

Sunset Public Hearing Questions for
ADVISORY COUNCIL ON WORKERS' COMPENSATION
Created by Section 50-6-121, *Tennessee Code Annotated*
(Sunset Termination June 2020)

1. Provide a brief introduction to the council, including information about its purpose, statutory duties, staff and administrative attachment.

The Advisory Council on Workers' Compensation, created pursuant to T.C.A. § 50-6-121 provides information, research and recommendations concerning workers' compensation issues to the Governor, the Tennessee General Assembly, the Department of Commerce and Insurance, the Department of Labor and Workforce Development (DLWFD), and the Bureau of Workers' Compensation (BWC).

In general, the Advisory Council is authorized to monitor the performance of the workers' compensation system in the implementation of legislative directives, make recommendations relating to the adoption of rules and legislation, and make recommendations regarding the method and form of statistical collections. The Advisory Council reviews the annual advisory prospective loss cost filing by the National Council on Compensation Insurance (NCCI) and provides comment and recommendation concerning the filing to the Commissioner of the Department of Commerce and Insurance. In addition, at the request of the General Assembly, the Advisory Council annually reviews and provides comments and recommendations on proposed workers' compensation legislation.

The Advisory Council on Workers' Compensation was initially created by the General Assembly in 1992. The Workers' Compensation Reform Act of 1996 terminated the existing Advisory Council and created a new Advisory Council on Workers' Compensation. The current Advisory Council is comprised of the State Treasurer who serves as Chair, three (3) voting members who represent employers; three (3) voting members who represent employees; ten (10) nonvoting members; and four (4) ex officio members. The Chair may vote only on matters related to the administration of the Advisory Council or the Council's research; the Chair is not permitted to vote on any matter that constitutes a policy recommendation to the Governor or to the General Assembly.

In addition, the Advisory Council may:

- monitor the performance of the workers' compensation system in the implementation of legislative directives.
- develop evaluations, statistical reports and other information from which the General Assembly may evaluate the impact of the legislative changes to workers' compensation law.

- issue an annual report that includes a summary of significant Supreme Court decisions relating to workers' compensation.
- make recommendations for safe employment education and training regarding the development of employer-sponsored health and safety programs by the DLWFD and the BWC.

Pursuant to T.C.A. § 50-60-121(g), the Advisory Council is attached to the Department of Treasury for all administrative matters relating to receipts, disbursements, expense accounts, budget, audit and other related items. The State Treasurer has administrative and supervisory control over the staff assigned to assist the Council. One staff member acts as Administrator for the Council and is assigned to carry out the duties and responsibilities of the program.

2. Provide a list of current members of the council and explain how membership complies with Section 50-6-121, Tennessee Code Annotated. Please provide information about voting versus non-voting members, terms of appointment, and the appointing authority for each member.

<u>Voting Members:</u>	<u>Term of Appointment</u>	<u>Appointed by:</u>
David H. Lillard, Jr., Chair		Statute
Bob Pitts, Employers	July 1, 2018- June 30, 2022	Governor
Brian Hunt, Employers	Oct. 26, 2016 - June 30, 2020	Senate Speaker
Kerry Dove, Employers	July 1, 2016 - June 30, 2020	House Speaker
Bruce D. Fox, Employees	July 1, 2016 - June 30, 2020	Governor
John M. Garrett, Employees	Feb. 27, 2015 - June 30, 2019	Senate Speaker
Paul Shaffer, Employees	July 1, 2018 - June 30, 2022	House Speaker

<u>Non Voting Members</u>	<u>Term of Appointment</u>	<u>Appointed by</u>
Joy Baker, Local Government	July 1, 2017 - June 30, 2021	Governor
(Vacant due to resignation) Insurance Companies	July 1, 2015 - June 30, 2019	Governor
Samuel E. Murrell III, M. D. TN Medical Association	July 1, 2017 - June 30, 2021	Governor
(Vacant due to resignation) TN Hospital Association	July 1, 2015 - June 30, 2019	Governor
Keith B. Graves, D. C. TN Chiropractor	July 1, 2017 - June 30, 2021	Governor
John Harris, TN Physical Therapist	July 1, 2017 - June 30, 2021	Governor
Sandra Fletchall, TN Occupational Therapist	July 1, 2017- June 30, 2021	Governor
Gregory Ramos, Attorney	July 1, 2017 - June 30, 2021	Governor
Lynn Vo Lawyer, Defense Attorney	July 1, 2015 - June 30, 2019	Governor
Jason Denton, Employee Attorney	July 1, 2015 - June 30, 2019	Governor
Sen. Paul Bailey, Chair Senate Commerce and Labor		Ex-Officio
Rep. Clark Boyd, Chair House Consumer and Human Resources		Ex-Officio
Abbie Hudgens, Administrator, Bureau of Work Comp Troy Haley, Designee, Attorney/Legislative Liaison		Ex-Officio
Commissioner Julie Mix-McPeak, Commerce and Insurance Mike Shinnick, Designee, Workers' Compensation Manager		Ex-Officio

The above membership complies with T.C.A. § 50-6-121. Council staff has informed the Governor's office of the need to replace the insurance company non-voting member position and the Tennessee Hospital Association non-voting member position on the Council and has also communicated with the pertinent

associations entitled to make recommendations for replacements. The next term for both positions is July 1, 2019-June 30, 2023. Additionally, the voting member position currently held by John M. Garrett, representing employees, ends on June 30, 2019. The Lieutenant Governor's office has been notified of the upcoming vacancy. Two non-voting member positions, one held by Lynn Vo Lawyer, representing defense attorneys, and the other held by Jason Denton, representing employee attorneys, also expire on June 30, 2019. The Governor's office has been notified of the upcoming vacancies.

3. Are there any vacancies on the council? If so, please indicate how long the position has been vacant and explain steps that have been taken to fill any vacancies.

There are currently two non-voting member vacancies. One is the position representing insurance companies that was vacated by the resignation of Jerry Mayo in January, 2018. His term was due to expire June 30, 2019. Council staff confirmed Mr. Mayo’s resignation to the Governor’s office but the position remained vacant during the last year of Governor Bill Haslam’s administration, possibly because the recommending insurance groups were in the process of merging and had not yet settled on a nominee. The two insurance groups, Property Casualty Insurers Association of America (PCIAA) and the American Insurance Association (AIA) have now merged into the American Property Casualty Insurance Association (APCIA). On April 23, 2019, APCIA submitted a nominee to Governor Bill Lee’s office.

The second vacancy was created by Pam Smith’s resignation on March 11, 2019. Ms. Smith represented the Tennessee Hospital Association (THA). Governor Lee’s office and THA were immediately contacted by council staff, and THA is in the process of proposing a replacement. Ms. Smith’s term was also due to expire June 30, 2019.

4. How many times did the council meet in Fiscal Year 2018 and to date in Fiscal Year 2019?

The Council met three (3) times in FY2018 and three (3) times in FY2019.

Fiscal Year	Meeting Date	Members Present		
		Voting	Non-Voting	Total
FY2018	Sep. 6	3	7	11
(7/1/17 - 6/30/18)	Oct. 11	4	5	10
	Mar. 1	5	6	12
FY2019	Aug. 27	2*	6	9
(7/1/18 - 6/30/19)	Oct. 11	4	5	10
	Mar. 18	5	6	12

*A physical quorum of four voting members could not be established, so the meeting was designated as informational. Note: A physical quorum is established if the chair and three voting members are physically present.

5. What per diem or travel reimbursement do council members receive? How much was paid to council members during fiscal year 2018 and to date in fiscal year 2019?

Members of the Advisory Council serve without compensation but receive reimbursement for travel expenses in accordance with the travel regulations promulgated by the Department of Finance and Administration.

For fiscal year 2018, the Department of Treasury paid \$716.28 for travel expenses for Council members. For fiscal year 2019, through 4/30/19, the Department of Treasury paid \$423.33 for travel expenses for Council members.

6. What were the council's revenues and expenditures for Fiscal year 2018 and to date in Fiscal Year 2019? Does the council carry a fund balance? If yes, please provide additional relevant information regarding the fund balance.

The Council does not carry a fund balance and derives its funding from an annual State Appropriation. If expenditures exceed the appropriation, the Department of Treasury's budget would be the source of further revenue.

FY 2018

Appropriation: \$216,900

Expenditures: \$212,089

Payroll and benefits (% of Administrator's): \$43,000

Travel (mileage of council members): \$716

Printing, communications, shipping: \$971

Third party professionals (actuary and statistical): \$49,000

Supplies and office furniture: \$239

Unclassified (professional privilege tax): \$400

Training of State Employees: \$375

Computer Related: \$451

Professional services provided by other state agencies: \$2,751

Indirect Costs: \$114,186

FY 2019

Appropriations: \$218,500

Expenditures through 4/30/19: \$177,988

Payroll and benefits (% of Administrator's): \$28,000

Travel (mileage of council members): \$423

Printing, communications, shipping: \$770

Third party professionals (actuary and statistical): \$51,250

Supplies and office furniture: \$565

Training of State Employees: \$696

Computer Related: \$543

Professional services provided by other state agencies: \$1,741

Indirect Costs: \$94,000

- 7. Is the council subject to Sunshine law requirements (Section 8-44-101 et seq., *Tennessee Code Annotated*) for public notice of meetings, prompt and full recording of minutes, and public access to minutes? If so, what procedures does the council have for informing the public of meetings and making minutes available to the public? Does the council allow for public comment at meetings? Is prior notice required for public comment to be heard?**

Yes. The Advisory Council is subject to Sunshine law requirements for public notice of meetings, prompt and full recording of minutes, and public access to minutes. Public notices are electronically posted at the Cordell Hull Building and other state buildings, and are posted on the State of Tennessee's Public Participation Calendar and the Treasury Department's website.

We have solicited interested persons to supply us with their email addresses. We have a list of entities as well as lobbyists to whom we provide such notices and other information as requested. In addition, email notifications including meeting dates, agendas and items to be reviewed or discussed are sent to interested parties for their review prior to our publicly held meetings.

All Council meetings are held in the Cordell Hull Building and are video-streamed on the General Assembly's website, which provides live public access as well as archiving for post-meeting review. Member information, agendas, minutes, presentations and other relevant documents are posted on the Treasury Department's website. The Council allows for public comment at meetings. Prior notice is not required for public comment to be heard.

- 8. Please describe what policies and procedures the council has in place to address potential conflict of interest by council members, staff and employees.**

Council members are encouraged and expected to disclose any potential or actual conflicts of interest that may arise regarding proposed legislation, proposed rules and regulations, actuarial reports, analyst reports, and presentations by lobbyists, attorneys, industry representatives, healthcare representatives, and other presenters.

- 9. Has the council promulgated rules and regulations? If yes, please cite the reference.**

The Council has not promulgated rules and regulations.

- 10. What were the council's major accomplishments during Fiscal Year 2018 and to date in fiscal year 2019? Specifically describe the nature and extent of the council's activities as they relate to the council's advisory role as defined and authorized in Section 50-6-121(f), *Tennessee Code Annotated*.**

In fiscal year 2018, the Council made a recommendation to the Commissioner of the Department of Commerce and Insurance relative to the NCCI loss cost filing.

The Council timely provided House and Senate committees with recommendations on seven (7) bills dealing with workers' compensation issues. The Council produced written reports with respect to those bills to the Committee Chairs of the Senate Commerce and Labor Committee and the House Consumer and Human Resources Committee. Additionally, the Council provided valuable input to the Bureau of Workers' Compensation on proposed rule changes. The Council also provided an annual report of the significant Supreme Court decisions with respect to workers' compensation and an annual report of its activities.

In fiscal year 2019, the Council made a recommendation to the Commissioner of the Department of Commerce and Insurance relative to the NCCI loss cost filing. The Council provided House and Senate committees with recommendations on two (2) bills dealing with workers' compensation issues. The Council produced written reports with respect to those bills to the Committee Chairs of the Senate Commerce and Labor Committee and the House Consumer and Human Resources Committee and Subcommittee. It provided an annual report of the significant Supreme Court decisions with respect to workers' compensation and will provide an annual report of its activities.

11. How many bills were reviewed at the request of the standing committees of the General Assembly, as authorized at Section 50-6-121(k), *Tennessee Code Annotated*, during fiscal year 2018 and to date in fiscal year 2019.

Seven (7) bills were reviewed at the request of Standing Committees in fiscal year 2018, along with Proposed Rules by the Bureau of Workers' Compensation (BWC). The Advisory Council produced written reports on the seven (7) bills that advanced to final recommendation stage (others were withdrawn, combined, amended or sent for summer study) to the Committee Chairs of the Senate Commerce and Labor Committee and the House Consumer and Human Resources Committee, and a report to the BWC on the proposed rules.

Two (2) bills were reviewed at the request of Standing Committees in fiscal year 2019. The Advisory Council produced written reports on the two (2) bills that advanced to final recommendation stage (others were withdrawn, combined, amended or sent for summer study) to the Committee Chairs of the Senate Commerce and Labor Committee and the House Consumer and Human Resources Committee.

12. What reports does the council prepare concerning its activities, operations, and accomplishments? Who receives copies of these reports? Please provide a link to any such reports issued in Fiscal Year 2018 and to date in Fiscal Year 2019.

Pursuant to T.C.A. §§ 50-6-121(e) and (l), the Council prepared an annual report of its activities on July 1, 2018 and will do so again on July 1, 2019. A copy of the FY 2018 annual report is attached as Exhibit #1. Attached as Exhibit #2 are copies of the annual reports of significant Supreme Court decisions relating to

workers' compensation produced January 15, 2018, and January 15, 2019, as required by T.C.A. §50-6-121(i).

Summary reports required by T.C.A. §50-6-121(j) include the Council's recommendations on the bills reviewed along with individual Council member comments during the meetings and are submitted to the Senate and House Committee Chairs and members as soon as possible following meetings. The reports are attached for your review as Exhibit #3. Summaries for each bill the Council is asked to review are provided to the council members prior to their meetings and include the status of the law as it presently exists, newly proposed language, the fiscal note (if available) and its potential effects. These meeting materials are also sent to interested parties on the Council's email list in advance of the meetings in which they are to be discussed.

Through contracting with actuarial and statistical vendors, additional reports are generated for use by the Council and General Assembly annually. These include the actuarial review of NCCI's annual experience filing, actuarial reviews of any NCCI law-only filings, both attached as Exhibit #4; an annual analysis by the Council's statistician of data from the Bureau of Workers' Compensation, Exhibit #5;; and an annual Overview of the Tennessee Workers' Compensation Market Conditions and Environment from the Tennessee Department of Commerce and Insurance, Exhibit #6. These reports are disseminated to Council Members, Committee Chairs of Senate Commerce and Labor Committee and the House Consumer and Human Resources Committee and Subcommittee, as well as the House and Senate Clerks and members of the General Assembly pursuant to T.C.A. §3-1-114.

The recommendations from the Council to the Commissioner of Commerce and Insurance with respect to the NCCI rate filings are in letter form to the Commissioner, attached as Exhibit #7, and are copied to the members of the Advisory Council and the interested parties' list. All of the referenced reports are located on the Treasury Department's website as well.

13. Please describe any items related to the council that require legislative attention and your proposed legislative changes.

There are no items related to the council that require legislative attention.

14. Should the council be continued? To what extent and in what ways would the absence of the council affect the public health, safety, or welfare of the citizens of Tennessee?

Yes. The Advisory Council on Workers' Compensation functions in an advisory capacity and serves many, including the Governor, the General Assembly, the Bureau of Workers' Compensation and the Department of Commerce and

Insurance. It supports the General Assembly by providing recommendations on workers' compensation issues and proposed legislation, including the impact on existing law and policy. Because the Advisory Council membership includes representatives from employers, employees, and the medical, legal, governmental and insurance communities, the in-depth review and discussion of the merits of legislation from all viewpoints is very helpful.

Voting members of the Council are knowledgeable in the area of workers' compensation. One of the Council's key functions is to hear testimony from lobbyists, industry groups and reports from other State Departments, such as the Department of Commerce and Insurance and the Bureau of Workers' Compensation, to hear presentations by the National Council on Compensation Insurance (NCCI) relative to projected costs of administering workers' compensation claims for future years, and to engage in in-depth debate regarding each bill referred for consideration. The Council's legislation review is useful to members of the General Assembly who would otherwise be required to perform this process in Committees already overburdened with extensive issues to consider. Therefore, the Council's reports constitute a valuable resource to members of the General Assembly in their consideration of workers' compensation issues. The non-voting members all represent stakeholders in the workers' compensation process, and their knowledge of the impact of the possible changes in the law to their respective fields is helpful in considering recommendations.

EXHIBIT 1

Tennessee Advisory Council On Workers' Compensation

treasury.tn.gov/claims/wcadvisory.html



Annual Report for
July 1, 2017 - June 30, 2018

State of Tennessee
Treasury Department
State Capitol
Nashville, Tennessee 37243-0225

David H. Lillard, Jr., State Treasurer, Chair

Larry Scroggs, Administrator

**STATE OF TENNESSEE
ADVISORY COUNCIL ON WORKERS' COMPENSATION
ANNUAL REPORT
JULY 1, 2017 - JUNE 30, 2018**

Pursuant to *Tennessee Code Annotated*, Section 50-6-12l (e), the Advisory Council on Workers' Compensation hereby submits its annual report for July 1, 2017 through June 30, 2018, including statistical reports and Tennessee workers' compensation data.

TABLE OF CONTENTS

Statutory Duties and Responsibilities of the Advisory Council	1
Advisory Council Members and Terms	2
Activities of the Advisory Council	5
Summary of Meetings	5
September 6, 2017	5
October 11, 2017	6
March 1, 2018	7
Case Law Update	10
Tristar Centennial Medical Center v. Dana C. Pugh	10
Billy W. Tankersley v. Batesville Casket Company, Inc. et al.	11
Michael Mayuric v. Huff & Puff Trucking, Inc. et al.	12
TOSHA News	13
Conclusion	14

STATUTORY DUTIES AND RESPONSIBILITIES OF THE TENNESSEE ADVISORY COUNCIL ON WORKERS' COMPENSATION

The Advisory Council on Workers' Compensation (the "Advisory Council" or "Council") was initially created by the General Assembly in 1992. The Workers' Compensation Reform Act of 1996 terminated the then existing Council and created a new Advisory Council on Workers' Compensation. Subsequent amendments, including those in the Reform Acts of 2004 and 2013 (Chapter Numbers 282 and 289 of the Public Acts of 2013), are recorded at *Tennessee Code Annotated* ("T.C.A."), Section 50-6-121, which outlines the authority of the Council, its specific responsibilities and its general duties. The administration of the Council was transferred from the Tennessee Department of Labor and Workforce Development to the Tennessee Department of Treasury pursuant to Chapter Number 1087 of the Public Acts of 2010, and the Council's existence was extended to June 30, 2016 pursuant to Chapter Number 622 of the Public Acts of 2012. Chapter Number 608 of the Public Acts of 2016 extended the Council's existence to June 30, 2020. The Council is authorized to:

- Make recommendations to the Governor, the General Assembly, the Senate Commerce and Labor Committee, the House Consumer and Human Resources Committee, the Administrator of the Bureau of Workers' Compensation and the Commissioner of Commerce and Insurance relating to the promulgation or adoption of legislation or rules;
- Make recommendations to the Administrator of the Bureau of Workers' Compensation and the Commissioner of Commerce and Insurance regarding the method and form of statistical data collection; and
- Monitor the performance of the workers' compensation system in the implementation of legislative directives and develop evaluations, statistical reports and other information from which the General Assembly may evaluate the impact of legislative changes to workers' compensation law.

Further responsibilities of the Advisory Council are provided in T.C.A., Titles 50 and 56. These provisions, among other things, direct the Council to provide the Commissioner of Commerce and Insurance with a recommendation regarding advisory prospective loss cost filings made by the National Council on Compensation Insurance, Inc. ("NCCI"), the authorized Tennessee rating bureau.

ADVISORY COUNCIL MEMBERS AND TERMS

The current Advisory Council is composed of seven voting members, ten non-voting members and four ex-officio members. The State Treasurer is the Chair and a voting member. Three voting members represent employers, and three voting members represent employees. The non-voting members represent local government, insurance companies, medical organizations, hospital organizations, chiropractors, physical and occupational therapists and attorneys, all in Tennessee. The Chair may vote only on matters related to the administration of the Council or its research; the Chair is not permitted to vote on any matter that constitutes the making of a policy recommendation to the Governor or to the General Assembly.

Appointments to the Council are made by the Governor, Speaker of the Senate and Speaker of the House pursuant to T.C.A. § 50-6-121 (a)(1)(C). They respectively appoint one employer and one employee voting member each, and the Governor appoints the additional ten non-voting Council members. The Governor may choose to appoint from lists of suggested nominees provided by interested organizations as outlined in T.C.A. § 50-6-121(a)(1)(E)(i-ii).

Effective July 1, 2017, Governor Bill Haslam re-appointed non-voting members Gregg Ramos, John Harris, Sandra Fletchall, Dr. Sam Murrell, and Dr. Keith Graves to new terms ending June 30, 2021. Governor Haslam also appointed Joy Baker as a non-voting member to a term ending June 30, 2021. Ms. Baker replaces John Burleson as a representative of local governments. Mr. Burleson's service is greatly appreciated. Jerry Mayo, a non-voting member representing insurance companies, resigned effective January 1, 2018, after faithfully serving as a Council member since 1996. His service is also greatly appreciated.

Two voting members, Bob Pitts (representing employers) and Paul Shaffer (representing employees), will complete their current terms on June 30, 2018. However both Mr. Pitts and Mr. Shaffer are being reappointed to new four-year terms ending June 30, 2022. Governor Haslam is reappointing Mr. Pitts. House Speaker Beth Harwell is reappointing Mr. Shaffer. Their dedicated service as voting members of the Council has been invaluable and is greatly appreciated.

A chart outlining the members of the Advisory Council on Workers' Compensation as of June 30, 2018 is on the following page:

MEMBERS OF THE ADVISORY COUNCIL

NAME	MEMBER TYPE	REPRESENTING
David H. Lillard, Jr. State Treasurer	Chairman Administrative Voting Member	State Treasurer Ex-Officio Member
Kerry Dove	Voting Member	Employers
Bruce D. Fox	Voting Member	Employees
John M. Garrett	Voting Member	Employees
Brian Hunt	Voting Member	Employers
Bob Pitts	Voting Member	Employers
Paul Shaffer	Voting Member	Employees
Joy Baker	Non-Voting	Local Governments
Jerry Mayo (resigned 1/1/18)	Non-Voting	Insurance Companies
Samuel E. Murrell, III, M.D.	Non-Voting Member	Health Care Providers: TN Medical Association
Pam Smith	Non-Voting Member	Health Care Providers: TN Hospital Association
Keith B. Graves, D.C.	Non-Voting Member	Health Care Providers: Licensed TN Chiropractor
John Harris	Non-Voting Member	Health Care Providers: Licensed TN Physical Therapist
Sandra Fletchall	Non-Voting Member	Health Care Providers: Licensed TN Occupational
Jason Denton	Non-Voting Member	Attorney: TN Association for Justice
Lynn Vo Lawyer	Non-Voting Member	Attorney: TN Defense Lawyers
A. Gregory Ramos	Non-Voting Member	Attorney: TN Bar Association
Senator Jack Johnson, Chairman	Ex-Officio Non-Voting	Senate Commerce and Labor Committee
Representative Jimmy Eldridge, Chairman	Ex-Officio Non-Voting	House Consumer and Human Resources Committee
Abbie Hudgens, Administrator Troy Haley, Designee	Ex-Officio Non-Voting	TN Bureau of Workers' Compensation
Commissioner Julie Mix-McPeak Designee, Mike R. Shinnick	Ex-Officio Non-Voting	TN Department of Commerce and Insurance

TERMS OF THE NON-EX-OFFICIO MEMBERS

Voting	Term of Position
Kerry Dove	July 1, 2016 - June 30, 2020
Bruce D. Fox	July 1, 2016 - June 30, 2020
John M. Garrett	February 27, 2015 - June 30, 2019
Bob Pitts	July 1, 2018 - June 30, 2022
Brian Hunt	October 26, 2016 - June 30, 2020
Paul Shaffer	July 1, 2018 - June 30, 2022
Non-Voting	Term of Position
Joy Baker	July 1, 2017 - June 30, 2021
Pam Smith	July 1, 2015 - June 30, 2019
Sandra Fletchall	July 1, 2017 - June 30, 2021
Keith B. Graves	July 1, 2017 - June 30, 2021
John Harris	July 1, 2017 - June 30, 2021
Lynn Vo Lawyer	July 1, 2015 - June 30, 2019
Jerry Mayo (resigned)	July 1, 2015 - June 30, 2019
Samuel E. Murrell, III, M.D.	July 1, 2017 - June 30, 2021
A. Gregory Ramos	July 1, 2017 - June 30, 2021
Jason Denton	July 1, 2015 - June 30, 2019

ACTIVITIES OF THE ADVISORY COUNCIL

The Advisory Council is required by statute to meet at least two times per year. During the July 1, 2017 through June 30, 2018 Council year, the Advisory Council met on three occasions. Meetings were held September 6, 2017, October 11, 2017, and March 1, 2018. Approved meeting minutes may be viewed at the Advisory Council's website treasury.tn.gov/claims/wcadvisory.html under the "Meetings" tab. The agenda and video of each meeting are also available at the same location.

Summary of Meetings

The three Advisory Council meetings between July 1, 2017 and June 30, 2018 were devoted to receiving reports from consultants, reviewing proposed legislation and procuring information from documentation and presentations. The primary sources of pertinent information were citizens, legislators, other state officials, and representatives of business and professional entities essential to the fair, efficient and effective administration of Tennessee's workers' compensation system. A brief meeting synopsis describes the Advisory Council's activity.

Meeting on September 6, 2017

Chairman David Lillard called the meeting to order and welcomed new Council member, **Joy Baker**, Director of Risk Management for the City of Johnson City, Tennessee. Council member Baker will serve as a non-voting member and representative of local governments. She was appointed by **Governor Bill Haslam**.

The Chairman explained that several agenda items related to actuarial and analytical reports.

Council ex officio member Mike Shinnick, Workers' Compensation Manager of the Department of Commerce and Insurance ("DCI"), presented *An Overview of Tennessee Workers' Compensation Market Conditions and Environment*. Mr. Shinnick provided members copies of his PowerPoint presentation, which may be viewed at <http://treasury.tn.gov/claims/wcac/Overview-Tennessee-Workers-Compensation-Market-Conditions-Environment.pdf>

David Wilstermann, analyst and consultant to the Advisory Council, presented a statistical analysis of workers' compensation data collected and compiled for calendar years 2009-2016 by the Tennessee Department of Labor and Workforce Development ("TDLWFD"). Mr. Wilstermann also provided members with copies of his power point presentation and full report. The power point may be viewed at <http://treasury.tn.gov/claims/wcac/Tennessee-Workers-Compensation-Data-2016.pdf> and the full report is at <http://treasury.tn.gov/claims/wcac/TN-Workers-Comp-Data-2009-2016.pdf>

Eddie Herrera, Director of Plan Administration for the National Council of Compensation Insurance ("NCCI") presented the *Workers' Compensation Residual Market Administration Plan Report*. Mr. Herrera's presentation was made available to members and may be viewed at treasury.tn.gov/claims/wcac/Tennessee-Workers-Compensation-Residual-Market-Administration.pdf

Ann Marie Smith, actuary of NCCI, presented, via telephone conference, an Overview of the *Voluntary Loss Cost and Assigned Risk Rate Filing* proposed to be effective March 1, 2018. **Amy Quinn** of NCCI, who

was present, assisted. Ms. Smith's overview was provided to members and may be viewed at treasury.tn.gov/claims/wcac/Voluntary-Loss-Cost-Assigned-Risk-Rate-Filing.pdf

Following the presentations, Council members discussed whether a workers' compensation "crisis" ever existed in Tennessee and whether the *2013 Workers' Compensation Reform Act* was necessary. Council member **Gregg Ramos** raised the issue and stated that based on the presentations, the workers' compensation insurance market had remained strong for several years dating back to 2012.

"Medical costs and indemnity were going down and stabilizing (under the 2004 Act). I agree certain fixes were necessary and had a positive impact, but contrary to objective evidence, we went overboard. Throwing out the old system created the biggest bureaucracy that Tennessee has now. The reforms were done on the backs of working men and women."

Council member **Bob Pitts** responded that in his experience over 25 or 30 years there had been "times of real trauma with workers' compensation." "Just about every year there have been adjustments made in the General Assembly that have had a positive impact, before and including the (2013 Reform Act), but to conclude that "just because insurance companies didn't lose money did not mean reforms were unnecessary." Mr. Pitts also said part of the effort behind the 2013 Reform Act was to bring Tennessee in line with the cost of workers' compensation in other southeastern states. "We were anti-competitive and it was killing us in economic recruitment."

The Chairman next recognized **Troy Haley** of the Bureau of Workers' Compensation ("BWC") for an explanation of a proposed new Statistical Data form (SD-2). Mr. Haley asked the Council members to review the proposed form and respond within two weeks with any suggestions, comments and concerns.

The Chairman thanked each presenter and invited the Council members to review all presentations and documents in preparation for making a formal recommendation to the Commissioner of the Department of Commerce & Insurance relative to the Voluntary Loss Cost Filing at the next scheduled meeting of the Advisory Council on October 11, 2017.

Meeting on October 11, 2017

Upon convening the meeting, the **Chair, Assistant Treasurer Christy Allen** informed the Council members that **Treasurer David Lillard** had a conflicting commitment and as his designee she would be chairing the meeting. The Chair noted that at the previous meeting on September 6, 2017, representatives of the National Council on Compensation Insurance (NCCI) presented an overview of the Voluntary Loss Cost and Assigned Risk Rate Filing proposed to be effective March 1, 2018. Documentation was made available to members present at the September 6, 2017 meeting, and was also distributed to members subsequent to the meeting.

The Chair called upon **Mary Jean King**, representing the Advisory Council's actuary, *By the Numbers Actuarial Consulting, Inc.* ("BYNAC"). Ms. King presented an actuarial review of the Tennessee Voluntary Loss Cost Filing by the National Council on Compensation Insurance ("NCCI"). BYNAC's power point presentation may be viewed at the Advisory Council's website at treasury.tn.gov/claims/wcac/bynac-presentation-tacwc.pdf. Ms. King indicated the NCCI proposed decrease of -12.6% for the Tennessee voluntary workers' compensation insurance market had been reasonably calculated in accordance with actuarial standards of practice, considering the two-year period relied upon by NCCI in its projected decrease. Ms. King stated that BYNAC reviewed paid as well as paid+ case development and experience for policy years 2012 and 2013 in addition to the 2014 and 2015 policy years underlying the filing in order to test the assumptions of NCCI in

selecting the data and development methods for its review. Ms. King said she preferred a longer experience period of four years. Using years 2012-2015, BYNAC's experience indication for the voluntary market loss cost level is -8.1%, compared to NCCI's -12.6%. BYNAC's actuarial report may be viewed at <http://treasury.tn.gov/claims/wcac/tacwc-bynac-review-3-1-18-ncci-filing-issued-10-2-17.pdf>

The Chair then recognized **Chris Burkhalter**, the actuary for the Department of Commerce and Insurance ("DC&I"). Mr. Burkhalter, representing *Bickerstaff, Whatley, Ryan & Burkhalter Consulting Actuaries* ("BWRB"), also presented an analysis of the NCCI voluntary market loss cost filing. After pointing out that there had been an actual 21% decrease in loss cost in Tennessee over a four-year period, the DC&I actuary stated he had no objection to the adoption of the loss cost filing as proposed. Mr. Burkhalter noted that BWRB had used a longer experience period of five years in arriving at its own overall indication of an -8.7% loss cost decrease. BWRB's full actuarial report may be viewed at http://treasury.tn.gov/claims/wcac/TN-NCCI-Rate-Analysis-2018_03_01-BWRB-Analysis.pdf

The Chair then recognized **Ms. Ann Marie Smith**, the *National Council on Compensation Insurance* ("NCCI") actuary, for comment and response to the actuaries' presentations relative to the Voluntary Loss Cost and Assigned Risk Rate Law-Only filing proposed to be effective March 1, 2018. The NCCI power point presentation may be viewed at the following link: <http://treasury.tn.gov/claims/wcac/ACWC-Hearing-3-1-18-filing.pdf>

Following discussion, Council member **Bob Pitts** moved that the Advisory Council formally notify DC&I **Commissioner Julie Mix-McPeak** that the NCCI loss cost filing proposed to be effective March 1, 2018 was viewed **favorably** by the Council and should be adopted. Council member **Bruce Fox** seconded the motion. The four voting members in attendance voted unanimously to approve the motion.

Note: On October 13, 2017, Chairman Lillard sent a letter to Commissioner McPeak informing her of the Advisory Council's concurrence with the proposed increase in the assigned risk plan loss cost multiplier (LCM).¹

Meeting on March 1, 2018

Upon convening the meeting, **Chairman David Lillard** noted the primary purpose was for the Advisory Council to fulfill its statutory duty to consider and make recommendations on proposed legislation introduced in the Second Session of the 110th General Assembly affecting the workers' compensation system. The Chairman indicated eight bills had been referred to the Council by the Senate Commerce and Labor Committee and the House Consumer and Human Resources Committee, and that the Council's recommendations would be reported to the respective committees in accordance with T.C.A. § 50-6-121(k).

The Chair called upon **Kathleen Murphy**, representing *Tennessee Professional Firefighters Association*, for a presentation on **HB1491/SB1798 (Reedy-Ketron)** which creates a rebuttable presumption that any of 10 specific types of a cancer diagnosed in a firefighter that causes a disabling health condition is a result of the firefighter's duties. During the presentation and ensuing discussion, Council member **Pitts** expressed reservations about creating a presumption that would apply to a particular class of individuals that could open the door to similar requests by other public servants who also perform under difficult and potentially hazardous conditions. Council member **Joy Baker** noted the presumption would be a departure from the causation standard established by the *Workers' Compensation Reform Act of 2013*, and she also questioned the fiscal impact of the proposal on local governments as well as the state workers'

¹ A copy of Chairman Lillard's 10/13/17 letter to Commissioner McPeak is posted on the Advisory Council's website.

compensation system. After discussion Council member **Fox**, seconded by Council member **Paul Shaffer**, moved the legislative proposal be given a favorable recommendation for passage. The motion failed 2-3. Council member **Pitts**, seconded by Council member **Kerry Dove**, that the proposal be given an **unfavorable recommendation**. The **motion was approved** on a 3-2 vote. (**Note:** The General Assembly deferred action on this bill until 2018)

The Chair recognized **Troy Haley**, legislative liaison for the BWC, for comments on **SB1615/HB1714 (Johnson-Lynn)**. BWC Administrator **Abbie Hudgens**, an *Ex Officio* member of the Council, was also present. The proposed legislation removes the requirement that every insurer providing workers' compensation insurance in Tennessee be required to maintain a claims office or contract with a claims adjuster located in the state. Both Mr. Haley and BWC Administrator Hudgens noted there was general consensus the bill would be helpful and was agreeable to all interested parties. On motion by Council member **Pitts**, seconded by Council member **Brian Hunt**, the bill was given a **favorable recommendation for passage** on a 5-0 vote. (**Note:** The legislation became Public Chapter 709)

The Chair recognized **Rep. Curtis Halford** on **HB2105/SB2142 (Halford-Gresham)**. The proposed legislation would allow farm and agricultural employers to accept the workers' compensation chapter by purchasing a workers' compensation insurance policy and would also allow the employers to withdraw acceptance at any time by canceling or not renewing the policy and providing notice to their employees. Following discussion, Council member **Pitts**, seconded by Council member **Fox**, moved that the bill be given a **favorable recommendation for passage**. The motion was approved 5-0. (**Note:** The legislation became Public Chapter 629)

With permission of the **Chair**, Council member **Fox** presented **SB2475/HB2304 (Roberts-Beck)**. The proposed legislation amends T. C. A. § 50-6-226 (d)(1)(B). Mr. Fox explained he had been working with the sponsors and other interested parties on the bill. The termination date on recovery of attorneys' fees and other costs would be removed when a judge finds at an expedited or a compensation hearing that certain workers' compensation benefits were in fact owed and denial was wrongful although an employer had timely filed a notice of denial of a claim. Council member **Fox's** presentation was based on an amendment with drafting code No. 013698. As discussion ensued it became apparent there was some disagreement whether the amendment addressed all pending issues. The Chair asked Council member **Fox, Bradley Jackson** of the *Tennessee Chamber of Commerce & Industry*, and other interested parties to attempt to resolve any differences during a recess. Upon reconvening, Council member **Fox** stated an oral agreement had been reached on an amendment (later reduced to writing in amendment with drafting code No. 014188), providing that "wrongful" means erroneous, incorrect, or otherwise inconsistent with the law or facts. The sunset provision would be extended two years, or until June 30, 2020. Council member **Pitts**, seconded by Council member **Fox**, that the legislation, as amended, be given a **favorable recommendation for passage**. On that basis the Council members **approved** the motion 5-0. (**Note:** The legislation became Public Chapter 757)

No sponsor or other presenter appeared to explain the scope of **SB2544/HB2333 (Tate-Cooper)**, a proposed bill aimed at preventing retaliatory discharge by an employer or another person for conduct related to filing a workers' compensation action. Upon motion by Council member **Pitts**, seconded by Council member **Dove**, that the proposal be given an **unfavorable recommendation**, the motion was approved 3-2. (**Note:** The General Assembly deferred action on this bill.)

A similar measure relative to retaliatory discharge, **SB2543/HB2411 (Tate-Thompson)**, prescribed that certain damages be available to prevailing plaintiffs. In the absence of a sponsor or other representative, the **Chair** asked **David Broemel**, a well-respected insurance regulatory attorney, for

comment. Mr. Broemel cited existing Tennessee case law, specifically the decision in *Clanton v. Cain-Sloane Co.*, 677 S.W.2d 441 (Tenn. 1984), in which the Tennessee Supreme Court first recognized a cause of action for retaliatory discharge, and a right to seek punitive damages in lawsuits to follow. (Punitive damages were not allowed for the plaintiff in *Cain-Sloane* since it was a case of first impression.) Mr. Broemel was asked by Council members **Fox** and **Gregg Ramos** if enactment of the proposed bill would effectively codify and enhance the holding in *Cain-Sloane*. Mr. Broemel responded that in his opinion existing case law was sufficient and the bill was unnecessary. Council member **Pitts**, seconded by Council member **Hunt**, moved that the bill be given an **unfavorable recommendation**. The motion was approved 3-2. (**Note:** The General Assembly deferred action on this bill.)

The **Chair** recognized **Rep. Pat Marsh** on **HB1978/SB1967 (Marsh-Watson)**, a proposed bill providing that a marketplace contractor who acts as a broker or representative of a customer seeking services from a marketplace platform such as Amazon is an independent contractor. **Rep. Marsh** based his presentation on an amendment with drafting code No. 013964. He explained the need to clarify that a marketplace contractor was an independent contractor, not an employee of the marketplace platform. Council member **Pitts**, seconded by Council member **Hunt**, moved that the proposed legislation as incorporated in the amendment be given a **favorable recommendation for passage**. The motion was approved 5-0. (**Note:** The legislation became Public Chapter 648.)

In the absence of a sponsor or other presenter, the **Chair** recognized **Troy Haley** of the Bureau of Workers' Compensation ("BWC"), to comment on **SB2088/HB2392 (Kyle-Miller)**. The proposed legislation rewrites the *Healthy Workplace Act of 2014* (T. C. A. § 50-6-501 et seq.) to designate certain acts of harassment, intimidation, or bullying as unlawful employment practices and to require employers to adopt policies prohibiting those acts. It gives the Commissioner of Labor & Workplace Development the same authority as the Administrator of the BWC under T. C. A. § 50-6-128 to assess a \$500 penalty against employers who cause compensable workers' compensation claims to be paid by health insurance or who fail to provide necessary treatment. Council member **Pitts** stated the comprehensive nature of the bill warranted further study. He moved, seconded by Council member **Dove**, that the proposal be given **no recommendation** with the hope the respective legislative committees would study the measure after the current Session. The motion was approved 5-0. (**Note:** The General Assembly deferred action on this bill.)

At the conclusion of the meeting the Chair announced the actions of the Advisory Council relative to the foregoing proposed legislation would be transmitted to the Senate Commerce and Labor Committee and the House Consumer and Human Resources Committee.²

² The Advisory Council submitted its report concerning its action on the proposed legislation to the respective House and Senate Committees on March 5, 2018.

TENNESSEE CASE LAW UPDATE

Throughout the year, the Advisory Council followed the Tennessee Supreme Court, reviewing its decisions and suggestions regarding the need for specific changes in the law.

An annual case law update of the 2017 calendar year from the Tennessee Supreme Court, including select cases from the Tennessee Supreme Court Workers' Compensation Panel, was submitted by the Advisory Council to the General Assembly in January of 2018.

Appeals of trial court decisions in cases involving workers' compensation are referred directly to the Supreme Court's Special Workers' Compensation Appeals Panel ("Panel") for hearings. The Panel gives considerable deference to a trial court's decision with respect to credibility of witnesses since the lower court has the opportunity to observe them testify. The Panel reports its findings of fact and conclusions of law and such judgments automatically become the judgment of the full Tennessee Supreme Court 30 days thereafter, barring the grant of a motion for review. Tennessee Supreme Court Rule 51 and T.C.A. § 50-6-225(a)(1).

Three recent cases in which the Tennessee Supreme Court ("Court") adopted and affirmed Memorandum Opinions of the Special Workers' Compensation Appeals Panel illustrate the type of issues that are currently being considered by the Court. A brief synopsis and link to the full opinions follow:

TriStar Centennial Medical Center v. Dana C. Pugh

No. M2016-02470-SC-R3-WC, filed February 15, 2018

The employee and the employer settled a claim for a compensable back injury to the employee after participating in and failing to resolve their dispute at a Benefit Review Conference (BRC). Later the employee filed a motion to compel the employer to approve a back surgery procedure recommended by her authorized physician and for attorney's fees. The employer approved the back surgery after another physician reviewed the employee's medical records. The employee subsequently reset her motion and the trial court awarded her attorney's fees. The employer's appeal was referred to the Special Workers' Compensation Appeals Panel for a hearing and a report of findings of fact and conclusions of law. The Panel concluded the trial court did not have jurisdiction, vacated the judgment and dismissed the case.

The issue presented on appeal was whether the Circuit Court of Davidson County had subject matter jurisdiction over the case. The point under consideration was whether the BRC that reached an impasse on June 22, 2015 was sufficient to provide the trial court with subject matter jurisdiction over an issue that arose after the BRC. The Panel held the BRC, which could not have involved any mediation on the employee's request for back surgery, was an insufficient exhaustion of the BRC process, and that the trial court therefore lacked subject matter jurisdiction. The Panel cited *Robertson v. Roadway Express, Inc.*, No. E2011-01384-WC-R3-WC, 2013, WL 2054170, at *3 (Tenn. Workers' Comp. Panel June 8, 2012) (quoting *Staats v. McKinnon*, 206 W.W.3d 532, 542 (Tenn. App. 2006), which stated, "[i]t is a settled rule that where a statute provides an administrative remedy, such remedy must first be exhausted before the courts will act."

The scope of the required BRC is outlined in T. C. A. § 50-6-239(b) (2008) (applicable to injuries occurring prior to July 1, 2014), which reads:

(a) In all cases in which the parties have any issues in dispute, whether the issues are related to

medical benefits, temporary total disability benefits, or issues related to the final resolution of a matter, the parties shall request the department to hold a benefit review conference.

- (b) The parties to a dispute shall attend and participate in a benefit review conference that addresses all issues related to a final resolution of the matter as a condition precedent to filing a complaint with a court of competent jurisdiction . . .

It was undisputed that the BRC was held on June 22, 2015 and that no additional BRC was held before the employee's motion to compel was filed March 18, 2016. The Panel noted the back surgery issue did not exist at the time of the BRC, and was therefore incapable of being addressed then. The trial court would only have subject matter jurisdiction "if the BRC was sufficient to satisfy T. C. A. § 50-6-203 for the subsequent medical issues which have arisen."

In *Robertson* the Supreme Court had held that since a BRC was not requested, the BRC process was never exhausted, thus the trial court lacked subject matter jurisdiction. Similarly, in *Holland Group v. Southerland*, 2009 WL 1099275, the Supreme Court affirmed the trial court's judgment that it lacked subject matter jurisdiction because "[t]he law is clear that '[o]nly when the parties cannot reach an agreement at the benefit review conference may they proceed to court.'" A BRC process was never initiated in *Holland*. The Panel concluded that a BRC held on some issues does not satisfy the exhaustion requirement for other issues before the court that are not presented at the BRC.

[**Note:** The Panel explained that the issue in the case was limited to pre-2014 amendments, in that the current version of T. C. A. § 50-6-203(a) requires a mediator to issue a dispute certification notice certifying issues in dispute before a request can be filed for a hearing before a workers' compensation judge.]

The opinion may be accessed at

http://www.tncourts.gov/sites/default/files/tristarcentennialmedicalv.pugh_opnjo_.pdf

Billy W. Tankersley v. Batesville Casket Company, Inc., et al.

No. M2016-02389-SC-R3-WC, Filed January 26, 2018

A 37-year employee sustained right shoulder and arm injuries on December 20, 2012, and ultimately could not return to work. The Chancery Court of Coffee County found the employee permanently and totally disabled. The award was apportioned 90% to the employer and 10% to the Second Injury Fund. The employer appealed, contending the disability that prevented the employee from returning to work was caused in large part by preexisting medical conditions and that more liability should have been apportioned to the Second Injury Fund. The Second Injury Fund's liability outlined in T. C. A. § 50-6-208(a)(1) (2014) and applicable to injuries prior to July 1, 2014, provides that employers should only be responsible for "the disability that would have resulted from the subsequent injury, and the previous injury shall not be considered in estimating the compensation . . ."

In affirming the decision of the trial court, the Panel stated that when applying this section a trial court must "make an explicit finding of fact regarding the extent of the vocational disability attributable to the subsequent or last injury, without consideration of any prior injuries." (Citing *Bomely v. Mid-Am. Corp.*, 970 S.W.2d 929, 934 (Tenn. 1998). "Essentially, "the trial court must find what disability would have resulted if a person with no preexisting disabilities, in the same position as the plaintiff, had suffered the second injury but not the first." *Allen v. City of Gatlinburg*, 36 S.W.3d 73, 77 (Tenn. 2001). In this case, the trial court found the employee retained a 90% disability as a direct result of his work-related right shoulder/arm injury, and that together with his preexisting congestive heart failure he was "totally incapacitated from working at an occupation which brings him income." The trial court noted the

employee was able to work without restrictions despite his preexisting condition before the right shoulder/arm injury. The employer contended the employee's heart condition prevented surgical treatment for the shoulder that might have enabled him to return to work, and asserted the trial court had not properly taken this into account. The panel disagreed, pointing out that the work restrictions and a 100% vocational disability were based solely on the shoulder and arm injuries, and that the trial court properly considered the effect of the other medical issues in apportioning 10% liability to the Second Injury Fund.

The opinion may be accessed at http://www.tncourts.gov/sites/default/files/tankersley-batesville_opn.pdf

Michael Mayuric v. Huff & Puff Trucking, Inc., et al.

No. M2017-00102-SC-R3-WC, Filed January 4, 2018

The employee, a 34 year old truck driver, developed post-traumatic stress disorder after an accident. The Circuit Court of Coffee County found the employee had an 80% permanent partial disability as a result of the accident. The employer appealed, contending the trial court erred in accepting the opinion of one psychiatrist over another and in awarding a vocational disability in excess of another physician's opinion. The Panel affirmed the trial court's judgment.

The Panel acknowledged the trial court had accredited the testimony of a psychiatrist who treated the employee over a significantly longer period of time than the other. One psychiatrist, Dr. Griffin, had treated the employee over a four month period and had diagnosed PTSD. Two years later Dr. Griffin conducted an independent examination and changed his diagnosis. The Panel observed, "[t]he trial court was clearly troubled that Dr. Griffin changed his diagnosis after he was rehired by Employer. Likewise, the trial court noted Dr. Griffin's indifferent attitude toward his patient." "When medical testimony differs, it is within the discretion of the trial judge to determine which expert to accept." *Kellerman v. Food Lion, Inc.*, 929 S.W.2d 333, 335 (Tenn. 1996). "After reviewing the testimony of both physicians in this case, we find the record more than supports the trial court's assessment of Dr. Griffin's lack of credibility when compared to that of Dr. Kyser."

On the issue of disability, the employer argued that the trial court was obligated to accept a physician's finding of 40% vocational disability because it had rejected another expert's finding of 100%. The Panel cited *Reeves v. Olsen*, 691 S.W.2d 527 (Tenn. 1985) and *Sutton v. McKinney Drilling Co.*, 2013 W. L. in holding that a trial court "is not required to accept or reject in its entirety the testimony of any particular expert." The Panel concluded the trial court's finding of 80% disability was appropriate, taking into consideration the employee's limited education, work history, and the dramatic changes in his behavior due to the effects of the PTSD resulting from the accident.

The opinion may be accessed at

http://www.tncourts.gov/sites/default/files/mayuric_v_huffpuff_opn.pdf

Note: During calendar year 2017 the Supreme Court and its Special Workers' Compensation Appeals Panels issued opinions in 36 cases. Thirty-one of the opinions involved "old law" cases, or those in which the work-related accidents were prior to July 1, 2014, the effective date of the *Workers' Compensation Reform Act of 2013*. Through June 8, 2018 the Special Panel has issued 12 opinions, providing some indication that fewer "old law" cases are working their way through the appeals process. Direct appeals to the Supreme Court should continue to decrease as more "new law" cases are resolved in the Court of Workers' Compensation Claims and the Workers' Compensation Appeals Board.

TOSHA NEWS

The Bureau of Labor Statistics reported 122 work-related fatalities in Tennessee in 2016, compared to 112 in 2015, reflecting an increase of 9%. According to the Bureau's 2016 non-fatal occupational injury and illness statistics Tennessee's incidence rate of 2.9 per 100 full time workers in the *private* sector is not statistically different from the national average of 3.2. Tennessee is one of 16 states and the District of Columbia to experience a decrease in the private sector occupational injury and illness incidence rate or to have a rate not statistically different from the national rate.³ The overall incidence rate for nonfatal occupational injuries and illnesses in Tennessee for all industries, including state and local government, is 3.0. State government has the lowest incidence rate at 1.7, and local governments have the highest incidence rate, at 4.6 recordable incidents per 100 full-time equivalent workers.

³ To view the report prepared by the Tennessee Department of Labor and Workforce Development in cooperation with the U. S. Department of Labor, Bureau of Labor Statistics, see <https://www.tn.gov/content/dam/tn/workforce/documents/majorpublications/reports/2016TNOSHSPublication.pdf>

CONCLUSION

The Advisory Council on Workers' Compensation met on three (3) occasions from July 1, 2017 through June 30, 2018. This annual report provides a synopsis of the topics considered and appointments made during that time period. The Advisory Council appreciates the opportunity to be of service to the Governor, the General Assembly and Executive Departments, as well as the employers and employees of the great State of Tennessee.

Respectfully submitted on behalf of the Advisory Council on Workers' Compensation,

/s/ _____
David H. Lillard, Jr.
Treasurer, State of Tennessee
Chairman

EXHIBIT 2A

STATE OF TENNESSEE

Advisory Council on Workers' Compensation

<http://treasury.tn.gov/claims/wcadvisory.html>



2018 SUMMARY OF SIGNIFICANT TENNESSEE SUPREME COURT WORKERS' COMPENSATION DECISIONS

TREASURY DEPARTMENT
STATE CAPITOL
NASHVILLE, TENNESSEE 37243-0225

David H. Lillard, Jr., State Treasurer, Chair
Larry Scroggs, Administrator

Significant 2018 Tennessee Supreme Court Workers' Compensation Decisions

INTRODUCTION

Pursuant to Tennessee Code Annotated (“T. C. A.”) § 50-6-121(i), the Advisory Council on Workers' Compensation is required to issue this report reviewing significant Tennessee Supreme Court decisions involving workers' compensation matters for each calendar year. This report contains a synopsis of the cases, with topical headings to facilitate review of the 2018 decisions from the Tennessee Supreme Court.

The Tennessee Supreme Court

Appeals of decisions in workers' compensation cases by trial courts, including the Circuit and Chancery Courts, the Court of Workers' Compensation Claims, the Tennessee Claims Commission, and appeals from Workers' Compensation Appeals Board decisions are referred directly to the Supreme Court's Special Workers' Compensation Appeals Panel (“Panel”) for hearings. Participating judges who comprise the panels are designated by the Supreme Court and each panel includes a sitting Justice. The Panel gives considerable deference to the lower trial courts' decisions with respect to credibility of witnesses since the lower trial courts have the opportunity to observe individuals testify. The Panel reports its findings of fact and conclusions of law, and such judgments automatically become the judgment of the full Supreme Court thirty (30) days thereafter, barring the grant of a motion for review. Tennessee Supreme Court Rule 51 and T. C. A. § 50-6-225 and *see also* T. C. A. § 50-6-217(a)(2)(B), relative to the appeal process from the Workers' Compensation Appeals Board.

The Tennessee Supreme Court Special Workers' Compensation Appeals Panel

The Supreme Court and its Special Workers' Compensation Appeals Panel issued opinions in 33 cases between January 4, 2018 and December 6, 2018. Twenty-five opinions were “**old law**” cases, based on claims arising prior to the July 1, 2014 effective date of the Workers' Compensation Reform Act of 2013. The other eight opinions were issued in “**new law**” cases. Four of those involved appeals from the *Court of Workers' Compensation Claims* and four came directly from the *Workers' Compensation Appeals Board*. **Note:** One Court of Appeals case is also included in this report due to its significance.

With the passage of time, fewer “old law” cases will work through the appeals process. Direct appeals to the Supreme Court should gradually decrease as more cases are resolved in the Court of Workers’ Compensation Claims and the Workers’ Compensation Appeals Board.

Summaries of the cases decided by the Supreme Court and its Special Workers’ Compensation Appeals Panel in 2018 are presented here, with headings that constitute a workers’ compensation “issues list.”

TABLE OF ISSUES

Procedure

Statute of Limitations	Page 4
Subject Matter Jurisdiction	Page 6
Preserving Affirmative Defenses	Page 7
Service of Process	Page 8
Discretionary Costs	Page 8
Attorney Fees	Page 9
Presumption of Correctness	Page 9
Frivolous Appeal	Page 10

Causation

Voluntary Sports Activity	Page 11
Misconduct Exception	Page 11
Not Work Related	Page 12

Compensability

Statutory Employee/Loaned Servant	Page 13
Failure of Medical Proof	Page 14

Temporary Total Disability... **Page 14**

Medical Issues

Medical Consequence or Sequelae **Page 15**

Panel Entitlement **Page 15**

Exposure **Page 16**

Impairment **Page 17**

Vocational Disability **Page 18**

Reasonable Excuse **Page 18**

Acceleration of Preexisting Condition **Page 18**

Permanent and Total Disability **Page 19**

Second Injury Fund **Page 21**

Procedure

1. Statute of Limitations

Pamela Lyles v. Titlemax of Tennessee, Inc., et al. No. W2017-00873-SC-WCM-WC – Filed September 14, 2018.

On May 19, 2010 the employee was a victim of an armed robbery while at work and she immediately began experiencing PTSD symptoms. She was diagnosed with PTSD by July 13, 2010. The employee requested a Benefit Review Conference (BRC) on September 16, 2011. A BRC was not conducted until September 16, 2013 and it resulted in an impasse. She filed suit on October 7, 2013. The trial court granted the employer’s motion for summary judgment, finding the employee’s claim was barred by the statute of limitations. The trial court found the employee had admitted she knew as early as July 13, 2010 that her PTSD diagnosis was a direct result of the armed robbery incident. Since she was required to request a BRC within one year of the incident or knowledge of injury as a result of the incident, the court concluded her request for a BRC on September 16, 2011 was outside the statute. The employee relied on *Oliver v. State*, 762

S.W.2d 562 (Tenn. 1988), contending the statute of limitations did not begin to run until she learned she had a permanent “anatomical change and impairment.” The Special Workers’ Compensation Appeals Panel **affirmed**, holding the statute was not tolled despite the employee’s contention she did not learn she had sustained a *permanent* injury until late 2012 or early 2013. The Panel determined it was undisputed the employee knew she had sustained an injury by the time of her PTSD diagnosis on July 13, 2010 and she had failed to request a BRC within one year of that date. <http://www.tncourts.gov/sites/default/files/lylesopn.pdf>

Victory Thayer v. United Parcel Service, et al., No. W2017-02153-SC-WCM-WC – Filed August 13, 2018.

On January 16, 1997 the employee notified his employer he had sustained an eye injury as a result of an altercation with a coworker. He received treatment a week later. The employer denied the claim, contending the injury occurred outside the course and scope of employment. The employee took no action to challenge the denial. The medical bill he incurred in 1997 was finally paid by the employer’s insurer in 1999. The employee requested a Benefit Review Conference on March 1, 2013. The employee filed suit on January 7, 2016, alleging he had been informed by a physician in January and February 2013 that he had sustained permanent eye damage as a result of the 1997 altercation. The trial court granted the employer’s motion for summary judgment, concluding the employee’s failure to appeal the 1997 denial of his claim precluded his attempt to toll the statute of limitations. The Special Panel **affirmed**, finding the employee’s one-year time period began at the latest in 1999 when the last voluntary payments of medical bills were made. The employee would therefore have been required to request a BRC in 2000, but failed to do so until 2013, more than a decade after the statute of limitations expired. As in the *Lyles* case the employee relied on *Oliver v. State*, 762 S.W.2d 562 (Tenn. 1988) contending nothing led him to believe he had sustained permanent damage as a result of the altercation until much later. In *Oliver*, the Supreme Court had held the statute of limitations was not triggered until the employee was told he had permanent damage as a result of a work accident 20 years earlier. The Panel noted the Court in *Oliver* dealt with a compensable claim. Here, the employee’s claim was denied and he had failed to timely challenge the denial. <http://www.tncourts.gov/sites/default/files/thayeropn.pdf>

Paul A. Westby v. Goodyear Tire & Rubber Company, No. W2017-01408-SC-R3-WC – Filed July 24, 2018.

The employee suffered gradual hearing loss while working 37 years at plants the employer owned. After the employer closed its Union City plant on June 11, 2011, the employee filed a workers’ compensation claim, alleging an injury date of June 6, 2011. The employer argued the statute of limitations had expired. The trial court applied the “last day worked” rule and awarded the employee 60 percent permanent partial disability. The employer appealed, contending the

employee knew as early as 2002 he had suffered hearing loss because of his employment and therefore the “last day worked” rule did not apply. The Panel **affirmed**, citing *Lawson v. Lear Seating Company*, 944 S.W.2d 340, 341 (Tenn. 1997), which held the statute of limitations involving gradually occurring injuries “does not begin to run until the date the employee was unable to work due to his injury.” The Supreme Court reaffirmed the Lawson holding in *Building Materials Corp. v. Britt*, 211 S.W.3d 706, 712 (Tenn. 2007), noting the last day worked rule “seeks to avoid placing the employee in a potential trap by either forcing the employee to submit a claim before he is actually disabled or allowing the statute of limitations to bar the employee’s claim if the employee waits to file a claim.” The evidence at trial indicated the employer had periodically conducted hearing tests for its plant employees which revealed the subject employee was experiencing gradual hearing loss, although the plant physician denied it was work related. The employee obtained hearing aids for his gradual hearing loss but never missed work because of the condition. The Panel agreed with the trial court’s conclusion that the employer had actual notice of the employee’s injury and that the employee was excused from giving notice under T. C. A. § 50-6-201(b) <http://www.tncourts.gov/sites/default/files/westbyopn.pdf>

2. Subject Matter Jurisdiction

Rita Faye Hurst v. Claiborne County Hospital and Nursing Home et al., No. E2017-01598-S C-R3-WC – Filed October 24, 2018.

http://www.tncourts.gov/sites/default/files/rita_faye_hurst_v._claiborne_county_hospital_et_al..pdf

Rita Faye Hurst v. Claiborn County Hospital and Nursing Home et al., No. E2017-01745-SC-R3-WC – Filed October 24,

2018. http://www.tncourts.gov/sites/default/files/rita_hurst_vs._claiborne_county_hospital.pdf

The employee, a paramedic, filed suit for workers’ compensation benefits, alleging two distinct injuries on different dates: physical injuries sustained in a work-related motor vehicle collision in 2001 and mental injuries from an incident involving a severely abused infant in 2000. The employee settled the mental injury claim. The approved settlement preserved future medical benefits for her *mental* injuries but not for physical injuries related to the collision. Nine years later the employee filed a motion to compel medical benefits for her physical injuries. The trial court ordered the employer to provide medical benefits for her physical injuries and separately ordered the employer to pay the employee’s attorney’s fees and costs. The Panel **vacated** the orders in two separate opinions, finding that the trial court did not have subject matter jurisdiction to compel medical benefits for the physical injuries. “Subject matter jurisdiction involves a court’s lawful authority to decide a controversy brought before it. *Chapman v. DaVita, Inc.*, 380 S.W.3d 71, 712 (Tenn.2012). Subject matter jurisdiction is conferred by statute or the Tennessee Constitution; parties cannot confer it by appearance, plea, consent, silence, or waiver. *In re Estate of Trigg*, 368 S.W.3d 483, 489 (Tenn. 2012). Any order entered

by a court lacking subject matter jurisdiction is void. *Id.* Whether a trial court has subject matter jurisdiction is a question of law that is reviewed with no presumption of correctness.” The burden is on the plaintiff to establish that the court has jurisdiction to adjudicate the claim. (Citing cases) In this case the Panel found the trial court had not preserved future medical treatment for *physical* injuries related to the 2001 collision in its order and that there was no court approval of a subsequent 2009 settlement agreement approved by the Department of Labor and Workforce Development. Thus, there was no enforcement mechanism in place.

***Tristar Centennial Medical Center v. Dana C. Pugh*, No. M2016-02470-SC-R3-WC – Filed February 15, 2018.**

The employee sustained a compensable back injury on April 28, 2014. The parties had a Benefit Review Conference (BRC) on June 22, 2015, at which they agreed upon compensability and past medical expenses but failed to resolve the nature and extent of permanent partial disability. The BRC report indicated that the parties had reached impasse and had exhausted the BRC process. The employee filed suit and the parties reached a settlement, which was approved by the trial court. The settlement order stated the employer would continue to provide medical treatment. Thereafter two recommendations for a surgical fusion procedure were declined in the utilization review (UR) process. Neither UR decision was appealed. Later the employee filed a motion to compel the employer to provide medical benefits to facilitate the recommended surgery. With the employer’s approval, the surgery was completed. The employee then reset her motion to compel medical treatment and to award attorney fees. The trial court awarded a fee, and the employer appealed. While the appeal was pending, the Supreme Court ordered the parties to show cause why the appeal should not be dismissed for lack of subject matter jurisdiction since the record did not show the parties had engaged in a BRC before the motion to compel was filed. The Panel **vacated** the trial court judgment upon addressing the issue whether the June 22, 2015 BRC was sufficient to provide the trial court with subject matter jurisdiction over an issue (surgical recommendation) that arose after that BRC. The Panel concluded the BRC on June 22, 2015, “which could not have involved any mediation on the surgical recommendation, was an insufficient exhaustion of the BRC process. Thus, this Court does not have subject matter jurisdiction.” The Panel referenced the holdings in *Robertson v. Roadway Express, Inc.*, 2012 WL 2054170 and *Holland Group v. Sotherland*, 2009 WL 1099275, both of which mandate exhaustion of the BRC process prior to court action.

http://www.tncourts.gov/sites/default/files/tristarcentennialmedicalv.pugh_opnjo_pdf

3. Preserving Affirmative Defenses

***Susie Plunk v. Professional Home Health Care Services*, No. W2018-00025-SC-WCM-WC – Filed October 10, 2018.**

The employee timely filed a workers' compensation suit, however the leading process was returned unserved. An alias summons was timely issued and returned showing it had been served on an individual but the information was ambiguous. The employer answered, asserting as an affirmative defense a lack of service and insufficiency of service. The parties then proceeded to engage in discovery over a two-year period, after which the employer filed a summary judgment motion alleging the employee's claims were time barred by insufficiency of service. The trial court granted the motion and the employee appealed. The Panel **reversed**, finding the employer had inadequately preserved the affirmative defense because it had not "set forth affirmatively facts in short and plain terms relied upon to constitute . . . an affirmative defense" (citing Tenn. R. Civ. P. 8.03). The Panel noted the employer's "generic" statement without factual allegations or details was insufficient under the guidelines of *Barker v. Heekin Can Co.*, 804 S.W.2d 442 (Tenn. 1991). The Panel observed the reason for the Rule 8.03 requirement was to facilitate a prompt curative action by the employee to prevent "the dismissal of an otherwise meritorious claim on purely technical grounds." *Id.* at 443. The employer argued it had not waived its affirmative defense by participating in discovery. The Panel cited *Barker's* holding that the employer's failure to appropriately raise the defense made its continued participation in the litigation irrelevant. <http://www.tncourts.gov/sites/default/files/plunkopn.pdf>

4. Service of Process

See above 3. Preserving Affirmative Defenses: Susie Plunk v. Professional Home Health Care Services

5. Discretionary Costs

Paul Gray v. Wingfoot Commercial Tire Systems et al., No. W2017-00380-SC-WCM-WC – Filed May 21, 2018.

Following his work injury the employee was treated by several physicians, both authorized and not authorized. The trial court considered numerous issues, including subject matter jurisdiction, payment of unauthorized medical expenses, impairment, and disability. The employer appealed a permanent partial disability award in favor of the employee. The Panel **affirmed** in part, **reversed** in part and **remanded** to the trial court. The Panel considered the employer's argument that the trial court had erred in awarding *discretionary costs* for certain court reporter fees. Citing *Duran v. Hyundai Motor Am., Inc.*, 271 S.W.3d 178, 214-15 (Tenn. Ct. App. 2008) with reference to Tenn. R. Civ. P. 54.04, the Panel agreed the trial court's award of discretionary costs was proper since the employee had submitted a timely and properly supported motion demonstrating his entitlement, and that the employer failed to carry its burden of showing the trial court abused its discretion. <http://www.tncourts.gov/sites/default/files/graypaulopn.pdf>

Louis Garassino v. Western Express, Inc., et al., No. M2016-02431-SC-R3-WC, Filed February 8, 2018.

The trial court awarded benefits to the injured employee and also discretionary costs for fees for his examining doctor for reviewing records and conducting an examination. The employer appealed to the Workers' Compensation Appeals Board, which reversed the trial court's award of discretionary costs. The employee appealed and the Panel **affirmed**, citing Tenn. R. Civ. P. 54.04 as the guideline for interpreting T. C. A. § 50-6-239(c)(8), which addresses discretionary costs awards for medical experts in worker's compensation cases. "Our courts have held that parties cannot recover discretionary costs for expert witness fees for depositions or trial, no matter how reasonable and necessary these fees are. *Miles v. Marshall C. Voss Health Care Ctr.*, 896 S.W.2d 773, 776 (Tenn. 1995)."

http://www.tncourts.gov/sites/default/files/garassino.louis_opn_.pdf

6. Attorney Fees

Carolyn Annette Young v. Sugar Hollow Properties, LLC., No. E2017-00981-SC-R3-WC – Filed May 24, 2018.

The employee's work-related injury case was settled with a provision for future medical treatment benefits. Subsequently she moved to compel the defendants to provide medical treatment recommended by the authorized treating physician. She also asked for attorney fees. The trial court ordered the defendants to provide the requested medical services, which they ultimately did. The trial court subsequently awarded an attorney's fee pursuant to T. C. A. § 50-6-204(b)(2). Although the defendants ultimately authorized the services, they appealed the award of medical benefits and the attorney's fee. The Panel **reversed** both awards, holding that the issue of medical benefits was moot, and that attorney fees should not have been awarded since the employee had not established, "at a minimum," a causal relationship between the injury and the requested medical services via expert medical evidence. The employee had relied only upon her motion to compel medical services and had not obtained testimony of a causal link from the authorized treating physician. The Panel relied upon *Shelton v. Joseph Constr. Co.*, No. M2014-01743-SC-R3-WC, 2015 WL 3509283 (Tenn. Workers' Comp. Panel June 3, 2015) and *Russell v. Dana Corp.*, No. M2015-00800-SC-R3-WC, 2016 WL 4136548 (Tenn. Workers' Comp. Panel August 1, 2016).

http://www.tncourts.gov/sites/default/files/judgment_order_young_v_sugar_filed.pdf

7. Presumption of Correctness

Deborah Goodman v. Schwarz Paper Company et al., No. W2016-02594-SC-R3-WC – Filed January 18, 2018.

The sole issue presented to the trial court was whether the employee had rebutted the presumption of correctness attached to the authorized treating physician's impairment rating. All other matters, including compensability and medical expenses had been resolved. The trial court ruled the presumption had not been overcome and awarded benefits based on the authorized physician's rating. The employee appealed. The Panel **affirmed**, holding the authorized treating physician's testimony was more credible than that of a physician who examined her at the request of her attorney. "(I)t is within the discretion of the trial judge to conclude that the opinion of certain experts should be accepted over that of other experts and that [the accepted opinion] contains the more probable explanation." *Thomas v. Aetna Life & Cas. Co.*, 812 S.W.2d 278, 283 (Tenn. 1991). <http://www.tncourts.gov/sites/default/files/goodmandeborahopn.pdf>

[See also under **Causation 3. Not Work Related: *Sisouphahn Thysavathdy v. Bridgestone Americas Tire Operations et al.* and *James Green v. Kellogg Companies, et al.***]

8. Frivolous Appeal

***Lloyd Michael Harris, Jr. v. Mastec North America, Inc., et al.*, No. M2016-02307-SC-R3-WC – Filed January 9, 2018.**

In March 2004 the trial court entered a final order finding the employee permanently and totally disabled. The order provided that the employee would receive \$274.49 per week "until he is eligible for full benefits . . . under the Social Security Act." The employee was 24 at the time of the January 4, 1999 injury. In May 2016, more than 12 years after entry of the final order, the employer filed a motion to amend, alleging the order should have reflected the employee's retirement age as 65 and should have stated "with specificity when [the employer] shall receive a credit for the commuted portion of the award." The trial court found the motion untimely. The employer had relied upon Rule 60.01 of the Tennessee Rules of Civil Procedure. The employee had argued the motion was not filed within one year of the final order as required by Rule 60.02(1) or Rule 60.02(5), and that the order had provided him with weekly benefits through the date of his eligibility for Social Security, which in his case would be age 67. The employer appealed and the Panel **affirmed**, holding the employer's reliance on Rule 60.01 was misplaced since there was no clerical error and the order correctly reflected the trial court's ruling. The Panel further found the employer did not raise a mistake of law within one year or within a reasonable time, as required by Rules 60.01 or 60.02. (citing *Holiday v. Shoney's South, Inc.*, 42 S.W.3d 90, 94 (Tenn. Ct. App. 2000) and *Furlough v. Spherion Atlantic Workforce, LLC*, 397 S.W.3d 114 (Tenn. 2013)). The Panel concluded that rather than seeking clarification of the final order, the employer was actually asking that it be set aside and replaced with an amended order reducing the employee's future benefits by two years. Accordingly, the Panel held the appeal

was frivolous and remanded the case for determination and award of attorney fees and expenses incurred by the employee. http://www.tncourts.gov/sites/default/files/harris.loyd_fil_opn.pdf

Causation

1. Voluntary Sports Activity

Gregory E. Pope v. Nebco of Cleveland, Inc. et al., No. E2017-00254-SC-R3-WC – Filed January 16, 2018.

The employee sustained a knee injury in a charity running event sponsored by his employer and others. The employer argued the employee’s injury was not compensable because it arose from voluntary participation in a non-work-related activity. The trial court determined the injury was compensable and awarded medical benefits and attorney fees. The Workers’ Compensation Appeals Board reversed on the issue of compensability and fees. The Panel **affirmed**, holding the employee’s constitutional challenges to the statute creating the Appeals Board had no merit and that the injury was not compensable. The parties agreed the race constituted a “recreational” and “athletic” event within the meaning of T. C. A. § 50-6-110(a)(6) although the employee contended his participation constituted one of four statutory exceptions, that of being “impliedly required” by his employer. The Panel first observed that the employee’s participation was in fact voluntary because he ultimately chose to participate despite his earlier reluctance. The Panel noted the case provided the first opportunity to address the precise statutory interpretation raised in the appeal. The Panel applied four general principles of prior case law in analyzing the facts, ultimately concluding the evidence preponderated against the trial court’s finding that the employee’s participation was impliedly required.

http://www.tncourts.gov/sites/default/files/popeg.opn_finalopinion_and_judgment.pdf

2. Misconduct Exception

Vicki Gandee v. Zurich North America Insurance Company, No. W2017-01523-SC-WCM-WC – Filed September 19, 2018.

The employee sustained two left knee injuries at work in 2004. She returned to work but left her job in 2006 after reaching her maximum medical improvement. The employee filed this claim maintaining she did not have a meaningful return to work. She sought permanent partial disability benefits at six times the impairment rating. The parties disputed whether the employee had been terminated for misconduct or resigned due to her injury. The trial court found the claim

compensable but capped the award at two and one-half times the rating having concluded the employee was terminated for misconduct. The employee appealed. The Panel **affirmed** the finding of compensability and the trial court's adoption of the impairment rating by the defendant's expert, but **reversed** the decision to cap the award based on misconduct. The Panel observed the employee had been employed in different capacities and ultimately as children's program director by a 7,000 member church for 12 years. The church had no human resources department and the employee received virtually no information concerning temporary total benefits, or how she would be paid for missed time due to injuries sustained in 2004. She used her personal and sick time for absences due to injuries in April and August 2004. An independent medical examination by a physician retained by the employer's insurer indicated the employee's restrictions would likely prevent her from returning as program director. She was assigned a five percent impairment rating. The employee contended the employer made no accommodation for her restrictions, that she had no meaningful return to work, and that she resigned due to the effects of her injuries. The Panel analyzed the "misconduct exception" to T. C. A. § 50-6-241(b), and determined it did not apply under the facts presented. The panel concluded the alleged misconduct was not the true motivation for the dismissal and that the employee failed to make a meaningful return to work.

<http://www.tncourts.gov/sites/default/files/gandeeopn.pdf>

3. Not Work-Related

Sisouphahn Thysavathdy v. Bridgetone Americas Tire Operations et al., No. M2017-01575-SC-R3-WC – Filed April 24, 2018.

The employee sustained a left shoulder injury on July 15, 2014, which he alleged was compensable. The authorized treating physician (ATP) indicated the injury was not work-related. The Court of Workers' Compensation Claims denied the claim and the Workers' Compensation Appeals Board affirmed. The Panel **affirmed** the judgment of the Appeals Board and **adopted** its opinion. The employee, a worker at a tire manufacturer, alleged he was hurt lifting tires at work. The ATP could not identify a specific work-related injury. The employee's physician indicated the left shoulder condition was multifactorial. The Appeals Board opined that the ATP's conclusion was entitled to be afforded a presumption of correctness and that the employee did not present sufficient medical evidence to overcome the presumption. "While it is not necessary for a physician to use particular words or phrases included in the statutory definition of 'injury' to establish the requisite medical proof to succeed at trial, it is necessary that a physician's testimony be sufficient to satisfy the statutory requirements of an injury as defined in T. C. A. § 50-6-102(14)." (citing *Panzarella v. Amazon.com, Inc.*, No. 2015-383, 2017 TN Wrk. Comp. App. Bd. LEXIS 30, at*14 (Tenn. Workers' Comp. App. Bd. May 15, 2017).

http://www.tncourts.gov/sites/default/files/thysavathdy.sisouphahn.opn_.pdf

Samuel Panzarella v. Amazon.com, Inc., No. E2017-01135-SC-R3-WC – Filed May 16, 2018.

The employee filed a claim after a left knee injury. The Court of Workers' Compensation Claims denied the claim, finding the employee failed to prove his injury arose primarily from his employment. The Workers' Compensation Appeals Board affirmed and the employee appealed. The Panel **affirmed** the Appeals Board judgment. The employee described his injury as having occurred as he was walking through the plant to obtain supplies when he bent over to pick up a piece of paper on the floor and felt a sharp pain in his left knee, causing him to lose his balance and twist the knee as he fell. He told the staff at the onsite medical facility the sensation he felt was a muscle spasm. The authorized treating physician's testimony did not show that the employee's employment contributed more than fifty percent in causing the injury as required by T. C. A. § 50-6-102 (14) and did indicate there were other possible causes.

http://www.tncourts.gov/sites/default/files/panzarellas_opn_and_jud.pdf

See also: James Green v. Kellogg Companies, et al., No. W2017-00549-SC-R3-WC – Filed February 20, 2018, where the employee's medical proof was not sufficient to rebut the presumption of correctness afforded to the authorized treating physician, who opined that the employee's condition was attributable to preexisting arthritis.

http://www.tncourts.gov/sites/default/files/greenopn_0.pdf

And see: Thomas D. Flatt v. West-Tenn Express, Inc., et al. No. W2017-01727-SC-R3-WC – Filed August 31, 2018, where the Panel reversed the trial court's award of permanent partial disability benefits upon concluding the employee's preexisting conditions rather than a new, distinct injury were the cause of his symptomology.

<http://www.tncourts.gov/sites/default/files/flattthomasopn.pdf>

Compensability

1. Statutory Employee/Loaned Servant

Darryl Osborne v. Starrun, Inc., et al., No. E2018-00282-SC-R3-WC – Filed October 19, 2018.

A truck driver, whose employer had no workers' compensation insurance coverage, was injured when he fell from his truck while tarping a load of goods at a manufacturer's facility. The driver filed a workers' compensation claim against the manufacturer, asserting the manufacturer was the driver's statutory employer under T. C. A. §50-6-113 (2014 and Supp. 2017). The Court of Workers' Compensation Claims granted the manufacturer's motion for summary judgment, holding that the driver failed to establish that the manufacturer undertook work for an entity other than itself, retained the right of control over the conduct of the work, or that the driver's conduct in tarping the load was part of the manufacturer's regular business or the same type of work performed by its employees. The Panel **affirmed**, agreeing with the trial court that the

Supreme Court’s holding in *Lindsey v. Trinity Communications, Inc.*, 275 S.W.3d 411 (Tenn. 2009), which established a three-prong test by which a court may consider a company to be a principal contractor under §50-6-113(a), was controlling. The test involves whether the company performs work for other, retains the right to control the work, or controls the materials used in the job.

http://www.tncourts.gov/sites/default/files/darry_osborne_opinion.pdf

Hartford Casualty Insurance Company v. Comanche Construction Inc., et al., No. W2017-02118-COA-R9-CV, filed November 28, 2018.

This case involved a dispute between workers’ compensation insurance carriers instead of a typical claim by an injured employee. The plaintiff filed a declaratory judgment action seeking indemnity for benefits voluntarily paid to an injured crane operator on the theory he was actually a loaned servant. The trial court denied the defendant’s motion for summary judgment. An interlocutory appeal was filed in the Court of Appeals, which **affirmed**. The trial court relied upon *Winter v. Smith*, 914 S.W. 2d, 527 (Tenn. Ct. App. 1995), in which the Court stated “(c)ourts will impose an implied obligation to indemnify when the obligation *is a necessary element of the parties’ relationship.*” *Id.* at 542. The Court of Appeals agreed with the trial court’s finding that the plaintiff produced sufficient evidence to show that defendant, a contractor hired to make repairs on a bridge, “borrowed” the employee and his crane from his actual employer and directed his work on its behalf. The Court of Appeals observed the Supreme Court indicated in *Travelers Ins. Co. v. Fidelity & Cas. Co. of New York*, 409 S.W.2d 175, 176 (Tenn. 1966) that “indemnification claims by a general employer against another employer borrowing an employee are permissible in the context of workers’ compensation.” *Id.* at 179. Here, the “question of implied indemnity is inextricably linked to the loaned servant issue . . . a question of fact.” <http://www.tncourts.gov/sites/default/files/hartfordcasualtyopn.pdf>

2. Failure of Medical Proof

[See above under **Causation, 4**, *Thomas D. Flatt v. West-Tenn Express, Inc., et al.*, Filed August 31, 2018.]

3. Temporary Total Disability

Sherilyne D. Duty v. East Tennessee Children’s Hospital Association, Inc., No. E2017-02027-SC-R3-WC – Filed April 18, 2018.

The employee, a unit secretary, was assaulted by a visitor in the waiting area of a pediatric intensive care unit on March 22, 2006. She sustained an eye injury and developed PTSD. A settlement was reached for all aspects of her workers’ compensation claim except for temporary

total disability (TTD). She filed suit, seeking TTD benefits from July 2007 until November 2015. The employer argued the employee was not entitled to TTD because she continued to work for 15 months after the injury and was later fired for cause in July 2007. The trial court denied the TTD claim. On appeal, the Panel **affirmed**, agreeing with the trial court that “a person cannot simultaneously work and claim that they are incapable of working.” The Panel noted the physician who treated the employee from 2007 to 2013 never indicated the employee was unable to work although a physician who later treated the employee opined she would not have recommended the employee return to work after the incident. The Panel cited *Cobb v. Henry I. Siegel, Inc.*, No. W2000-02656-WC-R3-CV, 2001 WL 1298917 (Tenn. Workers’ Comp. Panel Oct. 24, 2001) in support of its decision. “Trial courts have broad discretion to determine whether to accept or reject the opinion of a proffered expert.” *Id.* The Panel also determined the employee’s claim was precluded by her for-cause termination.

http://www.tncourts.gov/sites/default/files/dutysherilyne_opinion_and_judgment_e2017-02027.pdf

Medical Issues

1. Medical Consequence or Sequelae

Steak N Shake v. Thomas Yeager, No. M2017-01558-SC-R3-WC – Filed November 26, 2018.

The employee sustained neck and back injuries in a fall at work on October 14, 2012. Several days later he returned to the emergency room with abdominal pain determined to be caused by gastrointestinal bleeding. The diagnosing physician’s impression was “upper gastrointestinal bleed secondary to peptic ulcer disease.” The employer contended the abdominal and gastrointestinal conditions were not work-related and filed suit to recover \$48,278.85 in medical expenses it was ordered to pay by the Department of Labor for treatment of those conditions. The trial proceeded on requests for admissions, a physician’s affidavit, and stipulations by the parties without live or depositions testimony. The evidence indicated the employee was predisposed to gastric ulcers and that after the fall he took both prescribed steroids and over the counter medications, which could cause gastric bleeding. The trial court determined that the gastrointestinal bleeding and the related medical treatment did not result from an independent intervening cause attributable to the employee’s own intentional conduct. On appeal the Panel **reversed**, finding the treatment for the gastric condition was not a medical consequence or sequelae that flowed from the primary work injury.

http://www.tncourts.gov/sites/default/files/steaknshakev.yeager.opn_.pdf

2. Panel Entitlement

C. K. Smith, Jr. v. Goodall Buildings, Inc. et al., No. M2017-01935-SC-R3-WC – Filed September 14, 2018.

The employee sustained a compensable shoulder injury and was awarded lifetime medical benefits. Because he suffered chronic pain he was referred to a pain management physician, Dr. Jeffrey Hazlewood. When the employee began treatment he was already taking a high dosage of opioids. Ultimately, Dr. Hazlewood became concerned about the employee forming an addiction and he recommended weaning the employee off opioids. In response, the employee left Dr. Hazlewood and filed a motion for a new panel of physicians. The trial court granted the motion and the employer appealed, arguing T. C. A. § 50-6-204(j)(3) precluded the employee from receiving a new panel. The Panel **reversed**, citing *Patterson v. Prime Package & Label Co., LLC*, No. M2013-01527-WC-R3-WC, 2014 WL 7263811 (Tenn. Workers' Comp. Panel Dec. 22, 2014). In *Patterson*, the Panel had interpreted § 50-6-204(j) to preclude an employee from obtaining a second opinion with regard to "impairment, diagnosis, or prescribed treatment," relating to pain management. The Panel here agreed the trial court's ruling was in direct contravention of the statute. "(B)y its plain text [§ 50-6-204(j)(3)] makes a second opinion unavailable to employees undergoing chronic, long-term pain management who have been referred to a pain management specialist." The Panel concluded the statutory intent is to prevent overutilization and to curb or prevent addiction to opioids.

http://www.tncourts.gov/sites/default/files/cksmithfiled.opn_.pdf

3. Exposure

Alcoa, Inc. v. Georgette McCroskey, Individually and as Surviving Spouse of Marcus McCroskey, No. E2018-00087-SC-R3 – Filed September 24, 2018.

In this occupational disease case, the employee's surviving spouse alleged her husband died of pancreatic cancer due to his work-related exposure to coal tar pitch while employed by the defendant. The trial court determined the employee's spouse had not carried her burden of proof as to causation. The Panel **affirmed**. For 30 years the employee had worked in and out of the rooms where aluminum smelting took place. Coal tar pitch was used in the smelting process. It was undisputed the employee was exposed to coal tar pitch. A physician for the employee's spouse testified that the employee was at significantly increased risk of developing pancreatic cancer because of his work exposures to coal tar pitch. However he acknowledged pancreatic cancer can occur without known risk factors. The defendant's physician testified the literature regarding a link between coal tar pitch and pancreatic cancer was inconclusive, although exposure could not be ruled out as a contributing cause. He cited other well-established risk factors for pancreatic cancer, such as diabetes, obesity, diet, age, and male gender. The Panel

defined the sole issue in the case as causation. It observed that the elements necessary to sustain an occupational disease claim were as specified in T. C. A. § 50-6-301, and confirmed in *Excel Polymers, LLC v. Broyles*, 302 S.W.3d 268, 274 (Tenn. 2009). Here, the trial court found the testimony of the defendant's physician more persuasive and the plaintiff's physician's testimony insufficient to establish a causal connection. The Panel agreed.

<http://www.tncourts.gov/sites/default/files/20181030080019.pdf>

4. Impairment

Zoran Andric v. Costco Wholesale Membership, Inc., No. W2017-01661-SC-R3-WC – Filed August 2, 2018.

The trial court found the employee has sustained a compensable injury to his right foot and awarded a 64 per cent permanent partial disability. The employer argued on appeal that the trial court had erred in apportioning the impairment to the foot rather than to the body as a whole. The Panel **affirmed but modified** the award to 26 per cent. The authorized treating physician (ATP) assigned a three per cent impairment rating to the right foot, a two percent rating to the right lower extremity and a one percent rating to the body as a whole. The employee's physician assigned a ten percent rating to the right foot, a seven percent rating to the right lower extremity and a three percent rating to the body as a whole. An independent medical examiner gave a three percent rating to the right lower extremity and a four percent rating to the foot. The trial court found the employee had suffered an injury to his right foot and no permanent injury otherwise that would justify a rating to the leg or body as a whole. The Panel determined the trial court erred in failing to presume the correctness of the independent physician's four per cent impairment rating to the right foot pursuant to T. C. A. § 50-6-204(d)(5). Accordingly, the Panel modified the award. <http://www.tncourts.gov/sites/default/files/andricopn.pdf>

Michael Mayuric v. Huff & Puff Trucking, Inc., et al., No. M2017-00102-SC-R3-WC – Filed January 4, 2018.

The employee, a truck driver, was involved in a work-related accident while driving in a severe snow storm. He developed PTSD and was not able to drive again. He filed suit for workers' compensation benefits, alleging permanent and total disability. The trial court found the employee had sustained an 80 per cent permanent partial disability. The Panel **affirmed**. The case involved conflicting proof from physicians and vocational disability experts. The trial court adopted the 20 percent impairment rating by the psychiatrist who was not the original treating physician but later became the authorized treating physician (ATP). The employer raised two issues: it contended the trial court erred in accepting the opinion of the later ATP over the original treating physician and further erred in awarding a vocational disability greater than the expert the court found more credible. The trial court discounted the original physician because he

had abruptly discharged the employee and changed his diagnosis after being rehired by the employer for the purpose of reexamination. The Panel referenced *Kellerman v. Food Lion, Inc.*, 929 S.W. 2d 333, 335 (Tenn. 1996) in finding the record more supportive of the trial court's assessment of the two physicians' testimony, and cited *Williams v. Tecumseh Prod. Co.*, 978 S.W.2d 932, 936 (Tenn. 1998), relative to the court's exercise of discretion concerning vocational disability. http://www.tncourts.gov/sites/default/files/mayuric_v._huffpuff._opn.pdf

See also *Kenneth E. Raymer v. Maintenance Insights, LLC, et al.*, No. M2017-00986-SC-R3-WC – Filed June 14, 2018, where the employee sustained injuries to his left shoulder and neck in two separate work accidents five months apart. Medical and vocational experts offered conflicting opinions. The Panel **affirmed** the trial court's award. http://www.tncourts.gov/sites/default/files/raymer.kenneth.opnjo_.pdf

5. Vocational Disability

See above under **Impairment: Zoran Andric v. Costco Wholesale Membership, Inc., No. W2017-01661-SC-R3-WC, Michael Mayuric v. Huff & Puff Trucking, Inc., et al. No. M2017-00102-SC-R3-WC, and Kenneth E. Raymer, Maintenance Insights, LLC, et al No. M2017-00986-SC-R3-WC.**

6. Reasonable Excuse

See above, under **Procedure 5. Discretionary Costs, Paul Gray v. Wingfoot Commercial Tire Systems, et al. No. W2017-00380-SC-WCM-WC**

7. Acceleration of Preexisting Condition

Anna Maria Butler v. McKee Foods Corporation, No. E2017-02471-SC-R3-WC – Filed December 6, 2018.

The employee, who worked many years as a forklift driver, sustained injuries in a fall on May 2, 2012. After the accident the employee experienced numbness in her arms and legs, which eventually resulted in her inability to operate a forklift or perform other tasks. Before the 2012 accident the employee had been injured at work in 1997 when several packages fell on her but she recovered and resumed her regular duties. During treatment for cervical strain following the 2012 injuries one of her authorized treating physicians (ATP) diagnosed preexisting cervical degenerative disc disease which he concluded did not arise out of employment. The employee later sought independent treatment from an orthopedic surgeon who concluded the employee had

sustained a spinal cord compression injury in the 2012 fall which accelerated her preexisting condition. The trial court found the employee had sustained permanent and total disability due to the 2012 injury. The employer argued the employee's condition did not arise from the work injury in 2012 and pointed to the conclusion by the ATP that her preexisting condition was not causally related to her fall in 2012. The trial court recognized the presumption of correctness to be afforded to opinions on causation by an ATP under T. C. A. § 50-6-102(12)(A)(ii)(2014), but held the employee's medical proof was sufficient to overcome the presumption. The Panel agreed, and **affirmed**.

http://www.tncourts.gov/sites/default/files/correct_butler_vs_mckee_opinion.pdf

***Tommy B. Wyatt v. Mueller Company*, No. E2016-02360-SC-R3-WC** – Filed January 22, 2018.

The employee's work as a cell grinder involved moving and manipulating heavy objects. He had back pain for three years before undergoing surgery in 2006. He returned without restrictions but his symptoms persisted. His claim of a cumulative trauma injury was denied by his employer who alleged the employee had preexisting degenerative disease in his spine. The trial court awarded the employee permanent and total disability benefits. The Panel **affirmed**, agreeing the trial court had properly accredited the testimony of physicians who were familiar with the employee's strenuous work requirements and who opined his work primarily caused exacerbation of his spinal condition. **Note:** This case also dealt with a *notice* issue under T. C. A. § 50-6-201 (2008). The employer claimed the employee failed to give timely notice. The employee countered that the 30 day notice period began when he first received a medical diagnosis of the permanent, work-related nature of his injury. The Panel cited *Hill v. Whirlpool Corp.*, No. M2011-01291-WC-R3-WC, 2012 WL 1655768 (Tenn. Workers' Comp. Panel May 10, 2012 and *Banks v. United Parcel Serv., Inc.*, 170 S.W.2d 556, 561 (Tenn. 2005) in finding the evidence did not preponderate against the trial court's ruling that the employee gave timely notice under the circumstances. http://www.tncourts.gov/sites/default/files/wyatt-mueller_opn_and_judgmentfinal_draft.pdf

8. Permanent and Total Disability

***Mid-Cumberland Human Resources Agency v. Brenda Binnion*, No. M2017-00970-SC-R3-WC** – Filed October 31, 2018.

A commercial van driver sustained a severe neck injury while assisting a passenger into the van. She was diagnosed with a condition known as torticollis. The trial court found the employee permanently and totally disabled. The single issue on appeal was whether the evidence supported the trial court's finding. The Panel **affirmed**. The employer argued that the evidence as to the employee's disability was based solely on "her self-serving testimony about her overall physical condition and her subjective assessment of her physical limitations." The Panel concluded that

all the other evidence before the trial court, including her medical treatment history, the progression of medical interventions, her use of a deep brain stimulator as part of her treatment which caused side-effects when she attempted to work, the assessment of her credibility by a physician who treated her for years, and the trial court's opportunity to observe her at trial, did not preponderate against the trial court's finding.

<http://www.tncourts.gov/sites/default/files/midcumberland-binnion.1opn.pdf>

Wesley David Fly v. Mr. Bult's Inc., et al., No. W2017-00828-SC-R3-WC – Filed July 25, 2018.

The parties agreed the employee, a truck driver, was permanently and totally disabled but the employer contended non-working factors acting independently of his work injury contributed to his disability. The trial court's award of permanent and total disability was challenged on appeal. The employee was diagnosed with a bulging disc at the L4-5 level with stenosis after his injury on October 27, 2011. He was also diagnosed with degenerative disc disease and spondylosis. The Panel **affirmed**, holding the employee had sufficiently established causation. The employee had no symptoms prior to the injury and he was never able to return to work thereafter.

<http://www.tncourts.gov/sites/default/files/flyopn.pdf>

James Harrison v. General Motors, LLC, et al., No. M2016-02522-SC-R3-WC – Filed February 20, 2018.

The employee sustained a compensable work injury to his right shoulder on October 24, 2014. He had previously sustained a right wrist injury in 2011. He filed a workers' compensation claim alleging permanent and total disability after the shoulder injury. The Court of Workers' Compensation Claims found he was not permanently and totally disabled and awarded permanent partial disability benefits. The employee appealed and the Panel **affirmed**, agreeing with the trial court that the employee had failed to carry the burden of proof to demonstrate he was incapable of working at an income producing job. The employee's physician had assigned a three percent permanent impairment rating to the body as a whole as a result of the shoulder injury. There was conflicting evidence from medical and vocational experts. The trial court resolved the conflicts by evaluating the credibility and weight of the evidence. "(T)he trial court found the physicians' opinions non-determinative." The court's "primary guidance" came from the opinions of vocational experts, whose opinions "are not accorded the same weight as those of medical doctors." While the trial court recognized the employee had sustained a significant vocational disability, it considered the gap between a three percent rating and permanent and total disability too extreme. The Panel noted the trial court assigned greater weight to the testimony of one vocational expert because her opinion accounted for the treating physician's testimony, whereas the other expert's opinion was based on "less reliable sources." "When

expert medical testimony differs, it is within the discretion of the trial court to accept the opinion of one expert over another.” *Fritts v. Safety Nat’l Cas. Corp.*, 163 S.W.3d 673, 679 (Tenn. 2005) http://www.tncourts.gov/sites/default/files/harrison.james_.opn_.pdf

See also *Billy W. Tankersley v. Batesville Casket Company, Inc., et al.*, No. M2016-02389-SC-R3-WC – Filed January 26, 2018. http://www.tncourts.gov/sites/default/files/tankersley-batesville_opn.pdf

9. Second Injury Fund

Charles Steven Blocker v. Powell Valley Electric Cooperative et al., No. E2017-01656-SC-R3-WC – Filed September 20, 2018.

