loss	Unpaid Loss
1987	262,429	1.000	262,429	1.000	262,429	1.000	262,429	0	0	0
1988	1,348,307	1.000	1,348,307	1.000	1,348,307	1.000	1,348,307	0	0	0
1989	1,195,394	1.000	1,195,394	1.000	1,195,394	1.000	1,195,394	0	0	0
1990	996,490	1.000	996,490	1.000	996,491	1.000	996,491	0	0	0
1991	1,060,947	1.000	1,060,947	1.000	1,060,947	1.000	1,060,947	0	0	0
1992	566,634	1.000	566,634	1.000	566,634	1.000	566,634	0	0	(0)
1993	641,435	1.000	641,435	1.000	641,435	1.000	641,435	0	0	0
1994	1,260,632	1.000	1,260,632	1.000	1,260,632	1.000	1,260,632	0	0	0
1995	677,664	1.000	677,664	1.000	677,845	1.000	677,757	0	181	93
1996	844,706	1.001	845,629	1.000	844,932	1.002	846,225	922	225	1,519
1997	1,238,358	1.004	1,243,221	1.000	1,238,688	1.012	1,253,036	4,863	330	14,677
1998	617,714	1.016	627,752	1.000	617,879	1.043	644,348	10,038	165	26,634
1999	1,282,645	1.038	1,331,430	1.046	1,341,778	1.087	1,393,751	48,785	59,134	111,107
2000	4,935,224	1.076	5,311,545	1.046	5,162,752	1.121	5,534,383	376,321	227,528	599,159
2001	3,781,402	1.142	4,318,136	1.185	4,481,513	1.262	4,771,609	536,734	700,111	990,208
2002	3,023,318	1.247	3,768,811	1.338	4,045,310	1.492	4,512,224	745,492	1,021,992	1,488,905
2003	4,545,267	1.488	6,765,338	1.635	7,429,476	1.903	8,650,423	2,220,071	2,884,208	4,105,155
2004	3,653,783	1.812	6,620,304	1.831	6,691,174	2.201	8,040,416	2,966,521	3,037,392	4,386,633
2005	2,598,115	2.441	6,342,359	2.497	6,486,721	3.129	8,128,578	3,744,244	3,888,606	5,530,463
2006	1,020,617	5.495	5,607,993	8.014	8,179,447	7.887	8,049,930	4,587,375	7,158,829	7,029,313
2007	256,064	15.039	3,850,826	24.176	6,190,707	20.604	5,276,030	3,594,762	5,934,644	5,019,966
TOTAL	35,807,145	xx	54,643,274	xx	60,720,491	xx	65,110,977	18,836,129	24,913,345	29,303,831

Column	Notes
(1)	Exhibit 2a
(2)	Exhibit 2b
(3)	(1) × (2)
(4)	Exhibit 2b
(5)	(1) × (4)
(6)	Exhibit 2b

Column	Notes
(7)	(1) × (6)
(8)	(3) - (1)
(9)	(5) - (1)
(10)	(7) - (1)

* Tail factors for 1987 adjusted to balance paid loss and reported loss.
Rptd Loss of 262,429 ÷ Paid Loss of 262,429 = 1.000

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Estimate of Ultimate using Counts and Averages

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Minimum Claims Method: Unwtd Last 24 Exc Hi/Lo			Minimum Severity Method: Unwtd Last 24 Exc Hi/Lo					
Period	Reported Claims	Claims Development	Estimated Ultimate Claims	Average severity	Severity Development	Estimated Ultimate Severity	Estimated Ultimate Losses	Paid Losses	Unpaid Losses
1987	231	0	231	1,136	0	1,136	262,429	262,429	0
1988	411	0	411	3,281	0	3,281	1,348,307	1,348,307	0
1989	471	0	471	2,538	0	2,538	1,195,394	1,195,394	0
1990	710	0	710	1,404	0	1,404	996,490	996,490	0
1991	826	0	826	1,284	0	1,284	1,060,947	1,060,947	0
1992	1,109	0	1,109	511	0	511	566,634	566,634	0
1993	950	0	950	675	0	675	641,435	641,435	0
1994	1,024	0	1,024	1,231	0	1,231	1,260,632	1,260,632	0
1995	1,257	0	1,257	539	(1)	538	676,633	677,664	(1,031)
1996	1,661	0	1,661	509	(3)	505	839,097	844,706	(5,609)
1997	1,167	0	1,167	1,061	(16)	1,045	1,219,958	1,238,358	(18,401)
1998	1,181	0	1,181	523	(10)	513	605,809	617,714	(11,905)
1999	988	0	988	1,298	(34)	1,264	1,249,039	1,282,645	(33,606)
2000	846	0	846	7,973	(921)	7,051	5,965,305	4,935,224	1,030,081
2001	1,976	0	1,976	2,912	(452)	2,459	4,859,639	3,781,402	1,078,237
2002	937	0	937	4,702	(883)	3,820	3,578,973	3,023,318	555,655
2003	990	0	990	6,419	(1,001)	5,418	5,364,642	4,545,267	819,375
2004	1,333	0	1,333	6,244	(1,302)	4,942	6,589,751	3,653,783	2,935,968
2005	1,103	1	1,104	6,867	(463)	6,404	7,072,106	2,598,115	4,473,991
2006	1,261	3	1,264	2,683	529	3,212	4,059,778	1,020,617	3,039,161
2007	1,004	6	1,010	1,141	1,893	3,035	3,063,550	256,064	2,807,486
TOTAL	21,436	10	21,446	54,930	(2,664)	52,266	52,476,548	35,807,145	16,669,403

