

**TENNESSEE
ADVISORY COUNCIL
ON
WORKERS' COMPENSATION**

ACTUARIAL REPORT

*Review of NCCI Advisory
Loss Cost Filings
for the Voluntary Market
Effective 11/1/11 and 3/1/12*

By The Numbers
Actuarial
Consulting, Inc.

September 16, 2011

Mr. David H. Lillard, Jr., Tennessee State Treasurer
Chairman, Advisory Council on Workers' Compensation
State Capitol, 1st Floor
600 Charlotte Avenue
Nashville, Tennessee 37243-0225

Dear Mr. Lillard:

Enclosed is the actuarial report prepared for the Tennessee Advisory Council on Workers' Compensation. This report contains our review of the National Council on Compensation Insurance, Inc. (NCCI) filings effective 11/1/11 and 3/1/12.

The estimates and analysis contained in this report are based on data provided by NCCI including the filing memorandum dated 8/1/11 and 8/19/11, the technical supplement to the 3/1/12 filing, and the answers to questions concerning the filings provided by NCCI. Any discrepancy in the completeness, interpretation, or accuracy of the information used may require a revision to this report.

If you have any questions, please call or write. It is a pleasure to be of service to the Advisory Council.

Sincerely,



Mary Jean King, FCAS, FCA, MAAA
Consulting Actuary



Lisa Dennison, FCAS, FCA, MAAA
President and Consulting Actuary

cc: Lynn Ivanick, Esq.
Administrator, Advisory Council on Workers' Compensation

TENNESSEE ADVISORY COUNCIL ON WORKERS' COMPENSATION

ACTUARIAL REPORT

TABLE OF CONTENTS

PURPOSE..... 1
FINDINGS..... 3
OVERVIEW OF FILINGS..... 5
 SUMMARY OF PROPOSED LOSS COST CHANGES 5
 OTHER PROPOSED CHANGES 5
 DATA 6
LAW ONLY FILING ANALYSIS 7
STATEWIDE INDICATION ANALYSIS 8
 OVERVIEW 8
 ANALYSIS OF METHODOLOGY 9
 DEVELOPMENT 11
 TREND 23
INDICATED LOSS COSTS BY INDUSTRY GROUP AND CLASS 27
QUALIFICATIONS AND LIMITATIONS..... 28
CONSULTATION..... 29

APPENDICES

SUPPORT EXHIBITS..... 30
BYNAC QUESTIONS AND RESPONSES FROM NCCI 33

TENNESSEE ADVISORY COUNCIL ON WORKERS' COMPENSATION

ACTUARIAL REPORT

PURPOSE

By the Numbers Actuarial Consulting, Inc. (BYNAC) has been retained by the Tennessee Advisory Council on Workers' Compensation to prepare this actuarial report to present a professional analysis of the National Council on Compensation Insurance, Inc. (NCCI) Tennessee Law-Only Workers Compensation Voluntary Lost Cost filing effective 11/1/11 and Workers Compensation Loss Costs and Rating Values Tennessee Voluntary Market filing effective 3/1/12. The basis of the analysis is the NCCI filing memorandum dated 8/1/11 and 8/19/11 including the technical supplement. BYNAC did not audit the premium or loss data underlying the NCCI filing, nor did we verify the accuracy of NCCI's detail calculations. An analysis of the federal classifications changes and the assigned risk multiplier is beyond the scope of this report.

The following items will be addressed in this report:

- An evaluation of the data selected by the NCCI underlying its annual loss cost filing.
- An analysis of the NCCI's methodology in arriving at its calculation of the proposed change in loss costs and loss adjustment expense.

- An examination of the appropriateness of the methodology used by the NCCI in its selection of estimates employed to arrive at ultimate loss cost for past and forecast periods.
- An analysis of the NCCI's selection of trend factors.

FINDINGS

Based on BYNAC's review of the NCCI filings, the proposed changes of +6.3% effective 11/1/11 and +1.6% effective 3/1/12 have been reasonably calculated in accordance with actuarial standards of practice.

The 11/1/11 law-only filing adjusts the loss costs for the impact of the 8/26/09, 1/1/10, and 1/1/11 medical fee changes. The impact has been calculated in a reasonable manner and the combined effect of the 3/1/11 and 11/1/11 filings (+0.9%) is equal to the indication that would have been calculated at 3/1/11 using the medical on-level factors that included these medical fee changes (Appendix A, Exhibit I).

Due to the large amount of actuarial analysis underlying most of the exhibits in this filing, it was impossible to review all of the detail calculations in the time given for BYNAC's review. It is BYNAC's recommendation that a different area be selected for detailed review each year. In this, BYNAC's first review of the NCCI Tennessee filings, BYNAC's main focus has been on the development of estimated ultimate losses. BYNAC reviewed paid as well as incurred development and experience for policy years 2005 through 2007 in addition to the policy years underlying the filing of 2008 and 2009 in order to test the assumptions made by NCCI in selecting the data and development method for review. No significant differences to the NCCI calculations were found in this review and BYNAC is in general agreement with the selections made by NCCI.

BYNAC also reviewed the selection of trend. BYNAC believes that a medical trend factor of 1.005 would be more appropriate than the 1.010 factor used by NCCI. The selection of medical trend of 1.005 would result in an overall indication of +0.3% (Appendix A, Exhibit II).

The proposed loss based expense load of 19.7% is a decrease from the load in the 3/1/11 filing of 20.3%. This factor is more in keeping with the factor used in filings prior to 3/1/11. The decrease is due to lower than expected development in the countrywide loss based expense ratios to loss. The selected load is based on countrywide data because of the instability observed in the Tennessee relativity since 2004. The rationale for this recommendation is reasonable.

The calculation of industry group differentials was carefully reviewed in the consulting actuary's report on the 3/1/11 filing. The indicated differentials in the 3/1/11 filing were significantly different than the differentials in the 3/1/10 filing. The proposed differentials for 3/1/12 are more in line with the 3/1/10 differentials and should be accepted.

OVERVIEW OF FILINGS

SUMMARY OF PROPOSED LOSS COST CHANGES

NCCI is proposing to increase loss costs to reflect changes to the Tennessee medical fee schedule effective 8/26/09, 1/1/10, and 1/1/11. These changes were not included in the calculation of on-level factors in the 3/1/11 loss cost filing and so NCCI is proposing that this increase be effective 11/1/11. In addition, NCCI is proposing an increase in loss costs based on premium and loss experience effective 3/1/12.

The breakdown of the proposed changes by industry groups is as follows:

Industry Group	Loss Cost Change Eff 11/1/11	Loss Cost Change Eff 3/1/12	Loss Cost Change Combined
Manufacturing	6.2%	2.3%	8.6%
Contracting	6.4%	-1.3%	5.0%
Office & Clerical	5.6%	-2.0%	3.5%
Goods & Services	6.9%	5.4%	12.7%
Miscellaneous	6.1%	0.2%	6.3%
Overall	6.3%	1.6%	8.0%

OTHER PROPOSED CHANGES

In addition to the loss cost changes, NCCI has included in the filing a number of class code changes, changes to the rules to determine minimum premium, and updates to the loss elimination ratios and retrospective rating plan parameters. The calculation of the updates to the loss elimination ratios and retrospective rating plan parameters were not presented in the filing or technical supplement and were not reviewed for this report.

DATA

The data used for the statewide indication is premium and losses for policy years 2008 and 2009, evaluated as of 12/31/10. The use of policy year data provides a good match of losses to the underlying policy premium and the policy years selected are the most recent available. NCCI has indicated that all concerns that were raised during the data validation process were resolved with the sending carriers. No individual carrier data was excluded from this report. Combined voluntary and assigned risk data is used. Assigned Risk represents approximately 6.5% of the policy years 2008 and 2009 market share.

LAW ONLY FILING ANALYSIS

The law only filing is in response to medical fee schedule changes that *have already been implemented* effective 8/26/09, 1/1/10, and 1/1/11. NCCI indicated that these changes were not included in the on-level factor calculations used in the 3/1/11 loss cost filing because NCCI was not aware of the changes at the time of the filing. It is important that there be good communication with NCCI concerning all statutory benefit changes since these have a significant impact on the statewide indication. If these changes had been properly reflected in the 3/1/11 filing, the overall indication would have been a slight increase instead of a decrease (Appendix A, Exhibit I).

The cost impact of the changes was estimated based on the change in the maximum allowable reimbursements and the frequency of each procedure. This methodology is reasonable. An assumption is made based on a Centers for Medicare and Medicaid Services study concerning the savings associated with reductions to the medical fee schedule. This study indicates that an offset between 30% and 50% should be applied to calculated savings. NCCI used an offset of 40% and indicated to BYNAC that the overall cost impact is not sensitive to this assumption and would not change if offsets of 30% or 50% were used.

NCCI did not make any adjustment to the cost impact calculation for the 8/26/09 medical fee changes that were part of the policy year 2008 experience used in the 3/1/11 filing. Based on BYNAC's own calculations, this adjustment would have been minimal and is not necessary.

STATEWIDE INDICATION ANALYSIS

OVERVIEW

The statewide indicated change is based on premium and loss data for policy years 2008 and 2009. Standard earned premium is developed to ultimate to account for payroll audits that occur after the valuation date. Premium is then brought to the level of the current loss costs based on changes in loss costs since the experience period.

Limited indemnity and medical paid losses plus case reserves are developed to ultimate. An on-level factor is also applied to losses to reflect changes to statutory benefit levels since the experience period. In addition, a factor is applied to include loss based expenses in the cost ratio. A separate indemnity and medical limited cost ratio is calculated. A projected cost ratio for the proposed policy period is then calculated by applying factors for trend, to adjust the losses to an unlimited basis, and for proposed changes in benefit levels.