The employee sustained a compensable cervical spine injury in 2010. He returned to work after a serious cervical fusion procedure but suffered a second, gradual injury to his spine in 2013. A second spinal fusion surgery rendered him permanently and totally disabled due to restrictions imposed by physicians. He filed an action against his employer and the Second Injury Fund (Fund). After an initial finding by the trial court the case was remanded by the Panel so the trial court could reassess the 2013 vocational disability and make the appropriate assignment of the award to the employer and the Fund. The Fund again appealed after the trial court assessed 20% of the award to the employer and 80% to the Fund. The Panel **affirmed**, finding the decision of trial court was supported by the evidence. According to the medical proof, the first fusion procedure was more serious and was the cause of the second fusion. If only the 2013 injury had occurred, the employee could have returned to work.

http://www.tncourts.gov/sites/default/files/blocker_vs._powell_valley.pdf

CONCLUSION

Pursuant to Tennessee Code Annotated Section 50-6-121(i), the Advisory Council on Workers’ Compensation respectfully submits this report on significant Supreme Court decisions for the 2018 Calendar Year up to and including the decision filed on December 6, 2018. An electronic copy of the report will be sent to the Governor and to the Speaker of the House of Representatives, the Speaker of the Senate, the Chair of the Consumer and Human Resources Committee of the House of Representatives, and the Chair of the Commerce and Labor Committee of the Senate. A printed copy of the report will not be mailed. Notice of the availability of this report will be provided to all members of the 111th General Assembly pursuant to T. C. A. § 3-1-114. In addition, the report will be posted under the Advisory Council

on Workers' Compensation tab of the Tennessee Treasury Department website:
<http://treasury.tn.gov/claims/wcadvisory.html>

**Respectfully submitted on behalf of the Tennessee Advisory Council on Workers'
Compensation,**

/s/ _____
David H. Lillard, Jr., State Treasurer, Chair

/s/ _____
Larry Scroggs, Administrator

EXHIBIT 2B

STATE OF TENNESSEE

Advisory Council on Workers' Compensation

<http://treasury.tn.gov/claims/wcadvisory.html>



2017 SUMMARY OF SIGNIFICANT TENNESSEE SUPREME COURT WORKERS' COMPENSATION DECISIONS

TREASURY DEPARTMENT
STATE CAPITOL
NASHVILLE, TENNESSEE 37243-0225

David H. Lillard, Jr., State Treasurer, Chair
Larry Scroggs, Administrator

Significant 2017 Tennessee Supreme Court Workers' Compensation Decisions

INTRODUCTION

Pursuant to Tennessee Code Annotated (“T. C. A.”) § 50-6-121(i), the Advisory Council on Workers' Compensation is required to issue this report reviewing significant Tennessee Supreme Court decisions involving workers' compensation matters for each calendar year. This report contains a synopsis of the cases, with topical headings to facilitate review of the 2017 decisions from the Tennessee Supreme Court.

The Tennessee Supreme Court

Appeals of decisions in workers' compensation cases by trial courts, including the Circuit and Chancery Courts, the Court of Workers' Compensation Claims, the Tennessee Claims Commission, and appeals from Workers' Compensation Appeals Board decisions are referred directly to the Supreme Court's Special Workers' Compensation Appeals Panel (“Panel”) for hearings. Participating judges who comprise the panels are designated by the Supreme Court and each panel includes a sitting Justice. The Panel gives considerable deference to the lower trial courts' decisions with respect to credibility of witnesses since the lower trial courts have the opportunity to observe individuals testify. The Panel reports its findings of fact and conclusions of law, and such judgments automatically become the judgment of the full Supreme Court thirty (30) days thereafter, barring the grant of a motion for review. Tennessee Supreme Court Rule 51 and T. C. A. § 50-6-225 and see also T. C. A. § 50-6-217(a)(2)(B), relative to the appeal process from the Workers' Compensation Appeals Board.

The Tennessee Supreme Court Special Workers' Compensation Appeals Panel

The Supreme Court and its Special Workers' Compensation Appeals Panel issued opinions in 36 cases between January 9, 2017 and December 28, 2017. Thirty-one opinions, including one direct appeal from the Tennessee Claims Commission, were “**old law**” cases, based on claims arising prior to the July 1, 2014 effective date of the Workers' Compensation Reform Act of 2013. The other five opinions were issued in “**new law**” cases. Four of those involved appeals from the *Court of Workers' Compensation Claims* and one came directly from the *Workers' Compensation Appeals Board*.

With the passage of time, fewer “**old law**” cases will work through the appeals process. Direct appeals to the Supreme Court should gradually decrease as more cases are resolved in the Court of Workers’ Compensation Claims and the Workers’ Compensation Appeals Board. Pending legislation brought by the Administrative Office of the Courts on behalf of the Tennessee Supreme Court would eliminate the existing “appeal by right” to the Supreme Court. The Advisory Council on Workers’ Compensation considered the legislation in three meetings in 2017 during the First Session of the 110th General Assembly but did not recommend that the appeal by right be eliminated.

Summaries of the cases decided by the Supreme Court and its Special Workers’ Compensation Appeals Panel in 2017 are presented here, with headings that constitute a workers’ compensation “issues list.”

TABLE OF ISSUES

Statute of Limitations Page 4

Causation Page 5

Advancement/Acceleration of Preexisting Condition Page 9

Extent of Disability Page 13

Compensability Page 15

Second Injury Fund Page 16

Independent Intervening Cause Page 18

Notice Page 20

Coming and Going Rule Exceptions Page 22

Exclusive Jurisdiction Page 24

Course and Scope Page 25

Permanent Total Disability Page 27

Attorneys Fee Page 27

Medical Impairment Registry Page 28

Election of Remedies Page 29

Employee Pressured to Resign Page 30

Reconsideration Page 31

Inhalation Exposure Page 32

Average Weekly Wage Calculation Page 33

STATUTE OF LIMITATIONS

Jason Baker v. Total Air Group LLC F/K/A Tunica Air Group LLC, et al.
No. W2016-00965-SC-R3-WC- Filed August 7, 2017

The employee was injured at work on February 11, 2011 and reached maximum medical improvement on June, 13, 2011. The insurer made its final voluntary payment of medical expenses on December 31, 2012. The employee returned to work but was terminated July 29, 2104. He alleged he had requested and received authorization from the insurer for additional medical treatment in February 2015. He filed suit in Tennessee on May 1, 2015. The employer alleged the claim was barred by the statute of limitations. On cross-motions for summary judgment, the trial court held the claim was not barred and awarded benefits. This appeal by the employer challenged the ruling on the statute of limitations.

The Panel concluded the trial court’s ruling was based on its finding that the employee’s receipt of additional authorized medical treatment in February 2015 extended the one-year statute of limitations. The Panel found the employee’s receipt of authorized medical treatment *did not* extend or revive the already expired statute of limitations but it **affirmed** on different grounds. The Panel held that the *doctrine of equitable estoppel* applied. The employer was prevented from relying on the statute of limitations defense since it had directed the employee to pursue his claim under Mississippi law. The Panel agreed with the trial court’s ruling that the employee, although a Mississippi resident, was hired and regularly employed in Tennessee, thus depriving Mississippi of jurisdiction over the claim. The Panel agreed the employer’s erroneous handling of the claim under Mississippi law misled the employee about the applicable statute of limitations.

<http://www.tncourts.gov/sites/default/files/bakeropn.pdf>

United Parcel Service, Inc. et al. v. Robert Charles Millican, Jr.
No. E2016-024242424-SC-R3-WC-Filed October 24, 2017

The employer filed suit to resolve a dispute with the employee over a hearing loss claim. The employer asserted the claim was barred by the statute of limitations since the claim was filed three years after a doctor advised the employee his hearing loss was work related. The trial court agreed. On appeal the employee contended that the statute of limitations was effectively tolled because of the *last day worked rule*. The employee, a truck driver, claimed he sustained additional hearing loss every day he worked. The Panel observed that under the last day worked rule, the statute of limitations to bring a workers' compensation claim begins to run on the first day the employee misses work due to his injury, citing *Crew v. First Source Furniture Group*, 259 S.W.3d 656, 670 (Tenn. 2008), and *Building Materials Corp. v. Britt*, 211 S.W.3d 706, 711 (Tenn. 2007). The rule is based on the idea that a gradually occurring injury is a new injury each day the employee works. *Britt*, at 711. The Panel **affirmed** the trial court, concurring in its finding that decibel level noise testing evidence did not support the employee's claim that noise from trucks he drove caused his gradual hearing loss.

http://www.tncourts.gov/sites/default/files/opinion_20171024125933.pdf

CAUSATION

Donald Ray Brown v. Zurich American Insurance Company
No. E2016-00237-SC-R3-WC-Filed April 21, 2017

The employee claimed his heart attack was compensable because of work related stress, depression and anxiety. Medical proof did not establish a triggering acute or unexpected event and instead pointed to a narrowed coronary artery. The trial court ruled the employee failed to carry his burden of proof to establish compensability. The Panel **affirmed**, after reviewing two categories of heart attack cases. In the first, the Panel noted heart attacks precipitated by physical exertion or strain, and in the second, "those resulting from stress, tension, or some type of emotional upheaval." *Bacon v. Sevier County*, 808 S.W.2d 46, 49 (Tenn. 1991). The Panel found no evidence of any causative physical exertion or strain. Citing *Bacon* and *Cunningham v. Shelton Sec. Serv., Inc.*, 46 S.W.3d 131 (Tenn. 2001), the Panel observed "(n)ormal ups and downs are part of any employment relationship and . . . do not justify finding an 'accidental injury' for purposes of workers' compensation law. *Bacon*, at 53. "Accordingly, the well-settled rule in Tennessee is that physical or mental injuries caused by worry, anxiety, or emotional stress of a general nature or ordinary stress associated with an employee's occupation are not compensable. The injury must be the result of an incident of abnormal and unusual stressful proportions. . ." *Cunningham*, at 137.

http://www.tncourts.gov/sites/default/files/brown-filed_20170519130829.pdf

Clifford Barker v. The Goodyear Tire & Rubber Company
No. W2015-01893-SC-R3-WC-Filed August 2, 2017

The employee retired in 1999 after 30 years with the employer. On March 18, 2014 he filed suit alleging employment-related noise induced hearing loss. The trial court awarded benefits for 30% permanent partial disability in both ears. On appeal the employer contested the award as well as the finding of causation. Medical proof indicated noise induced hearing loss with a significant worsening of the employee's hearing after his retirement. The doctors agreed age-related hearing loss was worse for persons who had sustained hearing loss earlier in life. The trial court found the employee's noise exposure at work was a "major contributing factor" to his hearing loss. The Panel **affirmed in part** but reduced the award to 15% in both ears, holding that the proof indicated the bulk of the employee's hearing loss took place after his retirement, that he had been able to obtain and hold post-retirement part-time employment without restrictions, and that he was minimally affected in his daily living activities.

<http://www.tncourts.gov/sites/default/files/barkeropn.pdf>

Steven Bell v. Goodyear Tire & Rubber Company
No. W2015-01675-SC-R3-WC-Filed August 7, 2017

The employee retired in 2011 after 37 years with Goodyear. He requested a benefit review conference shortly after retirement, contending he had sustained hearing loss a result of noise exposure at work. He filed suit on May 4, 2012. The employer denied the claim, alleging the employee had moderate to severe hearing loss when he was hired. The trial court awarded 40% permanent disability benefits for hearing loss in both ears. On appeal the Panel **affirmed** the judgment, noting the medical experts agreed the employee had a substantial hearing loss in the higher frequencies when hired, but that noise exposure at work "was the primary cause of the aggravation of Employee's low-frequency hearing loss." In reaching its decision the Panel observed the trial court had chosen to accredit one expert over another. "When a trial court faces conflicting expert testimony, it generally has the discretion to choose which expert to accredit." *Kellerman v. Food Lion, Inc.*, 929 S.W.2d 333, 335 (Tenn. WC Panel 1996). The Panel disagreed with the employer's contention the award was excessive, citing *Lang v. Nissan N. Am. Inc.*, 170 S.W.3d 564, 569 (Tenn. 2005). "The extent of an injured worker's permanent disability is a question of fact." Additionally, the court in *Lang* observed "It is well settled that an employee may recover for injury to a scheduled member without regard to loss of earning capacity." *Lang*, at 569.

<http://www.tncourts.gov/sites/default/files/bellopn.pdf>

James Ellis Phillips v. The Pictsweet Company
No. W2016-01704-SC-R3-WC-Filed August 28, 2017

The employee worked as a truck driver and mechanic. He allegedly sustained a compensable back injury on December 2, 2013. The employer denied the claim mainly because the treating

physician concluded the symptoms were due to degenerative changes unrelated to work. An independent medical evaluation indicated the employee's preexisting arthritic changes were aggravated by his work injury. The trial court awarded 72% permanent partial disability benefits. The employer appealed. The Panel **affirmed in part, modified in part and reversed in part**. The employer claimed delay of notice and lack of written notice, but the Panel concluded the delay was reasonable due to the employee's work travel requirements. As to compensability, the Panel reviewed the statutes and cases, concluding that the employer was liable "if the accidental injury is causally related to and brings about the disability by the aggravation, actual progression or anatomical change of the preexisting condition," citing *McKinney v. Inland Paperboard & Packaging, Inc.*, No. E2005-2786-SC-R3-WC, 200 WL 293037 at 2-3. The employee had testified his injury occurred as he performed truck brake maintenance and changed tires, and was compensable pursuant to T.C.A. § 50-6-102(12)(A)(i). The employer contended the employee's injury was "cumulative" under T.C.A. § 50-6-102(12)(C)(ii) and that there was no medical testimony that his condition arose "primarily" from employment. The Panel credited the testimony of the evaluating physician and the employee about the circumstances of the injury, concluding he had sustained an acute accidental injury arising out of and in the course and scope of employment rather than a gradual injury from repetitive work. However, based on the evidence, the Panel determined the award to be excessive and reduced it to 36% and also disallowed certain past medical expenses.

<http://www.tncourts.gov/sites/default/files/phillpsopn.pdf>

Jonathan Engler v. Able Moving Company, et al.
No. W2016-02125-SC-R3-WC-Filed October 30, 2017

In this "**new law**" case, the employee alleged he injured his back at work and subsequently developed a serious infection requiring hospitalization and treatment. He sought temporary total disability benefits and medical expenses. The *Court of Workers' Compensation Claims* determined the employee had failed to prove by a preponderance of the evidence that he sustained a compensable injury arising out of and in the course and scope of his employment. On appeal, the Panel **affirmed** the decision. There was conflicting medical testimony from very well qualified physicians specializing in internal medicine, orthopedics, neurosurgery, and infectious diseases about whether an injury could have triggered the infection. The Panel analyzed the evidence pursuant to T.C.A. § 50-6-102(14). An injury "arises primarily out of and in the course and scope of employment only if it has been shown by a preponderance of the evidence that the employment contributed more than fifty percent (50%) in causing the injury, considering all causes." The Panel concluded the employee had established his infection was *possibly* related to his work-related back injury but that mere possibility was insufficient to prove causation.

<http://www.tncourts.gov/sites/default/files/engleropn.pdf>

Thomas Lee v. Federal Express Corporation
No. W2016-02126-SC-R3-WC-Filed October 30, 2017

In another “**new law**” case, an employee alleged he sustained a compensable injury to his left shoulder on July 24, 2014. The employer denied the claim due to conflicting descriptions of the accident to various medical personnel. The *Court of Workers’ Compensation Claims* ruled that the employee had failed to sustain his burden of proof and dismissed the claim. The Panel **affirmed** the trial court, agreeing that inconsistencies in the medical proof about how the injury occurred would require speculation on the part of the trier of fact. The trial testimony of the employee was compared to numerous conflicting statements he had given to medical providers concerning the date of injury, how it occurred, and whether or not it was related to work. “The trial court had the opportunity to see and hear employee testify in open court. It implicitly found his explanations for his prior inconsistent statements to be wanting. It is our obligation to give deference to a trial court’s findings as to credibility of live testimony.” *Madden v. Holland Grp. of Tenn., Inc.*, 277 S.W.3d 896, 898 (Tenn. 2009).

<http://www.tncourts.gov/sites/default/files/leeopn.pdf>

Tracy Payne v. D & D Electric, et al.
No. E2016-01177-SC-R3-WC-Filed April 18, 2017

This “**new law**” case involves an employee who alleged he injured his foot at work. The employer denied the claim, citing lack of medical proof of causation from employment. The *Court of Workers’ Compensation Claims* denied the employer’s motion for summary judgment, finding there was a genuine issue of material fact whether the work injury contributed more than 50% in causing the injury. The *Workers’ Compensation Appeals Board* reversed and remanded the case, holding the employee failed to produce sufficient evidence his foot condition arose primarily out of the course and scope of his employment. The Panel **affirmed** the Appeals Board ruling, agreeing the medical records did not contain sufficient expert opinion that the left foot injury arose out of and in the course and scope of employment. The employee had significant diabetes-related problems with his left foot before he slipped on the stairs at work. He had previously been treated for problems with the left foot and his post-accident surgery was due to infection. In applying statutory requirements under T.C.A. § 50-6-102(14)(A), (B), (D) and (E), the Panel concluded the employee had not submitted medical evidence that his employment contributed more than 50% to his injury.

http://www.tncourts.gov/sites/default/files/payne_-_filed.pdf

Joseph Kolby Willis v. All Staff, et al.
No. M2016-01143-SC-R3-WC-Filed August 3, 2017

In this “**new law**” case, the employee alleged he sustained a compensable injury to his left knee while at work. The *Court of Workers’ Compensation Claims* found the injury compensable, however the *Workers’ Compensation Appeals Board* reversed, holding the employee had failed to establish causation. The Panel **affirmed** the Appeals Board decision. The employee had been previously diagnosed with *patella alta*, a condition that predisposed him to kneecap dislocation. After the work incident, an MRI revealed an acute tear of the medial patellofemoral ligament in the left knee. The treating physician’s deposition testimony indicated that the injury could have occurred while the employee was rising from a squatting position regardless where he was at the time, and that his body weight and mechanics could have caused his knee to dislocate as he was standing up. The Panel agreed with the Appeals Board’s conclusion that the proof preponderated against the trial court’s finding “that the employment contributed more than 50% in causing the injury, considering all causes.” T.C.A. § 50-6-102(13)(B). Noting the statutory standards had changed after July 1, 2014, the Panel observed that the treating physician offered several alternative explanations for the dislocation. The physician did not testify that the employment contributed more than 50% in causing the injury. Instead he stated a work related incident was only a possibility. “While this testimony may have been sufficient to establish causation under prior law, it is insufficient under the statutes applicable to this appeal, which state that an injury arises out of employment “only if it has been shown by a preponderance of the evidence that the employment contributed more than 50% in causing the injury, considering all causes.” <http://www.tncourts.gov/sites/default/files/willis-allstaff2opn.pdf>

ADVANCEMENT/ACCELERATION OF PREEXISTING CONDITION

Jenny Craig Operations, Inc. v. Lori Reel
No. M2016-01775-SC-R3-WC-Filed August 4, 2017

The employee, a Jenny Craig consultant, fell at work striking her right knee on the floor. In her suit she alleged the work-related injury aggravated a preexisting arthritis in the knee, necessitating a total knee replacement. The employer conceded the employee had sustained a temporary injury from the fall but denied liability for a total knee replacement. The trial court found the work-related fall caused an acceleration, advancement, or progression of her osteoarthritis, requiring the knee replacement, and that the injury was compensable. The employee was awarded a 46.5% permanent partial disability to her right lower extremity. The Panel **affirmed** the judgment of the trial court.

On appeal the employer argued the fall only increased the employee’s level of pain due to her preexisting condition and that the medical proof did not demonstrate any permanent anatomical change. The Panel cited *Trosper v. Armstrong Wood Products, Inc.*, 273 S.W.3d 598 (Tenn. 2008). “[An] employee does not suffer a compensable injury where the work activity aggravates the preexisting condition merely by increasing the pain. However, if the work injury advances

the severity of the preexisting condition, or if, as a result of the preexisting condition, the employee suffers a new, distinct injury other than increased pain, then the work injury is compensable.” *Id.* at 607. The Panel noted the employee was asymptomatic before the fall, and that the pain experienced since the fall had materially disabled her in her ability to work and engage in normal daily activities. “We conclude that this pain was sufficient to constitute disabling pain and to evidence an aggravation or advancement of her preexisting condition under the facts and circumstances of this case, even absent evidence of an anatomical change.” The Panel stated that medical and lay testimony must be considered.

http://www.tncourts.gov/sites/default/files/jennycraigopn_-_final.pdf

James Tucker v. Tree & Shrub Trucking, Inc., et al.
No. M2016-01898-SC-R3-WC-Filed August 29, 2017

The employee, a truck driver, sustained a compensable lower back injury in 2012. He had surgery and returned to work after reaching a settlement based on one and one-half times the anatomical impairment rating of 12%. On January 17, 2014 the employee had a dramatic increase in his symptoms while bending over to fuel his truck. A new injury claim was filed. Between the two incidents the employer’s workers’ compensation insurer had changed. Each insurer contended the other was liable for the employee’s new claim. The employee was unable to return to work for the employer but eventually settled his claim with the second insurer. He then pursued a reconsideration claim on the previous settlement for the 2012 injury against the employer and the first insurer. The trial court found the employee entitled to reconsideration and awarded additional benefits of four times the original anatomical impairment. The employer appealed.

The Panel **affirmed** the trial court judgment. The proof indicated both the employee and his employer initially believed the employee had aggravated his preexisting injury. However, the treating physician considered the 2014 event a new injury, primarily because the employee’s main symptoms were bilateral leg pain resulting from lumbar radiculopathy, which was a change from his previous symptomology. Because the two insurers were arguing over liability the employee was not receiving temporary total disability benefits and his financial situation deteriorated. When told by the employer there was no job available if he could not drive a truck, the employee resigned and collected his “escrow money” (a sum withheld by the employer amounting to \$750.00). In an initial hearing the trial court determined the second insurer was liable and directed it to provide medical care. The treating physician opined the first injury and surgery in 2012 accelerated the degenerative process at L4-5, and that the second injury in 2014 caused an additional 3% whole body impairment and chronic low back pain which rendered the employee permanently unable to work as a truck driver. The employer contended the employee had voluntarily resigned prior to treatment and was not entitled to reconsideration of the award for the first injury. Basing its analysis on *Tryon v. Saturn Corp.*, 254 S.W.3d 321, 327 (Tenn.

2008), the Panel disagreed, finding that the employee had no meaningful return to work and that his resignation was reasonably related to his work place injury.

http://www.tncourts.gov/sites/default/files/tucker.v.treedshrub.opn_.pdf

Troy S. Alexander v. NGMCO, LLC A/K/A General Motors, LLC

No. M2016-01480-SC-R3-WC-Filed October 26, 2017

The employee worked for the predecessor to the defendant employer for many years and developed carpal tunnel syndrome. The defendant employer took over the business after the predecessor filed bankruptcy in 2009. The employee began performing a more hand intensive task at a different plant operated by the defendant employer in January 2010. In the summer of 2011 the employee developed more severe symptoms and filed a claim for benefits. After initially paying temporary total disability benefits the employer denied the claims, contending the symptoms were caused by preexisting medical conditions. Conflicting medical opinions were offered at trial. The trial court ruled for the employee and awarded benefits. The employer appealed. The Panel **affirmed** the trial court's ruling. The Panel observed that while causation of an injury must be proved by expert medical testimony, such testimony must be considered in conjunction with the lay testimony of the employee as to how the injury occurred (citing *Thomas v. Aetna Life & Casualty Co.*, 812 S.W.2d 278, 283 (Tenn. 1991)). Here, one physician testified that the employee sustained a significant worsening of his preexisting carpal tunnel syndrome that made surgical treatment necessary and that his specific work activities were the primary cause. Although the second physician disagreed he recognized that the employee had experienced significantly increased symptoms while performing the specific job activities. The Panel noted the employee had been able to function well at work prior to the later work assignment that began in 2010.

http://www.tncourts.gov/sites/default/files/alexander_v._ngmco_aka_general_motors_llc.opn2_.pdf

James Estel Jeffers v. Armstrong Wood Products, et al.

No. E2017-00499-SC-R3-WC-Filed October 24, 2017

The employee claimed workers' benefits for a back injury. The employer denied the claim. At trial the court found the employee permanently and totally disabled and apportioned liability 52% to the employer and 48% to the Second Injury Fund. The employer appealed, contending the employee had not established a work related injury and that the apportionment of liability was in error. The Panel **affirmed** the trial court. The Panel noted the employee performed various types of manual labor and had sustained a back injury in August 1991, for which he underwent surgery but was able to return to work. On October 11, 2009, he was working as a "nester," lifting boards and stacking them onto a cart which he would then push. His back "locked up" and he sought medical treatment. He saw his family doctor and took off work three

days, then returned but avoided lifting and twisting. He then took a week's vacation to further recuperate. He was suspended after returning for a day and a half and terminated November 5, 2009.

At trial the employee testified he had dealt with soreness before the October 11, 2009 injury, but had not previously had the type of pain he experienced with the injury. In March 2010 an MRI revealed a broad-based central disc protrusion at L5-S1 and another disc bulge at L4-L5. The family physician acknowledged he had treated the employee for neck, shoulder and back injuries for several years before the October 2009 injury. A neurosurgeon testified the 2009 injury had aggravated preexisting degenerative and post-operative changes. Since the employee had been able to work before but not after the 2009 injury, the neurosurgeon testified the injury created anatomical change which he opined was indicated by decreased mobility. Similarly, an orthopedic surgeon testified the 2009 injury permanently aggravated and advanced the employee's preexisting, underlying degenerative disc disease, increasing its severity. Vocational experts differed about the degree of the employee's disability but agreed he was significantly limited in employability.

The Panel determined the circumstances were consistent with *Cloyd v. Hartco Flooring Co.*, 274 S.W.3d 638, 645-46 (Tenn. 2008), a case with similar facts, where the Supreme Court held the employee suffered a work injury that "advanced the severity of his preexisting arthritic condition." The Panel also concluded the trial court's assessment of 52% disability was correct since the employee had been rendered permanently and totally disabled by the 2009 injury, citing *Allen v. City of Gatlinburg*, 36 S.W.3d 73, 76 (Tenn. 2001) <http://www.tncourts.gov/sites/default/files/20171024134832.pdf>

Jamie Jordan v. City of Murfreesboro
No. M2016-02446-SC-R3-WC-Filed December 28, 2017

The employee, a city trash collector, was injured on May 22, 2012 while lifting a wet sofa onto a refuse truck. The employer defended the claim, relying on failure of notice and preexisting condition. The trial court found the employer had received actual notice and that the injury was compensable. The Panel **affirmed**. The Panel observed the employee had told his immediate supervisor of the injury when it happened even though a written first report was not filed until March 21, 2013. At trial the supervisor confirmed he had been told of the injury on the day it occurred. The Panel further observed "an employer is 'liable for disability resulting from injuries sustained by an employee arising out of and in the course of his employment even though it aggravates a previous condition with resulting disability far greater than otherwise would have been the case.'" *Baxter v. Smith*, 211 Tenn. 347, 364 S.W.2d 936, 942-43 (1962).

Dramatically conflicting medical proof was offered at trial. A board certified orthopedic surgeon testified the employee had “a herniated disc at two places pressing on a nerve going down his leg causing radiculopathy, specifically a lumbar disc, Class 1.” The orthopedic surgeon assigned a 9% permanent impairment. He subtracted 5% for the employee’s preexisting problems which resulted in a 4% permanent partial impairment specifically for the May 22, 2012 injury. A primary care physician also testified. He stated the employee had sustained an acute or chronic lumbar sprain and that he believed the employee’s movements and behavior didn’t correspond with someone in severe pain as the employee claimed. The physician took video camera footage of the employee leaving his office. He testified the employee’s behavior as consistent with “drug seeking behavior.” The employee testified at trial that the physician ultimately “threw him out of his office and cussed him out.” The trial court found the physician’s testimony “unappealing.”

The Panel observed the trial court found “highly credible” the lay testimony of the employee and his mother which corroborated the findings of the orthopedic surgeon. The panel concurred with the trial court’s decision to accredit the testimony of the orthopedic surgeon, noting “(h)e understood Employee’s preexisting problems and expressly considered such in arriving at his impairment rating.” The testimony and supporting documentation “demonstrate the May 22, 2012 workplace injury advanced the severity of the Employee’s preexisting condition.”

http://www.tncourts.gov/sites/default/files/jordan.jamie_.opn_.pdf

EXTENT OF DISABILITY

Tony Gray v. Vision Hospitality Group, Inc., et al
No. M2016-00116-SC-R3-WC-Filed January 26, 2017

The employee was chief engineer for the Hyatt Place Hotel Airport in Nashville. Although he had some supervisory duties he was regularly required to perform hands-on physical labor. On August 6, 2013 he injured his back while lifting and moving thirty rolls of carpet padding. He was diagnosed with back strain and prescribed physical therapy. After being released to return to work on September 6, 2013 he was fired four days later for “poor work.” His back symptoms worsened, requiring surgery at L4-5 on January 29, 2014, and he was unable to return to work thereafter. By the time of trial he was 58. Based on his injuries, the trial court found him permanently and totally disabled, considering his age, skills, training, education, job opportunities in the immediate and surrounding communities, and the availability of work suited for his particular disability. The employer appealed, contending the trial court erred in finding permanent and total disability. The Panel **affirmed**.

The Panel cited *Fritts v. Safety Nat’l Cas. Corp.*, 163 S.W.3d 673, 681 (Tenn. 2005), which referenced T. C. A. § 50-6-207(4)(B)(1999), holding that “an individual is permanently and totally disabled when he or she is incapable of ‘working at an occupation that brings [him or her]

an income.” The Court looks to “a variety of factors such that a complete picture of an individual’s ability to return to gainful employment is presented to the Court.” (Citing *Hubble v. Dyer Nursing Home*, 188 S.W.3d 525, 535 (Tenn. 2006). The Supreme Court noted the “employee’s own assessment of his or her overall physical condition, including the ability or inability to return to gainful employment is ‘a competent testimony that should be considered.’” *Cleek v. Wal-Mart Stores, Inc.*, 19 S.W.3d 770, 774 (Tenn. 2000). Both parties presented the testimony of vocational experts. Although neither found the employee had a 100% loss of access to employment, the employee’s work history indicated he had almost exclusively performed physically demanding jobs. He testified his age, limited education, and physical restrictions from his injuries excluded him from almost every job he had held in his life, and that his use of a cane and limited movement would make work virtually impossible. The Panel held the trial court had correctly weighed the appropriate factors in considering the employee’s circumstances.
http://www.tncourts.gov/sites/default/files/gray.t.opnjo_.pdf

Brandon Thompson v. United Parcel Service, Inc., et al.
No. M2015-02526-SC-R3-WC-Filed February 17, 2017

The employee, a delivery driver, sustained a compensable injury to his lower back on January 18, 2012. He did not return to work. He filed suit seeking permanent and total disability benefits. The trial awarded 44% permanent partial disability benefits. The employee appealed. The Panel **affirmed**. The employee had sustained a previous back injury in 2010, specifically a ruptured disc at the L5-S1 level for which he had surgery. The new injury in January 2012 involved a herniation at L4-5. He was treated non-surgically with physical therapy and eventually through pain management with medication. An independent medical evaluation by an orthopedic surgeon indicated the employee had degenerative disc disease with a herniated disc at L4-5 and radiculopathy. Vocational evaluators also testified for both parties. The employee’s expert concluded the employee had sustained a 41% loss of access to jobs previously available to him and a 70% loss of earning capacity, resulting in a combined vocational disability of 56%. The employer’s expert testified the employee had sustained a 32.5% vocational disability.

The Panel considered *Hubble v. Dyer Nursing Home*, 188 W.W.3d 525 (Tenn. 2006) and *Worthington v. Modine Manufacturing Co.*, 78 S.W.2d 232, 234 (Tenn. 1990) in analyzing the evidence presented at trial. “The determination of permanent total disability is to be based on a variety of factors . . . includ(ing) the employee’s skills, training, education, age, job opportunities in the immediate and surrounding communities, and the availability of work suited for an individual with that particular disability. . . it is well settled that . . . an employee’s own assessment of his or her overall physical condition, including the ability or inability to return to gainful employment, is ‘competent testimony that should be considered.’” *Hubble*, at 535-36. The extent of an injured worker’s vocational disability is a question of fact. *Worthington*, at 234. The Panel concluded that had the trial court fully accredited the employee’s testimony as to his

abilities and limitations a finding of permanent and total disability would have been in order. “(I)t is apparent that the trial court chose not to fully accredit that portion of Employee’s testimony. We defer to that decision.”

http://www.tncourts.gov/sites/default/files/thompson.brandon_wc_opn.pdf

COMPENSABILITY

Marilyn Miller Tansic v. Atkinson Enterprises, Inc., et al. *M2016-01138-SC-R3-WC-Filed*

The employee obtained temporary total disability (TTD) benefits after injuring herself while mopping. Her employer acknowledged a compensable injury but claimed she was not entitled to TTD benefits because she worked for her own company while she was recuperating and unable to work for the employer. The trial court found the employee performed only token tasks at her company during her injury period, which did not constitute “work,” and thus, denied the employer’s requested credit against the permanent partial disability award. The employer challenged the award of TTD as well as the multiplier used. The Panel **affirmed** the trial court’s decision. (Link not presently available)

Barbara Joan Rains v. Wal-Mart Associates, Inc. *No. W2016-00636-SC-R3-WC-Filed July 18, 2017*

The employee alleged she sustained a low back injury in the course of her work as a cashier. The trial court found the employee had failed to sustain her burden of proof and dismissed the complaint. The employee appealed. The Panel **affirmed**, finding the employee had not presented any expert medical evidence to support her claim. The employee first alleged she injured her back while lifting packages of bottled drinks from the bottom of a customer’s cart. However, at trial she testified the injury occurred when she pulled and turned over a bag of dog food. According to the employee, store video camera footage showed the employee rubbing her lower back and favoring her right leg shortly after her shift began. The trial court disagreed with her interpretation. Other store video recordings showed the employee shopping, picking up a twelve pack of drinks, and purchasing items several hours after the alleged injury. The Panel cited the holding in *Orman v. Williams Sonoma, Inc.*, 803 S.W.2d 672, 676 (Tenn. 1991) that “Except in the most obvious, simple and routine cases, the claimant in a workers’ compensation action must establish by expert medical evidence the causal relationship . . . between the claimed injury (and disability) and the employment activity.” The Panel observed there was “no medical evidence in the record that makes a diagnosis, states that Employee’s injury is related to her employment, assigns a permanent impairment, or discusses temporary or permanent disability.”

<http://www.tncourts.gov/sites/default/files/rainsbarbaraopn.pdf>

T & B Trucking v. Terry Pigue, et al.

No. W2016-01194-SC-WCM-WC-Filed December 14, 2017

The employee, a truck driver, alleged he sustained compensable injuries to his shoulder and cervical spine on October 15, 2008. The employer paid temporary total disability (TTD) benefits but filed a petition seeking determination of its obligations to pay further benefits. Somewhat conflicting medical proof was presented at trial. The employee had sustained injuries to his hand and neck in 2003 for which he had surgery in November 2004. After that time he had some manageable pain and stiffness in his neck and shoulder but was able to perform his job without difficulty until the October 2008 injury. The trial court found the injuries to his shoulder and cervical spine in October 2008 were compensable and that the employee was permanently and totally disabled. On appeal the Panel **reversed**.

The employer had contended the employee did not sustain a new injury or a compensable aggravation of his preexisting injury in the October 2008 incident. The Panel addressed the question whether a particular event constitutes a compensable aggravation of a preexisting condition. Citing *Fink v. Caudle*, 856 S.W.2d 952, 958, the Panel noted, “[A]n injury is compensable, even though the claimant may have been suffering from a serious preexisting condition or disability, if a work connected accident can be fairly said to be a contributing cause of such injury.” “However, where an employee’s work aggravates his preexisting condition by making the pain worse but does not otherwise injure or advance the severity of the condition, or result in any other disabling condition, the situation does not constitute a compensable injury.” *Smith v. Smith’s Transfer Corp.*, 735 S.W.2d 221, 225-26 (Tenn. 1987). The Panel observed the evidentiary standard for proving causation at the time of the 2008 injury would have been met if medical testimony indicated employment *could or might have been the cause* of the injury, when from other evidence it could reasonably be inferred that employment was the cause. Weighing the medical testimony, the Panel held the preponderance of the evidence showed the employee’s shoulder and neck conditions were degenerative and not related to or advanced by his reported work injury.

<http://www.tncourts.gov/sites/default/files/tbtruckingopn.pdf>

SECOND INJURY FUND

Charles Steven Blocker v. Powell Valley Electric Cooperative, et al.

No. E2016-01053-SC-R3-WC-Filed May 18, 2017

The employee sustained a compensable injury to his cervical spine in November 2010, for which he had surgery. He returned to work but suffered a second cervical injury in January 2013, after which he was unable to work. He filed suit against his employer and the Second Injury Fund. The parties stipulated the employee was permanently and totally disabled, and that the only issue

was apportionment of benefits between the employer and the Fund. The trial court found the Fund liable for 91% and the employer 9% of the employee's permanent and total disability. The Fund appealed, contending the trial court incorrectly apportioned the award. The Panel **reversed** and **remanded** for further proceedings.

The trial court applied a cap based on one and one-half times the impairment rating pursuant to T. C. A. § 50-6-241(d)(1)(A), relative to the second injury. The Panel observed that statute applies to employees who successfully return to work after injury. The proof presented indicated the employee could not return to the type of work he had done for many years, which was physically demanding and required daily lifting of nitrogen bottles weighing between 40 to 50 pounds and up to 185 pounds several times a month in the process of changing them out on power transformers. Prior to the 2013 injury he had been able to perform his work. The Panel noted testimony by vocational experts indicating the employee's skills were not transferable to other types of work. An orthopedic surgeon who performed an independent evaluation testified that the employee was unable to return to work because of the combined effect of both the 2010 and 2013 injuries in that the 2010 injury caused the subsequent injury to be disabling. Had only the 2013 injury occurred, the surgeon opined that the employee would have been able to return to work. His impairment rating for the 2013 injury was 8%. The treating physician had assigned 4% to the 2013 injury and 15% to the 2010 injury with restrictions relative to lifting techniques. When he released the employee after the second injury the restrictions he imposed resulted in the employee's termination since he could no longer perform the job. The Panel determined the trial court's application of the T. C. A. § 50-6-241 cap was not appropriate in the circumstances of the case. "(T)he evidence demonstrates that Employee suffered substantial disability of the 2013 injury alone and that preponderates against the trial court's finding that the injury caused a 9% disability to the body as a whole." The Panel remanded the case to the trial court to reassess the employee's 2013 vocational disability and to make an appropriate apportionment of the award between the employer and the Fund.

<http://www.tncourts.gov/sites/default/files/20170518151756.pdf>

Raymond Gibson v. Southwest Tennessee Electric Membership Corporation, et al.
No. W2016-01403-SC-R3-Filed August 28, 2017

The employee, a mechanic's helper, injured his lower back at work in a motorcycle accident on March 30, 2012. A settlement agreement for permanent partial disability benefits was reached in September 2013. The employee returned to work but experienced pain and related symptoms. He filed a petition for modification of the prior award claiming his back condition had worsened to the point of permanent total disability. The trial court found the employee permanently and totally disabled. The employer appealed the finding as well as the apportionment of 90% liability to the employer and 10% to the Second Injury Fund. The Panel **affirmed**.

The employee was 52 at the time of trial and testified he had performed physically demanding work since he was 16, including the last 10 or 11 years with the employer. He had no vocational training except for the type of work he was performing and had no other job skills. Despite herniated disc surgery at L5-S1 in 1991, 2007 and 2008, the evidence indicated the employee was highly motivated and returned to work without restrictions. After the 2012 motorcycle injury he had disc surgery at L4-5. He was assigned a 5% impairment rating by the treating physician in February 2013. He continued to have complaints of back pain despite having a nerve block treatment. The treating physician determined he was unable to work. The employee was evaluated by another orthopedic surgeon who assigned an impairment rating of 12%, later revised to 14%.

The Panel held the evidence supported the trial court's finding of permanent and total disability. It observed the trial court specifically accredited the employee's testimony about his physical condition. The Panel reviewed the statutes and case law and agreed the trial court had correctly apportioned the employer's liability at 90% because the proof at trial indicated that prior to the 2012 injury the employee was a good worker who rarely missed work and regularly performed strenuous tasks. Medical evidence supported the employee's testimony that he could no longer handle job requirements because of the 2012 injury.

http://www.tncourts.gov/sites/default/files/gibsonopn_0.pdf

And see:

James Estel Jeffers v. Armstrong Wood Products et al.

No. E2017-00499-SC-R3-WC-Filed October 24, 2017

<http://www.tncourts.gov/sites/default/files/20171024134832.pdf>

(Summarized above under Advancement/Acceleration)

INDEPENDENT INTERVENING CAUSE

Judy Kilburn v. Granite State Insurance Company, et al.

No M2015-1782-SC-R3-WC-Filed April 10, 2017

The employee, a trim carpenter, sustained severe injuries in a motor vehicle accident November 6, 2008 while in the course of his employment. He had cervical spine surgery. His authorized physician recommended lumbar spine surgery for his back pain but the request was denied through the utilization review process. The physician's request for epidural steroid injections was also denied. The employee was referred to a pain management clinic by his physician. Thereafter he began taking prescribed oxycodone to relieve his back pain. Six months after the surgery the employee died from an overdose of oxycodone combined with alcohol. The trial court found the

death compensable. The employer's appeal was first referred to the Panel but was subsequently transferred to the full Supreme Court for review.

The Supreme Court **reversed**, holding the employee's failure to consume his medication in accordance with his doctor's instructions was an independent intervening cause of his death. In a footnote, the Court emphasized the narrowness of its holding, stating, "We do not conclude that an individual can never prove that an overdose is the direct and natural result of the original compensable injury when a dependency or addiction to narcotics develops. We merely conclude that based on the facts and testimony in this case, the evidence preponderates against the trial court's finding that (the employee's) death was a direct and natural consequence of his original injury."

The Court cited its holding in *Anderson v. Westfield Grp.*, 259 S.W.3d 690, 696 (Tenn. 2008) with reference to the basic rule that "all medical consequences and sequelae that flow from the primary injury are compensable," noting that the rule has a limit that "hinges on whether the subsequent injury is the result of independent intervening causes, such as the employee's own conduct." In *Anderson* the Court had modified the willful or deliberate conduct standard to include an employee's "negligence as the appropriate standard for determining whether an independent intervening cause relieves an employer of liability for a subsequent injury purportedly flowing from a prior work-related injury." *Id.* at 698-99. Application of the intervening cause principle is not an affirmative defense but, rather, is a "way of assessing the scope of an employer's liability for injuries occurring after a compensable injury." *Id.* at 697. http://www.tncourts.gov/sites/default/files/kilburn.judy_.opn_.pdf

Angela Evans v. Alliance Healthcare Services
No. W2016-00653-SC-WCM-WC-Filed September 26, 2017

The employee worked as a bus driver, transporting patients and counselors to and from appointments. On December 16, 2009 she witnessed the shooting of a counselor by a patient. Immediately after the shooting the employee complained of flashbacks. About two weeks after the first shooting on December 16, 2009 the employee's landlord was shot and killed in front of her home. The employee received authorized psychiatric treatment from February 23, 2010 until March 28, 2012. She was initially diagnosed with acute stress disorder and PTSD. A lengthy course of treatment followed, with suicidal ideations and a later diagnosis of major depressive disorder with psychotic episodes. The first treating psychiatrist assigned a 40% permanent impairment as a result of the first shooting episode. A second psychiatrist examined the employee on October 11, 2011 and August 14, 2014. He concluded the employee's mental health issues were not work related, and that there were indications she had tested positive on drug screens. He opined personal problems and preexisting mental issues were the cause of most of her symptoms. Other evaluations were performed by disability evaluators and a rehabilitation

specialist, concluding the employee had PTSD and a major depressive disorder, that she had impairment in reality testing, communication, and logic, and complete vocational disability. The trial court found the employee's psychiatric impairment arose from the December 16, 2009 shooting episode. The Panel **affirmed**.

The employer had argued independent intervening cause. The Panel concluded that the medical opinions indicated the employee was functioning normally with no psychiatric or psychological problems before the December 16, 2009 shooting incident. "The shooting on December 16, 2009, was a specific, acute, sudden, unexpected, and stressful event that caused Employee to develop PTSD; therefore her mental injury is compensable." Citing *Beck v. State*, 779 S.W.2d 367, 370 (Tenn. 1989). Significantly, the Panel agreed with the trial court's decision to give greater weight to the testimony of the first psychiatrist who treated the employee over a two-year period. He had concluded the trauma and symptoms caused by the shooting compromised the employee's ability to cope with the stresses of everyday life. There was no evidence contradicting the history of flashbacks that began almost immediately and continued over a four year period. The Panel held that subsequent events that impacted the employee did not constitute an independent intervening cause of her symptoms and that she was permanently and totally disabled as a result of the December 16, 2009 shooting incident.

http://www.tncourts.gov/sites/default/files/evansopn_0.pdf

NOTICE

Jeffrey Scott Beck v. City of Brownsville, et al.
No. W2016-01402-SC-R3-WC-Filed July 18, 2017

The employee filed suit for benefits, claiming he had sustained a back injury six months earlier while engaging in a timed exercise of putting on his fireman's gear. The evidence indicated the employee had been warned on multiple occasions about his tardiness and performance issues relative to his gear. The employee testified that during the timed exercise on May 18, 2011 he felt a pop in his lower back that radiated down his leg when he grabbed his air pack, which weighed 20-30 pounds. He said he told no one about the incident. A few days later his supervisor noticed him walking in a hunched over position and asked if his back was hurting. The employee told his supervisor the pain was caused by sitting on bleachers at his stepson's graduation. After being told to take off work until he could get his back "100%," the employee sought treatment on his own. He never gave any health care provider a history of an on-the-job injury, nor did he provide any such information to his supervisors. The employee was terminated September 20, 2011 because of tardiness and performance issues. In the termination meeting the employee did not mention a work-related back injury. He gave the first notice of a work injury on September 27, 2011. The trial court found the notice four months after the alleged injury failed to satisfy the

requirements of T. C. A. § 50-6-201, that the employee's excuse for the delay was unreasonable, and that causation had not been established. The Panel **affirmed** the trial court's judgment.

The Panel cited *Banks v. United Parcel Serv., Inc.*, 170 S.W.3d 556, 560-61 (Tenn. 2005), stating, "It is well settled that an employee who fails to notify his employer within thirty days that he has sustained a work-related injury forfeits the right to workers' compensation benefits unless the employer has actual notice or the injury or unless the employee's failure to notify the employer was reasonable." The Panel considered the employee's contention the employer had actual notice, concluding the employee's own actions and responses to his supervisor undermined his argument. Further, the employee's claim there was a delay in diagnosis did not justify his failure to report a work injury when he knew in June 2011 that he had herniated discs. The Panel held the employee's alleged fear of losing his job was not a reasonable excuse since an employer may not fire an employee in retaliation for filing a workers' compensation claim. *Thomason v. Better-Bilt Aluminum Products, Inc.*, 831 S.W.2d 291, 292 (Tenn. Ct. App. 1992). <http://www.tncourts.gov/sites/default/files/beckopn.pdf>

Jeff Pevahouse v. Gerdau Ameristeel

No. W2016-01864-SC-WCM-WC-Filed December 12, 2017

The employee worked as an industrial bricklayer for 32 years. He developed weakness in his arms and legs and had balance problems in the fall of 2012, for which he sought medical care beginning with a primary care physician. Later, on November 13, 2012, a neurosurgeon determined he had a herniated cervical disc requiring immediate surgery. The employee and his wife testified they gave oral notice to the employer both before and after the surgery. The neurosurgeon could not state with medical certainty the injury was work-related, although an orthopedic surgeon who conducted an independent examination of the employee on March 26, 2014 stated the employee had sustained an acute injury at work on November 13, 2012, based on a history of repetitive work. The examiner also said the employee had not reported a specific event associated with the onset of his symptoms. The employee's attorney sent a letter to the employer on June 6, 2013, asserting the employee had sustained a work injury. The employer contended this was its first notice of a work-related injury. The trial court ruled the employee did not give timely notice and dismissed the claim, although it also issued an alternative ruling that, if timely notice was given, the employee had sustained a compensable injury and was permanently and totally disabled. The Panel **affirmed** the dismissal of the claim for failure of notice, agreeing there was "ample support for the trial court's finding."

The proof at trial indicated the employer convened a meeting November 1, 2012 to discuss the employee's continued difficulty with coordination and balance. At the time, neither the employee nor the employer knew the cause of the employee's problems and the employee did not suggest they were related to his work. The testimony revealed that was the last day the employee

worked. In reaching its opinion, the Panel explained, “The statute requiring “notice” is abundantly clear that such notice must be given in written form by the employee or someone on his behalf. The statute is further abundantly clear that such written notice must be given within thirty (30) days of the occurrence.” The Panel stated there was no provision in the code section (T. C. A. § 50-6-201(a) (2008) for “oral notice” and proceeded to analyze the proof to determine whether the employer had “actual notice.” The Panel concluded the employee had failed to carry his burden of proof on that issue, citing *McKinney v. Berklinc Corp.*, 503 S.W.2d 912 (Tenn. 1974), “[U]nless it is obvious that a work related injury has occurred, it is insufficient to charge the employer with knowledge that the employee sustained a work related injury.” *Id.* at 915. <http://www.tncourts.gov/sites/default/files/pevahouseopn.pdf>

COMING AND GOING RULE EXCEPTIONS

Billy Joe Brewer v. Dillingham Trucking, Inc., et al.
No. M2016-00611-SC-R3-WC-Filed April 11, 1017

The employee, a truck driver, fell while climbing into the cab of the employer’s truck, which was parked at the employee’s home. The employer initially accepted the claim as compensable, but later denied it, asserting that the employee was not in the course of his employment when the injury occurred. The trial court found the injury to be compensable and awarded benefits. The employer appealed, asserting the claim was not compensable due to the “coming and going rule,” and that the trial court erred in finding the employee was performing an act in the course of employment when injured. The Panel **affirmed** the trial court’s judgment except for an order to pay the cost of the employee’s independent medical examination (IME).

The employee, 53, was a longtime truck driver for different employers. He drove a dedicated route Monday through Friday. He would leave his home in Lawrenceburg, drive to the FedEx terminal there, pick up a trailer, drive to Nashville, pick up another trailer, drive to Cookeville and then bring a trailer back to Nashville. He would then return home in the employer’s truck which he kept parked there between work days. From the beginning of his employment with the employer he had followed the same routine. At trial the employer testified the employee was not allowed to drive the truck home, but the employee maintained the employer knew he did so and never prohibited the practice.

The employee regularly completed required pre-trip inspections at his home prior to beginning his route, checking the oil, air lines, tires and cleaning the windows. While performing the inspection on September 16, 2013 he slipped on the top step and fell four feet to the ground, injuring his left leg. He was diagnosed with an ACL tear and had surgery on December 9, 2013. Upon being cleared to return to work on June 3, 2014 the employer told the employee the dedicated route was no longer available.

The Panel noted Tennessee has recognized certain exceptions to the “coming and going rule,” which is that “an injury received by an employee on his way to or from his place of employment does not arise out of his employment and is not compensable, unless the journey itself is a substantial part of the services for which the workman was employed and compensated,” citing *Smith v. Royal Globe Ins. Co.*, 551 S.W.2d 679 (Tenn. 1977). One exception to the rule applies to injuries sustained by employees traveling in a vehicle furnished by the employer while going to and from work. “(w)here transportation is furnished by the employer as an incident of the employment, an injury suffered by an employee while going to or returning from his work in the furnished vehicle arises out of and in the course of the employment.” *Eslinger v. F & B Frontier Constr. Co.*, 618 S.W.2d 742, 744 (Tenn. 1981). The Panel cited *Wait v. Travelers Indem. Co. of Ill.*, 240 W.W.3d 220, 226 (Tenn. 2007) in holding that, when injured, the employee “already had commenced work by completing the mandatory pre-check of Employer’s vehicle, and was preparing to travel to the FedEx terminal to pick up his first load of the evening.”

http://www.tncourts.gov/sites/default/files/brewer-dillinghamopnjo.opn_.pdf

Paula Dugger v. Home Health Care of Middle Tennessee, et al.
No. M2016-01284-SC-R3-WC-Filed April 13, 2017

In another “**new law**” case, the employee, a home health nurse, was injured in a motor vehicle accident while returning to her home after an attempt to travel to a regular patient’s residence which was approximately 75 miles from the employee’s home. The employer denied her claim, contending the injury did not occur in the course of her employment. The employee sought temporary benefits in the *Court of Workers’ Compensation Claims*, which denied her petition. The denial was affirmed by the *Workers’ Compensation Appeals Board*, which remanded the case to the trial court. The employer then moved for summary judgment on the issue of compensability. The trial court granted the motion. The employee appealed directly to the Supreme Court. The Panel **reversed** and **remanded** the case.

The evidence indicated one of the essential functions listed in her job description required the employee to be available to make as needed and routine patient visits when requested and to be available and rotate on-call assignments. The employee worked a 12 hour shift that did not begin until she reached a patient’s home and ended when she left. Occasionally, the employer would request that she leave one patient’s home and go to another patient’s home in the same day. The employer required the employee to provide her own transportation to deliver health care services to the employer’s patients. She had to maintain automobile liability insurance coverage at the 100,000/300,000 level and could not have passengers on such trips. She was reimbursed for mileage only to the extent the mileage to or from a patient’s home was greater than the distance from her own home to the employer’s office.

The Panel noted the broad exception built into the “coming and going rule” outlined in *Smith v. Royal Globe Ins. Co.*, 551 S.W.2d 679, 681 (Tenn. 1977) “spawned more specific exceptions, such as the traveling-employee exception and the contract-of-employment exception, which recognize situations where an employer furnishes transportation or reimburses an employee for the value of the use of the employee’s own car.” *Pool v. Metric Constructors, Inc.*, 681 S.W.2d 543, 545 (Tenn. 1984). The Panel analyzed the language in the employment agreement, concluding that it suggested the employer recognized the employee’s use of her automobile to travel to and from home visits with patients was in the scope of her employment, and for that reason attempted to insulate or limit its own liability by requiring her to maintain the 100,000/300,000 liability coverage and by prohibiting her to have passengers in her car on such trips. “Although the employee used her own vehicle and was not receiving wages for travel time, “the journey itself was clearly a substantial part of the services for which she was employed.” “(H)aving employees traveling to its patients’ homes is an essential component of that service, secondary only to the actual health care which is provided.”
<http://www.tncourts.gov/sites/default/files/dugger-homeopnjo.pdf>

EXCLUSIVE JURISDICTION

Douglas E. Shuler v. Eastman Chemical Company et al.
No. E2016-02292-SC-R3-WC-Filed November 17, 2017

This case illustrates the required statutory interplay and construction resulting from the Reform Act of 2013. The employee filed suit against his former employer, alleging he had developed bladder cancer from exposure to harmful substances in the employer’s workplace. Both the employer and the Second Injury Fund filed motions to dismiss the claim, asserting the *Court of Workers’ Compensation Claims* had original and exclusive jurisdiction over the subject matter. The trial court granted the motions. The employee filed a direct appeal to the Supreme Court. The Panel **affirmed** the judgment of dismissal based on lack of subject matter jurisdiction.

The employee worked for employer from 1965 until his retirement in 1999. He alleged he was exposed to cigarette smoke, asbestos, toluene, and other harmful substances during the course of his employment. He attributed his bladder cancer, *diagnosed* in 2015, to his exposure to harmful substances. The defendants relied upon T. C. A. § 50-6-237 (2014), asserting the trial court lacked subject matter jurisdiction. The statute provides that the *Court of Workers’ Compensation Claims* would “have original and exclusive jurisdiction over all contested claims for workers’ compensation benefits when the date of the alleged injury is on or after July 1, 2014.” The employer argued his injury occurred in December 1999, the *date of his last occupational exposure* to harmful substances and that the referenced statute did not apply.

The Panel noted the Supreme Court held in *Liberty Mutual Ins. Co. v Starnes*, 563 S.W.2d 178, 179 (Tenn. 1978) that “In the case of a claim arising from an occupational disease, the date of the “accident or injury” is the date on which the employee becomes partially or totally incapacitated for work. T. C. A. § 50-6-1105. By using this definition of “accident or injury” in connection with occupational diseases, the legislature has provided a certain, determinable date at which the afflicted employee’s cause of action accrues. . . Therefore, the applicable statute. . . is that in effect on the date on which the employee becomes disabled as a result of the disease, rather than that in effect on the date on which he was last exposed to the agent causing the disease.” The Panel considered the holding in *Lively ex rel. Lively v. Union Carbide Corp.*, No. E2012-02136-WC-R3-WC, 2103 WL 4106697 at *7 (Tenn. Workers’ Comp. Panel Aug. 13, 2013), which construed T. C. A. § 50-6-303(a)(1). That section provides that “the partial or total incapacity for work or the death of an employee resulting from an occupational disease . . . shall be treated as the happening of an injury by accident or death by accident . . .” The Panel here observed that the *Lively* Panel concluded the date of diagnosis is not an option for determining the date of injury.

The Panel in this case continued, “(t)he workers compensation statutory scheme currently in effect has eliminated the definition of “occupational diseases” previously contained in T. C. A. § 50-6-301, as referenced in T. C. A. § 50-6-303(a)(1) above. Instead, T. C. A. § 50-6-102(14) (Supp. 2017) provides the definition . . . (h)owever, the provisions contained within [303(a)(1)] stating that “the partial or total incapacity for work or the death of an employee resulting from an occupational disease. . . shall be treated as the happening of an injury by accident or death by accident,” *have remained unchanged*. Accordingly, we determine the *Lively* Panel’s interpretation of this statutory section to be **authoritative**.” (Emphasis added)
<http://www.tncourts.gov/sites/default/files/20171117103828.pdf>

COURSE AND SCOPE

Melissa Duck v. Cox Oil Company, et al.

No. W2016-02261-SC-WCM-WC-Filed November 21, 2017

In another “**new law**” case, and a **case of first impression in Tennessee**, the employee, a store clerk, was injured when she fell on her way out of the store after abruptly quitting her job. She later made a claim for benefits, which the employer denied on the basis her employment relationship had already ended before the accident occurred. The *Court of Workers’ Compensation Claims* awarded benefits, however the *Workers’ Compensation Appeals Board* reversed and remanded. The employer filed a summary judgment motion, which was granted. The employee filed her appeal directly to the Supreme Court. The Panel **reversed and remanded**, holding the appeal was not barred by the “law of the case doctrine” and that the employee remained employed at the time the alleged injury occurred for a reasonable length of time to effectuate the termination of her employment.

The employee was working on March 22, 2015 when she was asked by her supervisor to work the main cash register while he finished cleaning the freezer. She refused and also declined to instead take over the task of cleaning the freezer. She began gathering her belongings and told her supervisor she was quitting. Almost immediately she slipped and fell in a puddle of water on the floor. She later claimed she injured her low back, left arm and shoulder, and the back of her head. The trial court adopted her position, that she remained in the course and scope of her employment for a reasonable period of time to exit the premises. The *Appeals Board* reversed, determining the employment relationship had ended before she fell. On remand, the trial court granted the employer's summary judgment motion.

The Panel considered the employer's contention that the "law of the case doctrine" applied because the holding of the *Appeals Board* (that the employment relationship had ended) was not appealed prior to the remand to the *Court of Workers' Compensation Claims* and thus was binding. The Panel disagreed, citing *State v. Hall*, 461 S.W.3d 469, 500 (Tenn. 2015) and other cases, and noting that while the law of the case doctrine directs a court's discretion, it does not limit the tribunal's power. The Panel also relied upon *Hamilton-Brown Shoe Co. v. Wolf Bros. & Co.*, 240 U. S. 251, 258 (1916), which held "[A]though . . . the interlocutory decision may have been treated as settling 'the law of the case' so as to furnish the rule for the guidance of the referee, the district court, and the court of appeals itself on the second appeal, this court, in now reviewing the final decree by virtue of the writ of certiorari, is called upon to notice and rectify any error that may have occurred in the interlocutory proceedings."

The Panel noted there are no Tennessee cases addressing the precise issue in this case i.e., ***whether the employment relationship continued for a reasonable time after her employment ended***, it reviewed cases involving injuries to current employees that occurred outside of their fixed time and place for work and whether those injuries occurred in the course and scope of employment. "Because this case presents an issue of first impression, we reviewed how the question has been decided in other jurisdictions. . . [T]he great majority extend to terminated employees the general principle that an injury sustained by an employee while arriving and leaving the employee's premises is compensable. Because leaving the workplace is incidental to the employment relationship, a terminated employee who "sustains injuries while leaving the premises within a reasonable time after termination" of the employment is deemed to have suffered a compensable injury." *Price v. R & A. Sales*, 773 N.E.2d 873, 876-77 (Ind. Ct. App. 2002) (And other cases, also citing *Larson's Workers' Compensation Law* 26-1 (2008). Although a few jurisdictions follow the *immediate termination* approach, the Panel declined to do so and held the employee remained covered by the workers' compensation statutes while she was leaving the work site. "We do not undertake to describe the outer limits of the reasonable interval during which the employment relationship persists after an employee quits or is fired; we simply hold that it was not exceeded in this case."

<http://www.tncourts.gov/sites/default/files/duckopn.pdf>

And see:

Billy Joe Brewer v. Dillingham Trucking, Inc., et al.

No. M2016-00611-SC-R3-WC-Filed April 11, 2017

http://www.tncourts.gov/sites/default/files/brewer-dillinghamopnjo.opn_.pdf

(Summarized above under Coming and Going Rule Exceptions)

PERMANENT TOTAL DISABILITY

Tony Gray v. Vision Hospitality Group, Inc., et al.

No. M2016-00116-SC-R3-WC-Filed January 26, 2017

http://www.tncourts.gov/sites/default/files/gray.t.opnjo_.pdf

(Summarized above under Extent of Disability)

Raymond Gibson v. Southwest Tennessee Electric Membership Corporation, et al.

No. W2016-01403-SC-R3-WC-Filed August 28, 2017

http://www.tncourts.gov/sites/default/files/gibsonopn_0.pdf

(Summarized above under Second Injury Fund)

ATTORNEY'S FEE

Holly L. Grissom v. United Parcel Service, Inc., et al.

No. M2016-00127-SC-R3-WC-Filed January 9, 2017

On October 28, 2011, the employee entered into a compromise settlement agreement with her employer, resolving her compensable workers' compensation claim for an April 2007 injury. One year earlier, a judgment had been entered in her favor, finding she had sustained an 80% vocational disability and awarding her future medical treatment. The subsequent settlement order directed she was to be provided future medical treatment benefits. However, in April 2013, the employer declined to permit a procedure ordered by the authorized physician. The employee filed a motion to compel the employer to authorize the procedure. The trial court ordered the employer to pay \$187.00 to the employee and to provide future medical care to her. A second such motion was filed, after which the parties entered into an agreed order which required the employer to pay the \$187.00 and to reimburse the employee for mileage to and from medical treatment. The employee petitioned for an award of attorney fees and expenses in the amount of \$27,353.63. The employer responded, contending the amount was excessive in light of the relatively small sum the employee received as a result of the trial court's order. The trial court

ordered the employer to pay the full amount of the requested attorney fees and expenses. The employer appealed from the order. The Panel **affirmed** the judgment of the trial court.

On appeal, the employer's single issue was whether the award of attorney's fees and expenses was excessive. The Panel considered T. C. A. § 50-6-204(b)(2) (2014) (for injuries occurring before July 1, 2014), which allows a trial court to award attorney's fees and expenses arising from an employer's refusal to provide medical care required by a settlement or judgment. The Panel noted the standard established by the Supreme Court in *Wright ex rel. Wright v. Wright*, 337 S.W.3d 166 (Tenn. 2011) had been approved in workers' compensation proceedings brought pursuant to the referenced statute. *Welcher v. Cent. Mut. Ins. Co.*, No. M2012-00248-SC-R3-WC, 2013 WL 1183314, *7 (Tenn. Workers' Comp. Panel March 21, 2013). The Panel found the trial court had thoroughly gone through the ten factors set forth in *Welcher*, and had determined the time and labor required on matter to be significant, that the matter kept the attorney from engaging in other work, the fee was in line with that customarily charged, and that counsel had pursued the case vigorously. The proof demonstrated the basis for the fee. Although it appeared disproportionate, considering the dollar amount recovered by the employee, it was clear the defendant employer's insurer had firmly resisted providing the medical treatment directed by the authorized physician and ordered by the court, thus significantly increasing the time and effort necessary to obtain the desired relief. The Panel determined the trial court had correctly evaluated the *Welcher* factors, had not given greater weight to proportionality than to any of the other nine factors, and thus had not abused its discretion in making the award.

http://www.tncourts.gov/sites/default/files/grissom.holly_.opnjo_.pdf

MEDICAL IMPAIRMENT REGISTRY

Kelsey Williams v. Ajax Turner Company

No. M2016-00638-SC-R3-WC-Filed April 12, 2017

The employee sustained a compensable injury on August 2, 2012 when a co-worker ran over the back of his left foot with a forklift, causing a severe laceration. The treating physician assigned a 20% permanent anatomical impairment to the left leg. The employer sought a second opinion. The employer's physician opined the employee sustained a five percent permanent impairment. Due to the conflicting opinions the employer requested an evaluation through the medical impairment registry ("MIR") program. The MIR physician also opined the employee had sustained a five percent permanent impairment. However, the trial court found the employee had rebutted by clear and convincing evidence the presumption of correctness statutorily attached to the MIR physician's ruling, applied a multiplier of four, and awarded the employee 80% permanent partial disability to the left leg. The employer appealed. The Panel **reversed** and **modified** the trial court's judgment.

The Panel first considered whether the trial court erred in admitting the MIR physician's report and testimony, an issue raised by the employee. The Panel considered T. C. A. § 50-6-204(d)(5), which establishes a method for selecting a MIR physician, and noted that the Supreme Court had held *either* party may seek the opinion of an MIR physician. *Mansell v. Bridgestone Firestone N. Am. Tire, LLC*, 417 S.W.3d 393, 401 (Tenn. 2013). The Panel also referenced current rules of the Bureau of Workers' Compensation, which were pertinent. Tenn. Comp. R. & Regs. 0800-02-20-.01(7). Secondly, the Panel determined whether the presumption of correctness of the MIR physician's finding had been rebutted. "In determining whether the presumption has been rebutted, 'the focus is on the evidence offered to rebut that physician's rating.'" *Beeler v. Lennox Hearth Prod., Inc.*, No. W2007-02441-SC-WCM-WC, 2009 WL 396121, at 4* (Tenn. Workers' Comp. Panel Feb. 18, 2009). The Panel concluded the treating physician's testimony failed to raise "serious or substantial" doubt about the rating methods used by the MIR physician, which were diagnosis-based rather than the range-of-motion based method chosen by the treating doctor. Finally, the Panel deferred to the trial court's use of a multiplier of four, but modified the award using the MIR physician's rating of five percent.

http://www.tncourts.gov/sites/default/files/williams-ajax_turner.opnjo_.pdf

ELECTION OF REMEDIES

James Russell et al. v. Transco Lines, Inc., et al.
No. E2015-02509-SC-R3-WC-Filed June 201, 2017

The issue presented was whether a Tennessee trial court had subject matter jurisdiction over workers' compensation claims brought by two married truck drivers injured in a Louisiana accident while employed by an Arkansas based company. The employees were Tennessee residents. After the accident and injuries on July 5, 2013, the employer and its insurer accepted the claims as compensable and made medical and temporary disability payments under Arkansas law. After the Arkansas administrative process was exhausted, the employees filed a workers' compensation action in Washington County, Tennessee where they lived. The employer contended that the Tennessee trial court lacked subject matter jurisdiction and that the employees had made an election of remedies under Arkansas law and were precluded from pursuing their claims in Tennessee. The trial court ruled for the employees, holding it had subject matter jurisdiction and that the employees had not made an election of remedies. The employees were awarded permanent partial disability benefits of 65% and 85% respectively. The employer and insurer appealed. The Panel **affirmed** the judgment of the trial court.

The evidence indicated the employment discussions had begun in Tennessee when the employer called the employees them at their home in Johnson City. After the call, the employees resigned their current positions and traveled to Russellville, Arkansas for orientation training. At trial the employer contended the hiring process was not complete until new drivers had satisfactorily

passed background, motor vehicle records, and driving records checks, physicals, drug screens, and had finished the orientation training program. (One of many documents that had to be completed and signed by the new drivers was a certificate that indicated that any workers' compensation claims would be covered under Arkansas law.) The new employees made their first run on April 23, 2008. They testified they drove through Tennessee 14 or 15 days out of every month. They were given permission to haul freight when they went home to Johnson City. After they were injured in the 2013 accident they received medical and temporary disability benefits under Arkansas law, but the employees maintained they filed no documents with the Arkansas Workers' Compensation Commission. Evidence also showed the employer had opened a small office in Chattanooga in March 2013.

The Panel observed the trial court had found a "substantial connection between this state and the particular employer and employment relationship existed," in considering T. C. A. § 50-6-115(b)(2), which contains the three elements required to establish subject matter jurisdiction. The Panel agreed with the trial court's reasoning that the telephone call to the drivers' home did not constitute an effective job offer, citing *Perkins v. BE & K, Inc.*, 802 S.W.2 215, 216 (Tenn. 1990), and that the employment was not principally localized in Tennessee. The Panel noted as of the date of the accident the courts were required to give the workers' compensation statutes "an equitable construction" and agreed with the trial court that the employer's consent for the employees to drive and store the truck and trailer in a secured location in Tennessee provided a sufficient basis to support a finding that a substantial connection existed between Tennessee and the particular employment. Other connecting factors included their retrieval of loads in Memphis, their regular travel through Tennessee, and the fact that each route began and ended in Tennessee. The employer's contention that the employees had made an election of remedies failed because they were never consulted about pursuing claims in Arkansas, nor did they sign or file documents or take any affirmative action to obtain or consent to benefits.

http://www.tncourts.gov/sites/default/files/us_20170620073113.pdf

EMPLOYEE PRESSURED TO RESIGN

Alicia Hunt v. Dillard's Inc., et al.

No. W2016-02148-SC-WCM-WC-Filed December 13, 2017

The employee, 63, the Clinique counter manager for her employer's retail store, sustained injuries to her left ankle and knee on September 21, 2013 when she fell from a stool while taking down signs over a counter. She reported the injury to her supervisor, who helped her complete the workers' compensation forms and arranged for her to go to a hospital emergency room. Later, when she tried to return to work with the restrictions imposed by the authorized physician she could not perform her job duties as she had before because of swelling and pain in her knee. The employer would not authorize the arthroscopic surgery recommended by her physician. The

employee tried to continue working but on March 27, 2014 she was told by her employer she needed to step down as counter manager and that she could work for \$20 per hour without commission. She testified she was shocked by the request and that her spontaneous response was she would rather quit first. The employer immediately required her to complete and sign resignation paperwork. Nothing on the forms referenced her injuries, her inability to perform her job duties as she had before the accident, or that she had been asked to take a demotion. After she left employment she had surgery on her knee in August 2014. She was assigned a 12% permanent impairment rating by her treating orthopedic surgeon. The employer argued her vocational disability award should be capped at one and one-half times the impairment rating because of her “voluntary resignation.” The trial court refused, finding she had left her job because of her work-related injury after the employer’s demotion and lowering of her pay and thus she had no meaningful return to work. The trial court awarded a 60% permanent partial disability to the left leg, and also awarded temporary total benefits from her surgery until she reached maximum medical improvement.

The employer appealed on the issue of the cap, contending the employee did have a meaningful return to work. The Panel **affirmed** the trial court’s judgment and award, finding that the employee was pressured to resign. The employer argued the employee could have actually returned to work performing the same job she had before the injury, but the Panel observed “(v)ocational disability is ‘measured not by whether the employee can return to her former job, but whether she has suffered a decrease in her ability to earn a living.’” (Citing *Lang v. Nissan N. Am., Inc.*, 170 S.W.3d 570 (Tenn. 1998)). The Panel noted almost all of the employee’s work experience was in jobs that required extended periods of standing and walking, and although she had applied for several positions since her injuries, none were offered because of her permanent restrictions.

<http://www.tncourts.gov/sites/default/files/huntopn.pdf>

RECONSIDERATION

William H. Lewis v. State of Tennessee

No. M2016-00738-SC-R3-WC-Filed August 8, 2017

The employee, a highway maintenance worker, was employed from 2002 until June 2010. During his employment he sustained compensable injuries to his right shoulder, left shoulder, and right eye. All the claims resulted in settlements or awards, each of which provided the employee had the right to reconsideration under T. C. A. § 50-6-241(d). The employee collapsed at work on May 24, 2010, stating that his knees “gave out.” He filed a claim for bilateral knee injuries, and petitioned for reconsideration of his three previous settlements. The *Tennessee Claims Commission* awarded 90% permanent partial disability to both legs for the May 24, 2010 injuries but declined to award additional benefits for the reconsideration claims. The employer

appealed from the award of disability to the legs and the employee appealed from the denial of additional benefits for the reconsideration claims. The Panel **affirmed** the judgment on the award but **reversed** on the reconsideration claims and **remanded** to the Commission to recalculate the employee's disability relative to his shoulders.

The employer argued the employee was rendered permanently and totally disabled from his prior injuries to his shoulders and face and was not entitled to any additional benefits for his knees, citing *Princinsky v. Premier Mfg. Support Services, Inc.*, 2010 W. L. 3715636 (Sup. Ct. W.C. Panel 2010). The Panel noted *Princinsky* stands for the proposition that an employee who has a subsequent injury and a reconsideration case will not be allowed to receive more than the benefits for permanent and total disability if either the reconsideration case or the subsequent injury leaves the employee permanently and totally disabled. The *Claims Commission* had disagreed the employee was permanently and totally disabled after all three prior injuries. The Panel cited *Rhodes v. Capital City Ins. Co.*, 154 S.W.3d 43, 48 (Tenn. 2004), in which the Supreme Court held "it would be an extremely rare situation in which an injured employee could, at the same time both work and be found permanently and totally disabled. . . (t)he evidence would have to show that the employee was not employable in the open labor market and that the only reason that the employee was currently working was through the magnanimity of his or her employer." The Panel observed the evidence "does not come close" to the "extremely rare situation" contemplated in *Rhodes*. The Panel disagreed with the Commission's interpretation of T. C. A. § 50-6-241(d)(1)(B)(iii), which precludes reconsideration awards when the loss of employment is due to voluntary resignation or retirement. Pointing out the resignation must be *voluntary*, the Panel stated, "(I)f the employee's resignation or retirement is not voluntary, then it makes no difference whether the employee's retirement or resignation results from his prior work-related disabilities." The Commission had determined the employee's retirement was not voluntary in that he had no meaningful return to work after the May 2010 injuries. Essentially, he was told to retire or be fired.

http://www.tncourts.gov/sites/default/files/williamh.lewis_wc_opn_pdf

INHALATION EXPOSURE

Sheila Holbert v. JBM Incorporated, et al.

No. E2017-00324-SC-R3-WC-Filed November 1, 2017

The deceased employee's widow filed this action for the death of her husband, allegedly from inhalational exposure to dust in the course of his job with the employer. The trial court ruled the decedent's widow had sustained her burden of proof on causation, awarded death benefits and ordered the employer to pay medical expenses into the registry of the court. The trial court ruled medical expenses of the decedent were governed by the workers' compensation schedule. The employer appealed relative to causation and the order on medical expenses. The decedent's

widow appealed the application of the workers' compensation schedule. The Panel **affirmed** in part, **reversed** in part, and **remanded**.

In its analysis of the causation issue the Panel reviewed the medical testimony and records, as well as lay testimony with a focus on the decedent's condition just before and after he was sent by his employer to Stokertown, Pennsylvania on August 12, 2012 to act as project foreman for the installation of a synthetic gypsum system at a cement plant. Testimony by a co-worker indicated the decedent became ill on August 20 or 21, and thereafter seemingly became worse and was sometimes unable to return to the job site. He visited a clinic on August 27 complaining of a cough. His chest and lungs were noted to be normal but he did not improve. On August 30 he allowed the co-worker to take him to the hospital. He was found to be hypoxemic in significant respiratory distress, requiring intubation. By August 31 he was in a coma on life support. During transfer to another hospital he suffered cardiac arrest. He died October 10.

Medical proof from two treating physicians indicated the decedent's inhalation of dust, probably containing grout, epoxy, and/or concrete dust, caused his death, rather than infectious disease. An employer retained physician who had not treated the decedent and only reviewed medical records, claimed the cause was more likely an intra-abdominal process due to infection. He said the employee's symptoms were consistent with an acute, high level exposure but said the autopsy report did not mention an inhalation injury. Prior to going to Pennsylvania the employee was apparently in good condition although employer representatives said he seemed a little under the weather. The Panel noted the trial court had looked to the then applicable statutory directive to liberally construe the workers' compensation law, T. C. A. § 50-6-115 (2008 & Supp. 2013), and the judicial directive to resolve reasonable doubts in favor of the employee. *Crew v. First Source Furniture Grp.*, 259 S.W.3d 656, 665. The Panel held the evidence did not preponderate against the trial court's decision on causation. However, the Panel ruled the payment of medical expenses into the court's registry was impermissible and also vacated the application of the medical payment schedule.

<http://www.tncourts.gov/sites/default/files/20171101080112.pdf>

AVERAGE WEEKLY WAGE CALCULATION

Victor Dunn v. Tradesmen International, Inc.

No. E2015-01930-SC-R3-WC-Filed May 10, 2017

On July 24, 2011, the employee, a millwright who helped maintain heavy machinery in factories and plants, was injured when he fell off a ladder while working for the employer on a job in Iowa. The employer accepted the injury as compensable but disputed Tennessee's jurisdiction over the claim, contending any award should be limited to one and one-half times the impairment rating, and also disagreed with the employee's calculation of his average weekly wage. The trial court held it had jurisdiction, that the claim was not capped, and that the wage was correct. It

awarded 25% to the body as a whole. The employee appealed on the wage calculation issue. The Panel **affirmed**.

The evidence indicated the employee worked for the employer on different jobs in Virginia and Tennessee before the assignment in Iowa. Applying T. C. A. § 50-6-102(3)(B), the trial court computed the average weekly wage by dividing the total gross wages by five, which was the number of weeks the employer actually worked for the employer before the injury. The employee, relying on *Gaw v. Raymer*, 553 S.W.2d 576 (Tenn. 1977) and *Toler v. Nashville C. & St. L. Ry.*, 117 S.W.2d 751 (Tenn. 1938), claimed he was an “intermittent employee” and that the total number of weeks from the inception of his employment with the employer should not be used in calculating his average weekly wage since there were gaps of time between the actual job assignments. The employer claimed the employee was a full time employee which meant the computation should run from the inception of his hiring until the injury, which was a period of eleven weeks. The Panel found only working five of eleven weeks between being hired and the time of the injury was inconsistent with the term “full time employment.” Their decision was in accord with the holding by the Supreme Court in *Cantrell v. Carrier Corp.*, 193 S.W.3d 467 (Tenn. 2006), that “(T)he determination of whether a day an employee does not work should be deducted from the computation of the average weekly wage is dependent upon the facts and circumstances of each case.” *Id.* at 472. Therefore the Panel found no fault with the trial court’s method of calculation.

http://www.tncourts.gov/sites/default/files/dunn-filed_20170519131730.pdf

CONCLUSION

Pursuant to Tennessee Code Annotated Section 50-6-121(i), the Advisory Council on Workers’ Compensation respectfully submits this report on significant Supreme Court decisions for the 2016 Calendar Year up to and including the last decision filed on December 28, 2017. An electronic copy of the report will be sent to the Governor and to the Speaker of the House of Representatives, the Speaker of the Senate, the Chair of the Consumer and Human Resources Committee of the House of Representatives, and the Chair of the Commerce and Labor Committee of the Senate. A printed copy of the report will not be mailed. Notice of the availability of this report will be provided to all members of the 110th General Assembly pursuant to T. C. A. § 3-1-114. In addition, the report will be posted under the Advisory Council on Workers’ Compensation tab of the Tennessee Treasury Department website: <http://treasury.tn.gov/claims/wcadvisory.html>

Respectfully submitted on behalf of the Tennessee Advisory Council on Workers’ Compensation,

/s/David H. Lillard, Jr 1/11/18
David H. Lillard, Jr., State Treasurer, Chair

/s/ Larry Scroggs, 1/1/18
Larry Scroggs, Administrator

EXHIBIT 3A

Report to the Members of the Consumer and Human Resources
Committee of the House and the Commerce and Labor
Committee of the Senate

From

The Advisory Council on Workers' Compensation
David H. Lillard, Jr., Chair

March 18, 2019 MEETING

The Advisory Council on Workers' Compensation was convened by the **Chairman, State Treasurer David H. Lillard, Jr.**, at 1 p.m. CDT in Senate Hearing Room I, Cordell Hull Building. The roll was called and a quorum was established, with five of the six *voting* members of the Advisory Council present, namely, **Kerry Dove, Bruce Fox, Brian Hunt, Bob Pitts and Paul Shaffer**. Non-voting members in attendance were: **Jason Denton, Dr. Keith Graves and Gregg Ramos**, and by telephone: **Joy Baker, Sandra Fletchall, John Harris and Lynn Lawyer**. Also present were *ex officio members* **Abbie Hudgens**, Administrator of the Bureau of Workers' Compensation (BWC) and **Mike Shinnick**, as designee for Commerce & Insurance Commissioner **Julie Mix-McPeak**. Others present were: Troy Haley, legislative liaison for the BWC and Larry Scroggs, administrator for the Council.

Chairman Lillard explained that his role as chairman of the Advisory Council is primarily administrative in nature, pursuant to T. C. A. § 50-6-121 (a)(1)(B), and that he is therefore not permitted to vote on any matter that constitutes the making of policy recommendations to the Governor or the General Assembly. Accordingly, for purposes of today's meeting, only the five voting members present (**Dove, Fox, Hunt, Pitts and Shaffer**) and constituting a physical quorum may vote on such matters. The **Chairman** then addressed the first legislative item on the agenda, which was:

SB 0466 (Roberts)/HB0539 (Howell)

The proposed legislation was presented by **Justin Furrow**, attorney with the law firm of Chambliss, Bahner & Stophel. Mr. **Furrow** explained that the bill as amended (with amendment drafting code **005157**) would define the employer-employee relationship according to the 20-factor test described in Internal Revenue Service Ruling 87-41, 1987-1 C.B. 296.

Mr. **Furrow** indicated the purpose of the proposed legislation was to harmonize state law relative to the definition of the employment relationship. It would add 13 factors to the seven currently existing under T. C. A. § 50-6-102 (12) (D). Council member **Bruce Fox** asked whether the bill would change the common law test of employment as expressed in Tennessee case law. Mr. **Fox** also asked if passage of the bill would result in Tennessee essentially ceding control of its definition of employment to the federal government. Mr. **Furrow** responded that case law would not be impacted but that courts could use the additional factors as guideposts in determining whether the employment relationship exists.

Council members **Fox**, **Jason Denton**, and **Gregg Ramos** inquired about the bill's underlying purpose, its origin, and how many states had adopted the 20-factor test. Mr. **Denton** expressed concerns whether the bill would narrow the definition of employment. Mr. **Ramos** questioned whether the proposal would add anything to a court's decision making process since a workers' compensation judge may already consider factors in addition to those specified in the current statute. Council member **Bob Pitts** questioned whether harmonization of the definitions had been accomplished at the federal level, noting he understood it had not occurred despite a protracted attempt. Mr. **Pitts** stated that in his view business and industry generally oppose the legislation. Council member **Brian Hunt** asked if adoption of the 20-factor test would make it likely a court would find it necessary to review IRS rulings as part of its decision making process. Mr. **Furrow** responded that was not the intent of the bill.

Council member **Abbie Hudgens**, Administrator of the Bureau of Workers' Compensation, was asked by Mr. **Ramos** about potential impact of the proposal. Ms. **Hudgens** responded that the Bureau wishes to preserve the effective work of the *Court of Workers' Compensation Claims* with the long established employment relationship definitions and that the addition of more factors could potentially produce unintended consequences.

After further discussion Council member **Pitts**, seconded by Council member **Fox**, moved that the legislative proposal, in its current form, be given an **unfavorable recommendation** for passage. The motion carried **5-0**, with all five voting members present (**Dove**, **Fox**, **Hunt**, **Pitts** and **Shaffer**) voting in the affirmative.

The **Chairman** then addressed the next legislative item on the agenda, which was:

SB 0271 (Kelsey)/HB 0208 (Leatherwood)

This bill as amended (amendment drafting code **005890**) redefines the base period for determining workers' compensation benefits for temporary total disability. It amends T. C. A. §50-7-218. No presenter for the bill was present. Council members **Pitts** questioned whether there was any conflict between the bill as amended and federal law. Council member **Ramos** asked why the bill was necessary. Council member **Fox** asked for clarification from the Bureau of Workers' Compensation. Administrator **Hudgens** responded that there was uncertainty about the intent of the legislation and why it was

necessary. Council member **Hunt** indicated the Council was left to speculate on the purpose and intent without explanation from sponsors or other person familiar with the legislation. Some members commented that the legislation could possibly impact the calculation of unemployment compensation benefits. Following discussion by Council members, Council member **Pitts**, seconded by Council member **Fox**, moved that the bill in its current form be given a **favorable recommendation for passage**, *provided* that any possible conflicts with federal law are first reviewed and researched. The motion carried **5-0** with all five of the voting members present (**Dove, Fox, Hunt, Pitts and Shaffer**) voting in the affirmative.

There being no further business to come before the Advisory Council, the **Chairman** declared the meeting adjourned without objection at 1:50 p.m. CDT.

Respectfully Submitted,

/s/ _____

Larry Scroggs, Administrator
Advisory Council on Workers' Compensation
(615) 289-4603
larry.scroggs@tn.gov

EXHIBIT 3B

Report to the Members of the Consumer and Human Resources
Committee of the House and the Commerce and Labor
Committee of the Senate

From

The Advisory Council on Workers' Compensation
David H. Lillard, Jr., Chair

March 1, 2018 MEETING

SB 1798 (Ketron)/HB1491 (Reedy)
SB 1615 (Johnson)/HB 1714 (Lynn)
SB 2141 (Gresham)/HB 2105 (Halford)
SB 2475 (Roberts)/HB 2304 (Beck)
SB 2544 (Tate)/HB 2333 (Cooper)
SB 2543 (Tate)/HB 2411 (Thompson)
SB 1967 (Watson)/HB 1978 (Marsh)
SB 2088 (Kyle)/HB 2392 (Miller)

SB 1798 (Ketron)/HB 1491 (Reedy)

The proposed legislation was presented by **Kathleen Murphy**, representing *Tennessee Professional Firefighters Association*. The bill would create a rebuttable presumption that any of 10 specific types of cancer diagnosed in a firefighter that causes a disabling health condition is a result of the firefighter's exposure to harmful agents while performing his duties. (A similar proposal was considered by the Advisory Council during the 2017 Session. The Council did not make a recommendation on the 2017 measure.) During the presentation Council member **Bob Pitts** expressed concerns about creating a presumption that could potentially open the door to similar requests by other public servants who perform under difficult and potentially hazardous conditions. Council member **Joy Baker** noted the presumption would be a departure from the causation standard established by the *Workers' Compensation Reform Act of 2013*, and she also questioned the fiscal impact of the proposal on local governments and the state workers' compensation system.

Both she and Council member **Brian Hunt** inquired whether statistical data compiled by other states definitively indicated a higher risk of cancer due to firefighters' exposure compared to genetic factors. After further discussion Council member **Bruce Fox**, seconded by Council member **Paul Shaffer**, moved that the legislative proposal be given a favorable recommendation for passage. The motion failed 2-3. Council member **Pitts** then moved, seconded by Council member **Kerry Dove**, that the proposal be given an **unfavorable recommendation**. That motion was **approved** on a 3-2 vote by the five voting members present.

SB 1615 (Johnson)/HB 1714 (Lynn)

This bill removes the requirement that every insurer providing workers' compensation insurance in Tennessee be required to maintain a claims office or contract with a claims adjuster located in the state. Although the bill sponsors were not in attendance, **Troy Haley**, legislative liaison for the Bureau of Workers' Compensation (BWC) and designee for *Ex Officio* Council member and BWC Administrator **Abbie Hudgens**, noted there was general consensus the bill would be helpful and was agreeable to all interested parties. On motion by Council member **Pitts**, seconded by Council member **Hunt**, the bill was given a **favorable recommendation for passage** on a **5-0** vote of the voting members present.

SB 2141 (Gresham)/HB 2105 (Halford)

This bill was presented by **Rep. Curtis Halford**, House sponsor. The proposed legislation would allow farm and agricultural employers to accept the workers' compensation chapter by purchasing a workers' compensation insurance policy and would also allow the employers to withdraw acceptance of the chapter at any time by canceling or not renewing the policy and providing notice to their employees. Following discussion, Council member **Pitts**, seconded by Council member **Fox**, moved that the bill be given a **favorable recommendation for passage**. The motion was **approved 5-0**.

SB 2475 (Roberts)/HB 2304 (Beck)

With the permission the **Chair**, Council member **Fox** presented the proposed legislation, which amends T. C. A. § 50-6-226 (d)(1)(B). He explained he had been working with the sponsors and other interested parties on the bill. The proposal would remove the termination date on the recovery of attorneys' fees and other costs against an employer in a workers' compensation action who wrongfully denies a claim by timely filing a notice of denial, in a situation where a workers' compensation judge subsequently finds, at an expedited or a compensation hearing, that such benefits were owed. Council member **Fox's** presentation was based on an amendment with drafting code No. 013698. As discussion ensued, it became apparent there was some disagreement on the amendment, specifically whether it addressed all pending issues. The **Chair** deemed it advisable for Council member **Fox**, **Bradley Jackson** of the *Tennessee Chamber of Commerce &*

Industry, and other interested parties to attempt to resolve any differences during a recess. Upon reconvening, Council member **Fox** stated that agreement had been reached on an oral amendment (later reduced to writing with drafting code No. 014188) which reads as follows:

“Wrongfully denies a claim, or wrongfully fails to timely initiate any of the benefits to which the employee or dependent is entitled under this chapter, including medical benefits under § 50-6-204, temporary or permanent disability benefits under § 50-6-207, or death benefits under § 50-6-210 if the workers’ compensation judge makes a finding that the benefits were owed at an expedited hearing or compensation hearing. For purposes of this subdivision (d)(1)(B), “wrongfully” means erroneous, incorrect or otherwise inconsistent with the law or facts.”

Council member **Fox** stated the current sunset provision under Subsection (d)(2) would also be extended for two years from June 30, 2018 until June 30, 2020. Council member **Pitts** moved, seconded by Council member **Fox**, that the proposed legislation be given a **favorable recommendation for passage**, *provided* the amendatory language as stated orally by Council member **Fox** (later reduced to writing under drafting code 014188) was incorporated into the bill. On that basis, the Council members **approved** the motion **5-0**.

SB 2544 (Tate)/HB 2333 (Cooper)

The proposed legislation prohibits retaliatory discharge by an employer or other person for conduct relating to filing a workers’ compensation claim and authorizes an action by the employee as a remedy. No sponsor or other presenter was present to explain the purpose or scope of the bill. Upon motion by Council member **Pitts**, seconded by Council member **Kerry Dove**, that the proposal be given an **unfavorable recommendation**, the motion was **approved 3-2**.

SB 2543 (Tate)/HB 2411 (Thompson)

This proposed legislation would similarly prohibit retaliatory discharge of employees under the workers’ compensation law under certain circumstances and prescribes certain damages available to prevailing plaintiffs under retaliatory discharge claims. It would amend T. C. A., Title 4, Title 8 and Title 50. In the absence of a sponsor or other presenter the **Chair** invited **David Broemel**, a well-respected insurance regulatory attorney, to comment on the proposed bill. **Mr. Broemel** cited Tennessee case law, specifically the decision in *Clanton v. Cain-Sloan Co.*, 677 S.W.2d 441 (Tenn. 1984), in which the Tennessee Supreme Court first recognized a cause of action for retaliatory discharge, and a right to seek punitive damages in lawsuits to follow. (Punitive damages were not allowed for the plaintiff in the *Cain-Sloan* case because it was a case of first impression.) Council members **Fox** and **Gregg Ramos** asked if enactment of the proposed bill could effectively serve to codify and enhance the holding in *Cain-Sloan*.

Mr. Broemel responded that in his opinion existing case law was sufficient and that the bill was not necessary. Council member **Pitts**, seconded by Council member **Hunt**, moved that the bill be given an **unfavorable recommendation**. The motion was **approved 3-2**.

SB 1967 (Watson)/HB 1978 (Marsh)

Rep. Pat Marsh, House sponsor, presented the bill. The legislative proposal provides that a marketplace contractor, who acts as a broker or representative of a customer seeking services from a marketplace platform such as Amazon or other marketplace platform, is an independent contractor and not an employee of the marketplace platform. **Rep. Marsh** based his presentation on an amendment with drafting code No. 013964, which rewrites the bill. He explained there was a need to clarify that a marketplace contractor was an independent contractor. Council member **Pitts**, seconded by Council member **Hunt**, moved that the proposed legislation as incorporated in the amendment with drafting code No. 013964 be given a **favorable recommendation for passage**. The motion was **approved 5-0**.

SB 2088 (Kyle)/HB 2392 (Miller)

The proposed legislation rewrites the *Healthy Workplace Act of 2014* (T. C. A. § 50-1-501 et seq.) to designate certain acts of harassment, intimidation, or bullying as unlawful employment practices and to require employers to adopt policies prohibiting those acts. It gives the Commissioner of Labor & Workforce Development the same authority as the Administrator of the Bureau of Workers' Compensation under T. C. A. § 50-6-128 to assess a \$500 penalty against employers who cause compensable workers' compensation claims to be paid by health insurance or who fail to provide necessary treatment. In the absence of a sponsor or other presenter, **Troy Haley**, designee for *Ex Officio* Council member **Abbie Hudgens**, commented briefly on the penalty provision. Council member **Pitts** stated that in view of the comprehensive nature of bill he believed it warranted further study. He moved that the legislative proposal be given **no recommendation** by the Council with the hope the respective legislative committees would devote time to study the measure after the current legislative Session. The motion was seconded by Council member **Dove** and approved **5-0**.