Column	Notes
(1)	Exhibit 3a
(2)	(3) - (1)
(3)	Exhibit 3b
(4)	Exhibit 4a
(5)	(6) - (4)

Column	Notes
(6)	Exhibit 4b
(7)	(3) × (6)
(8)	Exhibit 2a
(9)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Estimate of Ultimate using Counts and Averages

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Selected Claims Method: Unwtd Last 24			Selected Severity Method: Wtd Last 3					
Period	Reported Claims	Claims Development	Estimated Ultimate Claims	Average severity	Severity Development	Estimated Ultimate Severity	Estimated Ultimate Losses	Paid Losses	Unpaid Losses
1987	231	0	231	1,136	0	1,136	262,429	262,429	0
1988	411	0	411	3,281	0	3,281	1,348,307	1,348,307	0
1989	471	0	471	2,538	1	2,539	1,195,663	1,195,394	269
1990	710	0	710	1,404	0	1,404	996,715	996,490	225
1991	826	0	826	1,284	0	1,285	1,061,186	1,060,947	239
1992	1,109	0	1,109	511	0	511	566,762	566,634	128
1993	950	0	950	675	0	675	641,579	641,435	145
1994	1,024	0	1,024	1,231	0	1,231	1,260,916	1,260,632	284
1995	1,257	0	1,257	539	(26)	514	645,482	677,664	(32,182)
1996	1,661	0	1,661	509	(0)	508	844,450	844,706	(257)
1997	1,167	0	1,167	1,061	(0)	1,061	1,237,852	1,238,358	(507)
1998	1,181	0	1,181	523	(0)	523	617,461	617,714	(253)
1999	988	0	988	1,298	67	1,365	1,348,840	1,282,645	66,196
2000	846	0	846	7,973	146	8,119	6,868,909	4,935,224	1,933,685
2001	1,976	0	1,976	2,912	(81)	2,831	5,594,086	3,781,402	1,812,684
2002	937	0	937	4,702	315	5,017	4,701,109	3,023,318	1,677,791
2003	990	1	991	6,419	1,400	7,819	7,751,473	4,545,267	3,206,205
2004	1,333	2	1,335	6,244	777	7,021	9,371,453	3,653,783	5,717,670
2005	1,103	3	1,106	6,867	2,005	8,872	9,811,282	2,598,115	7,213,167
2006	1,261	5	1,266	2,683	1,861	4,544	5,752,803	1,020,617	4,732,186
2007	1,004	13	1,017	1,141	1,651	2,793	2,839,430	256,064	2,583,366
TOTAL	21,436	24	21,460	54,930	8,116	63,047	64,718,189	35,807,145	28,911,043

Column	Notes
(1)	Exhibit 3a
(2)	(3) - (1)
(3)	Exhibit 3b
(4)	Exhibit 4a
(5)	(6) - (4)

Column	Notes
(6)	Exhibit 4b
(7)	(3) × (6)
(8)	Exhibit 2a
(9)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Estimate of Ultimate using Counts and Averages

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Maximum Claims Method: Wtd Last 24			Maximum Severity Method: Wtd Last 24					
Period	Reported Claims	Claims Development	Estimated Ultimate Claims	Average severity	Severity Development	Estimated Ultimate Severity	Estimated Ultimate Losses	Paid Losses	Unpaid Losses
1987	231	0	231	1,136	0	1,136	262,429	262,429	0
1988	411	0	411	3,281	0	3,281	1,348,307	1,348,307	0
1989	471	0	471	2,538	0	2,538	1,195,394	1,195,394	0
1990	710	0	710	1,404	0	1,404	996,491	996,490	0
1991	826	0	826	1,284	0	1,284	1,060,947	1,060,947	0
1992	1,109	0	1,109	511	0	511	566,634	566,634	0
1993	950	0	950	675	0	675	641,435	641,435	0
1994	1,024	0	1,024	1,231	0	1,231	1,260,632	1,260,632	0
1995	1,257	0	1,257	539	(6)	533	670,352	677,664	(7,312)
1996	1,661	0	1,661	509	(4)	505	838,475	844,706	(6,231)
1997	1,167	0	1,167	1,061	(27)	1,034	1,207,064	1,238,358	(31,294)
1998	1,181	0	1,181	523	(12)	511	603,810	617,714	(13,904)
1999	988	0	988	1,298	(50)	1,248	1,233,124	1,282,645	(49,521)
2000	846	0	846	7,973	(1,111)	6,862	5,805,197	4,935,224	869,973
2001	1,976	36	2,012	2,912	(448)	2,464	4,957,065	3,781,402	1,175,663
2002	937	45	982	4,702	(63)	4,639	4,554,767	3,023,318	1,531,449
2003	990	82	1,072	6,419	1,285	7,703	8,256,079	4,545,267	3,710,812
2004	1,333	179	1,512	6,244	1,238	7,482	11,310,940	3,653,783	7,657,157
2005	1,103	215	1,318	6,867	3,709	10,577	13,944,169	2,598,115	11,346,054
2006	1,261	357	1,618	2,683	2,895	5,577	9,023,087	1,020,617	8,002,469
2007	1,004	374	1,378	1,141	3115	4,119	5,673,855	256,064	5,417,791
TOTAL	21,436	1,288	22,724	xx	xx	65,313	75,410,252	35,807,145	39,603,107