The medical and indemnity cost ratios are added to arrive at a projected cost ratio for each policy year. The average of the projected cost ratio for the two policy years is selected by NCCI. The indicated change based on experience, trend, and benefits is multiplied by the effect of the proposed change in loss based expenses to calculate the proposed overall change.

Policy Year	Projected Cost Ratio		
	Indemnity	Medical	Combined
2008	0.329	0.665	0.994
2009	0.338	0.710	1.048
Selected			1.021
	DCE Ratio	AOE Ratio	LAE Ratio
Current	12.5%	7.8%	20.3%
Proposed	12.2%	7.5%	19.7%
Change			0.995
Overall Change			1.6%

ANALYSIS OF METHODOLOGY

The methodology used by NCCI to calculate the statewide indication is well accepted and reasonable. Incurred loss development is the most widely used method of estimating ultimate incurred losses. However, many other methods do exist and BYNAC would like to see at least one other method of estimating ultimate losses presented in the report each year.

Inherent in the incurred loss development technique is the assumption that there are no changes in reserving practices. A paid loss development method would provide a check to this assumption. Paid loss development assumes that there are no changes in claims settlement practices. Tennessee has experienced changes to the rules regarding settlement of medical costs in 2004 and this year more changes have been enacted which have had an impact on the paid loss development.

NCCI has indicated that in their judgment, the incurred loss development provides the best estimate of ultimate. BYNAC has reviewed the paid development data and agrees that the 2004 changes had a significant impact on the paid development.

The use of on-level factors to bring premium to the current loss cost level is also a well accepted technique. The best method would be to recalculate the premium using current loss costs but this would be overly complicated for a statewide indication based on all voluntary and assigned risk experience. The use of a Tennessee specific distribution of policy effective dates increases the accuracy of the on-level factor calculation. As a matter of simplicity, the most recent distribution is used for all policy years. This distribution was updated with the 3/1/12 filing which resulted in changes to the policy year 2008 weights. NCCI has indicated that these changes did not have a significant impact on the overall indication.

In selecting trend factors, NCCI examines claim frequency and severity separately and adjusts the severity to the current statutory benefit level and also removes the impact of the growth in payroll over the experience period. NCCI then combines the historical frequency with the adjusted severity to produce loss ratio trend experience. Policy year trend is used as the basis for the selection but accident year trend is also presented. The selection of trend factors involves a great deal of judgment and is subject to a wide range of opinion concerning the appropriate factor.

Five accident years of countrywide loss adjustment expense (LAE) data is presented as the basis for the LAE factor. A relativity of Tennessee defense and cost containment (DCC) expense to countrywide DCC is calculated based on the latest five calendar years paid data (2006 – 2010). Although the standard procedure is to apply the state relativity to the countrywide DCC ratio, NCCI is proposing using the countrywide ratio without adjustment. NCCI believes that changes in the loss payout pattern since the 2004 reforms have led to increases in the relativity factor that are not due to expense increases. Countrywide adjusting and other expense (AOE) is also used.

The selected countrywide factors are an average of the two most recent years. Although the recent factors are relatively consistent, the use of a two year average does not provide much stability and has resulted in some bouncing around from 19.9% in the 3/1/10 filing to 20.3% in the 3/1/11 filing back to 19.7% in the current filing. Decreases in the estimated ultimate DCCE and AOE ratios to loss have also contributed to the instability.

The methodology to limit losses in the development and trend calculations and adjust the limited cost ratio to an unlimited basis is the same as that used in the prior filing. This methodology was implemented in 2004 to temper the impact of one large claim on the overall statewide indication. The selected statewide excess factor of 0.023 is consistent with the ratios used in the prior two filings of 0.021 and 0.022.

A comparison of the adjustment factors in the current and prior filings is presented below:

	Most Recent Policy Year		Older Policy Year	
	Eff 3/1/12	Eff 3/1/11	Eff 3/1/12	Eff 3/1/11
Premium Development Factor	0.997	1.007	0.999	0.999
Indemnity Paid+ Case Development Factor	1.278	1.277	1.095	1.092
Medical Paid+ Case Development Factor	1.449	1.477	1.387	1.392
Indemnity Trend	0.906	0.906	0.879	0.879
Medical Trend	1.033	1.016	1.043	1.021
Loss Adjustment Expense	1.197	1.203	1.197	1.203
Excess Loss Loading	1.024	1.021	1.024	1.021

DEVELOPMENT

The ultimate cost of claims incurred for a specific time period is usually not known until several years after the close of that period. Loss development factors project the additional cost expected on claims. The calculation and selection of development factors to be applied to incurred indemnity losses are shown in Table 1, beginning with Tennessee's limited incurred policy year losses excluding LAE. The historical and expected loss development patterns are

Table 1

**STATE OF TENNESSEE
WORKERS COMPENSATION**

INDEMNITY INCURRED LOSS DEVELOPMENT

A. LIMITED PAID + CASE INDEMNITY LOSSES FOR MATCHING COMPANIES

Policy Year	1st Report	2nd Report	2nd Report	3rd Report	3rd Report	4th Report	4th Report	5th Report	5th Report	6th Report	6th Report	7th Report
1999											171,978,035	170,619,117
2000									178,896,092	179,870,071	179,961,579	180,613,212
2001							180,677,952	182,805,755	184,070,593	184,487,796	183,406,980	182,671,374
2002					175,859,968	177,131,696	177,662,185	179,408,350	179,408,349	179,573,121	178,705,035	178,589,506
2003			174,939,263	183,702,888	184,691,923	188,177,166	188,177,168	189,956,096	189,956,096	190,439,670	187,103,328	187,109,623
2004	130,891,855	153,388,359	155,106,476	165,215,126	165,215,127	168,859,171	168,859,171	169,698,446	169,466,194	170,146,329		
2005	128,980,692	152,141,573	152,141,573	161,451,665	161,451,665	165,393,313	165,393,313	166,692,296				
2006	146,771,520	174,215,468	174,215,468	186,309,192	186,309,192	189,249,710						
2007	150,141,221	176,061,023	176,061,023	185,722,833								
2008	138,284,470	155,462,696										

B. AGE-TO-AGE FACTORS

Policy Year	1st to 2nd Report	2nd to 3rd Report	3rd to 4th Report	4th to 5th Report	5th to 6th Report	6th to 7th Report
1999						0.992
2000					1.005	1.004
2001				1.012	1.002	0.996
2002			1.007	1.010	1.001	0.999
2003		1.050	1.019	1.009	1.003	1.000
2004	1.172	1.065	1.022	1.005	1.004	
2005	1.180	1.061	1.024	1.008		
2006	1.187	1.069	1.016			
2007	1.173	1.055				
2008	1.124					
Average	1.167	1.060	1.018	1.009	1.003	0.998
Wtd Avg	1.167	1.060	1.017	1.009	1.003	0.998
3 Yr Avg	1.161	1.062	1.021	1.007	1.003	0.998
5 Yr Mid Avg	1.175	1.060	1.019	1.009	1.003	0.998
Prior	1.169	1.057	1.017	1.007	1.002	0.998
NCCI	1.167	1.060	1.018	1.009	1.003	0.998
BYNAC	1.168	1.060	1.019	1.009	1.003	0.998

C. INDEMNITY INCURRED LOSS DEVELOPMENT FACTOR

1st Report to Ultimate	2nd Report to Ultimate	3rd Report to Ultimate	4th Report to Ultimate	5th Report to Ultimate	6th Report to Ultimate	7th Report to Ultimate
1.280	1.096	1.034	1.015	1.006	1.003	1.005