Respectfully Submitted,

/s/ _____

Larry Scroggs, Administrator
Advisory Council on Workers' Compensation
(615) 289-4603
larry.scroggs@tn.gov

Exhibit 4A



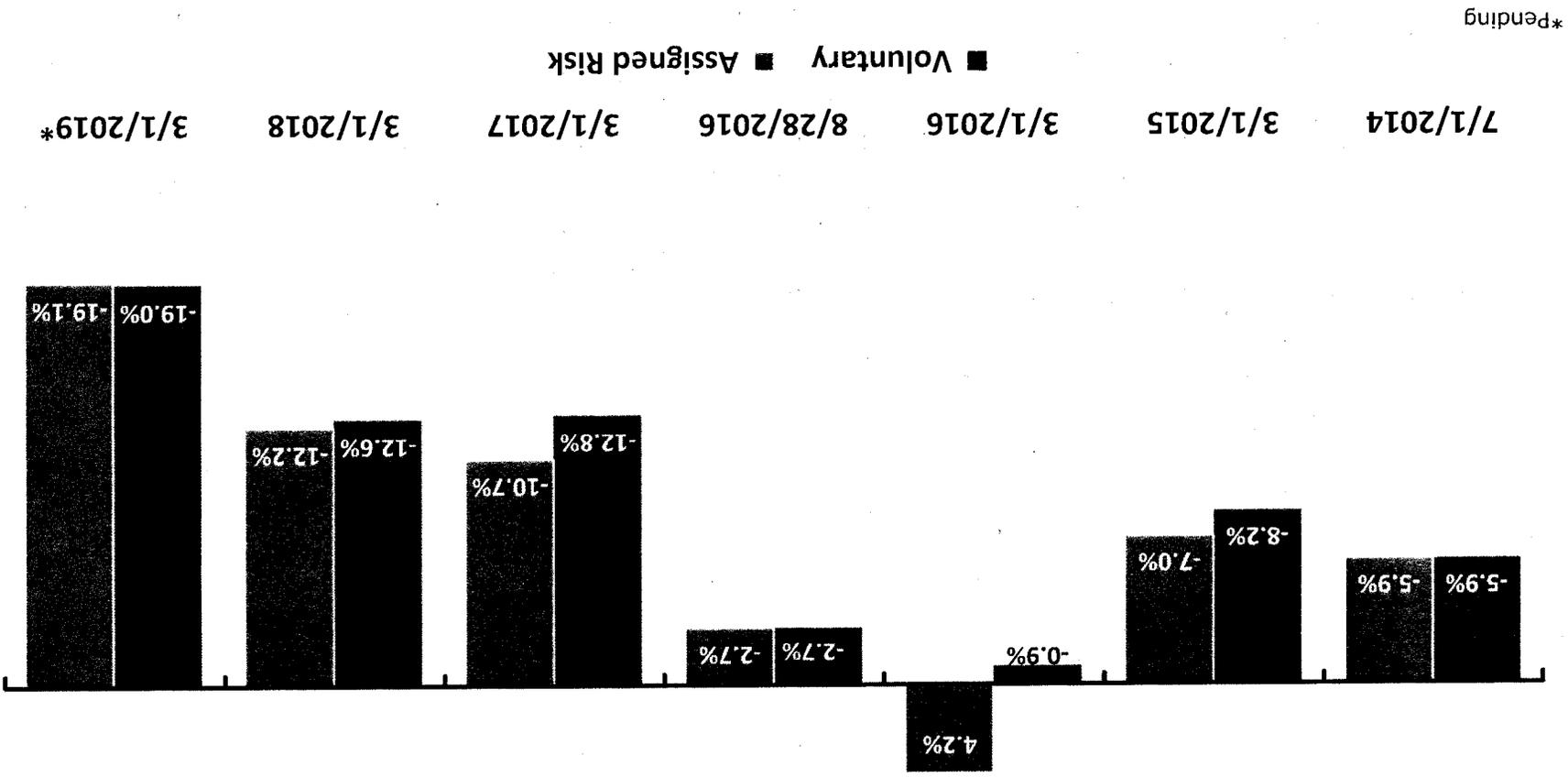
Tennessee Workers Compensation Voluntary Loss Cost and Assigned Risk Rate Filing Proposed to be Effective March 1, 2019

Presented to Tennessee Advisory Council on Workers
Compensation on August 27, 2018

Dan Cunningham, ACAS, MAAA
NCCI, Manager and Associate Actuary

Tennessee Filing Activity

Voluntary Loss Cost and Assigned Risk Rate Changes



*Pending

■ Voluntary ■ Assigned Risk

7/1/2014 3/1/2015 3/1/2016 8/28/2016 3/1/2017 3/1/2018 3/1/2019*



Tennessee March 1, 2019 Filing

Proposed Change in Voluntary Loss Costs

Overall Average Loss Cost Level Change: -19.0%

- **Experience and Development (-13.5%)**
 - Based on premium and loss experience for policy years 2015 and 2016
 - Combined experience for these years shows improvement when compared to the experience period contained in the previous filing
- **Trend (-6.9%)**
 - Selected indemnity loss ratio trend: -7.0% per year (last year: -5.5% per year)
 - Selected medical loss ratio trend: -4.0% per year (last year: -2.0% per year)
- **Benefits (+0.6%)**
 - Medical fee schedule update effective 1/1/2018 (+0.7%)
 - Hospital inpatient fee schedule update effective 2/25/2018 (-0.3%)
 - Change in maximum weekly benefits effective 7/1/2018 (+0.2%)
- **Loss-based Expense (0.0%)**
 - Loss adjustment expense provision remains unchanged at 19.7% of losses

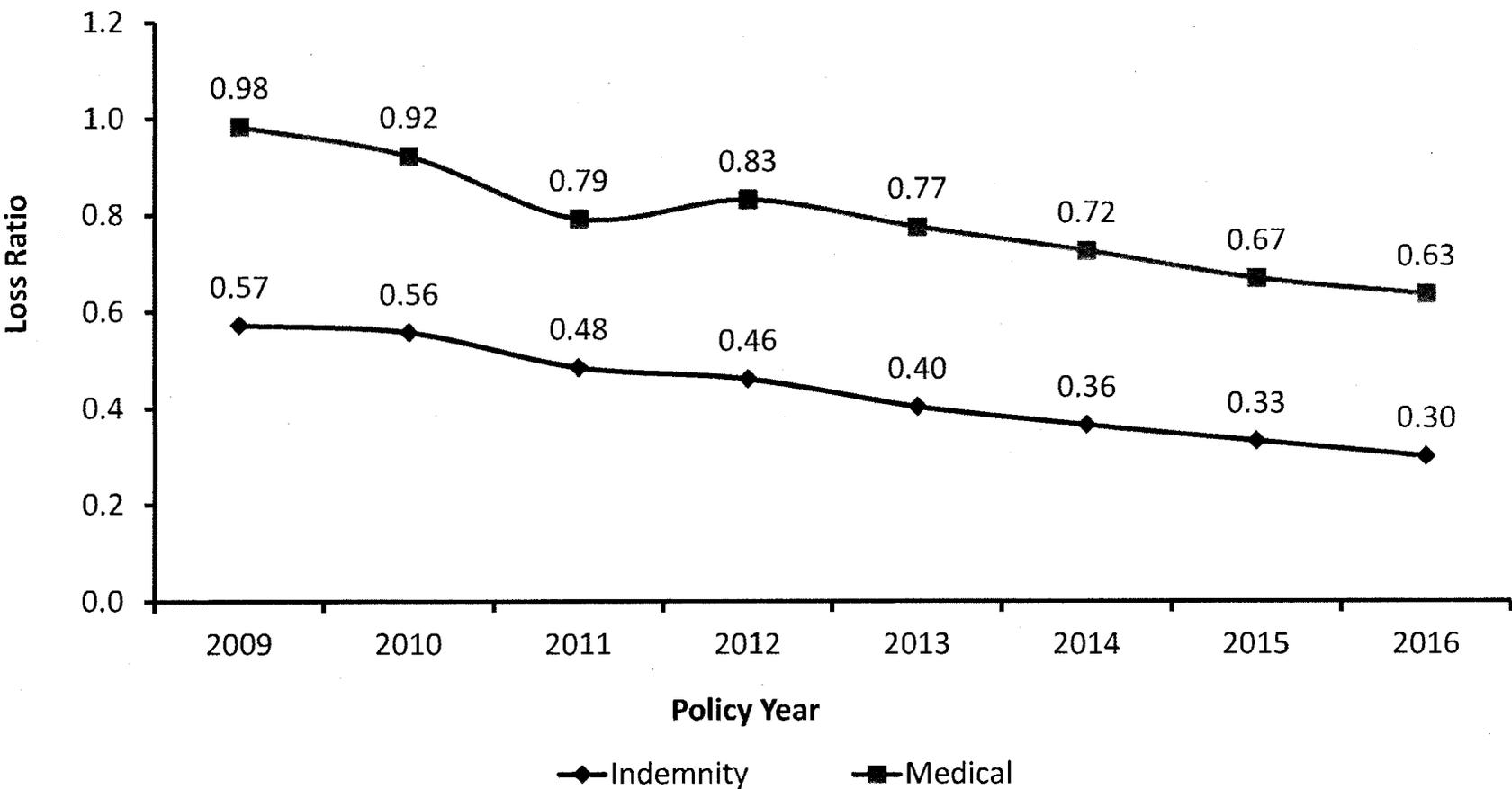
Experience and Development

- The overall indication is based on an average of the latest two policy years
 - Policy year data consists of the premium and losses derived from all policies written in a given year
 - Use of the latest two years reflects premium volume in the state and is responsive to recent trends
- Loss base reflects an average of paid and paid+case limited losses
 - 2-year average for paid link ratios
 - 5-year average for paid+case ratios

Summary of Voluntary Loss Cost Indications

Basis of Development	Policy Year 2015	Policy Year 2016	Average of Policy Years 2015 and 2016
Paid 2-year average	-16.9%	-19.4%	-18.1%
Paid + Case 5-yr average	-19.8%	-20.1%	-19.9%
Average of Paid and Paid + Case Losses	-18.4%	-19.7%	-19.0%

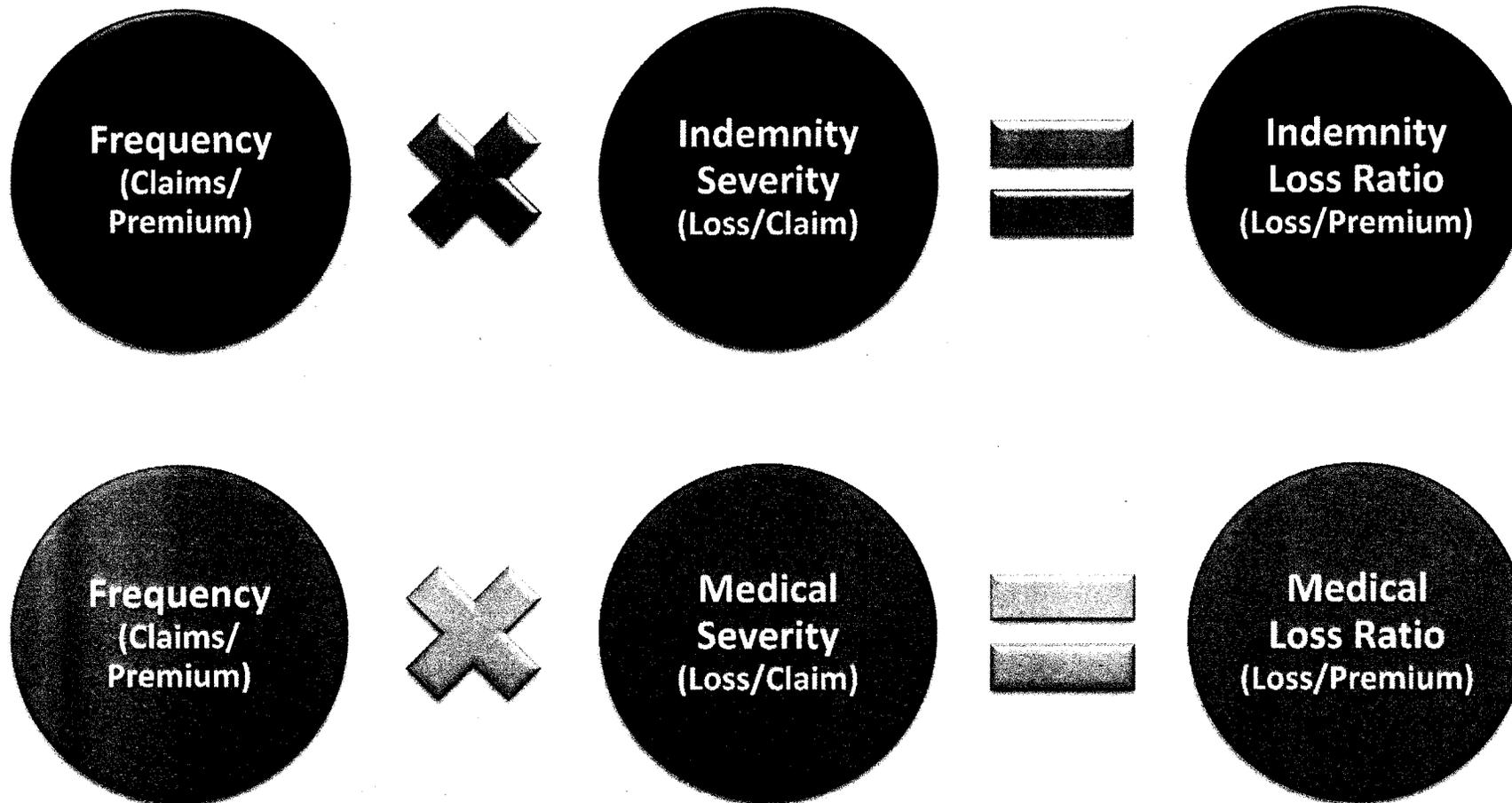
Tennessee Indemnity and Medical Loss Ratios



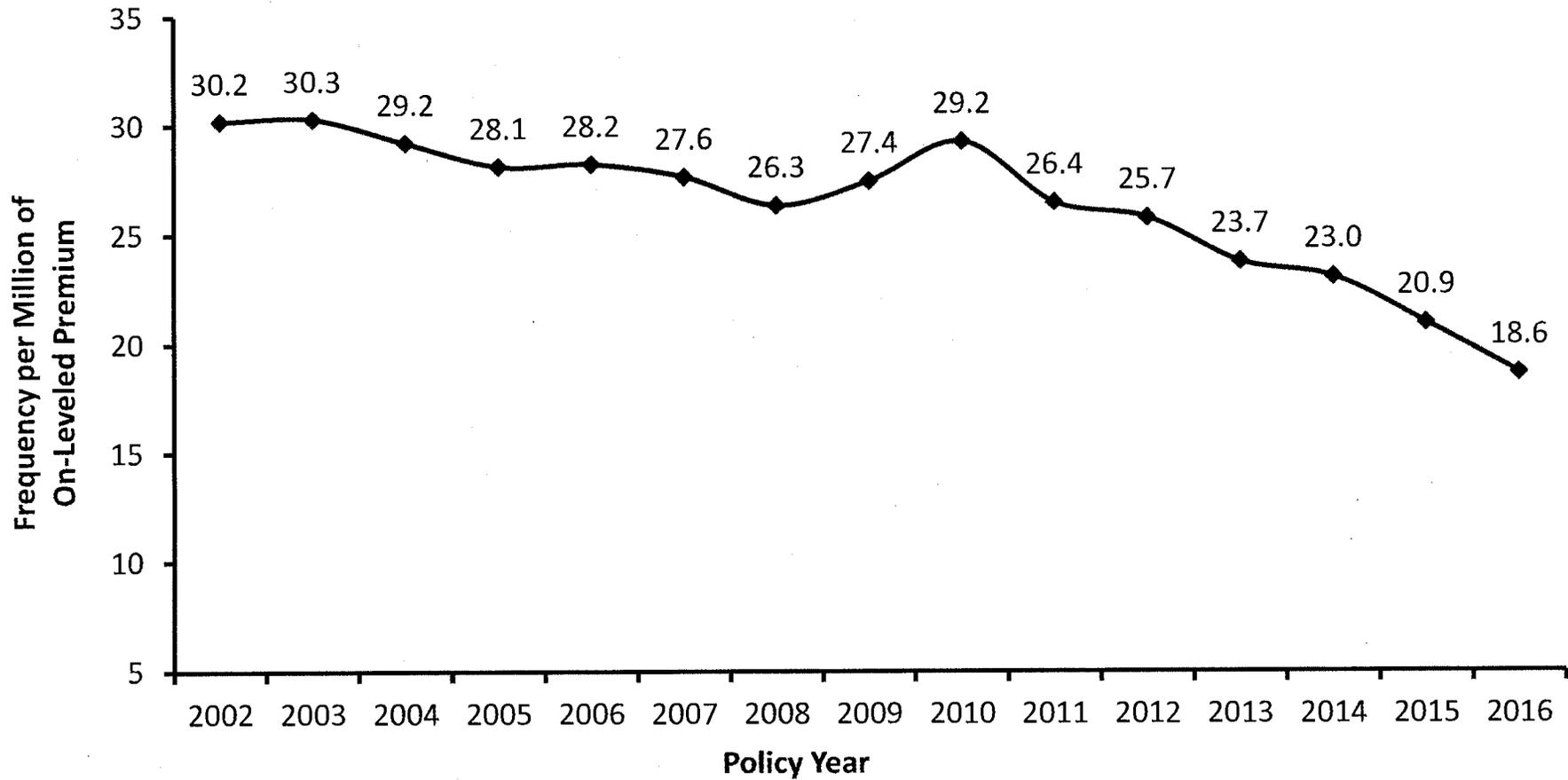
Based on NCCI's financial data through 12/31/2017 at current benefit level and developed to ultimate



What Drives Indemnity and Medical Loss Ratios?



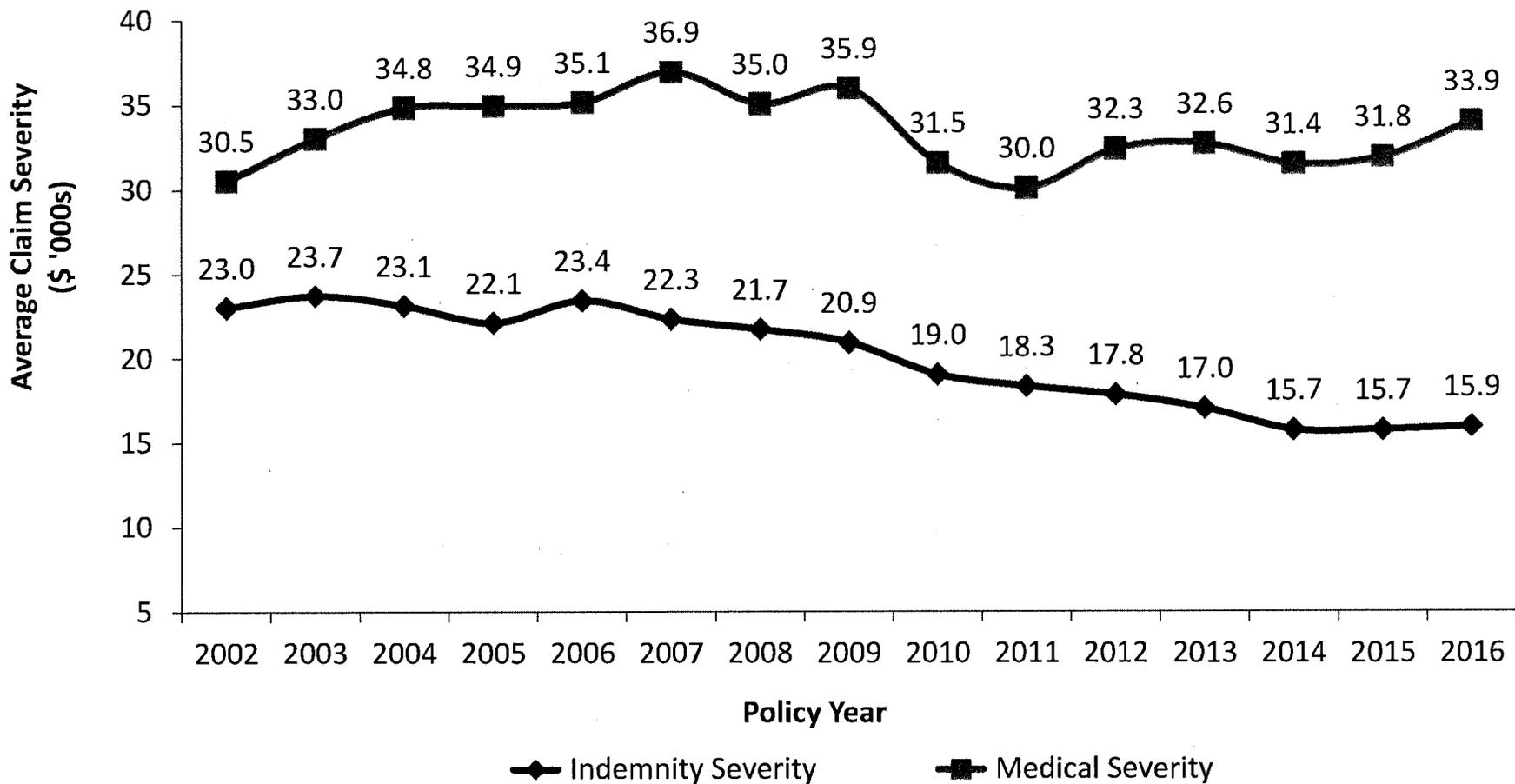
Tennessee Claim Frequency



Based on NCCI's financial data through 12/31/2017 adjusted to a common wage level



Tennessee Average Claim Severity



Based on NCCI's financial data for lost-time claims at current benefit level, developed to ultimate, and brought to a common wage



Tennessee March 1, 2019 Filing

Proposed Change in Assigned Risk Rates

- Assigned risk loss cost multiplier decreased slightly from 1.709 to 1.707
 - Assigned risk loss cost differential remains at 1.350
 - Impact of change in assigned risk expenses is -0.1%
 - No change to the current uncollectible premium provision of 1.032

Filing Component	Impact
Overall Average Loss Cost Level Change	-19.0%
Change in Assigned Risk Loss Cost Multiplier	-0.1%
Overall Average Assigned Risk Rate Level Change	-19.1%

Additional Items

- Results of multi-year review of class ratemaking which focused on credibility and small classes, is included in the filing:
 - Retained current approach of weighting together State, National, and Current loss costs
 - Full credibility standard increased
 - Modified formula (exponent) for partial credibility
- Retrospective Rating
 - Consistent with R-1414:
 - State Hazard Group Differentials and the Table of Expected Loss Ranges are no longer needed and therefore no longer shown
 - Average cost per case values underlying the ELPPFs are now displayed
 - Retrospective rating development factor calculation

Additional Items (cont'd)

- Catastrophe (Other than Certified Acts of Terrorism) Provision
 - The last time earthquake losses were modeled for NCCI was in 2006
 - NCCI recently worked with an expert catastrophe modeling firm to update the earthquake portion of the catastrophe provision
 - Catastrophic industrial accidents were not modeled
 - The proposed catastrophe voluntary loss cost per \$100 of payroll in Tennessee decreased from \$0.02 to \$0.01
 - The proposed assigned risk catastrophe rate per \$100 of payroll in Tennessee decreased from \$0.03 to \$0.01

Questions?



Exhibit 4B



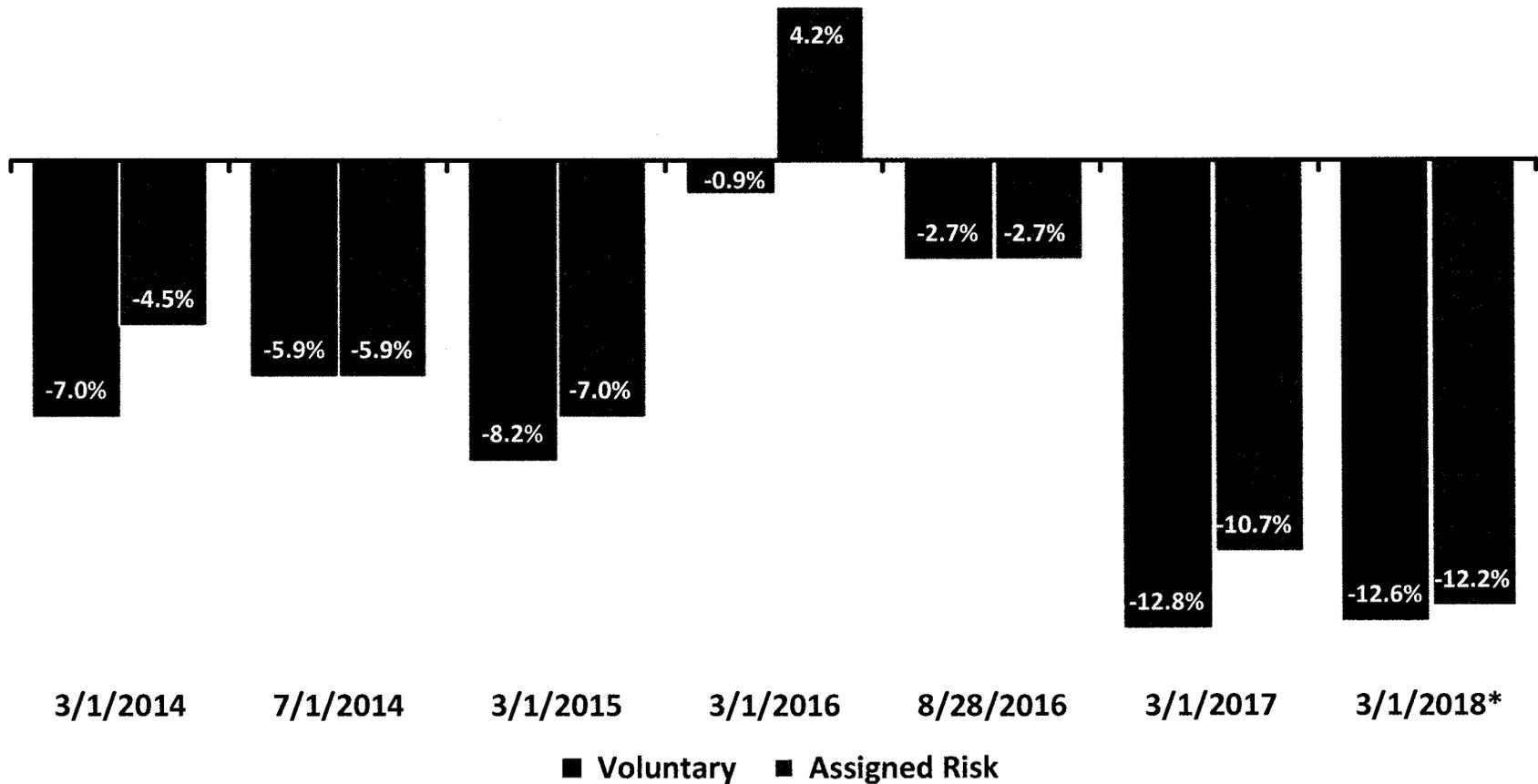
Tennessee Workers Compensation Voluntary Loss Cost and Assigned Risk Rate Filing Proposed to be Effective March 1, 2018

Presented to Tennessee Advisory Council on Workers
Compensation on September 6, 2017

Ann Marie Smith, FCAS, MAAA
NCCI, Director and Actuary

Tennessee Filing Activity

Voluntary Loss Cost and Assigned Risk Rate Changes



*Pending

Tennessee March 1, 2018 Filing

Proposed Change in Voluntary Loss Costs

Overall Average Loss Cost Level Change: -12.6%

- Experience and Development (-11.1%)
 - Based on premium and loss experience for policy years 2014 and 2015
 - Combined experience for these years shows improvement when compared to the experience period contained in the previous filing
- Trend (-1.9%)
 - Selected indemnity loss ratio trend: -5.5% per year (last year: -5.0% per year)
 - Selected medical loss ratio trend: -2.0% per year (last year: -1.5% per year)
- Benefits (+0.5%)
 - Medical fee schedule update effective 1/1/2017 (+0.4%)
 - Change in maximum weekly benefits effective 7/1/2017 (+0.1%)
- Loss-based Expense (-0.3%)
 - Loss adjustment expense provision decreased from 20.1% to 19.7% of losses

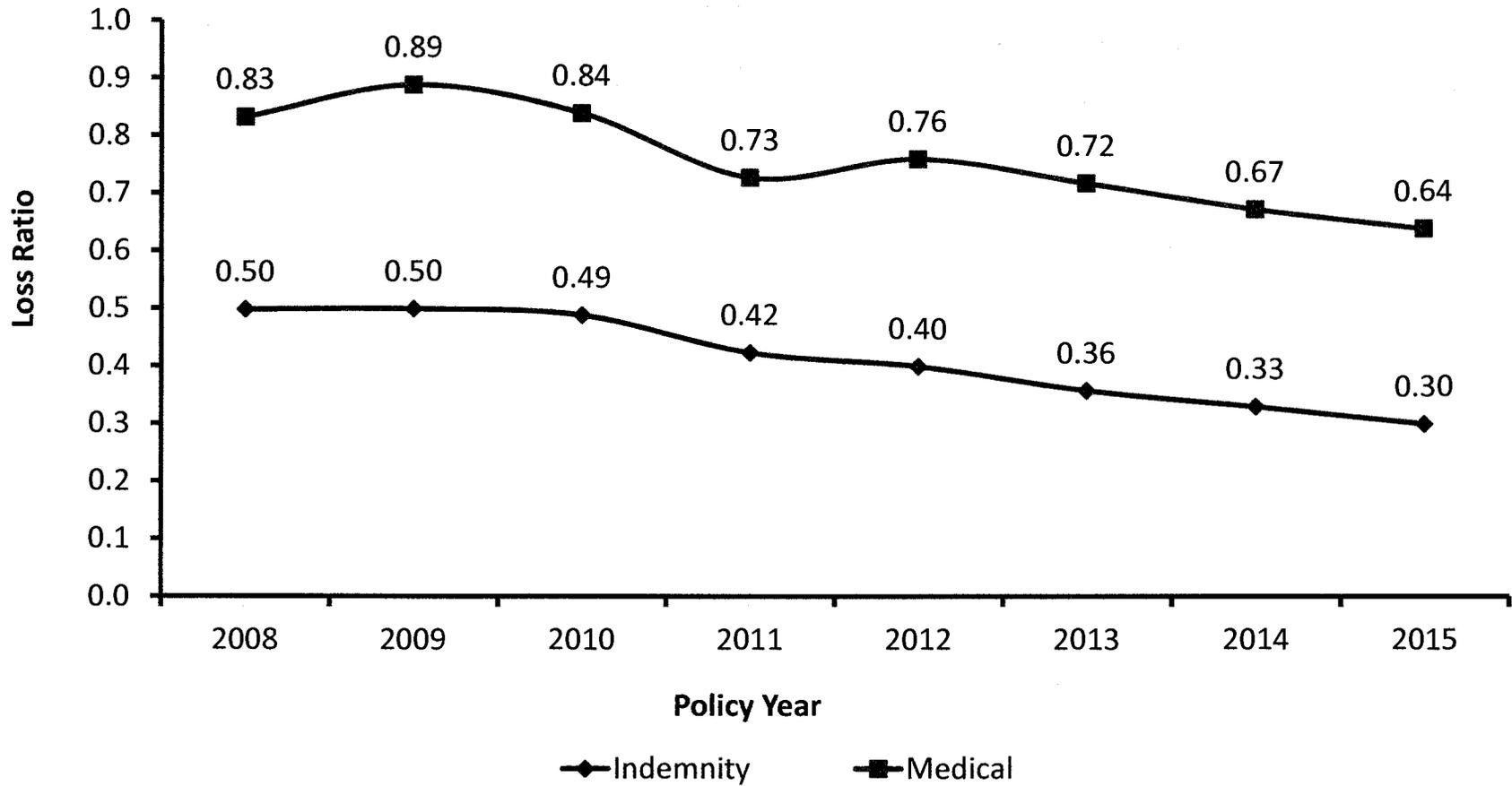
Experience and Development

- The overall indication is based on an average of the latest two policy years
 - Policy year data consists of the premium and losses derived from all policies written in a given year
 - Use of the latest two years reflects premium volume in the state and is responsive to recent trends
- Loss base reflects an average of paid and paid+case limited losses
 - 2-year average for paid link ratios
 - 5-year average for paid+case ratios

Summary of Voluntary Loss Cost Indications

Basis of Development	Policy Year 2014	Policy Year 2015	Average of Policy Years 2014 and 2015
Paid 2-year average	-9.7%	-13.9%	-11.8%
Paid + Case 5-yr average	-12.6%	-14.1%	-13.3%
Average of Paid and Paid + Case Losses	-11.2%	-14.1%	-12.6%

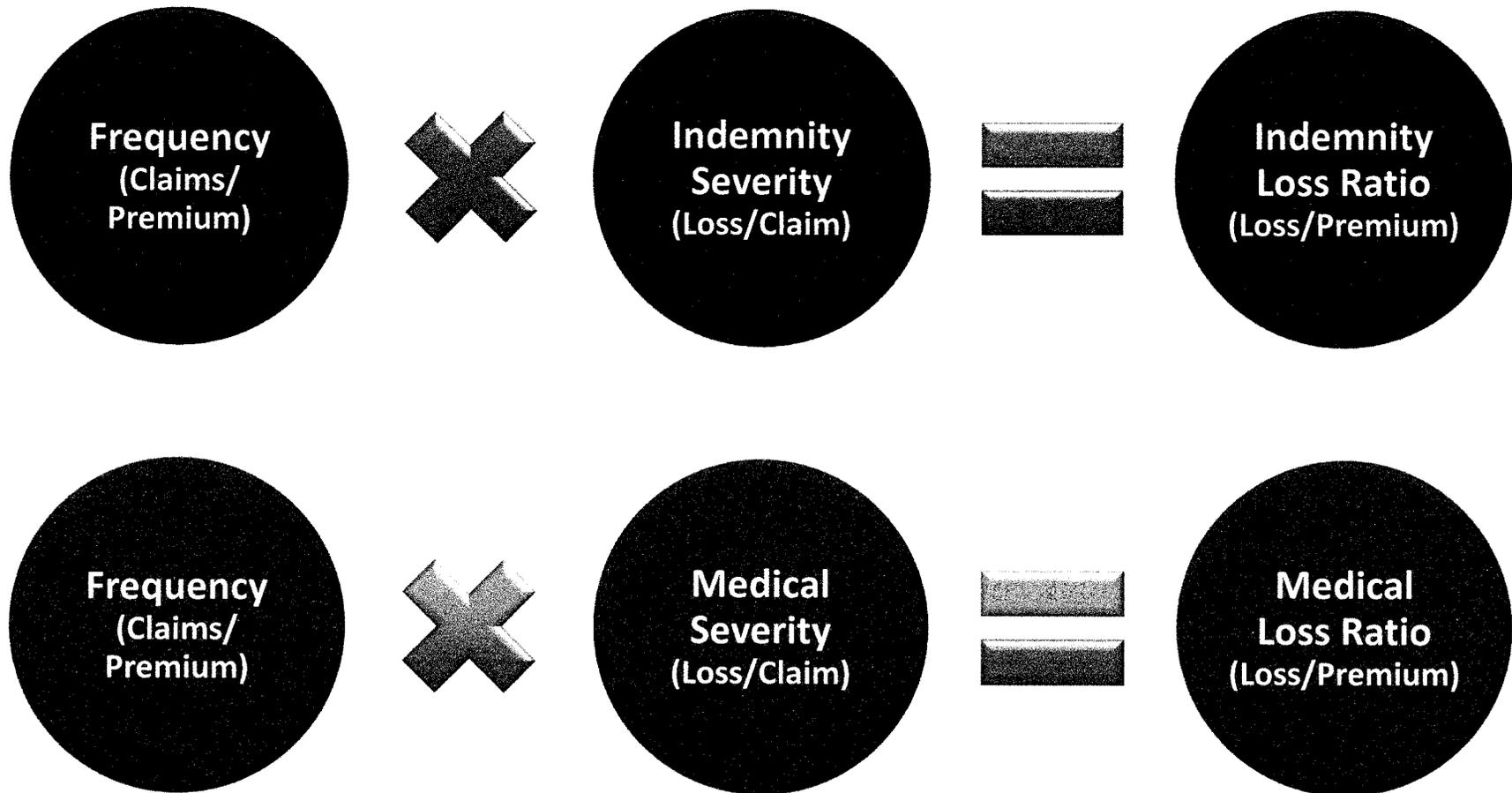
Tennessee Indemnity and Medical Loss Ratios



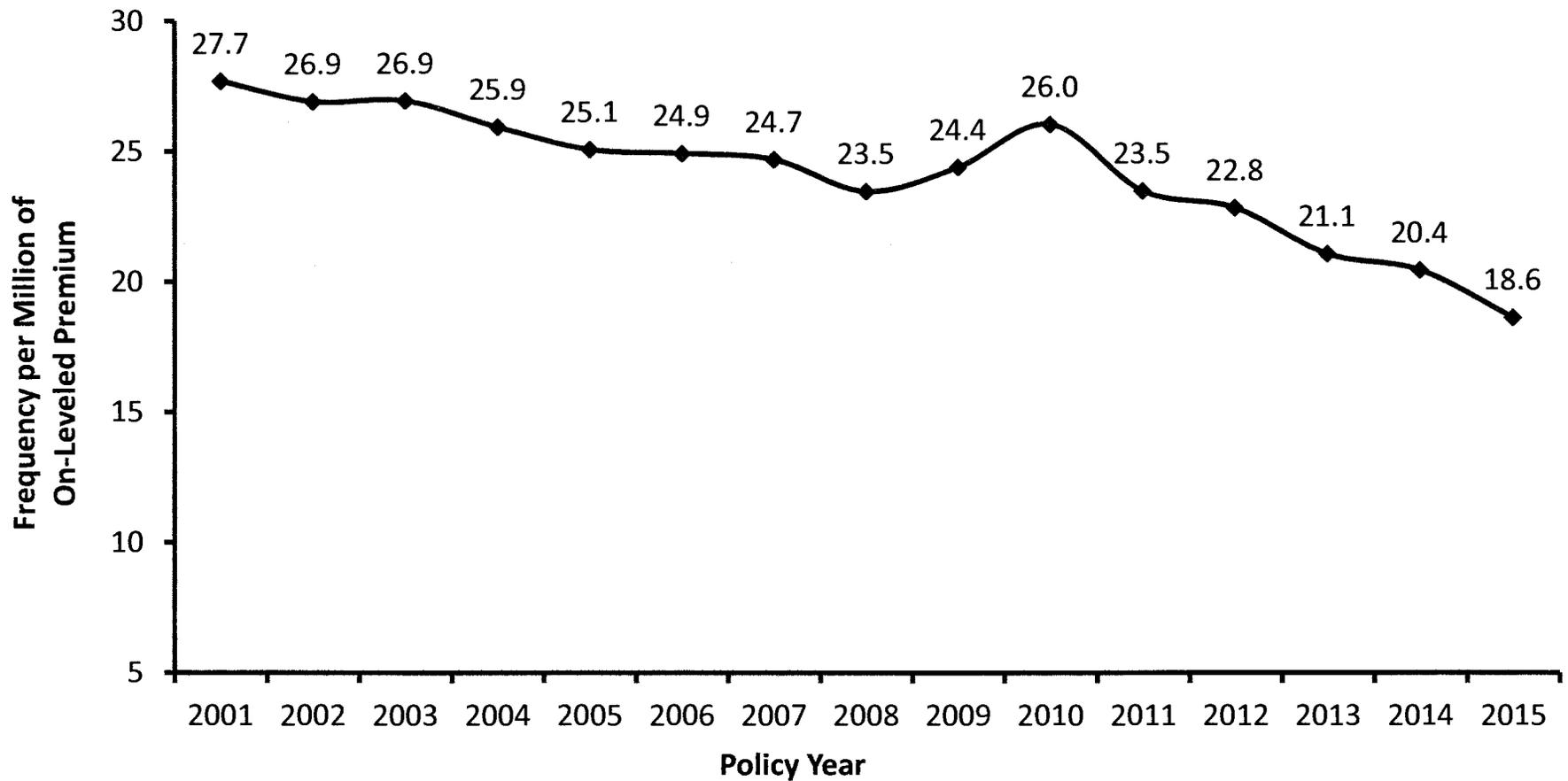
Based on NCCI's financial data through 12/31/2016 at current benefit level and developed to ultimate



What Drives Indemnity and Medical Loss Ratios?

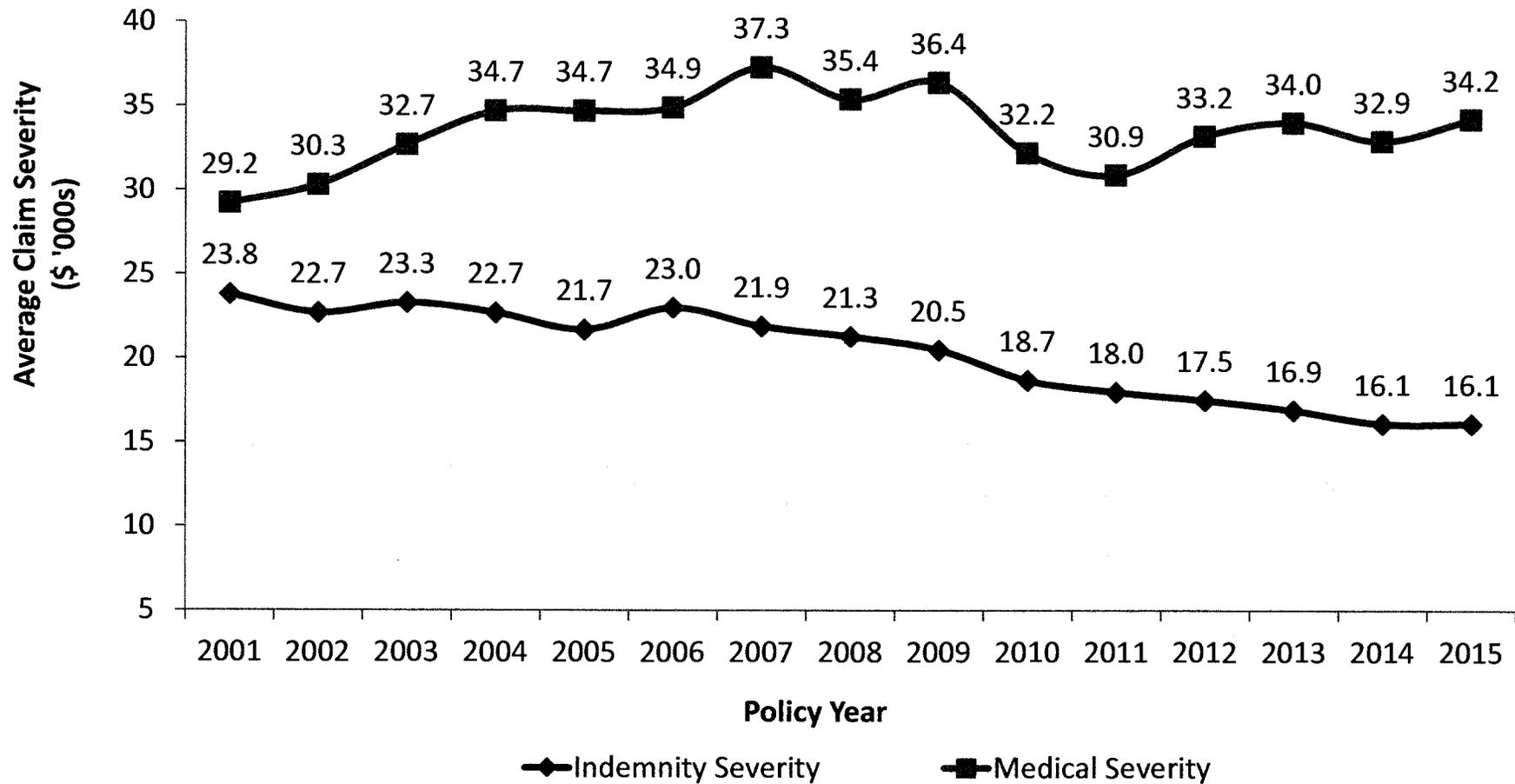


Tennessee Claim Frequency



Based on NCCI's financial data through 12/31/2016 adjusted to a common wage level

Tennessee Average Claim Severity



Based on NCCI's financial data for lost-time claims at current benefit level, developed to ultimate, and brought to a common wage

Tennessee March 1, 2018 Filing

Proposed Change in Assigned Risk Rates

- Assigned risk loss cost multiplier increased slightly from 1.700 to 1.709
 - Assigned risk loss cost differential increased from 1.250 to 1.350
 - Impact of change in assigned risk expenses is -7.2%
 - No change to the current uncollectible premium provision of 1.032

Filing Component	Impact
Overall Average Loss Cost Level Change	-12.6%
Change in Assigned Risk Loss Cost Multiplier	+0.5%
Overall Average Assigned Risk Rate Level Change	-12.2%

Updated Terrorism Provisions

- The last time terrorism losses were modeled for NCCI was in 2006
- For this latest analysis, NCCI partnered with AIR (extreme events modeling firm) to estimate terrorism expected losses, which NCCI then converted AIR's terrorism expected losses to loss costs
- The proposed terrorism voluntary loss cost per \$100 of payroll in Tennessee decreased from \$0.01 to \$0.005
- The proposed assigned risk terrorism rate per \$100 of payroll in Tennessee decreased from \$0.02 to \$0.01

Questions?



Exhibit 4C

Mary Jean King, FCAS, CERA, MAAA
SVP & Consulting Actuary
118 Warfield Road
Cherry Hill, NJ 08034
P:856.428.5961
mking@bynac.com

By The Numbers
Actuarial 
Consulting, Inc.

**TENNESSEE
ADVISORY COUNCIL ON
WORKERS' COMPENSATION**

**ACTUARIAL REPORT
Review of NCCI Loss Cost Filing
Effective 3/1/19**

10/9/18

By The Numbers
Actuarial 
Consulting, Inc.

October 9, 2018

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) filing effective 3/1/19.

The estimates and analysis contained in this report are based on data provided by NCCI including the filing memorandum dated 8/27/18 and the answers to questions concerning the filing 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 contact us. It is a pleasure to be of service to the Advisory Council.

Sincerely,



Mary Jean King, FCAS, CERA, MAAA
Senior Vice President and Consulting Actuary



Lisa Dennison, FCAS, MAAA
President and Consulting Actuary

cc: Larry Scroggs
Administrator, Advisory Council on Workers' Compensation

TENNESSEE ADVISORY COUNCIL ON WORKERS' COMPENSATION

ACTUARIAL REPORT

TABLE OF CONTENTS

PURPOSE.....	1
FINDINGS.....	2
OVERVIEW OF FILING.....	4
SUMMARY OF PROPOSED LOSS COST CHANGES	4
OTHER PROPOSED CHANGES	4
DATA	5
STATEWIDE INDICATION ANALYSIS	6
OVERVIEW	6
ANALYSIS OF METHODOLOGY	7
DEVELOPMENT	9
TREND	32
LOSS ADJUSTMENT EXPENSE	34
CLASSIFICATION RATEMAKING	34
QUALIFICATIONS AND LIMITATIONS.....	37
CONSULTATION.....	38
APPENDICES	
BYNAC RECOMMENDATIONS.....	39
CHANGES IN ESTIMATED ULTIMATE INCURRED LOSSES	41
IMPACT OF DISCOUNTING ON PREMIUM	43
ADVISORY LOSS COST COMPARISON.....	45

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 (ACWC) to prepare this actuarial report to present a professional analysis of the National Council on Compensation Insurance, Inc. (NCCI) Tennessee Workers Compensation Voluntary Market Loss Costs and Rating Values and Assigned Risk Rates and Rating Values filing effective 3/1/19. The basis of the analysis is the NCCI filing memorandum dated 8/27/18 and additional information provided by NCCI in support of the filing. 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 analysis of 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 NCCI in its selection of estimates employed to arrive at ultimate loss cost for past and forecast periods.
- An analysis of NCCI's selection of trend and loss adjustment expense allowance.
- An analysis of the impact of the new credibility standards used in classification ratemaking.

FINDINGS

Based on BYNAC's review of the NCCI filing, the proposed overall voluntary loss cost level change of -19.0% effective 3/1/19 has been reasonably calculated in accordance with actuarial standards of practice. BYNAC believes that the range of reasonable estimates of the loss cost level for this filing is wider than usual. As a result, BYNAC suggests that the ACWC carefully consider the implications of the NCCI filing when deciding on its recommendations to the State. The latest information on the impact of discounting on premium in Tennessee is provided in Appendix C for use in this consideration.

BYNAC reviewed paid and paid + case development and experience for policy years 2012 through 2014 in addition to the policy years underlying the filing of 2015 and 2016 in order to test the assumptions made by NCCI in selecting the data and development methods for review. Changes in estimated ultimate incurred losses based on both NCCI and BYNAC selected loss development factors are shown in Appendix C. The large decreases shown in this exhibit indicate more volatility than would normally be expected with this volume of data. It is BYNAC's opinion that this supports the need for a longer experience period for the filing indication.

BYNAC also reviewed the selection of trend. The NCCI selected trend factor is a change from 0.945 to 0.930 for indemnity and from 0.980 to 0.960 for medical. The decrease in both factors is still being driven by decreases in frequency. The indemnity cost per case adjusted to current wage level has increased slightly since the last period and medical cost per case has increased 6.5%. The changes in NCCI trend selections are significant and contribute -6.9% to the overall

indication. The NCCI selections have been selected judgmentally with a desire to avoid trend adjustments in future filings being one of the considerations. BYNAC selected factors of 0.940 for indemnity and 0.980 for medical. The increase in medical cost per case is considered in BYNAC's selection.

BYNAC reviewed historical information for defense and cost containment expense (DCCE) and adjusting and other expense (AOE). BYNAC is in agreement with the NCCI proposed LAE allowance of 19.7%. The overall indication using BYNAC's experience and trend change and LAE selection is -9.1% (Appendix A). The BYNAC indication using the NCCI trend selection would be -16.4%. As noted earlier, the judgmental trend selection by NCCI is crucial to this filing.

OVERVIEW OF FILING

SUMMARY OF PROPOSED LOSS COST CHANGES

NCCI is proposing a decrease in loss costs based on premium and loss experience effective 3/1/19. The breakdown of the proposed changes by industry groups is as follows:

Industry Group	Loss Cost Change Eff 3/1/19
Manufacturing	-18.0%
Contracting	-20.7%
Office & Clerical	-20.6%
Goods & Services	-19.7%
Miscellaneous	-16.8%
Overall	-19.0%

OTHER PROPOSED CHANGES

In addition to the loss cost changes, NCCI has included in the filing class code changes, an update to the retrospective rating plan parameters, revised class credibility parameters, and updated catastrophe provision (other than terrorism which was updated in last year's filing). The calculations for the update to the retrospective rating plan parameters are not presented in the filing or technical supplement and have not been reviewed for this report.

The statewide indication includes an increase of +0.7% to overall workers compensation system costs for the estimated impact of the medical fee schedule update that was effective 1/1/18. Changes to the Tennessee in-patient hospital fee schedule effective 2/25/18 are projected to decrease overall costs -0.3%. In addition, the indication includes an increase of +0.2% to the

overall costs for changes in the minimum and maximum weekly benefits effective 7/1/18.

BYNAC believes that these changes have been reasonably calculated in a manner similar to past filings.

DATA

The data used for the statewide indication is premium and losses for policy years 2015 and 2016, evaluated as of 12/31/17. The policy years selected are the most recent available. Combined voluntary and assigned risk data are used. Assigned risk represents approximately 12.7% of the policy year 2015 market share and 12.8% of 2016. NCCI indicates that data for all carriers writing at least one-tenth of one percent of the Tennessee workers compensation written premium volume is included in the experience period data on which the filing is based with the exception of Guarantee Insurance Company which was excluded due to insolvency.

STATEWIDE INDICATION ANALYSIS

OVERVIEW

The statewide indicated change is based on premium and loss data for policy years 2015 and 2016. 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.

Two procedures are used to estimate the ultimate incurred losses. In the first method limited indemnity and medical paid losses plus case reserves are developed to ultimate. In the second method paid losses only are developed to ultimate. NCCI selected an average of the two methods as the best estimate of ultimate losses.

An on-level factor is also applied to losses to reflect changes to statutory benefit levels since the experience period. 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 final component of the proposed change is the change in loss adjustment expense. 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.

Indicated Change Based on Experience, Trend, and Benefits:

Policy Year	Projected Cost Ratio		
	Indemnity	Medical	Combined
2016	0.239	0.564	0.803
2015	0.246	0.570	0.816
Selected			0.810

Change in Loss Based Expenses:

	DCCE Ratio	AOE Ratio	LAE Ratio
Current	0.124	0.073	0.197
Proposed	0.121	0.076	0.197
Change			1.000
Overall Change			-19.0%

ANALYSIS OF METHODOLOGY

The methodology used by NCCI to calculate the statewide indication is reasonable. Starting with the 3/1/16 filing, both paid and paid + case loss development are used in estimating ultimate losses. These are widely used and accepted methods. Inherent in the paid + case loss development technique is the assumption that there are no changes in reserving practices. The paid loss development method provides a check to this assumption. Paid loss development assumes that there are no changes in claims settlement practices.

The use of on-level factors to bring premium to the current loss cost level is also a generally accepted technique. 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.

In selecting trend factors, NCCI examines claim frequency and severity separately, adjusts the severity to the current statutory benefit level, and 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 loss ratio trend is used as the basis for the selection. 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 LAE data are presented as the basis for the LAE allowance. A relativity of Tennessee DCCE to countrywide DCCE is calculated based on the latest three calendar years paid data (2015–2017). The state relativity (0.915) is applied to the countrywide DCCE ratio. Countrywide AOE is used. Countrywide DCCE ratios have remained steady again this year.

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 loss limitation threshold is based on pure premium and changes from year to year. The threshold for this filing is a slight decrease to \$7,439,542. The selected statewide excess ratio of 1.3% is slightly higher than the ratio used in the prior filing of 1.1%.

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

	Most Recent Policy Year			Older Policy Year		
	Eff 3/1/19	Eff 3/1/18	Eff 3/1/17	Eff 3/1/19	Eff 3/1/18	Eff 3/1/17
Premium Development Factor	1.008	1.007	1.008	1.000	1.000	1.000
Indemnity Paid Development Factor	2.258	2.354	2.540	1.450	1.488	1.504
Indemnity Limited Paid Tail Factor	1.006	1.008	1.009			
Indemnity Paid+Case Development Factor	1.240	1.276	1.301	1.111	1.124	1.125
Indemnity Limited Paid+Case Tail Factor	1.001	1.002	1.003			
Medical Paid Development Factor	2.033	2.141	2.236	1.650	1.748	1.821
Medical Limited Paid Tail Factor	1.152	1.154	1.160			
Medical Paid+Case Development Factor	1.248	1.335	1.424	1.249	1.313	1.368
Medical Limited Paid+Case Tail Factor	1.022	1.026	1.035			
Indemnity Trend (Annual)	0.930	0.945	0.950			
Medical Trend (Annual)	0.960	0.980	0.985			
Loss Adjustment Expense	0.197	0.197	0.201			
Excess Loss Loading Factor	1.013	1.011	1.012			
Tennessee DCE Relativity	0.915	0.929	0.960			

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 paid + case indemnity losses are shown in Table 1, beginning with the age to age factors calculated using Tennessee's limited paid + case policy year losses excluding LAE. The historical and expected loss development patterns are graphically illustrated in Figure 1 by thick and thin lines, respectively. Paid indemnity development is shown in Table 2 and Figure 2. Medical development follows in Tables 3 and 4 and Figures 3 and 4. For both indemnity and medical losses, NCCI selected 5 year average factors for the paid + case development and 2 year averages for the paid development. The NCCI selections are reasonable. However, BYNAC believes that a 3 year paid average is preferable. The BYNAC paid + case factors are judgmentally selected based on 3 year and 5 year averages and also a 5 year mid average which

Table 1

**STATE OF TENNESSEE
WORKERS COMPENSATION**

INDEMNITY PAID + CASE DEVELOPMENT FACTORS

A. INDEMNITY PAID + CASE AGE TO AGE FACTORS

Policy Year	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-Ult
1994																			1.000
1995																	1.001	1.000	
1996																0.997	1.000	0.998	
1997															1.001	1.003	0.999	1.001	
1998														0.999	0.998	0.999	1.000	1.001	
1999													1.001	1.000	1.000	1.000	1.000		
2000												0.999	1.001	1.002	0.999	1.000			
2001											0.999	1.001	1.000	1.000	1.002				
2002										0.999	1.000	0.999	0.999	1.000					
2003									0.999	1.000	1.001	1.000	1.002						
2004								1.009	1.002	1.000	1.002	1.005							
2005							1.005	1.005	1.001	1.001	1.002								
2006						1.006	1.001	1.000	1.001	1.001									
2007					0.999	1.009	1.004	0.996	0.999										
2008				1.014	1.004	1.005	1.002	0.998											
2009			1.027	1.013	1.010	1.006	1.005												
2010		1.083	1.025	1.012	1.004	1.002													
2011	1.158	1.049	1.025	1.006	1.002														
2012	1.154	1.068	1.016	1.011															
2013	1.103	1.052	1.008																
2014	1.062	1.034																	
2015	1.101																		
5 Yr Avg	1.116	1.057	1.020	1.011	1.004	1.006	1.003	1.002	1.000	1.000	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	
3 Yr Avg	1.089	1.051	1.016	1.010	1.005	1.004	1.004	0.998	1.000	1.001	1.002	1.001	1.000	1.001	1.000	1.000	1.000	1.000	
5 Yr Mid	1.119	1.056	1.022	1.012	1.003	1.006	1.004	1.001	1.000	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000	
2 Yr Avg	1.082	1.043	1.012	1.009	1.003	1.004	1.004	0.997	1.000	1.001	1.002	1.003	1.001	1.000	1.001	1.000	1.000	1.001	
NCCI Prior	1.135	1.062	1.026	1.013	1.004	1.006	1.003	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.002
NCCI Sel	1.116	1.057	1.020	1.011	1.004	1.006	1.003	1.002	1.000	1.000	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.001
BYNAC Sel	1.108	1.055	1.019	1.011	1.004	1.005	1.004	1.000	1.000	1.000	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.001

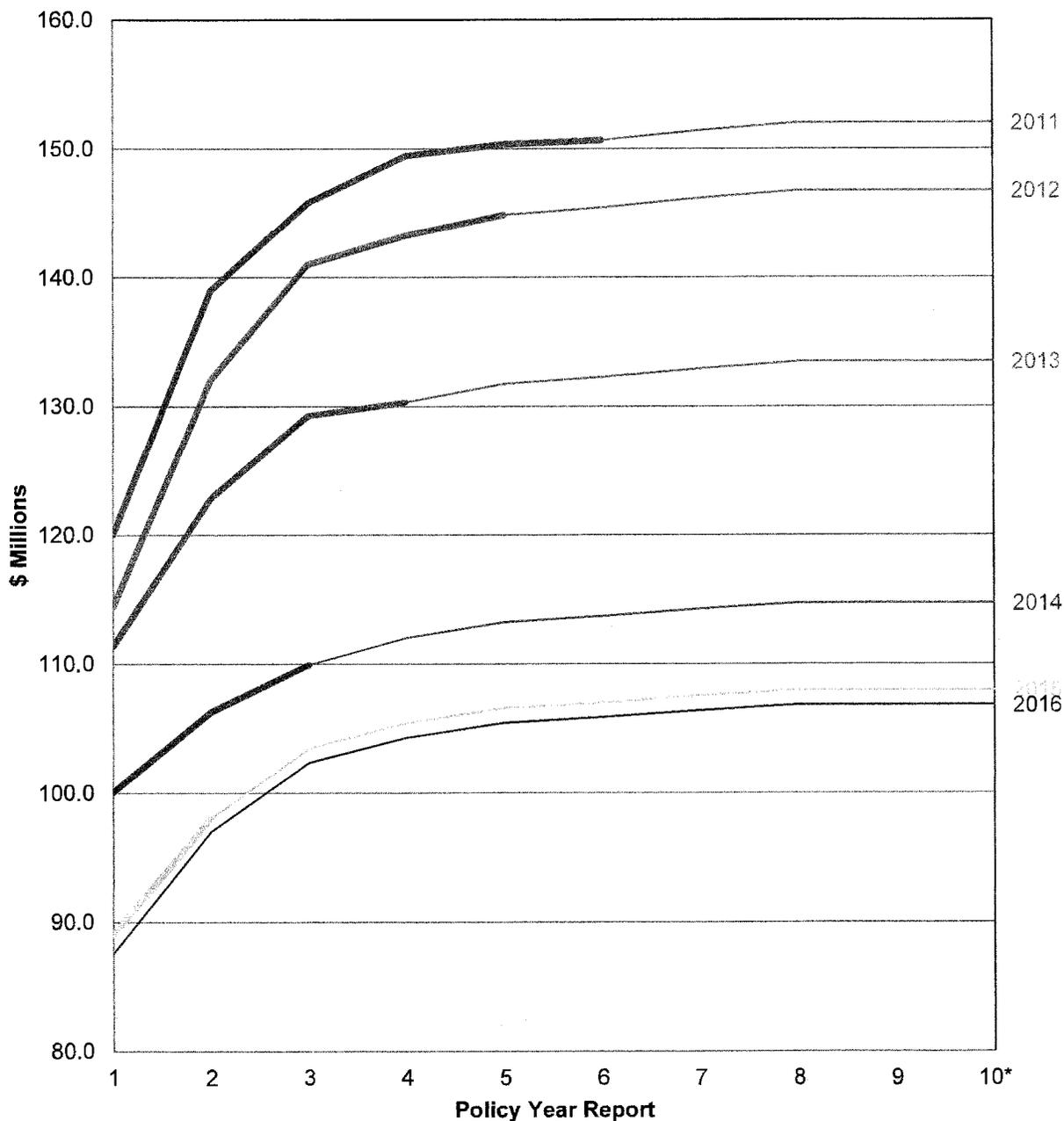
B. INDEMNITY PAID + CASE DEVELOPMENT FACTORS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	1.225	1.106	1.048	1.028	1.017	1.013	1.008	1.004	1.004	1.004	1.004	1.003	1.002	1.001	1.001	1.001	1.001	1.001	1.001

Figure 1

**STATE OF TENNESSEE
WORKERS COMPENSATION**

**HISTORICAL AND EXPECTED DEVELOPMENT OF PAID + CASE LOSSES
INDEMNITY**



* Additional development of 0.4% is expected after 10th report.

Table 2

STATE OF TENNESSEE
WORKERS COMPENSATION

INDEMNITY PAID DEVELOPMENT FACTORS

A. INDEMNITY PAID AGE TO AGE FACTORS

Policy Year	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-Ult
1994																			1.000
1995																	1.001	1.001	
1996																1.001	1.001	1.001	
1997															1.001	1.001	1.001	1.001	
1998														1.000	1.001	1.000	1.000	1.000	
1999													1.002	1.001	1.001	1.000	1.000	1.000	
2000												1.001	1.000	1.001	1.001	1.001	1.000		
2001											1.000	1.001	1.001	1.001	1.001				
2002										1.002	1.000	1.003	0.999	1.000					
2003									1.003	1.001	1.001	1.001	1.000						
2004								1.012	1.005	1.003	1.004	1.003							
2005							1.011	1.008	1.004	1.002	1.003								
2006						1.014	1.008	1.004	1.003	1.003									
2007					1.018	1.014	1.011	1.003	1.003										
2008				1.051	1.026	1.013	1.009	1.006											
2009			1.093	1.048	1.025	1.016	1.010												
2010		1.263	1.080	1.038	1.019	1.017													
2011	1.738	1.219	1.104	1.043	1.024														
2012	1.741	1.215	1.081	1.043															
2013	1.640	1.216	1.079																
2014	1.528	1.171																	
2015	1.585																		
5 Yr Avg	1.646	1.217	1.087	1.045	1.022	1.015	1.010	1.007	1.004	1.002	1.002	1.002	1.000	1.001	1.001	1.001	1.001	1.001	
3 Yr Avg	1.584	1.201	1.088	1.041	1.023	1.015	1.010	1.004	1.003	1.003	1.003	1.002	1.000	1.001	1.001	1.000	1.000	1.000	
5 Yr Mid	1.654	1.217	1.085	1.045	1.023	1.015	1.010	1.006	1.003	1.002	1.001	1.002	1.000	1.001	1.001	1.001	1.001	1.001	
2 Yr Avg	1.557	1.194	1.080	1.043	1.022	1.017	1.010	1.005	1.003	1.003	1.004	1.002	1.000	1.001	1.001	1.001	1.000	1.000	
NCCI Prior	1.582	1.216	1.092	1.041	1.022	1.015	1.010	1.004	1.004	1.003	1.003	1.002	1.000	1.001	1.001	1.000	1.001	1.001	1.008
NCCI Sel	1.557	1.194	1.080	1.043	1.022	1.017	1.010	1.005	1.003	1.003	1.004	1.002	1.000	1.001	1.001	1.001	1.000	1.001	1.006
BYNAC Sel	1.584	1.201	1.088	1.041	1.023	1.015	1.010	1.004	1.003	1.003	1.003	1.002	1.000	1.001	1.001	1.000	1.000	1.001	1.006

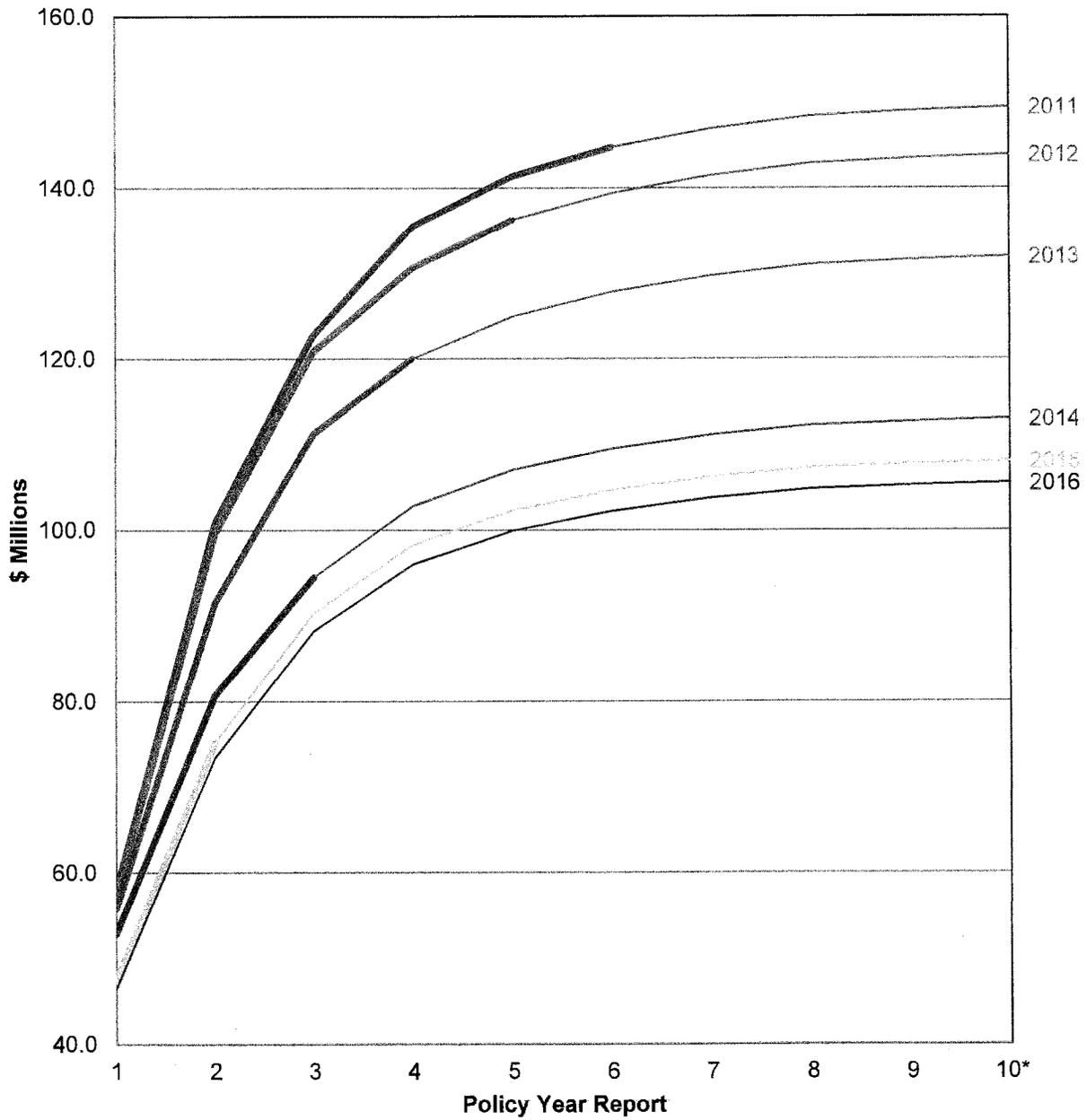
B. INDEMNITY PAID DEVELOPMENT FACTORS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	2.313	1.460	1.216	1.118	1.074	1.050	1.034	1.024	1.020	1.017	1.014	1.011	1.009	1.009	1.008	1.007	1.007	1.007	1.006

Figure 2

**STATE OF TENNESSEE
WORKERS COMPENSATION**

**HISTORICAL AND EXPECTED DEVELOPMENT OF PAID LOSSES
INDEMNITY**



* Additional development of 1.7% is expected after 10th report.

Table 3

**STATE OF TENNESSEE
WORKERS COMPENSATION**

MEDICAL PAID + CASE DEVELOPMENT FACTORS

A. MEDICAL PAID + CASE AGE TO AGE FACTORS

Policy Year	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - Ult
1994																			1.013
1995																	1.002	1.006	
1996															1.006	1.001	0.991	1.006	
1997														1.009	1.001	1.006	0.999	1.002	
1998													1.000	1.007	1.003	1.005	0.996	1.002	
1999												1.011	1.015	1.000	0.997	0.989			
2000											0.994	1.017	1.015	1.006	0.996				
2001									0.989	0.995	1.006	1.002	0.994						
2002									0.995	1.011	1.023	1.000	1.006						
2003								1.015	1.017	1.008	1.001	1.000							
2004							1.017	1.034	1.022	1.000	1.004								
2005						1.028	1.034	1.000	1.012	0.998									
2006					1.038	1.040	1.024	1.023	0.981										
2007				1.041	1.057	1.029	0.989	0.997											
2008			1.041	1.031	1.013	1.014	0.999												
2009		1.075	1.060	1.023	1.019	1.012													
2010	1.037	1.043	1.037	1.000	1.013														
2011	1.029	1.028	1.017	1.012															
2012	0.955	1.029	1.021																
2013	0.986	1.016																	
2014	0.987																		
2015																			
5 Yr Avg	0.999	1.038	1.035	1.021	1.028	1.025	1.013	1.014	1.005	1.001	1.003	1.007	1.008	1.003	1.001	1.000	0.997	1.004	
3 Yr Avg	0.976	1.024	1.025	1.012	1.015	1.018	1.004	1.007	1.005	1.002	1.009	1.002	1.008	1.000	0.999	1.000	0.995	1.000	
5 Yr Mid	1.001	1.033	1.033	1.022	1.023	1.024	1.013	1.013	1.008	1.002	1.000	1.006	1.008	1.004	1.000	1.002	0.997	1.005	
2 Yr Avg	0.987	1.023	1.019	1.006	1.016	1.013	0.994	1.010	0.997	0.999	1.003	1.000	1.004	1.000	0.997	0.997	0.998	1.004	
NCCI Prior	1.017	1.038	1.040	1.031	1.036	1.029	1.014	1.019	1.012	1.002	1.004	1.008	1.011	1.006	0.999	1.006	0.999	0.997	1.026
NCCI Sel	0.999	1.038	1.035	1.021	1.028	1.025	1.013	1.014	1.005	1.001	1.003	1.007	1.008	1.003	1.001	1.000	0.997	1.004	1.022
BYNAC Sel	1.001	1.032	1.031	1.018	1.022	1.022	1.010	1.011	1.006	1.002	1.004	1.005	1.008	1.002	1.000	1.001	0.996	1.003	1.022

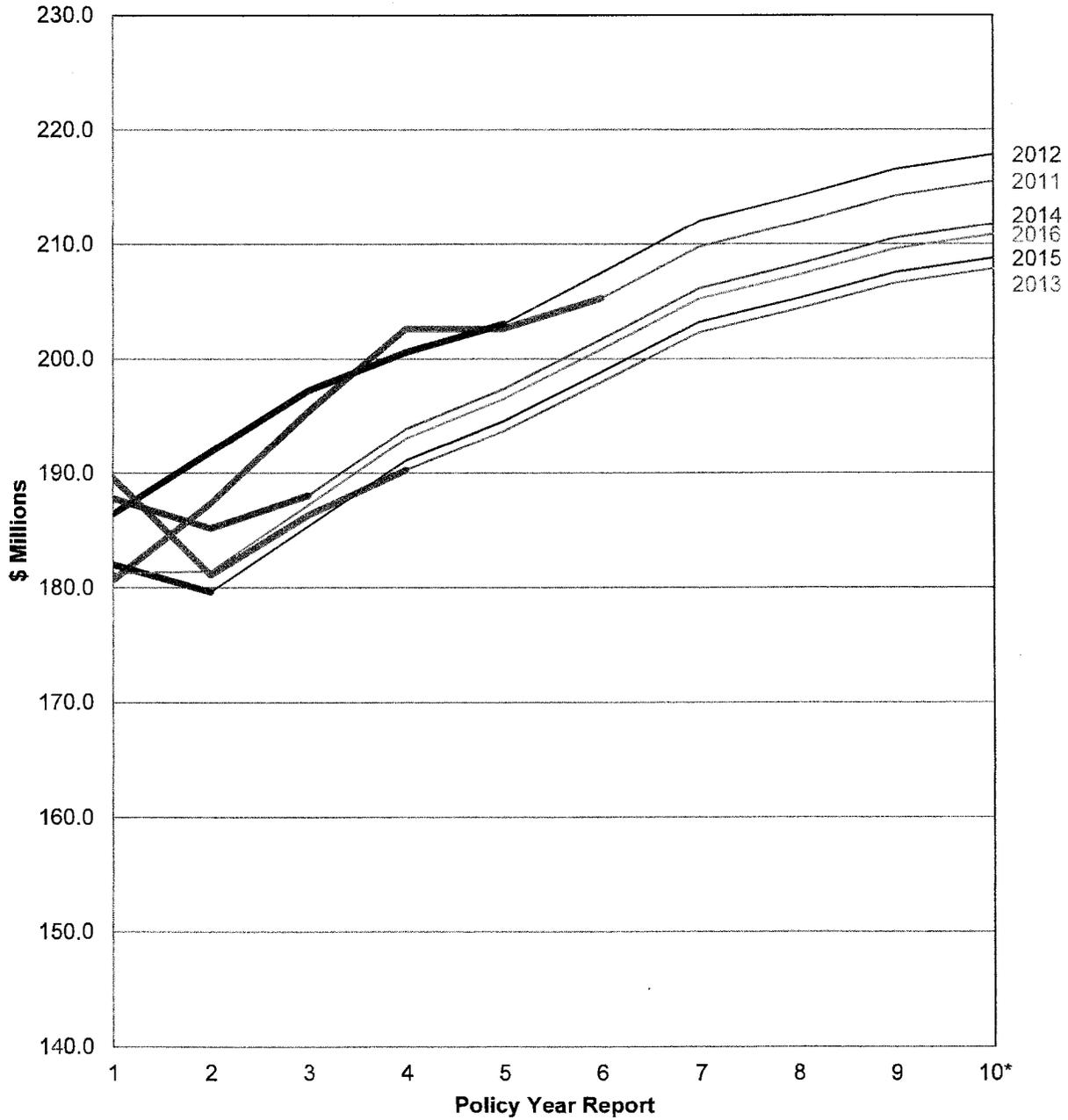
B. MEDICAL PAID + CASE DEVELOPMENT FACTORS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	1.214	1.213	1.175	1.140	1.120	1.096	1.072	1.061	1.049	1.043	1.041	1.037	1.032	1.024	1.022	1.022	1.021	1.025	1.022

Figure 3

**STATE OF TENNESSEE
WORKERS COMPENSATION**

**HISTORICAL AND EXPECTED DEVELOPMENT OF PAID + CASE LOSSES
MEDICAL**



* Additional development of 4.3% is expected after 10th report.

Table 4

**STATE OF TENNESSEE
WORKERS COMPENSATION**

MEDICAL PAID DEVELOPMENT FACTORS

A. MEDICAL AGE TO AGE FACTORS

Policy Year	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - Ult
1994																			1.008
1995																	1.011	1.012	
1996																1.008	1.007	1.018	
1997															1.015	1.015	1.010	1.009	
1998														1.013	1.012	1.013	1.010	1.009	
1999													1.012	1.012	1.009	1.011	1.008		
2000												1.018	1.020	1.011	1.008	1.008			
2001											1.014	1.016	1.010	1.009	1.011				
2002										1.018	1.019	1.021	1.005	1.006					
2003									1.018	1.020	1.014	1.017	1.011						
2004								1.026	1.018	1.021	1.016	1.010							
2005							1.033	1.033	1.023	1.024	1.017								
2006							1.040	1.032	1.033	1.021	1.024								
2007					1.042	1.046	1.041	1.023	1.019										
2008				1.050	1.032	1.044	1.027	1.016											
2009			1.048	1.039	1.037	1.028	1.024												
2010		1.085	1.052	1.036	1.035	1.029													
2011	1.243	1.065	1.047	1.027	1.019														
2012	1.236	1.070	1.037	1.025															
2013	1.221	1.073	1.037																
2014	1.229	1.066																	
2015	1.234																		
5 Yr Avg	1.233	1.072	1.044	1.035	1.033	1.037	1.031	1.026	1.020	1.021	1.016	1.016	1.012	1.010	1.011	1.011	1.009	1.011	
3 Yr Avg	1.228	1.070	1.040	1.029	1.030	1.034	1.031	1.024	1.021	1.023	1.016	1.016	1.009	1.009	1.009	1.011	1.009	1.012	
5 Yr Mid	1.233	1.070	1.044	1.034	1.035	1.038	1.031	1.027	1.019	1.022	1.016	1.017	1.011	1.011	1.011	1.011	1.009	1.010	
2 Yr Avg	1.232	1.070	1.037	1.026	1.027	1.029	1.026	1.020	1.020	1.024	1.017	1.014	1.008	1.008	1.010	1.010	1.009	1.009	
NCCI Prior	1.225	1.072	1.042	1.032	1.036	1.036	1.034	1.028	1.022	1.023	1.015	1.019	1.008	1.010	1.009	1.012	1.010	1.014	1.154
NCCI Sel	1.232	1.070	1.037	1.026	1.027	1.029	1.026	1.020	1.020	1.024	1.017	1.014	1.008	1.008	1.010	1.010	1.009	1.009	1.152
BYNAC Sel	1.228	1.070	1.040	1.029	1.030	1.034	1.031	1.024	1.021	1.023	1.016	1.016	1.009	1.009	1.009	1.011	1.009	1.012	1.152

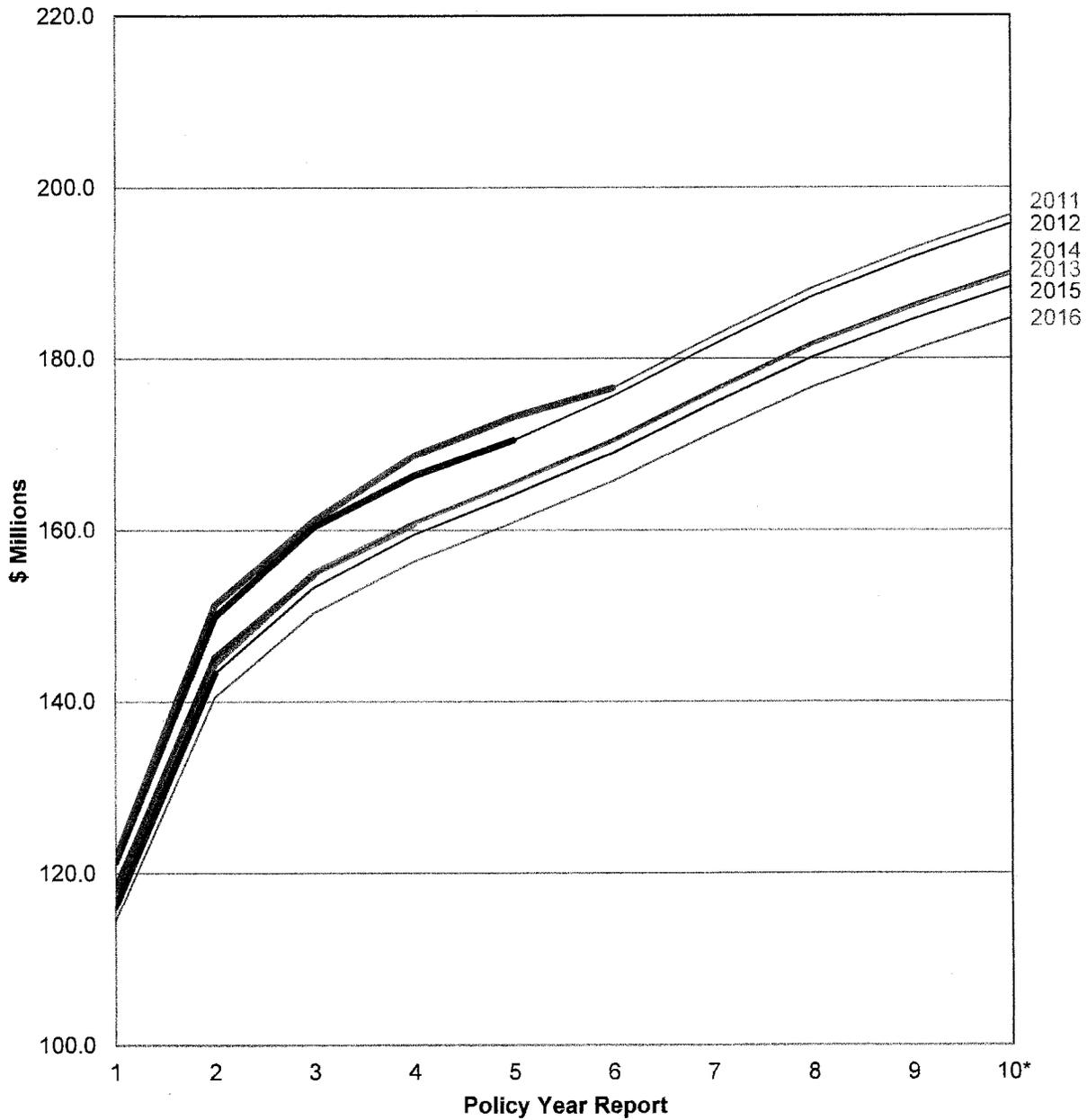
B. MEDICAL PAID LOSS DEVELOPMENT FACTORS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	2.084	1.697	1.586	1.525	1.482	1.439	1.392	1.350	1.318	1.291	1.262	1.242	1.222	1.211	1.200	1.189	1.176	1.166	1.152

Figure 4

**STATE OF TENNESSEE
WORKERS COMPENSATION**

**HISTORICAL AND EXPECTED DEVELOPMENT OF PAID LOSSES
MEDICAL**



* Additional development of 29.1% is expected after 10th report.

is the average of the 5 most recent age to age factors excluding the high and the low. BYNAC selections are also shown on Tables 1 through 4.

The observed medical paid + case age to age factor for policy year 2015 1st to 2nd report of 0.987, is similar to last year. This is the third year of a decrease. As a result, NCCI selected using its normal 5 year average methodology. BYNAC believes an adjustment to exclude the 2013 factor, which was caused by a decrease in three large claims, is necessary. The BYNAC selection is the 5 year mid average. Indemnity paid + case age to age factors for 1st to 2nd report have also decreased dramatically in the last three periods. The BYNAC selection recognizes this decrease.

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 5 shows the premium development with the NCCI and BYNAC selections. Age to age factors from prior filings are shown for the older policy periods. These factors are included to illustrate the range of usual factors.

Table 6 shows both NCCI's and BYNAC's estimated ultimate losses and standard earned premium. For the losses, the NCCI selections are based on an average of the indicated ultimate losses using the paid + case and paid development methods. The BYNAC selections are also based on the average of the two methods using BYNAC's selected development factors. The selections are illustrated in Figures 5 and 6.

The indicated loss cost level change for policy years 2012 through 2016 is presented in Table 7.