Column	Notes
(1)	Exhibit 3a
(2)	(3) - (1)
(3)	Exhibit 3b
(4)	Exhibit 4a
(5)	(6) - (4)

Column	Notes
(6)	Exhibit 4b
(7)	(3) × (6)
(8)	Exhibit 2a
(9)	(7) - (8)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Selected Estimates for Unpaid Losses

		Selected Ultimates					Estimated Unpaid Losses			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Weights		50%	50%	0%	100%		50%	50%	0%	100%
Loss year	Reported Losses	Reported Method	Paid Method	Counts/Averages	Selected	Paid Losses	Reported Method	Paid Method	Counts/Averages	Selected
1987	262,429	262,429	262,429	262,429	262,429	262,429	0	0	0	0
1988	1,348,307	1,348,307	1,348,307	1,348,307	1,348,307	1,348,307	0	0	0	0
1989	1,195,394	1,195,394	1,195,394	1,195,663	1,195,394	1,195,394	0	0	269	0
1990	996,490	996,491	996,491	996,715	996,491	996,490	0	0	225	0
1991	1,060,947	1,060,947	1,060,947	1,061,186	1,060,947	1,060,947	0	0	239	0
1992	566,634	566,634	566,634	566,762	566,634	566,634	0	0	128	0
1993	641,435	641,435	641,435	641,579	641,435	641,435	0	0	145	0
1994	1,260,632	1,260,632	1,260,632	1,260,916	1,260,632	1,260,632	0	0	284	0
1995	677,664	677,664	677,845	677,664	677,754	677,664	0	181	0	90
1996	844,706	844,706	844,932	844,706	844,819	844,706	0	225	0	113
1997	1,238,358	1,238,358	1,238,688	1,238,358	1,238,523	1,238,358	0	330	0	165
1998	617,714	617,714	617,879	617,714	617,797	617,714	0	165	0	82
1999	1,282,645	1,282,645	1,341,778	1,348,840	1,312,211	1,282,645	0	59,134	66,196	29,567
2000	6,744,872	6,744,872	6,744,872	6,868,909	6,744,872	4,935,224	1,809,648	1,809,648	1,933,685	1,809,648
2001	5,753,621	5,753,621	5,753,621	5,753,621	5,753,621	3,781,402	1,972,220	1,972,220	1,972,220	1,972,220
2002	4,405,955	4,405,955	4,405,955	4,701,109	4,405,955	3,023,318	1,382,637	1,382,637	1,677,791	1,382,637
2003	6,354,385	6,354,385	7,429,476	7,751,473	6,891,930	4,545,267	1,809,118	2,884,208	3,206,205	2,346,663
2004	8,323,223	8,323,223	8,323,223	9,371,453	8,323,223	3,653,783	4,669,441	4,669,441	5,717,670	4,669,441
2005	7,574,669	9,186,851	7,574,669	9,811,282	8,380,760	2,598,115	6,588,736	4,976,554	7,213,167	5,782,645
2006	3,382,809	5,426,026	8,179,447	5,752,803	**8,500,000**	1,020,617	4,405,409	7,158,829	4,732,186	7,479,383
2007	1,146,017	3,198,891	6,190,707	2,839,430	**8,500,000**	256,064	2,942,827	5,934,644	2,583,366	8,243,936
TOTAL	55,678,908	61,387,181	66,655,361	64,910,922	69,523,736	35,807,145	25,580,036	30,848,216	29,103,776	33,716,590

Column	Notes	Column	Notes
(1)	Exhibit 1a	(6)	Exhibit 2a
(2)	Maximum of Exhibit 5 and Column (1)	(7)	(2) - (6)
(3)	Maximum of Exhibit 6 and Column (1)	(8)	(3) - (6)
(4)	Maximum of Exhibit 7b and Column (1)	(9)	(4) - (6)
(5)	Weighted Average of (2), (3), (4); Bolded figures are judgmental selections	(10)	(5) - (6)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Implied Development Factors and Reserves for Selected Ultimates