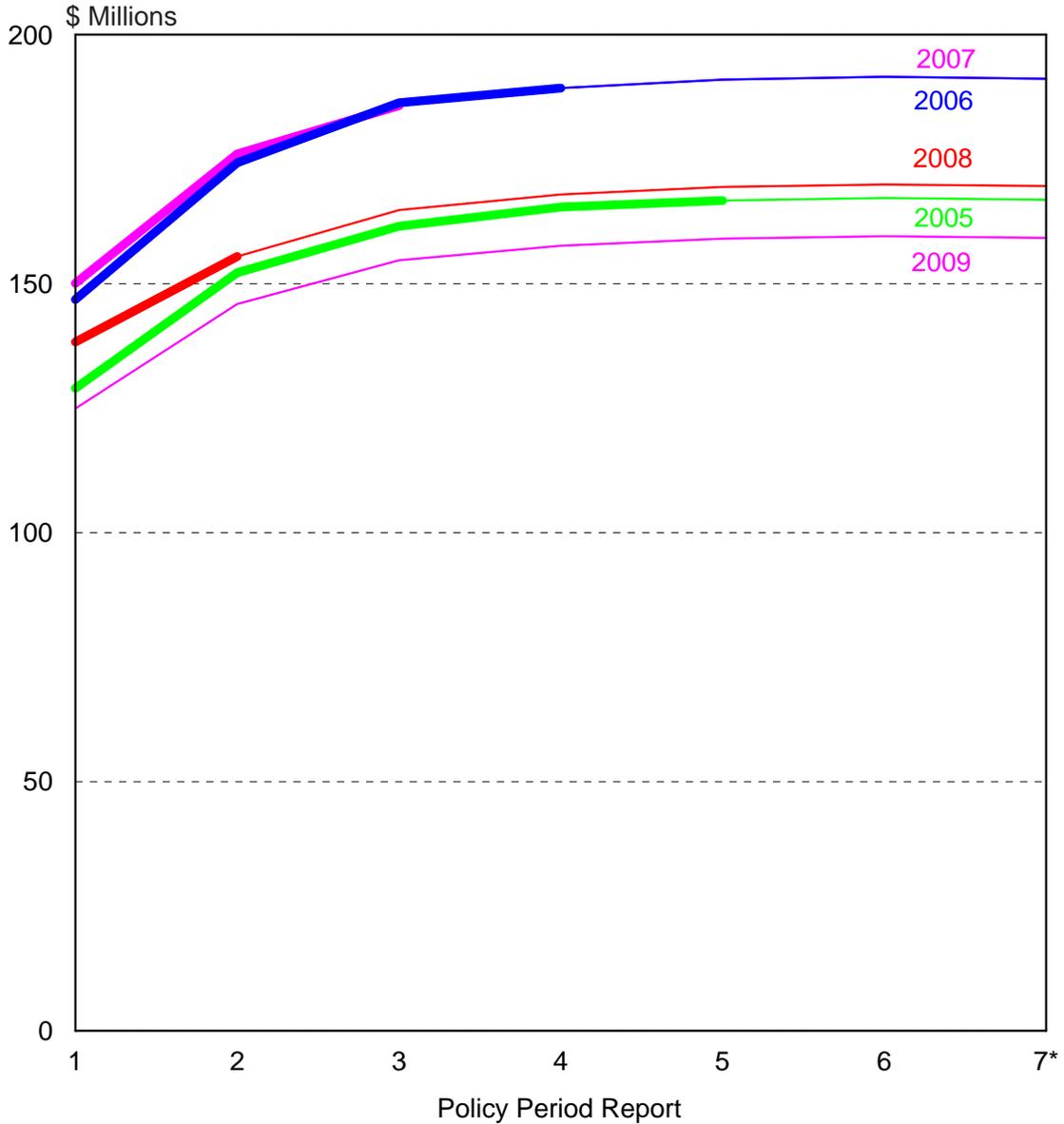
graphically illustrated in Figure 1 by thick and thin lines, respectively. Medical incurred loss development for the 1st through 7th reports is shown in Table 2 and Figure 2. For both indemnity and medical losses, NCCI selected 5 year average factors (with the exception of the 16th to 17th report medical losses where an outlying factor was removed from the average). The NCCI selections are reasonable. Also shown on Tables 1 and 2 are the BYNAC selections. BYNAC selections matched NCCI after the 6th report. In Table 3, ultimate incurred indemnity and medical losses are estimated by using the BYNAC selections.

The standard earned premium also needs to be developed to ultimate to account for changes to earned premium such as payroll audits that are completed after the 1st report. Table 4 shows the premium development with the NCCI and BYNAC selections. Table 5 shows the estimated ultimate earned premium.

Table 6 shows the calculation of historical and projected cost ratios using BYNAC's estimated ultimate losses and standard earned premium and the BYNAC trend selection described below. Figure 3 presents a comparison of the historical cost ratios to the target cost ratio of 1.000. This is a retrospective test of the adequacy of historical rates. A cost ratio above the target would indicate that rates were inadequate in the period. All of the cost ratios in the experience period were below the target. Figure 4 presents the BYNAC projected cost ratios by policy year compared to the BYNAC and NCCI selected cost ratios.

Figure 1

STATE OF TENNESSEE WORKERS COMPENSATION
HISTORICAL AND EXPECTED DEVELOPMENT OF INDEMNITY INCURRED LOSSES
(Limited Losses Excluding LAE)



* Additional development of 0.5% is expected after 7th report.

Table 2

**STATE OF TENNESSEE
WORKERS COMPENSATION**

MEDICAL INCURRED LOSS DEVELOPMENT

A. LIMITED PAID + CASE MEDICAL LOSSES FOR MATCHING COMPANIES

Policy Year	1st Report	2nd Report	2nd Report	3rd Report	3rd Report	4th Report	4th Report	5th Report	5th Report	6th Report	6th Report	7th Report
1999												
2000									179,784,158	184,233,830	184,395,257	182,763,264
2001							185,599,425	191,459,214	192,917,413	199,144,547	198,142,581	198,779,632
2002					186,540,124	194,013,054	195,416,387	200,745,175	200,745,176	213,645,793	212,326,311	217,227,389
2003			205,313,906	204,995,333	205,934,665	211,251,664	211,251,665	217,883,549	217,883,444	220,778,193	218,086,174	221,938,812
2004	190,408,688	202,007,082	204,121,592	209,170,804	209,170,804	219,709,286	219,709,286	229,565,513	230,537,726	238,209,284		
2005	175,303,423	180,223,881	180,223,882	187,910,014	187,910,014	200,989,391	201,110,191	209,103,902				
2006	192,006,252	197,559,506	197,559,506	206,531,006	206,599,941	216,607,053						
2007	208,591,460	222,427,925	222,427,925	228,815,005								
2008	186,422,581	194,012,057										

B. AGE-TO-AGE FACTORS

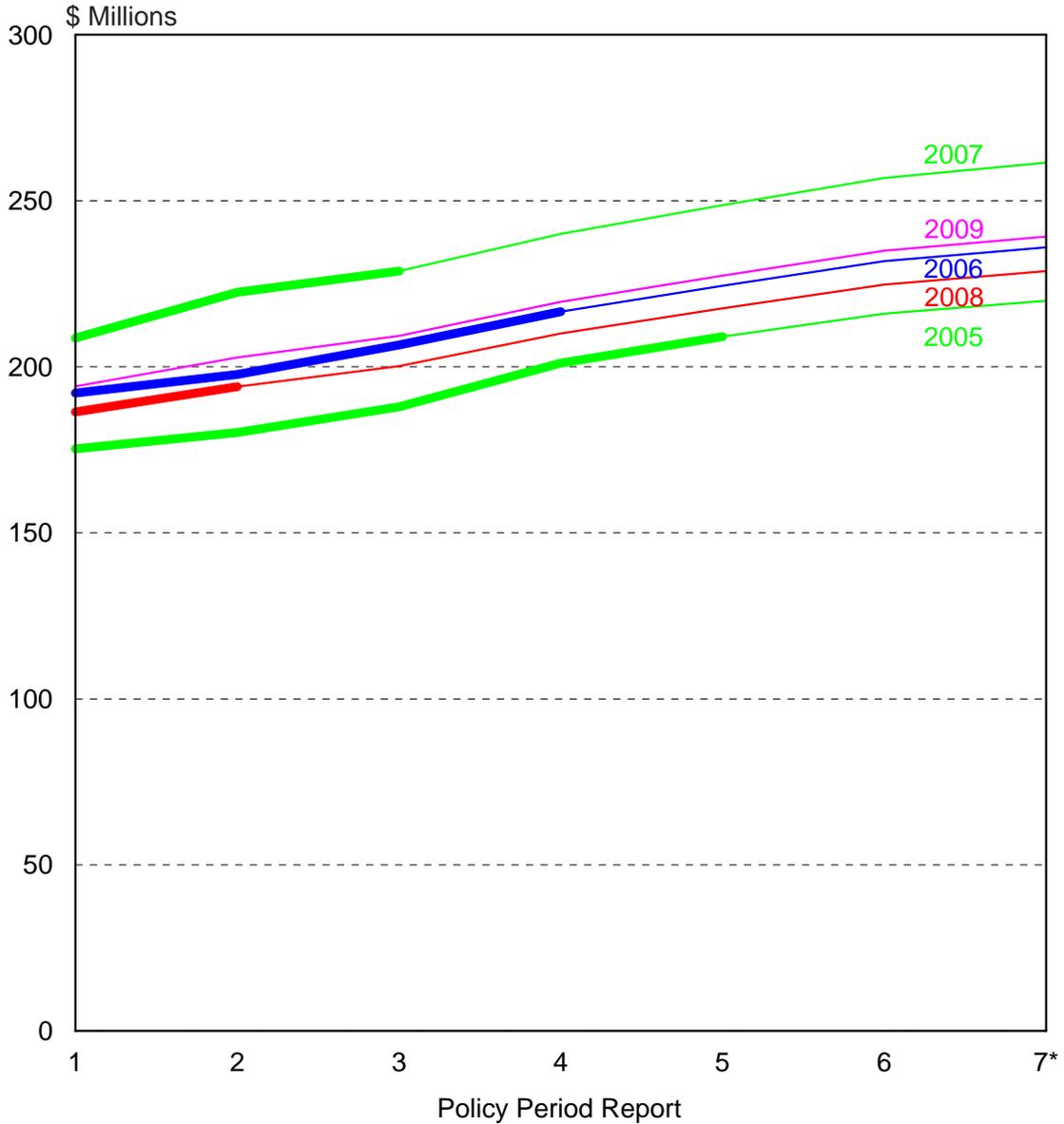
Policy Year	1st to 2nd Report	2nd to 3rd Report	3rd to 4th Report	4th to 5th Report	5th to 6th Report	6th to 7th Report
1999						1.018
2000					1.025	1.034
2001				1.032	1.032	1.003
2002			1.040	1.027	1.064	1.023
2003		0.998	1.026	1.031	1.013	1.018
2004	1.061	1.025	1.050	1.045	1.033	
2005	1.028	1.043	1.070	1.040		
2006	1.029	1.045	1.048			
2007	1.066	1.029				
2008	1.041					
Average	1.045	1.028	1.047	1.035	1.033	1.019
Wtd Avg	1.046	1.028	1.047	1.035	1.033	1.019
3 Yr Avg	1.045	1.039	1.056	1.039	1.037	1.015
5 Yr Mid Avg	1.044	1.032	1.046	1.034	1.030	1.020
Prior	1.061	1.024	1.047	1.029	1.034	1.027
NCCI	1.045	1.028	1.047	1.035	1.033	1.019
BYNAC	1.045	1.032	1.049	1.036	1.033	1.018

C. MEDICAL INCURRED LOSS DEVELOPMENT FACTOR

1st Report to Ultimate	2nd Report to Ultimate	3rd Report to Ultimate	4th Report to Ultimate	5th Report to Ultimate	6th Report to Ultimate	7th Report to Ultimate
1.457	1.394	1.351	1.288	1.243	1.203	1.182

Figure 2

STATE OF TENNESSEE WORKERS COMPENSATION
HISTORICAL AND EXPECTED DEVELOPMENT OF MEDICAL INCURRED LOSSES
(Limited Losses Excluding LAE)



* Additional development of 18.2% is expected after 7th report.