A summary of the indications is provided in Table 8 and Figure 7. BYNAC selected the average

Table 5

**STATE OF TENNESSEE
WORKERS COMPENSATION**

PREMIUM DEVELOPMENT FACTORS

A. PREMIUM AGE TO AGE FACTORS

Policy Year	1 - 2	2 - 3	3 - 4	4 - 5	5-Ult
2008	0.987	0.996	1.000	1.000	
2009	1.001	0.996	1.000	1.000	
2010	1.008	1.000	1.000	1.000	
2011	1.014	1.000	1.000	1.000	
2012	1.006	0.999	1.000	1.000	
2013	1.005	1.000	1.000		
2014	1.011	1.000			
2015	1.008				
5 Yr Avg	1.009	1.000	1.000	1.000	
3 Yr Avg	1.008	1.000	1.000	1.000	
5 Yr Mid	1.008	1.000	1.000	1.000	
2 Yr Avg	1.010	1.000	1.000	1.000	
NCCI Prior	1.007	1.000	1.000	1.000	1.000
NCCI Sel	1.008	1.000	1.000	1.000	1.000
BYNAC Sel	1.008	1.000	1.000	1.000	1.000

B. PREMIUM LOSS DEVELOPMENT FACTORS

1	2	3	4	5
1.008	1.000	1.000	1.000	1.000

Table 6

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF PREMIUM AND LOSSES DEVELOPED TO ULTIMATE REPORT

Section A - Policy Year 2016 Experience		NCCI	BYNAC
(1)	Standard Earned Premium	\$600,748,441	\$600,748,441
(2)	Factor to Develop Premium to Ultimate	1.008	1.008
(3)	Standard Earned Premium Developed to Ultimate = (1)x(2)	\$605,554,429	\$605,554,429
(4)	Limited Indemnity Paid Losses	\$46,352,910	\$46,352,910
(5)	Limited Indemnity Paid Development Factor to Ultimate	2.258	2.313
(6)	Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$104,664,871	\$107,214,281
(7)	Limited Indemnity Paid+Case Losses	\$87,538,545	\$87,538,545
(8)	Limited Indemnity Paid+Case Development Factor to Ultimate	1.240	1.225
(9)	Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$108,547,796	\$107,234,718
(10)	Policy Year 2016 Limited Indemnity Losses Developed to Ultimate NCCI and BYNAC = [(6)+(9)]/2	\$106,606,334	\$107,224,500
(11)	Limited Medical Paid Losses	\$114,403,885	\$114,403,885
(12)	Limited Medical Paid Development Factor to Ultimate	2.033	2.084
(13)	Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$232,583,098	\$238,417,696
(14)	Limited Medical Paid+Case Losses	\$181,235,483	\$181,235,483
(15)	Limited Medical Paid+Case Development Factor to Ultimate	1.248	1.214
(16)	Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$226,181,883	\$220,019,876
(17)	Policy Year 2016 Limited Medical Losses Developed to Ultimate NCCI and BYNAC = [(13)+(16)]/2	\$229,382,491	\$229,218,786
Section B - Policy Year 2015 Experience		NCCI	BYNAC
(1)	Standard Earned Premium	\$584,262,381	\$584,262,381
(2)	Factor to Develop Premium to Ultimate	1.000	1.000
(3)	Standard Earned Premium Developed to Ultimate = (1)x(2)	\$584,262,381	\$584,262,381
(4)	Limited Indemnity Paid Losses	\$75,173,213	\$75,173,213
(5)	Limited Indemnity Paid Development Factor to Ultimate	1.450	1.460
(6)	Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$109,001,159	\$109,752,891
(7)	Limited Indemnity Paid+Case Losses	\$98,042,440	\$98,042,440
(8)	Limited Indemnity Paid+Case Development Factor to Ultimate	1.111	1.106
(9)	Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$108,925,151	\$108,434,939
(10)	Policy Year 2015 Limited Indemnity Losses Developed to Ultimate NCCI and BYNAC = [(6)+(9)]/2	\$108,963,155	\$109,093,915
(11)	Limited Medical Paid Losses	\$143,267,993	\$143,267,993
(12)	Limited Medical Paid Development Factor to Ultimate	1.650	1.697
(13)	Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$236,392,188	\$243,125,784
(14)	Limited Medical Paid+Case Losses	\$179,622,738	\$179,622,738
(15)	Limited Medical Paid+Case Development Factor to Ultimate	1.249	1.213
(16)	Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$224,348,800	\$217,882,381
(17)	Policy Year 2015 Limited Medical Losses Developed to Ultimate NCCI and BYNAC = [(13)+(16)]/2	\$230,370,494	\$230,504,083

Table 6

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF PREMIUM AND LOSSES DEVELOPED TO ULTIMATE REPORT

Section C - Policy Year 2014 Experience

	<u>NCCI</u>	<u>BYNAC</u>
(1) Standard Earned Premium	\$595,654,595	\$595,654,595
(2) Factor to Develop Premium to Ultimate	1.000	1.000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$595,654,595	\$595,654,595
(4) Limited Indemnity Paid Losses	\$94,445,521	\$94,445,521
(5) Limited Indemnity Paid Development Factor to Ultimate	1.214	1.216
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$114,656,862	\$114,845,754
(7) Limited Indemnity Paid+Case Losses	\$109,915,743	\$109,915,743
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.051	1.048
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$115,521,446	\$115,191,699
(10) Policy Year 2014 Limited Indemnity Losses Developed to Ultimate NCCI and BYNAC = [(6)+(9)]/2	\$115,089,154	\$115,018,727
(11) Limited Medical Paid Losses	\$154,750,572	\$154,750,572
(12) Limited Medical Paid Development Factor to Ultimate	1.542	1.586
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$238,625,382	\$245,434,407
(14) Limited Medical Paid+Case Losses	\$188,045,717	\$188,045,717
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.203	1.175
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$226,218,998	\$220,953,717
(17) Policy Year 2014 Limited Medical Losses Developed to Ultimate NCCI and BYNAC = [(13)+(16)]/2	\$232,422,190	\$233,194,062

Section D - Policy Year 2013 Experience

	<u>NCCI</u>	<u>BYNAC</u>
(1) Standard Earned Premium	\$611,832,087	\$611,832,087
(2) Factor to Develop Premium to Ultimate	1.000	1.000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$611,832,087	\$611,832,087
(4) Limited Indemnity Paid Losses	\$119,990,129	\$119,990,129
(5) Limited Indemnity Paid Development Factor to Ultimate	1.124	1.118
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$134,868,905	\$134,148,964
(7) Limited Indemnity Paid+Case Losses	\$130,286,995	\$130,286,995
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.030	1.028
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$134,195,605	\$133,935,031
(10) Policy Year 2013 Limited Indemnity Losses Developed to Ultimate NCCI and BYNAC = [(6)+(9)]/2	\$134,532,255	\$134,041,998
(11) Limited Medical Paid Losses	\$160,665,128	\$160,665,128
(12) Limited Medical Paid Development Factor to Ultimate	1.487	1.525
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$238,909,045	\$245,014,320
(14) Limited Medical Paid+Case Losses	\$190,261,938	\$190,261,938
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.162	1.140
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$221,084,372	\$216,898,609
(17) Policy Year 2013 Limited Medical Losses Developed to Ultimate NCCI and BYNAC = [(13)+(16)]/2	\$229,996,709	\$230,956,465

Table 6

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF PREMIUM AND LOSSES DEVELOPED TO ULTIMATE REPORT

Section E - Policy Year 2012 Experience	<u>NCCI</u>	<u>BYNAC</u>
(1) Standard Earned Premium	\$614,715,345	\$614,715,345
(2) Factor to Develop Premium to Ultimate	1.000	1.000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$614,715,345	\$614,715,345
(4) Limited Indemnity Paid Losses	\$136,219,823	\$136,219,823
(5) Limited Indemnity Paid Development Factor to Ultimate	1.078	1.074
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$146,844,969	\$146,300,090
(7) Limited Indemnity Paid+Case Losses	\$144,857,925	\$144,857,925
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.019	1.017
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$147,610,226	\$147,320,510
(10) Policy Year 2012 Limited Indemnity Losses Developed to Ultimate NCCI and BYNAC = [(6)+(9)]/2	\$147,227,598	\$146,810,300
(11) Limited Medical Paid Losses	\$170,481,862	\$170,481,862
(12) Limited Medical Paid Development Factor to Ultimate	1.449	1.482
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$247,028,218	\$252,654,119
(14) Limited Medical Paid+Case Losses	\$203,032,176	\$203,032,176
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.138	1.120
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$231,050,616	\$227,396,037
(17) Policy Year 2012 Limited Medical Losses Developed to Ultimate NCCI and BYNAC = [(13)+(16)]/2	\$239,039,417	\$240,025,078

Figure 5

**STATE OF TENNESSEE
WORKERS COMPENSATION**

**SELECTED ESTIMATED ULTIMATE INCURRED LOSSES
INDEMNITY**

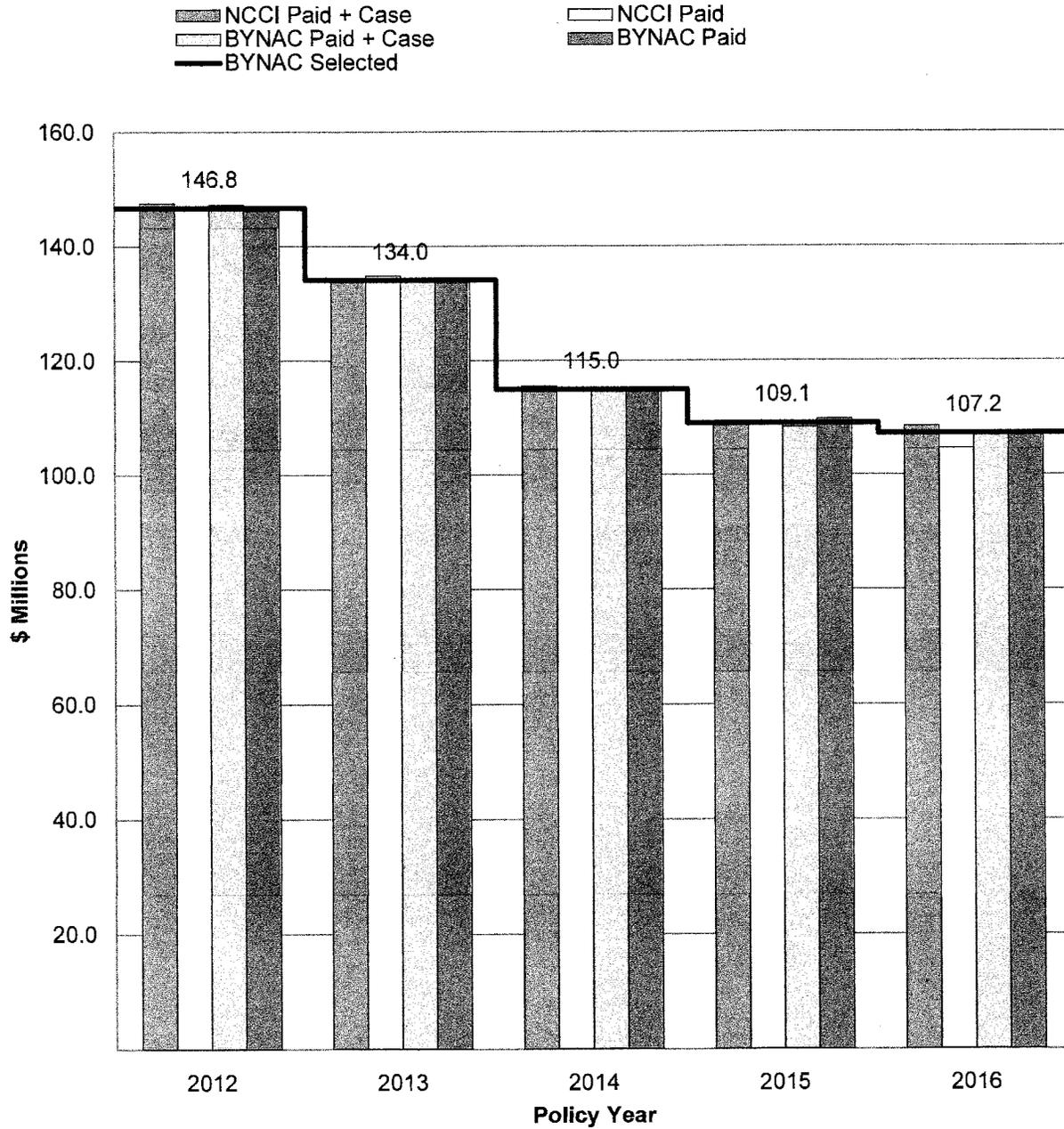


Figure 6

**STATE OF TENNESSEE
WORKERS COMPENSATION**

**SELECTED ESTIMATED ULTIMATE INCURRED LOSSES
MEDICAL**

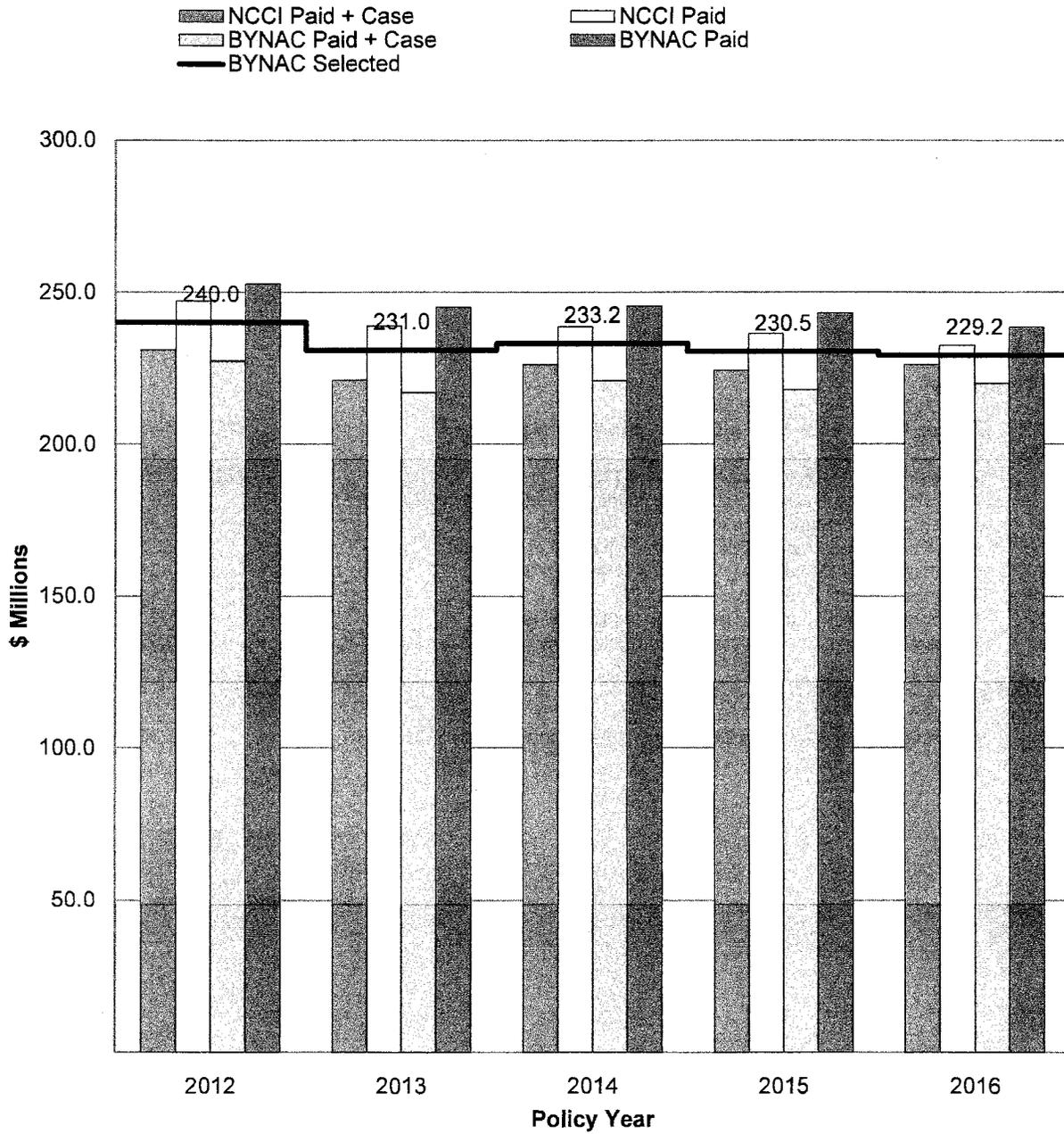


Table 7

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF INDICATED LOSS COST LEVEL CHANGE

Section A - Policy Year 2016 Experience	<u>NCCI</u>	<u>BYNAC</u>
Premium:		
(1) Standard Earned Premium Developed to Ultimate (Table 6)	\$605,554,429	\$605,554,429
(2) Premium On-level Factor	0.596	0.596
(3) Premium Available for Benefit Costs = (1) x (2)	\$360,910,440	\$360,910,440
Indemnity Benefit Cost:		
(4) Limited Indemnity Losses Developed to Ultimate (Table 6)	\$106,606,334	\$107,224,500
(5) Indemnity Loss On-level Factor	1.004	1.004
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$107,032,759	\$107,653,398
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.297	0.298
(8) Factor to Reflect Indemnity Trend	0.792	0.820
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.235	0.244
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis	1.013	1.013
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.238	0.247
(12) Factor to Reflect Proposed Changes in Indemnity Benefits	1.005	1.005
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.239	0.248
Medical Benefit Cost:		
(14) Limited Medical Losses Developed to Ultimate (Table 6)	\$229,382,491	\$229,218,786
(15) Medical Loss On-level Factor	0.994	0.994
(16) Adjusted Limited Medical Losses = (14) x (15)	\$228,006,196	\$227,843,473
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.632	0.631
(18) Factor to Reflect Medical Trend	0.877	0.937
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.554	0.592
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis	1.013	1.013
(21) Projected Medical Cost Ratio = (19) x (20)	0.561	0.600
(22) Factor to Reflect Proposed Changes in Medical Benefits	1.006	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.564	0.604
Total Benefit Cost:		
(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.803	0.852

Table 7

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF INDICATED LOSS COST LEVEL CHANGE

Section B - Policy Year 2015 Experience	<u>NCCI</u>	<u>BYNAC</u>
Premium:		
(1) Standard Earned Premium Developed to Ultimate (Table 6)	\$584,262,381	\$584,262,381
(2) Premium On-level Factor	0.575	0.575
(3) Premium Available for Benefit Costs = (1) x (2)	\$335,950,869	\$335,950,869
Indemnity Benefit Cost:		
(4) Limited Indemnity Losses Developed to Ultimate (Table 6)	\$108,963,155	\$109,093,915
(5) Indemnity Loss On-level Factor	1.013	1.013
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$110,379,676	\$110,512,136
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.329	0.329
(8) Factor to Reflect Indemnity Trend	0.737	0.770
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.242	0.253
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis	1.013	1.013
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.245	0.256
(12) Factor to Reflect Proposed Changes in Indemnity Benefits	1.005	1.005
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.246	0.257
Medical Benefit Cost:		
(14) Limited Medical Losses Developed to Ultimate (Table 6)	\$230,370,494	\$230,504,083
(15) Medical Loss On-level Factor	0.970	0.970
(16) Adjusted Limited Medical Losses = (14) x (15)	\$223,459,379	\$223,588,961
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.665	0.666
(18) Factor to Reflect Medical Trend	0.842	0.918
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.560	0.611
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis	1.013	1.013
(21) Projected Medical Cost Ratio = (19) x (20)	0.567	0.619
(22) Factor to Reflect Proposed Changes in Medical Benefits	1.006	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.570	0.623
Total Benefit Cost:		
(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.816	0.880

Table 7

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF INDICATED LOSS COST LEVEL CHANGE

Section C - Policy Year 2014 Experience	<u>NCCI</u>	<u>BYNAC</u>
Premium:		
(1) Standard Earned Premium Developed to Ultimate (Table 6)	\$595,654,595	\$595,654,595
(2) Premium On-level Factor	0.525	0.525
(3) Premium Available for Benefit Costs = (1) x (2)	\$312,718,662	\$312,718,662
Indemnity Benefit Cost:		
(4) Limited Indemnity Losses Developed to Ultimate (Table 6)	\$115,089,154	\$115,018,727
(5) Indemnity Loss On-level Factor	0.983	0.983
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$113,132,638	\$113,063,409
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.362	0.362
(8) Factor to Reflect Indemnity Trend	0.685	0.724
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.248	0.262
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis	1.013	1.013
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.251	0.265
(12) Factor to Reflect Proposed Changes in Indemnity Benefits	1.005	1.005
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.252	0.266
Medical Benefit Cost:		
(14) Limited Medical Losses Developed to Ultimate (Table 6)	\$232,422,190	\$233,194,062
(15) Medical Loss On-level Factor	0.972	0.972
(16) Adjusted Limited Medical Losses = (14) x (15)	\$225,914,369	\$226,664,628
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.722	0.725
(18) Factor to Reflect Medical Trend	0.808	0.900
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.584	0.652
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis	1.013	1.013
(21) Projected Medical Cost Ratio = (19) x (20)	0.592	0.660
(22) Factor to Reflect Proposed Changes in Medical Benefits	1.006	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.596	0.664
Total Benefit Cost:		
(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.848	0.930

Table 7

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF INDICATED LOSS COST LEVEL CHANGE

Section D - Policy Year 2013 Experience	<u>NCCI</u>	<u>BYNAC</u>
Premium:		
(1) Standard Earned Premium Developed to Ultimate (Table 6)	\$611,832,087	\$611,832,087
(2) Premium On-level Factor	0.474	0.474
(3) Premium Available for Benefit Costs = (1) x (2)	\$290,008,409	\$290,008,409
Indemnity Benefit Cost:		
(4) Limited Indemnity Losses Developed to Ultimate (Table 6)	\$134,532,255	\$134,041,998
(5) Indemnity Loss On-level Factor	0.865	0.865
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$116,370,401	\$115,946,328
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.401	0.400
(8) Factor to Reflect Indemnity Trend	0.637	0.681
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.255	0.272
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis	1.013	1.013
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.258	0.276
(12) Factor to Reflect Proposed Changes in Indemnity Benefits	1.005	1.005
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.259	0.277
Medical Benefit Cost:		
(14) Limited Medical Losses Developed to Ultimate (Table 6)	\$229,996,709	\$230,956,465
(15) Medical Loss On-level Factor	0.973	0.973
(16) Adjusted Limited Medical Losses = (14) x (15)	\$223,786,798	\$224,720,640
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.772	0.775
(18) Factor to Reflect Medical Trend	0.776	0.882
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.599	0.683
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis	1.013	1.013
(21) Projected Medical Cost Ratio = (19) x (20)	0.607	0.692
(22) Factor to Reflect Proposed Changes in Medical Benefits	1.006	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.611	0.696
Total Benefit Cost:		
(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.870	0.973

Table 7

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF INDICATED LOSS COST LEVEL CHANGE

Section E - Policy Year 2012 Experience	<u>NCCI</u>	<u>BYNAC</u>
Premium:		
(1) Standard Earned Premium Developed to Ultimate (Table 6)	\$614,715,345	\$614,715,345
(2) Premium On-level Factor	0.450	0.450
(3) Premium Available for Benefit Costs = (1) x (2)	\$276,621,905	\$276,621,905
Indemnity Benefit Cost:		
(4) Limited Indemnity Losses Developed to Ultimate (Table 6)	\$147,227,598	\$146,810,300
(5) Indemnity Loss On-level Factor	0.862	0.862
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$126,910,189	\$126,550,479
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.459	0.457
(8) Factor to Reflect Indemnity Trend	0.592	0.640
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.272	0.292
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis	1.013	1.013
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.276	0.296
(12) Factor to Reflect Proposed Changes in Indemnity Benefits	1.005	1.005
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.277	0.297
Medical Benefit Cost:		
(14) Limited Medical Losses Developed to Ultimate (Table 6)	\$239,039,417	\$240,025,078
(15) Medical Loss On-level Factor	0.959	0.959
(16) Adjusted Limited Medical Losses = (14) x (15)	\$229,238,801	\$230,184,050
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.829	0.832
(18) Factor to Reflect Medical Trend	0.745	0.864
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.617	0.719
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis	1.013	1.013
(21) Projected Medical Cost Ratio = (19) x (20)	0.625	0.728
(22) Factor to Reflect Proposed Changes in Medical Benefits	1.006	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.629	0.732
Total Benefit Cost:		
(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.906	1.029

Table 8

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF INDICATED LOSS COST LEVEL CHANGE

Indicated Change Based on Experience, Trend, and Benefits

<u>Policy Year</u>	<u>NCCI</u>	<u>BYNAC</u>
2012	0.906	1.029
2013	0.870	0.973
2014	0.848	0.930
2015	0.816	0.880
2016	0.803	0.852
NCCI Selected	0.810	
BYNAC Selected		0.909

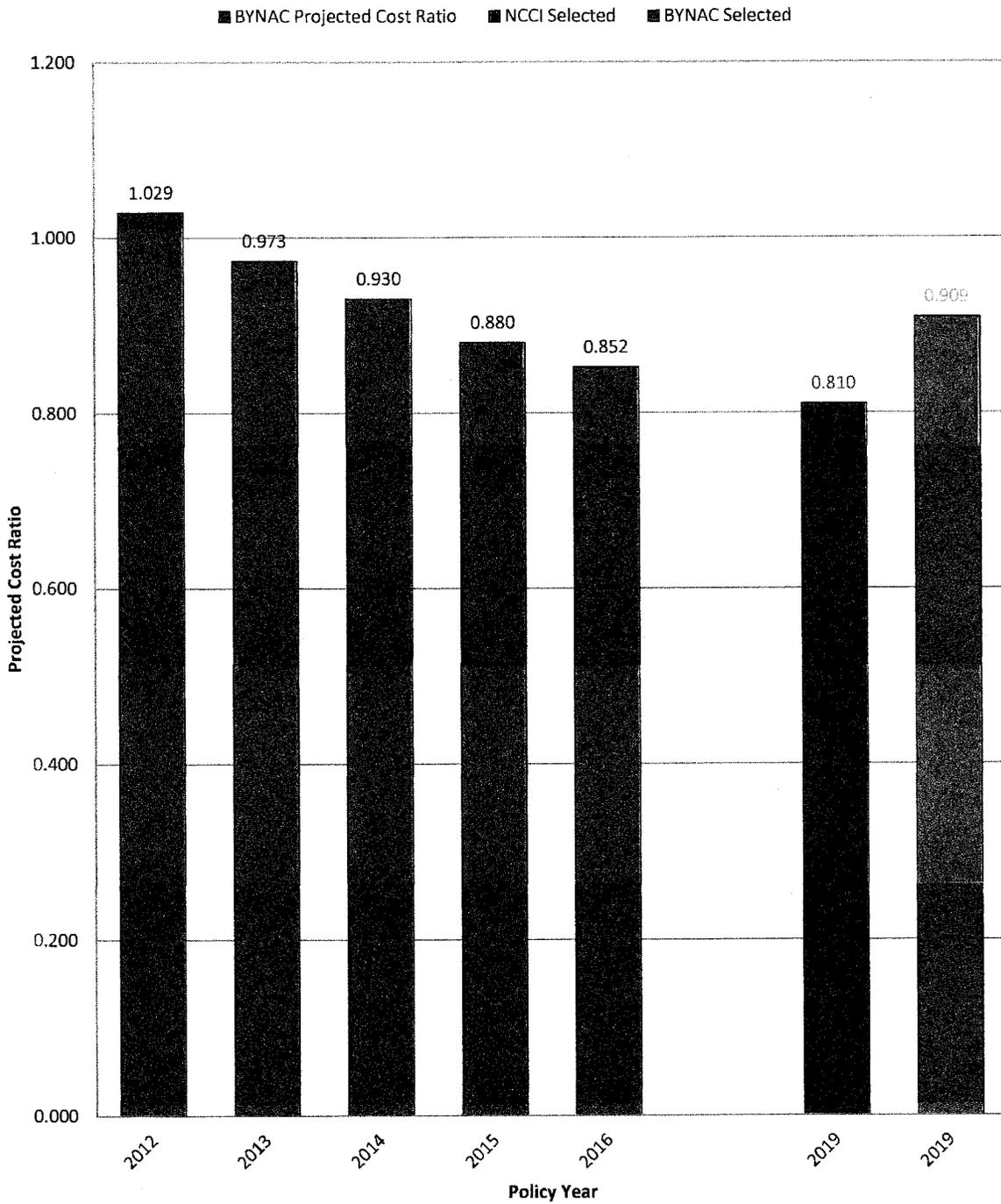
Application of the Premium Offset and Change in Loss-based Expenses

Indicated Loss Cost Level Change	0.810	0.909
Effect of the Change In Loss-Based Expenses	1.000	1.000
Indicated Change Modified for Expense Change	0.810	0.909
Indicated Change as Percentage	-19.0%	-9.1%

Figure 7

**STATE OF TENNESSEE
WORKERS COMPENSATION**

PROJECTED COST RATIO INCLUDING BENEFIT CHANGES



of the 2013 through 2016 BYNAC indications. BYNAC has extended the number of years used in the selected average due to the volatility.

TREND

An exponential regression model is used to project the trend and is presented in Table 9. Both BYNAC and NCCI made judgmental selections based on the frequency, severity, and loss ratio trends presented. NCCI has indicated that the dramatic decrease in trend selections this year is a recognition of the most recent frequency trends. In addition, NCCI noted that the trend selections have generally been decreasing as the older years with higher values have dropped out of the review period. NCCI feels that the sharp decrease in this year's trend selections will improve long-term stability as no adjustment will be necessary going forward if the trends continue at their current level. BYNAC believes that the gradual change afforded by using a long experience period provides more stability to the Tennessee loss costs. It is not unusual for the loss ratio values to swing back and forth from year to year in Tennessee. Using a longer period diminishes the effect of these swings. The ACWC may also consider the possible causes for the large decreases in frequency in recent years in forming an opinion on the persistence of this trend into the future. Possible reasons could be an increase in loss control and safety programs, a change in the mix of job type in the state towards jobs with lower claim frequency, the impact of the 2013 Workers' Compensation Reform Act, or higher wage growth relative to changes in underlying exposure. BYNAC recommends factors of 0.940 for indemnity and 0.980 for medical. The NCCI recommendations are 0.930 for indemnity and 0.960 for medical. The larger difference in medical is due to BYNAC giving more weight to the increasing medical cost per case trend in its selection.

Table 9

**STATE OF TENNESSEE
WORKERS COMPENSATION**

TREND

Policy Year	Lost-Time Claim Frequency	Indemnity		Medical	
		Avg Cost Per Case	Loss Ratio	Avg Cost Per Case	Loss Ratio
2002	30.218	23,048	0.695	30,532	0.924
2003	30.284	23,675	0.717	33,041	1.001
2004	29.178	23,075	0.672	34,756	1.016
2005	28.143	22,054	0.619	34,880	0.980
2006	28.199	23,428	0.662	35,149	1.000
2007	27.632	22,251	0.619	36,910	1.026
2008	26.326	21,661	0.568	35,015	0.922
2009	27.427	20,857	0.572	35,850	0.983
2010	29.218	19,014	0.556	31,523	0.921
2011	26.377	18,298	0.483	29,978	0.790
2012	25.682	17,849	0.459	32,269	0.829
2013	23.667	16,954	0.401	32,611	0.772
2014	22.967	15,735	0.362	31,436	0.722
2015	20.922	15,708	0.329	31,809	0.665
2016	18.633	15,916	0.297	33,904	0.632
5 year Exponential	-7.4%	-3.0%	-10.1%	0.7%	-6.7%
8 year Exponential	-5.6%	-3.9%	-9.3%	-0.2%	-5.8%
15 year Exponential	-2.7%	-3.3%	-5.9%	-0.4%	-3.1%
NCCI Prior Selected			0.945		0.980
NCCI Selected			0.930		0.960
BYNAC Selected	-3.0%	-3.0%	0.940	1.0%	0.980

LOSS ADJUSTMENT EXPENSE

BYNAC agrees with the NCCI selected LAE provision in total. In evaluating the selected Tennessee DCCE ratio, BYNAC examined the history of Tennessee and countrywide paid losses to paid DCCE ratios and relativity factors shown in the following table:

Filing	Relativity	Paid Losses/Paid DCCE*		Developed DCCE Ratio	
		TN	CW	TN	CW
3/1/2012	1.027	0.113	0.110	0.125	0.122
3/1/2013	1.018	0.116	0.114	0.127	0.125
3/1/2014	1.000	0.117	0.117	0.127	0.127
3/1/2015	1.000	0.119	0.119	0.128	0.128
3/1/2016	0.975	0.118	0.121	0.127	0.130
3/1/2017	0.960	0.119	0.124	0.127	0.132
3/1/2018	0.929	0.118	0.127	0.124	0.133
3/1/2019	0.915	0.118	0.129	0.121	0.132

* Three calendar years of undeveloped paid losses (2015-2017 for the 3/1/19 filing) from NAIC annual statement data.

A summary of the LAE selections is shown in Table 10.

CLASSIFICATION RATEMAKING

This filing proposes an update to the parameters of the credibility formulas used in the calculation of classification loss costs. The credibility formulas are used to decide the weight to be given to experience data relative to the weight given to other data. The NCCI classification ratemaking uses three estimates of the class pure premium: the pure premium based on state data, the indicated pure premium using national data adjusted to the state level, and the current pure premium adjusted to the proposed rate level. Credibility for the state pure premium is based on expected losses. Credibility for the national pure premium is based on lost-time claims and is limited to half the complement of the state credibility. Any remaining weight is assigned to the

Table 10

**STATE OF TENNESSEE
WORKERS COMPENSATION**

LOSS ADJUSTMENT EXPENSE

Accident Year	NCCI Countrywide AY Developed DCCE Ratio	NCCI Countrywide AY Developed AOE Ratio	NCCI Accident Year Developed LAE Ratio
2008	10.6%	7.1%	17.7%
2009	10.9%	7.4%	18.3%
2010	11.2%	6.9%	18.1%
2011	11.8%	6.6%	18.4%
2012	12.7%	6.9%	19.6%
2013	13.1%	7.2%	20.3%
2014	13.4%	6.9%	20.3%
2015	13.1%	6.9%	20.0%
2016	13.2%	7.3%	20.5%
2017	13.2%	7.8%	21.0%
10 Year Average	12.3%	7.1%	19.4%
5 Year Average	13.2%	7.2%	20.4%
3 Year Average	13.2%	7.3%	20.5%
NCCI Prior Selected	12.4%	7.3%	19.7%
NCCI CW Selected	13.2%	7.6%	20.8%
NCCI TN Selected*	12.1%	7.6%	19.7%
BYNAC TN Selected	12.4%	7.3%	19.7%
BYNAC Proposed Change in LAE Allowance			
Current Tennessee LAE Allowance			19.7%
BYNAC Proposed LAE Allowance			19.7%
Proposed Change in LAE			0.0%

* Reflects DCCE TN/CW relativity of 0.915.

current pure premium at rate level. The proposed changes significantly increase the amount of experience needed for the data to be considered fully credible. In smaller classifications, this means that more weight will be given to the national and current pure premiums. Usually a higher volume of data is more stable. By increasing the credibility standard, NCCI is hoping to increase the stability of the classification loss costs. This is a reasonable expectation. BYNAC believes that stability in the overall rate level is also warranted and could be achieved by using a longer experience period in calculating the statewide indication. The exhibit shown in Appendix D is a comparison of the proposed loss costs for 3/1/19 calculated using both the new standard and the current standard. The colored bars help to illustrate the smaller swing in loss costs achieved in many classifications. This decrease in swings should be more evident in the next filing when both the current and proposed pure premiums are calculated using the same method.

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

BYNAC RECOMMENDATIONS

Appendix A

**STATE OF TENNESSEE
WORKERS COMPENSATION**

INDICATED LOSS COST LEVEL CHANGE

Indicated Change Based on Experience, Trend, and Benefits:

	Policy Year		<u>NCCI</u>	<u>BYNAC</u>
	<u>2016</u>	<u>2015</u>		
Projected Indemnity Cost Ratio including Benefit Changes	0.239	0.246		
Projected Medical Cost Ratio including Benefit Changes	0.564	0.570		
Total Benefit Cost	0.803	0.816		
Selected			0.810	0.909
Change in Loss Based Expenses:				
Current Tennessee LAE Allowance			19.7%	19.7%
Proposed Tennessee LAE Allowance			19.7%	19.7%
Selected			1.000	1.000
Overall			-19.0%	-9.1%

TENNESSEE ADVISORY COUNCIL ON WORKERS' COMPENSATION

APPENDIX B

CHANGES IN ESTIMATED ULTIMATE INCURRED LOSSES

Appendix B

**STATE OF TENNESSEE
WORKERS COMPENSATION**

CHANGE IN ESTIMATED ULTIMATE INCURRED LOSSES

A. NCCI Estimates

Policy Year	3/16 Filing to 3/17 Filing		3/17 Filing to 3/18 Filing		3/18 Filing to 3/19 Filing		3/16 Filing to 3/19 Filing	
	Indemnity	Medical	Indemnity	Medical	Indemnity	Medical	Indemnity	Medical
2010	-0.5%	-2.1%					-0.5%	-2.1%
2011	0.9%	-1.7%	-0.7%	-5.3%			0.2%	-7.0%
2012	-0.3%	-2.0%	-1.6%	-5.6%	-0.1%	-5.2%	-2.0%	-12.2%
2013	-6.0%	-6.9%	-1.0%	-4.3%	-1.5%	-5.9%	-8.4%	-16.3%
2014			-9.4%	-6.5%	-3.5%	-6.4%	-12.6%	-12.5%
2015					-3.9%	-4.9%	-3.9%	-4.9%

B. BYNAC Estimates

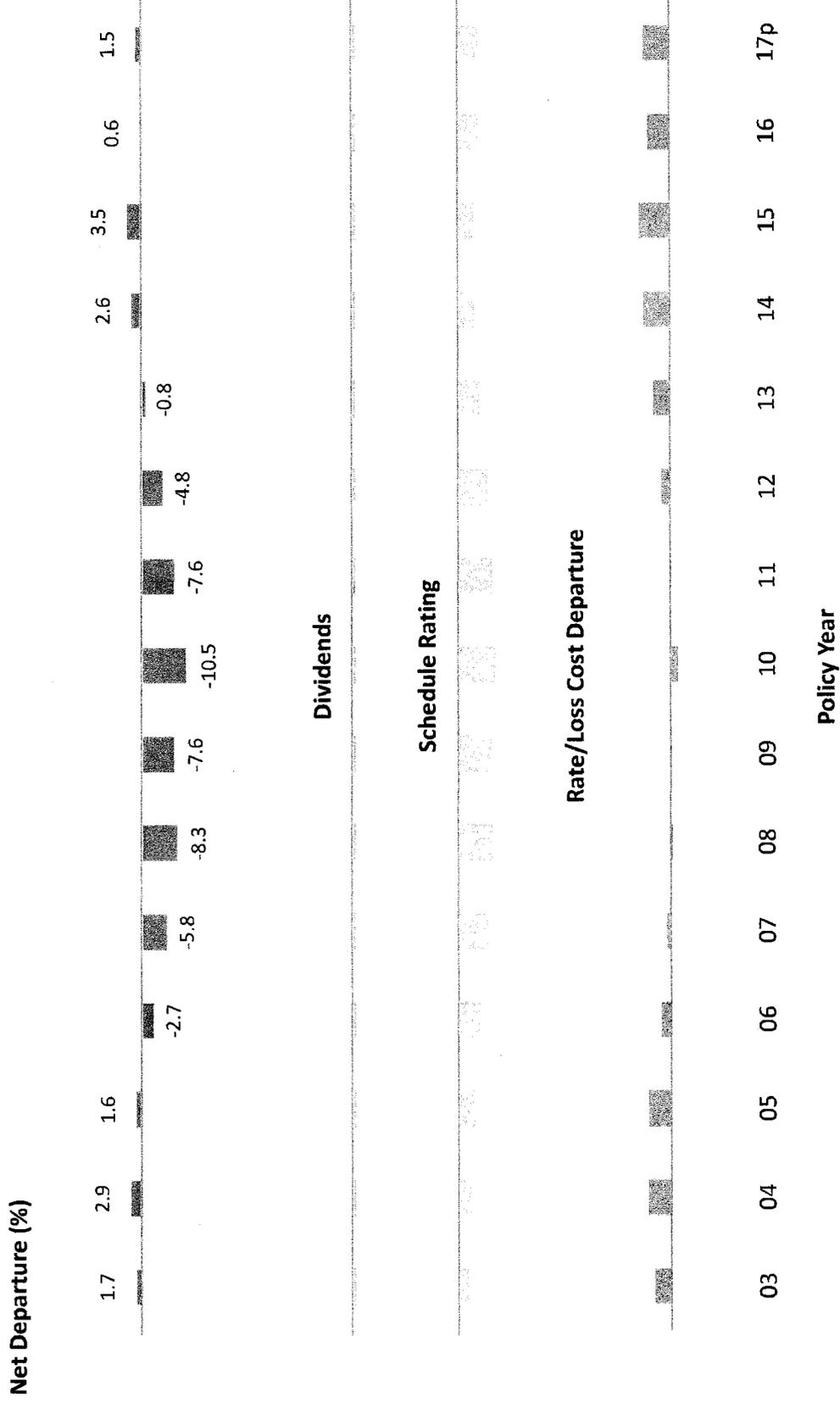
Policy Year	3/16 Filing to 3/17 Filing		3/17 Filing to 3/18 Filing		3/18 Filing to 3/19 Filing		3/16 Filing to 3/18 Filing	
	Indemnity	Medical	Indemnity	Medical	Indemnity	Medical	Indemnity	Medical
2010	-0.3%	-2.0%					-0.3%	-2.0%
2011	0.9%	-1.8%	-0.5%	-3.3%			0.4%	-5.0%
2012	0.0%	-2.1%	-1.4%	-3.7%	-0.1%	-5.2%	-1.5%	-10.6%
2013	-4.4%	-8.8%	-1.6%	-3.2%	-1.5%	-5.9%	-7.3%	-16.9%
2014			-11.4%	-7.1%	-3.5%	-6.4%	-14.5%	-13.0%
2015					-3.9%	-4.9%	-3.9%	-4.9%

TENNESSEE ADVISORY COUNCIL ON WORKERS' COMPENSATION

APPENDIX C

IMPACT OF DISCOUNTING ON PREMIUM

Impact of Discounting on Premium Tennessee—Private Carrier Only



Based on data through 12/31/2017
Dividend ratio for preliminary year is based on most recent calendar year ratio

**STATE OF TENNESSEE
WORKERS COMPENSATION**

ADVISORY LOSS COST COMPARISON

Class Code	Class Description	New Credibility			Current Credibility		
		Current 03/01/18	Standard Proposed 03/01/19	Percent Change	Standard Proposed 03/01/19	Percent Change	
2380	WEBBING MFG	1.42	1.12	-21.1%	1.09	-23.2%	
2388	EMBROIDERY MFG	0.96	0.81	-15.6%	0.84	-12.5%	
2402	CARPET OR RUG MFG NOC	1.64	1.43	-12.8%	1.43	-12.8%	
2413	TEXTILE-BLEACHING, DYEING, MERCERIZING, FINISHING	1.94	1.80	-7.2%	2.07	6.7%	
2416	YARN DYEING OR FINISHING	1.06	0.88	-17.0%	0.87	-17.9%	
2417	CLOTH PRINTING	0.93	0.73	-21.5%	0.68	-26.9%	
2501	CLOTH, CANVAS AND RELATED PRODUCTS MFG, NOC	1.90	1.43	-24.7%	1.46	-23.2%	
2503	DRESSMAKING OR TAILORING-CUSTOM EXCLUSIVELY	0.98	0.84	-14.3%	0.87	-11.2%	
2570	MATTRESS OR BOX SPRING MFG	3.10	2.47	-20.3%	2.63	-15.2%	
2585	LAUNDRY NOC & ROUTE SUPERVISORS, DRIVERS	2.72	2.03	-25.4%	2.01	-26.1%	
2586	CLEANING OR DYEING & ROUTE SUPERVISORS, DRIVERS	1.54	1.37	-11.0%	1.41	-8.4%	
2587	TOWEL OR TOILET SUPPLY CO. & ROUTE SUPERVISORS, DRIVERS	1.28	1.01	-21.1%	0.97	-24.2%	
2589	LAUNDRY AND DRY CLEANING STORE-RETAIL-& ROUTE SUPERVISORS, DRIVERS	1.39	1.23	-11.5%	1.26	-9.4%	
2600	FUR PROCESSING-PREPARING SKINS	2.42	2.04	-15.7%	2.07	-14.5%	
2623	LEATHER MFG.-INCLUDING TANNING, LEATHER EMBOSING, AND WOOL PULLING	5.20	4.10	-21.2%	3.89	-25.2%	
2651	SHOE STOCK MFG	0.70	0.74	5.7%	0.74	5.7%	
2660	BOOT OR SHOE MFG NOC	1.49	1.29	-13.4%	1.33	-10.7%	
2670	GLOVE MFG-LEATHER OR TEXTILE	1.37	1.12	-18.2%	1.14	-16.8%	
2683	LUGGAGE MFG	1.14	1.04	-8.8%	1.14	0.0%	
2688	LEATHER GOODS MFG NOC	1.84	1.44	-21.7%	1.35	-26.6%	
2701	LOGGING OR TREE REMOVAL - LOG HAULING & DRIVERS	11.55	8.52	-26.2%	8.81	-23.7%	
2702	LOGGING OR TREE REMOVAL - NONMECHANIZED OPERATIONS	59.21	45.63	-22.9%	44.39	-25.0%	
2705	LOGGING OR TREE REMOVAL - PULPWOOD ONLY	15.95	12.59	-21.1%	12.53	-21.4%	
2709	LOGGING OR TREE REMOVAL - MECHANIZED EQUIPMENT OPERATORS	8.82	6.89	-21.9%	7.37	-16.4%	
2710	SAW MILL	8.11	6.26	-22.8%	6.63	-18.2%	
2714	VENEER MFG	3.17	2.53	-20.2%	2.42	-23.7%	
2731	PLANING OR MOLDING MILL	2.45	2.12	-13.5%	2.10	-14.3%	
2735	FURNITURE STOCK MFG	3.00	2.34	-22.0%	2.27	-24.3%	
2759	BOX OR BOX SHOOK MFG	3.66	3.17	-13.4%	3.17	-13.4%	
2790	PATTERN MAKING NOC	1.03	0.85	-17.5%	0.87	-15.5%	
2797	MANUFACTURED, MODULAR, OR PREFABRICATED HOME MANUFACTURING - SHOP WORK -	2.37	2.04	-13.9%	2.04	-13.9%	
2799	MANUFACTURED, MODULAR, OR PREFABRICATED HOME SETUP, HOOKUP, OR	3.65	2.88	-21.1%	2.76	-24.4%	
2802	CARPENTRY-SHOP ONLY-& DRIVERS	2.98	2.41	-19.1%	2.31	-22.5%	
2835	BRUSH OR BROOM ASSEMBLY	1.57	1.22	-22.3%	1.14	-27.4%	
2836	BRUSH OR BROOM MFG NOC	1.37	1.22	-10.9%	1.28	-6.6%	
2841	WOODENWARE MANUFACTURING NOC	2.89	2.28	-21.1%	2.26	-21.8%	
2881	FURNITURE MANUFACTURING AND CABINET SHOP - ASSEMBLY BY HAND - WOOD	2.20	1.66	-24.5%	1.60	-27.3%	
2883	FURNITURE MANUFACTURING AND CABINET SHOP - WOOD - NOC	2.74	2.06	-24.8%	2.08	-24.1%	
2913	RATTAN, WILLOW OR TWISTED FIBER PRODUCTS MFG	2.03	2.06	1.5%	2.08	2.5%	
2915	VENEER PRODUCTS MFG	1.69	1.59	-5.9%	1.48	-12.4%	
2916	VENEER PRODUCTS MFG-NO VENEER MFG	3.21	2.31	-28.0%	2.20	-31.5%	
2923	PIANO MFG	1.51	1.23	-18.5%	1.21	-19.9%	
2960	WOOD PRESERVING & DRIVERS	2.37	2.15	-9.3%	2.15	-9.3%	
3004	IRON OR STEEL: MANUFACTURING: STEEL MAKING-& DRIVERS	1.53	1.21	-20.9%	1.33	-13.1%	
3018	IRON OR STEEL: MANUFACTURING: ROLLING MILL & DRIVERS	2.06	1.80	-12.6%	1.91	-7.3%	
3022	PIPE OR TUBE MFG NOC & DRIVERS	1.85	1.71	-7.6%	1.60	-13.5%	
3027	ROLLING MILL NOC & DRIVERS	1.91	1.45	-24.1%	1.43	-25.1%	
3028	PIPE OR TUBE MFG-IRON OR STEEL-& DRIVERS	3.27	2.55	-22.0%	2.76	-15.6%	
3030	IRON OR STEEL: FABRICATION: IRON OR STEEL WORKS-SHOP-STRUCTURAL-& DRIVERS	4.99	4.05	-18.8%	4.26	-14.6%	
3040	IRON OR STEEL: FABRICATION: IRON WORKS-SHOP-ORNAMENTAL-& DRIVERS	4.10	2.93	-28.5%	2.82	-31.2%	
3041	IRON OR STEEL: FABRICATION: IRON WORKS-SHOP-DECORATIVE OR ARTISTIC- &	2.64	2.04	-22.7%	1.87	-29.2%	
3042	ELEVATOR OR ESCALATOR MFG	2.68	2.28	-14.9%	2.37	-11.6%	
3064	SIGN MFG-METAL	2.55	1.99	-22.0%	1.96	-23.1%	
3076	SHEET METAL PRODUCTS MFG.	2.37	1.97	-16.9%	1.98	-16.5%	
3081	FOUNDRY-FERROUS-NOC	2.10	1.97	-6.2%	1.83	-12.9%	
3082	FOUNDRY-STEEL CASTINGS	2.27	2.03	-10.6%	1.91	-15.9%	
3085	FOUNDRY-NON-FERROUS	2.27	1.82	-19.8%	1.65	-27.3%	
3110	FORGING WORK-DROP OR MACHINE	2.76	2.39	-13.4%	2.53	-8.3%	
3111	BLACKSMITH	1.69	1.36	-19.5%	1.35	-20.1%	
3113	TOOL MANUFACTURING-NOT DROP OR MACHINE FORGED-NOC	1.31	1.07	-18.3%	1.09	-16.8%	
3114	TOOL MFG-DROP OR MACHINE FORGED-NOC: MACHINING OR FINISHING OF TOOLS OR	1.45	1.41	-2.8%	1.41	-2.8%	
3118	SAW MFG	1.18	1.01	-14.4%	1.04	-11.9%	
3119	NEEDLE MFG	0.46	0.36	-21.7%	0.34	-26.1%	
3122	CUTLERY MFG NOC	1.19	0.98	-17.6%	0.97	-18.5%	
3126	TOOL MFG-AGRICULTURAL, CONSTRUCTION, LOGGING, MINING, OIL OR ARTESIAN WELL	1.51	1.25	-17.2%	1.44	-4.6%	
3131	BUTTON OR FASTENER MFG-METAL	1.06	0.95	-10.4%	1.03	-2.8%	
3132	NUT OR BOLT MFG	2.07	1.82	-12.1%	1.99	-3.9%	
3145	SCREW MFG	1.50	1.22	-18.7%	1.23	-18.0%	
3146	HARDWARE MFG NOC	1.97	1.59	-19.3%	1.67	-15.2%	
3169	STOVE MFG	1.83	1.46	-20.2%	1.48	-19.1%	
3179	ELECTRICAL APPARATUS MFG NOC	1.24	1.07	-13.7%	1.07	-13.7%	
3180	ELECTRIC OR GAS LIGHTING FIXTURES MFG	1.81	1.42	-21.5%	1.43	-21.0%	
3188	PLUMBERS SUPPLIES MFG NOC	1.39	1.28	-7.9%	1.33	-4.3%	
3220	CAN MFG	1.29	1.14	-11.6%	1.24	-3.9%	
3224	ENAMEL WARE MFG.	2.00	1.65	-17.5%	1.65	-17.5%	
3227	ALUMINUM WARE MFG	1.58	1.39	-12.0%	1.35	-14.6%	
3240	WIRE ROPE MFG-IRON OR STEEL	1.70	1.60	-5.9%	1.81	6.5%	
3241	WIRE DRAWING-IRON OR STEEL	1.79	1.48	-17.3%	1.44	-19.6%	
3255	WIRE CLOTH MFG	1.36	1.14	-16.2%	1.16	-14.7%	

**STATE OF TENNESSEE
WORKERS COMPENSATION**

ADVISORY LOSS COST COMPARISON

Class Code	Class Description	New Credibility Standard			Current Credibility Standard		
		Current 03/01/18	Proposed 03/01/19	Percent Change	Proposed 03/01/19	Percent Change	
3257	WIRE GOODS MFG NOC	1.62	1.42	-12.3%	1.43	-11.7%	
3270	EYELET MFG	1.88	1.60	-14.9%	1.66	-11.7%	
3300	BED SPRING OR WIRE MATTRESS MFG	2.95	2.51	-14.9%	2.60	-11.9%	
3303	SPRING MFG	3.80	2.49	-34.5%	2.17	-42.9%	
3307	HEAT-TREATING-METAL	2.57	2.25	-12.5%	2.42	-5.8%	
3315	BRASS OR COPPER GOODS MFG	2.47	1.86	-24.7%	1.73	-30.0%	
3334	TIN FOIL MFG	1.16	0.91	-21.6%	0.88	-24.1%	
3336	TYPE FOUNDRY	1.60	1.41	-11.9%	1.43	-10.6%	
3365	WELDING OR CUTTING NOC & DRIVERS	3.07	2.30	-25.1%	2.30	-25.1%	
3372	ELECTROPLATING	2.41	1.94	-19.5%	2.00	-17.0%	
3373	GALVANIZING OR TINNING-NOT ELECTROLYTIC	2.85	2.24	-21.4%	2.13	-25.3%	
3383	JEWELRY MFG	1.13	0.95	-15.9%	0.98	-13.3%	
3385	WATCH MFG	0.47	0.39	-17.0%	0.37	-21.3%	
3400	METAL STAMPED GOODS MFG NOC	2.48	1.78	-28.2%	1.77	-28.6%	
3507	CONSTRUCTION OR AGRICULTURAL MACHINERY MFG	1.53	1.31	-14.4%	1.26	-17.6%	
3515	TEXTILE MACHINERY MFG	1.52	1.18	-22.4%	1.11	-27.0%	
3548	PRINTING OR BOOKBINDING MACHINE MFG	0.77	0.61	-20.8%	0.56	-27.3%	
3559	CONFECTION MACHINE MFG	2.34	1.83	-21.8%	1.82	-22.2%	
3574	COMPUTING, RECORDING OR OFFICE MACHINE MFG NOC	0.73	0.60	-17.8%	0.57	-21.9%	
3581	FUEL INJECTION DEVICE MFG	0.54	0.47	-13.0%	0.44	-18.5%	
3612	PUMP MFG	1.12	0.88	-21.4%	0.80	-28.6%	
3620	BOILERMAKING	2.18	1.90	-12.8%	1.92	-11.9%	
3629	MACHINED PARTS MFG. NOC	0.94	0.78	-17.0%	0.77	-18.1%	
3632	MACHINE SHOP NOC	2.31	1.89	-18.2%	1.93	-16.5%	
3634	VALVE MFG	1.95	1.37	-29.7%	1.42	-27.2%	
3635	GEAR MFG OR GRINDING	1.56	1.25	-19.9%	1.22	-21.8%	
3638	BALL OR ROLLER BEARING MFG	1.30	1.03	-20.8%	1.07	-17.7%	
3639	EXPLOSIVES OR AMMUNITION MFG: PROJECTILE OR SHELL MFG	1.74	1.86	6.9%	1.86	6.9%	
3642	BATTERY MFG-DRY	0.74	0.60	-18.9%	0.59	-20.3%	
3643	ELECTRIC POWER OR TRANSMISSION EQUIPMENT MFG	1.42	1.10	-22.5%	1.11	-21.8%	
3647	BATTERY MFG-STORAGE	2.21	1.73	-21.7%	1.85	-16.3%	
3648	AUTOMOTIVE LIGHTING, IGNITION OR STARTING APPARATUS MFG NOC	0.89	0.88	-1.1%	0.90	1.1%	
3681	TELEVISION, RADIO, TELEPHONE OR TELECOMMUNICATION DEVICE MFG NOC	0.48	0.42	-12.5%	0.41	-14.6%	
3685	INSTRUMENT MFG NOC	0.65	0.56	-13.8%	0.57	-12.3%	
3719	OIL STILL ERECTION OR REPAIR	0.80	0.59	-26.3%	0.57	-28.8%	
3724	MACHINERY OR EQUIPMENT ERECTION OR REPAIR NOC & DRIVERS	2.58	1.94	-24.8%	1.96	-24.0%	
3726	BOILER INSTALLATION OR REPAIR-STEAM	2.48	1.90	-23.4%	1.95	-21.4%	
3803	AUTOMOBILE WHEEL MFG-METAL-NOT CAST	1.16	0.98	-15.5%	1.00	-13.8%	
3807	AUTOMOBILE RADIATOR MFG	1.52	1.29	-15.1%	1.33	-12.5%	
3808	AUTOMOBILE MFG OR ASSEMBLY	1.31	1.17	-10.7%	1.12	-14.5%	
3821	AUTOMOBILE RECYCLING & DRIVERS	3.77	3.04	-19.4%	3.09	-18.0%	
3822	AUTOMOBILE, BUS, TRUCK OR TRAILER BODY MFG: DIE-PRESSED STEEL	2.36	2.00	-15.3%	2.07	-12.3%	
3824	AUTOMOBILE, BUS, TRUCK OR TRAILER BODY MFG: NOC	2.86	2.24	-21.7%	2.20	-23.1%	
3826	AIRCRAFT ENGINE MFG	0.44	0.43	-2.3%	0.41	-6.8%	
3827	AUTOMOBILE ENGINE MFG	2.05	1.60	-22.0%	1.76	-14.1%	
3830	AIRPLANE MFG	0.99	0.71	-28.3%	0.71	-28.3%	
3851	MOTORCYCLE MFG OR ASSEMBLY	2.45	1.83	-25.3%	1.77	-27.8%	
3865	BABY CARRIAGE MFG	0.89	0.75	-15.7%	0.75	-15.7%	
3881	CAR MFG-RAILROAD-& DRIVERS	2.38	1.83	-23.1%	1.77	-25.6%	
4000	SAND OR GRAVEL DIGGING & DRIVERS	2.69	2.32	-13.8%	2.18	-19.0%	
4021	BRICK OR CLAY PRODUCTS MFG. NOC & DRIVERS	4.45	3.29	-26.1%	3.43	-22.9%	
4024	REFRACTORY PRODUCTS MFG & DRIVERS	3.38	2.53	-25.1%	2.26	-33.1%	
4034	CONCRETE PRODUCTS MFG & DRIVERS	4.04	3.23	-20.0%	3.19	-21.0%	
4036	PLASTER BOARD OR PLASTER BLOCK MFG & DRIVERS	1.66	1.28	-22.9%	1.23	-25.9%	
4038	PLASTER STATUARY OR ORNAMENT MFG	1.68	1.30	-22.6%	1.19	-29.2%	
4062	POTTERY MFG: PORCELAIN WARE-MECHANICAL PRESS FORMING	1.82	1.53	-15.9%	1.57	-13.7%	
4101	GLASS MFG-& DRIVERS	2.05	1.56	-23.9%	1.53	-25.4%	
4109	INTEGRATED CIRCUIT MFG.	0.44	0.33	-25.0%	0.29	-34.1%	
4110	ELECTRIC BULB MFG	0.58	0.46	-20.7%	0.43	-25.9%	
4111	GLASSWARE MFG-NO AUTOMATIC BLOWING MACHINES	1.10	0.90	-18.2%	0.91	-17.3%	
4114	GLASSWARE MFG NOC	1.69	1.31	-22.5%	1.25	-26.0%	
4130	GLASS MERCHANT	2.68	2.03	-24.3%	2.01	-25.0%	
4131	MIRROR MFG	2.87	2.45	-14.6%	2.52	-12.2%	
4133	CATHEDRAL OR ART GLASS WINDOW MFG	1.70	1.44	-15.3%	1.46	-14.1%	
4149	OPTICAL GOODS MFG. NOC	0.96	0.68	-29.2%	0.75	-21.9%	
4206	PULP MFG-GROUND WOOD PROCESS	2.62	2.14	-18.3%	2.17	-17.2%	
4207	PULP MFG-CHEMICAL PROCESS	0.99	0.84	-15.2%	0.82	-17.2%	
4239	PAPER MFG	1.57	1.15	-26.8%	1.14	-27.4%	
4240	BOX MFG-SET-UP PAPER	2.00	1.84	-8.0%	2.00	0.0%	
4243	BOX MFG-FOLDING PAPER-NOC	1.29	1.16	-10.1%	1.17	-9.3%	
4244	CORRUGATED OR FIBER BOARD CONTAINER MFG	1.44	1.24	-13.9%	1.21	-16.0%	
4250	PAPER COATING	1.47	1.16	-21.1%	1.26	-14.3%	
4251	STATIONERY MFG	1.60	1.33	-16.9%	1.31	-18.1%	
4263	FIBER GOODS MFG	1.44	1.26	-12.5%	1.30	-9.7%	
4273	BAG MFG. - PLASTIC OR PAPER	1.99	1.56	-21.6%	1.65	-17.1%	
4279	PAPER GOODS MFG NOC	1.83	1.48	-19.1%	1.53	-16.4%	
4283	BUILDING OR ROOFING PAPER OR FELT PREPARATION-NO INSTALLATION	1.19	0.89	-25.2%	0.78	-34.5%	
4299	PRINTING	1.22	0.96	-21.3%	0.93	-23.8%	
4304	NEWSPAPER PUBLISHING	3.28	2.65	-19.2%	2.75	-16.2%	

**STATE OF TENNESSEE
WORKERS COMPENSATION**

ADVISORY LOSS COST COMPARISON

Class Code	Class Description	New Credibility			Current Credibility		
		Current 03/01/18	Standard Proposed 03/01/19	Percent Change	Standard Proposed 03/01/19	Percent Change	
4307	BOOKBINDING	1.15	1.02	-11.3%	1.05	-8.7%	
4351	PHOTOENGRAVING	0.59	0.49	-16.9%	0.50	-15.3%	
4352	ENGRAVING	1.13	0.93	-17.7%	0.93	-17.7%	
4360	MOTION PICTURE: DEVELOPMENT OF NEGATIVES, PRINTING AND ALL SUBSEQUENT	0.70	0.63	-10.0%	0.70	0.0%	
4361	PHOTOGRAPHER-ALL EMPLOYEES & CLERICAL, SALESPERSONS, DRIVERS	0.77	0.55	-28.6%	0.57	-26.0%	
4410	RUBBER GOODS MFG NOC	1.85	1.49	-19.5%	1.45	-21.6%	
4420	RUBBER TIRE MFG	2.10	1.71	-18.6%	1.60	-23.8%	
4431	MAGNETIC AND OPTICAL RECORDING MEDIA MFG.	0.97	0.80	-17.5%	0.78	-19.6%	
4432	PEN MFG	0.93	0.75	-19.4%	0.71	-23.7%	
4452	PLASTICS MFG: FABRICATED PRODUCTS NOC	2.63	1.97	-25.1%	2.06	-21.7%	
4459	PLASTICS MFG: SHEETS, RODS, OR TUBES	1.61	1.25	-22.4%	1.19	-26.1%	
4470	CABLE MFG-INSULATED ELECTRICAL	1.38	1.26	-8.7%	1.33	-3.6%	
4484	PLASTICS MANUFACTURING: MOLDED PRODUCTS NOC	1.82	1.62	-11.0%	1.63	-10.4%	
4493	FABRIC COATING OR IMPREGNATING NOC	2.17	1.70	-21.7%	1.69	-22.1%	
4511	ANALYTICAL LABORATORIES OR ASSAYING - INCLUDING LABORATORY, OUTSIDE	0.33	0.29	-12.1%	0.29	-12.1%	
4557	INK MFG	1.41	1.12	-20.6%	1.12	-20.6%	
4558	PAINT MFG	1.19	1.05	-11.8%	1.16	-2.5%	
4568	SALT BORAX OR POTASH PRODUCING OR REFINING & DRIVERS	1.43	1.15	-19.6%	1.12	-21.7%	
4581	PHOSPHATE WORKS & DRIVERS	0.48	0.47	-2.1%	0.51	6.3%	
4583	FERTILIZER MFG & DRIVERS	2.40	2.04	-15.0%	1.89	-21.3%	
4611	DRUG, MEDICINE OR PHARMACEUTICAL PREPARATION, COMPOUNDING, OR BLENDING-NO	0.93	0.71	-23.7%	0.77	-17.2%	
4635	OXYGEN OR HYDROGEN MFG & DRIVERS	1.79	1.66	-7.3%	1.76	-1.7%	
4653	GLUE MFG & DRIVERS	0.90	0.71	-21.1%	0.68	-24.4%	
4665	RENDERING WORKS NOC & DRIVERS	3.72	3.76	1.1%	3.98	7.0%	
4670	COTTONSEED OIL MFG-MECHANICAL & DRIVERS	3.62	2.78	-23.8%	2.52	-30.4%	
4683	OIL MFG-VEGETABLE-NOC	2.55	2.24	-12.2%	2.37	-7.1%	
4686	OIL MFG - VEGETABLE - SOLVENT EXTRACTION PROCESS	1.36	1.17	-14.0%	1.22	-10.3%	
4692	DENTAL LABORATORY	0.35	0.32	-8.6%	0.32	-8.6%	
4693	PHARMACEUTICAL OR SURGICAL GOODS MFG NOC	0.61	0.50	-18.0%	0.49	-19.7%	
4703	CORN PRODUCTS MFG	1.07	0.85	-20.6%	0.82	-23.4%	
4717	BUTTER SUBSTITUTE MFG	1.81	1.46	-19.3%	1.49	-17.7%	
4720	SOAP OR SYNTHETIC DETERGENT MFG	1.68	1.60	-4.8%	1.79	6.5%	
4740	OIL REFINING-PETROLEUM-& DRIVERS	1.01	0.83	-17.8%	0.98	-3.0%	
4741	ASPHALT OR TAR DISTILLING OR REFINING & DRIVERS	2.20	1.79	-18.6%	1.80	-18.2%	
4751	SYNTHETIC RUBBER MFG	1.01	0.91	-9.9%	1.01	0.0%	
4771	EXPLOSIVES OR AMMUNITION MFG: NOC & DRIVERS	2.27	1.62	-28.6%	1.58	-30.4%	
4777	EXPLOSIVES DISTRIBUTORS & DRIVERS	2.96	2.31	-22.0%	2.17	-26.7%	
4825	DRUG, MEDICINE OR PHARMACEUTICAL PREPARATION MFG & INCLUDES MFG OF	0.59	0.43	-27.1%	0.41	-30.5%	
4828	CHEMICAL BLENDING AND MIXING NOC-ALL OPERATIONS & DRIVERS	1.42	1.15	-19.0%	1.22	-14.1%	
4829	CHEMICAL MANUFACTURING NOC-ALL OPERATIONS & DRIVERS	0.88	0.64	-27.3%	0.63	-28.4%	
4902	SPORTING GOODS MFG NOC	1.83	1.43	-21.9%	1.39	-24.0%	
4923	PHOTOGRAPHIC SUPPLIES MFG	1.42	1.16	-18.3%	1.22	-14.1%	
5020	CEILING INSTALLATION-SUSPENDED ACOUSTICAL GRID TYPE	4.63	3.86	-16.6%	4.07	-12.1%	
5022	MASONRY NOC	5.55	3.98	-28.3%	3.91	-29.5%	
5037	PAINTING: METAL STRUCTURES-OVER TWO STORIES IN HEIGHT-& DRIVERS	18.58	14.39	-22.6%	14.45	-22.2%	
5040	IRON OR STEEL: ERECTION-FRAME STRUCTURES	5.15	4.19	-18.6%	4.35	-15.5%	
5057	IRON OR STEEL: ERECTION NOC	2.41	1.96	-18.7%	1.89	-21.6%	
5059	IRON OR STEEL: ERECTION-FRAME STRUCTURES NOT OVER TWO STORIES IN HEIGHT	10.81	8.92	-17.5%	8.97	-17.0%	
5102	DOOR AND WINDOW INSTALLATION - ALL TYPES - RESIDENTIAL AND COMMERCIAL	3.61	2.88	-20.2%	2.77	-23.3%	
5146	FURNITURE OR FIXTURES INSTALLATION-PORTABLE-NOC	3.32	2.50	-24.7%	2.43	-26.8%	
5160	ELEVATOR ERECTION OR REPAIR	1.63	1.26	-22.7%	1.22	-25.2%	
5183	PLUMBING NOC & DRIVERS	1.58	1.33	-15.8%	1.29	-18.4%	
5188	AUTOMATIC SPRINKLER INSTALLATION & DRIVERS	2.17	1.79	-17.5%	1.74	-19.8%	
5190	ELECTRICAL WIRING-WITHIN BUILDINGS & DRIVERS	1.78	1.65	-7.3%	1.69	-5.1%	
5191	OFFICE MACHINE INSTALLATION, INSPECTION, ADJUSTMENT OR REPAIR	0.61	0.47	-23.0%	0.48	-21.3%	
5192	VENDING OR COIN OPERATED MACHINES-INSTALLATION, SERVICE OR REPAIR &	1.83	1.44	-21.3%	1.43	-21.9%	
5213	CONCRETE CONSTRUCTION NOC	4.67	3.74	-19.9%	3.85	-17.8%	
5215	CONCRETE WORK-INCIDENTAL TO THE CONSTRUCTION OF PRIVATE RESIDENCE	3.23	2.85	-11.8%	2.77	-14.2%	
5221	CONCRETE OR CEMENT WORK-FLOORS, DRIVEWAYS, YARDS OR SIDEWALKS-& DRIVERS	3.28	2.73	-16.8%	2.78	-15.2%	
5222	CONCRETE CONSTRUCTION IN CONNECTION WITH BRIDGES OR CULVERTS	5.96	5.14	-13.8%	5.52	-7.4%	
5223	SWIMMING POOL CONSTRUCTION-NOT IRON OR STEEL-& DRIVERS	3.21	2.59	-19.3%	2.29	-28.7%	
5348	CERAMIC TILE, INDOOR STONE, MARBLE, OR MOSAIC WORK	2.46	1.82	-26.0%	1.67	-32.1%	
5402	HOTHOUSE ERECTION-ALL OPERATIONS	3.24	2.58	-20.4%	2.58	-20.4%	
5403	CARPENTRY NOC	4.67	3.73	-20.1%	3.75	-19.7%	
5437	CARPENTRY-INSTALLATION OF CABINET WORK OR INTERIOR TRIM	3.80	2.97	-21.8%	2.90	-23.7%	
5443	LATHING & DRIVERS	1.94	1.54	-20.6%	1.54	-20.6%	
5445	WALLBOARD, SHEETROCK, DRYWALL, PLASTERBOARD, OR CEMENT BOARD INSTALLATION	4.13	3.63	-12.1%	3.78	-8.5%	
5462	GLAZIER-AWAY FROM SHOP & DRIVERS	4.87	3.62	-25.7%	3.54	-27.3%	
5472	ASBESTOS CONTRACTOR-PIPE AND BOILER WORK EXCLUSIVELY & DRIVERS	2.93	2.56	-12.6%	2.59	-11.6%	
5473	ASBESTOS CONTRACTOR-NOC & DRIVERS	3.52	3.23	-8.2%	2.79	-20.7%	
5474	PAINTING NOC & SHOP OPERATIONS, DRIVERS	3.98	3.14	-21.1%	3.10	-22.1%	
5478	FLOOR COVERING INSTALLATION-RESILIENT FLOORING - CARPET AND LAMINATE	2.82	2.09	-25.9%	1.96	-30.5%	
5479	INSULATION WORK NOC & DRIVERS	3.62	2.78	-23.2%	2.56	-29.3%	
5480	PLASTERING NOC & DRIVERS	5.48	4.29	-21.7%	4.33	-21.0%	
5491	PAPERHANGING & DRIVERS	1.15	1.19	3.5%	1.19	3.5%	
5508	STREET OR ROAD CONSTRUCTION: PAVING OR REPAVING & DRIVERS	4.83	3.57	-26.1%	3.54	-26.7%	
5507	STREET OR ROAD CONSTRUCTION: SUBSURFACE WORK & DRIVERS	2.24	2.01	-10.3%	1.94	-13.4%	
5508	STREET OR ROAD CONSTRUCTION: ROCK EXCAVATION & DRIVERS	6.89	5.14	-25.4%	4.81	-30.2%	
5535	SHEET METAL WORK - INSTALLATION & DRIVERS	3.39	3.11	-8.3%	3.12	-8.0%	

**STATE OF TENNESSEE
WORKERS COMPENSATION**

ADVISORY LOSS COST COMPARISON

Class Code	Class Description	New Credibility			Current Credibility		
		Current 03/01/18	Standard Proposed 03/01/19	Percent Change	Standard Proposed 03/01/19	Percent Change	
5537	HEATING, VENTILATION, AIR-CONDITIONING AND REFRIGERATION	2.92	2.05	-29.8%	2.02	-30.8%	
5551	ROOFING-ALL KINDS & DRIVERS	12.59	10.17	-19.2%	10.30	-18.2%	
5604	CONSTRUCTION - EXECUTIVES, SUPERVISORS OR FOREMEN OVERSEEING JOBSITES -	1.39	1.10	-20.9%	1.12	-19.4%	
5606	CONTRACTOR-PROJECT MANAGER, CONSTRUCTION EXECUTIVE, CONSTRUCTION MANAGER	0.79	0.60	-24.1%	0.60	-24.1%	
5610	CLEANER - DEBRIS REMOVAL - CONSTRUCTION	3.62	2.69	-25.7%	2.52	-30.4%	
5613	CLEANER - DEBRIS REMOVAL - TEMPORARY LABOR SERVICE	5.98	4.22	-29.4%	3.78	-36.8%	
5645	CARPENTRY- CONSTRUCTION OF RESIDENTIAL DWELLINGS NOT EXCEEDING THREE	10.88	8.52	-21.7%	8.59	-21.0%	
5703	BUILDING RAISING OR MOVING	11.13	8.47	-23.9%	8.06	-27.6%	
5705	SALVAGE OPERATION-NO WRECKING OR ANY STRUCTURAL OPERATIONS	16.65	13.47	-19.1%	15.37	-7.7%	
5951	SERUM, ANTI-TOXIN OR VIRUS MFG & DRIVERS	0.29	0.23	-20.7%	0.22	-24.1%	
6003	PILE DRIVING	3.35	2.70	-19.4%	2.70	-19.4%	
6005	JETTY OR BREAKWATER CONSTRUCTION-ALL OPERATIONS TO COMPLETION & DRIVERS	2.91	2.42	-16.8%	2.68	-7.9%	
6018	DAM OR LOCK CONSTRUCTION: EARTH MOVING OR PLACING-ALL OPERATIONS & DRIVERS	1.24	0.95	-23.4%	0.89	-28.2%	
6045	LEEVE CONSTRUCTION-ALL OPERATIONS TO COMPLETION & DRIVERS	2.46	1.95	-20.7%	1.95	-20.7%	
6204	DRILLING NOC & DRIVERS	5.55	4.02	-27.6%	3.97	-28.5%	
6206	OIL OR GAS WELL: CEMENTING & DRIVERS	1.55	1.24	-20.0%	1.22	-21.3%	
6213	OIL OR GAS - WELL - SPECIALTY TOOL & EQUIPMENT LEASING NOC - ALL EMPLOYEES	1.15	0.84	-27.0%	0.81	-29.6%	
6214	OIL OR GAS WELL: PERFORMING OF CASING-ALL EMPLOYEES & DRIVERS	1.15	0.86	-25.2%	0.81	-29.6%	
6216	OIL OR GAS - LEASE WORK NOC - BY SPECIALIST CONTRACTOR & DRIVERS	4.50	3.12	-30.7%	2.96	-34.2%	
6217	EXCAVATION & DRIVERS	3.59	2.90	-19.2%	2.97	-17.3%	
6229	IRRIGATION OR DRAINAGE SYSTEM CONSTRUCTION & DRIVERS	2.53	2.27	-10.3%	2.14	-15.4%	
6233	OIL OR GAS PIPELINE CONSTRUCTION & DRIVERS	1.69	1.32	-21.9%	1.31	-22.5%	
6235	OIL OR GAS WELL: DRILLING OR REDRILLING & DRIVERS	6.41	4.32	-32.6%	4.89	-23.7%	
6236	OIL OR GAS WELL: INSTALLATION OR RECOVERY OF CASING & DRIVERS	5.12	3.82	-25.4%	3.67	-28.3%	
6237	OIL OR GAS WELL: INSTRUMENT LOGGING OR SURVEY WORK & DRIVERS	1.04	0.77	-26.0%	0.74	-28.8%	
6251	TUNNELING-ALL OPERATIONS	3.26	2.55	-21.8%	2.50	-23.3%	
6252	SHAFT SINKING-ALL OPERATIONS	3.45	2.59	-24.9%	2.50	-27.5%	
6306	SEWER CONSTRUCTION-ALL OPERATIONS & DRIVERS	5.55	3.59	-35.3%	3.62	-34.8%	
6319	GAS MAIN OR CONNECTION CONSTRUCTION & DRIVERS	3.43	2.80	-18.4%	3.07	-10.5%	
6325	CONDUIT CONSTRUCTION-FOR CABLES OR WIRES- & DRIVERS	1.94	1.73	-10.8%	1.60	-17.5%	
6400	FENCE INSTALLATION AND REPAIR - METAL, VINYL, WOOD, OR PREFABRICATED	4.61	3.66	-20.6%	3.83	-16.9%	
6503	POTATO CHIP, POPCORN & SNACK CHIP MFG. NOC	1.11	1.00	-9.9%	0.97	-12.6%	
6504	FOOD PRODUCTS MFG. NOC	1.57	1.25	-20.4%	1.21	-22.9%	
6702	RAILROAD CONSTRUCTION: ALL OPERATIONS INCL. CLERICAL, SALESPERSONS &	2.87	2.41	-16.0%	2.37	-17.4%	
6703	RAILROAD CONSTRUCTION: ALL OPERATIONS INCL. CLERICAL, SALESPERSONS &	7.01	5.76	-17.8%	5.68	-19.0%	
6704	RAILROAD CONSTRUCTION: ALL OPERATIONS INCL. CLERICAL, SALESPERSONS &	3.19	2.67	-16.3%	2.63	-17.6%	
6801	BOAT BUILDING-WOOD-NOC & DRIVERS-COVERAGE UNDER U.S. ACT	2.64	2.71	2.7%	2.69	1.9%	
6811	BOAT BUILDING-WOOD-NOC & DRIVERS	3.15	2.38	-24.4%	2.20	-30.2%	
6824	BOAT BUILDING-OR REPAIR & DRIVERS-COVERAGE UNDER U.S. ACT	8.68	8.47	-2.4%	8.09	-6.8%	
6826	MARINA & DRIVERS: COVERAGE UNDER U.S. ACT	3.56	3.57	0.3%	3.44	-3.4%	
6834	BOAT BUILDING OR REPAIR & DRIVERS	1.52	1.32	-13.2%	1.13	-25.7%	
6836	MARINA & DRIVERS	2.67	2.16	-19.1%	2.22	-16.9%	
6843	SHIP BUILDING-IRON OR STEEL-NOC- & DRIVERS-COVERAGE UNDER U.S. ACT	2.74	3.26	19.0%	3.20	16.8%	
6845	SHIP BUILDING-NAVAL & DRIVERS	4.80	4.75	-1.0%	4.41	-8.1%	
6854	SHIP BUILDING-IRON OR STEEL-NOC & DRIVERS	2.88	2.53	-12.2%	2.77	-3.8%	
6872	SHIP REPAIR OR CONVERSION-ALL OPERATIONS & DRIVERS-COVERAGE UNDER U.S. ACT	7.05	6.89	-2.3%	6.46	-8.4%	
6874	PAINTING: SHIP HULLS-COVERAGE UNDER U.S. ACT	12.45	12.89	3.5%	12.89	3.5%	
6882	SHIP REPAIR CONVERSION-ALL OPERATIONS & DRIVERS	2.10	1.70	-19.0%	1.73	-17.6%	
6884	PAINTING-SHIP HULLS	5.23	4.05	-22.6%	3.81	-27.2%	
7016	VESSELS-NOC-PROGRAM I	1.18	1.06	-10.2%	1.17	-0.8%	
7024	VESSELS-NOC-PROGRAM II-STATE ACT WITH PROGRAM I AND PROGRAM II USL DATA	1.31	1.18	-9.9%	1.30	-0.8%	
7038	BOAT LIVERY-BOATS UNDER 15 TONS-PROGRAM I	3.95	3.27	-17.2%	3.38	-14.4%	
7046	VESSELS-NOT SELF-PROPELLED-PROGRAM I	5.50	4.39	-20.2%	4.33	-21.3%	
7047	VESSELS-NOC-PROGRAM II-USL ACT	2.88	2.54	-11.8%	2.80	-2.8%	
7050	BOAT LIVERY-BOATS UNDER 15 TONS-PROGRAM II-USL ACT	9.66	7.83	-18.9%	8.09	-16.3%	
7090	BOAT LIVERY-BOATS UNDER 15 TONS-PROGRAM II-STATE ACT WITH PROGRAM I AND	4.39	3.63	-17.3%	3.75	-14.6%	
7098	VESSELS-NOT SELF-PROPELLED-PROGRAM II-STATE ACT WITH PROGRAM I AND PROGRAM	6.11	4.88	-20.1%	4.81	-21.3%	
7099	VESSELS-NOT SELF-PROPELLED-PROGRAM II-USL ACT	13.44	10.52	-21.7%	10.37	-22.8%	
7133	RAILROAD OPERATION: NOC-ALL EMPLOYEES & DRIVERS	1.41	1.21	-14.2%	1.29	-8.5%	
7151	RAILROAD OPERATIONS: ALL EMPLOYEES INCL. DRIVERS - PROGRAM I	1.71	1.47	-14.0%	1.57	-8.2%	
7152	RAILROAD OPERATIONS: ALL EMPLOYEES INCL. DRIVERS - PROGRAM II - USL ACT	4.19	3.52	-16.0%	3.76	-10.3%	
7153	RAILROAD OPERATIONS: ALL EMPLOYEES INCL. DRIVERS - PROGRAM II - STATE ACT	1.90	1.63	-14.2%	1.74	-8.4%	
7219	TRUCKING: NOC-ALL EMPLOYEES & DRIVERS	4.44	3.64	-18.0%	3.66	-17.6%	
7222	TRUCKING: OIL FIELD EQUIPMENT-ALL EMPLOYEES & DRIVERS	4.91	4.19	-14.7%	4.68	-4.7%	
7225	AUTOMOBILE TOWING & DRIVERS	3.88	3.12	-19.6%	3.13	-19.3%	
7230	TRUCKING: PARCEL OR PACKAGE DELIVERY-ALL EMPLOYEES & DRIVERS	4.80	4.24	-11.7%	4.33	-9.8%	
7231	MAIL, PARCEL OR PACKAGE DELIVERY AND COURIER OR MESSENGER SERVICE	4.15	3.59	-13.5%	3.37	-18.8%	
7232	TRUCKING: MAIL PARCEL OR PACKAGE DELIVERY-UNDER CONTRACT WITH THE U.S.	4.85	4.28	-11.8%	4.50	-7.2%	
7309	STEVEDORING NOC	6.56	6.45	-1.7%	5.98	-8.8%	
7313	COAL DOCK OPERATION & STEVEDORING	2.58	2.65	2.7%	2.59	0.4%	
7317	STEVEDORING: BY HAND OR HAND TRUCKS EXCLUSIVELY	6.73	7.05	4.8%	7.34	9.1%	
7327	STEVEDORING: CONTAINERIZED FREIGHT & DRIVERS	15.68	16.10	2.7%	15.88	1.3%	
7333	DREDGING-ALL TYPES-PROGRAM I	1.28	1.13	-11.7%	1.25	-2.3%	
7335	DREDGING-ALL TYPES-PROGRAM II-STATE ACT WITH PROGRAM I AND PROGRAM II USL	1.42	1.26	-11.3%	1.39	-2.1%	
7337	DREDGING-ALL TYPES-PROGRAM II-USL ACT	3.12	2.72	-12.8%	3.00	-3.8%	
7350	FREIGHT HANDLING NOC-COVERAGE UNDER U.S. ACT	9.99	8.74	-12.5%	7.50	-24.9%	
7360	FREIGHT HANDLING NOC	1.99	1.72	-13.6%	1.56	-21.6%	
7370	TAXICAB CO.: ALL OTHER EMPLOYEES & DRIVERS	2.92	2.53	-13.4%	2.68	-8.2%	
7380	DRIVERS, CHAUFFEURS, MESSENGERS AND THEIR HELPERS NOC-COMMERCIAL	3.48	2.80	-19.5%	2.82	-19.0%	

**STATE OF TENNESSEE
WORKERS COMPENSATION**

ADVISORY LOSS COST COMPARISON

Class Code	Class Description	New Credibility			Current Credibility		
		Current 03/01/18	Standard Proposed 03/01/19	Percent Change	Standard Proposed 03/01/19	Percent Change	
7382	BUS CO.: ALL OTHER EMPLOYEES & DRIVERS	2.87	2.32	-19.2%	2.34	-18.5%	
7390	BEER OR ALE DEALER-WHOLESALE & DRIVERS	4.29	3.07	-28.4%	3.21	-25.2%	
7394	DIVING, SALVAGE, WRECKING-MARINE-PROGRAM I	1.76	1.49	-15.3%	1.55	-11.9%	
7395	DIVING, SALVAGE, WRECKING-MARINE-PROGRAM II-STATE ACT WITH PROGRAM I AND	1.95	1.65	-15.4%	1.72	-11.8%	
7398	DIVING, SALVAGE, WRECKING-MARINE-PROGRAM II-USL ACT	4.29	3.56	-17.0%	3.71	-13.5%	
7402	AVIATION-AIR TRAFFIC CONTROLLERS UNDER CONTRACT WITH THE FAA	0.09	0.07	-22.2%	0.07	-22.2%	
7403	AVIATION: ALL OTHER EMPLOYEES & DRIVERS	2.58	2.43	-5.1%	2.44	-4.7%	
7405	AVIATION: AIR CARRIER - SCHEDULED, COMMUTER OR SUPPLEMENTAL - FLYING CREW	0.29	0.31	6.9%	0.24	-17.2%	
7420	AVIATION: STUNT FLYING, RACING, OR PARACHUTE JUMPING FLYING CREW	3.86	3.03	-21.5%	2.89	-25.1%	
7421	AVIATION - TRANSPORTATION OF PERSONNEL IN CONDUCT OF EMPLOYER'S BUSINESS -	0.78	0.61	-21.8%	0.60	-23.1%	
7422	AVIATION:NOC - OTHER THAN HELICOPTERS - FLYING CREW	0.76	0.66	-13.2%	0.68	-10.5%	
7425	AVIATION: HELICOPTERS - FLYING CREW	1.13	0.89	-21.2%	0.87	-23.0%	
7431	AVIATION: AIR CHARTER OR AIR TAXI - FLYING CREW	0.47	0.39	-17.0%	0.39	-17.0%	
7445	FOR REPORTING NON-RATABLE PORTION OF RATE FOR CODE 7405	0.16	0.17	6.3%	0.13	-18.8%	
7453	FOR REPORTING NON-RATABLE PORTION OF RATE FOR CODE 7431	0.25	0.21	-16.0%	0.21	-16.0%	
7500	GAS COMPANY: GAS WORKS & SALESPERSONS, DRIVERS	1.84	1.46	-20.7%	1.57	-14.7%	
7502	GAS COMPANY: GAS CO.-NATURAL GAS-LOCAL DISTRIBUTION & DRIVERS	2.11	1.46	-30.8%	1.57	-25.6%	
7515	OIL OR GAS PIPELINE OPERATION & DRIVERS	0.83	0.66	-20.5%	0.67	-19.3%	
7520	WATERWORKS OPERATION & DRIVERS	2.17	1.70	-21.7%	1.68	-22.6%	
7538	ELECTRIC LIGHT OR POWER LINE CONSTRUCTION & DRIVERS	4.62	3.28	-29.0%	3.24	-29.9%	
7539	ELECTRIC LIGHT OR POWER CO. NOC-ALL EMPLOYEES & DRIVERS	2.14	1.48	-30.8%	1.64	-23.4%	
7540	ELECTRIC LIGHT OR POWER COOPERATIVE-REA PROJECT ONLY-ALL EMPLOYEES &	4.20	2.85	-32.1%	3.06	-27.1%	
7580	SEWAGE DISPOSAL PLANT OPERATION & DRIVERS	2.02	1.53	-24.3%	1.58	-21.8%	
7590	GARBAGE WORKS	1.80	1.59	-11.7%	1.60	-11.1%	
7600	TELECOMMUNICATIONS CO. - CABLE TV OR SATELLITE - ALL OTHER EMPLOYEES &	3.63	2.91	-19.8%	2.95	-18.7%	
7605	BURGLAR AND FIRE ALARM INSTALLATION OR REPAIR & DRIVERS	1.56	1.13	-27.6%	1.10	-29.5%	
7610	RADIO OR TELEVISION BROADCASTING STATION-ALL EMPLOYEES & CLERICAL, DRIVERS	0.27	0.22	-18.5%	0.21	-22.2%	
7705	AMBULANCE SERVICE COMPANIES AND EMS (EMERGENCY MEDICAL SERVICE) PROVIDERS	3.56	2.75	-22.8%	2.74	-23.0%	
7710	FIREFIGHTERS & DRIVERS	3.31	2.38	-28.1%	2.33	-29.6%	
7711	FIREFIGHTERS & DRIVERS - VOLUNTEER	3.31	2.38	-28.1%	2.33	-29.6%	
7720	POLICE OFFICERS & DRIVERS	1.79	1.52	-15.1%	1.53	-14.5%	
7855	RAILROAD CONSTRUCTION: LAYING OR RELAYING OF TRACKS OR MAINTENANCE OF WAY	2.36	1.98	-16.1%	1.95	-17.4%	
8001	STORE: FLORIST & DRIVERS	1.17	1.01	-13.7%	0.99	-15.4%	
8002	AUTOMOBILE RENTAL CO.: ALL OTHER EMPLOYEES & COUNTER PERSONNEL, DRIVERS	1.21	0.95	-21.5%	0.92	-24.0%	
8006	GASOLINE STATION: SELF-SERVICE AND CONVENIENCE/GROCERY-RETAIL	1.61	1.28	-20.5%	1.33	-17.4%	
8008	STORE: CLOTHING, WEARING APPAREL OR DRY GOODS-RETAIL	0.80	0.68	-15.0%	0.71	-11.3%	
8010	STORE: HARDWARE	1.12	0.96	-14.3%	1.03	-8.0%	
8013	STORE: JEWELRY	0.23	0.19	-17.4%	0.18	-21.7%	
8015	QUICK PRINTING-COPYING OR DUPLICATING SERVICE-ALL EMPLOYEES & CLERICAL,	0.46	0.41	-10.9%	0.41	-10.9%	
8017	STORE: RETAIL NOC	0.86	0.73	-15.1%	0.74	-14.0%	
8018	STORE: WHOLESALE NOC	1.52	1.22	-19.7%	1.22	-19.7%	
8021	STORE: MEAT, FISH OR POULTRY DEALER-WHOLESALE	1.66	1.34	-19.3%	1.28	-22.9%	
8031	STORE: MEAT, FISH OR POULTRY-RETAIL	1.54	1.32	-14.3%	1.33	-13.6%	
8032	STORE: CLOTHING, WEARING APPAREL OR DRY GOODS-WHOLESALE	1.24	0.94	-24.2%	0.91	-26.6%	
8033	STORE: MEAT, GROCERY AND PROVISION STORES COMBINED-RETAIL NOC	1.13	0.94	-16.8%	0.94	-16.8%	
8037	STORE - SUPERSTORES AND WAREHOUSE CLUBS	1.36	0.88	-35.3%	0.75	-44.9%	
8039	STORE: DEPARTMENT-RETAIL	0.90	0.71	-21.1%	0.69	-23.3%	
8044	STORE: FURNITURE & DRIVERS	1.53	1.31	-14.4%	1.29	-15.7%	
8045	STORE: DRUG - RETAIL	0.26	0.27	3.8%	0.25	-3.8%	
8046	STORE: AUTOMOBILE PARTS & ACCESSORIES- NOC & DRIVERS	1.31	1.04	-20.6%	1.01	-22.9%	
8047	STORE: DRUG-WHOLESALE	0.39	0.38	-2.6%	0.35	-10.3%	
8058	BUILDING MATERIAL DEALER-NEW MATERIALS ONLY: STORE EMPLOYEES	1.37	1.17	-14.6%	1.18	-13.9%	
8072	STORE: BOOK, RECORD, COMPACT DISC, SOFTWARE, VIDEO OR AUDIO CASSETTE RETAIL	0.44	0.36	-18.2%	0.37	-15.9%	
8102	SEED MERCHANT	1.31	1.05	-19.8%	1.01	-22.9%	
8103	WOOL MERCHANT	1.24	1.01	-18.5%	1.01	-18.5%	
8106	IRON OR STEEL MERCHANT & DRIVERS	3.44	2.61	-24.1%	2.65	-23.0%	
8107	MACHINERY DEALER NOC-STORE OR YARD-& DRIVERS	2.45	1.95	-20.4%	2.08	-15.1%	
8111	PLUMBERS SUPPLIES DEALER & DRIVERS	1.00	0.86	-14.0%	0.84	-16.0%	
8116	FARM MACHINERY DEALER-ALL OPERATIONS & DRIVERS	1.70	1.39	-18.2%	1.48	-12.9%	
8203	ICE MFG. OR DISTRIBUTION & DRIVERS	5.24	4.30	-17.9%	4.74	-9.5%	
8204	BUILDING MATERIAL YARD & LOCAL MANAGERS, DRIVERS	3.07	2.40	-21.8%	2.42	-21.2%	
8209	VEGETABLE PACKING & DRIVERS	2.57	2.08	-19.1%	2.15	-16.3%	
8215	FEED, FERTILIZER, HAY, OR GRAIN DEALER & LOCAL MANAGERS, DRIVERS - NO MFG	1.86	1.63	-12.4%	1.65	-11.3%	
8227	CONSTRUCTION OR ERECTION PERMANENT YARD	3.14	2.35	-25.2%	2.40	-23.6%	
8232	LUMBERYARD NEW MATERIALS ONLY: ALL OTHER EMPLOYEES & YARD, WAREHOUSE,	3.17	2.54	-19.9%	2.58	-18.6%	
8233	COAL MERCHANT & LOCAL MANAGERS, DRIVERS	1.78	1.54	-13.5%	1.64	-7.9%	
8235	SASH, DOOR OR ASSEMBLED MILLWORK DEALER & DRIVERS	3.81	2.95	-22.6%	3.14	-17.6%	
8263	JUNK DEALER & DRIVERS	3.38	3.00	-11.2%	3.16	-6.5%	
8264	BOTTLE DEALER-USED & DRIVERS	2.76	2.28	-17.4%	2.25	-18.5%	
8265	IRON OR STEEL SCRAP DEALER & DRIVERS	3.28	2.54	-22.6%	2.44	-25.6%	
8279	STABLE OR BREEDING FARM & DRIVERS	3.36	2.94	-12.5%	2.77	-17.6%	
8288	LIVESTOCK DEALER OR COMMISSION MERCHANT & SALESPERSONS, DRIVERS	5.96	4.63	-22.3%	5.06	-15.1%	
8291	STORAGE WAREHOUSE-COLD	2.26	1.63	-27.9%	1.52	-32.7%	
8292	STORAGE WAREHOUSE NOC	1.62	1.51	-6.8%	1.51	-6.8%	
8293	STORAGE WAREHOUSE-FURNITURE & DRIVERS	4.71	3.99	-15.3%	4.00	-15.1%	
8304	GRAIN ELEVATOR OPERATION & LOCAL MANAGERS, DRIVERS	2.96	2.32	-21.6%	2.32	-21.6%	
8350	GASOLINE DEALER & DRIVERS	3.69	2.97	-19.5%	3.05	-17.3%	
8380	AUTOMOBILE SERVICE OR REPAIR CENTER & DRIVERS	1.60	1.37	-14.4%	1.38	-13.8%	
8381	GASOLINE STATION:SELF-SERVICE ONLY-RETAIL	1.80	1.40	-22.2%	1.51	-16.1%	

**STATE OF TENNESSEE
WORKERS COMPENSATION**

ADVISORY LOSS COST COMPARISON

Class Code	Class Description	New Credibility			Current Credibility		
		Current 03/01/18	Standard Proposed 03/01/19	Percent Change	Standard Proposed 03/01/19	Percent Change	
8385	BUS CO.: GARAGE EMPLOYEES	1.52	1.26	-17.1%	1.34	-11.8%	
8392	AUTOMOBILE STORAGE GARAGE, PARKING LOT OR PARKING STATION, VALET SERVICE,	1.42	1.10	-22.5%	1.09	-23.2%	
8393	AUTOMOBILE BODY REPAIR & DRIVERS	1.02	0.85	-16.7%	0.89	-12.7%	
8500	METAL SCRAP DEALER & DRIVERS	4.02	3.24	-19.4%	3.30	-17.9%	
8601	ARCHITECTURAL OR ENGINEERING FIRM - INCLUDING SALESPERSONS & DRIVERS	0.18	0.15	-16.7%	0.15	-16.7%	
8602	SURVEYORS, TIMBER CRUISERS, OIL OR GAS GEOLOGISTS OR SCOUTS, & DRIVERS	0.77	0.70	-9.1%	0.68	-11.7%	
8603	ARCHITECTURAL OR ENGINEERING FIRM - CLERICAL	0.04	0.04	0.0%	0.04	0.0%	
8606	GEOPHYSICAL EXPLORATION - ALL EMPLOYEES & DRIVERS	1.18	0.93	-21.2%	0.88	-25.4%	
8709	STEVEDORING-TALLIERS AND CHECKING CLERKS ENGAGED IN CONNECTION WITH	3.81	3.82	0.3%	3.62	-5.0%	
8719	STEVEDORING: TALLIERS AND CHECKING CLERKS ENGAGED IN CONNECTION WITH	1.84	1.40	-23.9%	1.30	-29.3%	
8720	INSPECTION OF RISKS FOR INSURANCE OR VALUATION PURPOSES NOC	0.85	0.59	-30.6%	0.58	-31.8%	
8721	REAL ESTATE APPRAISAL COMPANIES-OUTSIDE EMPLOYEES	0.15	0.12	-20.0%	0.13	-13.3%	
8723	INSURANCE COMPANIES - INCLUDING CLERICAL & SALESPERSONS	0.13	0.10	-23.1%	0.10	-23.1%	
8725	INVENTORY COUNTERS - TRAVELING - INCLUDING SALESPERSONS & CLERICAL	1.88	1.64	-12.8%	1.84	-2.1%	
8726	STEAMSHIP LINE OR AGENCY-PORT EMPLOYEES: SUPERINTENDENTS, CAPTAINS,	1.93	1.88	-2.6%	1.73	-10.4%	
8734	RAILROAD OPERATION: SALESPERSONS, COLLECTORS OR MESSENGERS - OUTSIDE	0.28	0.23	-17.9%	0.23	-17.9%	
8737	RAILROAD OPERATION: SALESPERSONS, COLLECTORS OR MESSENGERS - OUTSIDE	0.26	0.21	-19.2%	0.21	-19.2%	
8738	RAILROAD OPERATION: SALESPERSONS, COLLECTORS OR MESSENGERS - OUTSIDE	0.62	0.49	-21.0%	0.49	-21.0%	
8742	SALESPERSONS OR COLLECTORS-OUTSIDE	0.21	0.17	-19.0%	0.17	-19.0%	
8745	NEWS AGENT OR DISTRIBUTOR OF MAGAZINES OR OTHER PERIODICALS-NOT RETAIL	2.36	1.90	-19.5%	1.85	-21.6%	
8748	AUTOMOBILE SALESPERSONS	0.29	0.25	-13.8%	0.22	-24.1%	
8755	LABOR UNION-ALL EMPLOYEES	0.17	0.13	-23.5%	0.12	-29.4%	
8799	MAILING OR ADDRESSING COMPANY OR LETTER SERVICE SHOP - CLERICAL STAFF	0.33	0.25	-24.2%	0.22	-33.3%	
8800	MAILING OR ADDRESSING COMPANY OR LETTER SERVICE SHOP	0.80	0.71	-11.3%	0.67	-16.3%	
8803	AUDITOR, ACCOUNTANT, OR COMPUTER SYSTEM DESIGNER OR PROGRAMMER - TRAVELING	0.04	0.03	-25.0%	0.03	-25.0%	
8805	RAILROAD OPERATION: CLERICAL OFFICE EMPLOYEES - NOC - PROGRAM II - STATE	0.14	0.11	-21.4%	0.11	-21.4%	
8810	CLERICAL OFFICE EMPLOYEES NOC	0.10	0.08	-20.0%	0.08	-20.0%	
8814	RAILROAD OPERATION: CLERICAL OFFICE EMPLOYEES - NOC - PROGRAM I	0.12	0.10	-16.7%	0.10	-16.7%	
8815	RAILROAD OPERATION: CLERICAL OFFICE EMPLOYEES - NOC - PROGRAM II - USL ACT	0.30	0.23	-23.3%	0.23	-23.3%	
8820	ATTORNEY-ALL EMPLOYEES & CLERICAL, MESSENGERS, DRIVERS	0.12	0.09	-25.0%	0.10	-16.7%	
8824	RETIREMENT LIVING CENTERS: HEALTH CARE EMPLOYEES	2.43	1.93	-20.6%	2.02	-16.9%	
8825	RETIREMENT LIVING CENTERS: FOOD SERVICE EMPLOYEES	1.06	1.00	-5.7%	1.01	-4.7%	
8826	RETIREMENT LIVING CENTERS: ALL OTHER EMPLOYEES, SALESPERSONS & DRIVERS	1.28	1.00	-21.9%	1.01	-21.1%	
8829	CONVALESCENT OR NURSING HOME-ALL EMPLOYEES	1.43	1.09	-23.8%	1.10	-23.1%	
8831	HOSPITAL-VETERINARY & DRIVERS	0.79	0.66	-16.5%	0.67	-15.2%	
8832	PHYSICIAN & CLERICAL	0.18	0.13	-27.8%	0.15	-16.7%	
8833	HOSPITAL: PROFESSIONAL EMPLOYEES	0.70	0.55	-21.4%	0.55	-21.4%	
8835	HOME, PUBLIC, AND TRAVELING HEALTHCARE-ALL EMPLOYEES	1.58	1.31	-17.1%	1.32	-16.5%	
8842	GROUP HOMES-ALL EMPLOYEES & SALESPERSONS, DRIVERS	1.55	1.27	-18.1%	1.27	-18.1%	
8855	BANKS AND TRUST COMPANIES - ALL EMPLOYEES, SALESPERSONS, DRIVERS & CLERICAL	0.12	0.09	-25.0%	0.09	-25.0%	
8856	CHECK CASHING ESTABLISHMENTS - ALL EMPLOYEES, SALESPERSONS, DRIVERS &	0.20	0.20	0.0%	0.20	0.0%	
8864	SOCIAL SERVICES ORGANIZATION-ALL EMPLOYEES & SALESPERSONS, DRIVERS	1.17	0.91	-22.2%	0.92	-21.4%	
8868	COLLEGE: PROFESSIONAL EMPLOYEES & CLERICAL	0.20	0.17	-15.0%	0.17	-15.0%	
8869	CHILD CARE CENTER - ALL EMPLOYEES INCLUDING CLERICAL, SALESPERSONS &	0.59	0.47	-20.3%	0.44	-25.4%	
8871	CLERICAL TELECOMMUTER EMPLOYEES	0.06	0.04	-33.3%	0.04	-33.3%	
8901	TELECOMMUNICATIONS CO.: OFFICE OR EXCHANGE EMPLOYEES & CLERICAL	0.13	0.09	-30.8%	0.09	-30.8%	
9012	BUILDING OR PROPERTY MANAGEMENT - PROPERTY MANAGERS AND LEASING AGENTS &	0.71	0.53	-25.4%	0.54	-23.9%	
9014	JANITORIAL SERVICES BY CONTRACTORS - NO WINDOW CLEANING ABOVE GROUND LEVEL	1.60	1.21	-24.4%	1.19	-25.6%	
9015	BUILDING OR PROPERTY MANAGEMENT - ALL OTHER EMPLOYEES	1.74	1.36	-21.8%	1.33	-23.6%	
9016	AMUSEMENT PARK OR EXHIBITION OPERATION AND DRIVERS	1.32	1.08	-18.2%	1.04	-21.2%	
9019	BRIDGE OR VEHICULAR TUNNEL OPERATION & DRIVERS	1.03	1.08	4.9%	1.11	7.8%	
9033	HOUSING AUTHORITY & CLERICAL, SALESPERSONS, DRIVERS	1.14	1.03	-9.6%	1.02	-10.5%	
9040	HOSPITAL: ALL OTHER EMPLOYEES	2.56	2.01	-21.5%	2.09	-18.4%	
9052	HOTEL: ALL OTHER EMPLOYEES & SALESPERSONS, DRIVERS	1.21	0.97	-19.8%	0.96	-20.7%	
9058	HOTEL: RESTAURANT EMPLOYEES	0.95	0.75	-21.1%	0.74	-22.1%	
9060	CLUB - COUNTRY, GOLF, FISHING, OR YACHT - ALL EMPLOYEES & CLERICAL,	1.00	0.88	-12.0%	0.94	-6.0%	
9061	CLUB NOC & CLERICAL	0.73	0.65	-11.0%	0.67	-8.2%	
9063	YMCA, YWCA, YMHA OR YWHA, INSTITUTION - ALL EMPLOYEES & CLERICAL	0.55	0.43	-21.8%	0.42	-23.6%	
9077	UNITED STATES ARMED SERVICE RISK-ALL EMPLOYEES & DRIVERS	2.60	2.69	3.5%	2.69	3.5%	
9082	RESTAURANT NOC	0.74	0.61	-17.6%	0.61	-17.6%	
9083	RESTAURANT: FAST FOOD	0.74	0.59	-20.3%	0.59	-20.3%	
9084	BAR, DISCOTHEQUE, LOUNGE, NIGHT CLUB OR TAVERN	1.05	0.73	-30.5%	0.71	-32.4%	
9089	BILLIARD HALL	1.22	0.94	-23.0%	0.87	-28.7%	
9093	BOWLING LANE	0.89	0.71	-20.2%	0.70	-21.3%	
9101	COLLEGE: ALL OTHER EMPLOYEES	1.77	1.56	-11.9%	1.56	-11.9%	
9102	PARK NOC-ALL EMPLOYEES & DRIVERS	1.82	1.54	-15.4%	1.54	-15.4%	
9154	THEATER NOC: ALL OTHER EMPLOYEES	1.05	0.88	-16.2%	0.92	-12.4%	
9156	THEATER NOC: PLAYERS, ENTERTAINERS OR MUSICIANS	0.93	0.89	-4.3%	0.77	-17.2%	
9170	JANITORIAL SERVICES BY CONTRACTORS - INCLUDES WINDOW CLEANING ABOVE GROUND	6.49	5.35	-17.6%	5.29	-18.5%	
9178	ATHLETIC SPORTS OR PARK: NONCONTACT SPORTS	3.05	2.81	-7.9%	2.88	-5.6%	
9179	ATHLETIC SPORTS OR PARK: CONTACT SPORTS	5.54	4.44	-19.9%	4.59	-17.1%	
9180	AMUSEMENT DEVICE OPERATION NOC-NOT TRAVELING- & DRIVERS	3.74	3.12	-16.6%	3.08	-17.6%	
9182	ATHLETIC SPORTS OR PARK: OPERATIONS & DRIVERS	1.30	0.96	-26.2%	0.89	-31.5%	
9186	CARNIVAL, CIRCUS OR AMUSEMENT DEVICE OPERATOR-TRAVELING-ALL EMPLOYEES &	10.05	10.11	0.6%	10.85	8.0%	
9220	CEMETERY OPERATIONS & DRIVERS	3.00	2.39	-20.3%	2.35	-21.7%	
9402	STREET CLEANING & DRIVERS	3.28	2.57	-21.6%	2.47	-24.7%	
9403	GARBAGE, ASHES OR REFUSE COLLECTION & DRIVERS	4.82	3.93	-18.5%	3.95	-18.0%	
9410	MUNICIPAL, TOWNSHIP, COUNTY OR STATE EMPLOYEE NOC	1.33	1.15	-13.5%	1.14	-14.3%	
9501	PAINTING: SHOP ONLY & DRIVERS	1.97	1.71	-13.2%	1.76	-10.7%	

**STATE OF TENNESSEE
WORKERS COMPENSATION**

ADVISORY LOSS COST COMPARISON

Class Code	Class Description	New Credibility Standard		Percent Change	Current Credibility Standard		Percent Change
		Current 03/01/18	Proposed 03/01/19		Proposed 03/01/19	Proposed 03/01/19	
9505	PAINTING: AUTOMOBILE OR CARRIAGE BODIES	1.96	1.82	-7.1%	1.85	-5.6%	
9516	ELECTRONIC EQUIPMENT - INSTALLATION, SERVICE, OR REPAIR - SHOP AND OUTSIDE	2.84	2.05	-27.8%	2.08	-26.8%	
9519	HOUSEHOLD AND COMMERCIAL APPLIANCES-ELECTRICAL-INSTALLATION, SERVICE OR	3.16	2.37	-25.0%	2.42	-23.4%	
9521	HOUSE FURNISHINGS INSTALLATION NOC & UPHOLSTERING	1.89	1.63	-13.8%	1.57	-16.9%	
9522	UPHOLSTERING	1.69	1.45	-14.2%	1.58	-6.5%	
9534	MOBILE CRANE AND HOISTING SERVICE CONTRACTORS-NOC-ALL OPERATIONS-INCLUDING	2.42	2.03	-16.1%	2.05	-15.3%	
9554	SIGN INSTALLATION, MAINTENANCE, REPAIR OR REMOVAL & DRIVERS	6.39	4.88	-23.6%	4.78	-25.2%	
9586	BARBERSHOP, BEAUTY PARLOR OR HAIR STYLING SALON	0.31	0.23	-25.8%	0.23	-25.8%	
9600	TAXIDERMIST	1.54	1.31	-14.9%	1.35	-12.3%	
9620	FUNERAL DIRECTOR & DRIVERS	0.55	0.55	0.0%	0.57	3.6%	

Exhibit 4D

Mary Jean King, FCAS, CERA, MAAA
SVP & Consulting Actuary
118 Warfield Road
Cherry Hill, NJ 08034
P:856.428.5961
mking@bynac.com

By The Numbers
Actuarial 
Consulting, Inc.