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Loss year	Maturity	Selected Ultimates	Reported at 12/07	Factor to Ult	Paid at 12/07	Factor to Ult	Incremental Factor	Case Reserves	IBNR Estimate
1987	252	262,429	262,429	1.000	262,429	1.000	1.000	$0	$0
1988	240	1,348,307	1,348,307	1.000	1,348,307	1.000	1.000	$0	$0
1989	228	1,195,394	1,195,394	1.000	1,195,394	1.000	1.000	$0	$0
1990	216	996,491	996,490	1.000	996,490	1.000	1.000	$0	$0
1991	204	1,060,947	1,060,947	1.000	1,060,947	1.000	1.000	$0	$0
1992	192	566,634	566,634	1.000	566,634	1.000	1.000	$0	$0
1993	180	641,435	641,435	1.000	641,435	1.000	1.000	$0	$0
1994	168	1,260,632	1,260,632	1.000	1,260,632	1.000	1.000	$0	$0
1995	156	677,754	677,664	1.000	677,664	1.000	1.000	$0	$90
1996	144	844,819	844,706	1.000	844,706	1.000	1.000	$0	$113
1997	132	1,238,523	1,238,358	1.000	1,238,358	1.000	1.000	$0	$165
1998	120	617,797	617,714	1.000	617,714	1.000	1.000	$0	$82
1999	108	1,312,211	1,282,645	1.023	1,282,645	1.059	1.059	$0	$29,567
2000	96	6,744,872	6,744,872	1.000	4,935,224	1.059	1.000	$1,809,648	$0
2001	84	5,753,621	5,753,621	1.000	3,781,402	1.264	1.194	$1,972,220	$0
2002	72	4,405,955	4,405,955	1.000	3,023,318	1.423	1.125	$1,382,637	$0
2003	60	6,891,930	6,354,385	1.085	4,545,267	1.733	1.218	$1,809,118	$537,545
2004	48	8,323,223	8,323,223	1.000	3,653,783	1.892	1.092	$4,669,441	$0
2005	36	8,380,760	7,574,669	1.106	2,598,115	2.575	1.361	$4,976,554	$806,091
2006	24	8,500,000	3,382,809	2.513	1,020,617	7.622	2.960	$2,362,191	$5,117,191
2007	12	8,500,000	1,146,017	7.417	256,064	19.311	2.534	$889,953	$7,353,983
TOTAL	xx	69,523,736	55,678,908	xx	35,807,145	xx	xx	$19,871,762	$13,844,828

Column	Notes
(1)	Exhibit 8
(2)	Exhibit 1a
(3)	(1) ÷ (2)
(4)	Exhibit 2a

Column	Notes
(5)	Exhibit 2b, Weighted Last 3 Factors
(6)	Incremental division of column (5)
(7)	(2) - (4)
(8)	(1) - (2)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Cumulative Payment Pattern

Estimated Cumulative Payments

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	TOTAL
Selected Ultimates	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,500,000	8,500,000	69,523,736
Estimated Unpaid Losses	0	0	0	0	0	0	0	0	90	113	165	82	29,567	1,809,648	1,972,220	1,382,637	2,346,663	4,669,441	5,782,645	7,479,383	8,243,936	33,716,590
Paid as of 12/31/07	262,429	1,348,307	1,195,394	996,490	1,060,947	566,634	641,435	1,260,632	677,664	844,706	1,238,358	617,714	1,282,645	4,935,224	3,781,402	3,023,318	4,545,267	3,653,783	2,598,115	1,020,617	256,064	35,807,145
2008	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	4,935,228	5,227,284	3,433,237	5,242,396	4,136,766	3,922,275	3,234,335	946,551	43,101,446
2009	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,227,285	4,146,361	5,731,444	5,380,447	4,383,438	4,440,112	3,182,191	51,259,524
2010	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,146,361	6,582,225	6,252,910	5,570,933	4,860,046	4,399,909	56,334,251
2011	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,582,226	7,770,707	6,403,980	5,941,377	4,824,001	60,450,112
2012	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	7,770,708	7,853,206	6,699,948	5,916,039	64,059,654
2013	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	7,853,207	8,019,610	6,682,122	66,697,915
2014	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,019,611	8,014,853	68,558,199
2015	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,500,000	8,014,854	69,038,589
2016	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,500,000	8,500,000	69,523,736
2017	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,500,000	8,500,000	69,523,736
2018	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,500,000	8,500,000	69,523,736
2019	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,500,000	8,500,000	69,523,736
2020	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,500,000	8,500,000	69,523,736
2021	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,500,000	8,500,000	69,523,736
2022	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,500,000	8,500,000	69,523,736
2023	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,500,000	8,500,000	69,523,736
2024	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,500,000	8,500,000	69,523,736
2025	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,500,000	8,500,000	69,523,736
2026	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,500,000	8,500,000	69,523,736
2027	262,429	1,348,307	1,195,394	996,491	1,060,947	566,634	641,435	1,260,632	677,754	844,819	1,238,523	617,797	1,312,211	6,744,872	5,753,621	4,405,955	6,891,930	8,323,223	8,380,760	8,500,000	8,500,000	69,523,736

Percentage Paid

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
2008	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.733	0.296	0.297	0.103	0.229	0.296	0.084
2009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.516	0.208	0.266	0.080	0.161	0.271
2010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.267	0.000	0.363	0.187	0.205	0.056	0.148
2011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.188	0.000	0.325	0.144	0.145	0.051
2012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.132	0.000	0.251	0.101	0.132
2013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.118	0.000	0.176	0.093
2014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.091	0.000	0.162
2015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.064	0.000
2016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.059
2017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Notes

The purpose of this exhibit is to derive a stream of annual payments based on the estimates in Exhibit 9.
This exhibit derives estimated cumulative payments for each loss year through 2007. Exhibit 11 derives the annual payments as differences between successive cumulative payments for all years.
Selected ultimate loss values are from Exhibit 9 column (1).
Paid loss as of December 31, 2007 is from Exhibit (9) column (5).
Unpaid loss as of December 31, 2007 is derived by subtraction of paid loss from ultimate loss.
Totals are carried forward to Exhibit 11.