Table 3

**STATE OF TENNESSEE
WORKERS COMPENSATION**

ESTIMATED ULTIMATE INCURRED LOSSES

A. INDEMNITY

Policy Period	Limited Incurred Losses as of 12/31/10	Incurred Loss Development Factor	Estimated Ultimate Incurred Losses
1/1-12/31/05	\$166,692,296	1.006	\$167,692,450
1/1-12/31/06	189,249,710	1.015	192,088,456
1/1-12/31/07	185,722,833	1.034	192,037,409
1/1-12/31/08	155,462,696	1.096	170,387,115
1/1-12/31/09	124,938,422	1.280	159,921,180
Total	\$822,065,957		\$882,126,610

B. MEDICAL

Policy Period	Limited Incurred Losses as of 12/31/10	Incurred Loss Development Factor	Estimated Ultimate Incurred Losses
1/1-12/31/05	\$ 209,103,902	1.243	\$ 259,916,150
1/1-12/31/06	216,607,053	1.288	278,989,884
1/1-12/31/07	228,815,005	1.351	309,129,072
1/1-12/31/08	194,012,057	1.394	270,452,807
1/1-12/31/09	194,086,348	1.457	282,783,809
Total	\$1,042,624,365		\$1,401,271,722

Table 4

**STATE OF TENNESSEE
WORKERS COMPENSATION**

PREMIUM DEVELOPMENT FACTORS

A. STANDARD PREMIUM FOR MATCHING COMPANIES

Policy Year	1st Report	2nd Report	2nd Report	3rd Report	3rd Report	4th Report	4th Report	5th Report
2003							588,742,335	589,120,424
2004					636,695,551	637,098,369	637,098,369	637,257,697
2005			649,606,099	649,211,113	649,211,113	648,630,871	648,630,871	648,451,564
2006	659,490,575	664,411,159	665,075,963	663,655,119	662,497,727	662,904,054		
2007	696,091,173	696,603,632	694,186,920	693,367,732				
2008	630,351,937	621,498,485						

B. AGE-TO-AGE FACTORS

Policy Year	1st to 2nd Report	2nd to 3rd Report	3rd to 4th Report	4th to 5th Report
2003				1.001
2004			1.001	1.000
2005		0.999	0.999	1.000
2006	1.007	0.998	1.001	
2007	1.001	0.999		
2008	0.986			
Average	0.998	0.999	1.000	1.000
Wtd Avg	0.998	0.999	1.000	1.000
Prior	1.008	0.999	1.000	1.000
NCCI	0.998	0.999	1.000	1.000
BYNAC	1.002	0.999	1.000	1.000

C. PREMIUM DEVELOPMENT FACTOR

1st Report to Ultimate	2nd Report to Ultimate	3rd Report to Ultimate	4th Report to Ultimate	5th Report to Ultimate
1.001	0.999	1.000	1.000	1.000

Table 5

**STATE OF TENNESSEE
WORKERS COMPENSATION**

ESTIMATED ULTIMATE STANDARD EARNED PREMIUM

<u>Policy Period</u>	<u>Standard Earned Premium of 12/31/10</u>	<u>Premium Development Factor</u>	<u>Estimated Ultimate Standard Earned Prem</u>
1/1-12/31/05	\$ 648,451,564	1.000	\$ 648,451,564
1/1-12/31/06	664,030,353	1.000	664,030,353
1/1-12/31/07	695,689,743	1.000	695,689,743
1/1-12/31/08	624,137,309	0.999	623,513,172
1/1-12/31/09	548,905,804	1.001	549,454,710
Total	\$3,181,214,773		\$3,181,139,542

Table 6

**STATE OF TENNESSEE
WORKERS COMPENSATION**

HISTORICAL AND PROJECTED COST RATIOS

A. INDEMNITY

Policy Period	Estimated Ultimate Limited Losses	Factor to Include LAE	Factor to Adjust Losses to Unlimited	Estimated Ultimate Loss + LAE	On Level Factor*	Trend Factor~	Projected Ultimate Loss + LAE^
1/1-12/31/05	\$167,692,450	1.190	1.024	\$ 204,343,312	1.049	0.802	\$173,791,668
1/1-12/31/06	192,088,456	1.191	1.024	234,268,008	1.040	0.827	203,519,346
1/1-12/31/07	192,037,409	1.194	1.024	234,795,690	1.031	0.852	207,801,980
1/1-12/31/08	170,387,115	1.196	1.024	208,673,781	1.023	0.879	188,741,256
1/1-12/31/09	159,921,180	1.200	1.024	196,511,146	1.016	0.906	181,339,943
Total	\$882,126,610			\$1,078,591,937			\$955,194,193

B. MEDICAL

Policy Period	Estimated Ultimate Limited Losses	Factor to Include LAE	Factor to Adjust Losses to Unlimited	Estimated Ultimate Loss + LAE	On Level Factor*	Trend Factor~	Projected Ultimate Loss + LAE^
1/1-12/31/05	\$259,916,150	1.190	1.024	\$ 316,723,424	1.077	1.037	\$ 357,596,541
1/1-12/31/06	278,989,884	1.191	1.024	340,251,599	1.093	1.032	387,662,596
1/1-12/31/07	309,129,072	1.194	1.024	377,958,515	1.078	1.026	421,183,701
1/1-12/31/08	270,452,807	1.196	1.024	331,224,635	1.105	1.021	375,876,434
1/1-12/31/09	282,783,809	1.200	1.024	347,484,744	1.063	1.016	376,224,519
Total	\$1,401,271,722			\$1,713,642,917			\$1,918,543,791

C. EARNED PREMIUM AND COST RATIO

Policy Period	Estimated Ultimate Standard Earned Prem	On Level Factor	Estimated On Level Standard Earned Prem	Historical Cost Ratio	Projected Cost Ratio
1/1-12/31/05	\$ 648,451,564	0.829	\$ 537,566,347	0.804	0.989
1/1-12/31/06	664,030,353	0.864	573,722,225	0.865	1.030
1/1-12/31/07	695,689,743	0.867	603,163,007	0.881	1.043
1/1-12/31/08	623,513,172	0.922	574,879,145	0.866	0.982
1/1-12/31/09	549,454,710	0.980	538,465,616	0.990	1.035
Total	\$3,181,139,542		\$2,827,796,340		
				Weighted 5 Year Average	1.016
				Weighted 2 Year Average	1.008
				NCCI Selected	1.021
				BYNAC Selected	1.008

* Weights for policy years 2005 through 2007 based on prior filings includes factor to reflect proposed changes in benefits.

~ Using BYNAC selected trend of 0.970 for indemnity and 1.005 for medical.

^ LAE adjusted from historical to current Tennessee factor of 1.203 for projected cost.