**TENNESSEE
ADVISORY COUNCIL ON
WORKERS' COMPENSATION**

**ACTUARIAL REPORT
Review of NCCI Loss Cost Filing
Effective 3/1/18**

10/2/17

By The Numbers
Actuarial 
Consulting, Inc.

October 2, 2017

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) filing effective 3/1/18.

The estimates and analysis contained in this report are based on data provided by NCCI including the filing memorandum dated 8/24/17 and the answers to questions concerning the filing 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 contact us. It is a pleasure to be of service to the Advisory Council.

Sincerely,



Mary Jean King, FCAS, CERA, MAAA
Senior Vice President and Consulting Actuary



Lisa Dennison, FCAS, MAAA
President and Consulting Actuary

cc: Larry Scroggs
Administrator, Advisory Council on Workers' Compensation

TENNESSEE ADVISORY COUNCIL ON WORKERS' COMPENSATION

ACTUARIAL REPORT

TABLE OF CONTENTS

PURPOSE.....	1
FINDINGS.....	2
OVERVIEW OF FILING.....	4
SUMMARY OF PROPOSED LOSS COST CHANGES	4
OTHER PROPOSED CHANGES	4
DATA	5
STATEWIDE INDICATION ANALYSIS	6
OVERVIEW	6
ANALYSIS OF METHODOLOGY	7
DEVELOPMENT	9
TREND	23
LOSS ADJUSTMENT EXPENSE	23
QUALIFICATIONS AND LIMITATIONS.....	36
CONSULTATION.....	37

APPENDICES

BYNAC RECOMMENDATIONS.....	38
CHANGES IN ESTIMATED ULTIMATE INCURRED LOSSES	40

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 Workers Compensation Voluntary Market Loss Costs and Rating Values and Assigned Risk Rates and Rating Values filing effective 3/1/18. The basis of the analysis is the NCCI filing memorandum dated 8/24/17 and additional exhibits showing the NCCI loss adjustment expense analysis and terrorism loss cost and rate calculations. 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 analysis of 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 NCCI in its selection of estimates employed to arrive at ultimate loss cost for past and forecast periods.
- An analysis of NCCI's selection of trend and loss adjustment expense allowance.

FINDINGS

Based on BYNAC's review of the NCCI filing, the proposed overall average loss cost level change of -12.6% effective 3/1/18 has been reasonably calculated in accordance with actuarial standards of practice.

BYNAC reviewed paid and paid + case development and experience for policy years 2011 through 2013 in addition to the policy years underlying the filing of 2014 and 2015 in order to test the assumptions made by NCCI in selecting the data and development methods for review. Changes in estimated ultimate incurred losses based on both NCCI and BYNAC selected loss development factors are shown in Appendix B. The large decreases shown in this exhibit indicate more volatility than would normally be expected with this volume of data. It is BYNAC's opinion that this supports the need for a longer experience period for the filing indication.

BYNAC also reviewed the selection of trend. The NCCI selected trend factor is a change from 0.950 to 0.945 for indemnity and from 0.985 to 0.980 for medical. The decrease in both factors is still being driven by decreases in frequency. The indemnity cost per case adjusted to current wage level has increased slightly since the last period and medical cost per case has increased. BYNAC selected factors of 0.950 for indemnity and 0.980 for medical.

BYNAC reviewed historical information for defense and cost containment expense (DCCE) and adjusting and other expense (AOE). BYNAC believes that an LAE allowance of 20.0% would

be more appropriate than the 19.7% allowance proposed by NCCI. The overall indication using BYNAC's experience and trend change and LAE selection is -8.1% (Appendix A).

OVERVIEW OF FILING

SUMMARY OF PROPOSED LOSS COST CHANGES

NCCI is proposing a decrease in loss costs based on premium and loss experience effective 3/1/18. The breakdown of the proposed changes by industry groups is as follows:

Industry Group	Loss Cost Change Eff 3/1/18
Manufacturing	-11.3%
Contracting	-15.0%
Office & Clerical	-13.2%
Goods & Services	-12.9%
Miscellaneous	-11.4%
Overall	-12.6%

OTHER PROPOSED CHANGES

In addition to the loss cost changes, NCCI has included in the filing numerous class code changes, an update to the retrospective rating plan parameters, and changes to the terrorism loss cost and assigned risk rate. The calculations for the update to the retrospective rating plan parameters were not presented in the filing or technical supplement and have not been reviewed for this report.

The statewide indication includes an increase of +0.6% to medical benefits for the estimated impact of the medical fee schedule update that was effective 1/1/17. In addition, the indication includes an increase of +0.3% to the indemnity benefits for changes in the minimum and maximum weekly benefits effective 7/1/17. NCCI estimates that the change in burial allowance

under SB 297 will have 0.0% impact. These changes have been reasonably calculated in a manner similar to past filings.

DATA

The data used for the statewide indication is premium and losses for policy years 2014 and 2015, evaluated as of 12/31/16. 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.

Combined voluntary and assigned risk data is used. Assigned risk represents approximately 12.2% of the policy year 2014 market share and 12.6% of 2015. NCCI indicates that data for all carriers writing at least one-tenth of one percent of the Tennessee workers compensation written premium volume have been included in the experience period data on which the filing is based.

STATEWIDE INDICATION ANALYSIS

OVERVIEW

The statewide indicated change is based on premium and loss data for policy years 2014 and 2015. 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.

Two procedures are used to estimate the ultimate incurred losses. In the first method limited indemnity and medical paid losses plus case reserves are developed to ultimate. In the second method paid losses only are developed to ultimate. NCCI selected an average of the two methods as the best estimate of ultimate losses.

An on-level factor is also applied to losses to reflect changes to statutory benefit levels since the experience period. 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 final component of the proposed change is the change in loss adjustment expense. 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.

Indicated Change Based on Experience, Trend, and Benefits:

Policy Year	Projected Cost Ratio		
	Indemnity	Medical	Combined
2014	0.263	0.628	0.891
2015	0.253	0.609	0.862
Selected			0.877

Change in Loss Based Expenses:

	DCCE Ratio	AOE Ratio	LAE Ratio
Current	0.127	0.074	0.201
Proposed	0.124	0.073	0.197
Change			0.997
Overall Change			-12.6%

ANALYSIS OF METHODOLOGY

The methodology used by NCCI to calculate the statewide indication is reasonable. Starting with the 3/1/16 filing, both paid and paid + case loss development are used in estimating ultimate losses. These are widely used and accepted methods. Inherent in the paid + case loss development technique is the assumption that there are no changes in reserving practices. The paid loss development method provides a check to this assumption. Paid loss development assumes that there are no changes in claims settlement practices.

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.

In selecting trend factors, NCCI examines claim frequency and severity separately, 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 loss ratio trend is used as the basis for the selection. 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 LAE data are presented as the basis for the LAE allowance. A relativity of Tennessee DCCE to countrywide DCCE is calculated based on the latest three calendar years paid data (2014–2016). The state relativity (0.929) is applied to the countrywide DCCE ratio. Countrywide AOE is used. For a second year, countrywide DCCE ratios have remained steady or increased

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 loss limitation threshold is based on pure premium and changes from year to year. The threshold for this filing is an increase to \$7,994,236. The selected statewide excess ratio of 0.011 is slightly less than the ratio used in the prior filing of 0.012.

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

	Most Recent Policy Year			Older Policy Year		
	Eff 3/1/18	Eff 3/1/17	Eff 3/1/16	Eff 3/1/18	Eff 3/1/17	Eff 3/1/16
Premium Development Factor	1.007	1.008	1.008	1.000	1.000	0.999
Indemnity Paid Development Factor	2.354	2.540	2.664	1.488	1.504	1.531
Indemnity Limited Paid Tail Factor	1.008	1.009	1.010			
Indemnity Paid+Case Development Factor	1.276	1.301	1.297	1.124	1.125	1.118
Indemnity Limited Paid+Case Tail Factor	1.002	1.003	1.004			
Medical Paid Development Factor	2.141	2.236	2.277	1.748	1.821	1.836
Medical Limited Paid Tail Factor	1.154	1.160	1.168			
Medical Paid+Case Development Factor	1.335	1.424	1.473	1.313	1.368	1.403
Medical Limited Paid+Case Tail Factor	1.026	1.035	1.037			
Indemnity Trend (Annual)	0.945	0.950	0.960			
Medical Trend (Annual)	0.980	0.985	0.995			
Loss Adjustment Expense	0.197	0.201	0.198			
Excess Loss Loading Factor	1.011	1.012	1.011			
Tennessee DCEE Relativity	0.929	0.960	0.975			

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 paid + case indemnity losses are shown in Table 1, beginning with the age to age factors calculated using Tennessee's limited paid + case policy year losses excluding LAE. The historical and expected loss development patterns are graphically illustrated in Figure 1 by thick and thin lines, respectively. Paid indemnity development is shown in Table 2 and Figure 2. Medical development follows in Tables 3 and 4 and Figures 3 and 4. For both indemnity and medical losses, NCCI selected 5 year average factors for the paid + case development and 2 year averages for the paid development with one exception explained below. The NCCI selections are reasonable. However, BYNAC believes that a 3 year paid average is preferable. The

Table 1

**STATE OF TENNESSEE
WORKERS COMPENSATION**

INDEMNITY PAID + CASE DEVELOPMENT FACTORS

A. INDEMNITY PAID + CASE AGE TO AGE FACTORS

Policy Year	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19-Ult
1993																			1.000
1994																	1.000	1.000	
1995																1.002	1.001	1.003	
1996															1.000	0.997	1.000	0.999	
1997														1.001	1.001	1.003	0.999	1.001	
1998													1.001	0.999	0.998	0.999	1.000		
1999												1.001	1.001	1.000	1.000	1.000			
2000											0.997	0.999	1.001	1.002	0.999				
2001										0.999	0.999	1.001	1.000	1.000					
2002									0.999	0.999	1.000	0.999	0.999						
2003								1.002	0.999	1.000	1.001	1.000							
2004							1.002	1.009	1.002	1.000	1.002								
2005						1.005	1.005	1.005	1.001	1.001									
2006					1.003	1.006	1.001	1.000	1.001										
2007				1.018	0.999	1.009	1.004	0.996											
2008			1.036	1.014	1.003	1.005	1.002												
2009		1.058	1.027	1.013	1.010	1.006													
2010	1.202	1.083	1.025	1.012	1.004														
2011	1.158	1.049	1.025	1.006															
2012	1.152	1.068	1.015																
2013	1.102	1.052																	
2014	1.061																		
5 Yr Avg	1.135	1.062	1.026	1.013	1.004	1.006	1.003	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	
3 Yr Avg	1.105	1.056	1.022	1.010	1.006	1.007	1.002	1.000	1.001	1.000	1.001	1.000	1.000	1.001	0.999	1.001	1.000	1.000	
5 Yr Mid	1.137	1.059	1.026	1.013	1.003	1.006	1.003	1.002	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	
2 Yr Avg	1.082	1.060	1.020	1.009	1.007	1.006	1.003	0.998	1.001	1.001	1.002	1.000	1.000	1.001	1.000	1.000	1.000	1.000	
NCCI Prior	1.156	1.061	1.027	1.015	1.003	1.005	1.003	1.003	1.000	0.999	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.003
NCCI Sel	1.135	1.062	1.026	1.013	1.004	1.006	1.003	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.002
BYNAC Sel	1.126	1.059	1.025	1.012	1.004	1.006	1.003	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.002

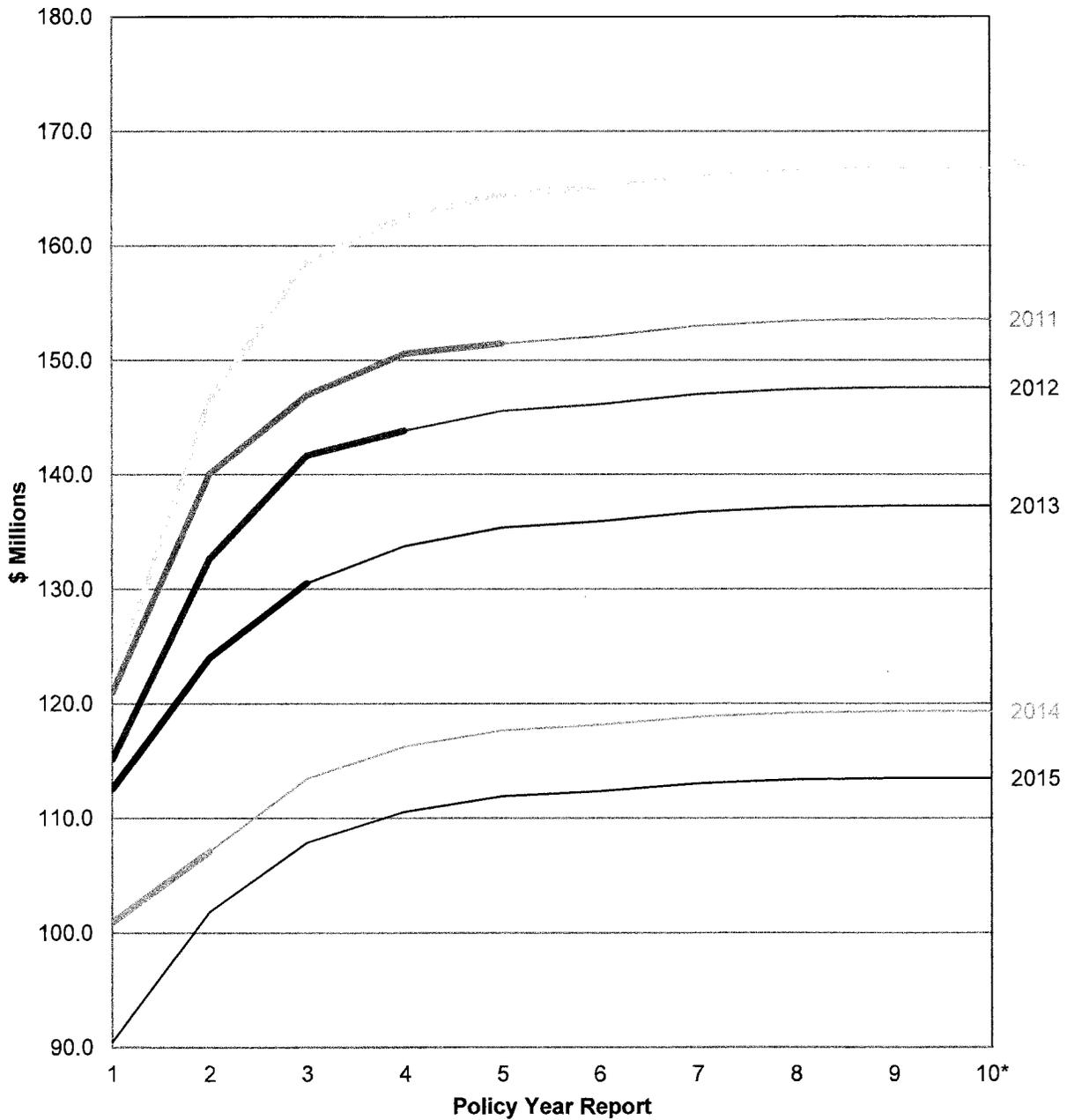
B. INDEMNITY PAID + CASE DEVELOPMENT FACTORS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	1.258	1.117	1.055	1.029	1.017	1.013	1.007	1.004	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.002

Figure 1

**STATE OF TENNESSEE
WORKERS COMPENSATION**

**HISTORICAL AND EXPECTED DEVELOPMENT OF PAID + CASE LOSSES
INDEMNITY**



* Additional development of 0.3% is expected after 10th report.

Table 2

**STATE OF TENNESSEE
WORKERS COMPENSATION**

INDEMNITY PAID DEVELOPMENT FACTORS

A. INDEMNITY PAID AGE TO AGE FACTORS

Policy Year	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-Ult
1993																			1.000
1994																	1.000	1.000	
1995																1.001	1.001	1.001	
1996															1.001	1.001	1.001	1.001	
1997														1.002	1.001	1.001	1.001	1.001	
1998													1.001	1.000	1.001	1.000	1.000	1.000	
1999												1.001	1.002	1.001	1.001	1.000			
2000											0.999	1.001	1.000	1.001	1.001				
2001										1.001	1.000	1.001	1.001	1.001					
2002									1.001	1.002	1.000	1.003	0.999						
2003								1.006	1.003	1.001	1.001	1.001							
2004							1.006	1.012	1.005	1.003	1.004								
2005						1.016	1.011	1.008	1.004	1.002									
2006					1.019	1.014	1.008	1.004	1.003										
2007				1.041	1.018	1.014	1.011	1.003											
2008			1.096	1.051	1.026	1.013	1.009												
2009		1.242	1.093	1.048	1.025	1.016													
2010	1.804	1.262	1.081	1.038	1.019														
2011	1.738	1.219	1.104	1.043															
2012	1.742	1.215	1.080																
2013	1.636	1.216																	
2014	1.527																		
5 Yr Avg	1.689	1.231	1.091	1.044	1.021	1.015	1.009	1.007	1.003	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	
3 Yr Avg	1.635	1.217	1.088	1.043	1.023	1.014	1.009	1.005	1.004	1.002	1.002	1.002	1.000	1.001	1.001	1.000	1.001	1.001	
5 Yr Mid	1.705	1.226	1.090	1.044	1.021	1.015	1.009	1.006	1.003	1.002	1.000	1.001	1.001	1.001	1.001	1.001	1.001	1.001	
2 Yr Avg	1.582	1.216	1.092	1.041	1.022	1.015	1.010	1.004	1.004	1.003	1.003	1.002	1.000	1.001	1.001	1.001	1.000	1.001	1.001
NCCI Prior	1.689	1.217	1.094	1.043	1.026	1.014	1.010	1.006	1.005	1.002	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.009
NCCI Sel	1.582	1.216	1.092	1.041	1.022	1.015	1.010	1.004	1.004	1.003	1.003	1.002	1.000	1.001	1.001	1.000	1.001	1.001	1.008
BYNAC Sel	1.635	1.217	1.088	1.043	1.023	1.014	1.009	1.005	1.004	1.002	1.002	1.002	1.000	1.001	1.001	1.000	1.001	1.001	1.008

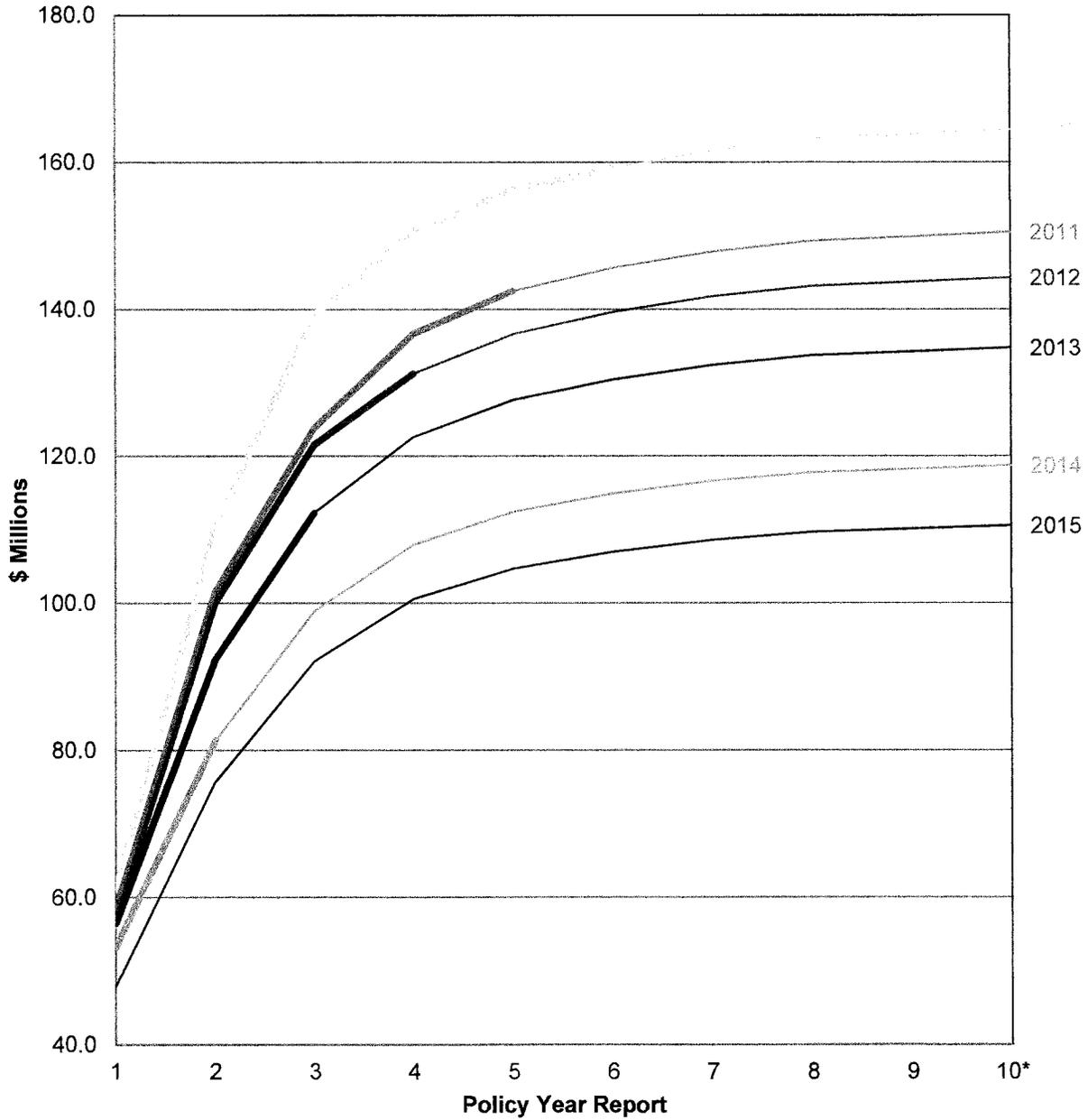
B. INDEMNITY PAID DEVELOPMENT FACTORS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	2.428	1.485	1.220	1.121	1.075	1.051	1.036	1.027	1.022	1.018	1.016	1.014	1.012	1.012	1.011	1.010	1.010	1.009	1.008

Figure 2

**STATE OF TENNESSEE
WORKERS COMPENSATION**

**HISTORICAL AND EXPECTED DEVELOPMENT OF PAID LOSSES
INDEMNITY**



* Additional development of 1.8% is expected after 10th report.

Table 3

**STATE OF TENNESSEE
WORKERS COMPENSATION**

MEDICAL PAID + CASE DEVELOPMENT FACTORS

A. MEDICAL PAID + CASE AGE TO AGE FACTORS

Policy Year	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - Ult
1993																			0.967
1994																	1.007	1.013	
1995																1.018	1.002	1.006	
1996															0.989	1.001	0.996	0.992	
1997														1.006	1.006	1.000	0.989	1.006	
1998													1.018	1.009	1.001	1.006	1.001		
1999												1.008	1.000	1.007	1.003	1.005			
2000											1.006	1.011	1.015	1.000	0.997				
2001										1.000	0.994	1.017	1.018	1.006					
2002									1.015	0.989	0.995	1.006	1.002						
2003								1.021	0.994	1.011	1.023	0.998							
2004							1.006	1.015	1.017	1.008	1.001								
2005						1.033	1.017	1.034	1.022	1.000									
2006					1.056	1.028	1.034	1.000	1.012										
2007				1.059	1.038	1.040	1.024	1.023											
2008			1.045	1.041	1.054	1.029	0.989												
2009		1.012	1.041	1.031	1.013	1.014													
2010	1.058	1.078	1.059	1.023	1.019														
2011	1.037	1.043	1.037	1.000															
2012	1.029	1.028	1.017																
2013	0.955	1.029																	
2014	0.986																		
5 Yr Avg	1.013	1.038	1.040	1.031	1.036	1.029	1.014	1.019	1.012	1.002	1.004	1.008	1.011	1.006	0.999	1.006	0.999	0.997	
3 Yr Avg	0.990	1.033	1.038	1.018	1.029	1.028	1.016	1.019	1.017	1.006	1.006	1.007	1.012	1.004	1.000	1.004	0.995	1.001	
5 Yr Mid	1.017	1.033	1.041	1.032	1.037	1.030	1.016	1.020	1.015	1.003	1.001	1.008	1.012	1.006	1.000	1.004	1.000	1.001	
2 Yr Avg	0.971	1.029	1.027	1.012	1.016	1.022	1.007	1.012	1.017	1.004	1.012	1.002	1.010	1.003	1.000	1.006	0.995	0.999	
NCCI Prior	1.041	1.036	1.046	1.042	1.039	1.030	1.018	1.017	1.009	1.009	1.003	1.010	1.014	1.007	1.000	1.006	0.999	0.997	1.035
NCCI Sel	1.017	1.038	1.040	1.031	1.036	1.029	1.014	1.019	1.012	1.002	1.004	1.008	1.011	1.006	0.999	1.006	0.999	0.997	1.026
BYNAC Sel	1.017	1.035	1.040	1.027	1.034	1.029	1.015	1.019	1.015	1.004	1.004	1.008	1.012	1.005	1.000	1.005	0.998	1.000	1.026

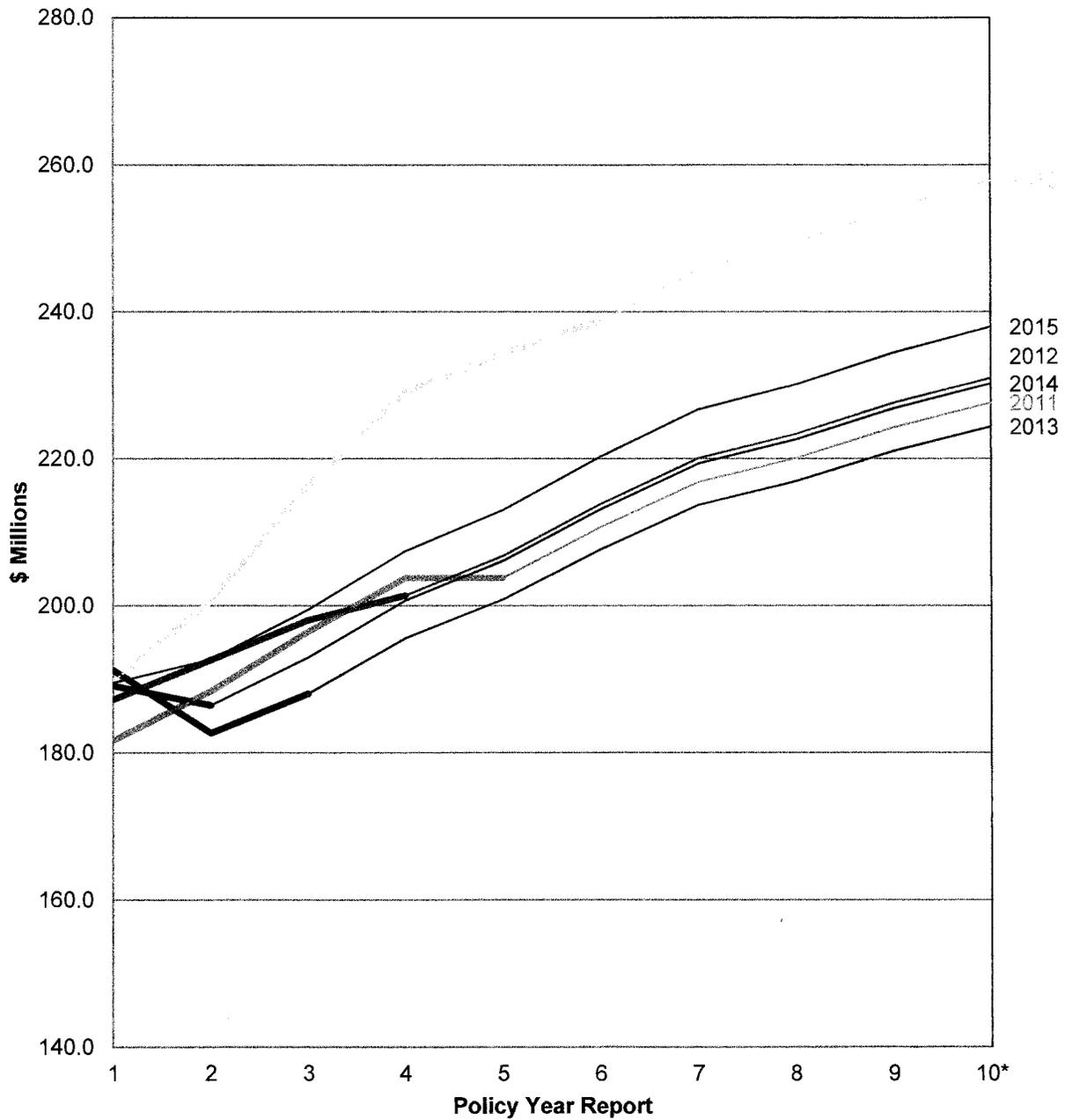
B. MEDICAL PAID + CASE DEVELOPMENT FACTORS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	1.332	1.310	1.266	1.217	1.185	1.146	1.114	1.098	1.078	1.062	1.058	1.054	1.046	1.034	1.029	1.029	1.024	1.026	1.026

Figure 3

**STATE OF TENNESSEE
WORKERS COMPENSATION**

**HISTORICAL AND EXPECTED DEVELOPMENT OF PAID + CASE LOSSES
MEDICAL**



* Additional development of 6.2% is expected after 10th report.

Table 4

**STATE OF TENNESSEE
WORKERS COMPENSATION**

MEDICAL PAID DEVELOPMENT FACTORS

A. MEDICAL AGE TO AGE FACTORS

Policy Year	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18	18 - 19	19 - Ult
1993																			1.004
1994																	1.007	1.008	
1995																1.009	1.011	1.012	
1996															1.008	1.008	1.007	1.018	
1997														1.017	1.015	1.015	1.010	1.009	
1998													1.017	1.013	1.012	1.013	1.010		
1999												1.013	1.012	1.012	1.009	1.011			
2000											1.017	1.018	1.020	1.011	1.008				
2001										1.012	1.014	1.016	1.010	1.009					
2002									1.014	1.018	1.019	1.021	1.005						
2003								1.019	1.018	1.020	1.014	1.017							
2004							1.026	1.026	1.018	1.021	1.016								
2005						1.035	1.033	1.033	1.023	1.024									
2006					1.046	1.040	1.031	1.033	1.021										
2007				1.053	1.043	1.046	1.040	1.023											
2008			1.053	1.051	1.032	1.044	1.027												
2009		1.066	1.048	1.039	1.037	1.028													
2010	1.252	1.085	1.052	1.036	1.035														
2011	1.243	1.065	1.047	1.027															
2012	1.235	1.070	1.037																
2013	1.221	1.073																	
2014	1.229																		
5 Yr Avg	1.236	1.072	1.047	1.041	1.039	1.039	1.031	1.027	1.019	1.019	1.016	1.017	1.013	1.012	1.010	1.011	1.009	1.010	
3 Yr Avg	1.228	1.069	1.045	1.034	1.035	1.039	1.033	1.030	1.021	1.022	1.016	1.018	1.012	1.011	1.010	1.013	1.009	1.013	
5 Yr Mid	1.236	1.070	1.049	1.042	1.038	1.040	1.030	1.027	1.019	1.020	1.016	1.017	1.013	1.012	1.010	1.011	1.009	1.010	
2 Yr Avg	1.225	1.072	1.042	1.032	1.036	1.036	1.034	1.028	1.022	1.023	1.015	1.019	1.008	1.010	1.009	1.012	1.010	1.014	
NCCI Prior	1.228	1.068	1.050	1.038	1.035	1.045	1.036	1.033	1.021	1.021	1.017	1.019	1.015	1.012	1.011	1.014	1.009	1.015	1.160
NCCI Sel	1.225	1.072	1.042	1.032	1.036	1.036	1.034	1.028	1.022	1.023	1.015	1.019	1.008	1.010	1.009	1.012	1.010	1.014	1.154
BYNAC Sel	1.228	1.069	1.045	1.034	1.035	1.039	1.033	1.030	1.021	1.022	1.016	1.018	1.012	1.011	1.010	1.013	1.009	1.013	1.154

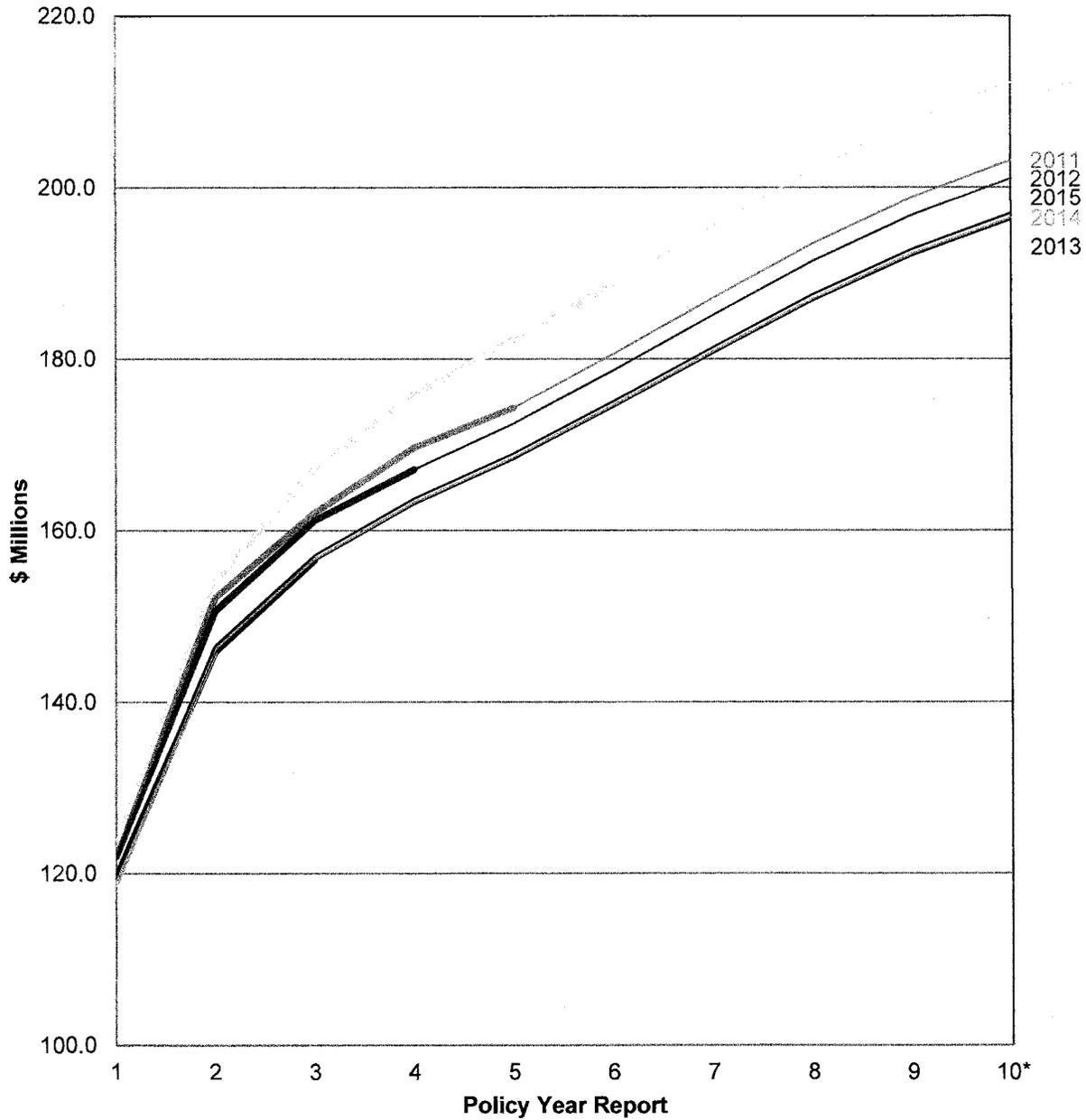
B. MEDICAL PAID LOSS DEVELOPMENT FACTORS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	2.163	1.761	1.647	1.576	1.524	1.472	1.417	1.372	1.332	1.305	1.277	1.257	1.235	1.220	1.207	1.195	1.180	1.169	1.154

Figure 4

**STATE OF TENNESSEE
WORKERS COMPENSATION**

**HISTORICAL AND EXPECTED DEVELOPMENT OF PAID LOSSES
MEDICAL**



* Additional development of 30.5% is expected after 10th report.

BYNAC paid + case factors are judgmentally selected based on 3 year and 5 year averages and also a 5 year mid average which is the average of the 5 most recent age to age factors excluding the high and the low. BYNAC selections are also shown on Tables 1 through 4.

The observed medical paid + case age to age factor for policy year 2014 1st to 2nd report of 0.986, while not as low as the 2013 age to age factor, is highly unusual. Whereas last year's decrease was primarily driven by three large claims and not thought to be part of a change in reserving behavior, the decrease this year is observed in several carriers and does not appear to be due to large claims. As a result, NCCI again selected the 5 year mid factor, allowing the 2014 factor of 0.986 to be part of the selected average. BYNAC believes this adjustment is reasonable and necessary. Indemnity paid + case age to age factors for 1st to 2nd report have also decreased dramatically in the last two periods.

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 5 shows the premium development with the NCCI and BYNAC selections. Age to age factors from prior filings are shown for the older policy periods. These factors are included to illustrate the range of usual factors. BYNAC selected the 5 year mid average due to the observed fluctuations in the age to age factors.

Table 6 shows both NCCI's and BYNAC's estimated ultimate losses and standard earned premium. For the losses, the NCCI selections are based on an average of the indicated ultimate losses using the paid + case and paid development methods. The BYNAC selections are also

Table 5

**STATE OF TENNESSEE
WORKERS COMPENSATION**

PREMIUM DEVELOPMENT FACTORS

A. PREMIUM AGE TO AGE FACTORS

Policy Year	1 - 2	2 - 3	3 - 4	4 - 5	5-Ult
2007	1.002	0.998	1.000	1.000	
2008	0.987	0.996	1.000	1.000	
2009	1.001	0.996	1.000	1.000	
2010	1.008	1.000	1.000	1.000	
2011	1.014	1.000	1.000	1.000	
2012	1.006	0.999	1.000		
2013	1.005	1.000			
2014	1.011				
5 Yr Avg	1.009	0.999	1.000	1.000	
3 Yr Avg	1.007	1.000	1.000	1.000	
5 Yr Mid	1.008	1.000	1.000	1.000	
2 Yr Avg	1.008	1.000	1.000	1.000	
NCCI Prior	1.008	1.000	1.000	1.000	1.000
NCCI Sel	1.007	1.000	1.000	1.000	1.000
BYNAC Sel	1.008	1.000	1.000	1.000	1.000

B. PREMIUM LOSS DEVELOPMENT FACTORS

1	2	3	4	5
1.008	1.000	1.000	1.000	1.000

Table 6

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF PREMIUM AND LOSSES DEVELOPED TO ULTIMATE REPORT

Section A - Policy Year 2015 Experience

	<u>NCCI</u>	<u>BYNAC</u>
(1) Standard Earned Premium	\$582,179,723	\$582,179,723
(2) Factor to Develop Premium to Ultimate	1.007	1.008
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$586,254,981	\$586,837,161
(4) Limited Indemnity Paid Losses	\$47,853,229	\$47,853,229
(5) Limited Indemnity Paid Development Factor to Ultimate	2.354	2.428
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$112,646,501	\$116,187,640
(7) Limited Indemnity Paid+Case Losses	\$90,440,657	\$90,440,657
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.276	1.258
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$115,402,278	\$113,774,347
(10) Policy Year 2015 Limited Indemnity Losses Developed to Ultimate NCCI and BYNAC = [(6)+(9)]/2	\$114,024,390	\$114,980,994
(11) Limited Medical Paid Losses	\$119,622,226	\$119,622,226
(12) Limited Medical Paid Development Factor to Ultimate	2.141	2.163
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$256,111,186	\$258,742,875
(14) Limited Medical Paid+Case Losses	\$189,475,344	\$189,475,344
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.335	1.332
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$252,949,584	\$252,381,158
(17) Policy Year 2015 Limited Medical Losses Developed to Ultimate NCCI and BYNAC = [(13)+(16)]/2	\$254,530,385	\$255,562,017

Section B - Policy Year 2014 Experience

	<u>NCCI</u>	<u>BYNAC</u>
(1) Standard Earned Premium	\$598,951,623	\$598,951,623
(2) Factor to Develop Premium to Ultimate	1.000	1.000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$598,951,623	\$598,951,623
(4) Limited Indemnity Paid Losses	\$81,304,589	\$81,304,589
(5) Limited Indemnity Paid Development Factor to Ultimate	1.488	1.485
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$120,981,228	\$120,737,315
(7) Limited Indemnity Paid+Case Losses	\$107,102,714	\$107,102,714
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.124	1.117
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$120,383,451	\$119,633,732
(10) Policy Year 2014 Limited Indemnity Losses Developed to Ultimate NCCI and BYNAC = [(6)+(9)]/2	\$120,682,340	\$120,185,524
(11) Limited Medical Paid Losses	\$146,146,568	\$146,146,568
(12) Limited Medical Paid Development Factor to Ultimate	1.748	1.761
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$255,464,201	\$257,364,106
(14) Limited Medical Paid+Case Losses	\$186,426,817	\$186,426,817
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.313	1.310
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$244,778,411	\$244,219,130
(17) Policy Year 2014 Limited Medical Losses Developed to Ultimate NCCI and BYNAC = [(13)+(16)]/2	\$250,121,306	\$250,791,618

Table 6

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF PREMIUM AND LOSSES DEVELOPED TO ULTIMATE REPORT

Section C - Policy Year 2013 Experience	NCCI	BYNAC
(1) Standard Earned Premium	\$615,923,486	\$615,923,486
(2) Factor to Develop Premium to Ultimate	1.000	1.000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$615,923,486	\$615,923,486
(4) Limited Indemnity Paid Losses	\$112,244,225	\$112,244,225
(5) Limited Indemnity Paid Development Factor to Ultimate	1.224	1.220
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$137,386,931	\$136,937,955
(7) Limited Indemnity Paid+Case Losses	\$130,483,996	\$130,483,996
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.058	1.055
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$138,052,068	\$137,660,616
(10) Policy Year 2013 Limited Indemnity Losses Developed to Ultimate NCCI and BYNAC = [(6)+(9)]/2	\$137,719,500	\$137,299,286
(11) Limited Medical Paid Losses	\$156,492,901	\$156,492,901
(12) Limited Medical Paid Development Factor to Ultimate	1.631	1.647
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$255,239,922	\$257,743,808
(14) Limited Medical Paid+Case Losses	\$188,016,362	\$188,016,362
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.265	1.266
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$237,840,698	\$238,028,714
(17) Policy Year 2013 Limited Medical Losses Developed to Ultimate NCCI and BYNAC = [(13)+(16)]/2	\$246,540,310	\$247,886,261
 Section D - Policy Year 2012 Experience	 NCCI	 BYNAC
(1) Standard Earned Premium	\$617,654,154	\$617,654,154
(2) Factor to Develop Premium to Ultimate	1.000	1.000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$617,654,154	\$617,654,154
(4) Limited Indemnity Paid Losses	\$131,221,547	\$131,221,547
(5) Limited Indemnity Paid Development Factor to Ultimate	1.121	1.121
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$147,099,354	\$147,099,354
(7) Limited Indemnity Paid+Case Losses	\$143,810,016	\$143,810,016
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.031	1.029
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$148,268,126	\$147,980,506
(10) Policy Year 2012 Limited Indemnity Losses Developed to Ultimate NCCI and BYNAC = [(6)+(9)]/2	\$147,683,740	\$147,539,930
(11) Limited Medical Paid Losses	\$167,068,257	\$167,068,257
(12) Limited Medical Paid Development Factor to Ultimate	1.565	1.576
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$261,461,822	\$263,299,573
(14) Limited Medical Paid+Case Losses	\$201,341,542	\$201,341,542
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.216	1.217
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$244,831,315	\$245,032,657
(17) Policy Year 2012 Limited Medical Losses Developed to Ultimate NCCI and BYNAC = [(13)+(16)]/2	\$253,146,569	\$254,166,115

Table 6

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF PREMIUM AND LOSSES DEVELOPED TO ULTIMATE REPORT

Section E - Policy Year 2011 Experience	NCCI	BYNAC
(1) Standard Earned Premium	\$590,474,698	\$590,474,698
(2) Factor to Develop Premium to Ultimate	1.000	1.000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$590,474,698	\$590,474,698
(4) Limited Indemnity Paid Losses	\$142,461,195	\$142,461,195
(5) Limited Indemnity Paid Development Factor to Ultimate	1.077	1.075
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$153,430,707	\$153,145,785
(7) Limited Indemnity Paid+Case Losses	\$151,457,989	\$151,457,989
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.018	1.017
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$154,184,233	\$154,032,775
(10) Policy Year 2011 Limited Indemnity Losses Developed to Ultimate NCCI and BYNAC = [(6)+(9)]/2	\$153,807,470	\$153,589,280
(11) Limited Medical Paid Losses	\$174,248,907	\$174,248,907
(12) Limited Medical Paid Development Factor to Ultimate	1.516	1.524
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$264,161,343	\$265,555,334
(14) Limited Medical Paid+Case Losses	\$203,738,897	\$203,738,897
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.179	1.185
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$240,208,160	\$241,430,593
(17) Policy Year 2011 Limited Medical Losses Developed to Ultimate NCCI and BYNAC = [(13)+(16)]/2	\$252,184,752	\$253,492,964

based on the average of the two methods using BYNAC's selected development factors. The selections are illustrated in Figures 5 and 6.

The indicated loss cost level change for policy years 2011 through 2015 is presented in Table 7. A summary of the indications is provided in Table 8 and Figure 7. BYNAC selected the average of the 2012 through 2015 BYNAC indications. BYNAC has extended the number of years used in the selected average due to the volatility.

TREND

An exponential regression model is used to measure the trend and is presented in Table 9. The NCCI selected trend factors are slightly lower than the 15 year exponential fit. BYNAC agrees that the most recent information indicates lower trends but feels that the use of the 15 year period is warranted and recommends the factors 0.950 for indemnity and 0.980 for medical.

LOSS ADJUSTMENT EXPENSE

When comparing the accident year developed expense ratios in this filing to the ratios shown in the previous filing, increases are again observed in some of the ratios. This seems to confirm that the addition of tail factors to the development of both the DCCE-to-loss and AOE-to-loss ratios has corrected the longstanding problem with the pattern of reductions to the ratios.

BYNAC agrees with the NCCI countrywide selected DCCE and AOE ratios. In evaluating the selected Tennessee DCCE ratio, BYNAC examined the history of Tennessee and countrywide paid losses to paid DCCE ratios and relativity factors shown in the table on page 34.

Figure 5

**STATE OF TENNESSEE
WORKERS COMPENSATION**

**SELECTED ESTIMATED ULTIMATE INCURRED LOSSES
INDEMNITY**

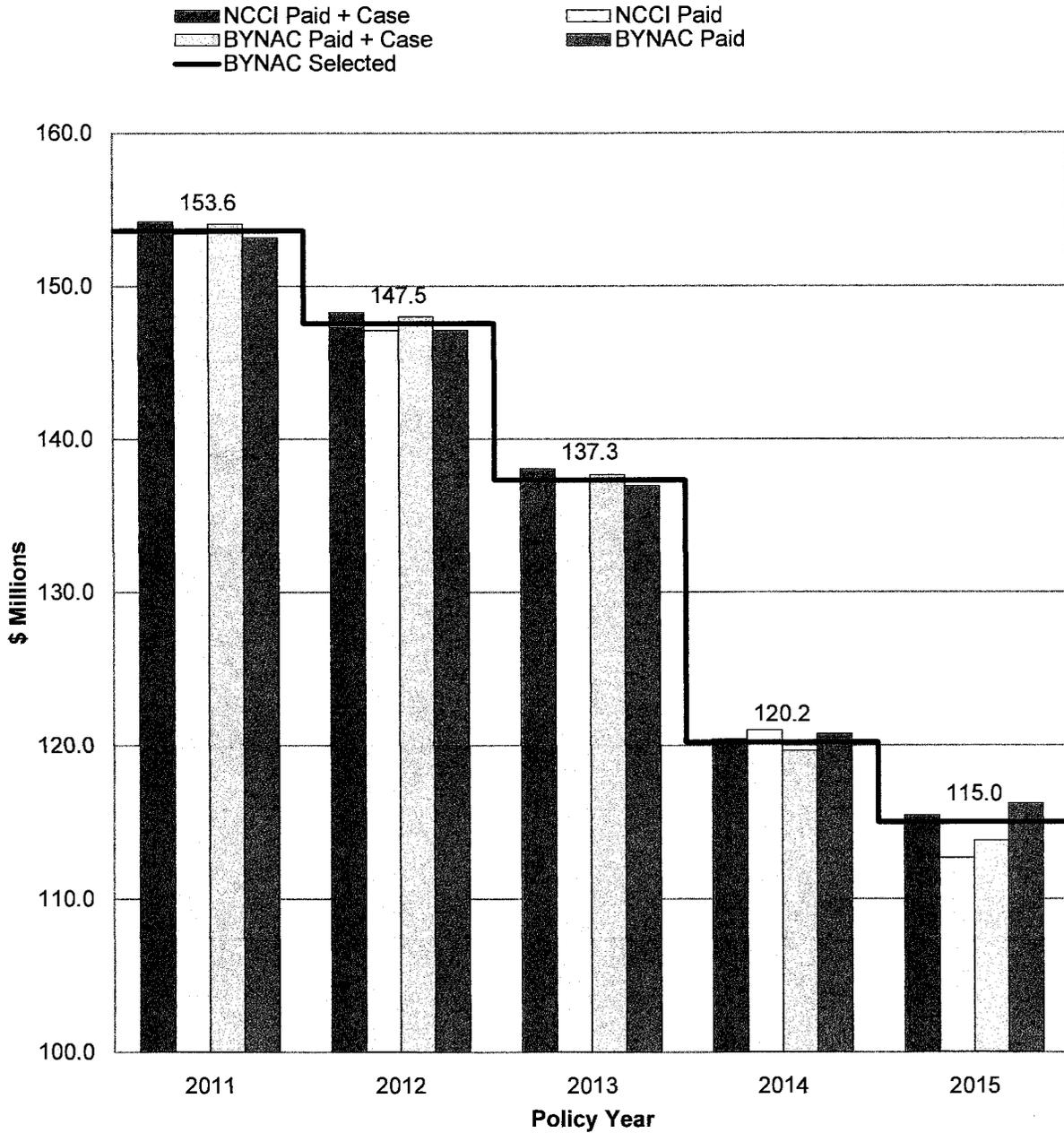


Figure 6

**STATE OF TENNESSEE
WORKERS COMPENSATION**

**SELECTED ESTIMATED ULTIMATE INCURRED LOSSES
MEDICAL**

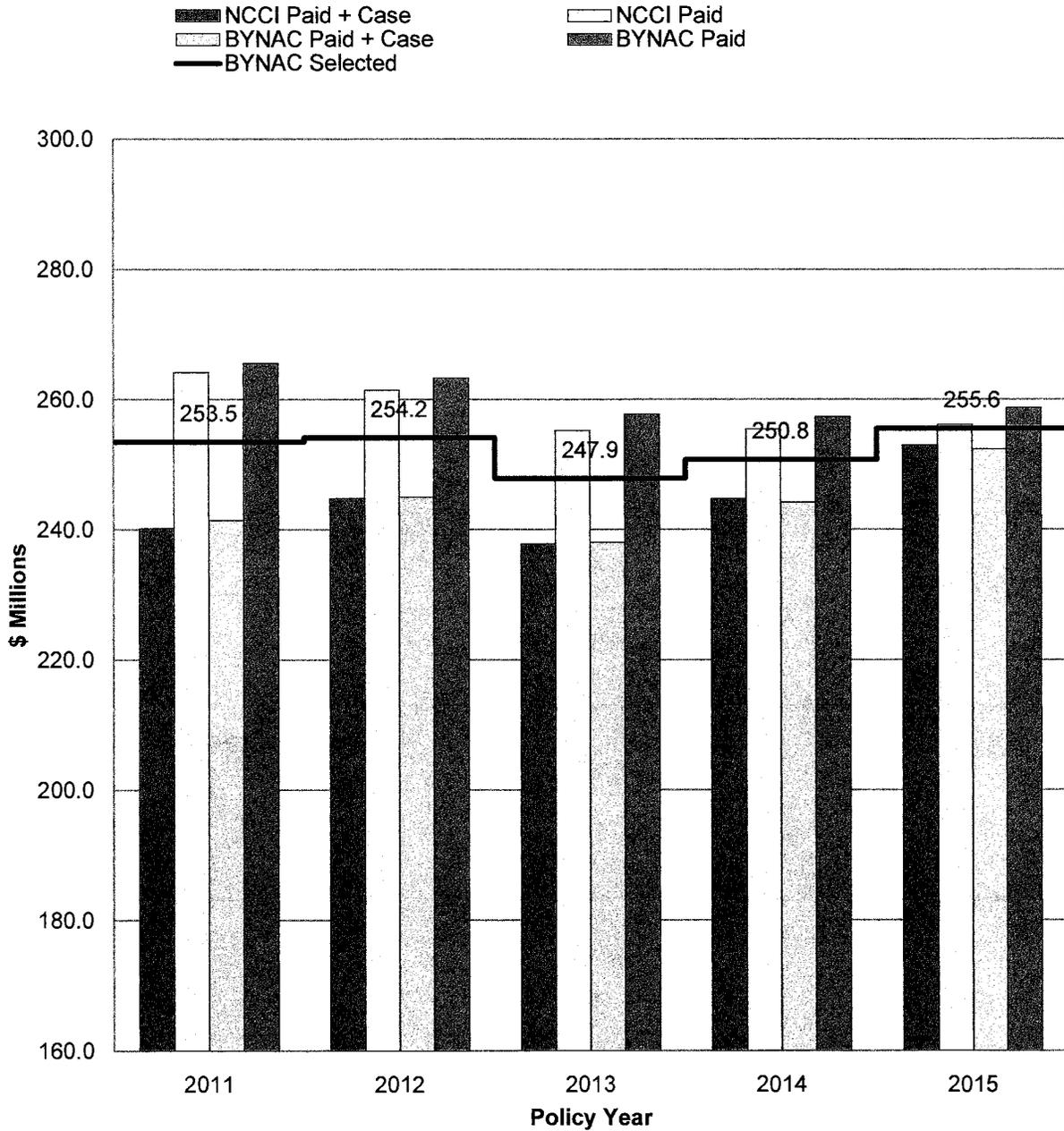


Table 7

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF INDICATED LOSS COST LEVEL CHANGE

Section A - Policy Year 2015 Experience

	<u>NCCI</u>	<u>BYNAC</u>
Premium:		
(1) Standard Earned Premium Developed to Ultimate (Table 6)	\$586,254,981	\$586,837,161
(2) Premium On-level Factor	0.656	0.656
(3) Premium Available for Benefit Costs = (1) x (2)	\$384,583,268	\$384,965,178
Indemnity Benefit Cost:		
(4) Limited Indemnity Losses Developed to Ultimate (Table 6)	\$114,024,390	\$114,980,994
(5) Indemnity Loss On-level Factor	1.010	1.010
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$115,164,634	\$116,130,804
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.299	0.302
(8) Factor to Reflect Indemnity Trend	0.834	0.848
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.249	0.256
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis	1.011	1.011
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.252	0.259
(12) Factor to Reflect Proposed Changes in Indemnity Benefits	1.003	1.003
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.253	0.260
Medical Benefit Cost:		
(14) Limited Medical Losses Developed to Ultimate (Table 6)	\$254,530,385	\$255,562,017
(15) Medical Loss On-level Factor	0.964	0.964
(16) Adjusted Limited Medical Losses = (14) x (15)	\$245,367,291	\$246,361,784
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.638	0.640
(18) Factor to Reflect Medical Trend	0.937	0.937
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.598	0.600
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis	1.011	1.011
(21) Projected Medical Cost Ratio = (19) x (20)	0.605	0.607
(22) Factor to Reflect Proposed Changes in Medical Benefits	1.006	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.609	0.611
Total Benefit Cost:		
(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.862	0.871

Table 7

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF INDICATED LOSS COST LEVEL CHANGE

Section B - Policy Year 2014 Experience	<u>NCCI</u>	<u>BYNAC</u>
Premium:		
(1) Standard Earned Premium Developed to Ultimate (Table 6)	\$598,951,623	\$598,951,623
(2) Premium On-level Factor	0.600	0.600
(3) Premium Available for Benefit Costs = (1) x (2)	\$359,370,974	\$359,370,974
Indemnity Benefit Cost:		
(4) Limited Indemnity Losses Developed to Ultimate (Table 6)	\$120,682,340	\$120,185,524
(5) Indemnity Loss On-level Factor	0.979	0.979
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$118,148,011	\$117,661,628
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.329	0.327
(8) Factor to Reflect Indemnity Trend	0.788	0.805
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.259	0.263
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis	1.011	1.011
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.262	0.266
(12) Factor to Reflect Proposed Changes in Indemnity Benefits	1.003	1.003
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.263	0.267
Medical Benefit Cost:		
(14) Limited Medical Losses Developed to Ultimate (Table 6)	\$250,121,306	\$250,791,618
(15) Medical Loss On-level Factor	0.966	0.966
(16) Adjusted Limited Medical Losses = (14) x (15)	\$241,617,182	\$242,264,703
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.672	0.674
(18) Factor to Reflect Medical Trend	0.918	0.918
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.617	0.619
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis	1.011	1.011
(21) Projected Medical Cost Ratio = (19) x (20)	0.624	0.626
(22) Factor to Reflect Proposed Changes in Medical Benefits	1.006	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.628	0.630
Total Benefit Cost:		
(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.891	0.897

Table 7

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF INDICATED LOSS COST LEVEL CHANGE

Section C - Policy Year 2013 Experience	<u>NCCI</u>	<u>BYNAC</u>
Premium:		
(1) Standard Earned Premium Developed to Ultimate (Table 6)	\$615,923,486	\$615,923,486
(2) Premium On-level Factor	0.540	0.540
(3) Premium Available for Benefit Costs = (1) x (2)	\$332,598,682	\$332,598,682
Indemnity Benefit Cost:		
(4) Limited Indemnity Losses Developed to Ultimate (Table 6)	\$137,719,500	\$137,299,286
(5) Indemnity Loss On-level Factor	0.862	0.862
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$118,714,209	\$118,351,985
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.357	0.356
(8) Factor to Reflect Indemnity Trend	0.744	0.765
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.266	0.272
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis	1.011	1.011
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.269	0.275
(12) Factor to Reflect Proposed Changes in Indemnity Benefits	1.003	1.003
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.270	0.276
Medical Benefit Cost:		
(14) Limited Medical Losses Developed to Ultimate (Table 6)	\$246,540,310	\$247,886,261
(15) Medical Loss On-level Factor	0.967	0.967
(16) Adjusted Limited Medical Losses = (14) x (15)	\$238,404,480	\$239,706,014
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.717	0.721
(18) Factor to Reflect Medical Trend	0.900	0.900
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.645	0.649
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis	1.011	1.011
(21) Projected Medical Cost Ratio = (19) x (20)	0.652	0.656
(22) Factor to Reflect Proposed Changes in Medical Benefits	1.006	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.656	0.660
Total Benefit Cost:		
(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.926	0.936

Table 7

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF INDICATED LOSS COST LEVEL CHANGE

Section D - Policy Year 2012 Experience	<u>NCCI</u>	<u>BYNAC</u>
Premium:		
(1) Standard Earned Premium Developed to Ultimate (Table 6)	\$617,654,154	\$617,654,154
(2) Premium On-level Factor	0.515	0.515
(3) Premium Available for Benefit Costs = (1) x (2)	\$318,091,889	\$318,091,889
Indemnity Benefit Cost:		
(4) Limited Indemnity Losses Developed to Ultimate (Table 6)	\$147,683,740	\$147,539,930
(5) Indemnity Loss On-level Factor	0.859	0.859
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$126,860,333	\$126,736,800
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.399	0.398
(8) Factor to Reflect Indemnity Trend	0.703	0.727
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.280	0.289
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis	1.011	1.011
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.283	0.292
(12) Factor to Reflect Proposed Changes in Indemnity Benefits	1.003	1.003
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.284	0.293
Medical Benefit Cost:		
(14) Limited Medical Losses Developed to Ultimate (Table 6)	\$253,146,569	\$254,166,115
(15) Medical Loss On-level Factor	0.954	0.954
(16) Adjusted Limited Medical Losses = (14) x (15)	\$241,501,827	\$242,474,474
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.759	0.762
(18) Factor to Reflect Medical Trend	0.882	0.882
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.670	0.672
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis	1.011	1.011
(21) Projected Medical Cost Ratio = (19) x (20)	0.677	0.679
(22) Factor to Reflect Proposed Changes in Medical Benefits	1.006	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.681	0.683
Total Benefit Cost:		
(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.965	0.976

Table 7

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF INDICATED LOSS COST LEVEL CHANGE

Section E - Policy Year 2011 Experience	<u>NCCI</u>	<u>BYNAC</u>
Premium:		
(1) Standard Earned Premium Developed to Ultimate (Table 6)	\$590,474,698	\$590,474,698
(2) Premium On-level Factor	0.531	0.531
(3) Premium Available for Benefit Costs = (1) x (2)	\$313,542,065	\$313,542,065
Indemnity Benefit Cost:		
(4) Limited Indemnity Losses Developed to Ultimate (Table 6)	\$153,807,470	\$153,589,280
(5) Indemnity Loss On-level Factor	0.862	0.862
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$132,582,039	\$132,393,959
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.423	0.422
(8) Factor to Reflect Indemnity Trend	0.665	0.691
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.281	0.292
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis	1.011	1.011
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.284	0.295
(12) Factor to Reflect Proposed Changes in Indemnity Benefits	1.003	1.003
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.285	0.296
Medical Benefit Cost:		
(14) Limited Medical Losses Developed to Ultimate (Table 6)	\$252,184,752	\$253,492,964
(15) Medical Loss On-level Factor	0.904	0.904
(16) Adjusted Limited Medical Losses = (14) x (15)	\$227,975,016	\$229,157,639
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.727	0.731
(18) Factor to Reflect Medical Trend	0.864	0.864
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.628	0.631
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis	1.011	1.011
(21) Projected Medical Cost Ratio = (19) x (20)	0.635	0.638
(22) Factor to Reflect Proposed Changes in Medical Benefits	1.006	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.639	0.642
Total Benefit Cost:		
(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.924	0.938

Table 8

**STATE OF TENNESSEE
WORKERS COMPENSATION**

DETERMINATION OF INDICATED LOSS COST LEVEL CHANGE

Indicated Change Based on Experience, Trend, and Benefits

<u>Policy Year</u>	<u>NCCI</u>	<u>BYNAC</u>
2011	0.924	0.938
2012	0.965	0.976
2013	0.926	0.936
2014	0.891	0.897
2015	0.862	0.871
NCCI Selected	0.877	
BYNAC Selected		0.920
 Application of the Premium Offset and Change in Loss-based Expenses		
Indicated Loss Cost Level Change	0.877	0.920
Effect of the Change In Loss-Based Expenses	0.997	0.999
Indicated Change Modified for Expense Change	0.874	0.919
Indicated Change as Percentage	-12.6%	-8.1%

Figure 7

**STATE OF TENNESSEE
WORKERS COMPENSATION**

PROJECTED COST RATIO INCLUDING BENEFIT CHANGES

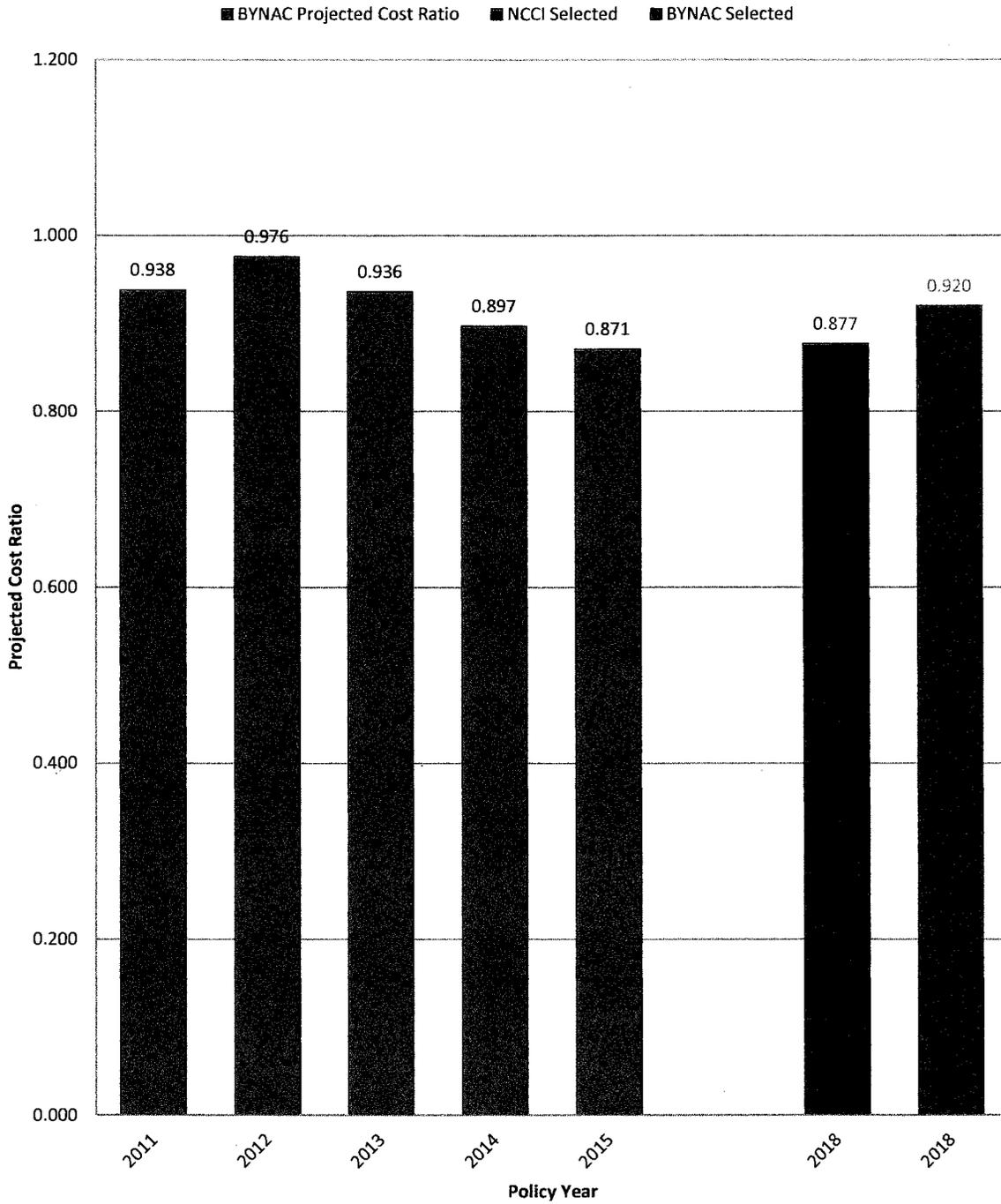


Table 9

**STATE OF TENNESSEE
WORKERS COMPENSATION**

Policy Year	TREND	
	Indemnity Loss Ratio	Medical Loss Ratio
2001	0.672	0.820
2002	0.610	0.818
2003	0.628	0.881
2004	0.587	0.903
2005	0.543	0.868
2006	0.576	0.880
2007	0.543	0.925
2008	0.498	0.832
2009	0.499	0.888
2010	0.488	0.839
2011	0.423	0.727
2012	0.399	0.759
2013	0.357	0.717
2014	0.329	0.672
2015	0.299	0.638
5 year Exponential	0.915	0.962
8 year Exponential	0.924	0.957
15 year Exponential	0.948	0.981
NCCI Prior Selected	0.950	0.985
NCCI Selected	0.945	0.980
BYNAC Selected	0.950	0.980

Filing	Relativity	Paid Losses/Paid DCCE		Developed DCCE Ratio	
		TN	CW	TN	CW
3/1/2012	1.027	0.113	0.110	0.125	0.122
3/1/2013	1.018	0.116	0.114	0.127	0.125
3/1/2014	1.000	0.117	0.117	0.127	0.127
3/1/2015	1.000	0.119	0.119	0.128	0.128
3/1/2016	0.975	0.118	0.121	0.127	0.130
3/1/2017	0.960	0.119	0.124	0.127	0.132
3/1/2018	0.929	0.118	0.127	0.124	0.133

Based on this information, BYNAC believes the 3/1/18 relativity factor may be understated and BYNAC would recommend no change to the current Tennessee DCCE ratio of 12.7%. A summary of the LAE selections is shown in Table 10.

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

BYNAC RECOMMENDATIONS

Appendix A

**STATE OF TENNESSEE
WORKERS COMPENSATION**

INDICATED LOSS COST LEVEL CHANGE

Indicated Change Based on Experience, Trend, and Benefits:

	Policy Year		NCCI	BYNAC
	2015	2014		
Projected Indemnity Cost Ratio including Benefit Changes	0.253	0.263		
Projected Medical Cost Ratio including Benefit Changes	0.609	0.628		
Total Benefit Cost	0.862	0.891		
Selected			0.877	0.920
Change in Loss Based Expenses:				
Current Tennessee LAE Allowance			20.1%	20.1%
Proposed Tennessee LAE Allowance			19.7%	20.0%
Selected			0.997	0.999
Overall			-12.6%	-8.1%

TENNESSEE ADVISORY COUNCIL ON WORKERS' COMPENSATION

APPENDIX B

CHANGES IN ESTIMATED ULTIMATE INCURRED LOSSES

Appendix B

**STATE OF TENNESSEE
WORKERS COMPENSATION**

CHANGE IN ESTIMATED ULTIMATE INCURRED LOSSES

A. NCCI Estimates

Policy Year	3/16 Filing to 3/17 Filing		3/17 Filing to 3/18 Filing		3/16 Filing to 3/18 Filing	
	Indemnity	Medical	Indemnity	Medical	Indemnity	Medical
2010	-0.5%	-2.1%			-0.5%	-2.1%
2011	0.9%	-1.7%	-0.7%	-5.3%	0.2%	-7.0%
2012	-0.3%	-2.0%	-1.6%	-5.6%	-2.0%	-7.4%
2013	-6.0%	-6.9%	-1.0%	-4.3%	-7.0%	-11.0%
2014			-9.4%	-6.5%	-9.4%	-6.5%

B. BYNAC Estimates

Policy Year	3/16 Filing to 3/17 Filing		3/17 Filing to 3/18 Filing		3/16 Filing to 3/18 Filing	
	Indemnity	Medical	Indemnity	Medical	Indemnity	Medical
2010	-0.3%	-2.0%			-0.3%	-2.0%
2011	0.9%	-1.8%	-0.5%	-3.3%	0.4%	-5.0%
2012	0.0%	-2.1%	-1.4%	-3.7%	-1.5%	-5.8%
2013	-4.4%	-8.8%	-1.6%	-3.2%	-5.9%	-11.7%
2014			-11.4%	-7.1%	-11.4%	-7.1%

Exhibit 4E

**Tennessee Department of Commerce &
Insurance**

**Review of NCCI Loss Cost Filing
Effective March 1, 2018**

Prepared by:

Christopher J. Burkhalter, FCAS, MAAA
Windrie Wong, FCAS, MAAA
Bickerstaff, Whatley, Ryan & Burkhalter, Inc.
P.O. Box 1546
Madison, MS 39130-1546
(601) 668-7611

October 9, 2017

**BICKERSTAFF, WHATLEY,
RYAN & BURKHALTER
CONSULTING ACTUARIES**

DAVID R. BICKERSTAFF
F.C.A.S., M.A.A.A.

October 9, 2017

PATRICK L. WHATLEY
F.C.A.S., M.A.A.A.

KEVIN M. RYAN
F.C.A.S., M.A.A.A.

Mr. Mike Shinnick
Manager, Workers' Compensation
Tennessee Department of Commerce & Insurance
500 James Robertson Parkway
Nashville, TN 37243-0565

CHRISTOPHER J. BURKHALTER
F.C.A.S., M.A.A.A.

Re: NCCI Loss Cost Filing Effective 3/1/2018

RICHARD J. ROTH, JR.
F.C.A.S.

Dear Mr. Shinnick:

WINDRIE WONG
F.C.A.S., M.A.A.A.

NCCI has submitted a Workers' Compensation loss cost filing to the Department of Commerce & Insurance with a proposed effective date of March 1, 2018. The recommended change to the overall loss cost level is -12.6%, which includes a change of -12.3% due to change in experience, trend & benefits, and a change of -0.3% due to a change in estimated loss adjustment expenses.

MATTHEW J. STEPHENSON
A.C.A.S., M.A.A.A.

We are of the opinion that the actuarial methodology & assumptions employed by NCCI in the calculation of these requested changes are sound and appropriate and are in material compliance with all applicable Actuarial Standards of Practice.

P. O. Box 4132
PALM DESERT
CALIFORNIA 92261-4132
(760) 360-3833

We were asked by the Department to provide the Advisory Council with our own best estimate of the indicated loss cost change. While certain factors in our analysis produced modest differences in the indication, the differences were largely offsetting, resulting in an overall indicated change that was materially in agreement with those of NCCI.

1701 N. COLLINS, SUITE 226A
RICHARDSON
TEXAS 75080
(972) 644-8172
FAX (972) 644-8768

Our analysis produced an indicated overall loss cost change of -8.7%. This is our recommended loss cost change to you and to the Advisory Council.

1050 AIRPORT ROAD
UNIT 1372
WEST CHESTER
PENNSYLVANIA 19380
(610) 644-1937
FAX (610) 644-1596

Please let me know if I can be of further assistance. Thank you for the opportunity to serve the State of Tennessee.

Sincerely,



Christopher J. Burkhalter, FCAS, MAAA
President & Principal

P.O. Box 1546
MADISON
MISSISSIPPI 39130-1546
(601) 668-7611

Enclosure

bwr1402

TABLE OF CONTENTS

PURPOSE	4
DISTRIBUTION AND USE	5
DATA RELIANCE	6
REVIEW OF OVERALL STATEWIDE INDICATION.....	7
Overall Ratemaking Methodology	7
Reasonableness & Consistency of Data.....	8
Loss Development Factor Selection.....	8
Loss Ratio Trend Selection	10
Loss Adjustment Expense Provision Selection	11
Experience Period and Variability of Projections	12
CALCULATION OF INDICATED RATE CHANGE	14

PURPOSE

The Tennessee Department of Commerce & Insurance (“TN DOCI”) has engaged Bickerstaff, Whatley, Ryan & Burkhalter, Inc. (“BWR&B”) to perform a review of the Workers’ Compensation loss cost filing submitted by the National Council on Compensation Insurance, Inc. (“NCCI”) for loss costs effective March 1, 2018.

This report outlines the findings of BWR&B concerning the actuarial aspects of the NCCI filing. While this report does not contain a fully independent actuarial analysis of Tennessee loss costs, it does include an analysis of these loss costs that is based on the methodology of NCCI and contains alternate assumptions made by BWR&B where deemed appropriate.

DISTRIBUTION AND USE

This report, along with the conclusions and opinions contained therein, is being provided to the Tennessee Department of Commerce & Insurance, NCCI, and the Tennessee Advisory Council on Workers' Compensation.

It is our understanding that copies of this report will be made available to various interested third parties. Such distribution is permitted, subject to the condition that the report is distributed in its entirety; portions or excerpts of this report should not be distributed separately from the entire report. The intended recipients of this report and third parties are cautioned that this analysis constitutes a statement of professional judgment; it is in no way intended to replace the informed judgment and due diligence of its users. Bickerstaff, Whatley, Ryan & Burkhalter, Inc. (BWR&B) cannot warrant or guarantee the results, conclusions, or opinions produced by this report.

DATA RELIANCE

In producing this report Bickerstaff, Whatley, Ryan & Burkhalter, Inc. (BWR&B) has relied on documents and data provided by the Tennessee Department of Commerce & Insurance (“TN DOCI”) and the National Council on Compensation Insurance, Inc. (“NCCI”). The data sets provided were not independently audited or verified. They were, however, reviewed for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The information received included loss cost filings and technical supplements submitted by NCCI to TN DOCI over the last several years, as well as presentations and materials prepared for prior hearings of the Tennessee Advisory Council on Workers’ Compensation.

All professional opinions and conclusions in this report depend on the validity and accuracy of the underlying data. While care was taken to assure the consistency and reasonableness of the data, any errors or inaccuracies in the data set could invalidate any or all of the conclusions drawn from this analysis. Should such errors or inaccuracies be discovered, BWR&B should be contacted to evaluate the need for revision of this analysis.

REVIEW OF OVERALL STATEWIDE INDICATION

In performing our review of the NCCI loss cost filing, we concentrated on the following areas:

- overall ratemaking methodology;
- reasonableness & consistency of data;
- loss development factor selection;
- loss ratio trend selection;
- loss adjustment expense provision selection; and,
- experience period and variability of projections.

Additionally, we reviewed the allocation procedure of the proposed loss cost change to occupational classification. The details of our review will be described below.

Overall Ratemaking Methodology

The methodology employed by NCCI is industry standard, having been used in one form or another for many decades. At its core, it involves the comparison of standard earned premium, stripped of any underwriting expenses, investment income, or other financial considerations, with actual ultimate loss and loss adjustment expense (“LAE”). All of these elements are actuarially adjusted to account for intervening loss cost changes, statutory benefit changes, and emerging trends. The overall methodology employed in this analysis, if used with actuarial adjustments, is in our opinion

appropriate and conforms to the Actuarial Standards of Practice. The actuarial assumptions used will be discussed below.

Reasonableness & Consistency of Data

While an audit of the underlying data is beyond the scope of our review, the data sets used in the current loss cost filing were reviewed for reasonableness and consistency with data used in prior filings. All material elements of data used in the loss cost filing were found to be generally reasonable. After comparison with prior filings, the differences were found to be immaterial or explainable by appropriate intervening actuarial adjustments. NCCI documents which companies' data sets are excluded from the analysis, providing an estimate of market share of excluded companies, which was found to be immaterial to the conclusions and calculations.

Loss Development Factor Selection

The paid and reported losses that are used to calculate loss ratios for the experience period are from relatively recent years. As such, these losses will develop over time until they reach their ultimate level. To bring these losses to their estimated ultimate value for use in the loss ratio calculations, loss development factors ("LDF's") are applied to these losses. These LDF's are chosen after a review of historical loss development in the target data.

Prior to the filing of loss costs effective March 1, 2016, NCCI used only the history of paid plus case incurred losses to bring losses to their ultimate level (i.e. the "incurred development method").

NCCI now also analyzes the history of paid losses and uses the straight average of these two methods as the total estimated ultimate losses for a given policy year.

For the paid loss development method, NCCI's selection of LDF's are based on a straight two-year average of historical development for each loss development interval; and for incurred loss development, NCCI's selection of LDF's are a straight five-year average of historical development. NCCI made one exception in the medical incurred development from 1st to 2nd report by removing the highest and lowest development factors, and averaging the remaining three-of-five. This is a common and reasonable practice when high volatility is present and a straight five-year average might be biased toward either the extreme low or extreme high.

Based on our review of the historical development factors and the NCCI selections, we are of the opinion that these selections are generally reasonable and appropriate for the analysis contained in the current filing. We do note that certain medical LDFs in the incurred development method appear to have registered significantly lower development during the last twelve months than during the previous three years (these intervals include development through the 8th report).

Previously, a general upward trend to the development factors over the last eight years was evident in several of the development intervals. In response to this trend, a three-year average of LDF's was used to project loss development. The most recent loss development shows a reversion to longer-term averages. Taking in these considerations, it was deemed appropriate to use development factors reflecting an average of a five-year period to reflect a longer-term average. Additionally, because the incurred medical development in the 1-2 year interval appears to be unusually low, the selected LDF for this interval was chosen as the five-year average excluding the high and low values in this

interval; this treatment mirrors that of NCCI. Using these assumptions instead of the three-year average that was previously used (in isolation from any other actuarial assumption departures) results in an indicated rate change impact of less than 0.1%.

“Tail factors” are loss development factors designed to reflect development on the oldest of claims, in the case of this filing, those claims 19 years and older. NCCI uses paid tail factors of 1.008 for indemnity losses and 1.154 for medical losses and incurred tail factors of 1.002 for indemnity losses and 1.026 for medical losses. These factors reflect little or no change from those filed in the previous year (1.009 paid indemnity, 1.160 paid medical, 1.003 incurred indemnity, and 1.035 incurred medical). After review of the historical factors, we concur with the NCCI selections and have used them without modification.

Loss Ratio Trend Selection

Loss ratios are adjusted to reflect emerging trends in indemnity and medical benefits. The selected annual loss ratio trends used in recent filings were:

Filing	Indemnity	Medical
<u>Eff. Date</u>	<u>Trend</u>	<u>Trend</u>
3/1/2012	-3.0%	+1.0%
3/1/2013	-3.0%	+0.5%
3/1/2014	-3.0%	0.0%
3/1/2015	-3.5%	0.0%
3/1/2016	-4.0%	-0.5%

3/1/2017	-5.0%	-1.5%
3/1/2018	-5.5%	-2.0%

The current selections are very close to the exponential least-squares best-fit trend for the 15-year period. Analysis of shorter periods results in more negative annual trends.

Trend	Indemnity	Medical
<u>Period</u>	<u>Best Fit</u>	<u>Best Fit</u>
15 Years	-5.1%	-1.8%
10 Years	-6.2%	-3.3%
7 Years	-7.6%	-4.3%
5 Years	-9.0%	-4.6%

This effect illustrates that the negative cost trends experienced in the Tennessee Workers' Compensation market appear to be accelerating in recent years, and that the use of a 15-year trend period might include implicit conservatism. However, the shorter trend periods also result in diminished correlation to the data. Therefore, we believe that use of a 15-year trend period is appropriate in maintaining stability of the projections.

Loss Adjustment Expense Provision Selection

Loss adjustment expenses ("LAE") are loaded into the indicated loss costs as a percentage of underlying losses. NCCI uses a countrywide analysis of LAE, both defense & cost containment expense ("DCCE") and adjusting & other expense ("AOE"). It selects AOE ratios based on the

countrywide experience, while the DCCE provision is selected using Tennessee-specific experience, as well.

The LAE-to-loss ratios used in the NCCI analysis are stated to be fully developed. However, if recent loss cost filings are compared, it can be shown that these “developed” ratios have tended to exhibit further downward development over recent years. This can be seen in Exhibit 5. NCCI has provided explanation for this effect, as well as assurances that the current estimates are sound. In the past, we have applied development factors to these ratios to adjust them to what we project to be their ultimate levels. We have observed, however, that there has been no additional downward development in the last twenty-four months for the most recent five policy years. Because this reversal is uniform across all of the most recent policy periods, and because our adjustment using past development statistics would result in an immaterial impact to the overall rate indication, we have used the NCCI selection without modification for the current analysis. Should the downward development resume in the next twelve months, further analysis would be warranted.

Experience Period and Variability of Projections

NCCI methodology implicitly assumes full credibility of the two-policy-year experience period used to project loss costs in the prospective year. While the volume of data certainly supports this judgment, the variability of subsequent policy years belies an environment with high uncertainty and difficulty of predictability going forward. Actuaries routinely balance stability and responsiveness of the data used to make projections. To assess the stability of the data underlying the calculations, five policy years of experience were analyzed and considered in the selection of the indicated changes.

The selection of an appropriate experience period necessarily falls within the realm of actuarial judgment. After reviewing the indicated changes produced by the last five policy years' experience, it was our opinion that a reasonable statistic on which to base our recommendation was the weighted average of the last five policy years, giving most weight to the most recent year (30%) and decreasing the contribution of each older year (25%, 20%, 15%, and 10%). We believe that this adequately reflects the recent improving experience in the state, while not fully relying on the most recent experience, which is most subject to unexpected loss development and changing trends.

CALCULATION OF INDICATED RATE CHANGE

BWR&B calculated our best estimate of the indicated rate change using our best estimates of the actuarial parameters. The methodology used is the same as that used by NCCI, and the use of these alternate assumptions do *not* imply that we consider those used by NCCI as inappropriate or in violation of Actuarial Standards of Practice.

The actuarial assumptions underlying our calculation of the indicated rate change include the following:

- Because of the moderating emergent loss development experience in the last twelve months, indemnity and medical paid and incurred loss development factors were based on a five-year average, with the exception of the 1-2 incurred medical factor, which was based on a five-year average excluding the high and low values.
- The tail factors used by NCCI were deemed appropriate and used in our calculations without modification.
- Our selected indemnity loss ratio trend factor differed slightly from those used by NCCI and were based on a long-term, 15-year fit. The medical loss ratio trend factor of 0.980 selected by NCCI nearly matched the long-term trend and was deemed appropriate.
- The LAE provision of 19.7% of loss used by NCCI was deemed appropriate and used in our calculations without modification.
- Five policy years of experience were considered in the Indicated Change calculation.

Based on the use of these assumptions, we calculate the indicated rate change to be as follows.