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Discounted Reserves

Discounted Reserves								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Payment year	Total Paid	Expected Payments by Year	3.50% Discount Factor	Discounted Expected Payments	4.50% Discount Factor	Discounted Expected Payments	5.50% Discount Factor	Discounted Expected Payments
2007	35,807,145	xx	xx	xx	xx	xx	xx	xx
2008	43,101,446	7,294,300	0.983	7,169,906	0.978	7,135,518	0.974	7,101,620
2009	51,259,524	8,158,078	0.950	7,747,781	0.936	7,636,835	0.923	7,528,512
2010	56,334,251	5,074,727	0.918	4,656,524	0.896	4,545,922	0.875	4,438,963
2011	60,450,112	4,115,862	0.887	3,648,964	0.857	3,528,204	0.829	3,412,535
2012	64,059,654	3,609,541	0.857	3,091,865	0.820	2,960,934	0.786	2,836,717
2013	66,697,915	2,638,261	0.828	2,183,463	0.785	2,070,991	0.745	1,965,302
2014	68,558,199	1,860,285	0.800	1,487,535	0.751	1,397,409	0.706	1,313,525
2015	69,038,589	480,390	0.773	371,143	0.719	345,320	0.669	321,515
2016	69,523,736	485,146	0.746	362,143	0.688	333,721	0.634	307,770
2017	69,523,736	-	0.721	-	0.658	-	0.601	-
2018	69,523,736	-	0.697	-	0.630	-	0.570	-
2019	69,523,736	-	0.673	-	0.603	-	0.540	-
2020	69,523,736	-	0.650	-	0.577	-	0.512	-
2021	69,523,736	-	0.628	-	0.552	-	0.485	-
2022	69,523,736	-	0.607	-	0.528	-	0.460	-
2023	69,523,736	-	0.587	-	0.505	-	0.436	-
2024	69,523,736	-	0.567	-	0.484	-	0.413	-
2025	69,523,736	-	0.548	-	0.463	-	0.392	-
2026	69,523,736	-	0.529	-	0.443	-	0.371	-
2027	69,523,736	-	0.511	-	0.424	-	0.352	-
TOTAL	xx	33,716,590	xx	30,719,322	xx	29,954,854	xx	29,226,459

Column	Notes
(1)	Exhibit 10 TOTAL column
(2)	Successive differences in (1)
(3)	((1.035)^(0.5 + Payment Year - 2008)) ^ (-1)
(4)	(2) × (3)
(5)	((1.045)^(0.5 + Payment Year - 2008)) ^ (-1)
(6)	(2) × (5)
(7)	((1.055)^(0.5 + Payment Year - 2008)) ^ (-1)
(8)	(2) × (7)

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Discounted Payments by Loss Year

Loss Year	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	12/31/07	12/31/08
Estimated Unpaid Losses	0	0	0	0	0	0	0	0	90	113	165	82	29,567	1,809,648	1,972,220	1,382,637	2,346,663	4,669,441	5,782,645	7,479,383	8,243,936	33,716,590	26,422,290
Paid as of 12/31/07	262,429	1,348,307	1,195,394	996,490	1,060,947	566,634	641,435	1,260,632	677,664	844,706	1,238,358	617,714	1,282,645	4,935,224	3,781,402	3,023,318	4,545,267	3,653,783	2,598,115	1,020,617	256,064	35,807,145	43,101,446
2008	0	0	0	0	0	0	0	0	88	111	161	80	28,923	4	1,414,408	400,996	681,954	472,469	1,295,336	2,165,530	675,457	7,135,518	0
2009	0	0	0	0	0	0	0	0	0	0	0	0	0	1,694,021	0	667,560	457,801	1,164,220	431,698	1,128,736	2,092,799	7,636,834	7,980,492
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	471,490	0	762,126	781,549	1,063,754	376,175	1,090,827	4,545,922	4,750,488
2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	222,530	0	1,301,088	714,106	926,939	363,541	3,528,203	3,686,972
2012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	254,053	0	1,188,811	622,261	895,807	2,960,933	3,094,175
2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	433,715	0	1,035,913	601,362	2,070,990	2,164,185
2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	396,287	0	1,001,120	1,397,408	1,460,291
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	345,319	0	345,319	360,859
2016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	333,721	333,721	348,739
2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Payments after valuation	0	0	0	0	0	0	0	0	88	111	161	80	28,923	1,694,025	1,885,898	1,291,085	2,155,935	4,153,041	5,089,991	6,600,874	7,054,635	29,954,848	23,846,200
TOTAL	262,429	1,348,307	1,195,394	996,490	1,060,947	566,634	641,435	1,260,632	677,752	844,817	1,238,520	617,794	1,311,568	6,629,249	5,667,300	4,314,403	6,701,202	7,806,824	7,688,107	7,621,492	7,310,699	xx	xx

Notes
Selected Estimated Reserves from Exhibit 8.
Valuation at 12/31/08 are payments increased by an interest rate of 4.5%