Figure 3

STATE OF TENNESSEE WORKERS COMPENSATION

HISTORICAL COST RATIO

■ Cost Ratio — Target Cost Ratio

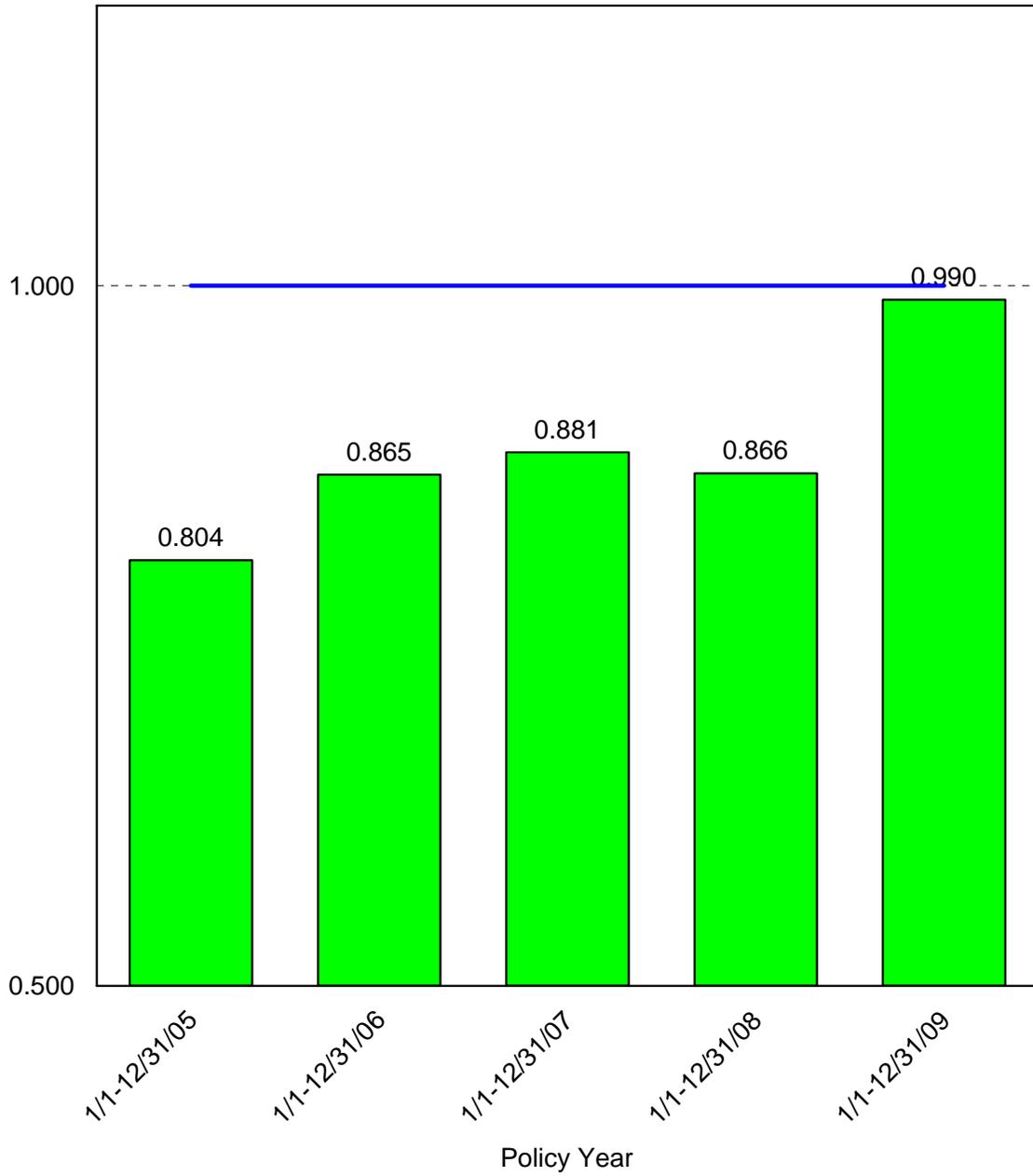
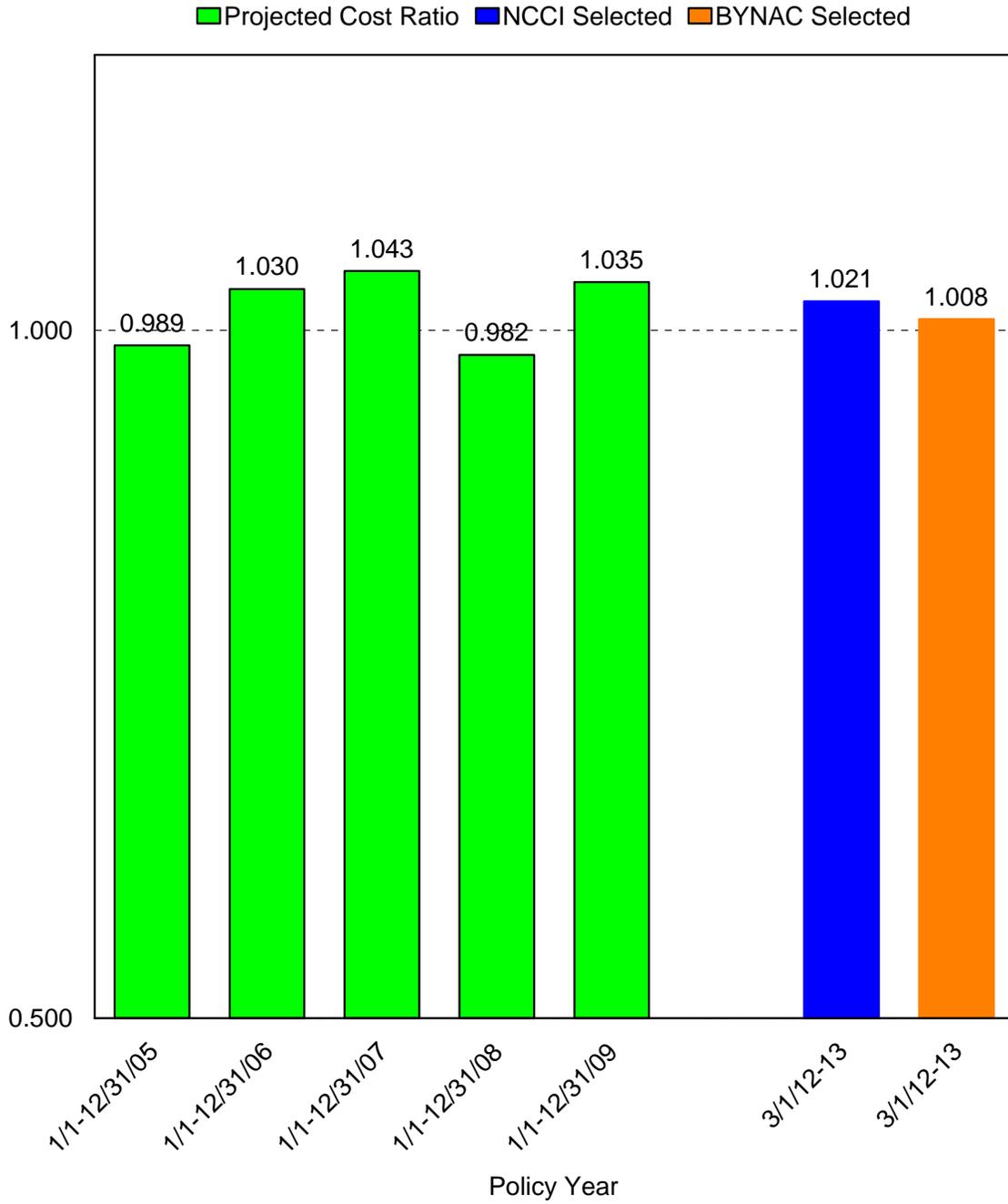


Figure 4

STATE OF TENNESSEE WORKERS COMPENSATION
PROJECTED COST RATIO INCLUDING BENEFIT CHANGES



TREND

An exponential regression model is used to measure the trend and presented in Table 7 and Figures 5 and 6. The NCCI selected trend factors are similar to the 5 year exponential fit. In the 3/1/11 filing the NCCI selected factor was consistent with the 15 year exponential fit. The indemnity trend has been consistent throughout the period. Medical trend has been very inconsistent and the exponential model provides a poor fit to the data. Due to these inconsistencies, BYNAC believes the 15 year fit should continue to be selected for medical trend in order to provide a larger base of experience. It is BYNAC's opinion that the NCCI proposed change is reasonable but the alternate medical trend should be considered. The alternate medical trend applied to the NCCI adjusted limited medical cost ratio excluding trend and benefits results in an indicated change due to experience, trend, and benefits of 1.008.

Table 7

**STATE OF TENNESSEE
WORKERS COMPENSATION**

TREND

<u>Policy Year</u>	<u>Indemnity Loss Ratio</u>	<u>Medical Loss Ratio</u>
1995	0.447	0.533
1996	0.403	0.480
1997	0.401	0.532
1998	0.405	0.509
1999	0.394	0.500
2000	0.420	0.522
2001	0.417	0.519
2002	0.369	0.523
2003	0.378	0.535
2004	0.350	0.567
2005	0.321	0.521
2006	0.343	0.530
2007	0.324	0.553
2008	0.298	0.517
2009	0.298	0.558
5 year Exponential	0.971	1.011
8 year Exponential	0.967	1.003
15 year Exponential	0.974	1.005
NCCI Selected	0.970	1.010
BYNAC Selected	0.970	1.005
<u>Accident Year</u>	<u>Indemnity Loss Ratio</u>	<u>Medical Loss Ratio</u>
2006	0.322	0.514
2007	0.333	0.511
2008	0.310	0.572
2009	0.300	0.522
2010	0.290	0.541
5 Year Exponential	0.969	1.012

Figure 5

STATE OF TENNESSEE WORKERS COMPENSATION
15 Year Exponential Fit of Loss Ratio Trend Data