NCCI Indicated Rate Change: -12.6%

BWR&B Indicated Rate Change: -8.7%

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2018
 Determination of Indicated Loss Cost Level Change

Exhibit 1

Indicated Change Based on Experience, Trend and Benefits

(1) Policy Year 2015 Indicated Change Based on Experience, Trend, and Benefits	0.882
(2) Policy Year 2014 Indicated Change Based on Experience, Trend, and Benefits	0.901
(3) Policy Year 2013 Indicated Change Based on Experience, Trend, and Benefits	0.935
(4) Policy Year 2012 Indicated Change Based on Experience, Trend, and Benefits	0.975
(5) Policy Year 2011 Indicated Change Based on Experience, Trend, and Benefits	0.933
<u>Indicated Change Based on Experience, Trend and Benefits</u>	
(6) 2-Year Average	0.892
(7) 3-Year Average	0.906
(8) 4-Year Average	0.923
(9) 5-Year Average	0.925
(10) SELECTED	0.916

Application of the Change in Loss Adjustment Expenses

(11) Indicated Loss Cost Level Change	0.916
(12) Effect of the Change in Loss Adjustment Expenses (Exhibit II)	0.997
(13) Indicated Change Modified to Reflect the Change in Loss Adjustment Expenses	0.913
(14) Indicated Rate Change	-8.7%

Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2018
Determination of Indicated Loss Cost Level Change

Exhibit 2

Page 1

Policy Year 2015 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Exhibit 3)	\$ 586,254,981
(2) Premium On-level Factor (provided by NCCI)	0.656
(3) Premium Available for Benefit Costs = (1) x (2)	\$ 384,583,268

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Exhibit 3)	\$ 118,339,079
(5) Indemnity Loss On-level Factor (provided by NCCI)	1.010
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$ 119,522,470
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.311
(8) Factor to Reflect Indemnity Trend (Exhibit 4)	0.848
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.264
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.011
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.267
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (NCCI Appendix C)	1.003
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.268

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Exhibit 3)	\$ 256,887,903
(15) Medical Loss On-level Factor (provided by NCCI)	0.964
(16) Adjusted Limited Medical Losses = (14) x (15)	\$ 247,639,939
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.644
(18) Factor to Reflect Medical Trend (Exhibit 4)	0.937
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.603
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.011
(21) Projected Medical Cost Ratio = (19) x (20)	0.610
(22) Factor to Reflect Proposed Changes in Medical Benefits (NCCI Appendix C)	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.614

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.882
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Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2018
Determination of Indicated Loss Cost Level Change

Exhibit 2

Page 2

Policy Year 2014 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Exhibit 3)	\$ 598,951,623
(2) Premium On-level Factor (provided by NCCI)	0.600
(3) Premium Available for Benefit Costs = (1) x (2)	\$ 359,370,974

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Exhibit 3)	\$ 121,185,021
(5) Indemnity Loss On-level Factor (provided by NCCI)	0.979
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$ 118,640,136
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.330
(8) Factor to Reflect Indemnity Trend (Exhibit 4)	0.805
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.266
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.011
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.269
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (NCCI Appendix C)	1.003
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.270

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Exhibit 3)	\$ 251,177,125
(15) Medical Loss On-level Factor (provided by NCCI)	0.966
(16) Adjusted Limited Medical Losses = (14) x (15)	\$ 242,637,103
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.675
(18) Factor to Reflect Medical Trend (Exhibit 4)	0.918
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.620
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.011
(21) Projected Medical Cost Ratio = (19) x (20)	0.627
(22) Factor to Reflect Proposed Changes in Medical Benefits (NCCI Appendix C)	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.631

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.901
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Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2018
Determination of Indicated Loss Cost Level Change

Exhibit 2

Page 3

Policy Year 2013 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Exhibit 3)	\$ 615,923,486
(2) Premium On-level Factor (provided by NCCI)	0.540
(3) Premium Available for Benefit Costs = (1) x (2)	\$ 332,598,682

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Exhibit 3)	\$ 137,485,891
(5) Indemnity Loss On-level Factor (provided by NCCI)	0.862
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$ 118,512,838
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.356
(8) Factor to Reflect Indemnity Trend (Exhibit 4)	0.765
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.272
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.011
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.275
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (NCCI Appendix C)	1.003
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.276

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Exhibit 3)	\$ 247,604,237
(15) Medical Loss On-level Factor (provided by NCCI)	0.967
(16) Adjusted Limited Medical Losses = (14) x (15)	\$ 239,433,297
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.720
(18) Factor to Reflect Medical Trend (Exhibit 4)	0.900
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.648
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.011
(21) Projected Medical Cost Ratio = (19) x (20)	0.655
(22) Factor to Reflect Proposed Changes in Medical Benefits (NCCI Appendix C)	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.659

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.935
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Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2018
Determination of Indicated Loss Cost Level Change

Exhibit 2
Page 4

Policy Year 2012 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Exhibit 3)	\$ 617,654,154
(2) Premium On-level Factor (provided by NCCI)	0.515
(3) Premium Available for Benefit Costs = (1) x (2)	\$ 318,091,889

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Exhibit 3)	\$ 147,546,225
(5) Indemnity Loss On-level Factor (provided by NCCI)	0.859
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$ 126,742,207
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.398
(8) Factor to Reflect Indemnity Trend (Exhibit 4)	0.727
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.289
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.011
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.292
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (NCCI Appendix C)	1.003
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.293

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Exhibit 3)	\$ 253,630,637
(15) Medical Loss On-level Factor (provided by NCCI)	0.954
(16) Adjusted Limited Medical Losses = (14) x (15)	\$ 241,963,627
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.761
(18) Factor to Reflect Medical Trend (Exhibit 4)	0.882
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.671
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.011
(21) Projected Medical Cost Ratio = (19) x (20)	0.678
(22) Factor to Reflect Proposed Changes in Medical Benefits (NCCI Appendix C)	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.682

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.975
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Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2018
Determination of Indicated Loss Cost Level Change

Exhibit 2
Page 5

Policy Year 2011 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Exhibit 3)	\$ 590,474,698
(2) Premium On-level Factor (provided by NCCI)	0.531
(3) Premium Available for Benefit Costs = (1) x (2)	\$ 313,542,065

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Exhibit 3)	\$ 153,375,588
(5) Indemnity Loss On-level Factor (provided by NCCI)	0.862
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$ 132,209,757
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.422
(8) Factor to Reflect Indemnity Trend (Exhibit 4)	0.691
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.292
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.011
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.295
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (NCCI Appendix C)	1.003
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.296

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Exhibit 3)	\$ 251,560,135
(15) Medical Loss On-level Factor (provided by NCCI)	0.904
(16) Adjusted Limited Medical Losses = (14) x (15)	\$ 227,410,362
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.725
(18) Factor to Reflect Medical Trend (Exhibit 4)	0.864
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.626
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.011
(21) Projected Medical Cost Ratio = (19) x (20)	0.633
(22) Factor to Reflect Proposed Changes in Medical Benefits (NCCI Appendix C)	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.637

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.933
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Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2018
Determination of Premium and Losses Developed to an Ultimate Report

Exhibit 3

Page 1

Section A - Premium and Loss Summary Valued as of 12/31/2016

Policy Year 2015

(1) Standard Earned Premium	\$ 582,179,723
(2) Factor to Develop Premium to Ultimate	1.007
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$ 586,254,981
(4) Limited Indemnity Paid Losses	\$ 47,853,229
(5) Limited Indemnity Paid Development Factor to Ultimate	2.540
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$ 121,547,202
(7) Limited Indemnity Paid+Case Losses	\$ 90,440,657
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.273
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$ 115,130,956
(10) Policy Year 2015 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$ 118,339,079
(11) Limited Medical Paid Losses	\$ 119,622,226
(12) Limited Medical Paid Development Factor to Ultimate	2.182
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$ 261,015,697
(14) Limited Medical Paid+Case Losses	\$ 189,475,344
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.334
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$ 252,760,109
(17) Policy Year 2015 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$ 256,887,903

Policy Year 2014

(1) Standard Earned Premium	\$ 598,951,623
(2) Factor to Develop Premium to Ultimate	1.000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$ 598,951,623
(4) Limited Indemnity Paid Losses	\$ 81,304,589
(5) Limited Indemnity Paid Development Factor to Ultimate	1.503
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$ 122,200,797
(7) Limited Indemnity Paid+Case Losses	\$ 107,102,714
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.122
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$ 120,169,245
(10) Policy Year 2014 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$ 121,185,021
(11) Limited Medical Paid Losses	\$ 146,146,568
(12) Limited Medical Paid Development Factor to Ultimate	1.765
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$ 257,948,693
(14) Limited Medical Paid+Case Losses	\$ 186,426,817
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.311
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$ 244,405,557
(17) Policy Year 2014 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$ 251,177,125

Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2018
Determination of Premium and Losses Developed to an Ultimate Report

Exhibit 3

Page 2

Section A - Premium and Loss Summary Valued as of 12/31/2016

Policy Year 2013

(1) Standard Earned Premium	\$ 615,923,486
(2) Factor to Develop Premium to Ultimate	1.000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$ 615,923,486
(4) Limited Indemnity Paid Losses	\$ 112,244,225
(5) Limited Indemnity Paid Development Factor to Ultimate	1.221
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$ 137,050,199
(7) Limited Indemnity Paid+Case Losses	\$ 130,483,996
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.057
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$ 137,921,584
(10) Policy Year 2013 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$ 137,485,891
(11) Limited Medical Paid Losses	\$ 156,492,901
(12) Limited Medical Paid Development Factor to Ultimate	1.647
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$ 257,743,808
(14) Limited Medical Paid+Case Losses	\$ 188,016,362
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.263
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$ 237,464,665
(17) Policy Year 2013 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$ 247,604,237

Policy Year 2012

(1) Standard Earned Premium	\$ 617,654,154
(2) Factor to Develop Premium to Ultimate	1.000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$ 617,654,154
(4) Limited Indemnity Paid Losses	\$ 131,221,547
(5) Limited Indemnity Paid Development Factor to Ultimate	1.120
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$ 146,968,133
(7) Limited Indemnity Paid+Case Losses	\$ 143,810,016
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.030
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$ 148,124,316
(10) Policy Year 2012 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$ 147,546,225
(11) Limited Medical Paid Losses	\$ 167,068,257
(12) Limited Medical Paid Development Factor to Ultimate	1.572
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$ 262,631,300
(14) Limited Medical Paid+Case Losses	\$ 201,341,542
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.215
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$ 244,629,974
(17) Policy Year 2012 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$ 253,630,637

Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2018
Determination of Premium and Losses Developed to an Ultimate Report

Exhibit 3

Page 3

Section A - Premium and Loss Summary Valued as of 12/31/2016

Policy Year 2011

(1) Standard Earned Premium	\$ 590,474,698
(2) Factor to Develop Premium to Ultimate	1.000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$ 590,474,698
(4) Limited Indemnity Paid Losses	\$ 142,461,195
(5) Limited Indemnity Paid Development Factor to Ultimate	1.072
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$ 152,718,401
(7) Limited Indemnity Paid+Case Losses	\$ 151,457,989
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.017
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$ 154,032,775
(10) Policy Year 2011 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$ 153,375,588
(11) Limited Medical Paid Losses	\$ 174,248,907
(12) Limited Medical Paid Development Factor to Ultimate	1.510
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$ 263,115,850
(14) Limited Medical Paid+Case Losses	\$ 203,738,897
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.178
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$ 240,004,421
(17) Policy Year 2011 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$ 251,560,135

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2018
 Paid Loss Development Factors - Indemnity

Policy Year	Historical Development Factors																		
	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-Ult
1987																			
1988																			
1989																			
1990																			
1991																			1.000
1992																	1.001	1.001	
1993																1.001	1.000	1.000	
1994															1.002	1.000	1.000	1.000	
1995														1.000	1.001	1.001	1.001	1.001	1.001
1996													1.001	1.001	1.001	1.001	1.001	1.001	1.001
1997												1.001	1.001	1.002	1.001	1.001	1.001	1.001	1.001
1998											1.001	1.001	1.001	1.000	1.001	1.000	1.000	1.000	
1999										1.002	1.001	1.001	1.002	1.001	1.001	1.000			
2000									1.002	0.998	0.999	1.001	1.000	1.001	1.001				
2001								1.003	1.003	1.001	1.001	1.000	1.001	1.001	1.001				
2002							1.007	1.005	1.001	1.002	1.000	1.003	0.999						
2003						1.008	1.008	1.006	1.003	1.001	1.001	1.001							
2004					1.032	1.015	1.006	1.012	1.005	1.003	1.004								
2005				1.037	1.014	1.016	1.011	1.008	1.004	1.002									
2006			1.091	1.046	1.019	1.014	1.008	1.004	1.003										
2007		1.234	1.100	1.041	1.018	1.014	1.011	1.003											
2008	1.744	1.208	1.096	1.051	1.026	1.013	1.009												
2009	1.734	1.242	1.093	1.048	1.025	1.016													
2010	1.804	1.262	1.081	1.038	1.019														
2011	1.738	1.219	1.104	1.043															
2012	1.742	1.215	1.080																
2013	1.636	1.216																	
2014	1.527																		

3 Year Avg	1.635	1.217	1.088	1.043	1.023	1.014	1.009	1.005	1.004	1.002	1.002	1.002	1.000	1.001	1.001	1.000	1.001	1.001	1.008	
<i>Cumulative</i>	2.429	1.486	1.221	1.122	1.076	1.051	1.036	1.027	1.022	1.018	1.016	1.014	1.012	1.012	1.011	1.010	1.010	1.010	1.009	1.008
5 Year Avg	1.689	1.231	1.091	1.044	1.021	1.015	1.009	1.006	1.003	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.008
<i>Cumulative</i>	2.540	1.503	1.221	1.120	1.072	1.050	1.035	1.026	1.020	1.017	1.015	1.015	1.013	1.012	1.011	1.010	1.009	1.009	1.009	1.008
6 Year Avg	1.704	1.228	1.092	1.043	1.022	1.014	1.009	1.006	1.003	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.008
<i>Cumulative</i>	2.553	1.499	1.221	1.118	1.071	1.048	1.034	1.025	1.019	1.016	1.015	1.014	1.013	1.012	1.011	1.010	1.009	1.009	1.009	1.008
Selected	1.689	1.231	1.091	1.044	1.021	1.015	1.009	1.006	1.003	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.008
<i>Cumulative</i>	2.540	1.503	1.221	1.120	1.072	1.050	1.035	1.026	1.020	1.017	1.015	1.015	1.013	1.012	1.011	1.010	1.009	1.009	1.009	1.008

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2018
 Incurred Loss Development Factors - Indemnity

Policy Year	Historical Development Factors																			
	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-Ult	
1987																				1.000
1988																		1.000	1.000	
1989																1.000	1.000	0.997		
1990															1.000	1.000	1.000	1.000		
1991														1.001	1.001	1.000	1.002	1.000		
1992													1.001	0.999	0.999	1.000	1.000	1.002	0.999	
1993												1.001	0.999	0.999	1.000	1.000	1.000	1.000		
1994											1.001	1.001	1.000	1.000	0.999	1.000	1.000	1.000		
1995										1.000	1.002	1.001	1.002	0.998	0.999	1.002	1.001	1.003		
1996									0.996	0.999	1.000	0.999	1.000	1.000	1.000	0.997	1.000	0.999		
1997								1.003	0.997	0.999	1.000	1.000	0.999	1.001	1.001	1.001	1.003	0.999	1.001	
1998							1.001	0.997	0.999	1.002	1.000	1.001	1.001	1.001	0.999	0.998	0.997	1.000		
1999						0.992	1.001	0.999	1.001	0.998	1.001	1.001	1.001	1.001	1.000	1.000	1.002			
2000					1.005	1.004	0.999	1.000	0.998	0.999	0.997	0.999	1.001	1.002	0.999					
2001				1.012	1.002	0.996	1.000	1.003	1.000	0.999	0.999	1.001	1.000	1.000						
2002			1.007	1.010	1.001	0.999	1.001	1.002	0.999	0.999	1.000	0.999	0.999	1.000						
2003		1.050	1.019	1.009	1.003	1.000	1.003	1.002	0.999	1.000	1.001	1.000								
2004	1.172	1.065	1.022	1.005	1.004	1.000	1.002	1.009	1.002	1.000	1.002									
2005	1.180	1.061	1.024	1.008	0.999	1.005	1.005	1.005	1.001	1.001										
2006	1.187	1.069	1.016	1.017	1.003	1.006	1.001	1.000	1.001											
2007	1.171	1.057	1.020	1.018	0.999	1.009	1.004	0.996												
2008	1.124	1.047	1.036	1.014	1.003	1.005	1.002													
2009	1.164	1.058	1.027	1.013	1.010	1.006														
2010	1.202	1.083	1.025	1.012	1.004															
2011	1.158	1.049	1.025	1.006																
2012	1.152	1.068	1.015																	
2013	1.102	1.052																		
2014	1.061																			

3 Year Avg	1.105	1.056	1.022	1.010	1.006	1.007	1.002	1.000	1.001	1.000	1.001	1.000	1.000	1.001	0.999	1.001	1.000	1.001	1.002
<i>Cumulative</i>	1.230	1.113	1.054	1.031	1.021	1.015	1.008	1.006	1.006	1.004	1.004	1.003	1.003	1.003	1.002	1.003	1.003	1.003	1.003
5 Year Avg	1.135	1.062	1.026	1.013	1.004	1.006	1.002	1.002	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001
<i>Cumulative</i>	1.273	1.122	1.057	1.030	1.017	1.013	1.007	1.005	1.003	1.003	1.003	1.004	1.004	1.003	1.003	1.003	1.003	1.003	1.003
10 Year Avg	1.152	1.060	1.021	1.011	1.003	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
<i>Cumulative</i>	1.274	1.106	1.044	1.022	1.010	1.007	1.005	1.004	1.002	1.003	1.003	1.003	1.002	1.002	1.002	1.002	1.002	1.002	1.002
Selected	1.135	1.062	1.026	1.013	1.004	1.006	1.002	1.002	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001
<i>Cumulative</i>	1.273	1.122	1.057	1.030	1.017	1.013	1.007	1.005	1.003	1.003	1.003	1.004	1.004	1.003	1.003	1.003	1.003	1.003	1.003

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2018
 Paid Loss Development Factors - Medical

Policy Year	Historical Development Factors																		
	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-Ult
1987																			
1988																			
1989																			
1990																			
1991																			1.005
1992																	1.008	1.008	
1993																1.012	1.006	1.004	
1994															1.013	1.006	1.007	1.008	
1995														1.011	1.010	1.009	1.011	1.012	
1996													1.010	1.008	1.008	1.008	1.007	1.018	
1997												1.017	1.014	1.017	1.015	1.015	1.015	1.010	1.009
1998											1.015	1.011	1.017	1.013	1.012	1.013	1.010		
1999										1.027	1.016	1.013	1.012	1.012	1.009	1.011			
2000									1.018	1.017	1.017	1.018	1.020	1.011	1.008				
2001								1.014	1.014	1.012	1.014	1.016	1.010	1.009					
2002							1.022	1.017	1.014	1.018	1.019	1.021	1.005						
2003						1.022	1.019	1.019	1.018	1.020	1.014	1.017							
2004					1.035	1.032	1.026	1.026	1.018	1.021	1.016								
2005				1.046	1.038	1.035	1.033	1.033	1.023	1.024									
2006			1.042	1.048	1.046	1.040	1.031	1.033	1.021										
2007		1.104	1.059	1.053	1.043	1.046	1.040	1.023											
2008	1.278	1.078	1.053	1.051	1.032	1.044	1.027												
2009	1.342	1.066	1.048	1.039	1.037	1.028													
2010	1.252	1.085	1.052	1.036	1.035														
2011	1.243	1.065	1.047	1.027															
2012	1.235	1.070	1.037																
2013	1.221	1.073																	
2014	1.229																		

3 Year Avg	1.228	1.069	1.045	1.034	1.035	1.039	1.033	1.030	1.021	1.022	1.016	1.018	1.012	1.011	1.010	1.013	1.009	1.013	1.154
<i>Cumulative</i>	2.161	1.759	1.645	1.574	1.522	1.471	1.415	1.370	1.331	1.304	1.276	1.256	1.234	1.219	1.207	1.195	1.180	1.169	1.154
5 Year Avg	1.236	1.072	1.047	1.041	1.039	1.039	1.031	1.027	1.019	1.019	1.016	1.017	1.013	1.012	1.010	1.011	1.009	1.010	1.154
<i>Cumulative</i>	2.182	1.765	1.647	1.572	1.510	1.454	1.400	1.357	1.322	1.298	1.273	1.253	1.232	1.217	1.202	1.190	1.176	1.166	1.154
6 Year Avg	1.257	1.077	1.048	1.043	1.038	1.035	1.028	1.024	1.018	1.020	1.016	1.016	1.013	1.012	1.011	1.011	1.008	1.009	1.154
<i>Cumulative</i>	2.204	1.754	1.628	1.553	1.489	1.435	1.386	1.348	1.317	1.294	1.268	1.249	1.229	1.213	1.200	1.187	1.174	1.165	1.154
Selected	1.236	1.072	1.047	1.041	1.039	1.039	1.031	1.027	1.019	1.019	1.016	1.017	1.013	1.012	1.010	1.011	1.009	1.010	1.154
<i>Cumulative</i>	2.182	1.765	1.647	1.572	1.510	1.454	1.400	1.357	1.322	1.298	1.273	1.253	1.232	1.217	1.202	1.190	1.176	1.166	1.154

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2018
 Incurred Loss Development Factors - Medical

Policy Year	Historical Development Factors																																	
	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-Ult															
1987																				1.008														
1988																		1.002		1.004														
1989																	0.998		1.019	1.001														
1990																			1.007	1.010	1.002													
1991																				1.001	1.006													
1992																				1.016	1.005	1.008	0.997	1.006										
1993																				1.010	1.002	1.005	1.010	1.011	1.007									
1994																					0.999	0.996	1.001	1.001	1.011	1.001	0.967							
1995																					1.007	1.020	1.019	1.003	1.008	1.005	1.007	1.013						
1996																						1.013	1.026	1.023	1.000	1.005	1.014	0.989	1.001	0.996	0.992			
1997																						1.017	1.026	1.016	1.006	1.016	1.022	1.006	1.006	1.000	0.989	1.006		
1998																						1.016	1.009	1.029	1.012	1.002	1.009	1.018	1.009	1.001	1.006	1.001		
1999																						1.018	1.019	1.034	1.005	1.043	0.999	1.008	1.000	1.007	1.003	1.005		
2000																						1.025	1.034	1.038	1.020	1.014	1.039	1.006	1.011	1.015	1.000	0.997		
2001																						1.032	1.032	1.003	1.011	1.003	0.995	1.000	0.994	1.017	1.018	1.006		
2002																						1.040	1.027	1.064	1.023	1.018	1.014	1.015	0.989	0.995	1.006	1.002		
2003																						0.998	1.026	1.031	1.013	1.018	1.009	1.021	0.994	1.011	1.023	0.998		
2004																						1.061	1.025	1.050	1.045	1.033	1.021	1.006	1.015	1.017	1.008	1.001		
2005																						1.028	1.043	1.069	1.039	1.035	1.033	1.017	1.034	1.022	1.000			
2006																						1.029	1.045	1.048	1.056	1.056	1.028	1.034	1.000	1.012				
2007																						1.059	1.037	1.049	1.059	1.038	1.040	1.024	1.023					
2008																						1.041	1.021	1.045	1.041	1.054	1.029	0.989						
2009																						1.082	1.012	1.041	1.031	1.013	1.014							
2010																						1.058	1.078	1.059	1.023	1.019								
2011																						1.037	1.043	1.037	1.000									
2012																						1.029	1.028	1.017										
2013																						0.955	1.029											
2014																						0.986												

3 Year Avg	0.990	1.033	1.038	1.018	1.029	1.028	1.016	1.019	1.017	1.006	1.006	1.007	1.012	1.004	1.000	1.004	0.995	1.001	1.026
<i>Cumulative</i>	1.279	1.292	1.250	1.205	1.184	1.151	1.120	1.102	1.082	1.064	1.057	1.050	1.043	1.031	1.027	1.026	1.023	1.027	1.026
5 Year Avg	1.013	1.038	1.040	1.031	1.036	1.029	1.014	1.019	1.012	1.002	1.004	1.008	1.011	1.006	0.999	1.006	0.999	0.997	1.026
<i>Cumulative</i>	1.328	1.311	1.263	1.215	1.178	1.137	1.106	1.090	1.070	1.058	1.056	1.052	1.044	1.033	1.027	1.028	1.022	1.023	1.026
10 Year Avg	1.033	1.033	1.044	1.035	1.035	1.024	1.016	1.017	1.013	1.014	1.007	1.009	1.011	1.007	1.001	1.006	1.003	1.001	1.026
<i>Cumulative</i>	1.392	1.347	1.305	1.250	1.208	1.167	1.140	1.122	1.103	1.089	1.073	1.066	1.057	1.045	1.038	1.037	1.030	1.027	1.026
Selected	1.017	1.038	1.040	1.031	1.036	1.029	1.014	1.019	1.012	1.002	1.004	1.008	1.011	1.006	0.999	1.006	0.999	0.997	1.026
<i>Cumulative</i>	1.334	1.311	1.263	1.215	1.178	1.137	1.106	1.090	1.070	1.058	1.056	1.052	1.044	1.033	1.027	1.028	1.022	1.023	1.026

Derivation of Policy Year Limited 19th-to-Ultimate Loss Development Factors - Paid

Policy Year	Indemnity Paid-to-Paid+Case Ratio <u>19th Report</u>	Medical Paid-to-Paid+Case Ratio <u>19th Report</u>
1993	0.998	0.963
1994	0.997	0.899
1995	0.984	0.876
1996	0.997	0.899
1997	0.993	0.883
Average	0.994	0.889
NCCI Selected:	0.994	0.889
BWRB Selected:	0.994	0.889
Limited Incurred 19th-to-Ult. LDF	1.002	1.026
Limited Paid 19th-to-Ult. LDF	1.008	1.154

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2018
 Determination of Policy Year Development Factors (19th-to-Ultimate Report) - Incurred

Indemnity

Policy Year	(1) Losses for Policy Year		(3) Losses for Prior PYs		(5) Adjustment Factor	(6) Calculated Development	(7) Indicated Tail
	19th Report	20th Report	Previous	Current			
1987	168,528,560	168,659,604	1,038,268,681	1,039,114,928	0.460	1,970,711	1.012
1988	199,316,668	199,528,480	1,161,239,240	1,162,372,220	0.434	2,822,365	1.014
1989	213,445,957	213,457,838	1,397,647,429	1,397,200,057	0.463	-954,365	0.996
1990	225,878,047	225,912,249	1,555,373,043	1,555,226,004	0.495	-262,846	0.999
1991	216,974,067	217,008,426	1,768,789,305	1,769,290,269	0.591	882,014	1.004
1992	187,255,580	187,154,996	1,986,228,385	1,985,318,508	0.770	-1,282,242	0.993
1993	158,868,560	158,863,379	2,172,422,665	2,173,312,271	0.990	893,411	1.006
1994	144,789,155	144,813,818	2,329,107,595	2,329,292,246	1.146	185,790	1.001
1995	125,356,885	125,212,112	2,465,552,482	2,465,751,190	1.373	-48	1.000
1996	113,254,864	113,321,178	2,588,593,729	2,588,832,333	1.540	221,252	1.002
Total	1,753,668,343	1,753,932,080	18,463,222,554	18,465,710,026		4,476,041	1.003
						NCCI Selected:	1.003
						BWRB Selected:	1.003
						Limited Loss Adjustment:	0.755
						Limited Incurred 19th-to-Ult. LDF	1.002

Medical

Policy Year	(8) Losses for Policy Year		(10) Losses for Prior PYs		(12) Adjustment Factor	(13) Calculated Development	(14) Indicated Tail
	19th Report	20th Report	Previous	Current			
1987	164,467,365	162,461,704	865,678,819	878,116,997	0.459	25,092,766	1.153
1988	182,921,698	183,545,609	997,250,592	995,239,904	0.462	-3,728,228	0.980
1989	225,291,337	226,021,148	1,211,362,184	1,214,244,464	0.424	7,527,641	1.033
1990	218,194,938	220,935,501	1,392,845,639	1,390,129,098	0.511	-2,575,564	0.988
1991	217,678,034	218,639,691	1,600,049,877	1,608,536,398	0.589	15,370,012	1.071
1992	199,039,379	201,626,629	1,827,097,236	1,834,386,231	0.724	12,654,923	1.064
1993	179,589,256	179,545,203	2,034,904,275	2,039,772,626	0.881	5,481,885	1.031
1994	179,487,560	179,692,722	2,216,530,190	2,222,781,181	0.935	6,890,714	1.038
1995	166,318,640	166,771,950	2,393,018,576	2,397,554,094	1.066	4,708,017	1.028
1996	137,615,320	136,817,106	2,562,381,410	2,560,122,364	1.332	-2,494,194	0.982
Total	1,870,603,527	1,876,057,263	17,101,118,798	17,140,883,357		68,927,971	1.037
						NCCI Selected:	1.035
						BWRB Selected:	1.035
						Limited Loss Adjustment:	0.755
						Limited Incurred 19th-to-Ult. LDF	1.026

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2018
 Policy Year Trend Factors

Exhibit 4

Section A - Summary of Policy Year Data

(1)	(2)	(3)	(4)	(5)	(6)
Policy Year	Lost-Time Claim Frequency	Indemnity		Medical	
		Avg Cost per Case	Loss Ratio	Avg Cost per Case	Loss Ratio
2001	27.700	23,836	0.660	29,194	0.809
2002	26.910	22,688	0.611	30,347	0.817
2003	26.936	23,309	0.628	32,683	0.880
2004	25.928	22,691	0.588	34,740	0.901
2005	25.075	21,718	0.545	34,681	0.870
2006	24.932	23,024	0.574	34,912	0.870
2007	24.701	21,873	0.540	37,295	0.921
2008	23.473	21,262	0.499	35,379	0.830
2009	24.394	20,464	0.499	36,406	0.888
2010	26.040	18,747	0.488	32,221	0.839
2011	23.492	17,992	0.423	30,939	0.727
2012	22.840	17,454	0.399	33,246	0.759
2013	21.075	16,927	0.357	33,994	0.716
2014	20.448	16,067	0.329	32,869	0.672
2015	18.631	16,075	0.299	34,249	0.638

Exponential Least-Squares Fit

	<u>Indemnity</u>	<u>Medical</u>
All-Years	-5.1%	-1.8%
10-Year	-6.2%	-3.3%
7-Year	-7.6%	-4.3%
5-Year	-9.0%	-4.6%

Section B - Summary of Annual Trend Factors

	<u>Indemnity</u>	<u>Medical</u>
(1) Current Approved Annual Loss Ratio Trend Factor	0.950	0.985
(2) Selected Annual Loss Ratio Trend Factor	0.950	0.980
(3) Length of Trend Period from Midpoint of Policy Year to Midpoint of Effective Period:		
		<u>Years</u>
	Policy Year 2014	4.217
	Policy Year 2015	3.217
(4) Trend Factor Applied to Experience Year = (2) ^ (3)	<u>Indemnity</u>	<u>Medical</u>
	Policy Year 2014	0.918
	Policy Year 2015	0.937

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2018
 Ratio of LAE to Loss

Exhibit 5

Accident Year	NCCI Developed Ratio at Age (in Years):						
	1	2	3	4	5	6	7
1997							16.2%
1998						15.7%	15.5%
1999					15.4%	14.9%	15.2%
2000				15.8%	15.3%	15.6%	15.9%
2001			16.3%	16.1%	16.0%	16.4%	16.5%
2002		16.6%	16.2%	16.6%	17.1%	17.1%	17.1%
2003		18.2%	18.1%	18.1%	17.8%	17.9%	17.5%
2004	17.7%	17.7%	17.8%	17.4%	17.4%	17.0%	17.0%
2005	18.8%	18.7%	18.7%	18.2%	18.3%	17.8%	17.7%
2006	19.4%	19.2%	18.9%	18.6%	18.7%	18.5%	18.4%
2007	20.4%	19.9%	19.6%	19.1%	19.2%	18.6%	18.5%
2008	20.1%	19.4%	19.0%	18.9%	18.4%	18.1%	18.0%
2009	21.2%	19.6%	19.6%	19.4%	19.0%	18.6%	
2010	19.7%	19.6%	19.3%	19.0%	18.5%		
2011	19.9%	19.5%	19.2%	18.8%	18.8%		
2012	20.3%	20.2%	19.8%	19.9%	20.0%		
2013	20.9%	20.3%	20.4%	20.6%			
2014	20.4%	21.0%	21.0%				
2015	20.4%	20.5%					
2016	20.5%						

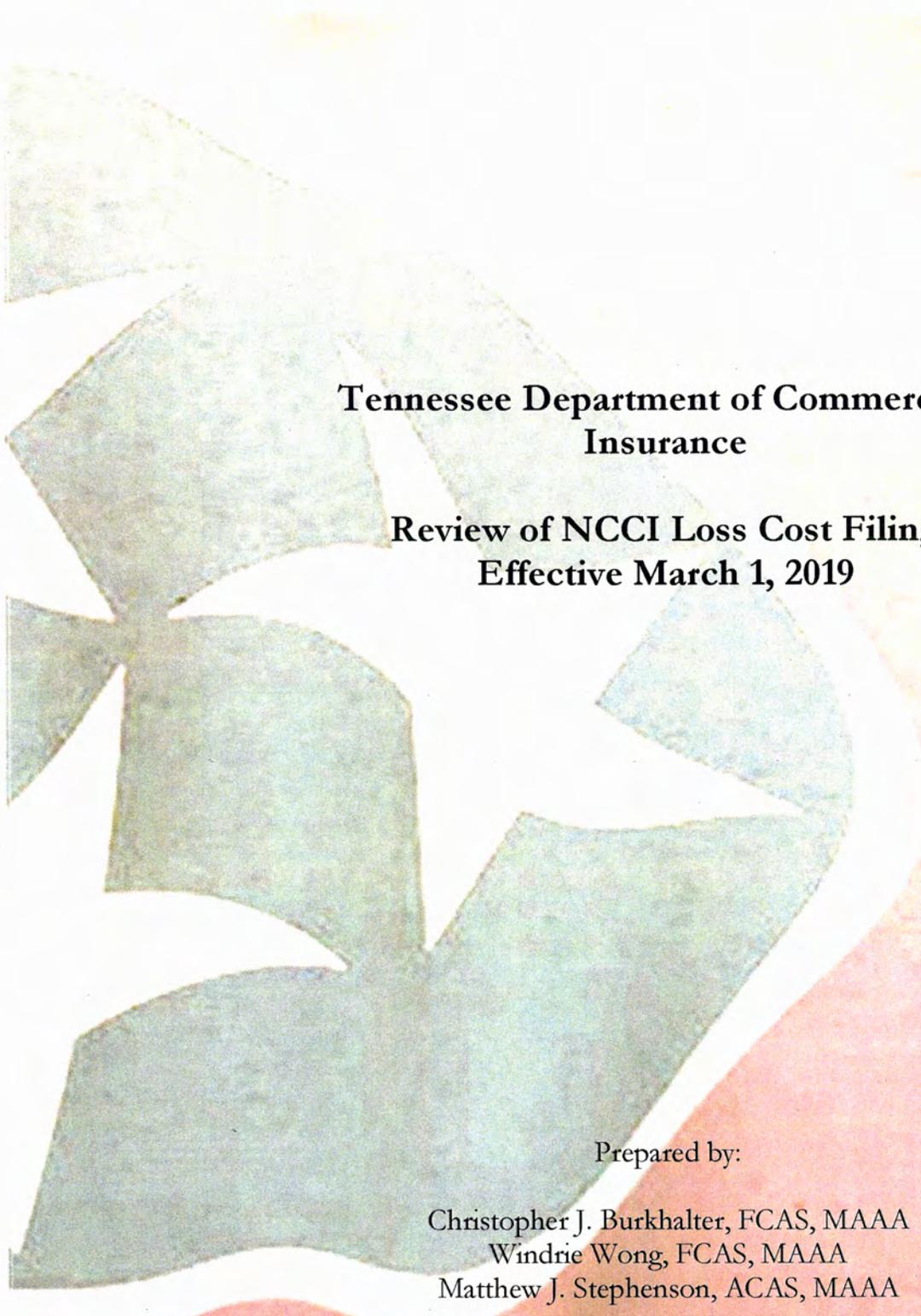
Adjusted Ultimate
20.0%
20.5%
20.8%
20.2%
20.3%
19.7%
0.997

BWR&B Selected:
 Change in LAE Provision:

Accident Year	Additional Development of Ultimate Ratios					
	1-2	2-3	3-4	4-5	5-6	6-7
2001				0.994	1.025	1.006
2002			1.025	1.030	1.000	1.000
2003		0.995	1.000	0.983	1.006	0.978
2004	1.000	1.006	0.978	1.000	0.977	1.000
2005	0.995	1.000	0.973	1.005	0.973	0.994
2006	0.990	0.984	0.984	1.005	0.989	0.995
2007	0.975	0.985	0.974	1.005	0.969	0.995
2008	0.965	0.979	0.995	0.974	0.984	0.994
2009	0.925	1.000	0.990	0.979	0.979	
2010	0.995	0.985	0.984	0.974		
2011	0.980	0.985	0.979	1.000		
2012	0.995	0.980	1.005	1.005		
2013	0.971	1.005	1.010			
2014	1.029	1.000				
2015	1.005					

3 Year Avg	1.002	0.995	0.998	0.993	0.981	0.995	1.000
<i>Cumulative</i>	0.964	0.962	0.967	0.969	0.976	0.995	1.000
5 Year Avg	0.996	0.991	0.994	0.986	0.980	0.995	1.000
<i>Cumulative</i>	0.943	0.947	0.955	0.961	0.975	0.995	1.000
8 Year Avg	0.983	0.990	0.990	0.993	0.982	0.994	1.000
<i>Cumulative</i>	0.934	0.950	0.960	0.970	0.976	0.994	1.000
Selected	1.002	0.995	0.998	0.993	1.000	1.000	1.000
<i>Cumulative</i>	0.988	0.986	0.991	0.993	1.000	1.000	1.000

Exhibit 4F



**Tennessee Department of Commerce &
Insurance**

**Review of NCCI Loss Cost Filing
Effective March 1, 2019**

Prepared by:

Christopher J. Burkhalter, FCAS, MAAA
Windrie Wong, FCAS, MAAA
Matthew J. Stephenson, ACAS, MAAA

October 16, 2018

THE BURKHALTER GROUP
Consulting Actuaries

THE BURKHALTER GROUP

Consulting Actuaries

Christopher J. Burkhalter
F.C.A.S., M.A.A.A.

Patrick L. Whatley
F.C.A.S., M.A.A.A.

Kevin M. Ryan
F.C.A.S., M.A.A.A.

Richard J. Roth, Jr.
F.C.A.S.

Windrie Wong
F.C.A.S., M.A.A.A.

Matthew J. Stephenson
A.C.A.S., M.A.A.A.

October 16, 2018

Mr. Mike Shinnick
Manager, Workers' Compensation
Tennessee Department of Commerce & Insurance
500 James Robertson Parkway
Nashville, TN 37243-0565

Re: NCCI Loss Cost Filing Effective 3/1/2019

Dear Mr. Shinnick:

NCCI has submitted a Workers' Compensation loss cost filing to the Department of Commerce & Insurance with a proposed effective date of March 1, 2019. The recommended change to the overall loss cost level is -19.0%, which includes a change of -13.5% due to change in experience & development, a change of -6.9% due to change in trend, and a change of +0.6% due to change in benefits.

We are of the opinion that the actuarial methodology and assumptions employed by NCCI in the calculation of these requested changes are sound and appropriate and are in material compliance with all applicable Actuarial Standards of Practice.

We were asked by the Department to provide the Advisory Council with our own best estimate of the indicated loss cost change. The factor in our analysis that produced the most significant difference in the indication was the selection of loss ratio trends.

Our analysis produced an indicated overall loss cost change of -10.2%. This is our recommended loss cost change to you and to the Advisory Council.

Please let me know if I can be of further assistance. Thank you for the opportunity to serve the State of Tennessee.

Sincerely,



Christopher J. Burkhalter, FCAS, MAAA
President & Principal

Enclosure

tbg0015

P.O. Box 1546
Madison
Mississippi 39130
(601) 668-7611

1701 N. Collins
Suite 226A
Richardson
Texas 75080
(972) 644-8172

1050 Airport Road
Unit 1372
West Chester
Pennsylvania 19380
(610) 644-1937

8821 Baywood Drive
Huntington Beach
California 92646
(714) 964-7814

42605 Hastings Street
Palm Desert
California 92211
(760) 360-2063

TABLE OF CONTENTS

PURPOSE	4
DISTRIBUTION AND USE	5
DATA RELIANCE	6
REVIEW OF OVERALL STATEWIDE INDICATION.....	7
Overall Ratemaking Methodology	7
Reasonableness & Consistency of Data.....	8
Loss Development Factor Selection.....	8
Loss Ratio Trend Selection.....	10
Loss Adjustment Expense Provision Selection	11
Experience Period and Variability of Projections	12
CALCULATION OF INDICATED RATE CHANGE	14

PURPOSE

The Tennessee Department of Commerce & Insurance (“TN DOCI”) has engaged The Burkhalter Group, Inc. (“TBG”) to perform a review of the Workers’ Compensation loss cost filing submitted by the National Council on Compensation Insurance, Inc. (“NCCI”) for loss costs effective March 1, 2019.

This report outlines the findings of TBG concerning the actuarial aspects of the NCCI filing. While this report does not contain a fully independent actuarial analysis of Tennessee loss costs, it does include an analysis of these loss costs that is based on the methodology of NCCI and contains alternate assumptions made by TBG where deemed appropriate.

DISTRIBUTION AND USE

This report, along with the conclusions and opinions contained therein, is being provided to the Tennessee Department of Commerce & Insurance, NCCI, and the Tennessee Advisory Council on Workers' Compensation.

It is our understanding that copies of this report will be made available to various interested third parties. Such distribution is permitted, subject to the condition that the report is distributed in its entirety; portions or excerpts of this report should not be distributed separately from the entire report. The intended recipients of this report and third parties are cautioned that this analysis constitutes a statement of professional judgment; it is in no way intended to replace the informed judgment and due diligence of its users. The Burkhalter Group, Inc. (TBG) cannot warrant or guarantee the results, conclusions, or opinions produced by this report.

DATA RELIANCE

In producing this report, The Burkhalter Group, Inc. (TBG) has relied on documents and data provided by the Tennessee Department of Commerce & Insurance (“TN DOCI”) and the National Council on Compensation Insurance, Inc. (“NCCI”). The data sets provided were not independently audited or verified. They were, however, reviewed for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The information received included loss cost filings and technical supplements submitted by NCCI to TN DOCI over the last several years, as well as presentations and materials prepared for prior hearings of the Tennessee Advisory Council on Workers’ Compensation.

All professional opinions and conclusions in this report depend on the validity and accuracy of the underlying data. While care was taken to assure the consistency and reasonableness of the data, any errors or inaccuracies in the data set could invalidate any or all of the conclusions drawn from this analysis. Should such errors or inaccuracies be discovered, TBG should be contacted to evaluate the need for revision of this analysis.

REVIEW OF OVERALL STATEWIDE INDICATION

In performing our review of the NCCI loss cost filing, we concentrated on the following areas:

- overall ratemaking methodology;
- reasonableness & consistency of data;
- loss development factor selection;
- loss ratio trend selection;
- loss adjustment expense provision selection; and,
- experience period and variability of projections.

Additionally, we reviewed the allocation procedure of the proposed loss cost change to occupational classification. The details of our review will be described below.

Overall Ratemaking Methodology

The methodology employed by NCCI is industry standard, having been used in one form or another for many decades. At its core, it involves the comparison of standard earned premium, stripped of any underwriting expenses, investment income, or other financial considerations, with actual ultimate loss and loss adjustment expense (“LAE”). All of these elements are actuarially adjusted to account for intervening loss cost changes, statutory benefit changes, and emerging trends. The overall methodology employed in this analysis, if used with actuarial adjustments, is in our opinion

appropriate and conforms to the Actuarial Standards of Practice. The actuarial assumptions used will be discussed below.

Reasonableness & Consistency of Data

While an audit of the underlying data is beyond the scope of our review, the data sets used in the current loss cost filing were reviewed for reasonableness and consistency with data used in prior filings. All material elements of data used in the loss cost filing were found to be generally reasonable. After comparison with prior filings, the differences were found to be immaterial or explainable by appropriate intervening actuarial adjustments. NCCI documents which companies' data sets are excluded from the analysis, providing an estimate of market share of excluded companies, which was found to be immaterial to the conclusions and calculations.

Loss Development Factor Selection

The paid and reported losses that are used to calculate loss ratios for the experience period are from relatively recent years. As such, these losses will develop over time until they reach their ultimate level. To bring these losses to their estimated ultimate value for use in the loss ratio calculations, loss development factors ("LDF's") are applied to these losses. These LDF's are chosen after a review of historical loss development in the target data.

Prior to the filing of loss costs effective March 1, 2016, NCCI used only the history of paid plus case incurred losses to bring losses to their ultimate level (i.e. the "incurred development method").

NCCI now also analyzes the history of paid losses and uses the straight average of these two methods as the total estimated ultimate losses for a given policy year.

For the paid loss development method, NCCI's selection of LDF's are based on a straight two-year average of historical development for each loss development interval; and for incurred loss development, NCCI's selection of LDF's are a straight five-year average of historical development.

Based on our review of the historical development factors and the NCCI selections, we are of the opinion that these selections are generally reasonable and appropriate for the analysis contained in the current filing. We do note that certain medical LDFs in the incurred development method appear to have registered significantly lower development during the last two years than during the previous three years (these intervals include development through the 8th report).

Previously, a general upward trend to the development factors over the last eight years was evident in several of the development intervals. In response to this trend, a three-year average of LDF's was used to project loss development. The most recent loss development shows a reversion to longer-term averages. Taking in these considerations, it was deemed appropriate to use development factors reflecting an average of a five-year period to reflect a longer-term average.

"Tail factors" are loss development factors designed to reflect development on the oldest of claims, in the case of this filing, those claims 19 years and older. NCCI uses paid tail factors of 1.006 for indemnity losses and 1.152 for medical losses and incurred tail factors of 1.001 for indemnity losses and 1.022 for medical losses. These factors reflect little change from those filed in the previous year (1.008 paid indemnity, 1.154 paid medical, 1.002 incurred indemnity, and 1.026 incurred medical).

After review of the historical factors, we concur with the NCCI selections and have used them without modification.

Loss Ratio Trend Selection

Loss ratios are adjusted to reflect emerging trends in indemnity and medical benefits. The selected annual loss ratio trends used in recent filings were:

Filing	Indemnity	Medical
<u>Eff. Date</u>	<u>Trend</u>	<u>Trend</u>
3/1/2013	-3.0%	+0.5%
3/1/2014	-3.0%	0.0%
3/1/2015	-3.5%	0.0%
3/1/2016	-4.0%	-0.5%
3/1/2017	-5.0%	-1.5%
3/1/2018	-5.5%	-2.0%
3/1/2019	-7.0%	-4.0%

The current selections are close to the exponential least-squares best-fit trend for the 15-year period.

Analysis of shorter periods results in more negative annual trends.

Trend	Indemnity	Medical
<u>Period</u>	<u>Best Fit</u>	<u>Best Fit</u>
15 Years	-5.9%	-3.1%
10 Years	-7.7%	-4.7%
7 Years	-9.3%	-5.8%
5 Years	-9.6%	-5.1%

This effect illustrates that the negative cost trends experienced in the Tennessee Workers' Compensation market appear to be accelerating in recent years, and that the use of a 15-year trend period might include implicit conservatism. However, the shorter trend periods also result in diminished correlation to the data. Therefore, we believe that use of a 15-year trend period is appropriate in maintaining stability of the projections.

Loss Adjustment Expense Provision Selection

Loss adjustment expenses ("LAE") are loaded into the indicated loss costs as a percentage of underlying losses. NCCI uses a countrywide analysis of LAE, both defense & cost containment expense ("DCCE") and adjusting & other expense ("AOE"). It selects AOE ratios based on the countrywide experience, while the DCCE provision is selected using Tennessee-specific experience, as well.

The LAE-to-loss ratios used in the NCCI analysis are stated to be fully developed. However, if recent loss cost filings are compared, it can be shown that these "developed" ratios have tended to exhibit further downward development over recent years. This can be seen in Exhibit 5. NCCI has

provided explanation for this effect, as well as assurances that the current estimates are sound. In the past, we have applied development factors to these ratios to adjust them to what we project to be their ultimate levels. In our analysis of loss costs effective 3/1/2018, we observed no additional downward development for a period of twenty-four months for the five latest policy years and elected to use the NCCI selection without modification. In the present analysis, we note that downward development of LAE-to-loss ratios has resumed in three of the four policy years where ratios are provided.

Because we deem the selection made to NCCI to be reasonable and because our adjustment using past development statistics would result in an immaterial impact to the overall rate indication, we have used the NCCI selection without modification for the current analysis.

Experience Period and Variability of Projections

NCCI methodology implicitly assumes full credibility of the two-policy-year experience period used to project loss costs in the prospective year. While the volume of data certainly supports this judgment, the variability of subsequent policy years belies an environment with high uncertainty and difficulty of predictability going forward. Actuaries routinely balance stability and responsiveness of the data used to make projections. To assess the stability of the data underlying the calculations, five policy years of experience were analyzed and considered in the selection of the indicated changes.

The selection of an appropriate experience period necessarily falls within the realm of actuarial judgment. After reviewing the indicated changes produced by the last five policy years' experience, it was our opinion that a reasonable statistic on which to base our recommendation was the weighted

average of the last five policy years, giving most weight to the most recent year (30%) and decreasing the contribution of each older year (25%, 20%, 15%, and 10%). We believe that this adequately reflects the recent improving experience in the state, while not fully relying on the most recent experience, which is most subject to unexpected loss development and changing trends.

CALCULATION OF INDICATED RATE CHANGE

TBG calculated our best estimate of the indicated rate change using our best estimates of the actuarial parameters. The methodology used is the same as that used by NCCI, and the use of these alternate assumptions do *not* imply that we consider those used by NCCI as inappropriate or in violation of Actuarial Standards of Practice.

The actuarial assumptions underlying our calculation of the indicated rate change include the following.

- Because of the moderating emergent loss development experience in the last twenty-four months, indemnity and medical paid and incurred loss development factors were based on a five-year average.
- The tail factors used by NCCI were deemed appropriate and used in our calculations without modification.
- Our selected indemnity and medical loss ratio trend factors differed slightly from those used by NCCI and were based on a long-term, 15-year fit.
- The LAE provision of 19.7% of loss used by NCCI was deemed appropriate and used in our calculations without modification.
- Five policy years of experience were considered in the Indicated Change calculation.

Based on the use of these assumptions, we calculate the indicated rate change to be as follows.

NCCI Indicated Rate Change: -19.0%

TBG Indicated Rate Change: -10.2%

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2019
 Determination of Indicated Loss Cost Level Change

Exhibit 1

Indicated Change Based on Experience, Trend and Benefits

(1) Policy Year 2016 Indicated Change Based on Experience, Trend, and Benefits	0.857
(2) Policy Year 2015 Indicated Change Based on Experience, Trend, and Benefits	0.873
(3) Policy Year 2014 Indicated Change Based on Experience, Trend, and Benefits	0.910
(4) Policy Year 2013 Indicated Change Based on Experience, Trend, and Benefits	0.943
(5) Policy Year 2012 Indicated Change Based on Experience, Trend, and Benefits	0.987
<u>Indicated Change Based on Experience, Trend and Benefits</u>	
(6) 2-Year Average	0.865
(7) 3-Year Average	0.880
(8) 4-Year Average	0.896
(9) 5-Year Average	0.914
(10) SELECTED	0.898

Application of the Change in Loss Adjustment Expenses

(11) Indicated Loss Cost Level Change	0.898
(12) Effect of the Change in Loss Adjustment Expenses (Exhibit II)	1.000
(13) Indicated Change Modified to Reflect the Change in Loss Adjustment Expenses	0.898
(14) Indicated Rate Change	-10.2%

Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2019
Determination of Indicated Loss Cost Level Change

Exhibit 2

Page 1

Policy Year 2016 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Exhibit 3)	\$ 605,554,429
(2) Premium On-level Factor (provided by NCCI)	0.596
(3) Premium Available for Benefit Costs = (1) x (2)	\$ 360,910,439

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Exhibit 3)	\$ 110,783,262
(5) Indemnity Loss On-level Factor (provided by NCCI)	1.004
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$ 111,226,396
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.308
(8) Factor to Reflect Indemnity Trend (Exhibit 4)	0.820
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.253
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.013
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.256
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (NCCI Appendix C)	1.005
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.257

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Exhibit 3)	\$ 235,412,481
(15) Medical Loss On-level Factor (provided by NCCI)	0.994
(16) Adjusted Limited Medical Losses = (14) x (15)	\$ 234,000,006
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.648
(18) Factor to Reflect Medical Trend (Exhibit 4)	0.907
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.588
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.013
(21) Projected Medical Cost Ratio = (19) x (20)	0.596
(22) Factor to Reflect Proposed Changes in Medical Benefits (NCCI Appendix C)	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.600

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.857
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Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2019
Determination of Indicated Loss Cost Level Change

Exhibit 2

Page 2

Policy Year 2015 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Exhibit 3)	\$ 584,262,381
(2) Premium On-level Factor (provided by NCCI)	0.575
(3) Premium Available for Benefit Costs = (1) x (2)	\$ 335,950,869

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Exhibit 3)	\$ 110,105,470
(5) Indemnity Loss On-level Factor (provided by NCCI)	1.013
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$ 111,536,842
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.332
(8) Factor to Reflect Indemnity Trend (Exhibit 4)	0.770
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.256
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.013
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.259
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (NCCI Appendix C)	1.005
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.260

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Exhibit 3)	\$ 236,441,206
(15) Medical Loss On-level Factor (provided by NCCI)	0.970
(16) Adjusted Limited Medical Losses = (14) x (15)	\$ 229,347,970
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.683
(18) Factor to Reflect Medical Trend (Exhibit 4)	0.880
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.601
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.013
(21) Projected Medical Cost Ratio = (19) x (20)	0.609
(22) Factor to Reflect Proposed Changes in Medical Benefits (NCCI Appendix C)	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.613

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.873
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Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2019
Determination of Indicated Loss Cost Level Change

Exhibit 2
Page 3

Policy Year 2014 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Exhibit 3)	\$ 595,654,595
(2) Premium On-level Factor (provided by NCCI)	0.525
(3) Premium Available for Benefit Costs = (1) x (2)	\$ 312,718,662

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Exhibit 3)	\$ 115,215,352
(5) Indemnity Loss On-level Factor (provided by NCCI)	0.983
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$ 113,256,691
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.362
(8) Factor to Reflect Indemnity Trend (Exhibit 4)	0.724
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.262
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.013
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.265
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (NCCI Appendix C)	1.005
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.266

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Exhibit 3)	\$ 238,363,439
(15) Medical Loss On-level Factor (provided by NCCI)	0.972
(16) Adjusted Limited Medical Losses = (14) x (15)	\$ 231,689,263
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.741
(18) Factor to Reflect Medical Trend (Exhibit 4)	0.853
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.632
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.013
(21) Projected Medical Cost Ratio = (19) x (20)	0.640
(22) Factor to Reflect Proposed Changes in Medical Benefits (NCCI Appendix C)	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.644

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.910
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Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2019
Determination of Indicated Loss Cost Level Change

Exhibit 2
Page 4

Policy Year 2013 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Exhibit 3)	\$ 611,832,087
(2) Premium On-level Factor (provided by NCCI)	0.474
(3) Premium Available for Benefit Costs = (1) x (2)	\$ 290,008,409

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Exhibit 3)	\$ 134,287,126
(5) Indemnity Loss On-level Factor (provided by NCCI)	0.865
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$ 116,158,364
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.401
(8) Factor to Reflect Indemnity Trend (Exhibit 4)	0.681
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.273
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.013
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.277
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (NCCI Appendix C)	1.005
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.278

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Exhibit 3)	\$ 235,042,862
(15) Medical Loss On-level Factor (provided by NCCI)	0.973
(16) Adjusted Limited Medical Losses = (14) x (15)	\$ 228,696,705
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.789
(18) Factor to Reflect Medical Trend (Exhibit 4)	0.828
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.653
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.013
(21) Projected Medical Cost Ratio = (19) x (20)	0.661
(22) Factor to Reflect Proposed Changes in Medical Benefits (NCCI Appendix C)	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.665

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.943
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Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2019
 Determination of Indicated Loss Cost Level Change

Exhibit 2
 Page 5

Policy Year 2012 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Exhibit 3)	\$ 614,715,345
(2) Premium On-level Factor (provided by NCCI)	0.450
(3) Premium Available for Benefit Costs = (1) x (2)	\$ 276,621,905

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Exhibit 3)	\$ 146,742,190
(5) Indemnity Loss On-level Factor (provided by NCCI)	0.862
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$ 126,491,768
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.457
(8) Factor to Reflect Indemnity Trend (Exhibit 4)	0.640
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.292
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.013
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.296
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (NCCI Appendix C)	1.005
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.297

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Exhibit 3)	\$ 243,114,707
(15) Medical Loss On-level Factor (provided by NCCI)	0.959
(16) Adjusted Limited Medical Losses = (14) x (15)	\$ 233,147,004
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.843
(18) Factor to Reflect Medical Trend (Exhibit 4)	0.803
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.677
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (NCCI Appendix A-II)	1.013
(21) Projected Medical Cost Ratio = (19) x (20)	0.686
(22) Factor to Reflect Proposed Changes in Medical Benefits (NCCI Appendix C)	1.006
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.690

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.987
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Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2019
Determination of Premium and Losses Developed to an Ultimate Report

Exhibit 3

Page 1

Section A - Premium and Loss Summary Valued as of 12/31/2017

Policy Year 2016

(1) Standard Earned Premium	\$ 600,748,441
(2) Factor to Develop Premium to Ultimate	1.008
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$ 605,554,429
(4) Limited Indemnity Paid Losses	\$ 46,352,910
(5) Limited Indemnity Paid Development Factor to Ultimate	2.442
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$ 113,193,806
(7) Limited Indemnity Paid+Case Losses	\$ 87,538,545
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.238
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$ 108,372,719
(10) Policy Year 2016 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$ 110,783,262
(11) Limited Medical Paid Losses	\$ 114,403,885
(12) Limited Medical Paid Development Factor to Ultimate	2.140
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$ 244,824,314
(14) Limited Medical Paid+Case Losses	\$ 181,235,483
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.247
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$ 226,000,647
(17) Policy Year 2016 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$ 235,412,481

Policy Year 2015

(1) Standard Earned Premium	\$ 584,262,381
(2) Factor to Develop Premium to Ultimate	1.000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$ 584,262,381
(4) Limited Indemnity Paid Losses	\$ 75,173,213
(5) Limited Indemnity Paid Development Factor to Ultimate	1.483
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$ 111,481,875
(7) Limited Indemnity Paid+Case Losses	\$ 98,042,440
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.109
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$ 108,729,066
(10) Policy Year 2015 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$ 110,105,470
(11) Limited Medical Paid Losses	\$ 143,267,993
(12) Limited Medical Paid Development Factor to Ultimate	1.736
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$ 248,713,236
(14) Limited Medical Paid+Case Losses	\$ 179,622,738
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.248
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$ 224,169,177
(17) Policy Year 2015 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$ 236,441,206

Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2019
Determination of Premium and Losses Developed to an Ultimate Report

Exhibit 3
Page 2

Section A - Premium and Loss Summary Valued as of 12/31/2017

Policy Year 2014

(1) Standard Earned Premium	\$ 595,654,595
(2) Factor to Develop Premium to Ultimate	1,000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$ 595,654,595
(4) Limited Indemnity Paid Losses	\$ 94,445,521
(5) Limited Indemnity Paid Development Factor to Ultimate	1,219
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$ 115,129,090
(7) Limited Indemnity Paid+Case Losses	\$ 109,915,743
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1,049
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$ 115,301,614
(10) Policy Year 2014 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$ 115,215,352
(11) Limited Medical Paid Losses	\$ 154,750,572
(12) Limited Medical Paid Development Factor to Ultimate	1,620
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$ 250,695,927
(14) Limited Medical Paid+Case Losses	\$ 188,045,717
(15) Limited Medical Paid+Case Development Factor to Ultimate	1,202
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$ 226,030,952
(17) Policy Year 2014 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$ 238,363,439

Policy Year 2013

(1) Standard Earned Premium	\$ 611,832,087
(2) Factor to Develop Premium to Ultimate	1,000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$ 611,832,087
(4) Limited Indemnity Paid Losses	\$ 119,990,129
(5) Limited Indemnity Paid Development Factor to Ultimate	1,121
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$ 134,508,935
(7) Limited Indemnity Paid+Case Losses	\$ 130,286,995
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1,029
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$ 134,065,318
(10) Policy Year 2013 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$ 134,287,126
(11) Limited Medical Paid Losses	\$ 160,665,128
(12) Limited Medical Paid Development Factor to Ultimate	1,551
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$ 249,191,614
(14) Limited Medical Paid+Case Losses	\$ 190,261,938
(15) Limited Medical Paid+Case Development Factor to Ultimate	1,161
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$ 220,894,110
(17) Policy Year 2013 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$ 235,042,862

Tennessee Department of Commerce & Insurance
Review of NCCI Loss Cost Filing
Effective 3/1/2019
Determination of Premium and Losses Developed to an Ultimate Report

Exhibit 3

Page 3

Section A - Premium and Loss Summary Valued as of 12/31/2017

Policy Year 2012

(1) Standard Earned Premium	\$ 614,715,345
(2) Factor to Develop Premium to Ultimate	1,000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$ 614,715,345
(4) Limited Indemnity Paid Losses	\$ 136,219,823
(5) Limited Indemnity Paid Development Factor to Ultimate	1,073
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$ 146,163,870
(7) Limited Indemnity Paid+Case Losses	\$ 144,857,925
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1,017
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$ 147,320,510
(10) Policy Year 2012 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$ 146,742,190
(11) Limited Medical Paid Losses	\$ 170,481,862
(12) Limited Medical Paid Development Factor to Ultimate	1,498
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$ 255,381,829
(14) Limited Medical Paid+Case Losses	\$ 203,032,176
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.137
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$ 230,847,584
(17) Policy Year 2012 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$ 243,114,707

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2019
 Paid Loss Development Factors - Indemnity

Policy Year	Historical Development Factors																		
	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-Ult
1988																			
1989																			
1990																			
1991																			1.000
1992																	1.001	1.001	
1993																1.001	1.000	1.000	
1994															1.002	1.000	1.000	1.000	
1995														1.000	1.001	1.001	1.001	1.001	
1996													1.001	1.001	1.001	1.001	1.001	1.001	1.001
1997												1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001
1998											1.001	1.001	1.001	1.001	1.000	1.001	1.000	1.000	1.000
1999										1.002	1.001	1.001	1.002	1.001	1.001	1.000	1.000	1.000	
2000									1.002	0.998	0.999	1.001	1.000	1.001	1.001	1.001			
2001								1.003	1.003	1.001	1.000	1.001	1.001	1.001	1.001				
2002							1.007	1.005	1.001	1.002	1.000	1.003	0.999	1.000					
2003						1.008	1.008	1.006	1.003	1.001	1.001	1.001	1.000						
2004					1.032	1.015	1.006	1.012	1.005	1.003	1.004	1.003							
2005				1.037	1.014	1.016	1.011	1.008	1.004	1.002	1.003								
2006			1.091	1.046	1.019	1.014	1.008	1.004	1.003	1.003									
2007		1.234	1.100	1.041	1.018	1.014	1.011	1.003	1.003										
2008	1.744	1.208	1.096	1.051	1.026	1.013	1.009	1.006											
2009	1.734	1.242	1.093	1.048	1.025	1.016	1.010												
2010	1.804	1.263	1.080	1.038	1.019	1.017													
2011	1.738	1.219	1.104	1.043	1.024														
2012	1.741	1.215	1.081	1.043															
2013	1.640	1.216	1.079																
2014	1.528	1.171																	
2015	1.585																		

3 Year Avg	1.584	1.201	1.088	1.041	1.023	1.015	1.010	1.004	1.003	1.003	1.003	1.002	1.000	1.001	1.001	1.000	1.000	1.001	1.006
<i>Cumulative</i>	2.315	1.461	1.217	1.119	1.074	1.050	1.034	1.024	1.020	1.016	1.014	1.011	1.009	1.009	1.008	1.007	1.007	1.006	1.006
5 Year Avg	1.646	1.217	1.087	1.045	1.022	1.015	1.009	1.006	1.003	1.002	1.002	1.002	1.000	1.001	1.001	1.001	1.001	1.001	1.006
<i>Cumulative</i>	2.442	1.483	1.219	1.121	1.073	1.050	1.034	1.025	1.018	1.015	1.013	1.012	1.010	1.009	1.009	1.007	1.007	1.006	1.006
6 Year Avg	1.689	1.221	1.091	1.043	1.022	1.014	1.009	1.006	1.003	1.002	1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.006
<i>Cumulative</i>	2.510	1.486	1.217	1.116	1.070	1.046	1.032	1.023	1.017	1.014	1.012	1.011	1.010	1.009	1.008	1.007	1.007	1.006	1.006
Selected	1.646	1.217	1.087	1.045	1.022	1.015	1.009	1.006	1.003	1.002	1.002	1.002	1.000	1.001	1.001	1.001	1.001	1.001	1.006
<i>Cumulative</i>	2.442	1.483	1.219	1.121	1.073	1.050	1.034	1.025	1.018	1.015	1.013	1.012	1.010	1.009	1.009	1.007	1.007	1.006	1.006

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2019
 Incurred Loss Development Factors - Indemnity

Policy Year	Historical Development Factors																		
	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-Ult
1988																		1.000	1.000
1989																	1.000	1.000	0.997
1990															1.000	1.000	1.000	1.000	1.000
1991														1.001	1.001	1.000	1.002	1.000	
1992												1.001	0.999	0.999	1.000	1.000	1.002	0.999	
1993												1.001	0.999	0.999	1.000	1.000	1.000	1.000	
1994											1.001	1.001	1.000	1.000	0.999	1.000	1.000	1.000	
1995										1.000	1.002	1.001	1.002	0.998	0.999	1.002	1.001	1.000	
1996									0.996	0.999	1.000	0.999	1.000	1.000	1.000	0.997	1.000	0.998	
1997								1.003	0.999	1.000	1.000	0.999	1.001	1.001	1.001	1.003	0.999	1.001	
1998							1.001	0.997	0.999	1.002	1.000	1.001	1.001	0.999	0.998	0.999	1.000	1.001	
1999						0.992	1.001	0.999	1.001	0.998	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	
2000					1.005	1.004	0.999	1.000	0.998	0.999	0.997	0.999	1.001	1.002	0.999	1.000			
2001				1.012	1.002	0.996	1.000	1.003	1.000	0.999	0.999	1.001	1.000	1.000	1.002				
2002			1.007	1.010	1.001	0.999	1.001	1.002	0.999	0.999	1.000	0.999	0.999	1.000					
2003		1.050	1.019	1.009	1.003	1.000	1.003	1.002	0.999	1.000	1.001	1.000	1.002						
2004	1.172	1.065	1.022	1.005	1.004	1.000	1.002	1.009	1.002	1.000	1.002	1.005							
2005	1.180	1.061	1.024	1.008	0.999	1.005	1.005	1.005	1.001	1.001	1.002								
2006	1.187	1.069	1.016	1.017	1.003	1.006	1.001	1.000	1.001	1.001									
2007	1.171	1.057	1.020	1.018	0.999	1.009	1.004	0.996	0.999										
2008	1.124	1.047	1.036	1.014	1.004	1.005	1.002	0.998											
2009	1.164	1.058	1.027	1.013	1.010	1.006	1.005												
2010	1.202	1.083	1.025	1.012	1.004	1.002													
2011	1.158	1.049	1.025	1.006	1.002														
2012	1.154	1.068	1.016	1.011															
2013	1.103	1.052	1.008																
2014	1.062	1.034																	
2015	1.101																		

3 Year Avg	1.089	1.051	1.016	1.010	1.005	1.004	1.004	0.998	1.000	1.001	1.002	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.001
<i>Cumulative</i>	1.195	1.097	1.044	1.027	1.017	1.012	1.007	1.004	1.006	1.005	1.005	1.003	1.002	1.001	1.001	1.000	1.001	1.001	1.001
5 Year Avg	1.116	1.057	1.020	1.011	1.004	1.006	1.003	1.001	1.000	1.000	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.001
<i>Cumulative</i>	1.238	1.109	1.049	1.029	1.017	1.013	1.008	1.005	1.003	1.003	1.004	1.003	1.002	1.001	1.001	1.001	1.001	1.001	1.001
10 Year Avg	1.148	1.058	1.020	1.011	1.003	1.002	1.002	1.001	1.000	1.000	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.001
<i>Cumulative</i>	1.266	1.102	1.042	1.021	1.010	1.007	1.005	1.003	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001
Selected	1.116	1.057	1.020	1.011	1.004	1.006	1.003	1.001	1.000	1.000	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.001
<i>Cumulative</i>	1.238	1.109	1.049	1.029	1.017	1.013	1.008	1.005	1.003	1.003	1.004	1.003	1.002	1.001	1.001	1.001	1.001	1.001	1.001

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2019
 Paid Loss Development Factors - Medical

Policy Year	Historical Development Factors																		
	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-Ult
1988																			
1989																			
1990																			
1991																			1.005
1992																	1.008	1.008	
1993																1.012	1.006	1.007	1.008
1994															1.013	1.006	1.007	1.008	
1995														1.011	1.010	1.009	1.011	1.012	
1996													1.010	1.008	1.008	1.008	1.007	1.018	
1997												1.017	1.014	1.017	1.015	1.015	1.010	1.009	
1998											1.015	1.011	1.017	1.013	1.012	1.013	1.010	1.009	
1999										1.027	1.016	1.013	1.012	1.012	1.009	1.011	1.008		
2000									1.018	1.017	1.017	1.018	1.020	1.011	1.008	1.008			
2001								1.014	1.014	1.012	1.014	1.016	1.010	1.009	1.011				
2002							1.022	1.017	1.014	1.018	1.019	1.021	1.005	1.006					
2003						1.022	1.019	1.019	1.018	1.020	1.014	1.017	1.011						
2004					1.035	1.032	1.026	1.026	1.018	1.021	1.016	1.010							
2005				1.046	1.038	1.035	1.033	1.033	1.023	1.024	1.017								
2006			1.042	1.048	1.046	1.040	1.032	1.033	1.021	1.024									
2007		1.104	1.059	1.053	1.042	1.046	1.041	1.023	1.019										
2008	1.278	1.078	1.053	1.050	1.032	1.044	1.027	1.016											
2009	1.342	1.066	1.048	1.039	1.037	1.028	1.024												
2010	1.252	1.085	1.052	1.036	1.035	1.029													
2011	1.243	1.065	1.047	1.027	1.019														
2012	1.236	1.070	1.037	1.025															
2013	1.221	1.073	1.037																
2014	1.229	1.066																	
2015	1.234																		

3 Year Avg	1.228	1.070	1.040	1.029	1.030	1.034	1.031	1.024	1.021	1.023	1.016	1.016	1.009	1.009	1.009	1.011	1.009	1.012	1.152
<i>Cumulative</i>	2.082	1.695	1.585	1.523	1.480	1.436	1.389	1.348	1.317	1.289	1.260	1.241	1.221	1.211	1.201	1.189	1.177	1.166	1.152
5 Year Avg	1.233	1.072	1.044	1.035	1.033	1.037	1.031	1.026	1.020	1.021	1.016	1.016	1.012	1.010	1.011	1.011	1.009	1.011	1.152
<i>Cumulative</i>	2.140	1.736	1.620	1.551	1.498	1.451	1.398	1.356	1.321	1.295	1.268	1.248	1.228	1.214	1.202	1.189	1.176	1.165	1.152
6 Year Avg	1.254	1.076	1.046	1.041	1.036	1.035	1.028	1.023	1.018	1.020	1.016	1.015	1.012	1.011	1.011	1.010	1.008	1.009	1.152
<i>Cumulative</i>	2.172	1.732	1.610	1.539	1.479	1.428	1.380	1.343	1.313	1.290	1.264	1.244	1.225	1.210	1.197	1.184	1.172	1.163	1.152
Selected	1.233	1.072	1.044	1.035	1.033	1.037	1.031	1.026	1.020	1.021	1.016	1.016	1.012	1.010	1.011	1.011	1.009	1.011	1.152
<i>Cumulative</i>	2.140	1.736	1.620	1.551	1.498	1.451	1.398	1.356	1.321	1.295	1.268	1.248	1.228	1.214	1.202	1.189	1.176	1.165	1.152

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2019
 Incurred Loss Development Factors - Medical

Policy Year	Historical Development Factors																		
	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-UII
1988																		1.002	1.004
1989																	0.998	1.019	1.001
1990															1.001	1.007	1.010	1.002	
1991														1.016	1.004	1.008	0.997	1.006	
1992													1.010	1.002	1.005	1.010	1.011	1.007	
1993												0.999	0.996	1.001	1.001	1.011	1.001	0.967	
1994											1.007	1.020	1.019	1.003	1.008	1.005	1.007	1.013	
1995										1.013	1.020	1.015	1.013	1.012	0.999	1.018	1.002	1.006	
1996									1.013	1.026	1.023	1.000	1.005	1.014	0.989	0.999	0.995	0.992	
1997								1.017	1.026	1.016	1.006	1.016	1.022	1.006	1.006	1.001	0.991	1.006	
1998							1.016	1.009	1.029	1.012	1.002	1.009	1.018	1.009	1.001	1.006	0.999	1.002	
1999						1.018	1.019	1.034	1.005	1.043	0.999	1.008	1.000	1.007	1.003	1.005	0.996		
2000					1.025	1.034	1.038	1.020	1.014	1.039	1.006	1.011	1.015	1.000	0.997	0.989			
2001				1.032	1.032	1.003	1.011	1.003	0.995	1.000	0.994	1.017	1.015	1.006	0.996				
2002			1.040	1.027	1.064	1.023	1.018	1.014	1.015	0.989	0.995	1.006	1.002	0.994					
2003		0.998	1.026	1.031	1.013	1.018	1.009	1.021	0.995	1.011	1.023	1.000	1.006						
2004	1.061	1.025	1.050	1.045	1.033	1.021	1.006	1.015	1.017	1.008	1.001	1.000							
2005	1.028	1.043	1.069	1.039	1.035	1.033	1.017	1.034	1.022	1.000	1.004								
2006	1.029	1.045	1.048	1.056	1.056	1.028	1.034	1.000	1.012	0.998									
2007	1.059	1.037	1.049	1.059	1.038	1.040	1.024	1.023	0.981										
2008	1.041	1.021	1.045	1.041	1.057	1.029	0.989	0.997											
2009	1.082	1.012	1.041	1.031	1.013	1.014	0.999												
2010	1.058	1.075	1.060	1.023	1.019	1.012													
2011	1.037	1.043	1.037	1.000	1.013														
2012	1.029	1.028	1.017	1.012															
2013	0.955	1.029	1.021																
2014	0.986	1.016																	
2015	0.987																		

3 Year Avg	0.976	1.024	1.025	1.012	1.015	1.018	1.004	1.007	1.005	1.002	1.009	1.002	1.008	1.000	0.999	1.000	0.995	1.000	1.022
<i>Cumulative</i>	1.129	1.157	1.129	1.102	1.089	1.073	1.054	1.049	1.043	1.037	1.035	1.026	1.024	1.016	1.016	1.017	1.017	1.022	1.022
5 Year Avg	0.999	1.038	1.035	1.021	1.028	1.025	1.013	1.014	1.005	1.001	1.003	1.007	1.008	1.003	1.001	1.000	0.997	1.004	1.022
<i>Cumulative</i>	1.247	1.248	1.202	1.161	1.137	1.106	1.079	1.066	1.052	1.046	1.045	1.041	1.034	1.026	1.023	1.022	1.022	1.026	1.022
10 Year Avg	1.029	1.031	1.042	1.033	1.033	1.023	1.015	1.016	1.010	1.013	1.007	1.008	1.010	1.006	1.001	1.005	1.003	1.001	1.022
<i>Cumulative</i>	1.354	1.315	1.276	1.224	1.185	1.147	1.122	1.105	1.088	1.077	1.063	1.056	1.047	1.037	1.031	1.030	1.025	1.023	1.022
Selected	0.999	1.038	1.035	1.021	1.028	1.025	1.013	1.014	1.005	1.001	1.003	1.007	1.008	1.003	1.001	1.000	0.997	1.004	1.022
<i>Cumulative</i>	1.247	1.248	1.202	1.161	1.137	1.106	1.079	1.066	1.052	1.046	1.045	1.041	1.034	1.026	1.023	1.022	1.022	1.026	1.022

Policy Year	Indemnity Paid-to-Paid+Case Ratio <u>19th Report</u>	Medical Paid-to-Paid+Case Ratio <u>19th Report</u>
1994	0.997	0.899
1995	0.990	0.879
1996	0.997	0.900
1997	0.994	0.888
1998	0.999	0.869
Average	0.995	0.887
NCCI Selected:	0.995	0.887
TBG Selected:	0.995	0.887
Limited Incurred 19th-to-Ult. LDF	1.001	1.022
Limited Paid 19th-to-Ult. LDF	1.006	1.152

Determination of Policy Year Development Factors (19th-to-Ultimate Report) - Incurred

Indemnity

Policy Year	(1) Losses for Policy Year		(3) Losses for Prior PYs		(5) Adjustment Factor	(6) Calculated Development	(7) Indicated Tail
	19th Report	20th Report	Previous	Current			
1988	199,316,668	199,528,480	1,161,239,240	1,162,372,220	0.434	2,822,365	1.014
1989	213,445,957	213,457,838	1,397,647,429	1,397,200,057	0.463	-954,365	0.996
1990	225,878,047	225,912,249	1,555,373,043	1,555,226,004	0.495	-262,846	0.999
1991	216,974,067	217,008,426	1,768,789,305	1,769,290,269	0.591	882,014	1.004
1992	187,255,580	187,154,996	1,986,228,385	1,985,318,508	0.770	-1,282,242	0.993
1993	158,868,560	158,863,379	2,172,422,665	2,173,312,271	0.990	893,411	1.006
1994	144,789,155	144,813,818	2,329,107,595	2,329,292,246	1.146	185,790	1.001
1995	124,623,452	124,478,679	2,465,552,482	2,465,751,190	1.381	-886	1.000
1996	113,254,864	113,321,175	2,587,860,296	2,588,098,907	1.539	221,354	1.002
1997	118,200,372	118,236,506	2,701,420,082	2,701,708,070	1.459	233,521	1.002
Total	1,702,606,722	1,702,775,546	20,125,640,522	20,127,569,742		2,738,114	1.002
						NCCI Selected:	1.002
						TBG Selected:	1.002
						Limited Loss Adjustment:	0.743
						Limited Incurred 19th-to-Ult. LDF	1.001

Medical

Policy Year	(8) Losses for Policy Year		(10) Losses for Prior PYs		(12) Adjustment Factor	(13) Calculated Development	(14) Indicated Tail
	19th Report	20th Report	Previous	Current			
1988	182,921,698	183,545,609	997,250,592	995,239,904	0.462	-3,728,228	0.980
1989	225,291,337	226,021,148	1,211,362,184	1,214,244,464	0.424	7,527,641	1.033
1990	218,194,938	220,935,501	1,392,845,639	1,390,129,098	0.511	-2,575,564	0.988
1991	217,678,034	218,639,691	1,600,049,877	1,608,536,398	0.589	15,370,012	1.071
1992	199,039,379	201,626,629	1,827,097,236	1,834,386,231	0.724	12,654,923	1.064
1993	179,589,256	179,545,203	2,034,904,275	2,039,772,626	0.881	5,481,885	1.031
1994	179,487,560	179,692,722	2,216,530,190	2,222,781,181	0.935	6,890,714	1.038
1995	166,318,640	166,771,950	2,393,018,576	2,397,554,094	1.066	4,708,017	1.028
1996	137,615,320	136,817,112	2,562,381,410	2,560,122,667	1.332	-2,493,961	0.982
1997	160,174,209	158,844,841	2,696,939,779	2,700,831,854	1.155	2,040,394	1.013
Total	1,866,310,371	1,872,440,406	18,932,379,758	18,963,598,517		45,875,833	1.025
						NCCI Selected:	1.030
						TBG Selected:	1.030
						Limited Loss Adjustment:	0.743
						Limited Incurred 19th-to-Ult. LDF	1.022

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2019
 Policy Year Trend Factors

Exhibit 4

Section A - Summary of Policy Year Data

(1)	(2)	(3)		(4)	(5)		(6)
Policy Year	Lost-Time Claim Frequency	Indemnity		Loss Ratio	Medical		Loss Ratio
		Avg Cost per Case			Avg Cost per Case		
2002	30.218	23,048		0.695	30,532		0.924
2003	30.284	23,675		0.717	33,041		1.001
2004	29.178	23,075		0.672	34,756		1.016
2005	28.143	22,054		0.619	34,880		0.980
2006	28.199	23,428		0.662	35,149		1.000
2007	27.632	22,251		0.619	36,910		1.026
2008	26.326	21,661		0.568	35,015		0.922
2009	27.427	20,857		0.572	35,850		0.983
2010	29.218	19,014		0.556	31,523		0.921
2011	26.377	18,298		0.483	29,978		0.790
2012	25.682	17,849		0.459	32,269		0.829
2013	23.667	16,954		0.401	32,611		0.772
2014	22.967	15,735		0.362	31,436		0.722
2015	20.922	15,708		0.329	31,809		0.665
2016	18.633	15,916		0.297	33,904		0.632

Exponential Least-Squares Fit

	<u>Indemnity</u>	<u>Medical</u>
All-Years	-5.9%	-3.1%
10-Year	-7.7%	-4.7%
7-Year	-9.3%	-5.8%
5-Year	-9.6%	-5.1%

Section B - Summary of Annual Trend Factors

	<u>Indemnity</u>	<u>Medical</u>
(1) Current Approved Annual Loss Ratio Trend Factor	0.945	0.980
(2) Selected Annual Loss Ratio Trend Factor	0.940	0.970
(3) Length of Trend Period from Midpoint of Policy Year to Midpoint of Effective Period:		
		<u>Years</u>
	Policy Year 2015	4.214
	Policy Year 2016	3.214
(4) Trend Factor Applied to Experience Year = (2) ^ (3)	<u>Indemnity</u>	<u>Medical</u>
	Policy Year 2015	0.770
	Policy Year 2016	0.820
		0.880
		0.907

Tennessee Department of Commerce & Insurance
 Review of NCCI Loss Cost Filing
 Effective 3/1/2019
 Ratio of LAE to Loss

Exhibit 5

Accident Year	NCCI Developed Ratio at Age (in Years):						
	1	2	3	4	5	6	7
1997							16.2%
1998						15.7%	15.5%
1999					15.4%	14.9%	15.2%
2000				15.8%	15.3%	15.6%	15.9%
2001			16.3%	16.1%	16.0%	16.4%	16.5%
2002		16.6%	16.2%	16.6%	17.1%	17.1%	17.1%
2003		18.2%	18.1%	18.1%	17.8%	17.9%	17.5%
2004	17.7%	17.7%	17.8%	17.4%	17.4%	17.0%	17.0%
2005	18.8%	18.7%	18.7%	18.2%	18.3%	17.8%	17.7%
2006	19.4%	19.2%	18.9%	18.6%	18.7%	18.5%	18.4%
2007	20.4%	19.9%	19.6%	19.1%	19.2%	18.6%	18.5%
2008	20.1%	19.4%	19.0%	18.9%	18.4%	18.1%	18.0%
2009	21.2%	19.6%	19.6%	19.4%	19.0%	18.6%	
2010	19.7%	19.6%	19.3%	19.0%	18.5%		
2011	19.9%	19.5%	19.2%	18.8%	18.8%		
2012	20.3%	20.2%	19.8%	19.9%	20.0%		
2013	20.9%	20.3%	20.4%	20.6%	20.3%		
2014	20.4%	21.0%	21.0%	20.3%			
2015	20.4%	20.5%	20.0%				
2016	20.5%	20.5%					
2017	21.0%						

Adjusted Ultimate
20.3%
20.2%
19.8%
20.2%
20.9%
TBG Selected: 19.7%
Change in LAE Provision: 1.000

Accident Year	Additional Development of Ultimate Ratios					
	1-2	2-3	3-4	4-5	5-6	6-7
2002			1.025	1.030	1.000	1.000
2003		0.995	1.000	0.983	1.006	0.978
2004	1.000	1.006	0.978	1.000	0.977	1.000
2005	0.995	1.000	0.973	1.005	0.973	0.994
2006	0.990	0.984	0.984	1.005	0.989	0.995
2007	0.975	0.985	0.974	1.005	0.969	0.995
2008	0.965	0.979	0.995	0.974	0.984	0.994
2009	0.925	1.000	0.990	0.979	0.979	
2010	0.995	0.985	0.984	0.974		
2011	0.980	0.985	0.979	1.000		
2012	0.995	0.980	1.005	1.005		
2013	0.971	1.005	1.010	0.985		
2014	1.029	1.000	0.967			
2015	1.005	0.976				
2016	1.000					

3 Year Avg	1.011	0.994	0.994	0.997	0.977	0.995	1.000
<i>Cumulative</i>	0.967	0.957	0.963	0.969	0.972	0.995	1.000
5 Year Avg	1.000	0.989	0.989	0.989	0.979	0.996	1.000
<i>Cumulative</i>	0.943	0.942	0.953	0.963	0.974	0.996	1.000
8 Year Avg	0.988	0.989	0.988	0.991	0.985	0.994	1.000
<i>Cumulative</i>	0.935	0.947	0.958	0.969	0.978	0.994	1.000
Selected	1.011	0.994	0.994	0.997	1.000	1.000	1.000
<i>Cumulative</i>	0.996	0.984	0.991	0.997	1.000	1.000	1.000

Exhibit 5A

Tennessee Workers' Compensation Data Calendar Years 2009-2017

A Report of Statewide Data for the
Tennessee Advisory Council on Workers' Compensation

September 2017

David Wilstermann



Tennessee Workers' Compensation Data Calendar Years 2009-2017



A Report of Statewide Data for the
Tennessee Advisory Council on Workers' Compensation

Table of Contents

Data Summary	1
Introduction.....	3
Methods.....	3
Conclusion Types.....	4
Date of Injury to Date of Conclusion.....	6
Date of Injury to Date of Maximum Medical Improvement.....	6
Date of MMI to Date of Conclusion.....	7
Age.....	8
Education	8
Compensation Rate.....	9
Maximum Compensation Rate	10
Number of Weeks of Temporary Total Disability Benefits	10
Temporary Total Disability Benefit Amounts.....	11
Permanent Partial Impairment Ratings – Employee Returned to Work.....	13
Percentage Awarded for Permanent Partial Disability – Employee Returned to Work.....	14
Permanent Partial Disability Multipliers – Employee Returned to Work	15
Permanent Partial Disability – Monetary Benefits – Employee Returned to Work.....	16
Medical Benefits/Expenses – Employee Returned to Work.....	17
Permanent Partial Impairment Ratings – Employee did not Return to Work	17
Percentage Awarded for Permanent Partial Disability – Employee did not Return to Work	18
Permanent Partial Disability Multipliers – Employee did not Return to Work.....	19
Permanent Partial Disability – Monetary Benefits – Employee did not Return to Work.....	19
Medical Benefits/Expenses – Employee did not Return to Work.....	20
Lump Sum Benefits	21
Psychological Injury.....	21
Pre and Post Reform Act Comparisons.....	22
Medical & Indemnity Summary.....	24
Conclusion.....	24

Data Summary

- For 2017, there were 6,284 cases with dates of injuries after implementation of the 2014 Reform Act and 666 cases with dates of injuries before.
- The median number of weeks from injury to conclusion for 2017 post act cases increased one month to 56 weeks. For 2017 pre act cases, the median case duration was 205.5 weeks, up over one year.
- The median number of weeks from the date of injury to maximum medical improvement was 32 weeks for 2017 post act cases and 42 for 2017 pre act cases.
- The median age of injured workers in cases with permanent disability ranged from 46 to 48 years old for all years analyzed.
- The percent of injured workers with more than a high school education was 29% for 2017 post act cases. The percent of injured workers with a high school or high school equivalent level of education increased to 63% for 2017 post act cases.
- The median compensation rate for injured workers for 2017 post act cases was \$468, up \$12 from 2016. The median pre act compensation rate for 2017 pre act cases was \$431.
- The median number of weeks of TTD benefits for 2017 post act cases increased to 14. The median number of weeks of temporary total benefits was 36.7 for 2017 pre act cases.
- Post act cases display a higher percentage of injured workers returning to pre injury employment than pre act ones.
- The median permanent impairment ratings for injured workers who returned to pre injury employment for 2017 post act cases remained 3.0. PPI ratings include body as a whole and scheduled member injuries converted to body as a whole impairment percentages.
- Permanent partial disability amounts for injured workers who returned to pre injury employment was 3.0 for 2017 post act cases, up from 2.0 in 2015 and 2.5 in 2016.
- The median PPD multiplier for all post act cases was 1.0.
- The 2017 post act median PPD benefit amount for cases where injured workers were returned to work was \$5,862. For 2017 pre act cases the median PPD benefit amount increased by more than \$5,000 to \$15,499.

- For 2017 post act cases, the median amount paid for medical benefits where the injured worker returned to work was \$12,657. The median amount of medical benefits paid for return to work cases increased to \$37,792 for 2017 pre act cases.
- For 2017 post act cases where injured workers were not returned to pre injury employment, the median PPI rating was 4.0.
- The median PPD amount paid for cases where injured workers were not returned to pre injury employment was \$10,177 for 2017 post act cases.,
- The median amount paid for non return to work medical benefits increased to \$20,781 for 2017 post act cases.
- The median amount of lump sum payments for 2017 post act cases was \$6,000.
- Significant differences exist between pre and post act groups of cases for PPD percent, PPD multipliers, and PPD benefit amounts.

Introduction

This year presents the first opportunity to compare pre and post 2014 Tennessee Workers' Compensation Reform Act cases. The first post Reform Act cases began appearing in small numbers in 2014. Starting in 2016, cases that had dates of injury after the implementation of the Reform Act outnumbered those from before. Throughout this report, cases with dates of injury after July 1, 2014, will be referred to as post act cases. Those with dates of injury before July 1, 2014 will be referred to as pre act. 2017 pre act cases have dates of injury at least two and half years before their subsequent dates of conclusion, therefore pre act cases are inherently longer. Associated factors with longer case lengths are higher temporary total disability amounts and more severe injuries resulting in higher permanent partial impairment and disability amounts. 2016 and 2017 pre and post act data reflect this. Therefore direct comparisons between pre and post act cases should not be done within the same year.

To continue reporting standards from previous reports, body as a whole and scheduled member injuries were grouped together. The Reform Act considers all impairments as impairments to the body as a whole, therefore pre act impairments and disability amounts have been converted to corresponding body as a whole amounts. Additionally, greater emphasis will continue to be placed in reporting median amounts, which provide a more accurate picture of the typical workers' compensation case experience due to the distribution of workers' compensation data and the existence of outlier values.

Methods

Pursuant to Tennessee statute, participants in the Tennessee workers' compensation system are required to send certain reports to the Tennessee Bureau of Workers' Compensation, formerly the Workers' Compensation Division. One of the final reports received by the Division/Bureau is the Statistical Data Form (SD-1). It is the closing document for a claim in which a permanent injury was sustained. The Bureau operates an integrated computer system which is referred to as the Workers' Compensation Computer System (WCS). It is into this database that the information from the SD-1 forms are entered. The Bureau provided, at the request of the Advisory Council on Workers' Compensation, data from the WCS.

Because it is necessary to have adequate time to obtain a representative collection of closed case information for analysis and pre/post act comparisons, cases were selected with dates of conclusion between January 1, 2009 and December 31, 2017. Some of the cases presented multiple conclusion dates coinciding with the various venues in which cases can be finalized. This is possible because a case may be reconsidered if, for example, changes in the injured employee's work status occur. It is impossible from a data perspective to piece back together what information translates to which conclusion, therefore cases with multiple conclusion dates were excluded from this report, with two exceptions. There were some Division¹ offices that did not have a Workers' Compensation Specialist 4 present to approve settlements at the time of agreement. In this situation, the parties needed court approval for their case to be finalized, thus creating a Division approval date and a court approval date in close proximity. To include

¹ Now referred to as the Bureau of Workers' Compensation

cases of this nature, cases with court approval dates and Division approval dates within 30 days of each other were included and coded as Division approved settlements. The other case of dual conclusion date inclusion in analysis was when a joint petition settlement and a court approved settlement were within 30 days of each other.

Until the Reform Act, permanent impairment and disability in Tennessee were split between scheduled members and the body as whole (BAW). Under the Reform Act, all impairment and disability are calculated based on the impact to the body as whole. To aid in future comparisons, pre act cases have been converted to BAW impairments and disabilities. Permanent partial impairment ratings were converted using the AMA guides and permanent partial disability amounts were converted using the reported permanent partial disability amount multiplied by the ratio of the pre act scheduled member number of weeks of benefits to the pre act body as whole number of weeks of benefits.

Conclusion Types

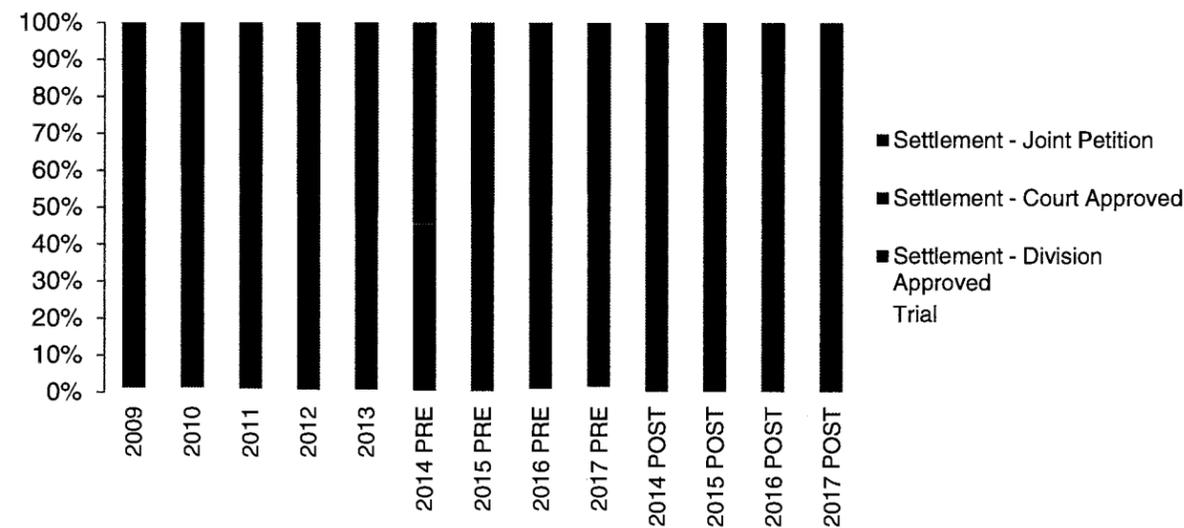
Pre Reform Act workers' compensation cases could be concluded in four ways, by trial, joint petition settlement, Workers' Compensation Division approved settlement (now Bureau of Workers' Compensation), and by court approved settlement. The following charts depict the frequency and percent in which the various conclusion types were utilized. The conclusion types were determined by the conclusion type date field that was indicated on SD-1 forms. Cases were excluded if they contained more than one conclusion type date. However, as mentioned in the methods section, cases with both court and Division approved settlements within 30 days of each other or joint petition settlements and court approved settlements within 30 days of each other were included.

Trials were utilized in a decreasing amount, from 1.1% of conclusion types in 2009 to 0.2% in 2015 pre act cases. There were only nine trials in 2017 comprising 1.4% of pre act cases. Joint petition settlement utilization decreased from 17.6% in 2013 to 9.2% in 2017 pre act cases. Nearly half (52.4%) of 2017 pre act cases were Division approved settlements. Court approved settlements comprised almost 37% of 2017 pre act cases. Post act conclusion types are included as well, however, SD-1 conclusion type options were designed for a court based system. Changes implemented on the SD-2 form reflect the current system.

Frequency and Percent of Workers' Compensation Conclusion Types

Year	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
2009	88	1.0	1135	12.9	5398	61.4	2174	24.7	8795
2010	93	1.1	1122	13.7	4908	59.9	2075	25.3	8198
2011	60	0.8	1112	14.0	4789	60.3	1984	25.0	7945
2012	42	0.5	1397	16.5	4472	52.7	2570	30.3	8481
2013	45	0.5	1580	17.6	4316	48.0	3047	33.9	8988
2014 PRE	22	0.3	1236	15.2	3675	45.2	3201	39.4	8134
2015 PRE	13	0.2	701	15.2	2345	50.1	1553	33.7	4612
2016 PRE	11	0.7	163	10.4	722	49.2	622	39.7	1568
2017 PRE	9	1.4	61	9.2	350	52.6	246	36.9	666
2014 POST	-	-	-	-	41	89.1	5	10.9	46
2015 POST	-	-	12	0.4	2463	89.4	280	10.2	2755
2016 POST	1	0.0	10	0.2	5239	86.3	823	13.6	6073
2017 POST	-	-	10	0.2	5383	85.7	891	14.2	6284

Percent of Workers' Compensation Conclusion Types



Date of Injury to Date of Conclusion

The median duration of 2017 post act cases was 56 weeks, or one year and one month. Between 2009 and 2014 (pre act), case lengths averaged around a year and three to four months. The median case length for 2015 pre act cases from the date of injury to the date of conclusion increased to over a year and half (84.5 weeks). By 2017, pre act cases took a median of 205 weeks, or almost four years to conclude. The following table displays total case length averages for all conclusion types for cases involving permanent disability. If case durations are analyzed by year, not split between pre and post act cases, the median number of weeks from injury to conclusion for 2016 and 2017 is 60.

Average Number of Weeks from Date of Injury to Date of Conclusion

Year	Count	Median	Q1	Q3
2009	8751	67.0	84.3	60.5
2010	8166	70.0	87.6	62.3
2011	7917	69.0	85.7	59.7
2012	8457	66.0	83.7	60.7
2013	8952	68.0	86.7	65.4
2014 PRE	8109	66.0	85.4	67.0
2015 PRE	4578	84.5	113.2	86.9
2016 PRE	1533	173.4	91.3	91.3
2017 PRE	604	250.5	110.8	110.8
2014 POST	46	19.0	19.2	3.3
2015 POST	2753	38.0	39.3	13.4
2016 POST	6068	52.0	54.6	22.7
2017 POST	6277	56.0	62.2	31.2

Date of Injury to Date of Maximum Medical Improvement

The median duration for 2017 post act cases from the date of injury to the date of MMI was 32 weeks. Median amounts from 2009 to 2014 pre act cases ranged from 37 to 39 weeks. As a higher percentage of cases are conducted under the Reform Act, the length of time from injury to MMI for pre act cases increased rapidly. The median number of weeks from injury to MMI for 2017 pre act cases increased to 112. The combined median number of weeks for 2017 cases from injury to MMI was 34, the same as it was in 2016. The following table presents the average number of weeks from the date of injury to the date of maximum medical improvement.

Average Number of Weeks from the Date of Injury to the Date of MMI

Year	Number of Cases	Average Weeks	Median Weeks	80th Percentile Weeks
2009	8084	37.0	49.1	44.1
2010	7601	39.0	51.2	42.9
2011	7415	39.0	50.7	44.6
2012	8003	38.0	49.8	43.5
2013	8267	37.0	51.1	49.8
2014 PRE	7711	37.0	50.7	50.8
2015 PRE	4213	46.0	61.2	58.9
2016 PRE	1403		95.1	73.0
2017 PRE	541		136.5	107.9
2014 POST	43	11.0	10.7	3.3
2015 POST	2667	22.0	23.7	11.7
2016 POST	5891	30.0	33.4	18.6
2017 POST	6132	32.0	38.2	24.7

Date of MMI to Date of Conclusion

For 2017 pre act cases, the median length of time from the date of maximum medical improvement to the date of conclusion increased to 87 weeks, compared to 18 weeks for 2017 post act cases. The median number of weeks from MMI to conclusion was consistently 21 or 22 weeks for 2009 to 2014 pre act cases. The combined median duration from MMI to conclusion for 2017 cases was 20 weeks, the same as 2016 cases.

Average Number of Weeks from the Date of MMI to the Date of Conclusion

Year	Number of Cases	Average Weeks	Median Weeks	80th Percentile Weeks
2009	8159	21.0	34.5	41.1
2010	7665	22.0	36.1	45.5
2011	7452	22.0	34.9	41.6
2012	8030	22.0	34.0	39.6
2013	8366	22.0	34.0	38.8
2014 PRE	7753	21.0	33.7	39.1
2015 PRE	4251	29.0	43.2	46.7
2016 PRE	1423		70.6	63.0
2017 PRE	557		107.4	93.1
2014 POST	44	8.0	13.0	32.5
2015 POST	2679	13.0	15.9	11.9
2016 POST	5894	17.0	21.4	16.0
2017 POST	6134	18.0	24.0	20.5

Age

The following table displays the average age of injured workers in cases where there was permanent injury. Median ages of injured workers in cases that involved permanent disability ranged from 46 to 48 years. The median age for injured workers for 2017 pre and post act cases was 48. The average age of injured workers in cases involving permanent disability is one of the few consistent measures over time, however it may be trending up slightly.

Average Age of Injured Workers

Year	Number of Cases	Average Age	Median Age	80th Percentile Age
2009	5779	45.2	45.2	11.6
2010	5147	45.8	45.8	11.2
2011	5110	46.2	46.2	11.5
2012	5639	46.6	46.6	11.6
2013	6072	46.6	46.6	11.6
2014 PRE	5409	46.3	46.3	11.6
2015 PRE	2877	46.7	46.7	11.7
2016 PRE	863	47.0	47.0	11.5
2017 PRE	320	46.5	46.5	11.9
2014 POST	31	47.6	47.6	12.0
2015 POST	2040	45.9	45.9	12.5
2016 POST	4319	46.6	46.6	12.3
2017 POST	4193	47.2	47.2	12.4

Education

Educational attainment for injured workers is displayed below. For 2017 post act cases, 63.1% of injured workers had a high school education, 7.9% had less than a full high school education, and 29.0% had more than a high school education. There was an overall upward trend in education levels. The percent of injured workers with less than a high school education is decreasing.

Educational Attainment of Injured Workers

Year	Count	High School	Some College	College
2009	6670	13.5	61.9	24.6
2010	6126	13.0	60.6	26.3
2011	5927	12.3	60.9	26.8
2012	6508	11.5	61.1	27.4
2013	6397	10.3	63.1	26.7
2014 PRE	5692	10.4	61.5	28.1
2015 PRE	3283	11.4	57.7	30.9
2016 PRE	1568	12.3	57.6	30.1
2017 PRE	439	10.7	62.9	26.4
2014 POST	39	12.8	61.5	25.6
2015 POST	2104	11.2	58.6	30.2
2016 POST	6073	8.9	60.3	30.7
2017 POST	5016	7.9	63.1	29.0

Compensation Rate

The median weekly compensation rate for 2017 post act cases increased \$12 to \$468. The median compensation rate for injured workers in 2017 pre act cases was \$431. When pre and post act years are combined, a slight upward trend exists. The combined median compensation rate for 2017 was \$463.

Average Compensation Rates for Injured Workers

Year	Count	Median	Mean	Standard Deviation
2009	8529		\$432	\$184
2010	8016		\$442	\$189
2011	7805		\$446	\$193
2012	8350		\$447	\$196
2013	8874		\$459	\$201
2014 PRE	8016		\$461	\$209
2015 PRE	4510		\$462	\$209
2016 PRE	1528		\$463	\$211
2017 PRE	650		\$461	\$208
2014 POST	46		\$418	\$197
2015 POST	2697		\$481	\$215
2016 POST	5971		\$487	\$218
2017 POST	6202		\$497	\$221

Maximum Compensation Rate

Temporary total benefits are capped at 110% of the Tennessee's average weekly wage. Permanent partial benefits are capped at 100% of the state's average weekly wage. The following charts show the percent of cases with compensation rates capped at the maximum amount for 2009 to 2016 cases. For 2016 post act cases, 8.9% were capped at the PPD maximum and 1.1% were capped at the TTD maximum.

Frequency and Percent of Cases with Maximum Compensation Rates

Year	Count	Percent	Count	Percent
2009	807	9.5	285	3.3
2010	410	5.1	238	3.0
2011	462	5.9	204	2.6
2012	736	8.8	140	1.7
2013	928	10.5	195	2.2
2014 PRE	824	10.3	121	1.5
2015 PRE	465	10.3	61	1.3
2016 PRE	184	11.7	24	1.5
2017 PRE	96	14.4	12	0.0
2014 POST	1	2.2	0	0.0
2015 POST	244	9.0	3	0.1
2016 POST	542	8.9	96	1.1
2017 POST	598	9.5	89	0.0

Number of Weeks of Temporary Total Disability Benefits

For 2017 post act cases, the median number of weeks of temporary total benefits paid for cases involving permanent injury increased to 14.4. The median number of weeks of TTD benefits for 2017 pre act cases reduced from the previous year to 36.7 weeks. The charts below represent the average number of weeks of TTD benefits paid for all injury types and severities where there has been permanent disability. The combined median TTD number of weeks for all 2017 cases was 15.6 weeks, unchanged from 2016.

Average Number of Weeks of Temporary Total Disability Benefits Paid

2009	5624	33.6	32.2	40.1
2010	5374	33.6	34.8	44.4
2011	5185	33.2	33.9	45.1
2012	5678	37.6	31.8	42.2
2013	5851	37.0	31.5	43.0
2014 PRE	5516	37.0	31.2	42.7
2015 PRE	3091	39	34.6	40.2
2016 PRE	1021		72.7	90.8
2017 PRE	304		64.5	70.0
2014 POST	26	4.7	7.3	6.2
2015 POST	1787	10.0	13.8	15.5
2016 POST	4356	13.4	20.9	25.0
2017 POST	3876	14.4	22.8	27.3

Average Amounts of Temporary Total Disability Benefits Paid

2009	5624	\$8,872	\$12,803	\$16,232
2010	5374	\$530	\$13,928	\$16,947
2011	5185	\$932	\$13,470	\$17,367
2012	5678	\$696	\$12,875	\$16,560
2013	5851	\$692	\$12,631	\$16,266
2014 PRE	5516	\$592	\$12,429	\$15,888
2015 PRE	3091	\$40	\$14,685	\$17,475
2016 PRE	1021		\$32,683	\$47,476
2017 PRE	304		\$23,738	\$23,524
2014 POST	26	\$1,650	\$2,595	\$2,285
2015 POST	1787	\$3,746	\$5,996	\$6,851
2016 POST	4356	\$5,408	\$9,605	\$13,615
2017 POST	3876	\$5,405	\$9,392	\$11,839

Temporary Total Disability Benefit Amounts

The median amount of TTD benefits was \$5,405 for 2017 post act cases. For 2017 pre act cases, the median amount of TTD benefits paid dipped from \$16,095 to \$15,291. The tables below depict the average amounts paid for TTD benefits from 2009 to 2017. The combined median TTD amount for 2017 was \$6,440.