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Allocation by District - Reported Losses and ALAE

Reported losses for each District by loss year as of 12/31/07

Loss year	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	District 10	Central Office	TOTAL
1987	-	351	176	10,278	2,351	68,729	3,028	160,275	15,902	1,341	-	262,429
1988	482,857	1,330	21	586,820	99,565	127,050	6,477	35,108	4,156	4,859	65	1,348,307
1989	41,693	16,810	600	150,851	88,663	568,362	-	205,353	139	120,837	2,086	1,195,394
1990	1,083	123,179	8,288	17,082	182,604	160,230	82,094	114,241	78,499	228,415	775	996,490
1991	129,589	7,310	123,804	324,021	125,741	235,438	3,212	33,398	66,052	12,347	35	1,060,947
1992	2,447	524	692	57,919	136,649	224,287	106,842	2,123	30,291	378	4,481	566,634
1993	15,857	2,887	8,187	18,549	12,981	145,101	389,124	47,822	423	503	-	641,435
1994	51,885	92,396	119,592	555,477	33,174	64,576	6,608	199,778	23,042	101,285	12,818	1,260,632
1995	50,984	29,967	85,528	274,265	4,302	191,534	4,818	6,922	11,213	12,122	6,010	677,664
1996	5,665	17,373	110,441	66,029	7,794	140,416	73,107	20,209	275,430	110,618	17,624	844,706
1997	4,024	3,250	37,655	457,614	35,168	161,820	44,852	278,922	8,097	205,320	1,636	1,238,358
1998	4,468	14,758	1,208	80,068	192,906	145,611	100,484	24,895	4,246	41,840	7,229	617,714
1999	8,656	47,198	5,006	393,890	291,049	187,164	115,244	187,938	5,618	23,084	17,796	1,282,645
2000	2,391	154,928	19,968	1,338,597	39,149	1,602,488	781,524	889,421	334,733	1,572,490	9,184	6,744,872
2001	719,407	395,753	508,201	1,224,852	1,302,055	447,093	71,810	82,328	262,673	738,542	906	5,753,621
2002	108,127	299,959	450,195	1,007,807	52,412	442,898	541,862	1,196,245	266,863	32,581	7,008	4,405,955
2003	479,821	23,773	2,661	2,143,381	462,463	1,003,689	786,646	729,714	523,305	198,932	-	6,354,385
2004	245,677	754,952	12,701	2,015,528	1,762,154	1,409,075	959,166	522,983	351,898	282,412	6,676	8,323,223
2005	3,725	91,908	487,265	1,390,442	848,710	2,977,240	466,932	767,533	213,985	285,947	40,982	7,574,669
2006	316,632	128,975	350,088	728,200	262,912	207,500	496,124	443,982	324,642	123,435	320	3,382,809
2007	1,624	9,022	5,988	711,545	36,764	167,661	9,015	119,098	7,587	74,587	3,125	1,146,017
TOTAL	2,676,614	2,216,604	2,338,267	13,553,215	5,979,566	10,677,961	5,048,968	6,068,288	2,808,794	4,171,875	138,757	55,678,908

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Allocation by District - Factors to Ultimate

Development factors to ultimate for reported loss from Exhibit 9

Loss year	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	District 10	Central Office
1987	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1988	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1989	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.023	1.023	1.023	1.023	1.023	1.023	1.023	1.023	1.023	1.023	1.023
2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1.085	1.085	1.085	1.085	1.085	1.085	1.085	1.085	1.085	1.085	1.085
2004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	1.106	1.106	1.106	1.106	1.106	1.106	1.106	1.106	1.106	1.106	1.106
2006	2.513	2.513	2.513	2.513	2.513	2.513	2.513	2.513	2.513	2.513	2.513
2007	7.417	7.417	7.417	7.417	7.417	7.417	7.417	7.417	7.417	7.417	7.417

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Allocation by District - Estimated Ultimates

Products of values in Exhibit 13a and corresponding values in Exhibit 13b.