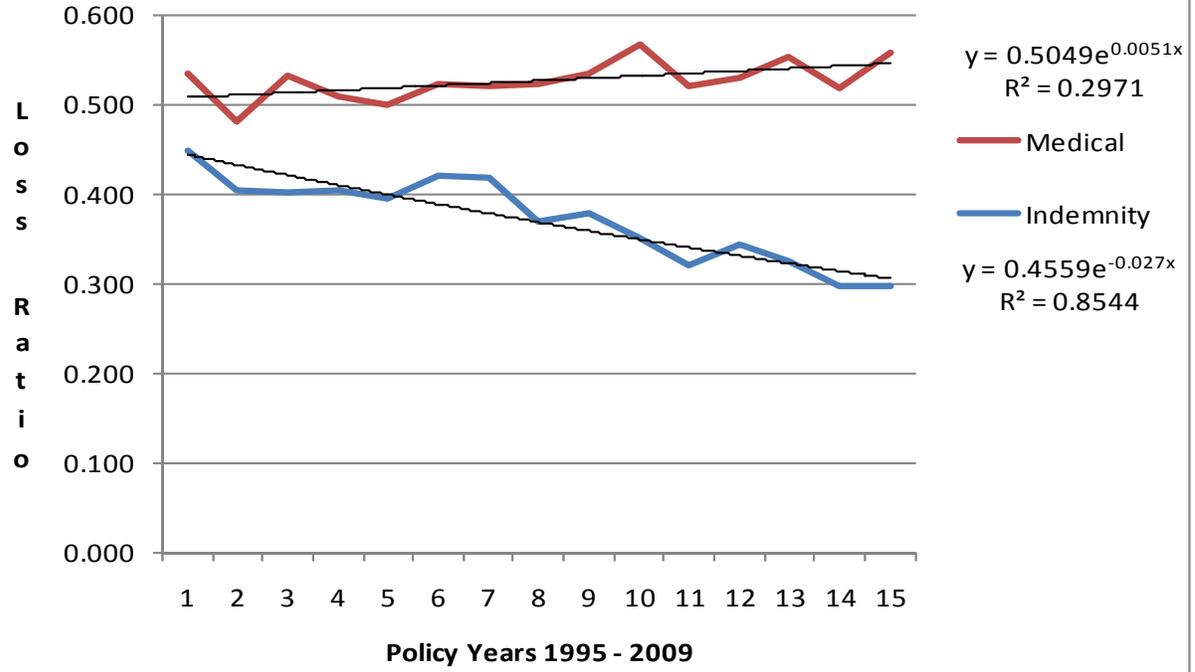
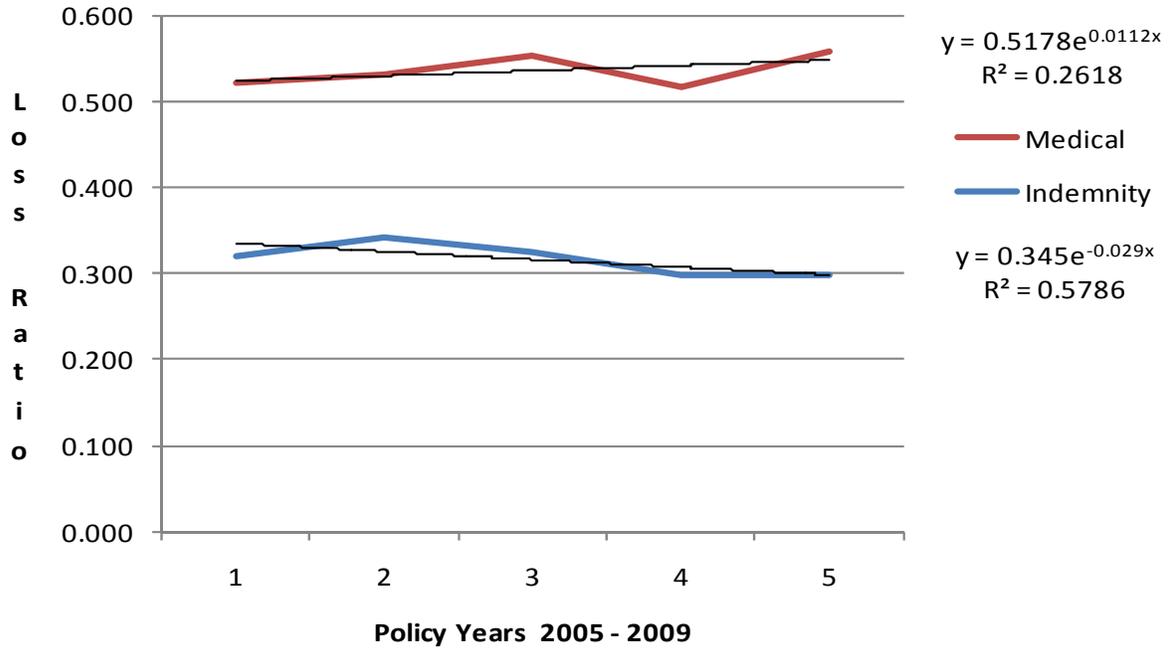


Figure 6

STATE OF TENNESSEE WORKERS COMPENSATION
5 Year Exponential Fit of Loss Ratio Trend Data



INDICATED LOSS COSTS BY INDUSTRY GROUP AND CLASS

NCCI updated its methodology to determine class relativities in 2009 and these changes were implemented in Tennessee beginning with the filing effective 3/1/10. The goal of these changes was to improve the equity of loss costs by class and the stability of loss costs for individual class codes. BYNAC has completed a brief review of the proposed loss costs by class but individual calculations have not been checked in detail for accuracy.

Concerns were raised by the consulting actuary at the time of the last review about the changes to the Office & Clerical, Goods & Services, and Miscellaneous industry group differentials. The changes from last year have all been tempered by changes in the opposite direction in this filing. Shown below is a comparison of the changes in industry group differential since the methodology was updated compared to NCCI's predicted change at the time of the update.

Industry Group	Industry Group Differential				NCCI Large State Predicted [^]
	Eff 3/1/09	Eff 3/1/10	Eff 3/1/11	Eff 3/1/12	
Manufacturing	0.991	1.024	1.027	1.007	
Contracting	1.023	0.954	0.966	0.971	
Office & Clerical	0.979	0.984	0.926	0.965	
Goods & Services	0.965	1.057	1.018	1.037	
Miscellaneous	1.045	0.965	1.021	0.986	
	Percentage Change				
	3/09 to 3/10	3/10 to 3/11	3/11 to 3/12	3/09 to 3/12	
Manufacturing	3.3%	0.3%	-1.9%	1.6%	-5.1%
Contracting	-6.7%	1.3%	0.5%	-5.1%	-1.6%
Office & Clerical	0.5%	-5.9%	4.2%	-1.4%	1.2%
Goods & Services	9.5%	-3.7%	1.9%	7.5%	2.1%
Miscellaneous	-7.7%	5.8%	-3.4%	-5.6%	-0.2%

[^] Class Ratemaking for Workers Compensation: NCCI's New Methodology by Tom Daley.

QUALIFICATIONS AND LIMITATIONS

The estimates contained in this report depend upon the following:

- The actuarial assumptions, quantitative analysis, and professional judgment expressed in this report.
- The reliability of loss experience to serve as an indicator of future losses.
- The completeness and accuracy of data provided by NCCI.

Material changes in any of the assumptions or information upon which the findings are based will require a re-evaluation of the results of this report and a possible revision of those findings.

This report is intended for the use of the Tennessee Advisory Council on Workers'

Compensation. If the report is released to any third party, it should be released in its entirety.

Please advise BYNAC if this report is distributed to any other third party.

CONSULTATION

The professional opinion given in this report is based on the judgment and experience of BYNAC. An analysis by another actuary may not arrive at the same conclusion. In the event that another actuary is consulted regarding the findings of this report, both actuaries should make themselves available for supplemental advice and consultation.

TENNESSEE ADVISORY COUNCIL ON WORKERS' COMPENSATION

APPENDIX A

SUPPORT EXHIBITS

**STATE OF TENNESSEE
WORKERS COMPENSATION**

COMPARISON OF 3/1/11 LOSS COST LEVEL CHANGE EXCLUDING AND INCLUDING 8/26/09, 1/1/10, 1/1/11 MEDICAL FEE CHANGES

	Excluding Medical Fee Change [^]	Including Medical Fee Change*		
	<u>Policy Year 2008</u>	<u>Policy Year 2007</u>	<u>Policy Year 2008</u>	<u>Policy Year 2007</u>
Factor Adjusting 2008 Policy Year Medical Losses to Present Benefit Level	1.006		1.105	
Factor Adjusting 2007 Policy Year Medical Losses to Present Benefit Level	0.980		1.078	
	Excluding Medical Fee Change [^]		Including Medical Fee Change*	
	<u>Policy Year 2008</u>	<u>Policy Year 2007</u>	<u>Policy Year 2008</u>	<u>Policy Year 2007</u>
Premium Available for Benefits Costs	590,395,960	603,986,349	590,395,960	603,986,349
Projected Indemnity Cost Ratio including Benefit Changes	0.334	0.346	0.334	0.346
Medical Benefit Cost	275,345,279	309,612,499	275,345,279	309,612,499
Medical On-level Factor	1.006	0.980	1.105	1.078
Factor to Include Loss-based Expenses	1.199	1.199	1.199	1.199
Composite Adjustment Factor	1.206	1.175	1.325	1.293
Adjusted Limited Medical Losses	332,066,406	363,794,686	364,832,495	400,328,961
Adjusted Limited Medical Cost Ratio excluding Trend and Benefits	0.562	0.602	0.618	0.663
Factor to Reflect Medical Trend	1.016	1.021	1.016	1.021
Projected Limited Medical Cost Ratio	0.571	0.615	0.628	0.677
Factor to Adjust Medical Cost Ratio to an Unlimited Basis	1.021	1.021	1.021	1.021
Projected Medical Cost Ratio	0.583	0.628	0.641	0.691
Factor to Reflect Proposed Changes in Medical Benefits	1.000	1.000	1.000	1.000
Projected Medical Cost Ratio including Benefit Changes	0.583	0.628	0.641	0.691
Total Benefit Cost	0.917	0.974	0.975	1.037
Indicated Loss Cost Level Change	0.946		1.006	
Effect of Change in Loss Based Expenses	1.003		1.003	
Indicated Change Modified to Reflect Change in Loss Based Expenses	0.949		1.009	
Overall	-5.1%		0.9%	
3/1/11 Loss Cost Level Change	0.949		1.009	
11/1/11 Loss Cost Level Change	1.063		1.000	
Combined Loss Cost Level Change	1.009		1.009	

[^] From 3/1/11 Voluntary Loss Cost Filing

* Estimated using 11/1/11 Voluntary Loss Cost Filing

TENNESSEE ADVISORY COUNCIL ON WORKERS' COMPENSATION

APPENDIX B

BYNAC QUESTIONS AND RESPONSES FROM NCCI

**Tennessee Voluntary Market Advisory Loss Cost Filings
Proposed to Be Effective 11/1/2011 (Law-Only) and 3/1/2012**

From: Mary Jean King, Consulting Actuary, Tennessee Workers Compensation Advisory Council
Email dated 9/6/11

- Copies of prior loss cost filings effective 3/1/11, 3/1/10, 3/1/09, and 7/1/08 (including technical supplements).
Response: Please see the attached ZIP file that contains PDF copies of the requested filings. Please note that the Technical Supplement files contain proprietary and confidential information.