The SD-1 form has a field to indicate whether the employee returned to work for the same employer. This is the field used to delineate return to work status for permanent partial impairment and permanent partial disability reporting. The following charts depict the percent of SD-1 forms per year that indicated the employee returned to work for their pre injury employer. In 81.5% of 2017 post act cases the injured workers returned to work, compared to 48.1% of 2017 pre act cases.

Percent of Injured Workers That Returned to Pre Injury Employment

2009	6422	
2010	5916	
2011	5773	
2012	6350	
2013	6904	
2014 PRE	6212	
2015 PRE	3350	
2016 PRE	741	9
2017 PRE	241	.1
2014 POST	43	
2015 POST	2425	
2016 POST	4489	
2017 POST	4628	

To determine Reform Act effects on return to work status, cases were selected that were 130 weeks (2.5 years) or less from injury to conclusion. This allows for a more similar group of cases to be analyzed. The following table present the percent of injured workers who were returned to pre injury employment. The percent of cases were injured workers were returned to pre injury employment increased from 69% in 2009 to 78% in 2017.

Percent of Injured Workers That Returned to Pre Injury Employment for Cases that are 2.5 Years or Less from Injury to Conclusion

Year	Number of Cases	Percent Returned
2009	4748	69.0
2010	4381	68.8
2011	4378	70.2
2012	4752	68.3
2013	5052	69.4
2014	4736	71.1
2015	4592	77.1
2016	4805	76.1
2017	4507	78.2

Permanent Partial Impairment Ratings – Employee Returned to Work

Cases were selected with only one permanent disability per side to be able to get as accurate of a picture as possible for permanent impairment, disability, and subsequent multipliers. This included those with no side indicated. For example, an injury to the left shoulder would result in a left PPI rating and PPD amount. If that same case also had an injury to the left arm, it would not be possible to piece back together which PPI rating went with which PPD amount. Analyzing single side injury information allowed for clean determination of which impairment ratings went with the corresponding disability and accounted for over 98% of permanent impairment cases. Multiple injuries were included if the injuries were to different, or no, sides. Less than 1% of 2017 cases had injury information to more than one side.

For all cases with dates of injury before the implementation of the reform act, scheduled member impairment ratings have been converted to body as a whole equivalents. This was done using the AMA guides. The average PPI ratings reported below are for all injury types, scheduled member ratings converted to body as a whole and as body as a whole ratings together. Previous reports showed a decreasing trend in PPI ratings. The median PPI rating for 2017 post act return to work cases was 3.0. The median PPI rating for pre act cases was 5.0.

Average PPI Ratings – Employee Returned to Work

Year	Number of Cases	Bar Chart	Average PPI Rating	Median PPI Rating
2009	5190	[Bar]	6.0	6.6
2010	4882	[Bar]	5.7	6.7
2011	4822	[Bar]	5.4	6.1
2012	5163	[Bar]	4.9	5.5
2013	5482	[Bar]	4.9	5.9
2014 PRE	5074	[Bar]	4.7	5.5
2015 PRE	1270	[Bar] 2.0	3.5	4.5
2016 PRE	741	[Bar]	5.8	5.8
2017 PRE	240	[Bar]	7.6	7.9
2015 POST	31	[Bar] 2.0	2.2	1.4
2015 POST	200	[Bar] 2.0	3.3	2.9
2016 POST	4484	[Bar]	3.6	3.7
2017 POST	4405	[Bar]	3.9	4.2

Percentage Awarded for Permanent Partial Disability – Employee Returned to Work

Like the PPI ratings, scheduled member PPD amounts have been converted to body as a whole and are reported together in the following charts. Pre act scheduled member disability amounts were converted using the following formula:

$$\text{Case PPD Amount} \times \frac{\text{Scheduled Member \# of weeks}}{400 \text{ (previous BAW \# of weeks)}}$$

The median PPD amount for 2017 post act return to work cases increased from 2.5 last year to 3.0. The median PPD percent amount for 2017 pre act cases increased from 6.0 to 7.5.

Average PPD Percent – Employee Returned to Work

Year	Count	Bar	Value 1	Value 2
2009	4281		8.4	9.8
2010	4177		8.2	10.0
2011	4294		7.7	9.6
2012	4637		6.9	8.3
2013	5052		6.7	8.3
2014 PRE	3911		6.7	8.7
2015 PRE	1821		7.5	8.9
2016 PRE	741		9.6	10.9
2017 PRE	248		13.1	15.6
2014 POST	21	2.0	2.8	2.8
2015 POST	1258	2.0	3.4	4.5
2016 POST	4484	2.5	3.7	4.2
2017 POST	4616	3.0	3.9	4.0

Permanent Partial Disability Multipliers – Employee Returned to Work

A permanent partial disability multiplier is the ratio of the PPD judgment or settlement amount to the highest PPI rating associated with an injury. PPD multipliers are calculated by dividing the PPD percent amount by the highest PPI rating. PPD multipliers reported in the tables below present the combination of converted scheduled member injuries with body as a whole injuries. The PPD multiplier for all post act cases was 1.0, the statutory multiplier for cases where the injured workers were returned to pre injury employment. The median PPD multipliers for all pre act cases was 1.5.

Average PPD Multipliers – Employee Returned to Work

Year	Count	Bar	Value 1	Value 2
2009	4139		1.6	1.3
2010	4084		1.6	1.2
2011	4190		1.5	0.9
2012	4542		1.6	1.1
2013	4925		1.6	1.3
2014 PRE	3810		1.5	1.3
2015 PRE	858		1.7	1.7
2016 PRE	665		1.6	1.2
2017 PRE	231		2.0	1.5
2014 POST	19		1.0	0.4
2015 POST	98		1.0	0.3
2016 POST	4397		1.1	1.5
2017 POST	4396		1.0	0.3

Permanent Partial Disability – Monetary Benefits – Employee Returned to Work

Average amounts reported in the table below consist of the combination of converted scheduled member injuries with body as a whole injuries. For 2017 post act cases, the median PPD amount increased about \$400 to \$5,862. Median PPD monetary benefits reduced from \$11,809 in 2009 to \$8,707 for 2014 pre act cases then increased to \$21,359 in 2017.

Average PPD Benefit Amount – Employee Returned to Work

Year	Count	Bar	Value 1	Value 2
2009	5185	\$11,809	\$25,558	\$47,367
2010	4852	\$11,445	\$25,203	\$50,940
2011	4854	\$11,366	\$23,844	\$48,826
2012	5181	\$11,302	\$20,855	\$43,829
2013	5542	\$11,133	\$19,741	\$37,402
2014 PRE	5162	\$8,707	\$19,318	\$42,400
2015 PRE	2700	\$11,438	\$22,862	\$44,353
2016 PRE	708	\$11,309	\$34,924	\$54,515
2017 PRE	254	\$21,359	\$55,814	\$90,273
2014 POST	34	\$3,181	\$4,464	\$3,805
2015 POST	2198	\$4,579	\$7,844	\$12,387
2016 POST	4367	\$5,444	\$9,460	\$13,768
2017 POST	4558	\$5,862	\$10,758	\$18,550

Medical Benefits/Expenses – Employee Returned to Work

The median amount for 2017 post act cases increased a few hundred dollars to \$12,657. Pre act cases ranged from a median of \$13,135 in 2009 to \$37,792 in 2017. Average medical amounts reported are for combined scheduled member and body as a whole cases.

Average Medical Benefit/Expense – Employee Returned to Work

Year	Count	Median	Member	Body
2009	4953	\$13,135	\$22,264	\$37,946
2010	4646	\$13,967	\$24,905	\$44,866
2011	4668	\$14,401	\$25,671	\$48,283
2012	5070	\$14,745	\$24,622	\$42,800
2013	5453	\$14,378	\$25,127	\$55,397
2014 PRE	5070	\$13,926	\$25,315	\$63,591
2015 PRE	2612	\$17,636	\$29,613	\$54,515
2016 PRE	701	\$16,636	\$48,808	\$78,643
2017 PRE	240	\$12,657	\$84,083	\$202,900
2014 POST	35	\$2,698	\$3,987	\$3,657
2015 POST	2182	\$8,936	\$12,827	\$14,799
2016 POST	4411	\$12,384	\$18,134	\$31,430
2017 POST	4572	\$12,657	\$21,665	\$44,697

Permanent Partial Impairment Ratings – Employee did not Return to Work

Using the same methods as cases where the injured worker was returned to pre injury employment, cases involving single side injuries were selected for PPI, PPD, multiplier, and medical amount for analysis of non return to work experiences. Additionally, scheduled member PPI ratings were converted to body as a whole using the AMA guides. The median PPI rating for 2017 post act cases was 4.0, the same as last year. The median PPD rating for 2017 pre act non return to work cases increased to 9.0.

Average PPI Ratings – Employee did not Return to Work

Year	Count	Member	Body
2009	2459	10.7	10.8
2010	2414	10.6	11.5
2011	2280	9.6	9.9
2012	2598	10.5	11.9
2013	2603	10.3	12.4
2014 PRE	2232	8.5	9.4
2015 PRE	469	4.0	6.8
2016 PRE	688	11.0	12.9
2017 PRE	326	14.7	15.4
2014 POST	9	2.0	2.7
2015 POST	22	3.0	4.2
2016 POST	1283	4.0	6.4
2017 POST	1268	4.0	7.7

Percentage Awarded for Permanent Partial Disability – Employee did not Return to Work

The charts below display average PPD percentages and present converted scheduled member and body as a whole amounts together. The median PPD percent for 2017 pre act cases where injured workers did not return to work remained unchanged at 4.0. The median PPD percent for pre act cases was 20.8.

Average PPD Percent - Employee did not Return to Work

Year	Count	Member	Body
2009	2078	24.7	22.2
2010	2096	25.4	22.3
2011	1965	23.7	21.0
2012	2301	23.6	21.1
2013	2465	21.7	21.0
2014 PRE	1690	21.8	21.0
2015 PRE	1082	21.9	20.8
2016 PRE	688	25.6	30.9
2017 PRE	340	28.6	25.2
2014 POST	5	2.0	5.9
2015 POST	209	3.0	4.9
2016 POST	1283	4.0	6.1
2017 POST	1320	4.0	6.8

Permanent Partial Disability Multipliers – Employee did not Return to Work

The PPD multiplier for 2016 post act cases where the injured worker did not return to work was 1.0. Pre act permanent partial disability multipliers for cases involving permanent injury where injured workers did not return to pre injury employment ranged from 2.4 to 2.9.

Average PPD Multiplier - Employee did not Return to Work

Year	Count	Min	Max	Pre-Act Avg	Post-Act Avg
2009	1985	[REDACTED]	[REDACTED]	2.8	1.8
2010	2038	[REDACTED]	[REDACTED]	3.1	2.6
2011	1906	[REDACTED]	[REDACTED]	3.0	2.2
2012	2238	[REDACTED]	[REDACTED]	3.0	2.4
2013	2298	[REDACTED]	[REDACTED]	3.2	6.4
2014 PRE	1641	[REDACTED]	[REDACTED]	3.1	4.7
2015 PRE	318	[REDACTED]	[REDACTED]	4.0	7.6
2016 PRE	608	[REDACTED]	[REDACTED]	3.0	4.6
2017 PRE	311	[REDACTED]	[REDACTED]	3.2	3.5
2014 POST	5	[REDACTED] .4	[REDACTED]	1.7	1.3
2015 POST	9	[REDACTED] 1.0	[REDACTED]	1.1	0.7
2016 POST	1242	[REDACTED] 1.0	[REDACTED]	1.2	0.9
2017 POST	1241	[REDACTED] 1.0	[REDACTED]	1.1	0.6

Permanent Partial Disability – Monetary Benefits – Employee did not Return to Work

The median PPD amount paid for injured workers who did not return to pre injury employment for 2017 post act cases was \$10,177. The median amount paid for 2017 pre act non return to work PPD benefits was \$51,390. The following charts display average medical expenses paid for cases involving permanent disability where injured workers did not return to work.

Average PPD Benefit Amounts - Employee did not Return to Work

Year	Count	Min	Max	Pre-Act Avg	Post-Act Avg
2009	2477	[REDACTED] 3	[REDACTED]	\$69,186	\$96,081
2010	2434	[REDACTED] 5	[REDACTED]	\$76,013	\$123,561
2011	2300	[REDACTED] 4	[REDACTED]	\$73,954	\$120,956
2012	2619	[REDACTED] 0	[REDACTED]	\$71,796	\$115,366
2013	2741	[REDACTED] 767	[REDACTED]	\$67,720	\$115,956
2014 PRE	2245	[REDACTED] 333	[REDACTED]	\$65,833	\$117,224
2015 PRE	1596	[REDACTED] 68	[REDACTED]	\$68,933	\$116,767
2016 PRE	635	[REDACTED]	[REDACTED]	\$94,236	\$145,613
2017 PRE	333	[REDACTED]	[REDACTED]	\$103,142	\$146,370
2014 POST	9	\$1,850	[REDACTED]	\$5,004	\$6,748
2015 POST	364	\$6,190	[REDACTED]	\$12,565	\$25,605
2016 POST	1239	\$8,400	[REDACTED]	\$18,305	\$32,176
2017 POST	1306	\$10,177	[REDACTED]	\$25,778	\$56,345

Medical Benefits/Expenses – Employee did not Return to Work

Average medical benefits/expenses for cases where the injured workers were not returned to pre injury employment are displayed below. The median amount paid for 2017 post act cases was \$20,781. The median amount paid for 2017 pre act cases was \$71,406.

Average Medical Benefits/Expenses - Employee did not Return to Work

Year	Count	Min	Max	Pre-Act Avg	Post-Act Avg
2009	2177	[REDACTED] 22,473	[REDACTED]	\$55,529	\$425,890
2010	2150	[REDACTED] 24,440	[REDACTED]	\$52,777	\$112,086
2011	2056	[REDACTED] 26,077	[REDACTED]	\$56,797	\$138,057
2012	2310	[REDACTED] 25,850	[REDACTED]	\$62,734	\$230,356
2013	2324	[REDACTED] 24,503	[REDACTED]	\$69,653	\$576,212
2014 PRE	2081	[REDACTED] 26,159	[REDACTED]	\$56,645	\$132,151
2015 PRE	1325	[REDACTED] 9,158	[REDACTED]	\$67,987	\$158,015
2016 PRE	551	[REDACTED] 2	[REDACTED]	\$106,777	\$197,979
2017 PRE	232	[REDACTED]	[REDACTED]	\$161,192	\$240,361
2014 POST	10	\$4,935	[REDACTED]	\$6,924	\$6,253
2015 POST	375	\$12,682	[REDACTED]	\$21,270	\$38,729
2016 POST	1244	\$18,301	[REDACTED]	\$31,763	\$60,244
2017 POST	1321	\$20,781	[REDACTED]	\$42,991	\$107,551

Lump Sum Benefits

The following charts depict the average lump sum amounts paid at the time of conclusion. The numbers reported represent all cases, regardless of return to work status. For 2017 post act cases, the median lump sum amount paid was \$6,000. The median lump sum amount was \$11,000 for 2017 pre act cases.

Average Lump Sum Benefits Paid

Year	Number of Cases	Median Amount	Mean Amount	Standard Deviation
2009	261	\$5,536	\$19,289	\$51,568
2010	252	\$5,900	\$20,967	\$51,707
2011	270	\$5,738	\$17,801	\$43,816
2012	460	\$5,738	\$18,353	\$72,835
2013	396	\$3,000	\$18,432	\$70,114
2014 PRE	257	\$6,000	\$23,270	\$82,739
2015 PRE	184	\$4,000	\$42,688	\$163,549
2016 PRE	103	\$4,879	\$40,162	\$78,919
2017 PRE	54	\$11,000	\$64,757	\$181,397
2014 POST	2	\$6,000	\$6,000	\$0
2015 POST	74	\$3,284	\$8,112	\$12,684
2016 POST	171	\$4,879	\$8,605	\$13,727
2017 POST	145	\$6,000	\$23,630	\$62,246

Psychological Injury

Psychological injury can be associated with workers' compensation cases in two ways, an injured worker can claim psychological injury in addition to other injuries, or it can be the sole injury. The chart below displays the frequency and percent of claims involving psychological injury. For 2017 post act cases, 72 (1.2%) claimed psychological injury and in 17 cases (0.3%), psychological injury was the sole claim. For 2017 pre act cases, 32 (5.1%) involved psychological injury and in 17 (0.3%) cases, psychological injury was the sole claim.

Frequency of Psychological Injuries

Year	Number of Cases	Percent of Total Claims	Number of Sole Claims	Percent of Sole Claims
2009	151	1.7%	62	0.3%
2010	167	2.0%	45	0.3%
2011	156	2.0%	38	0.3%
2012	158	1.9%	56	0.3%
2013	119	1.3%	20	0.2%
2014 PRE	131	1.6%	27	0.3%
2015 PRE	94	2.0%	27	0.3%
2016 PRE	63	1.2%	11	0.3%
2017 PRE	32	5.1%	2	0.3%
2014 POST	0	0.0%	0	0.0%
2015 POST	11	0.4%	3	0.1%
2016 POST	43	0.7%	14	0.2%
2017 POST	72	1.2%	17	0.3%

Pre and Post Reform Act Comparisons

There is now adequate case history from the implementation of the 2014 Reform Act to compare similar pre and post act cases. In doing so, cases with dates of injuries prior to the Reform Act were compared to cases with dates of injuries after the Reform Act that had similar numbers of weeks from injury to maximum medical improvement (MMI). Ranges of the number of weeks that were grouped are 10 to 20 weeks, 20 to 30 weeks, 30 to 40 weeks, and 40 to 50 weeks from injury to MMI. Permanent partial impairment (PPI), permanent partial disability percent (PPD percent), permanent partial disability multiplier (PPD multiplier), temporary total disability (TTD) amounts, permanent partial disability (PPD) amounts, and medical benefits (MEDS) were compared. The following table presents the median amounts for each range of weeks to MMI. To test for statistically significant differences between the pre and post groups for each range of weeks, the Mann-Whitney U test was utilized.² Statistically significant differences are noted with bold print and colored shading. Differences were observed for every range for PPD percent, PPD multiplier and PPD monetary amounts.

² (p < .05)

Analysis by the Number of Weeks from Injury to MMI Groupings

10 - 20 PRE	2143	2.0	1960	1852	1308	\$3,034	2251	2235
10 - 20 POST	2055	2.0	2773	2282	1604	\$2,966	2725	2744
20 - 30 PRE	2468		2348	2172	1846	\$4,410	2685	2652
20 - 30 POST	2115		2792	2397	1901	\$4,318	2735	2745
30 - 40 PRE	1964		1920	1733	1665	\$5,634	2202	2188
30 - 40 POST	1637		2020	1786	1558	\$4,991	1990	1992
40 - 50 PRE	1373		1429	1258	1236	\$6,142	1605	1588
40 - 50 POST	1077		1222	1125	960	\$5,986	1197	1202

For further analysis, cases with PPI ratings of 3.0 were selected and pre and post reform act groups were compared. Differences between pre and post act groups were statistically significant for PPD percent, PPD multiplier, and PPD but not for TTD and medical benefits.³

Pre and Post Act Comparison for Return to Work Cases with a PPI of 3.0

PRE	1255	1255	1024	\$4,509	1420	1407	\$15,656
POST	1224	1224	891	\$4,489	1207	1217	\$15,267

For cases where injured workers were not returned to pre injury employment, significant differences between pre and post act groups were observed for PPD percent, PPD multiplier, PPD benefit amounts, and medical benefit amounts when PPI was controlled for by selecting all cases with a PPI of 4.0, the median PPI rating for no return to work cases.⁴ Of note is the differences between PPD percent and multipliers resulting in PPD benefit amounts for post act cases that are nearly half of those from the pre act group.

Pre and Post Act Comparison for Non Return to Work Cases with a PPI of 4.0

PRE	352	352	340	\$10,816	402	380
POST	244	244	222	\$9,041	239	243

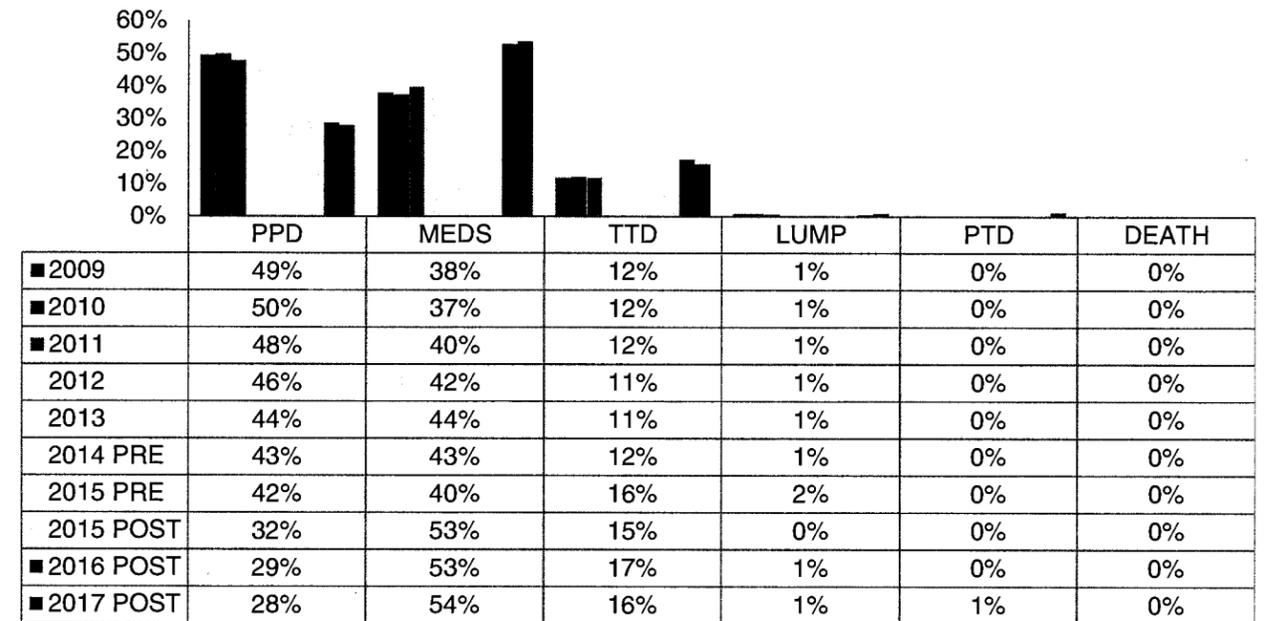
³ Mann-Whitney U ($p < .05$)

⁴ Mann-Whitney U ($p < .05$)

Medical & Indemnity Summary

The following chart displays the percent of all medical and indemnity dollars paid at the time of conclusion as indicated on SD-1 forms. This does not include payments made in medical only claims. While some benefit amounts were paid for lump sum, permanent total disability and death benefits, the percentages were less than a half of a percent for many of the years. 2014 post act and 2017 pre act cases were not included due to the low number of cases.

Percent Paid for All Medical and Indemnity Dollars at Conclusion



Conclusion

As anticipated in last year's statistical report, 2017 data presents the first opportunity where cases have a long enough duration after the 2014 Reform Act to analyze its effects. What was observed were significant reductions in PPD percent, PPD multipliers, and PPD monetary benefits for return to work cases when permanent partial impairment was held constant at 3.0. Increases in the percent of injured workers who were returned to pre injury employment were also observed. For cases where injured workers were not returned to pre injury employment, there were significant reductions in PPD percent, PPD multipliers, PPD monetary benefits, and medical benefits.

Exhibit 5B

Tennessee Workers' Compensation Data Calendar Years 2009-2016

A Report of Statewide Data for the
Tennessee Advisory Council on Workers' Compensation

August 2016



Tennessee Workers' Compensation Data Calendar Years 2009-2016

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August 2016

David Wilstermann



Tennessee Workers' Compensation Data Calendar Years 2009-2016



A Report of Statewide Data for the
Tennessee Advisory Council on Workers' Compensation

Table of Contents

Data Summary	1
Introduction	3
Methods	3
Conclusion Types.....	4
Date of Injury to Date of Conclusion	6
Date of Injury to Date of Maximum Medical Improvement.....	6
Date of MMI to Date of Conclusion	7
Age	8
Education	8
Compensation Rate.....	10
Maximum Compensation Rate	10
Number of Weeks of Temporary Total Disability Benefits	11
Temporary Total Disability Benefit Amounts	12
Return to Work	12
Permanent Partial Impairment Ratings – Employee Returned to Work.....	13
Percentage Awarded for Permanent Partial Disability – Employee Returned to Work	14
Permanent Partial Disability Multipliers – Employee Returned to Work	15
Permanent Partial Disability – Monetary Benefits – Employee Returned to Work	16
Medical Benefits/Expenses – Employee Returned to Work	17
Permanent Partial Impairment Ratings – Employee did not Return to Work	17
Percentage Awarded for Permanent Partial Disability – Employee did not Return to Work.....	18
Permanent Partial Disability Multipliers – Employee did not Return to Work.....	19
Permanent Partial Disability – Monetary Benefits – Employee did not Return to Work	19
Medical Benefits/Expenses – Employee did not Return to Work.....	20
Lump Sum Benefits	21
Psychological Injury.....	22
Medical & Indemnity Summary	22
Conclusion	23

Data Summary

- 2016 marks the first year post the 2013 Reform Act where there were more permanent injury cases concluded with dates of injuries after the implementation of the 2013 Reform Act than before. There were 6,073 cases with dates of injuries after implementation and 1,568 cases with dates of injuries before.
- Due to the 2013 Reform Act being implemented on July 1, 2014, pre act case durations have to be at least a year and a half long, while post act cases cannot be more than two and a half years long. Even though there is overlap, this increases the likelihood of pre act cases being inherently more complicated, and involving more serious injuries.
- The median number of weeks from injury to conclusion for 2016 post act cases was 52 weeks. For 2016 pre act cases, the median case duration was 142 weeks.
- The median number of weeks from the date of maximum medical improvement to the date of conclusion was 30 weeks for 2016 post act cases and 79 for 2016 pre act cases.
- The median age of injured workers in cases with permanent disability ranged from 46 to 48 years old for all years analyzed.
- The percent of injured workers with more than a high school education increased to nearly 31% for 2016 post act cases. The percent of injured workers with a high school or high school equivalent level of education remained 58% for 2016 pre act cases.
- The median compensation rate for injured workers for 2016 post act cases was \$456, up \$5 from 2015. The median pre act compensation rate for 2016 pre act cases was \$427.
- The median number of weeks of TTD benefits for 2016 post act cases increased to 13. The median number of weeks of temporary total benefits increased to 38.5 for 2016 pre act cases.
- The median permanent impairment ratings for injured workers who returned to pre injury employment for 2016 post act cases was 3.0. PPI ratings include body as a whole and scheduled member injuries converted to body as a whole impairment percentages.
- Permanent partial disability amounts for injured workers who returned to pre injury employment was 2.5 for 2016 post act cases, up from 2.0 in 2015.
- The median PPD multiplier for all post act cases was 1.0.

- The 2016 post act median PPD benefit amount for cases where injured workers were returned to work was \$5,444. For 2016 pre act cases the median PPD benefit amount increased by more than \$5,000 to \$15,499.
- For 2016 post act cases, the median amount paid for medical benefits where the injured worker returned to work was \$12,384. The median amount of medical benefits paid for return to work cases increased to \$25,646 for 2016 pre act cases.
- For 2016 post act cases where injured workers were not returned to pre injury employment, the median PPI rating was 4.0. For 2016 pre act cases, the median PPI rating was 18.2.
- The median PPD amounts paid for cases where injured workers were not returned to pre injury employment were \$8,400 for 2016 post act cases.
- The median amount paid for non return to work medical benefits was \$18,301 for 2016 post act cases.
- The median amount of lump sum payments for 2016 post act cases was \$4,879.
- According to information given at the time of conclusion, medical and permanent partial disability benefits comprised between 85% and 88% of the total systemic benefits paid for cases involving permanent disability.
- Missing case information from SD-1 forms remains an issue, however, the implementation of a revised statistical data form should simplify data collection, increasing the likelihood of more complete data being available.

Introduction

This snapshot of 2016 Tennessee workers' compensation cases builds on previous Advisory Council on Workers' Compensation statistical reports. 2016 remains a transition year for the implementation of the 2013 Reform Act. The first post reform act cases starting showing up in 2014 in small numbers. For 2016, cases that have dates of injury after the implementation of the reform act outnumber those from before for the first time. Throughout this report, cases with dates of injury after July 1, 2014, will be referred to as post act cases. Those with dates of injury before July 1, 2014 will be referred to as pre act. Because 2016 pre act cases have dates of injury at least a year and a half before their subsequent dates of conclusion, pre act cases are inherently longer. Associated factors with longer case lengths are higher temporary total disability amounts and more severe injuries resulting in higher permanent partial impairment and disability amounts. The 2016 pre and post act data reflect this reality. While a clearer picture of post reform data is starting to emerge, it is still too early to draw systemic conclusions. However, as identified in last year's report, the systemic data reflects what would be expected, which provides validity to what is being collected and reported on.

To continue reporting standards established in the last two reports, body as a whole and scheduled member injuries were grouped together. The Reform Act considers all impairments as impairments to the body as a whole, therefore pre act impairments and disability amounts have been converted to corresponding body as a whole amounts. Additionally, it was determined that greater emphasis will be placed on the median, which will provide a more accurate picture of the typical workers' compensation case experience. Median amounts or percentages are presented graphically to the right of or below the tables, below the descriptive text for the variables analyzed.

Methods

Pursuant to Tennessee statute, participants in the Tennessee workers' compensation system are required to send certain reports to the Tennessee Bureau of Workers' Compensation, formerly the Workers' Compensation Division. One of the final reports received by the Division/Bureau is the Statistical Data Form (SD-1). It is the closing document for a claim in which a permanent injury was sustained. The Bureau operates an integrated computer system which is referred to as the Workers' Compensation Computer System (WCS). It is into this database that the information from the SD-1 forms are entered. The Bureau provided, at the request of the Advisory Council on Workers' Compensation, data from the WCS.

Because it is necessary to have adequate time to obtain a representative collection of closed case information for analysis and pre/post act comparisons, cases were selected with dates of conclusion between January 1, 2009 and December 31, 2016. Some of the cases presented multiple conclusion dates coinciding with the various venues in which cases can be finalized. This is possible because a case may be reconsidered if, for example, changes in the injured employee's work status occur. It is impossible from a data perspective to piece back together what information translates to which conclusion, therefore cases with multiple conclusion dates

were excluded from this report, with two exceptions. There were some Division¹ offices that did not have a Workers' Compensation Specialist 4 present to approve settlements at the time of agreement. In this situation, the parties needed court approval for their case to be finalized, thus creating a Division approval date and a court approval date in close proximity. To include cases of this nature, cases with court approval dates and Division approval dates within 30 days of each other were included and coded as Division approved settlements. The other case of dual conclusion date inclusion in analysis was when a joint petition settlement and a court approved settlement were within 30 days of each other.

Until the Reform Act, permanent impairment and disability in Tennessee were split between scheduled members and the body as whole (BAW). Under the Reform Act, all impairment and disability are calculated based on the impact to the body as whole. To aid in future comparisons, pre act cases have been converted to BAW impairments and disabilities. Permanent partial impairment ratings were converted using the AMA guides and permanent partial disability amounts were converted using the reported permanent partial disability amount multiplied by the ratio of the pre act scheduled member number of weeks of benefits to the pre act body as whole number of weeks of benefits.

Conclusion Types

Pre reform act workers' compensation cases could be concluded in four ways, by trial, joint petition settlement, Workers' Compensation Division approved settlement (now Bureau of Workers' Compensation), and by court approved settlement. The following charts depict the frequency and percent in which the various conclusion types were utilized. The conclusion types were determined by the conclusion type date field that was indicated on SD-1 forms. Cases were excluded if they contained more than one conclusion type date. However, as mentioned in the methods section, cases with both court and Division approved settlements within 30 days of each other or joint petition settlements and court approved settlements within 30 days of each other were included.

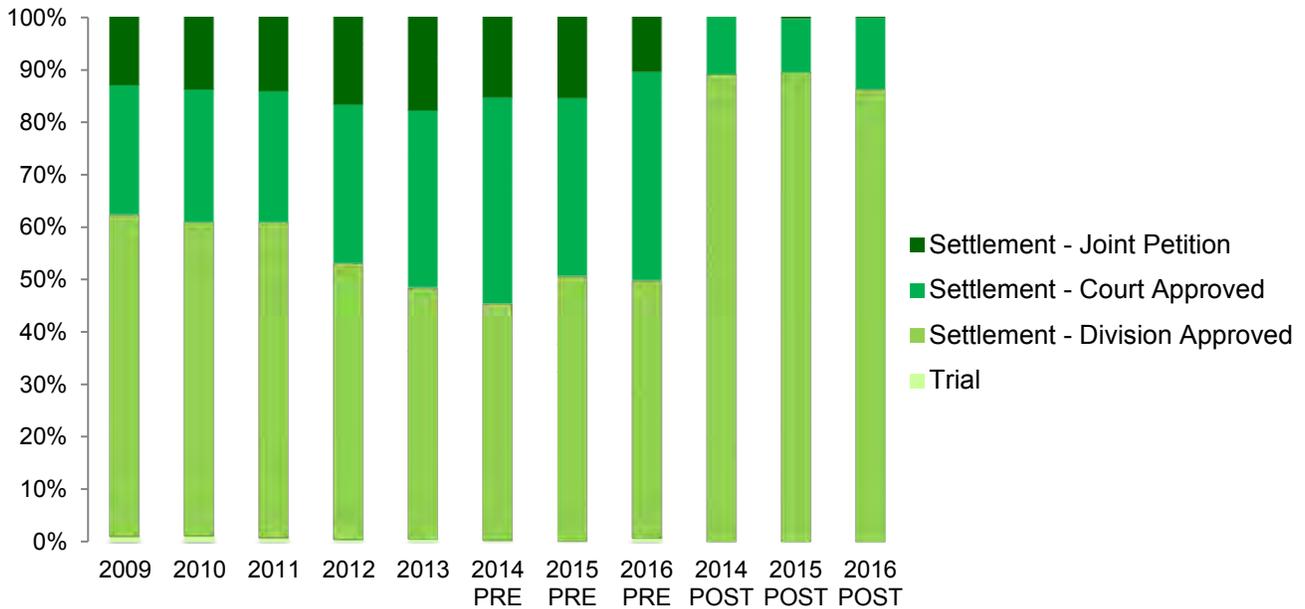
Trials were utilized in a decreasing amount, from 1.1% of conclusion types in 2009 to 0.2% in 2015 pre act cases. There were eleven (11) trials in 2016 comprising 0.7% of pre act cases. Joint petition settlement utilization decreased from 17.6% in 2013 to 10.4% in 2016 pre act cases. After decreasing from 61.4%, half (49.2%) of 2016 pre act cases were Division approved settlements. Court approved settlements continued to increase from 24.7% of settlements in 2009 to 39.7% of 2016 pre act cases. Post act conclusion types are included as well, however, SD-1 conclusion type options were designed for a court based system.

¹ Now referred to as the Bureau of Workers' Compensation

Frequency and Percent of Workers' Compensation Conclusion Types

Year	Trial		Settlement - Joint Petition		Settlement - Division Approved		Settlement - Court Approved		Total
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
2009	88	1.0	1135	12.9	5398	61.4	2174	24.7	8795
2010	93	1.1	1122	13.7	4908	59.9	2075	25.3	8198
2011	60	0.8	1112	14.0	4789	60.3	1984	25.0	7945
2012	42	0.5	1397	16.5	4472	52.7	2570	30.3	8481
2013	45	0.5	1580	17.6	4316	48.0	3047	33.9	8988
2014 PRE	22	0.3	1236	15.2	3675	45.2	3201	39.4	8134
2015 PRE	13	0.2	701	15.2	2345	50.1	1553	33.7	4612
2016 PRE	11	0.7	163	10.4	722	49.2	622	39.7	1568
2014 POST	-	-	-	-	41	89.1	5	10.9	46
2015 POST	-	-	12	0.4	2463	89.4	280	10.2	2755
2016 POST	1	0.0	10	0.2	5239	86.3	823	13.6	6073

Percent of Workers' Compensation Conclusion Types

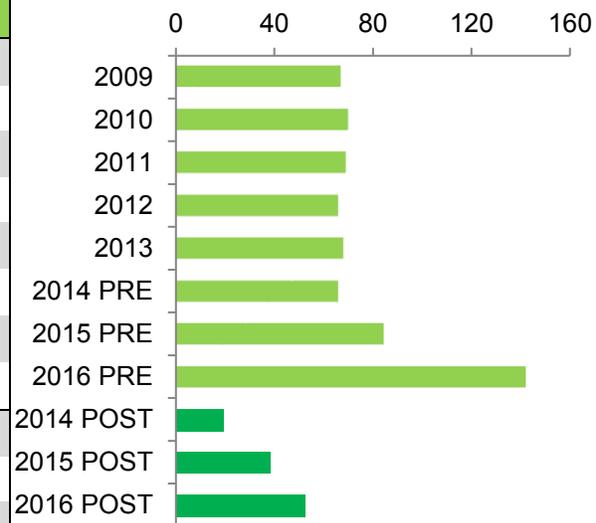


Date of Injury to Date of Conclusion

The median duration of 2016 post act cases was 52 weeks, or one year. Between 2009 and 2014 (pre act), case lengths averaged around a year and three to four months. The median case length for 2015 pre act cases from the date of injury to the date of conclusion increased to over a year and half (84.5 weeks). By 2016, pre act cases took a median of 142 weeks, or almost 2 years 9 months to conclude. The following table displays total case length averages for all conclusion types for cases involving permanent disability. If case durations are analyzed by year, not split between pre and post act cases, the median number of weeks from injury to conclusion for 2016 is 60.

Average Number of Weeks from Date of Injury to Date of Conclusion

Year	N	Median	Mean	Std. Deviation
2009	8751	67.0	84.3	60.5
2010	8166	70.0	87.6	62.3
2011	7917	69.0	85.7	59.7
2012	8457	66.0	83.7	60.7
2013	8952	68.0	86.7	65.4
2014 PRE	8109	66.0	85.4	67.0
2015 PRE	4578	84.5	113.2	86.9
2016 PRE	1533	142.0	173.4	91.3
2014 POST	46	19.0	19.2	3.3
2015 POST	2753	38.0	39.3	13.4
2016 POST	6068	52.0	54.6	22.7

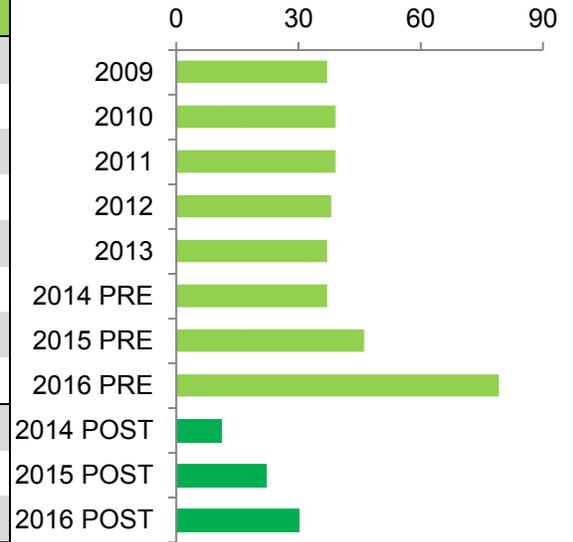


Date of Injury to Date of Maximum Medical Improvement

The following table presents the average number of weeks from the date of injury to the date of maximum medical improvement. The median duration for 2016 post act cases from the date of injury to the date of MMI was 30 weeks. Median amounts from 2009 to 2014 pre act cases ranged from 37 to 39 weeks. As a higher percentage of cases are conducted under the reform act, the length of time from injury to MMI for pre act cases increased rapidly. The median number of weeks from injury to MMI for 2016 pre act cases increased to 79. The combined median number of weeks for 2016 cases from injury to MMI was 34.

Average Number of Weeks from the Date of Injury to the Date of MMI

Year	N	Median	Mean	Std. Deviation
2009	8084	37.0	49.1	44.1
2010	7601	39.0	51.2	42.9
2011	7415	39.0	50.7	44.6
2012	8003	38.0	49.8	43.5
2013	8267	37.0	51.1	49.8
2014 PRE	7711	37.0	50.7	50.8
2015 PRE	4213	46.0	61.2	58.9
2016 PRE	1403	79.0	95.1	73.0
2014 POST	43	11.0	10.7	3.3
2015 POST	2667	22.0	23.7	11.7
2016 POST	5891	30.0	33.4	18.6

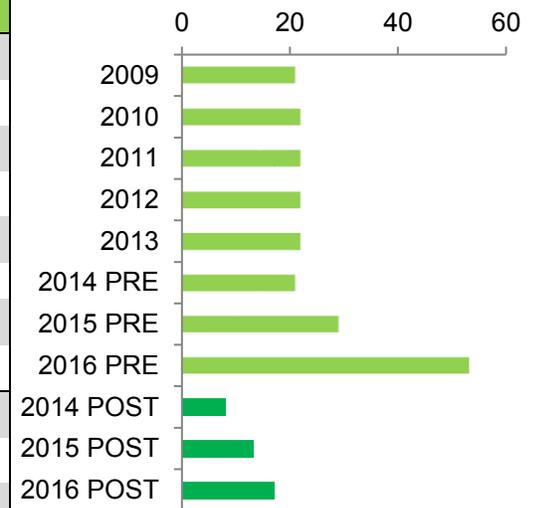


Date of MMI to Date of Conclusion

For 2016 pre act cases, the median length of time from the date of maximum medical improvement to the date of conclusion was 53 weeks, compared to 17 weeks for 2016 post act cases. The median number of weeks from MMI to conclusion was consistently 21 or 22 weeks for 2009 to 2014 pre act cases. The combined median duration from MMI to conclusion for 2016 cases was 20 weeks.

Average Number of Weeks from the Date of MMI to the Date of Conclusion

Year	N	Median	Mean	Std. Deviation
2009	8159	21.0	34.5	41.1
2010	7665	22.0	36.1	45.5
2011	7452	22.0	34.9	41.6
2012	8030	22.0	34.0	39.6
2013	8366	22.0	34.0	38.8
2014 PRE	7753	21.0	33.7	39.1
2015 PRE	4251	29.0	43.2	46.7
2016 PRE	1423	53.0	70.6	63.0
2014 POST	44	8.0	13.0	32.5
2015 POST	2679	13.0	15.9	11.9
2016 POST	5894	17.0	21.4	16.0

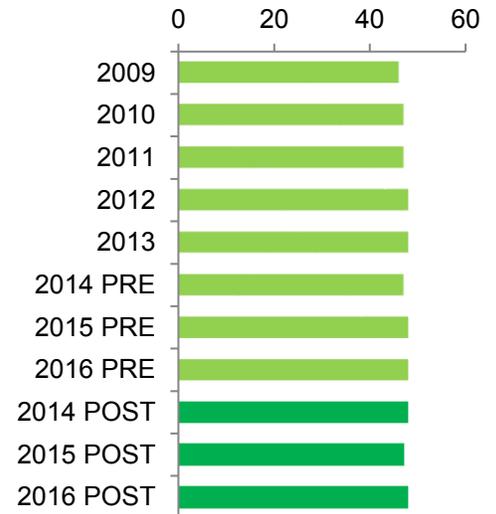


Age

Median ages of injured workers in cases that involved permanent disability ranged from 46 to 48 years. The median age for injured workers for 2016 pre and post act cases was 48. The average age of injured workers in cases involving permanent disability is one of the few consistent measures over time.

Average Age of Injured Workers

Year	N	Median	Mean	Std. Deviation
2009	5779	46.0	45.2	11.6
2010	5147	47.0	45.8	11.2
2011	5110	47.0	46.2	11.5
2012	5639	48.0	46.6	11.6
2013	6072	48.0	46.6	11.6
2014 PRE	5409	47.0	46.3	11.6
2015 PRE	2877	48.0	46.7	11.7
2016 PRE	863	48.0	47.0	11.5
2014 POST	31	48.0	47.6	12.0
2015 POST	2040	47.0	45.9	12.5
2016 POST	4319	48.0	46.6	12.3



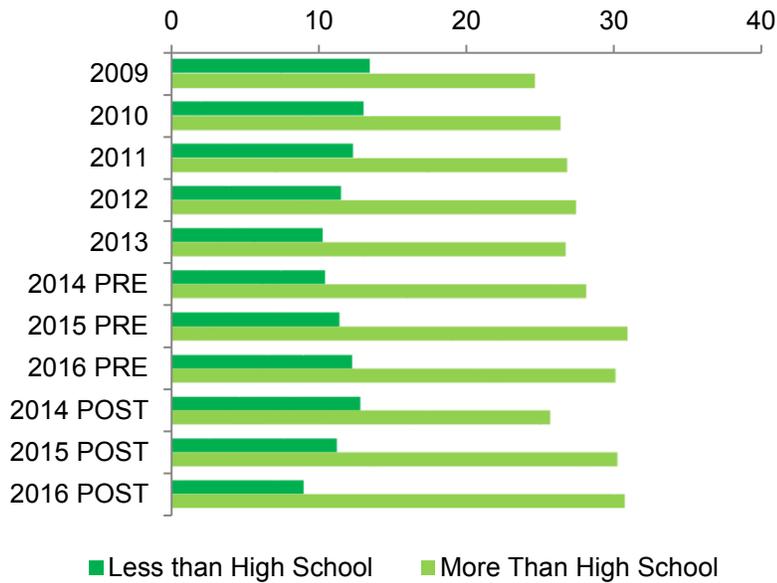
Education

For 2016 post act cases, 60.3% of injured workers had a high school education, 8.9% had less than a full high school education, and 30.7% had more than a high school education. There was an overall upward trend in education levels. When pre and post act cases were combined, 9.6% had less than a high school education, 59.8% had the equivalent of a high school education, and 30.6% had more than a high school education.

Education Attainment of Injured Workers

Year	N	Percent		
		Less than High School	High School/G ED	More Than High School
2009	6670	13.5	61.9	24.6
2010	6126	13.0	60.6	26.3
2011	5927	12.3	60.9	26.8
2012	6508	11.5	61.1	27.4
2013	6397	10.3	63.1	26.7
2014 PRE	5692	10.4	61.5	28.1
2015 PRE	3283	11.4	57.7	30.9
2016 PRE	1568	12.3	57.6	30.1
2014 POST	39	12.8	61.5	25.6
2015 POST	2104	11.2	58.6	30.2
2016 POST	6073	8.9	60.3	30.7

Percent of Injured Workers with Less Than or More Than a High School Education

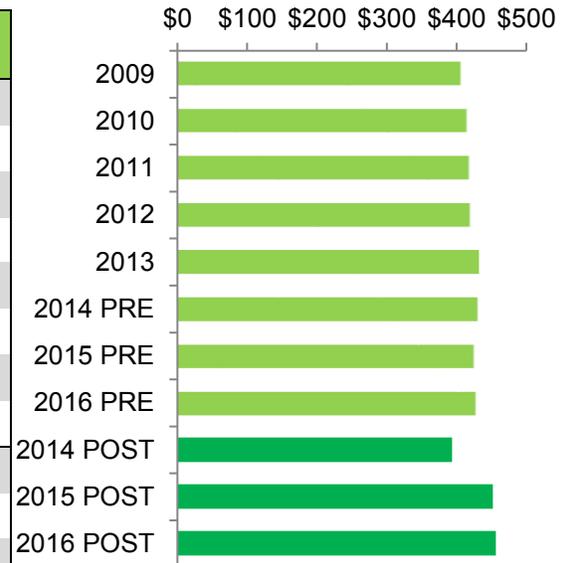


Compensation Rate

The median weekly compensation rate for 2016 post act cases increased \$5 to \$456. The median compensation rate for injured workers in 2016 pre act cases was \$427. When pre and post act years are combined, a slight upward trend exists. The combined median compensation rate for 2016 was \$451.

Average Compensation Rates for Injured Workers

Year	N	Median	Mean	Std. Deviation
2009	8529	\$406	\$432	\$184
2010	8016	\$415	\$442	\$189
2011	7805	\$418	\$446	\$193
2012	8350	\$419	\$447	\$196
2013	8874	\$432	\$459	\$201
2014 PRE	8016	\$430	\$461	\$209
2015 PRE	4510	\$425	\$462	\$209
2016 PRE	1528	\$427	\$463	\$211
2014 POST	46	\$394	\$418	\$197
2015 POST	2697	\$451	\$481	\$215
2016 POST	5971	\$456	\$487	\$218

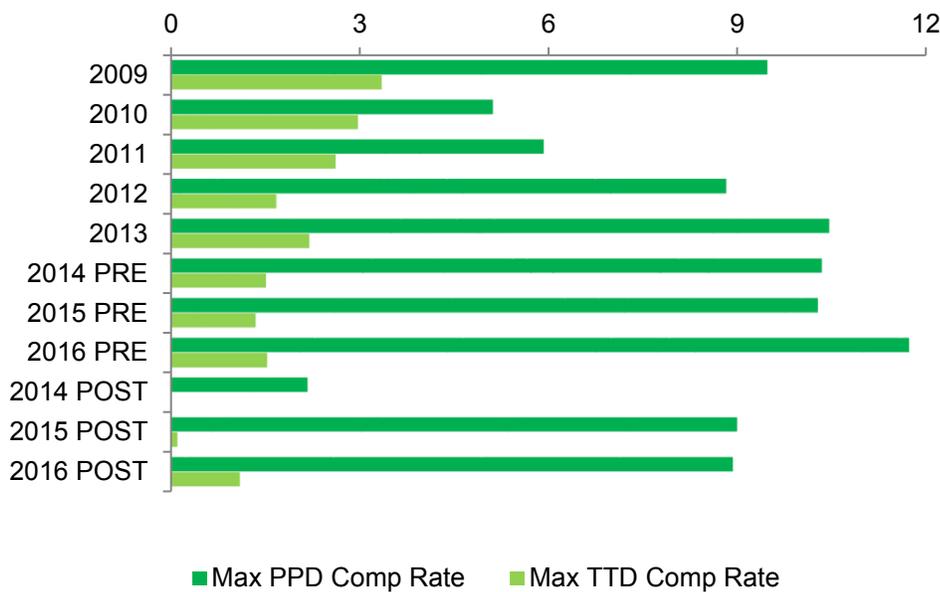


Maximum Compensation Rate

Temporary total benefits are capped at 110% of the Tennessee's average weekly wage. Permanent partial benefits are capped at 105% of the state's average weekly wage. The following charts show the percent of cases with compensation rates capped at the maximum amount for 2009 to 2016 cases. For 2016 post act cases, 8.9% were capped at the PPD maximum and 1.1% were capped at the TTD maximum.

Frequency and Percent of Cases with Maximum Compensation Rates

Year	Max PPD Comp Rate		Max TTD Comp Rate	
	N	Percent	N	Percent
2009	807	9.5	285	3.3
2010	410	5.1	238	3.0
2011	462	5.9	204	2.6
2012	736	8.8	140	1.7
2013	928	10.5	195	2.2
2014 PRE	824	10.3	121	1.5
2015 PRE	465	10.3	61	1.3
2016 PRE	184	11.7	24	1.5
2014 POST	1	2.2	0	0.0
2015 POST	244	9.0	3	0.1
2016 POST	542	8.9	67	1.1

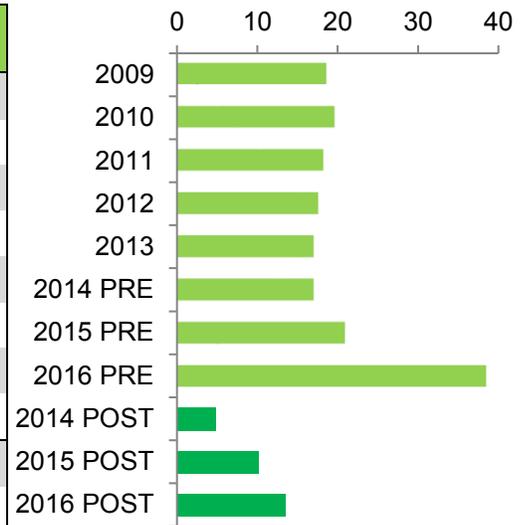


Number of Weeks of Temporary Total Disability Benefits

The median number of weeks of temporary total benefits paid for cases involving permanent injury increased to 13.4 for 2016 post act cases. The median number of weeks of TTD benefits for 2016 pre act cases nearly doubled from the previous year to 38.5 weeks. This amount reflects the increase in the number of weeks from injury to MMI. The charts below represent the average number of weeks of TTD benefits paid for all injury types and severities where there has been permanent disability. The combined median TTD number of weeks for all 2016 cases was 15.6 weeks.

Average Number of Weeks of Temporary Total Disability Benefits Paid

Year	N	Median	Mean	Std. Deviation
2009	5624	18.6	32.2	40.1
2010	5374	19.6	34.8	44.4
2011	5185	18.2	33.9	45.1
2012	5678	17.6	31.8	42.2
2013	5851	17.0	31.5	43.0
2014 PRE	5516	17.0	31.2	42.7
2015 PRE	3091	20.9	34.6	40.2
2016 PRE	1021	38.5	72.7	90.8
2014 POST	26	4.7	7.3	6.2
2015 POST	1787	10.0	13.8	15.5
2016 POST	4356	13.4	20.9	25.0

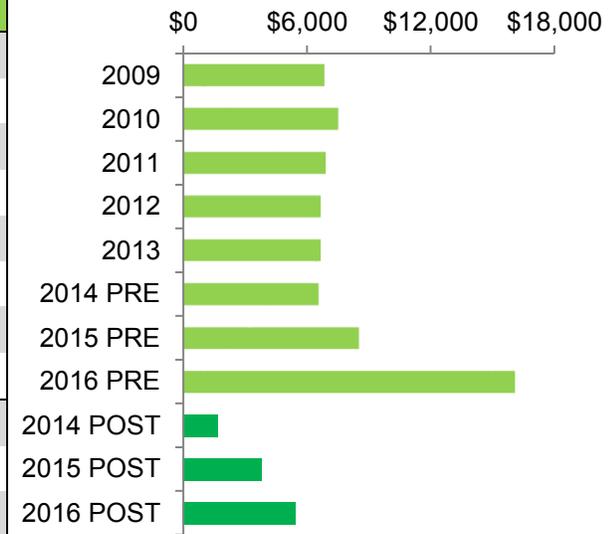


Temporary Total Disability Benefit Amounts

The median amount of TTD benefits was \$5,408 for 2016 post act cases. For 2016 pre act cases, the median amount of TTD benefits paid nearly doubled to \$16,095. The tables below depict the average amounts paid for TTD benefits from 2009 to 2016. The combined median TTD amount for 2016 was \$6,315.

Average Amounts of Temporary Total Disability Benefits Paid

Year	N	Median	Mean	Std. Deviation
2009	5624	\$6,872	\$12,803	\$16,232
2010	5374	\$7,530	\$13,928	\$16,947
2011	5185	\$6,932	\$13,470	\$17,367
2012	5678	\$6,696	\$12,875	\$16,560
2013	5851	\$6,692	\$12,631	\$16,266
2014 PRE	5516	\$6,592	\$12,429	\$15,888
2015 PRE	3091	\$8,540	\$14,685	\$17,475
2016 PRE	1021	\$16,095	\$32,683	\$47,476
2014 POST	26	\$1,650	\$2,595	\$2,285
2015 POST	1787	\$3,746	\$5,996	\$6,851
2016 POST	4356	\$5,408	\$9,605	\$13,615

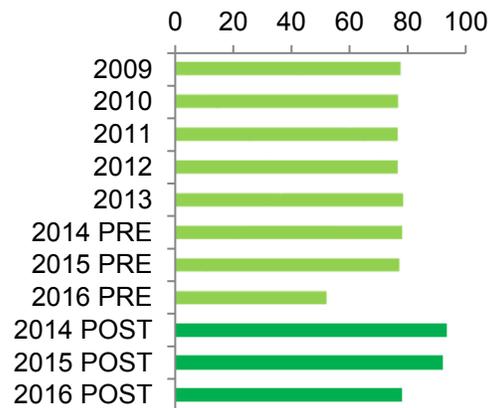


Return to Work

The SD-1 form has a field to indicate whether the employee returned to work for the same employer. This is the field used to delineate return to work status for permanent partial impairment and permanent partial disability reporting. The following charts depict the percent of SD-1 forms per year that indicated the employee returned to work for their pre injury employer. In 77.8% of 2016 post act cases the injured workers returned to work, compared to 51.9% of 2016 pre act cases.

Percent of Injured Workers That Returned to Pre Injury Employment

Year	N	Percent
2009	6422	77.3
2010	5916	76.4
2011	5773	76.3
2012	6350	76.3
2013	6904	78.2
2014 PRE	6212	77.9
2015 PRE	3350	76.9
2016 PRE	741	51.9
2014 POST	43	93.5
2015 POST	2425	92.1
2016 POST	4489	77.8



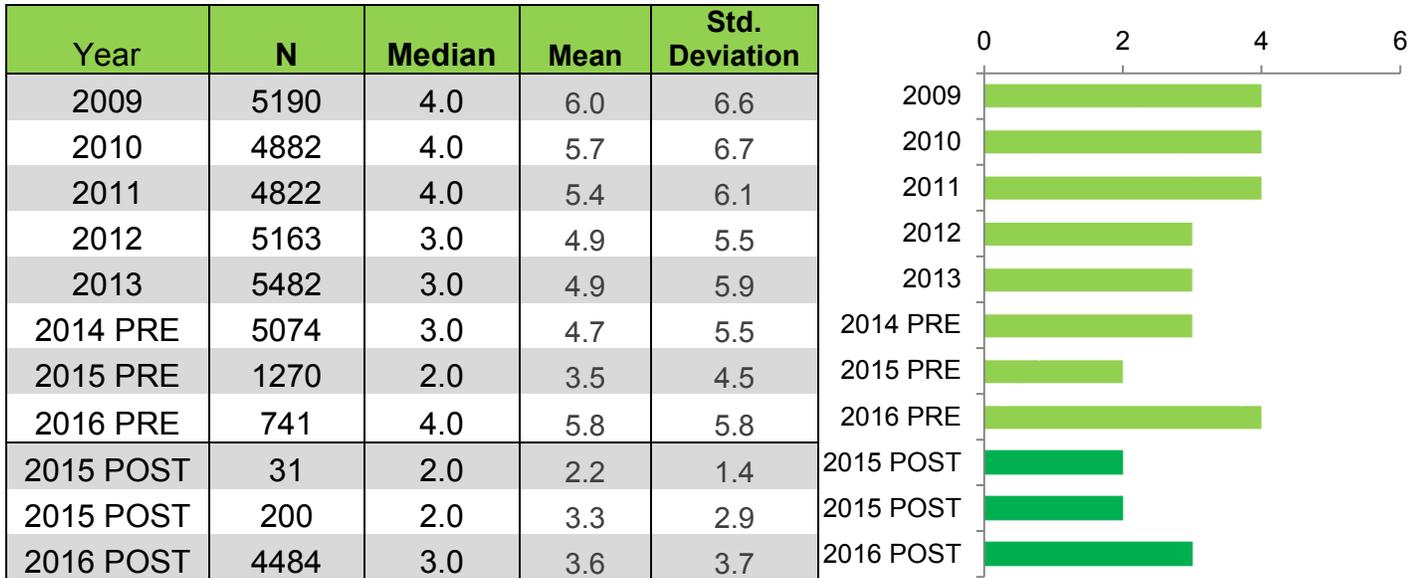
Permanent Partial Impairment Ratings – Employee Returned to Work

Cases were selected with only one permanent disability per side to be able to get as accurate of a picture as possible for permanent impairment, disability, and subsequent multipliers. This included those with no side indicated. For example, an injury to the left shoulder would result in a left PPI rating and PPD amount. If that same case also had an injury to the left arm, it would not be possible to piece back together which PPI rating went with which PPD amount. Analyzing single side injury information allowed for clean determination of which impairment ratings went with the corresponding disability and accounted for over 98% of permanent impairment cases. Multiple injuries were included if the injuries were to different, or no, sides. Less than 1% of 2016 cases had injury information to more than one side.

For all cases with dates of injury before the implementation of the reform act, scheduled member impairment ratings have been converted to body as a whole equivalents. This was done using the AMA guides. The average PPI ratings reported below are for all injury types, scheduled member ratings converted to body as a whole and as body as a whole ratings together. Previous reports showed a decreasing trend in PPI ratings. The median PPI rating

for 2016 post act return to work cases was 3.0. The median PPI rating for pre act cases was 4.0.

Average PPI Ratings – Employee Returned to Work



Percentage Awarded for Permanent Partial Disability – Employee Returned to Work

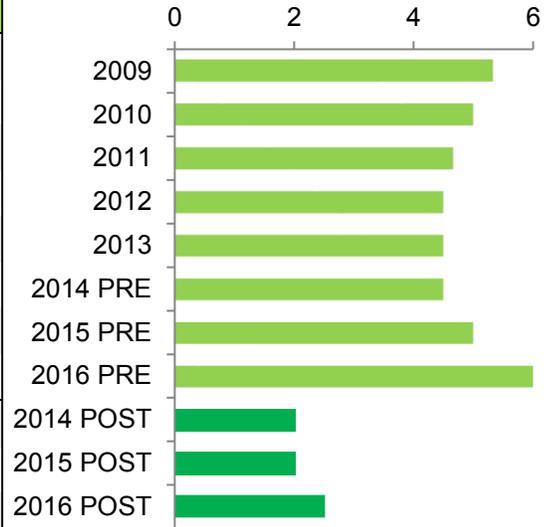
Like the PPI ratings, scheduled member PPD amounts have been converted to body as a whole and are reported together in the following charts. Pre act scheduled member disability amounts were converted using the following formula:

$$\text{Case PPD Amount} \times \frac{\text{Scheduled Member \# of weeks}}{400 \text{ (previous BAW \# of weeks)}}$$

The median PPD amount for 2016 post act return to work cases was 2.5. The median PPD percent amount for 2012 to 2014 pre act cases was 4.5, then increased to 6.0 for 2016 pre act cases.

Average PPD Percent – Employee Returned to Work

Year	N	Median	Mean	Std. Deviation
2009	4281	5.3	8.4	9.8
2010	4177	5.0	8.2	10.0
2011	4294	4.7	7.7	9.6
2012	4637	4.5	6.9	8.3
2013	5052	4.5	6.7	8.3
2014 PRE	3911	4.5	6.7	8.7
2015 PRE	1821	5.0	7.5	8.9
2016 PRE	741	6.0	9.6	10.9
2014 POST	21	2.0	2.8	2.8
2015 POST	1258	2.0	3.4	4.5
2016 POST	4484	2.5	3.7	4.2

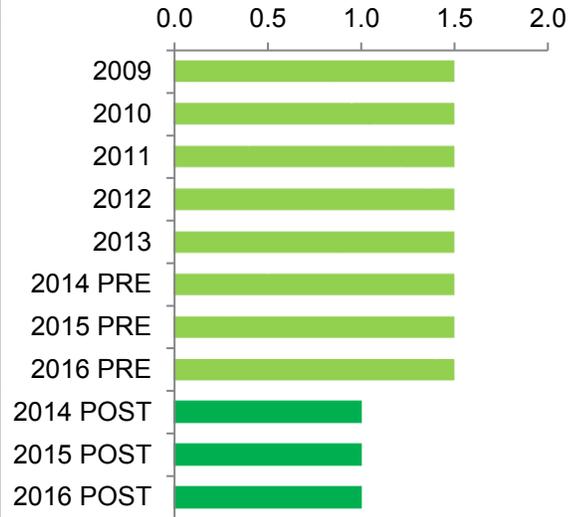


Permanent Partial Disability Multipliers – Employee Returned to Work

A permanent partial disability multiplier is the ratio of the PPD judgment or settlement amount to the highest PPI rating associated with an injury. PPD multipliers are calculated by dividing the PPD percent amount by the highest PPI rating. PPD multipliers reported in the tables below present the combination of converted scheduled member injuries with body as a whole injuries. The PPD multiplier for all post act cases was 1.0, the statutory multiplier for cases where the injured workers were returned to pre injury employment. The median PPD multipliers for all pre act cases was 1.5.

Average PPD Multiplier s – Employee Returned to Work

Year	N	Median	Mean	Std. Deviation
2009	4139	1.5	1.6	1.3
2010	4084	1.5	1.6	1.2
2011	4190	1.5	1.5	0.9
2012	4542	1.5	1.6	1.1
2013	4925	1.5	1.6	1.3
2014 PRE	3810	1.5	1.5	1.3
2015 PRE	858	1.5	1.7	1.7
2016 PRE	665	1.5	1.6	1.2
2014 POST	19	1.0	1.0	0.4
2015 POST	98	1.0	1.0	0.3
2016 POST	4397	1.0	1.1	1.5

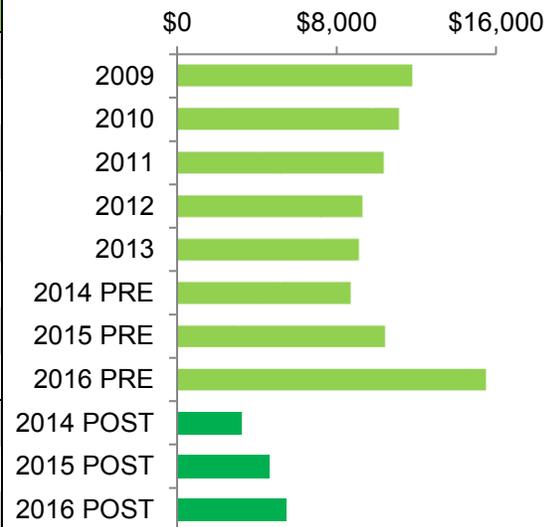


Permanent Partial Disability – Monetary Benefits – Employee Returned to Work

The median amount for 2016 post act return to work cases was \$5,444. Median PPD monetary benefits reduced from \$11,809 in 2009 to \$8,707 for 2014 pre act cases then began to increase. For 2016 pre act cases, the median PPD amount increased to \$15,499. Average amounts reported in the table below consist of the combination of converted scheduled member injuries with body as a whole injuries.

Average PPD Benefit Amount – Employee Returned to Work

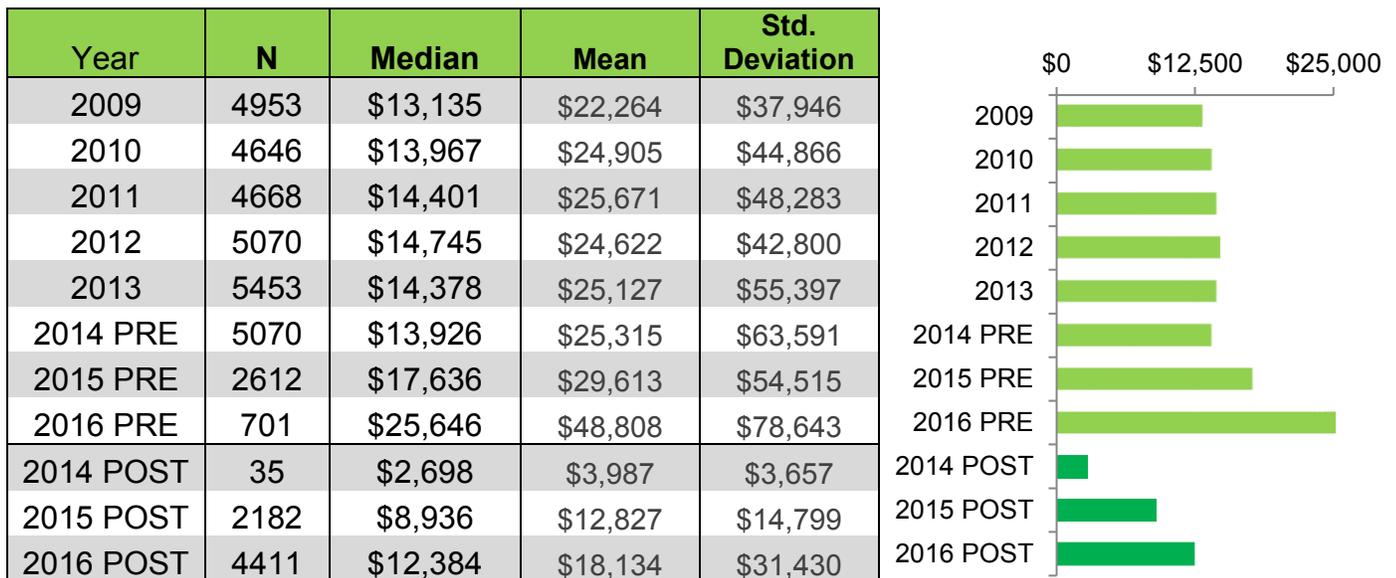
Year	N	Median	Mean	Std. Deviation
2009	5185	\$11,809	\$25,558	\$47,367
2010	4852	\$11,145	\$25,203	\$50,940
2011	4854	\$10,366	\$23,844	\$48,826
2012	5181	\$9,302	\$20,855	\$43,829
2013	5542	\$9,133	\$19,741	\$37,402
2014 PRE	5162	\$8,707	\$19,318	\$42,400
2015 PRE	2700	\$10,438	\$22,862	\$44,353
2016 PRE	708	\$15,499	\$34,924	\$54,515
2014 POST	34	\$3,181	\$4,464	\$3,805
2015 POST	2198	\$4,579	\$7,844	\$12,387
2016 POST	4367	\$5,444	\$9,460	\$13,768



Medical Benefits/Expenses – Employee Returned to Work

Average medical benefits/expenses for cases where the injured workers were returned to pre injury employment are reported in the charts below. Average medical amounts reported are for combined scheduled member and body as a whole cases. The median amount for 2016 post act cases was \$12,384. Pre act cases ranged from a median of \$13,135 in 2009 to \$25,646 in 2016.

Average Medical Benefit/Expense – Employee Returned to Work

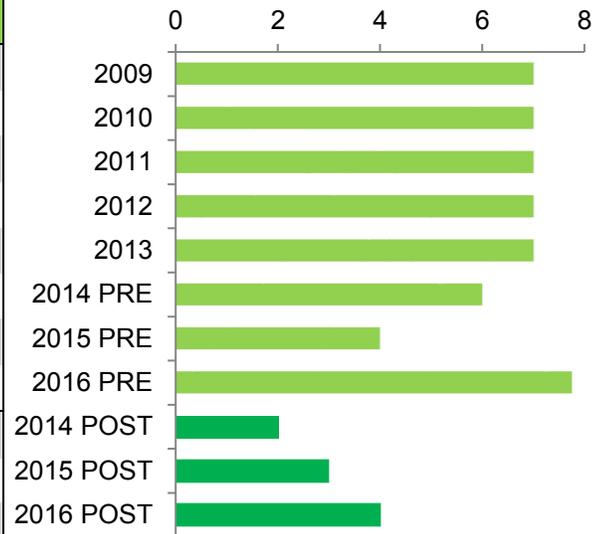


Permanent Partial Impairment Ratings – Employee did not Return to Work

Using the same methods as cases where the injured worker was returned to pre injury employment, cases involving single side injuries were selected for PPI, PPD, multiplier, and medical amount for analysis of non return to work experiences. Additionally, scheduled member PPI ratings were converted to body as a whole using the AMA guides. The median PPI rating for 2016 post act cases was 4.0. The median PPD rating for 2016 pre act non return to work cases was 7.8.

Average PPI Ratings – Employee did not Return to Work

Year	N	Median	Mean	Std. Deviation
2009	2459	7.0	10.7	10.8
2010	2414	7.0	10.6	11.5
2011	2280	7.0	9.6	9.9
2012	2598	7.0	10.5	11.9
2013	2603	7.0	10.3	12.4
2014 PRE	2232	6.0	8.5	9.4
2015 PRE	469	4.0	6.8	10.4
2016 PRE	688	7.8	11.0	12.9
2014 POST	9	2.0	2.7	3.5
2015 POST	22	3.0	4.6	4.2
2016 POST	1283	4.0	5.4	6.4

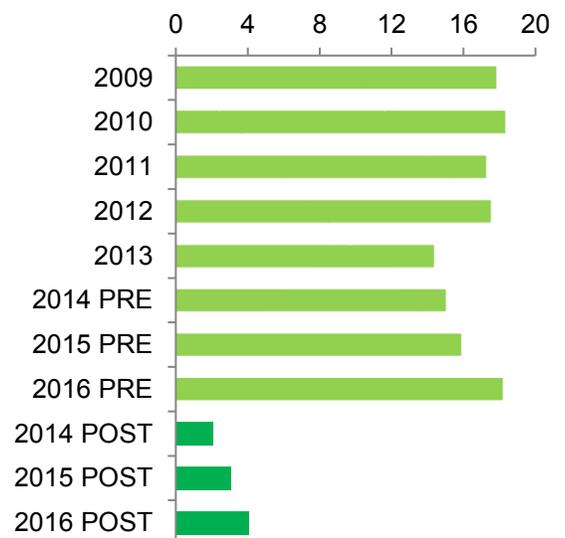


Percentage Awarded for Permanent Partial Disability – Employee did not Return to Work

The median PPD percent for 2016 pre act cases where injured workers did not return to work was 4.0. The charts below display average PPD percentages and present converted scheduled member and body as a whole amounts together. The median PPD percent for pre act cases was 18.2.

Average PPD Percent - Employee did not Return to Work

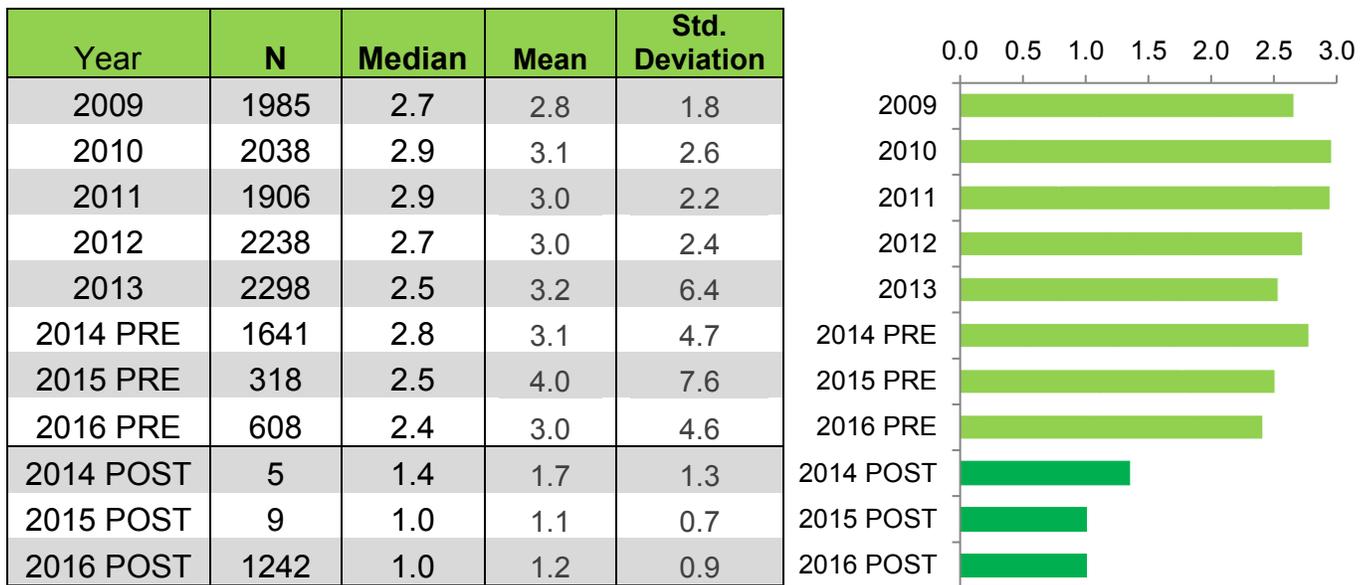
Year	N	Median	Mean	Std. Deviation
2009	2078	17.8	24.7	22.2
2010	2096	18.3	25.4	22.3
2011	1965	17.2	23.7	21.0
2012	2301	17.5	23.6	21.1
2013	2465	14.4	21.7	21.0
2014 PRE	1690	15.0	21.8	21.0
2015 PRE	1082	15.8	21.9	20.8
2016 PRE	688	18.2	25.6	30.9
2014 POST	5	2.0	5.9	6.4
2015 POST	209	3.0	4.9	5.1
2016 POST	1283	4.0	6.1	8.3



Permanent Partial Disability Multipliers – Employee did not Return to Work

The PPD multiplier for 2016 post act cases where the injured worker did not return to work was 1.0. Pre act permanent partial disability multipliers for cases involving permanent injury where injured workers did not return to pre injury employment ranged from 2.4 to 2.9. This does not include cases that were reconsidered due to changes related to the injured workers' work status or other factors of reconsideration.

Average PPD Multiplier - Employee did not Return to Work

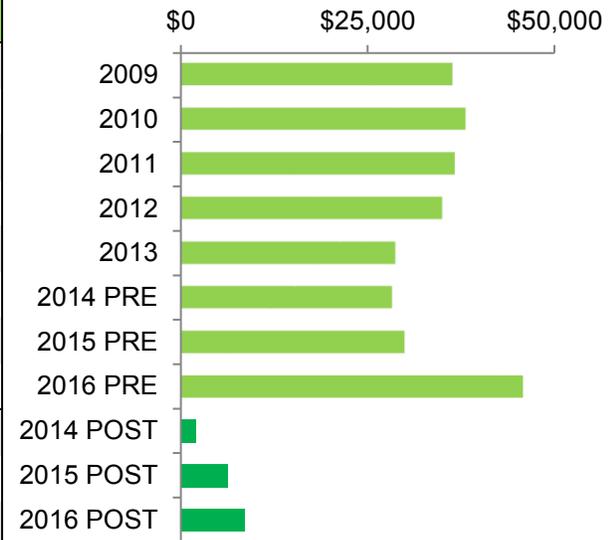


Permanent Partial Disability – Monetary Benefits – Employee did not Return to Work

The following charts display average medical expenses paid for cases involving permanent disability where injured workers did not return to work. The median PPD amount paid for injured workers who did not return to pre injury employment for 2016 post act cases was \$8,400. The median amount paid for 2016 pre act non return to work PPD benefits was \$45,800.

Average PPD Benefit Amounts - Employee did not Return to Work

Year	N	Median	Mean	Std. Deviation
2009	2477	\$36,363	\$69,186	\$96,081
2010	2434	\$38,125	\$76,013	\$123,561
2011	2300	\$36,654	\$73,954	\$120,956
2012	2619	\$35,030	\$71,796	\$115,366
2013	2741	\$28,767	\$67,720	\$115,956
2014 PRE	2245	\$28,333	\$65,833	\$117,224
2015 PRE	1596	\$29,968	\$68,933	\$116,767
2016 PRE	635	\$45,800	\$94,236	\$145,613
2014 POST	9	\$1,850	\$5,004	\$6,748
2015 POST	364	\$6,190	\$12,565	\$25,605
2016 POST	1239	\$8,400	\$18,305	\$32,176

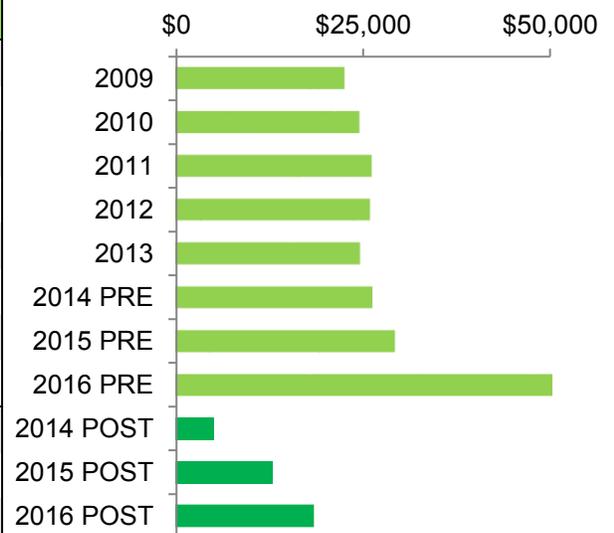


Medical Benefits/Expenses – Employee did not Return to Work

The median amount paid for 2016 post act cases was \$18,301. Average medical benefits/expenses for cases where the injured workers were not returned to pre injury employment are displayed below. The median amount paid for 2016 pre act cases was \$50,972.

Average Medical Benefits/Expenses - Employee did not Return to Work

Year	N	Median	Mean	Std. Deviation
2009	2177	\$22,473	\$55,529	\$425,890
2010	2150	\$24,440	\$52,777	\$112,086
2011	2056	\$26,077	\$56,797	\$138,057
2012	2310	\$25,850	\$62,734	\$230,356
2013	2324	\$24,503	\$69,653	\$576,212
2014 PRE	2081	\$26,159	\$56,645	\$132,151
2015 PRE	1325	\$29,158	\$67,987	\$158,015
2016 PRE	551	\$50,972	\$106,777	\$197,979
2014 POST	10	\$4,935	\$6,924	\$6,253
2015 POST	375	\$12,682	\$21,270	\$38,729
2016 POST	1244	\$18,301	\$31,763	\$60,244

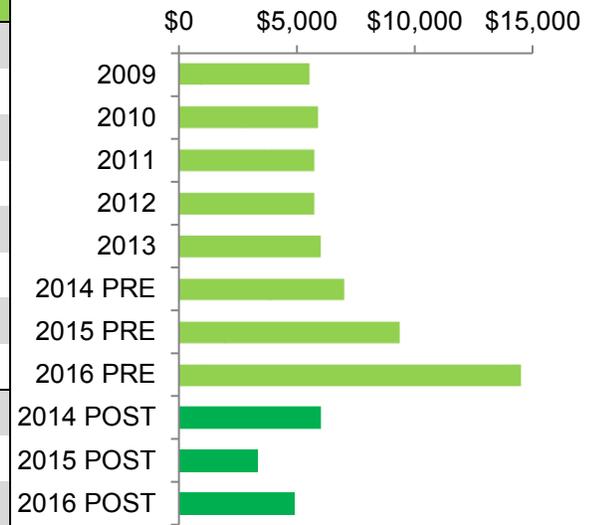


Lump Sum Benefits

For 2016 post act cases, the median lump sum amount paid was \$4,879. The following charts depict the average lump sum amounts paid at the time of conclusion. The median lump sum amount increased to \$14,500 in 2016 pre act cases. The numbers reported represent all cases, regardless of return to work status.

Average Lump Sum Benefits Paid

Year	N	Median	Mean	Std. Deviation
2009	261	\$5,536	\$19,289	\$51,568
2010	252	\$5,900	\$20,967	\$51,707
2011	270	\$5,738	\$17,801	\$43,816
2012	460	\$5,738	\$18,353	\$72,835
2013	396	\$6,000	\$18,432	\$70,114
2014 PRE	257	\$7,000	\$23,270	\$82,739
2015 PRE	184	\$9,354	\$42,688	\$163,549
2016 PRE	103	\$14,500	\$40,162	\$78,919
2014 POST	2	\$6,000	\$6,000	\$0
2015 POST	74	\$3,284	\$8,112	\$12,684
2016 POST	171	\$4,879	\$8,605	\$13,727



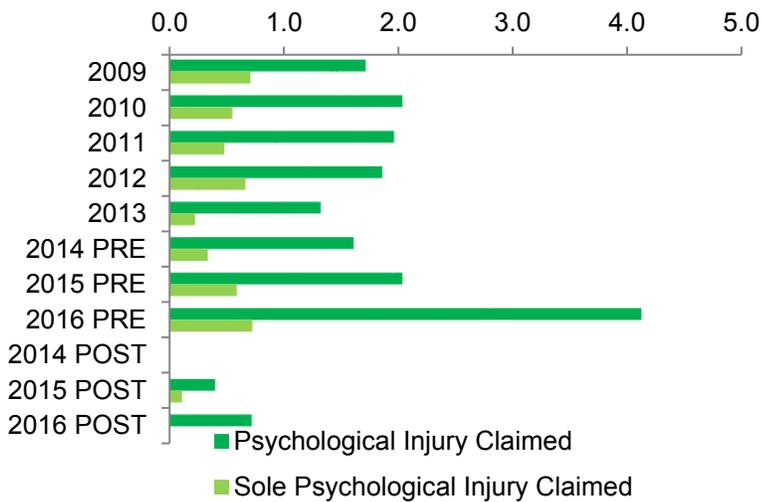
Psychological Injury

Psychological injury can be associated with workers' compensation cases in two ways, an injured worker can claim psychological injury in addition to other injuries, or it can be the sole injury. The chart below displays the frequency and percent of claims involving psychological injury. For 2016 post act cases, 43 (0.7%) claimed psychological injury and in 14 cases (0.2%), psychological injury was the sole claim. For 2016 pre act cases, 63 (4.1%) involved psychological injury and in 11 (0.7%) cases, psychological injury was the sole claim.

Frequency of Psychological Injuries

Year	Psychologic al Injury Claimed		Sole Psychologic al Injury Claimed	
	N	Percent	N	Percent
2009	151	1.7	62	0.7
2010	167	2.0	45	0.5
2011	156	2.0	38	0.5
2012	158	1.9	56	0.7
2013	119	1.3	20	0.2
2014 PRE	131	1.6	27	0.3
2015 PRE	94	2.0	27	0.6
2016 PRE	63	4.1	11	0.7
2014 POST	0	0.0	0	0.0
2015 POST	11	0.4	3	0.1
2016 POST	43	0.7	14	0.2

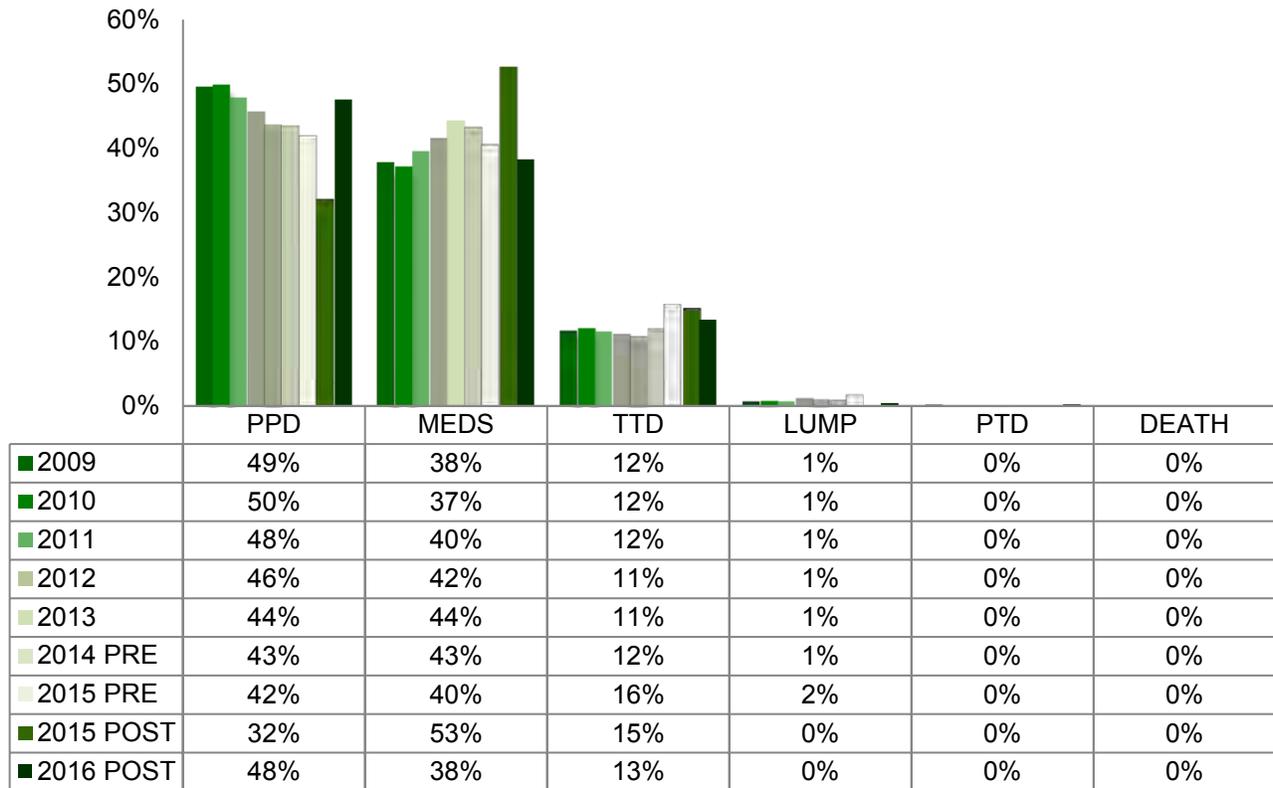
Percent of Case With Psychological Injuries



Medical & Indemnity Summary

The following chart displays the percent of all medical and indemnity dollars paid at the time of conclusion as indicated on SD-1 forms. This does not include payments made in medical only claims. With 2016 still bifurcated between pre and post act case types, systemic trend implications should be avoided for 2014 through 2016 cases. While some benefit amounts were paid for lump sum, permanent total disability and death benefits, the percentages were less than a half of a percent for many of the years. 2014 post act cases were not included due to the low number of cases.

Percent Paid for All Medical and Indemnity Dollars at Conclusion



Conclusion

As also observed in 2015 cases, 2016 pre act cases typically are taking longer and have higher temporary total disability, permanent partial disability, medical, and lump sum costs. This is to be expected and serves to provide validity to the data that was available. When 2016 data is combined, rather than looking at pre and post act cases separately, median amounts look typical to pre reform act years. 2016 is still a transition year between pre and post act cases, with higher cost and duration cases occurring under the pre act system, while also being precluded from the post act data. 2017 data should present information that is largely post act in nature.

Exhibit 6A

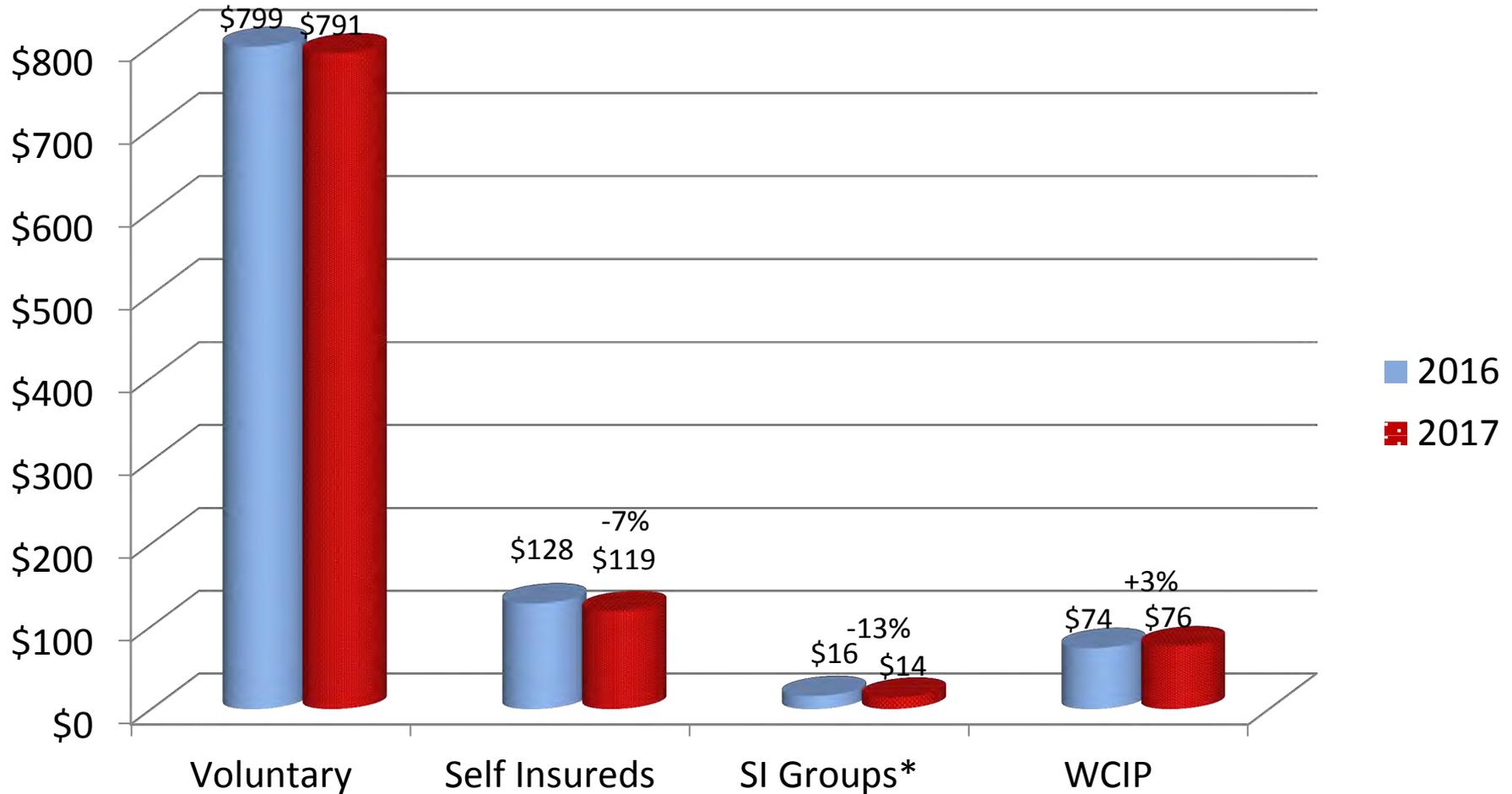


Overview of Tennessee's
Workers' Compensation Market Conditions and Environment

Advisory Council on Workers' Compensation

2017 and Prior Market Segments (\$000)

Millions in Premiums -1%



* Excluding government sponsored groups; Individual Self Insureds are on an equivalent premium basis, Group premiums are estimated. ABC Group discontinued writing coverage in 2015.