Loss year	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	District 10	Central Office	TOTAL
1987	-	351	176	10,278	2,351	68,729	3,028	160,275	15,902	1,341	-	262,429
1988	482,857	1,330	21	586,820	99,565	127,050	6,477	35,108	4,156	4,859	65	1,348,307
1989	41,693	16,810	600	150,851	88,663	568,362	-	205,353	139	120,837	2,086	1,195,394
1990	1,083	123,179	8,288	17,082	182,604	160,230	82,094	114,241	78,499	228,415	775	996,491
1991	129,589	7,310	123,804	324,021	125,741	235,438	3,212	33,398	66,052	12,347	35	1,060,947
1992	2,447	524	692	57,919	136,649	224,287	106,842	2,123	30,291	378	4,481	566,634
1993	15,857	2,887	8,187	18,549	12,981	145,101	389,124	47,822	423	503	-	641,435
1994	51,885	92,396	119,592	555,477	33,174	64,576	6,608	199,778	23,042	101,285	12,818	1,260,632
1995	50,990	29,970	85,539	274,301	4,303	191,560	4,818	6,923	11,214	12,124	6,011	677,754
1996	5,666	17,375	110,456	66,038	7,795	140,434	73,117	20,212	275,467	110,632	17,626	844,819
1997	4,024	3,250	37,660	457,675	35,173	161,841	44,858	278,959	8,098	205,347	1,637	1,238,523
1998	4,469	14,760	1,208	80,078	192,932	145,630	100,498	24,899	4,247	41,845	7,230	617,797
1999	8,856	48,286	5,121	402,969	297,758	191,479	117,901	192,270	5,748	23,616	18,207	1,312,211
2000	2,391	154,928	19,968	1,338,597	39,149	1,602,488	781,524	889,421	334,733	1,572,490	9,184	6,744,872
2001	719,407	395,753	508,201	1,224,852	1,302,055	447,093	71,810	82,328	262,673	738,542	906	5,753,621
2002	108,127	299,959	450,195	1,007,807	52,412	442,898	541,862	1,196,245	266,863	32,581	7,008	4,405,955
2003	520,411	25,784	2,887	2,324,699	501,585	1,088,595	853,192	791,444	567,573	215,761	-	6,891,930
2004	245,677	754,952	12,701	2,015,528	1,762,154	1,409,075	959,166	522,983	351,898	282,412	6,676	8,323,223
2005	4,122	101,688	539,119	1,538,412	939,029	3,294,076	516,623	849,213	236,757	316,377	45,343	8,380,760
2006	795,602	324,077	879,669	1,829,751	660,620	521,387	1,246,612	1,115,595	815,728	310,155	804	8,500,000
2007	12,049	66,920	44,416	5,277,523	272,676	1,243,538	66,867	883,351	56,272	553,213	23,175	8,500,000
TOTAL	3,207,203	2,482,492	2,958,501	19,559,229	6,749,368	12,473,867	5,976,231	7,651,940	3,415,777	4,885,061	164,067	69,523,736

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Allocation to District - Percentages

District Estimated Ultimate Losses as Percentage of Overall Estimated Ultimate Losses in Exhibit 13c

Loss year	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	District 10	Central Office	TOTAL
1987	0.00%	0.13%	0.07%	3.92%	0.90%	26.19%	1.15%	61.07%	6.06%	0.51%	0.00%	100.00%
1988	35.81%	0.10%	0.00%	43.52%	7.38%	9.42%	0.48%	2.60%	0.31%	0.36%	0.00%	100.00%
1989	3.49%	1.41%	0.05%	12.62%	7.42%	47.55%	0.00%	17.18%	0.01%	10.11%	0.17%	100.00%
1990	0.11%	12.36%	0.83%	1.71%	18.32%	16.08%	8.24%	11.46%	7.88%	22.92%	0.08%	100.00%
1991	12.21%	0.69%	11.67%	30.54%	11.85%	22.19%	0.30%	3.15%	6.23%	1.16%	0.00%	100.00%
1992	0.43%	0.09%	0.12%	10.22%	24.12%	39.58%	18.86%	0.37%	5.35%	0.07%	0.79%	100.00%
1993	2.47%	0.45%	1.28%	2.89%	2.02%	22.62%	60.66%	7.46%	0.07%	0.08%	0.00%	100.00%
1994	4.12%	7.33%	9.49%	44.06%	2.63%	5.12%	0.52%	15.85%	1.83%	8.03%	1.02%	100.00%
1995	7.52%	4.42%	12.62%	40.47%	0.63%	28.26%	0.71%	1.02%	1.65%	1.79%	0.89%	100.00%
1996	0.67%	2.06%	13.07%	7.82%	0.92%	16.62%	8.65%	2.39%	32.61%	13.10%	2.09%	100.00%
1997	0.32%	0.26%	3.04%	36.95%	2.84%	13.07%	3.62%	22.52%	0.65%	16.58%	0.13%	100.00%
1998	0.72%	2.39%	0.20%	12.96%	31.23%	23.57%	16.27%	4.03%	0.69%	6.77%	1.17%	100.00%
1999	0.67%	3.68%	0.39%	30.71%	22.69%	14.59%	8.98%	14.65%	0.44%	1.80%	1.39%	100.00%
2000	0.04%	2.30%	0.30%	19.85%	0.58%	23.76%	11.59%	13.19%	4.96%	23.31%	0.14%	100.00%
2001	12.50%	6.88%	8.83%	21.29%	22.63%	7.77%	1.25%	1.43%	4.57%	12.84%	0.02%	100.00%
2002	2.45%	6.81%	10.22%	22.87%	1.19%	10.05%	12.30%	27.15%	6.06%	0.74%	0.16%	100.00%
2003	7.55%	0.37%	0.04%	33.73%	7.28%	15.80%	12.38%	11.48%	8.24%	3.13%	0.00%	100.00%
2004	2.95%	9.07%	0.15%	24.22%	21.17%	16.93%	11.52%	6.28%	4.23%	3.39%	0.08%	100.00%
2005	0.05%	1.21%	6.43%	18.36%	11.20%	39.31%	6.16%	10.13%	2.83%	3.78%	0.54%	100.00%
2006	9.36%	3.81%	10.35%	21.53%	7.77%	6.13%	14.67%	13.12%	9.60%	3.65%	0.01%	100.00%
2007	0.14%	0.79%	0.52%	62.09%	3.21%	14.63%	0.79%	10.39%	0.66%	6.51%	0.27%	100.00%
Averages												
All Years	4.61%	3.57%	4.26%	28.13%	9.71%	17.94%	8.60%	11.01%	4.91%	7.03%	0.24%	100.00%
Last 3 Yrs	3.20%	1.94%	5.77%	34.06%	7.38%	19.93%	7.21%	11.22%	4.37%	4.65%	0.27%	100.00%