- Background information concerning why the medical fee schedule changes effective 8/26/09 and 1/1/10 were not included in the 3/1/11 loss cost filing and information concerning any proposed or approved medical fee schedule changes effective after 1/1/11.
Response: At the time NCCI prepared the 3/1/11 loss cost filing, the changes to the Tennessee medical fee schedule effective 8/26/09 had not been communicated to NCCI. At that time, NCCI was aware of several proposed changes to the fee schedule, but was not made aware of the actual changes implemented. Therefore, NCCI was also unable to incorporate the impact of the update to the fee schedule effective 1/1/10 in the 3/1/11 filing.

- Additional technical information concerning the distributions used in estimating the cost impact of the medical fee schedule changes. I am assuming that these are frequency distributions. The distributions shown on pages 3, 7, and 13 are all footnoted as being based on service year 2009 data – is this the only year that is available? What accounts for the changes in the distribution?
Response: Service Year 2009 is the most recent year available. The distributions shown on pages 3, 7, and 13 are based on the number of records (by procedure) times the corresponding maximum allowable reimbursement (MAR) in place prior to the fee schedule change. Since the MARs change with each successive change or update to the fee schedule, the resulting distributions also change.

- Information showing the medical fee schedules prior to 8/26/09 and as of 8/26/09, 1/1/10, and 1/1/11.
Response: The maximum allowable reimbursement under the fee schedule varies by procedure code. Based on our phone conversation this morning, my understanding is that you are not requesting that level of detail at this time. Below is a link to information on the Tennessee medical fee schedule from the TN Department of Labor and Workforce Development. A table on pages 19-20 shows the conversion factors in place in Tennessee for the various time periods. If you need any additional information, please let me know.
http://www.tn.gov/labor-wfd/wc_medfeebook.pdf

**Tennessee Voluntary Market Advisory Loss Cost Filings
Proposed to Be Effective 11/1/2011 (Law-Only) and 3/1/2012**

Interrogatories – Part 1

From: Mary Jean King, Consulting Actuary, Tennessee Workers Compensation Advisory Council

Date Received: 9/8/2011

Date Responded: 9/8/2011

11/1/2011 Law-Only Filing

- 1) Have you examined the sensitivity of the rate change to the 40% Offset assumption? What would be the effect of the 1/1/10 and 1/1/11 changes using offsets of 30% and 50%?**

Response:

The overall impacts are not sensitive to the utilization offset assumption. Using offsets of either 30% or 50%, the impact due to the 1/1/2010 and 1/1/2011 fee schedule updates would be unchanged.

- 2) Why did Physician Costs as a percentage of Medical Costs in Tennessee decrease from 45.4% in the 8/26/09 change to 44.7% in the 1/1/10 change when physician costs increased as a result of the 8/26/09 change?**

Response:

Tennessee physician costs actually represent 48.0% of total medical costs (based on service year 2009 data). We then account for the percentage of physician costs actually subject to the physician fee schedule in Tennessee.

For example, for the 8/26/2009 fee schedule, 94.6% of physician costs were subject to the physician fee schedule. That is, 94.6% of payments to physicians in 2009 resulted from procedures which had a Maximum Allowable Reimbursement (MAR) listed under the 8/26/2009 fee schedule. The remaining 5.4% of physician payments resulted from procedures for which no MAR was listed in the fee schedule. The payments for these procedures are reimbursed at Usual and Customary Charges (UCR), and NCCI assumes that these procedures are not impacted by the 8/26/2009 fee schedule changes. Therefore, physician costs subject to the 8/26/2009 fee schedule are 45.4% ($=48.0\% \times 94.6\%$) of total medical costs in Tennessee.

Similarly, 93.2% of payments to physicians in 2009 resulted from procedures subject to the 1/1/2010 physician fee schedule, so the physician costs subject to the fee schedule are 44.7% ($=48.0\% \times 93.2\%$) of total medical costs.

3/1/2012 Loss Cost Filing

- 1) Were any concerns raised in the NCCI internal data validation process for the data used in this filing?**

Response:

**Tennessee Voluntary Market Advisory Loss Cost Filings
Proposed to Be Effective 11/1/2011 (Law-Only) and 3/1/2012**

Interrogatories – Part 1

Within NCCI, both the Data and Actuarial divisions employ various processes and programs to ensure that data is reported accurately and in accordance with the Workers Compensation Statistical Plan (for data used in the class ratemaking analysis) and the Financial Call Reporting Guidebook (for data used in the aggregate loss cost level indication). The extensive processes used by NCCI to verify data used in the filing include identifying outliers for further scrutiny and modifying the data when appropriate and necessary.

The data contained in the proposed 3/1/2012 Tennessee filing has been carefully edited using actuarial edits and judgment and any significant issues that NCCI has identified within the data have been communicated and confirmed with the data providers in order to make the data fit for use. For the data used in this filing, there currently exist no outstanding concerns of material impact.

- 2) Would it be possible for you to provide standard earned premium , limited paid losses (showing indemnity and medical separately), and limited paid + case losses (indemnity and medical separate) for Policy Years 2005 – 2009 valued as of 12/31/10? (Only the limited paid losses would be needed for Policy Years 2008 and 2009 as the other information is in the filing).**

Response:

The requested data is displayed in the table below. Please note that the premium and limited losses are valued as of 12/31/2010 and are prior to adjustments to bring the data to the ultimate, on-level projected value.

Policy Year	Standard Earned Premium	Limited Paid Losses		Limited Paid + Case Losses	
		Indemnity	Medical	Indemnity	Medical
2005	\$648,451,564	\$159,254,331	\$169,764,517	\$166,692,296	\$209,103,902
2006	\$664,030,353	\$175,908,373	\$169,275,469	\$189,249,710	\$216,607,053
2007	\$695,689,743	\$160,229,803	\$175,652,066	\$185,722,833	\$228,815,005
2008	\$624,137,309	\$115,745,122	\$144,025,902	\$155,462,696	\$194,012,057
2009	\$548,905,804	\$61,842,476	\$117,255,503	\$124,938,422	\$194,086,348

- 3) Were any other methods used to estimate ultimate losses for Policy Years 2008 and 2009? If so, what was the range of these estimates?**

Response:

In this filing in Tennessee, NCCI estimated ultimate losses by developing limited paid losses plus case reserves. This method is consistent with the past several filings NCCI has made in Tennessee, and no other method was used to estimate the ultimate losses in the filing. While limited paid loss experience and development factors are available, it is our determination that

Tennessee Voluntary Market Advisory Loss Cost Filings
Proposed to Be Effective 11/1/2011 (Law-Only) and 3/1/2012
Interrogatories – Part 1

the paid plus case loss development method employed represents our best estimate of ultimate losses.

- 4) It's my understanding that the on level factor weights are based on a countrywide distribution of policy effective dates – is that correct? Why did the 2008 Policy Year weights shown on pages 9 and 10 of the technical supplement change from the weights used in the 3/1/11 filing?**

Response:

The weights used in the on-level factor calculations are based on a Tennessee-specific distribution of premium by policy effective month. NCCI updates the state-specific monthly premium distributions used in our filings periodically (typically, every one to two years) to reflect the latest data available.

- 5) It seems like the Indemnity Likely to Develop and Not Likely to Develop development factors may be converging. Is this something you are seeing countrywide? Is there any concern that the rules being used to separate the losses are not as predictive as was first thought? Can you provide the four development triangles?**

Response is forthcoming.

Tennessee Voluntary Market Advisory Loss Cost Filings
Proposed to Be Effective 11/1/2011 (Law-Only) and 3/1/2012
Interrogatories – Part 2

From: Mary Jean King, Consulting Actuary, Tennessee Workers Compensation Advisory Council

Date Received: 9/8/2011

Date Responded: 9/12/2011

3/1/2012 Loss Cost Filing

- 5) **It seems like the Indemnity Likely to Develop and Not Likely to Develop development factors may be converging. Is this something you are seeing countrywide? Is there any concern that the rules being used to separate the losses are not as predictive as was first thought? Can you provide the four development triangles?**

Response:

We reviewed the indemnity development triangles for other states and found no evidence that would suggest there is a countrywide trend for convergence between the likely and not-likely development factors.

Attached are the likely and not-likely development triangles for the Tennessee 3-1-2012 filing. Note that the Not-Likely 1:2 link ratio for the 6/06-5/07 period and the 2:3 link ratio for the 6/05-5/06 period are both a little higher than what was seen in prior policy periods and the likely 1:2 link ratio for the 6/07-5/08 period is slightly lower than previously seen. However, there is still a significant difference between the likely and not likely development factors that are applied, particularly at early reports.