Missouri Department of Transportation
Watson Wyatt Actuarial Study
General Liability
Fitted Trend Line - Selected Ultimate

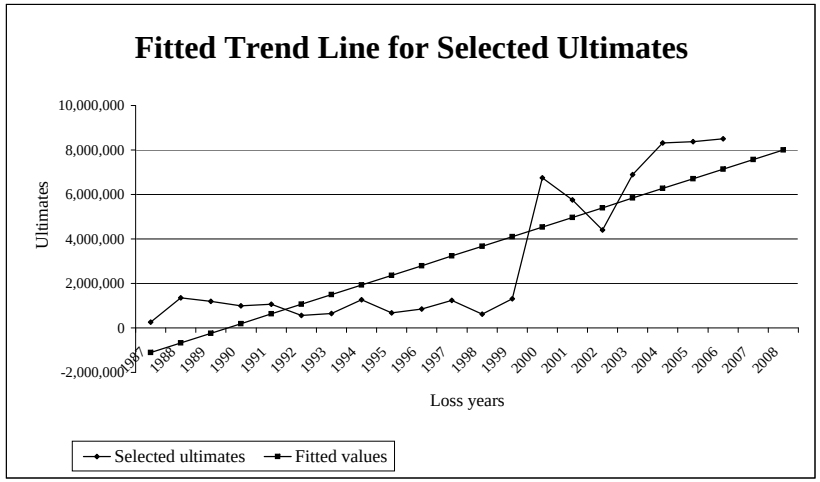
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Loss year	index	sample	Selected ultimates	basis of fit	basis of fit squared	Sample Ultimate	sample product	Fitted values
1987	0	1	262,429	0	0	262,429	0	(1,109,699)
1988	1	1	1,348,307	1	1	1,348,307	1,348,307	(675,652)
1989	2	1	1,195,394	2	4	1,195,394	2,390,787	(241,606)
1990	3	1	996,491	3	9	996,491	2,989,472	192,441
1991	4	1	1,060,947	4	16	1,060,947	4,243,788	626,488
1992	5	1	566,634	5	25	566,634	2,833,172	1,060,534
1993	6	1	641,435	6	36	641,435	3,848,608	1,494,581
1994	7	1	1,260,632	7	49	1,260,632	8,824,423	1,928,627
1995	8	1	677,754	8	64	677,754	5,422,035	2,362,674
1996	9	1	844,819	9	81	844,819	7,603,370	2,796,721
1997	10	1	1,238,523	10	100	1,238,523	12,385,234	3,230,767
1998	11	1	617,797	11	121	617,797	6,795,762	3,664,814
1999	12	1	1,312,211	12	144	1,312,211	15,746,535	4,098,861
2000	13	1	6,744,872	13	169	6,744,872	87,683,338	4,532,907
2001	14	1	5,753,621	14	196	5,753,621	80,550,700	4,966,954
2002	15	1	4,405,955	15	225	4,405,955	66,089,332	5,401,001
2003	16	1	6,891,930	16	256	6,891,930	110,270,887	5,835,047
2004	17	1	8,323,223	17	289	8,323,223	141,494,795	6,269,094
2005	18	0	8,380,760	0	0	0	0	6,703,141
2006	19	1	8,500,000	19	361	8,500,000	161,500,000	7,137,187
2007	20	1	8,500,000	20	400	8,500,000	170,000,000	7,571,234
2008	21	0		0	0	0	0	8,005,281
TOTAL		20	69,523,736	192	2,546	61,142,975	892,020,544	75,851,396

Notes on Trend Factor Calculation

Column	Notes
(1)	Selected
(2)	Selected
(3)	Exhibit 8
(4)	(1) × (2)
(5)	(1) ^ 2 × (2)
(6)	(2) × (3)
(7)	(4) × (6)
(8)	y intercept + slope × (1)

slope		434,047	[(2) × (7) - (4) × (6)] ÷ [(2) × (5) - (4) ^ 2]
y intercept	-	1,109,699	[(6) - {(3) × (4)}] ÷ (2)

Values Carried Forward for Loss Year 2008

Row	2008 Estimates	
a	2008 Incurred	8,005,281
b	2008 Paid Development Factor	19.311
c	Loss year 2008 Paid at 12/31/08	414,550
d	Loss year 2008 Unpaid at 12/31/08	7,590,731
e	Loss year 2007 Unpaid at 12/31/07	8,243,936
f	Loss year 2007 Discounted at 12/31/07	7,054,635
g	Implied Discount Factor	0.856
h	2008 Discounted Unpaid Loss at 12/31/08	6,495,663

Row	Notes
a	Column 8, table above
b	Exhibit 9, Column 5, 12 months maturity
c	= a ÷ b
d	= a - c
e	Exhibit 12
f	Exhibit 12
g	= f ÷ e
h	= g × d