**LIMITED INDEMNITY LOSS
DEVELOPMENT**

Tennessee

03/01/12

Likely

1st Report Start: 6/1/2008
1st Report End: 5/31/2009

PY Data	1st Report	2nd Report	3rd Report	4th Report	5th Report	6th Report	7th Report
6/95-5/96	0	0	0	0	0	0	0
6/96-5/97	0	0	0	0	0	0	0
6/97-5/98	0	0	0	0	0	0	0
6/98-5/99	0	0	0	0	0	0	0
6/99-5/00	0	0	0	0	0	0	0
6/00-5/01	109,205,896	145,100,691	162,173,584	167,742,233	169,256,462	170,794,753	170,252,802
6/01-5/02	106,212,758	142,705,859	152,971,398	157,992,555	160,258,651	161,509,888	161,175,410
6/02-5/03	103,063,252	137,082,647	149,638,137	156,274,078	158,139,613	158,430,334	159,110,464
6/03-5/04	101,771,488	133,784,559	143,766,519	148,903,844	150,016,068	150,010,967	
6/04-5/05	88,009,317	117,121,510	130,233,735	135,861,182	137,274,569		
6/05-5/06	100,069,910	130,395,916	143,896,568	148,516,865			
6/06-5/07	103,510,837	136,054,307	148,954,507				
6/07-5/08	99,485,823	125,337,597					
6/08-5/09	87,191,408						

Link Ratios	1:2	2:3	3:4	4:5	5:6	6:7
6/95-5/96						
6/96-5/97						
6/97-5/98						
6/98-5/99						
6/99-5/00						
6/00-5/01	1.329	1.118	1.034	1.009	1.009	0.997
6/01-5/02	1.344	1.072	1.033	1.014	1.008	0.998
6/02-5/03	1.330	1.092	1.044	1.012	1.002	1.004
6/03-5/04	1.315	1.075	1.036	1.007	1.000	
6/04-5/05	1.331	1.112	1.043	1.010		
6/05-5/06	1.303	1.104	1.032			
6/06-5/07	1.314	1.095				
6/07-5/08	1.260					

**LIMITED INDEMNITY LOSS
DEVELOPMENT**
Not-Likely

Tennessee

03/01/12

1st Report Start: 6/1/2008
1st Report End: 5/31/2009

PY Data	1st Report	2nd Report	3rd Report	4th Report	5th Report	6th Report	7th Report
6/95-5/96	0	0	0	0	0	0	0
6/96-5/97	0	0	0	0	0	0	0
6/97-5/98	0	0	0	0	0	0	0
6/98-5/99	0	0	0	0	0	0	0
6/99-5/00	0	0	0	0	0	0	0
6/00-5/01	169,133,899	198,520,600	211,321,502	212,413,752	211,236,834	212,159,593	212,459,989
6/01-5/02	156,247,479	186,487,039	196,924,084	200,864,309	202,341,568	203,361,595	203,477,727
6/02-5/03	168,861,042	195,894,011	204,076,064	208,992,896	211,050,260	211,540,323	211,947,708
6/03-5/04	156,193,604	178,513,732	187,871,218	191,504,567	193,654,013	194,097,322	
6/04-5/05	133,984,725	153,438,961	162,372,973	166,632,017	170,077,262		
6/05-5/06	147,875,434	171,185,915	183,585,912	188,271,204			
6/06-5/07	157,215,219	184,878,401	195,647,004				
6/07-5/08	156,303,755	180,699,570					
6/08-5/09	140,617,953						

Link Ratios	1:2	2:3	3:4	4:5	5:6	6:7
6/95-5/96						
6/96-5/97						
6/97-5/98						
6/98-5/99						
6/99-5/00						
6/00-5/01	1.174	1.064	1.005	0.994	1.004	1.001
6/01-5/02	1.194	1.056	1.020	1.007	1.005	1.001
6/02-5/03	1.160	1.042	1.024	1.010	1.002	1.002
6/03-5/04	1.143	1.052	1.019	1.011	1.002	
6/04-5/05	1.145	1.058	1.026	1.021		
6/05-5/06	1.158	1.072	1.026			
6/06-5/07	1.176	1.058				
6/07-5/08	1.156					

Tennessee Voluntary Market Advisory Loss Cost Filings
Proposed to Be Effective 11/1/2011 (Law-Only) and 3/1/2012
Interrogatories – Part 3

From: Mary Jean King, Consulting Actuary, Tennessee Workers Compensation Advisory Council
Date Received: 9/14/2011
Date Responded: 9/15/2011

3/1/2012 Loss Cost Filing

- 1) Are reductions in the Countrywide Accident Year Developed LAE ratios due to less than expected development?**

Response:

Yes, countrywide accident year developed LAE ratios for accident years 2006 through 2009 decreased from last year's analysis primarily due to lower than expected development in the DCCE and AOE ratios to loss.

- 2) What calendar years were used in the Tennessee DCCE relativity? Why not just use the Tennessee data?**

Response:

The Tennessee DCCE relativity was calculated based on calendar years 2006-2010. NCCI's standard method would use the indicated DCCE relativity for Tennessee to adjust the countrywide DCCE ratio. In Tennessee, we are proposing (as we did in last year's filing) to use the countrywide DCCE ratio without the relativity adjustment (or, equivalently, to use a selected relativity of 1.000). The rationale for this selection is related to the 2004 reforms that affected the loss payout pattern, particularly for medical benefits. We have observed increases in the Tennessee relativity every year since the reform until calendar year 2010. Therefore, we have elected to include the countrywide LAE provision in the Tennessee loss costs until the relativity method produces more stable results for Tennessee.

It should also be noted that in many states where NCCI uses this method, the paid DCCE ratio in the state varies more significantly from the countrywide average; that is, the relativity is significantly farther from 1.000 than in Tennessee. In comparison with other states, the Tennessee calendar year paid DCCE to paid loss ratio has been relatively close to the countrywide average (within 0.4% since 2006).

- 3) Is it fair to say that some information presented but not used in past filings has been eliminated from this filing to make the exhibits clearer? This question pertains to the LAE and Trend exhibits.**

Response:

**Tennessee Voluntary Market Advisory Loss Cost Filings
Proposed to Be Effective 11/1/2011 (Law-Only) and 3/1/2012**

Interrogatories – Part 3

Yes, in order to more clearly illustrate how selections were made and calculations performed, NCCI did eliminate some extraneous information from the filing exhibits. Information removed did not factor into the selections made in this year's filing.

- 4) Based on our phone discussion, it is my understanding that sections 3, 4, 5, and 6 of HB 1503 involve rolling back the medical settlement practices enacted in 2004. Couldn't the paid development be used to help measure the effect of HB 1503? Although the effect may not be completely measurable at this time, based on my analysis of the paid data it seems like the enactment of HB 3531 in 2004 had a substantial positive effect on medical costs. Was any consideration given to the HB 1503 changes in the selection of the proposed rate change?**

Response:

The portion of HB 3531 that delayed closure of future medical benefits until at least three years after the settlement of indemnity benefits was effective for injuries occurring on or after July 1, 2004. Policy year 2004 (which is only partially affected by the reform) is six years old as of 12/31/2010. Taking into account the healing period, the time until indemnity benefits are settled (would be case-dependent) and the three-year statutory requirement, it is possible that the paid medical loss data reported for policy year 2004 as of 12/31/2010 still does not include a substantial number of permanent disability claims with future medical expenses closed. Therefore, I would agree that the effect is not completely measurable at this time.

It is also important to note that HB 3531 included many other reform provisions that may have had compounding or offsetting impacts. For example, NCCI estimates that medical costs were reduced by at least 11.5% due to the implementation of the medical fee schedule in 2005. Additionally, the reform implemented mandatory benefit review conferences which may have increased the rate at which benefits are paid out. The many changes included in the reform, as well as the impact of other external factors (e.g. Medicare set-asides) would make it difficult to isolate the impact of the changes to settling future medical expenses.

As stated in Appendix C-II, NCCI is unable to measure the impact of HB 1503, and any resulting impact will flow through the experience that is used in future loss cost filings. The HB 1503 changes to medical settlement rules were considered in our determination that paid plus case loss development best represents our estimate of future ultimate losses. Beyond that, no explicit impact of the law change is reflected in the filing.

- 5) Did you reflect any impact from the economy, health care reform, and Medicare set asides in the filing (this is alluded to in the discussion of HB 1503)? If so, how and if not, why not?**

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There is no explicit impact reflected in the filing for the economy, health care reform, or Medicare set asides. Below is some additional information regarding these topics.

Economy

The state of the economy was considered when selecting loss ratio trends for this filing. NCCI anticipates that although the economic recovery remains sluggish, future job growth and changes in industry mix may place upward pressure on claim frequency. Meanwhile, slow growth in average wages is likely to keep average indemnity costs in check. Conversely, high medical care inflation will continue to put upward pressure on the average medical cost for workers compensation claims.

NCCI's latest *Gauging the Economy* newsletter examines the current state of the economy and the implications for workers compensation insurance. The newsletter can be found on our website at the link below:

https://www.ncci.com/nccimain/IndustryInformation/ResearchOutlook/ResearchNewsletters/Pages/Gauging_Eco_News_Jul-11.aspx

Health Care Reform

NCCI's 2010 report *National Health Care and Workers Compensation* outlines some of the potential direct and indirect effects that health care reform might have for the workers compensation insurance market – as well as some longer term items that the industry will need to keep an eye on. As noted in this report, the overall magnitude and direction of the impacts are not currently measurable, due to the following:

- The details of implementation are not currently known, and may take several years to be enacted
- There are potentially offsetting impacts
- The ultimate impacts depend on behavioral changes and actions by claimants, attorneys, healthcare providers, insurers, and regulators

The full report can be found on our website at the link below:

<https://www.ncci.com/nccimain/industryinformation/regulatoryactivities/pages/nationalhealthandwc.aspx>

Medicare Set-Asides (MSAs)

The future impact of MSAs on workers compensation costs in Tennessee is not measurable because the detailed information regarding MSA amounts and administrative costs is not currently available. To the extent that the losses and historical development pattern used in this filing already include some MSA activity, the filing does implicitly reflect the impact on observed loss experience to this point in time.