National Picture



Property & Casualty Underwriting Results

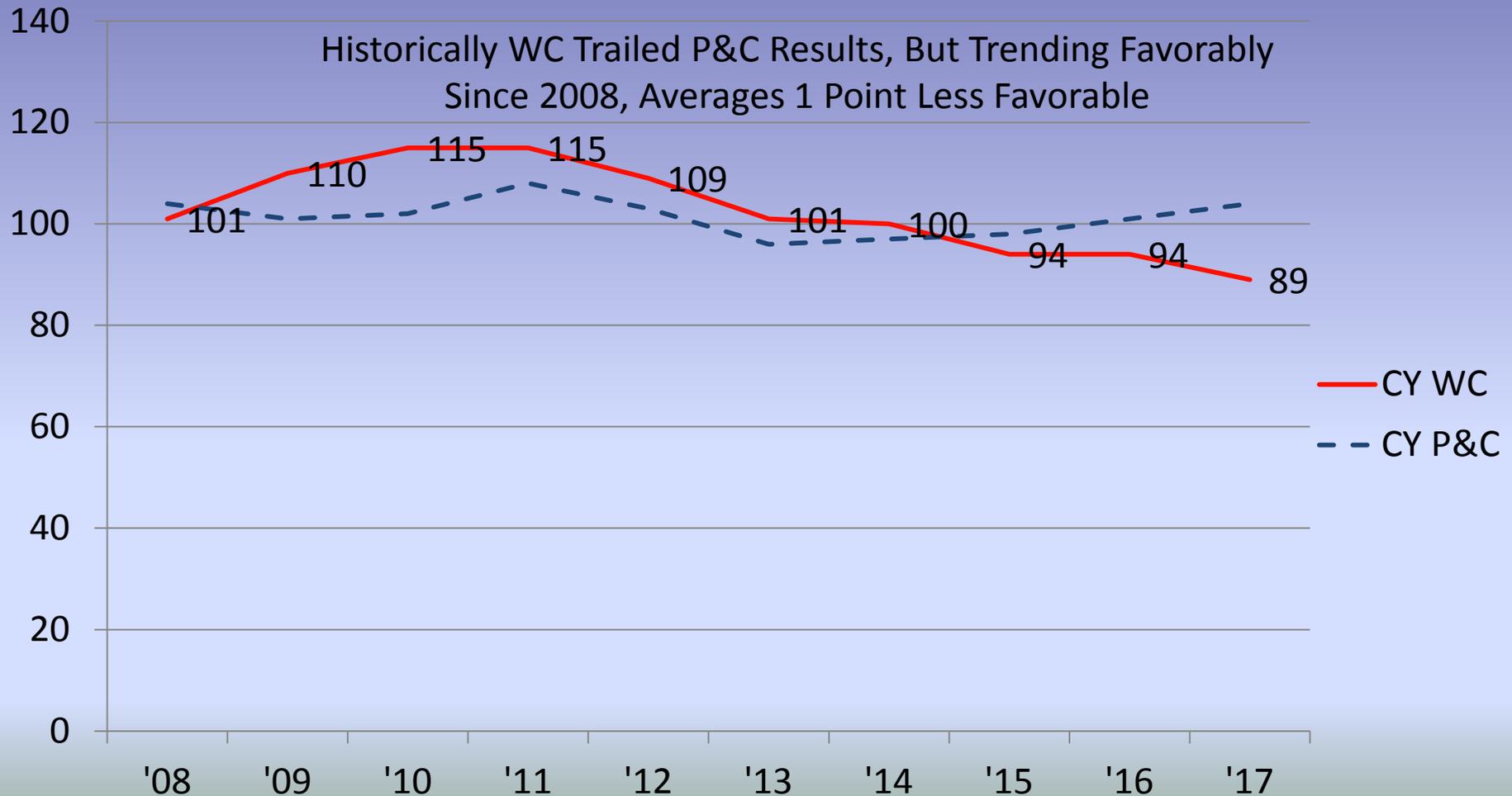
- Combined Ratio = Expense Ratio + Loss & LAE Ratio; results <100 equates to an underwriting profit

Net Calendar Year Combined Ratio – Private Carriers

Line of Business	2015	2016	2017 preliminary
Personal Auto	105%	106%	103%
Homeowners	92%	93%	107%
Com. Multi Peril	95%	102%	108%
Com. Auto	109%	111%	111%
Workers' Comp	94%	94%	89%
Total P&C Industry	98%	101%	104%

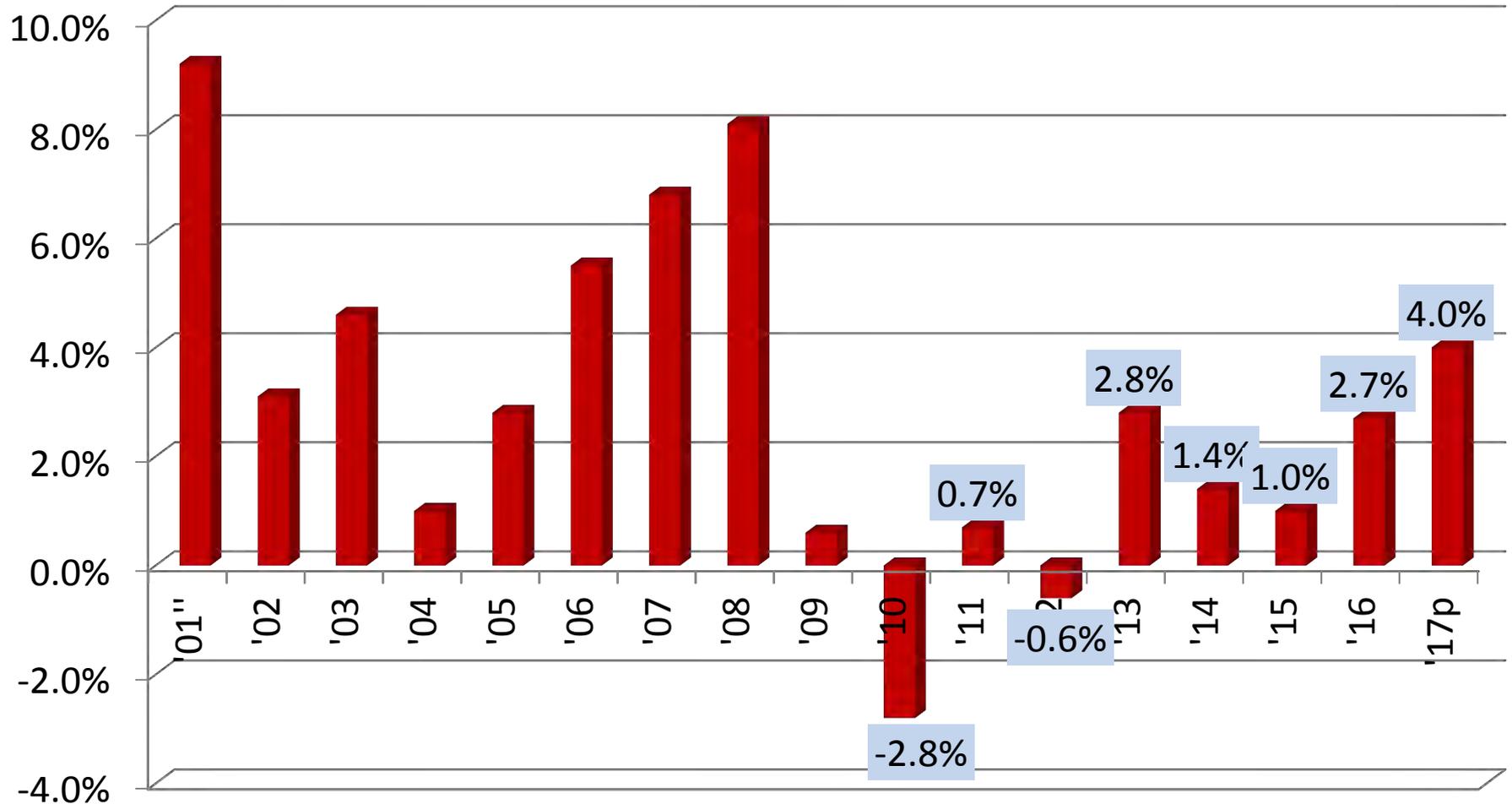
Sources: NCCI for Workers Comp; Total P/C Industry: NAIC Annual Statement Data

Calendar Year Combined Ratios



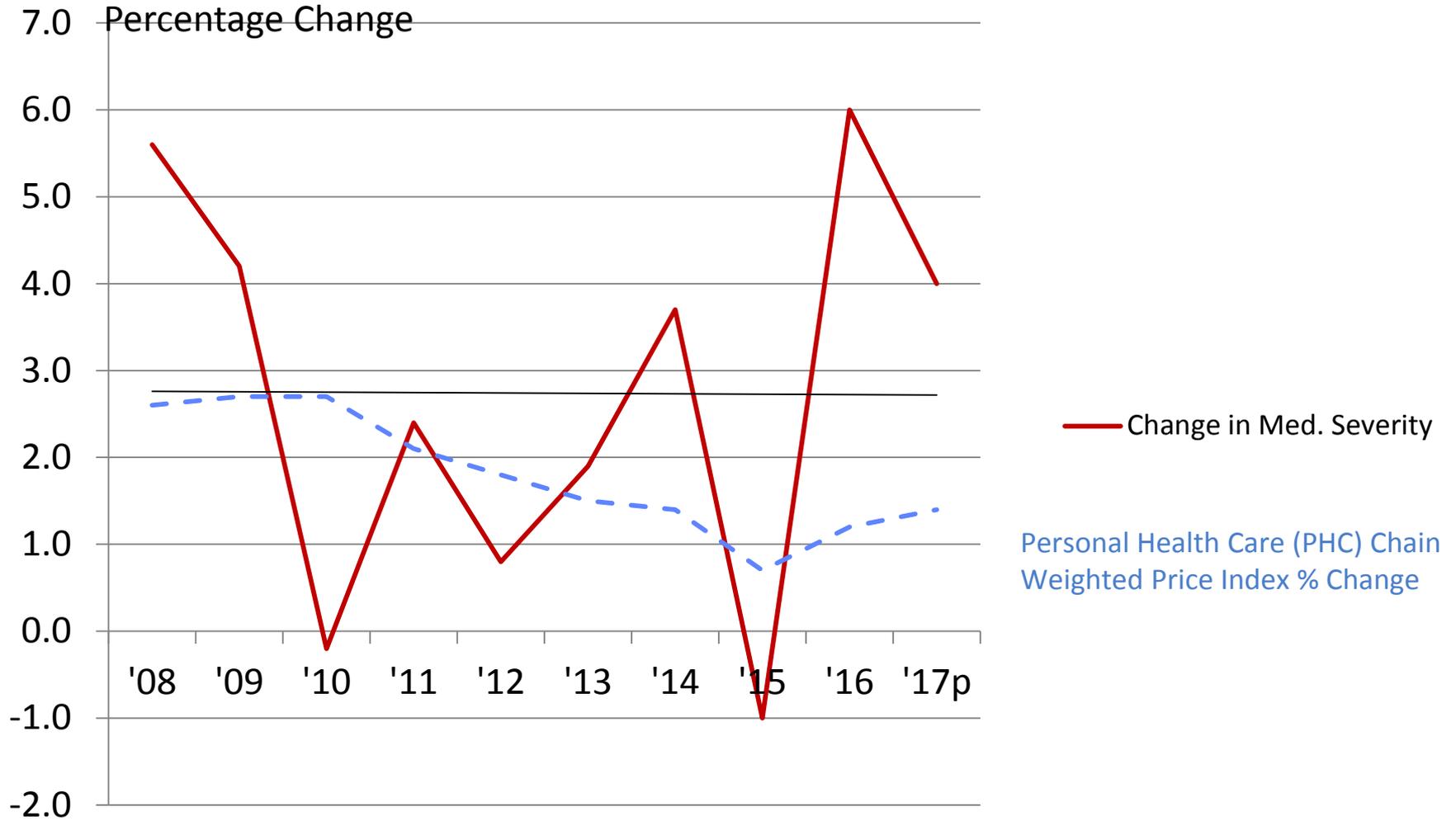
Source: NCCI; Annual Statement Date; 2017 preliminary data

Workers' Compensation Indemnity Claims Cost Continue to Show Modest Increases

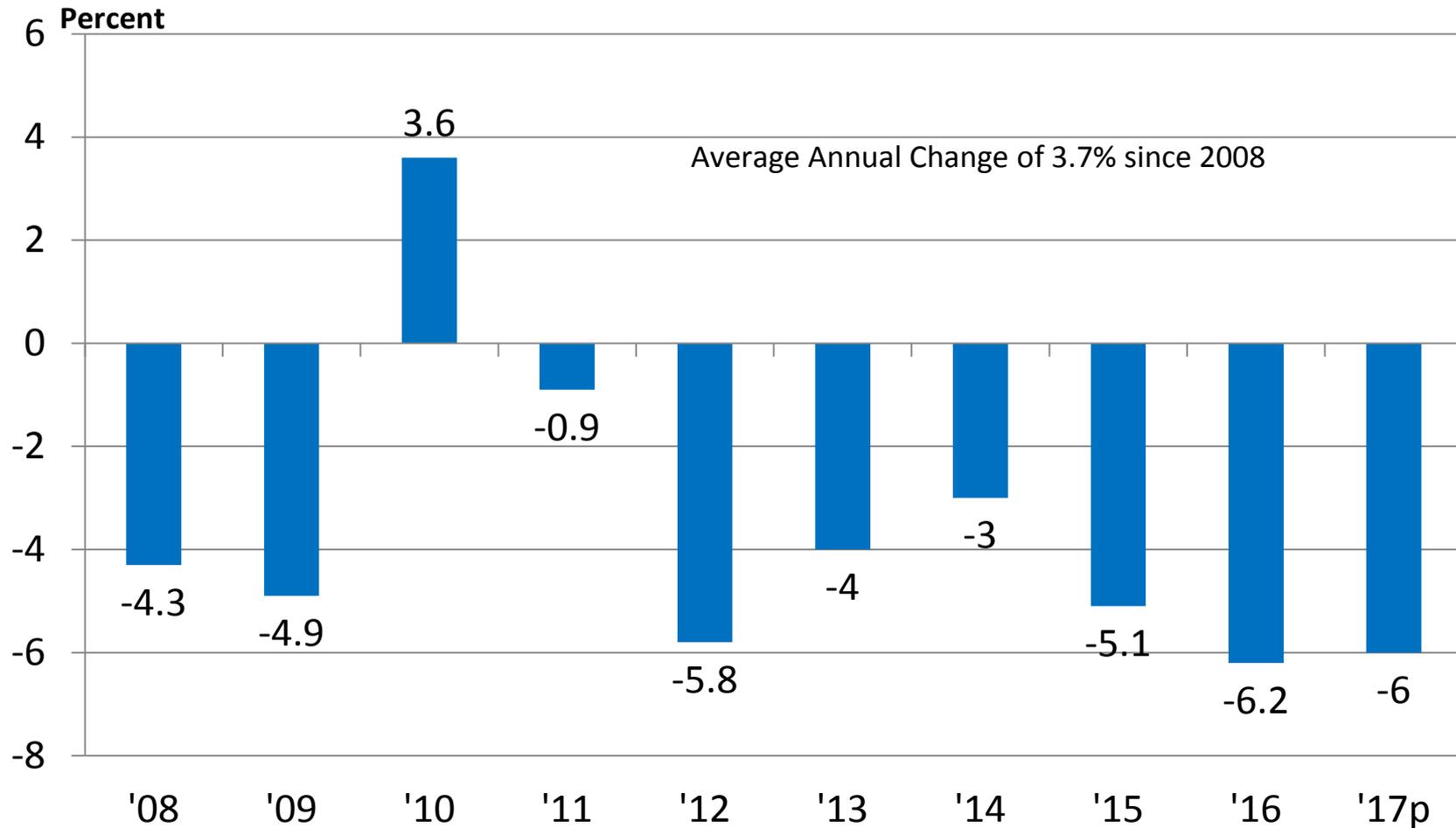


Source: NCCI (2016 is preliminary)

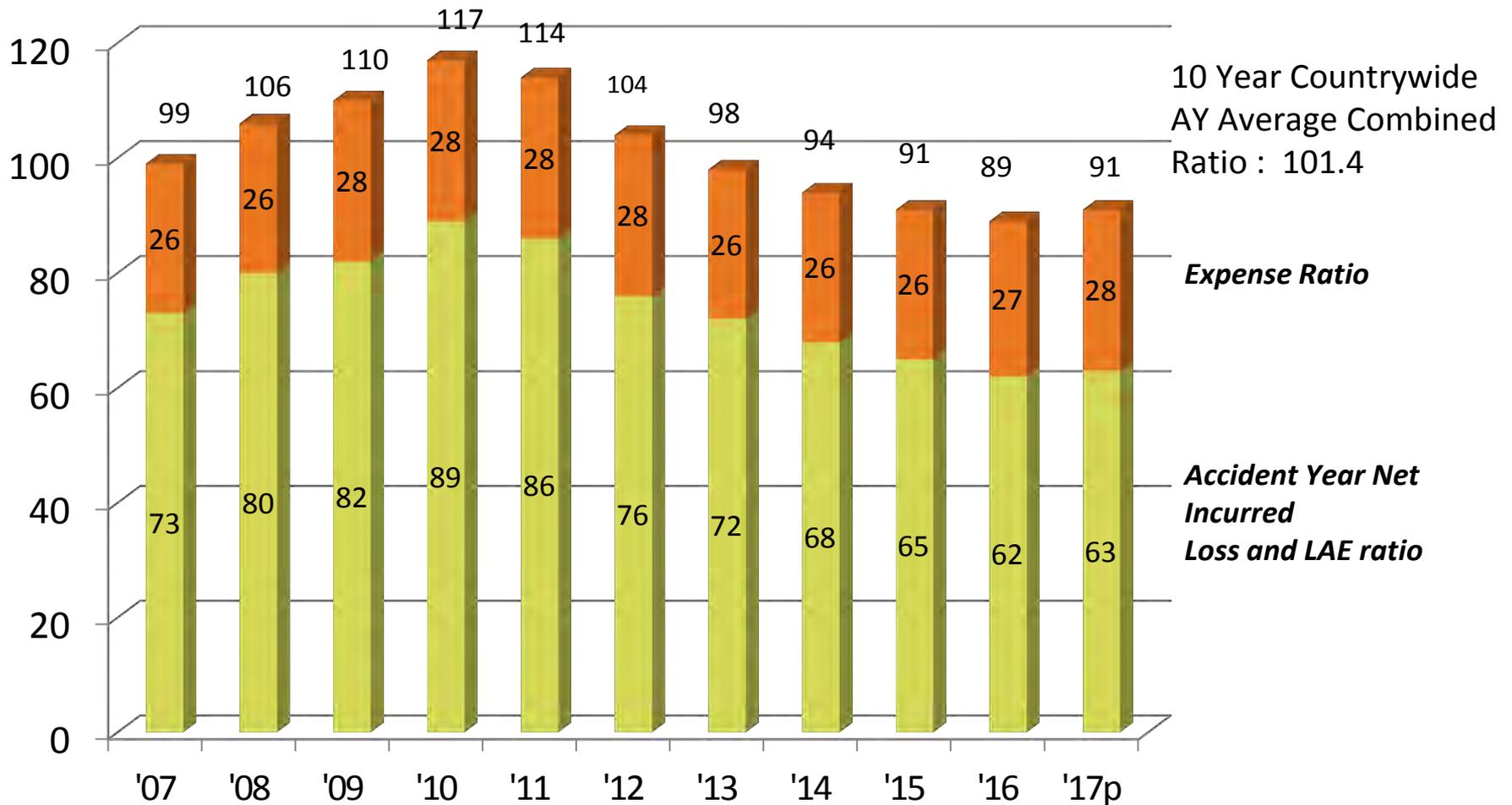
Medical Severity Increases vs. PHC Price Index



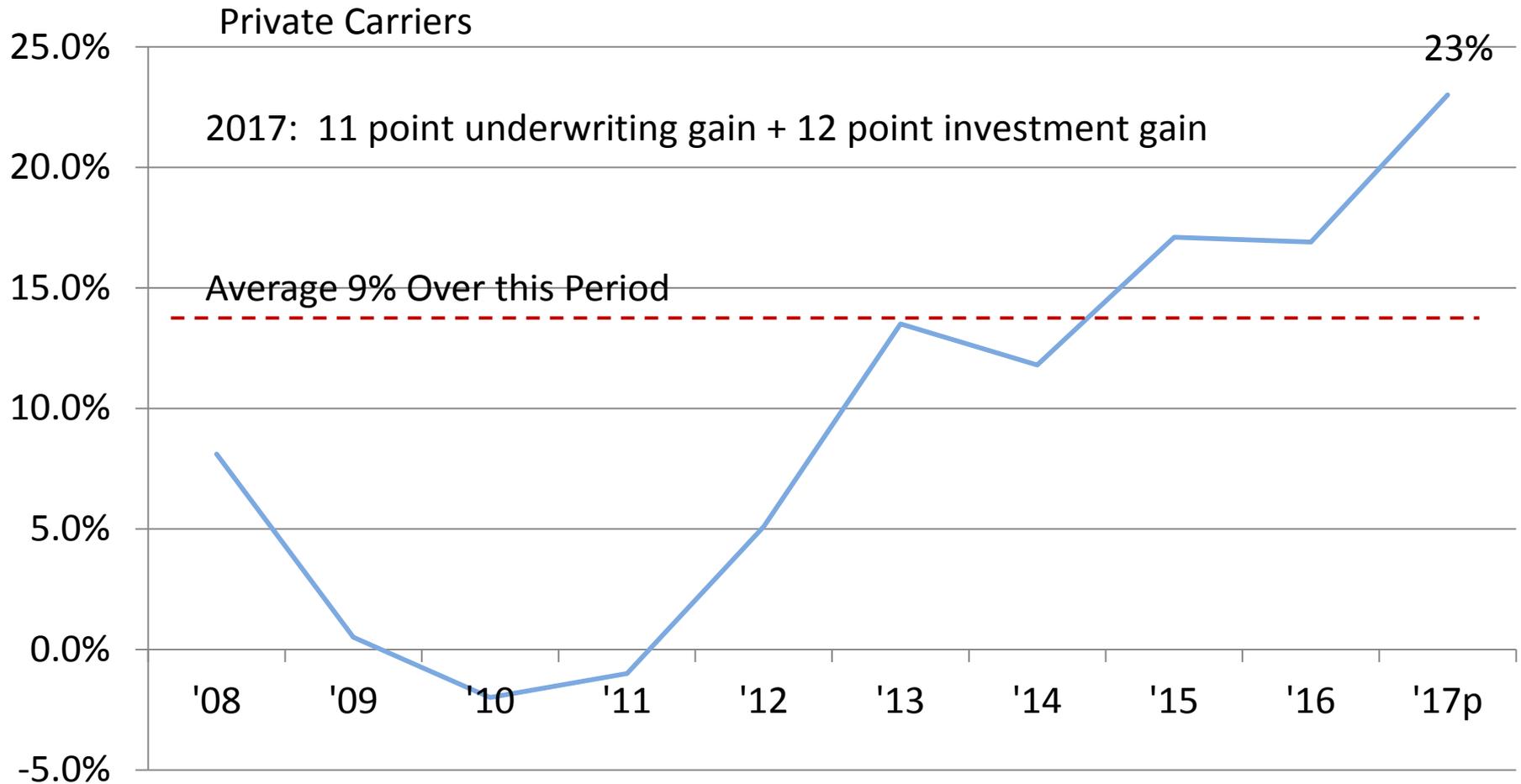
WC Lost-Time Claim Frequency Continued to Decline in 2017



Countrywide NCCI "Selected" Accident Year Combined Ratios



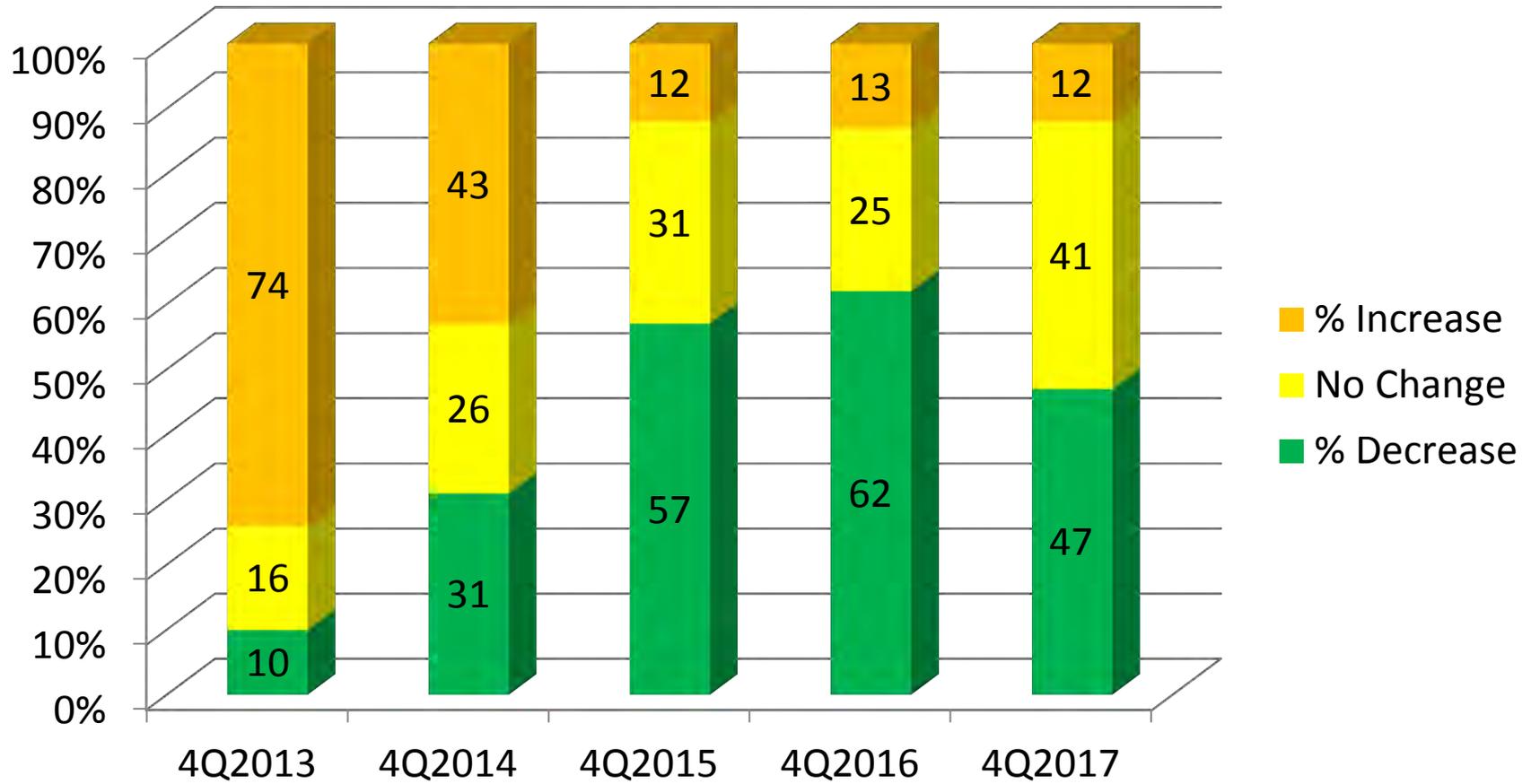
Pretax Operating Gain - Best Result in Over 20 Year Period!



Source: NAIC Annual Statement Data; 2017 NCCI - preliminary

WC Pricing - Market Index Survey

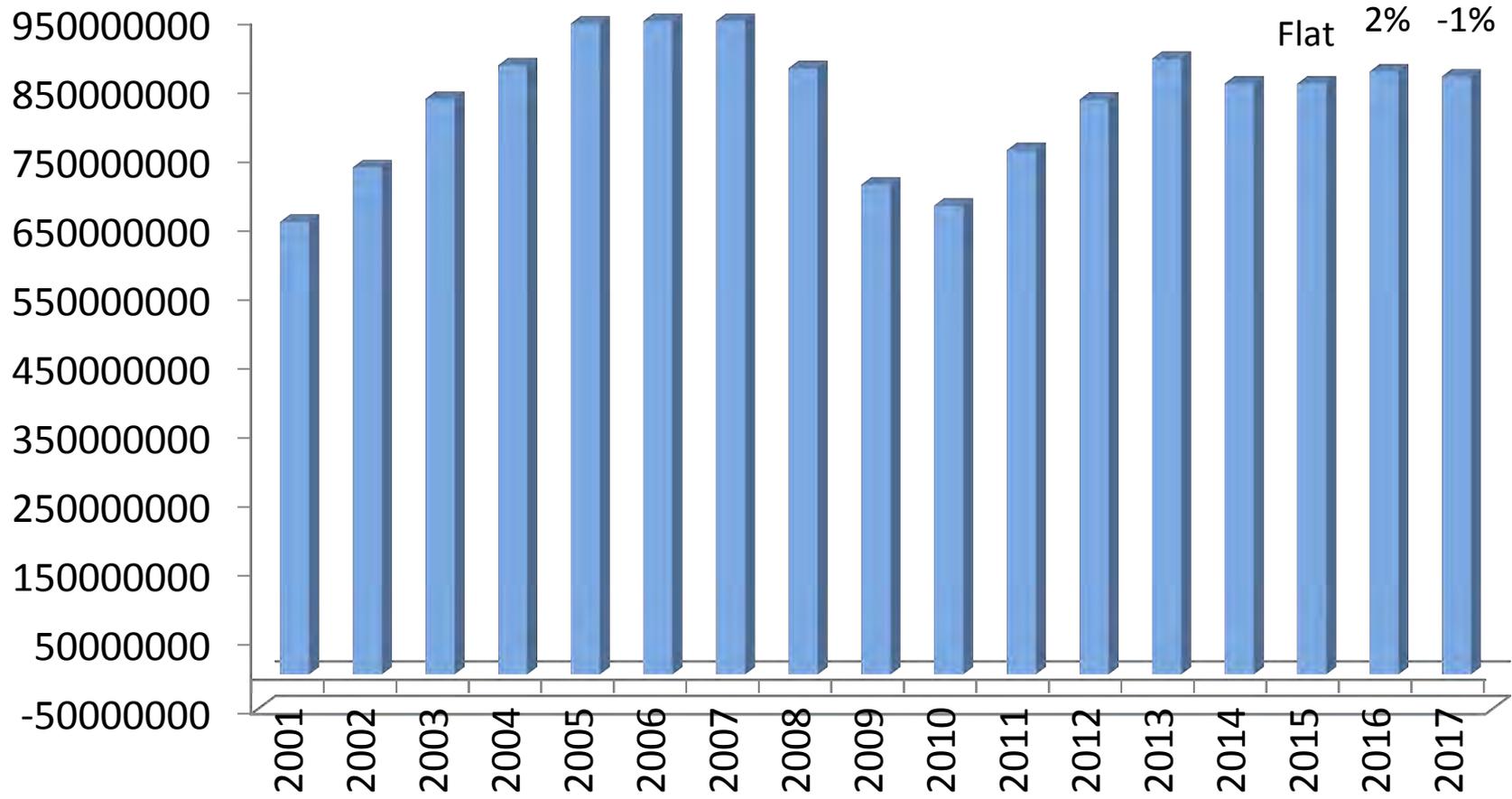
Percentage of Responses



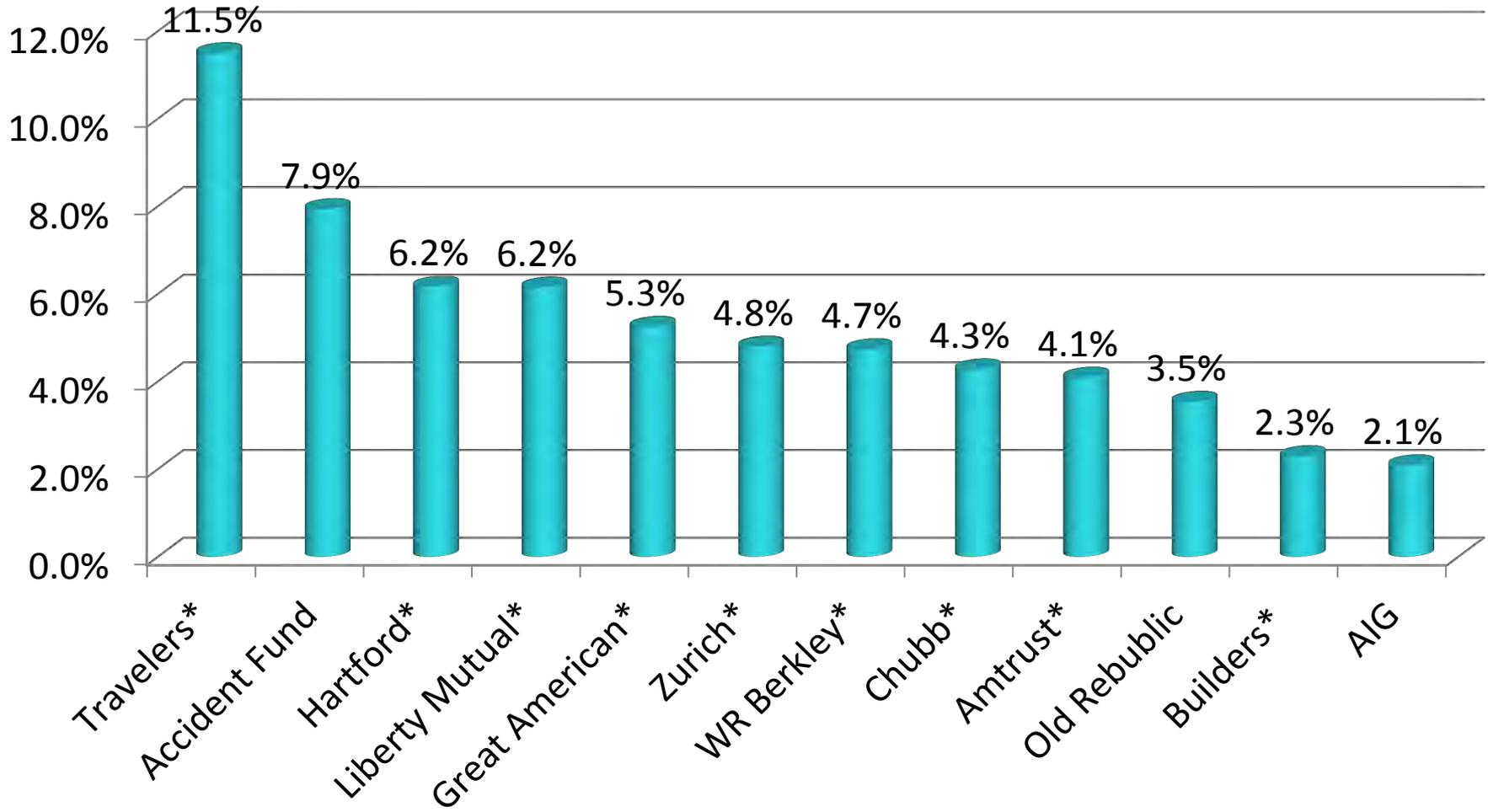
Tennessee Specific



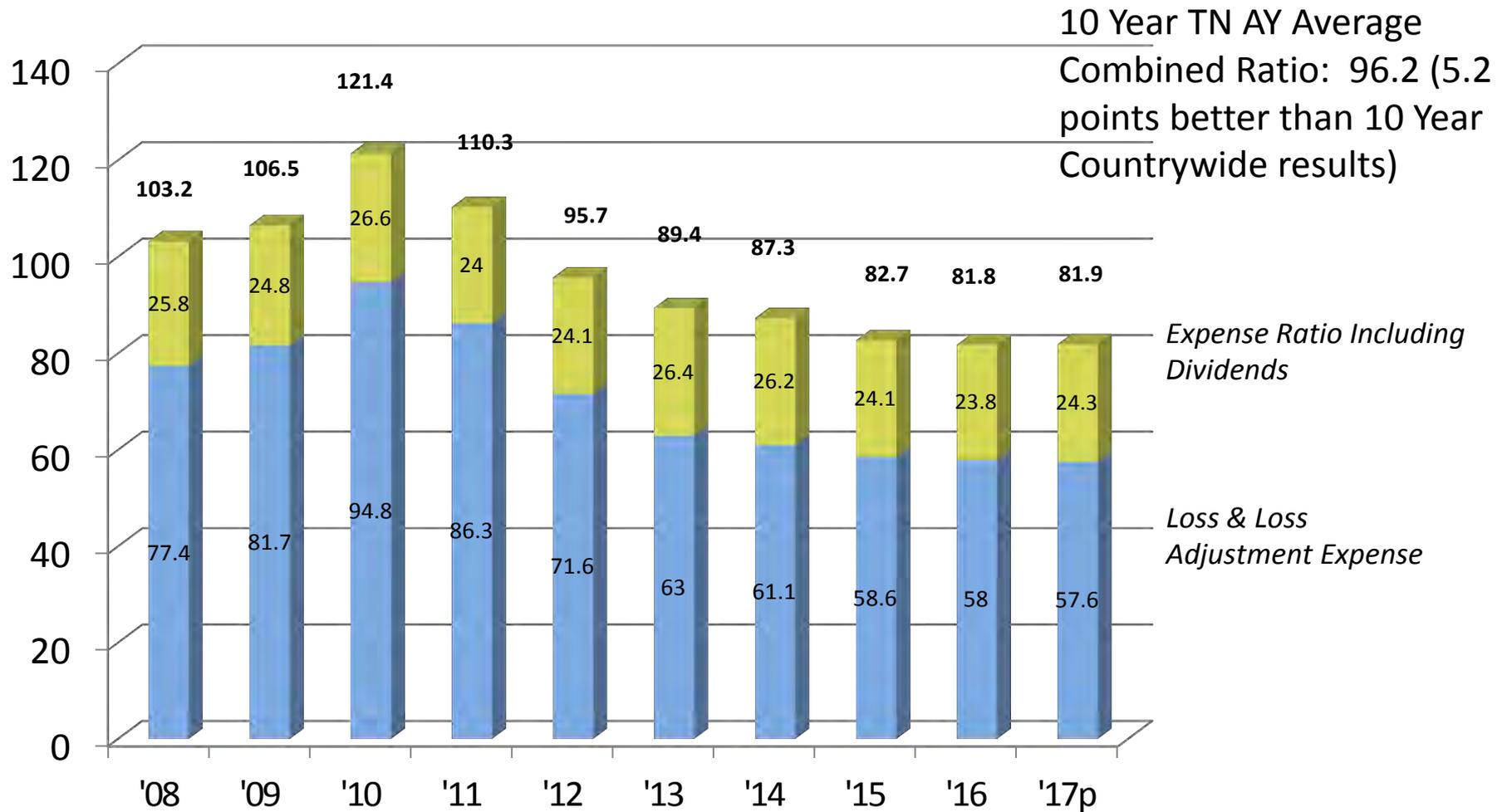
TN Direct Premium Written Premium (DPW) History



Top 12 2017 Group Market Shares



Tennessee Accident Year Combined Ratios

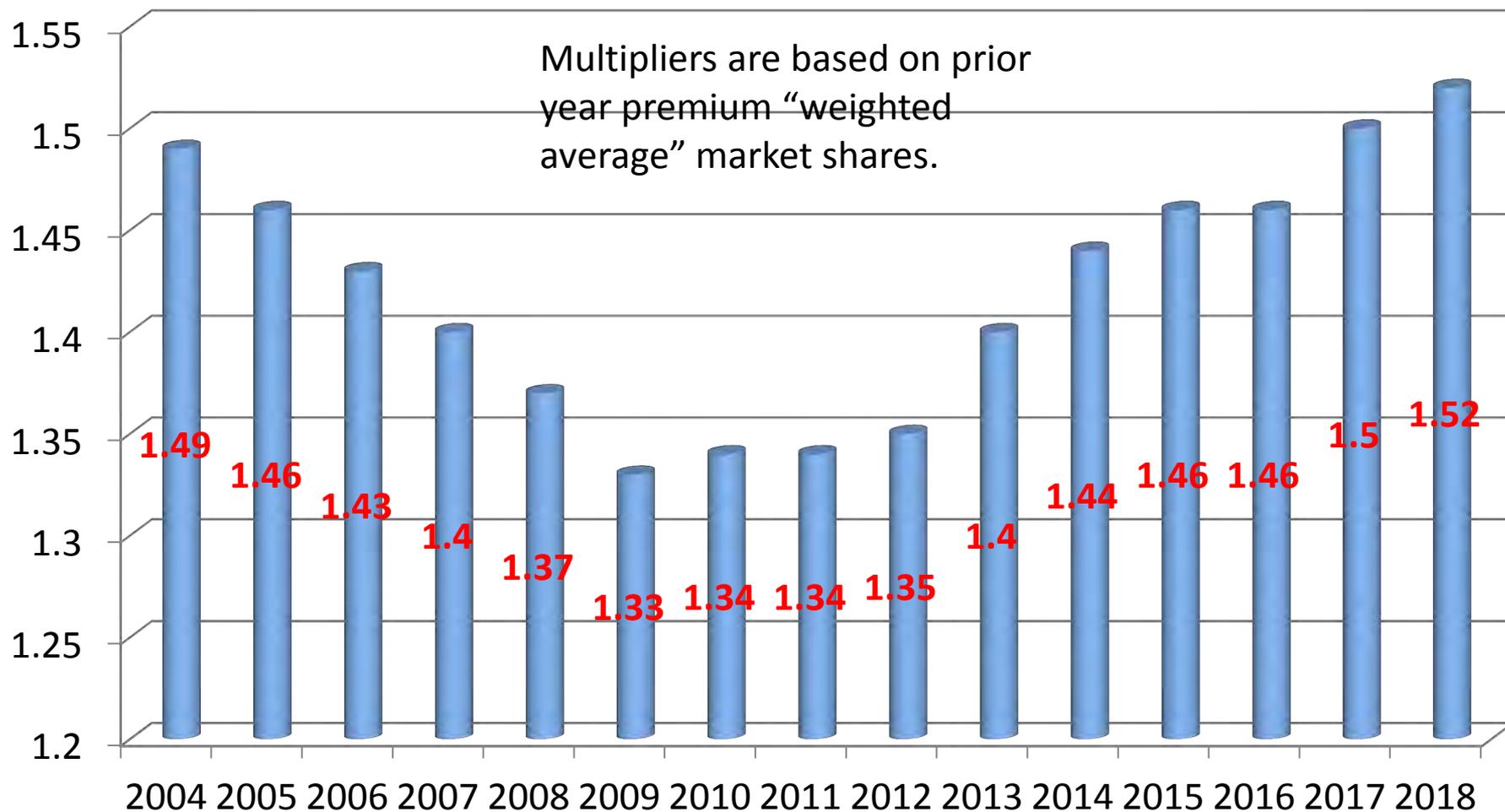


Source: NCCI; 2017 is preliminary

Loss Cost Filing & Final Approvals - Past 10 Years

Year Filing Made	NCCI Filed Rate	Advisory Council Recommendation	C&I Approved Rate	Effective Date
2009	-.1%	-.1%	-.1%	3/1/2010
2010	-5.1%	-5.3%	-5.1%	3/1/2011
2011	6.3%	6.3%	6.3%	11/1/11
2011	1.6%	-.3%	.4%	3/1/12
2012	-5.1%	-5.1%	-5.1%	8/9/12
2012	2.3%	1.6%	2.3%	3/1/13
2013	-8.4%	-6.95%	-6.95%	3/1/14
2013	-5.9%	-5.9%	-5.9%	7/1/14
2014	-9.6%	-6.5%	-8.2%	3/1/15
2015	-0.9	-1.2	-.9	3/1/16
2016	-2.7	-2.7	-2.7	8/28/16
2016	-12.8	-12.8	-12.8	3/1/17
2017	-12.6	-12.6	-12.6	3/1/18
2018	-19.0	TBD	TBD	3/1/19

Tennessee Voluntary Market Weighted Average Loss Cost Multiplier History



2018 LCM Distribution (by Direct Premium Written)

Median 1.48



- 80% are above 1.32 and below 1.73
- 18% above 1.71 Assigned Risk LCM

A complete listing of LCMs is posted on the Department's website

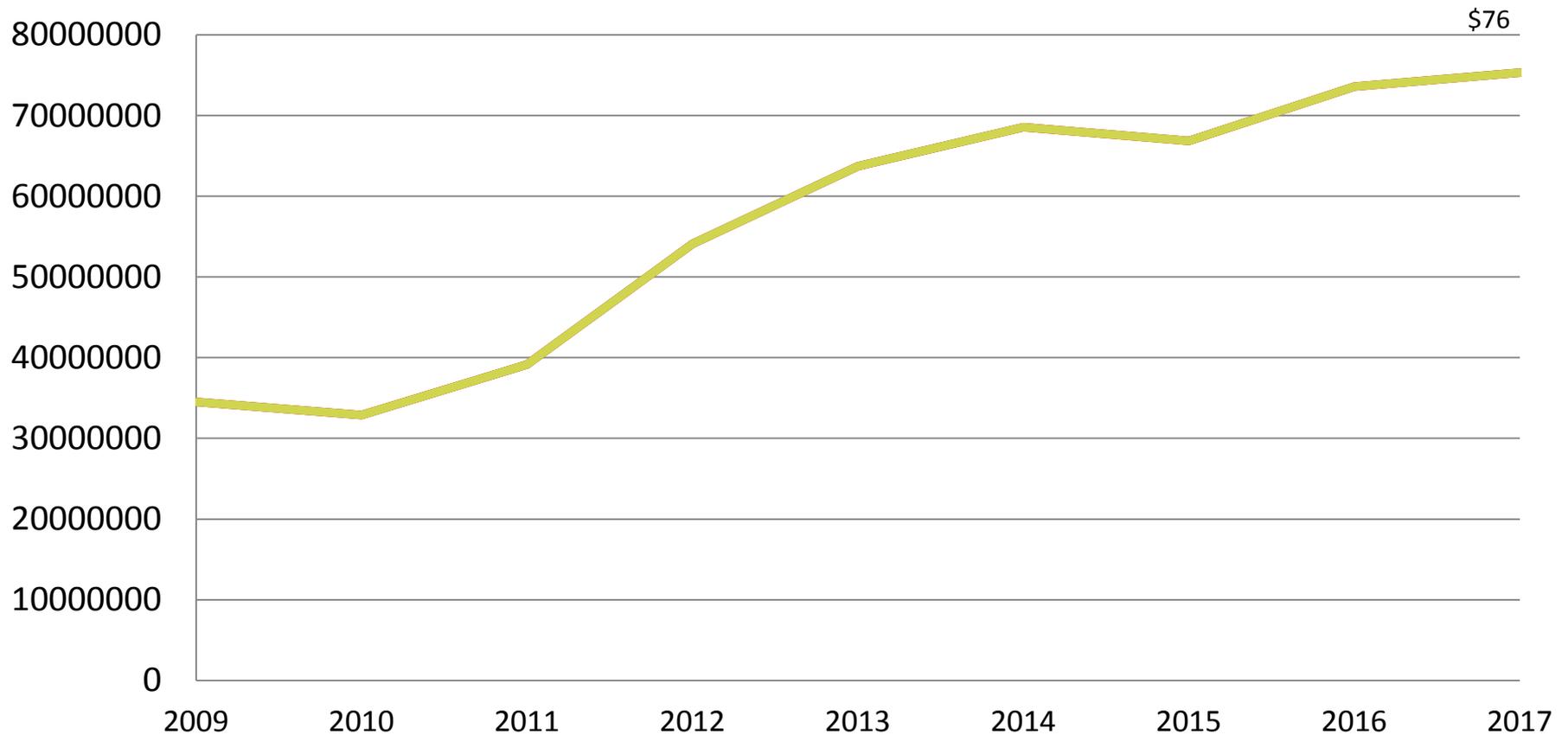
TN WC Premium Tax Revenues

	YE 8/31/14	YE 8/31/15	YE 8/31/16	YE 8/31/17
Self Insurance	\$5.1M	\$6.3M	\$6.2M	\$5.4M
Insurance	\$35.7M	\$34.4M	\$33.8M	\$35.1M
Total Premium Tax*	\$43.4M	\$40.7M	\$40M	\$40.5M

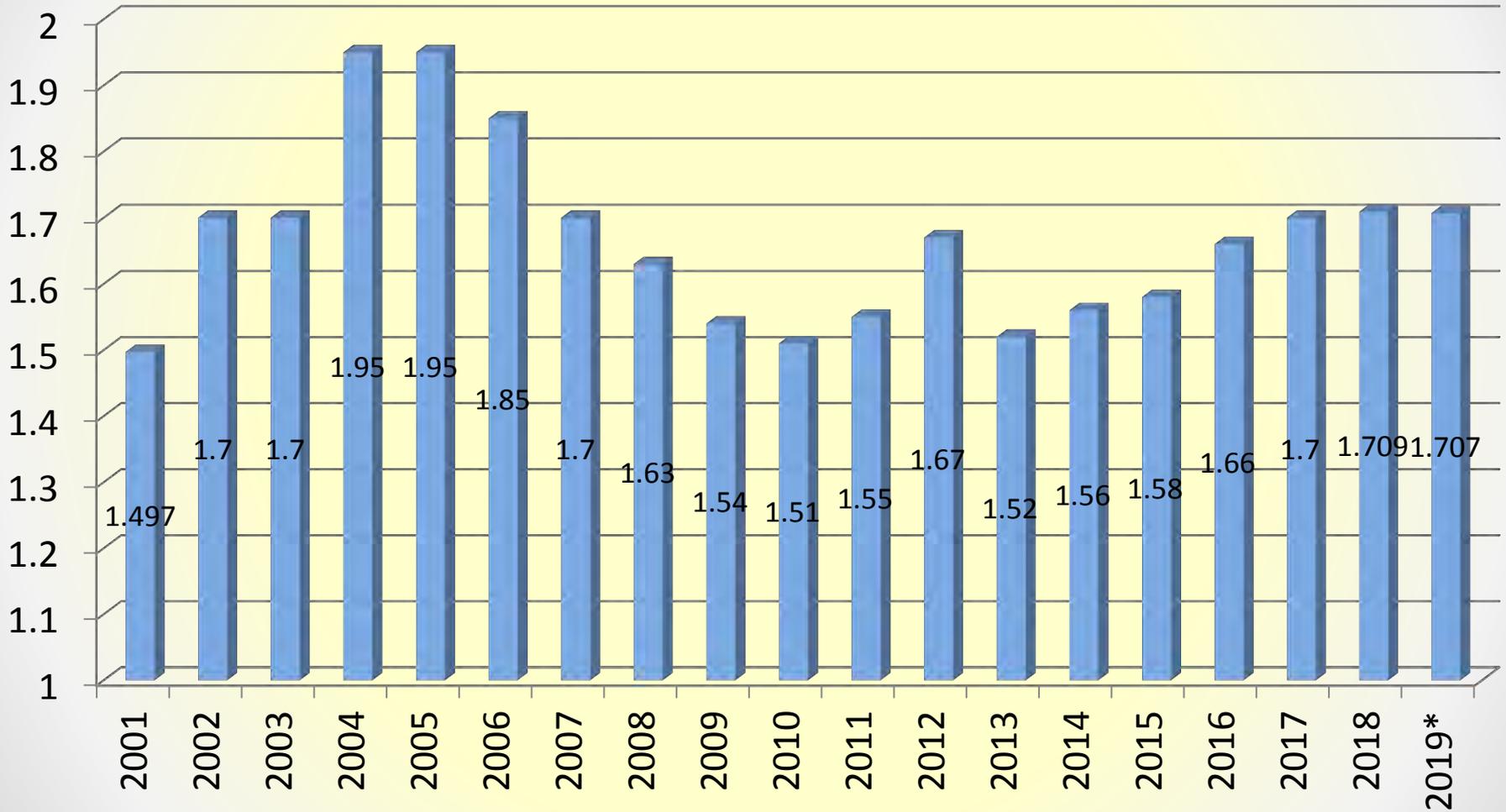
Tennessee Workers Compensation Insurance Plan (WCIP)



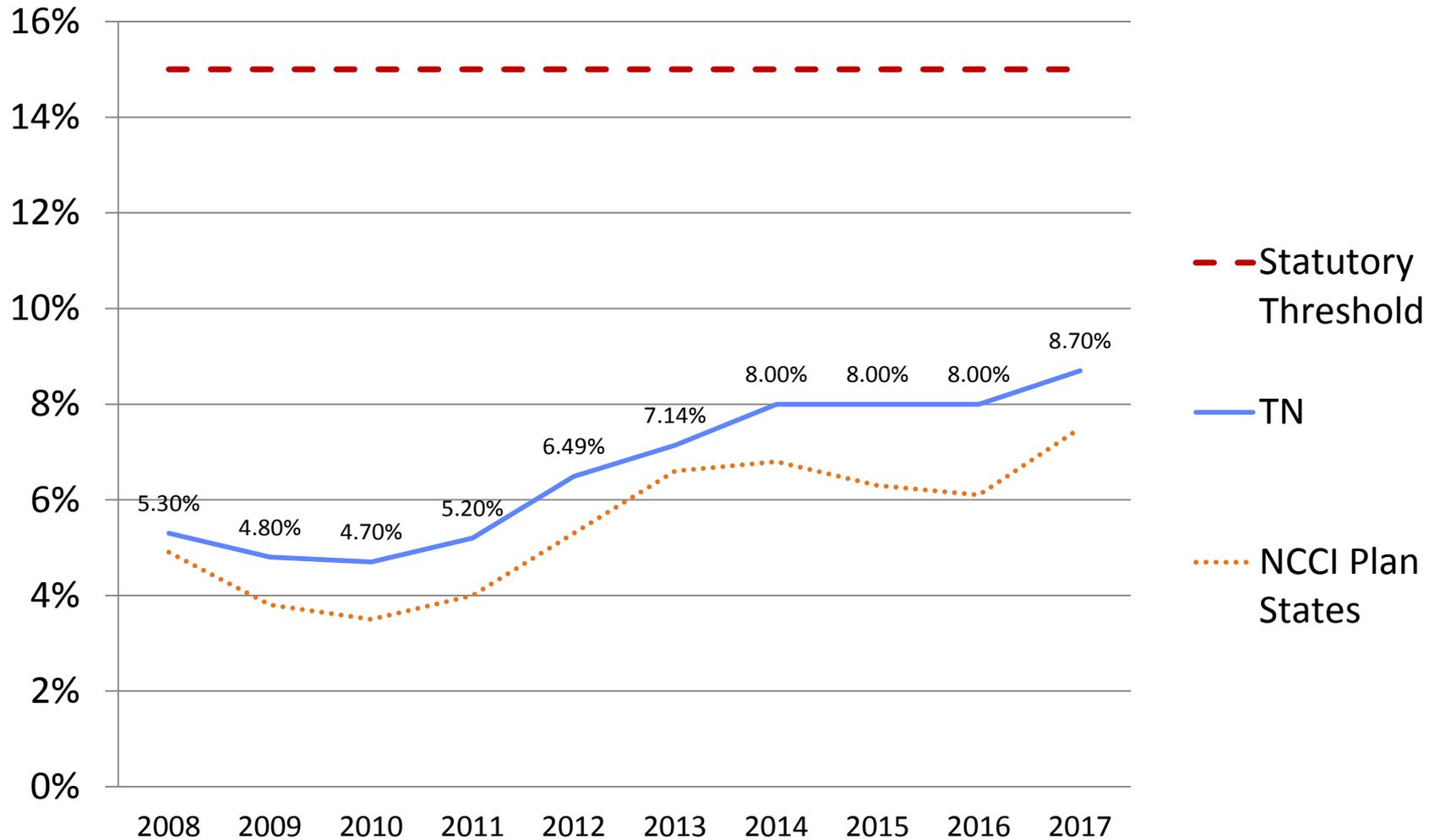
WCIP Premium History



TN WC Assigned Risk LCM History



TN Assigned Risk Market Share vs. NCCI Plan States Market Shares - NAIC Direct Premium Written



TN Department of Commerce & Insurance

2017/18 Assigned Risk Depopulation Initiative

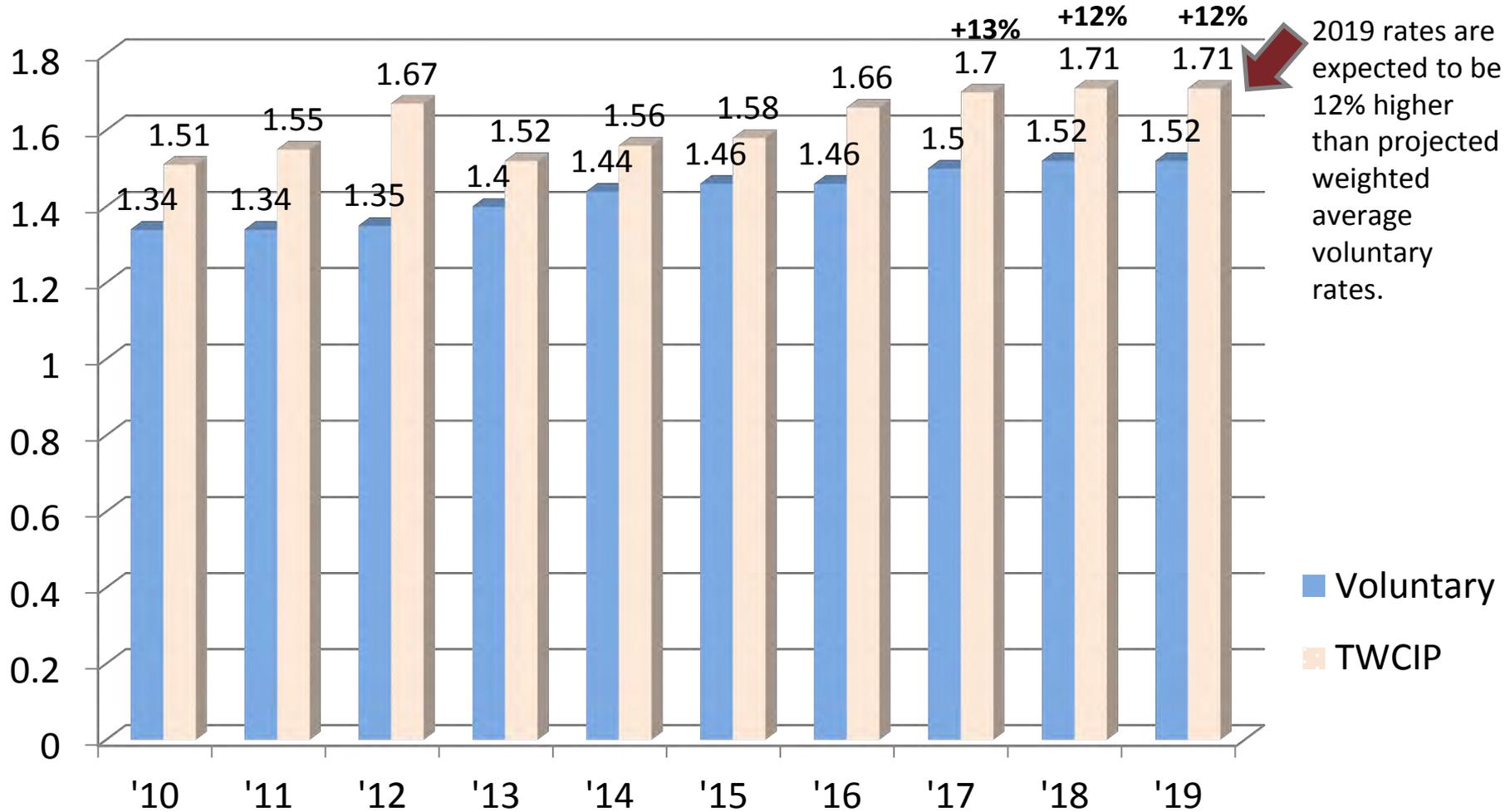
- ***BrightHorizons → Comp***

- Received responses on 20 \$100,000 and up policyholders
- Elevating claims and loss control service to these risks
- Best Practice cost containment initiatives encouraged through the Ultimate Guide to Mastering Workers' Comp Costs
- **75% of respondents have opted to employ independent safety consultants or no cost TOSHA Consultation Services**
- OBJECTIVE: Improve risk to attract voluntary markets
- WINNERS: Employer, employees, and assigned risk plan
- Though early, a total of six risks have exited the residual market



LCM History: Voluntary vs. TWCIP/WCIP

Assigned Risk Plan LCM On Average 13% Higher



WCIP NCCI 3/1/19 Rate and Rating Filings

- Overall LCM decrease of .1%
 - Underlying LCM: 1.707
- Overall Pending Rate Change: -19.1%

Currently Two Active Self-Insured Groups

Self Insured Groups

Tennessee Automotive Association

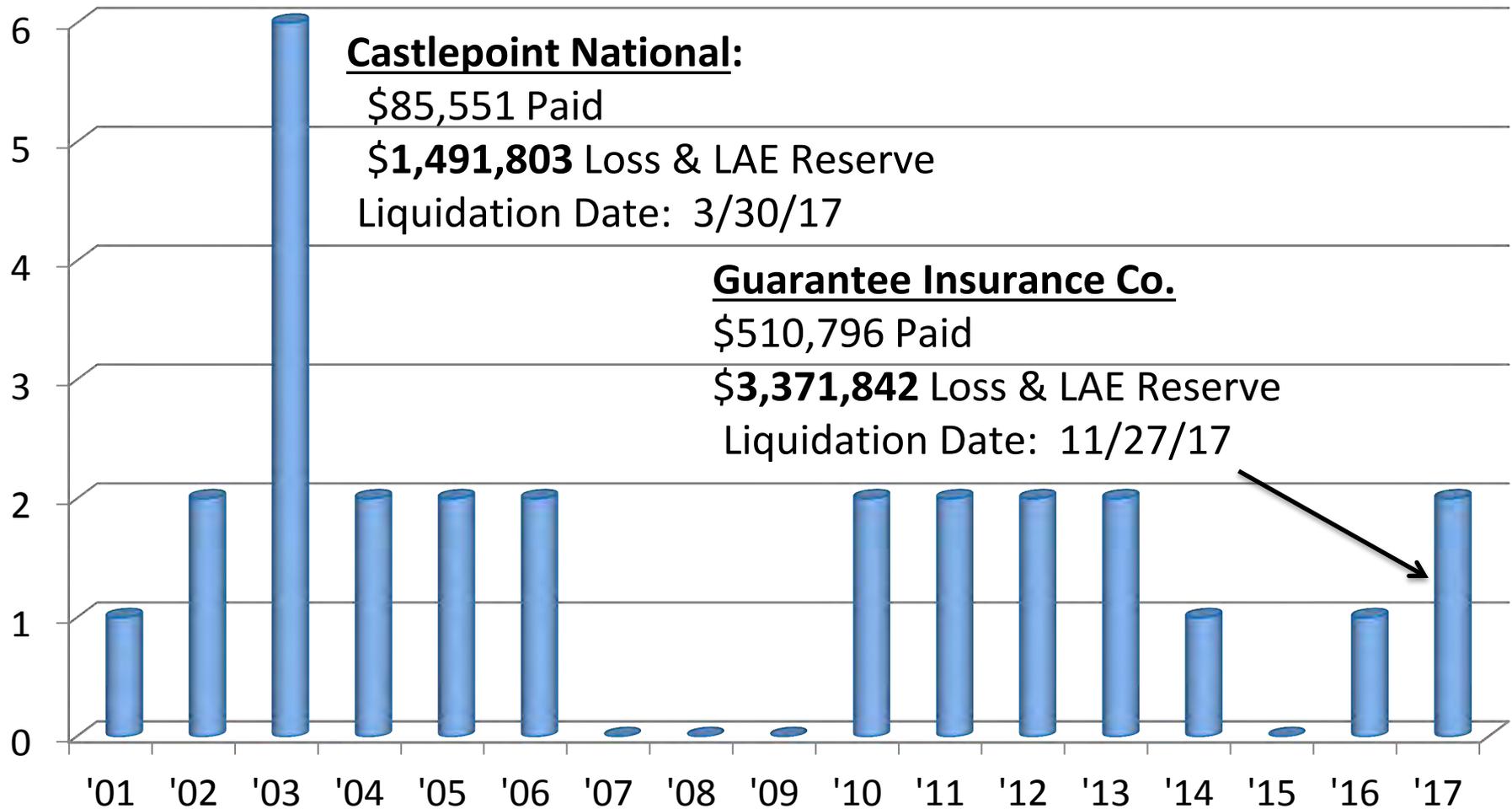
Tennessee Forestry Association

Insolvencies

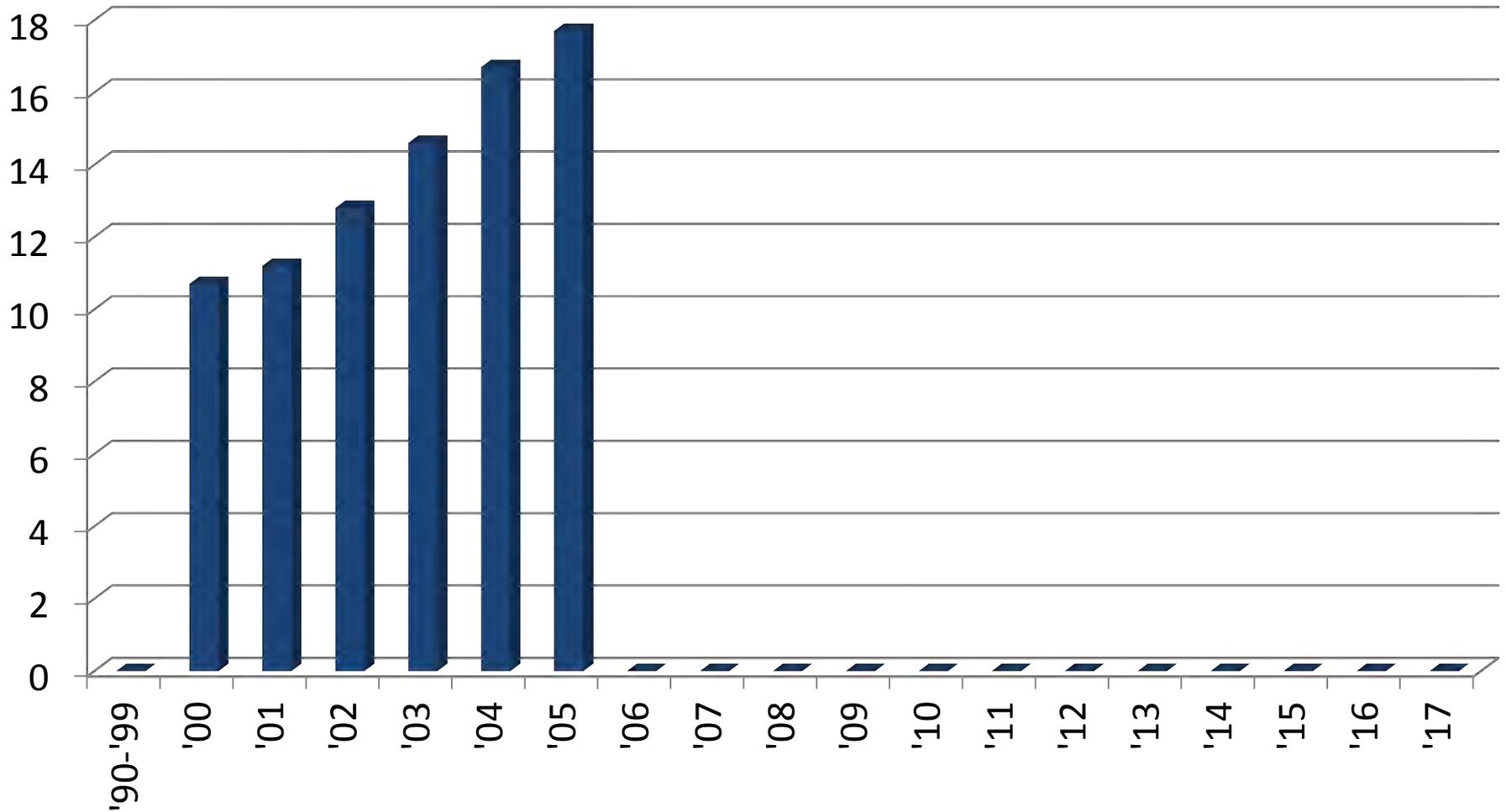
- Individual carrier data included in this section includes insolvencies over \$1million in total losses.



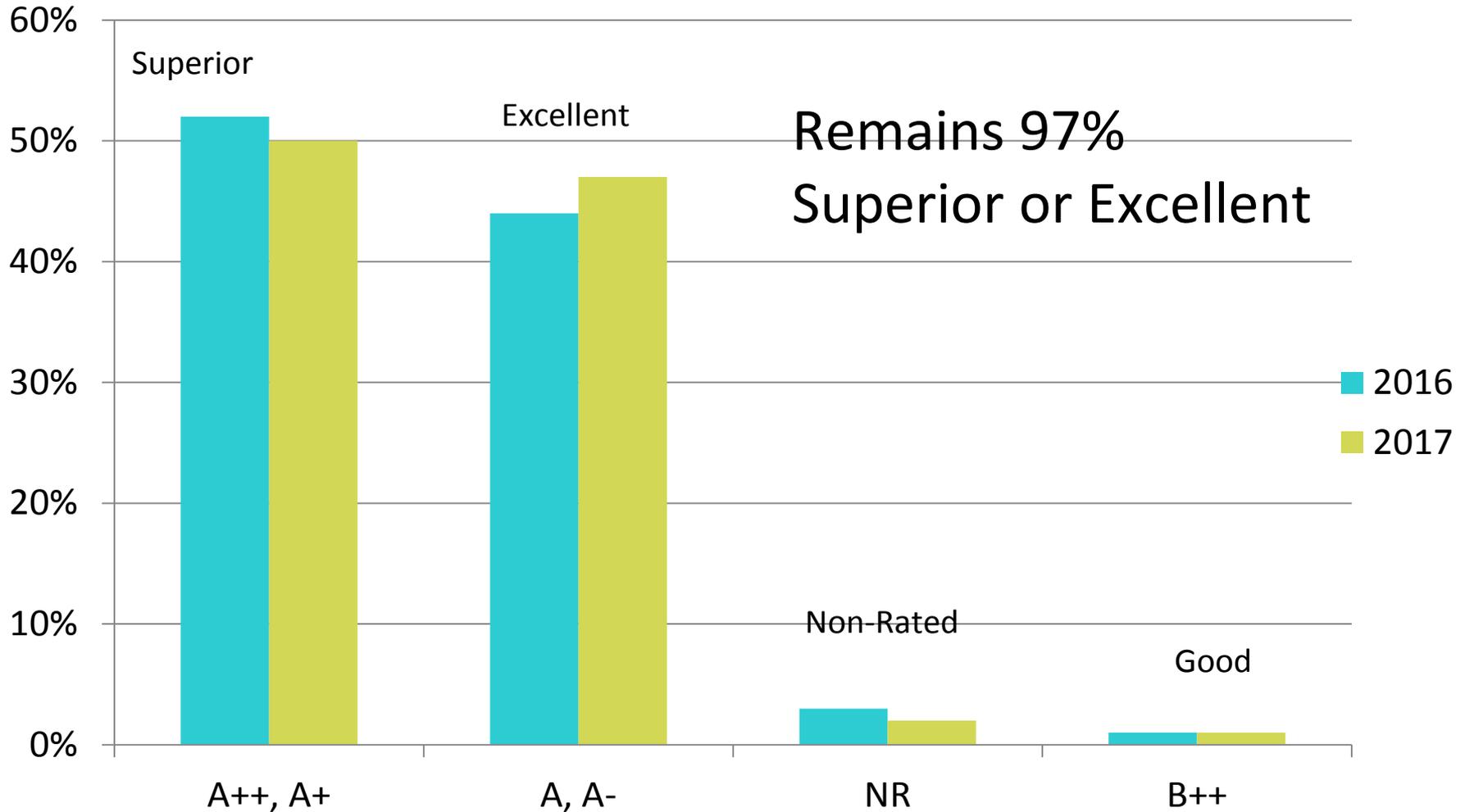
Number of WC Carrier Insolvencies Per Year Impacting TN 2017 Liquidation (>=\$1M in value)



TN Guaranty Fund Assessment History (Millions)



A.M. Best Carrier Ratings by Premium Volume (\$1M and Over): 2016 Compared to 2017



Wrap Up: Defining the Market Condition

“Connecting”...

NCCI CEO Bill Donnell at 2018 AIS

- *to work, due to ever increasing automation*
- *to the worker, considering demographics shift*
- *and to the workplace, becoming more virtual and leveraging technology*

NCCI

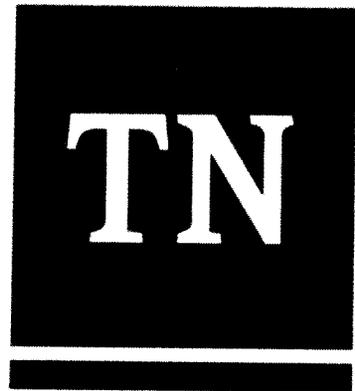


Authorization



- **Department of Commerce and Insurance, Authorization No. 335527 , August 2018.**
- **This document was promulgated for electronic use only at a cost of \$0.00 per copy.**

Exhibit 6B



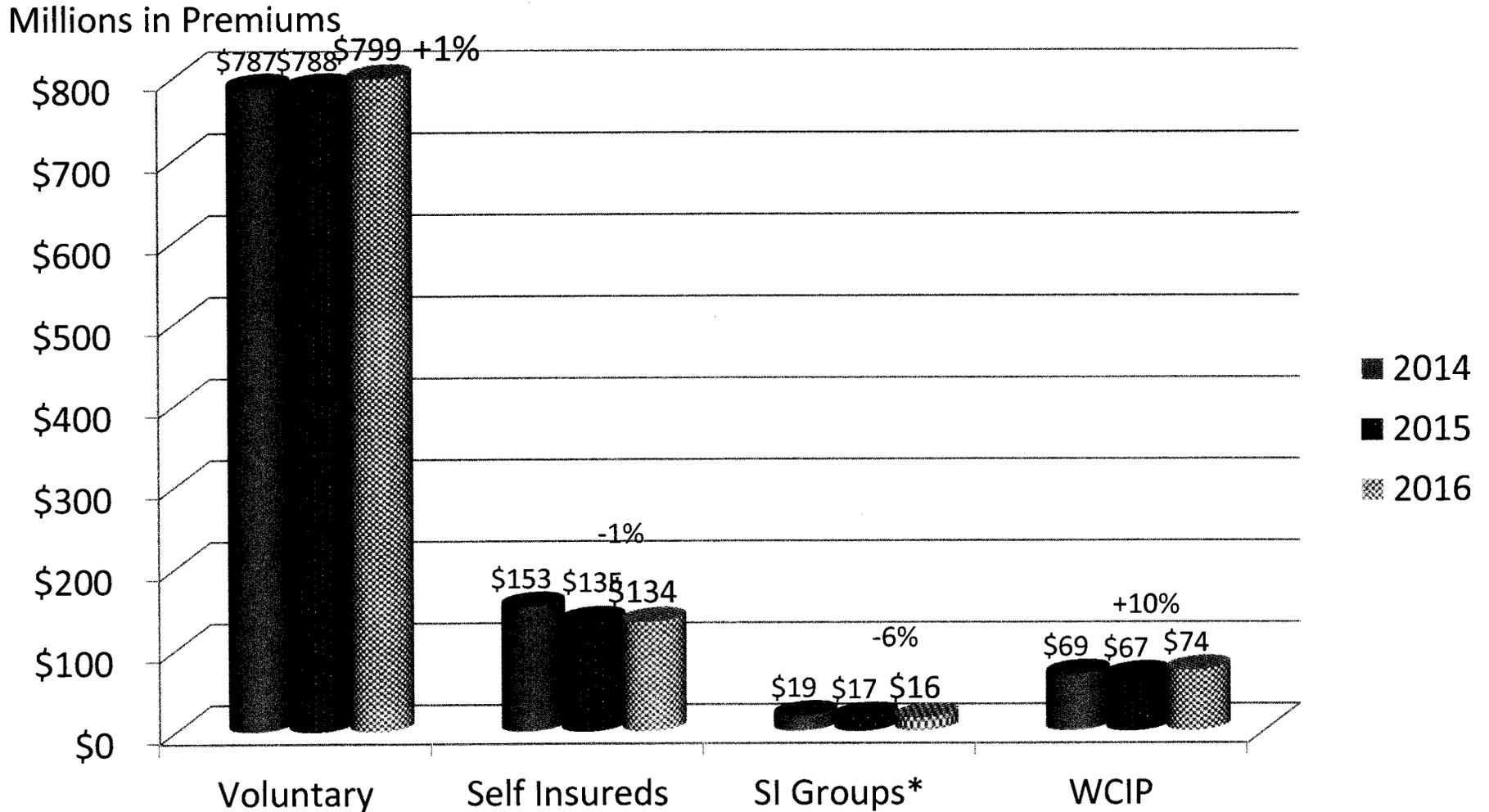
Department of
**Commerce &
Insurance**

Overview of Tennessee's
Workers' Compensation Market Conditions and Environment

Advisory Council on Workers' Compensation

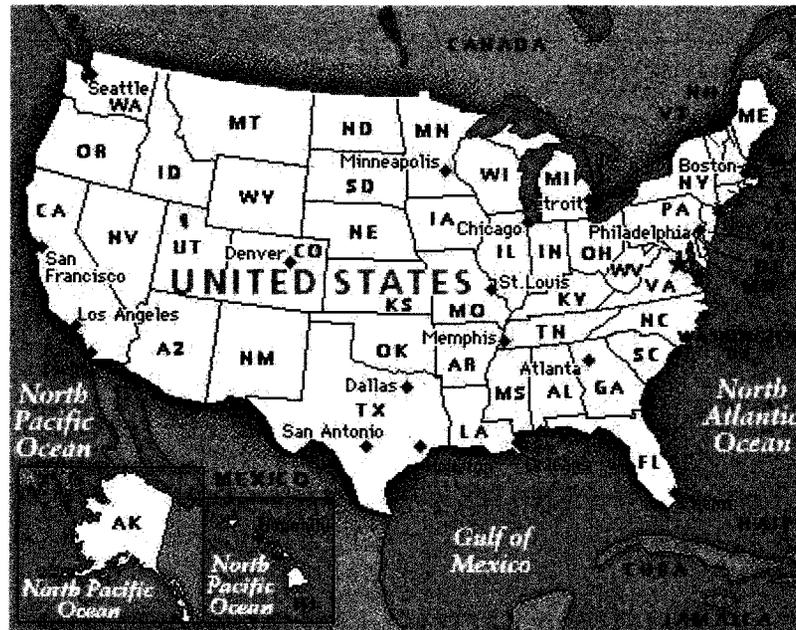
Mike Shinnick | Manager, Workers' Compensation September 6, 2017

2016 and Two Prior Market Segments



* Excluding government sponsored groups; Individual Self Insureds are on an equivalent premium basis, Group premiums are estimated. ABC Group discontinued writing coverage in 2015.

National Picture



Property & Casualty Underwriting Results

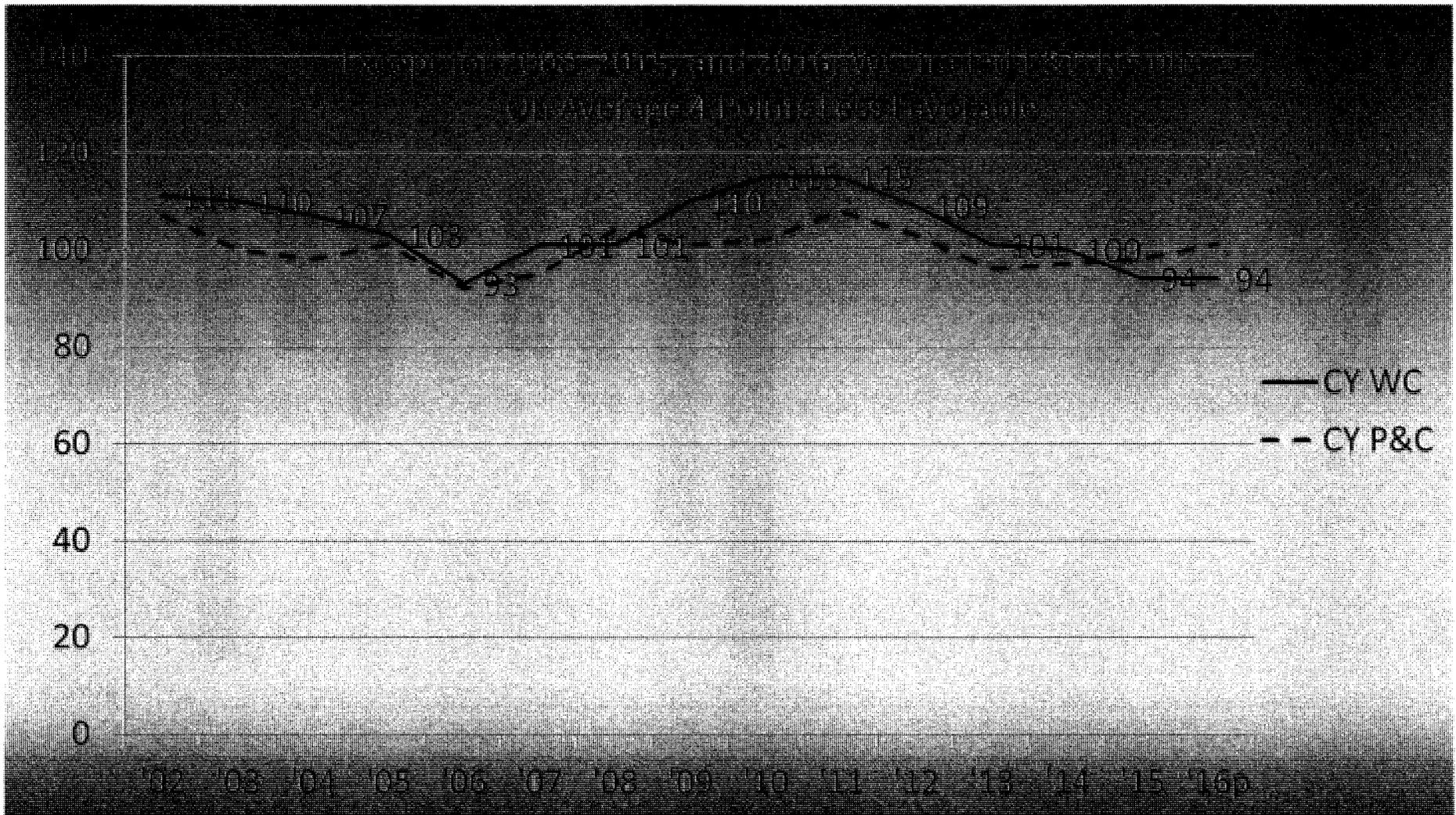
- Combined Ratio = Expense Ratio + Loss & LAE Ratio; results <100 equates to an underwriting profit

Net Calendar Year Combined Ratio – Private Carriers

Line of Business	2014	2015	2016 preliminary
Personal Auto	102%	105%	106%
Homeowners	90%	92%	93%
Com. Multi Peril	98%	95%	102%
Com. Auto	107%	109%	111%
Workers' Comp	102%	94%	94%
Total P&C Industry	96%	98%	101%

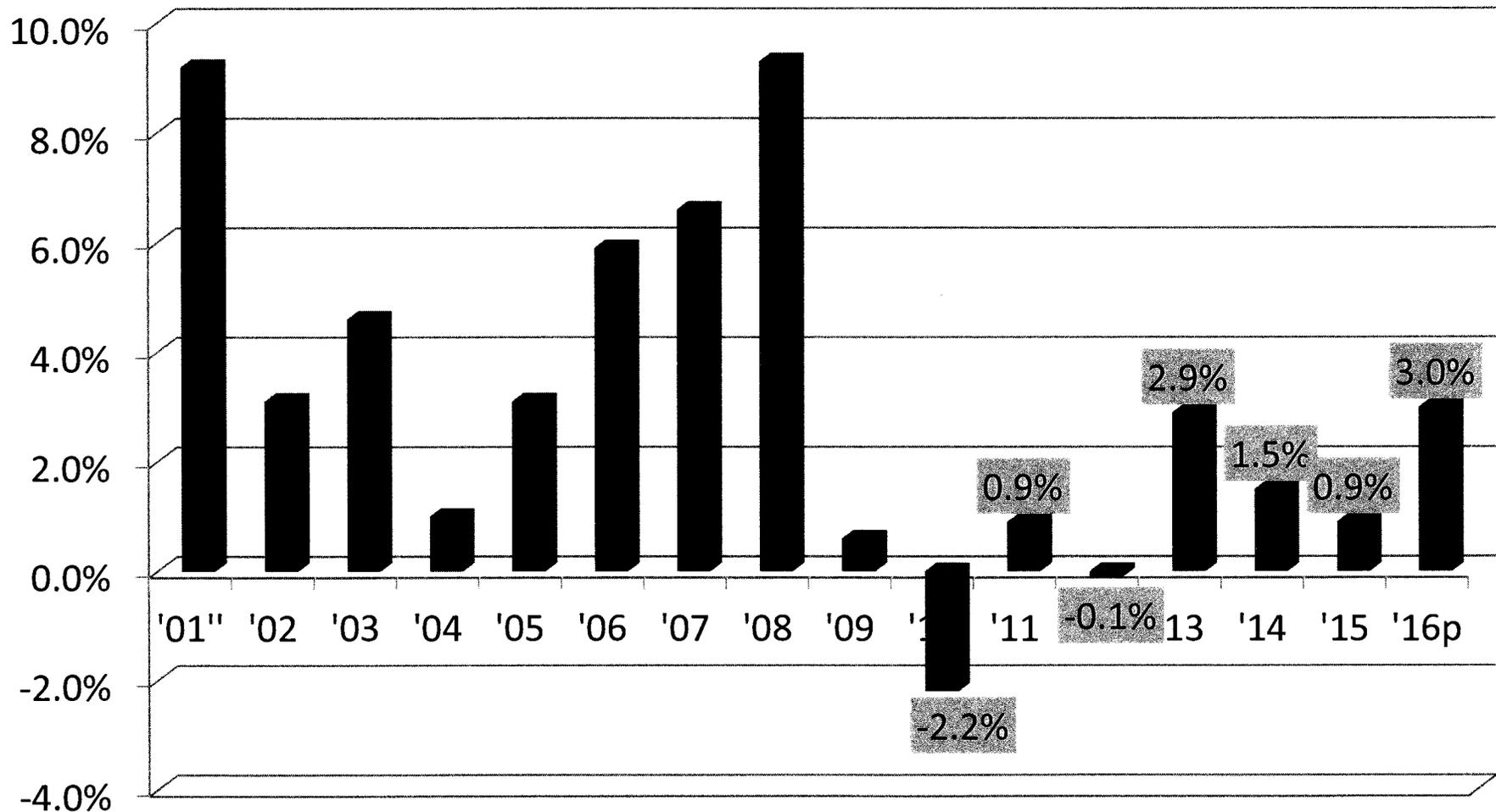
Sources: NCCI for Workers Comp; Total P/C Industry: NAIC Annual Statement Data

Calendar Year Combined Ratios



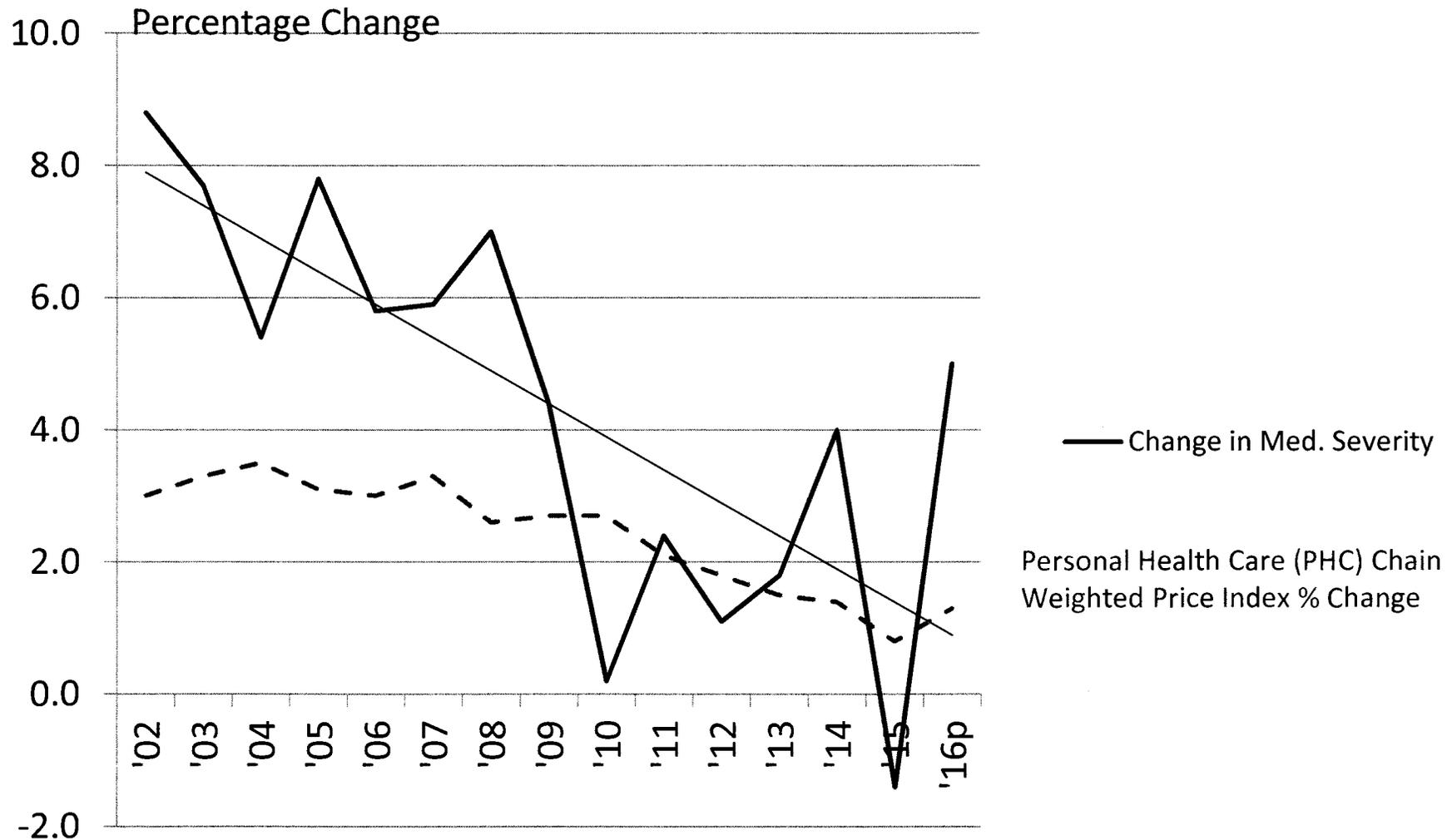
Source: NCCI; Annual Statement Date; 2016 preliminary data

Workers' Compensation Indemnity Claims Cost Continue to Show Modest Increases

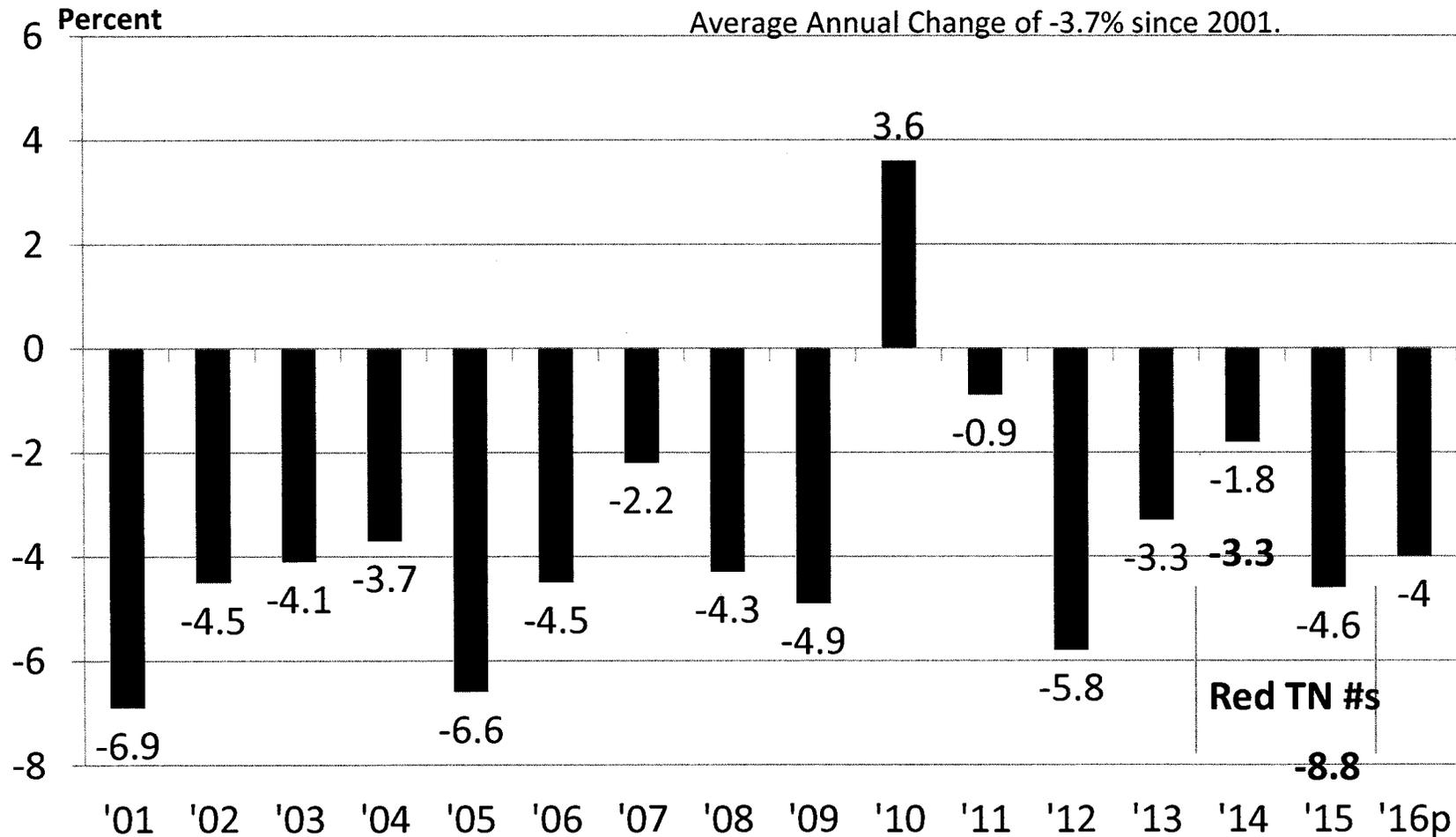


Source: NCCI (2016 is preliminary)

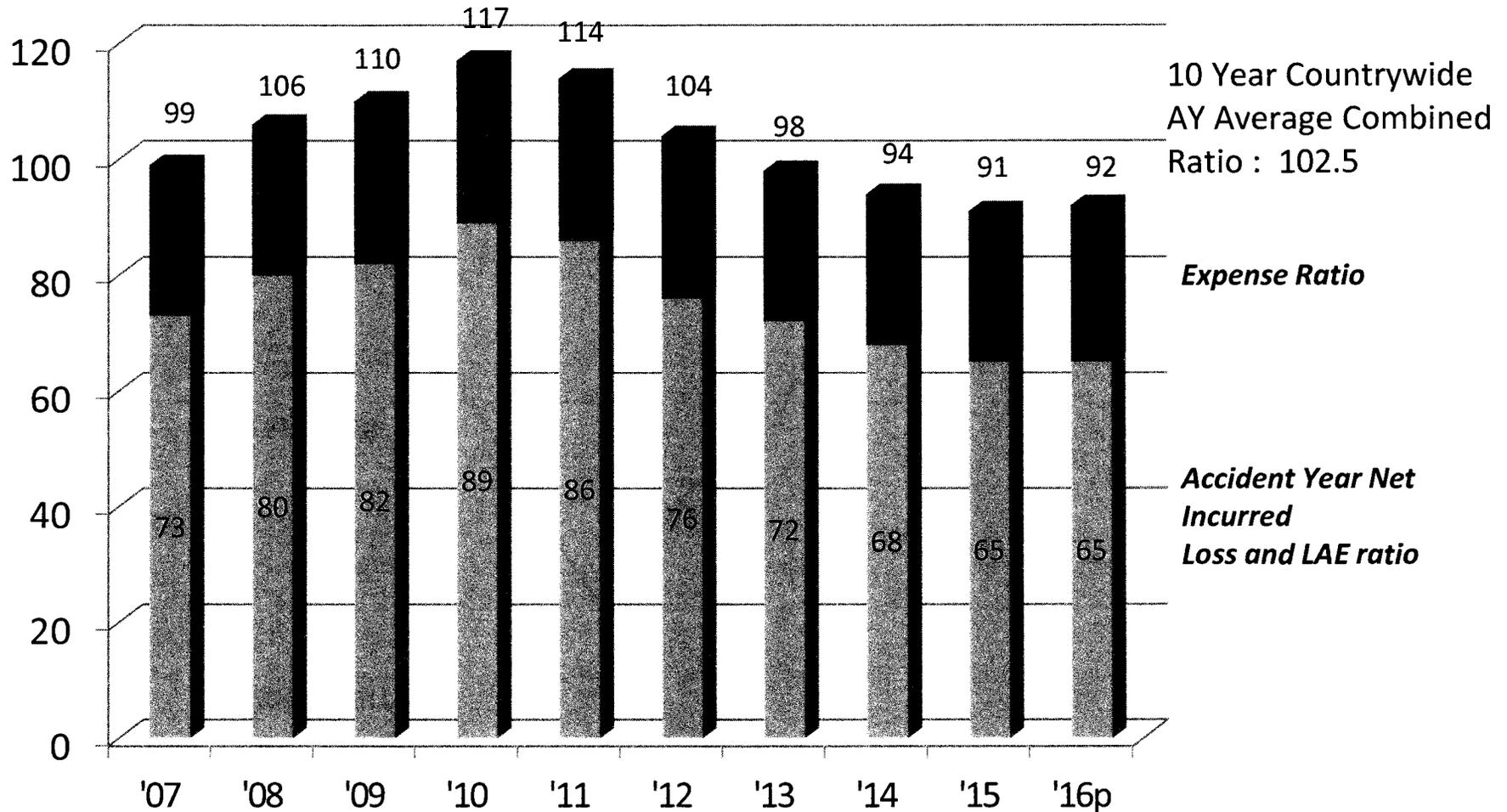
Medical Severity Increases vs. PHC Index



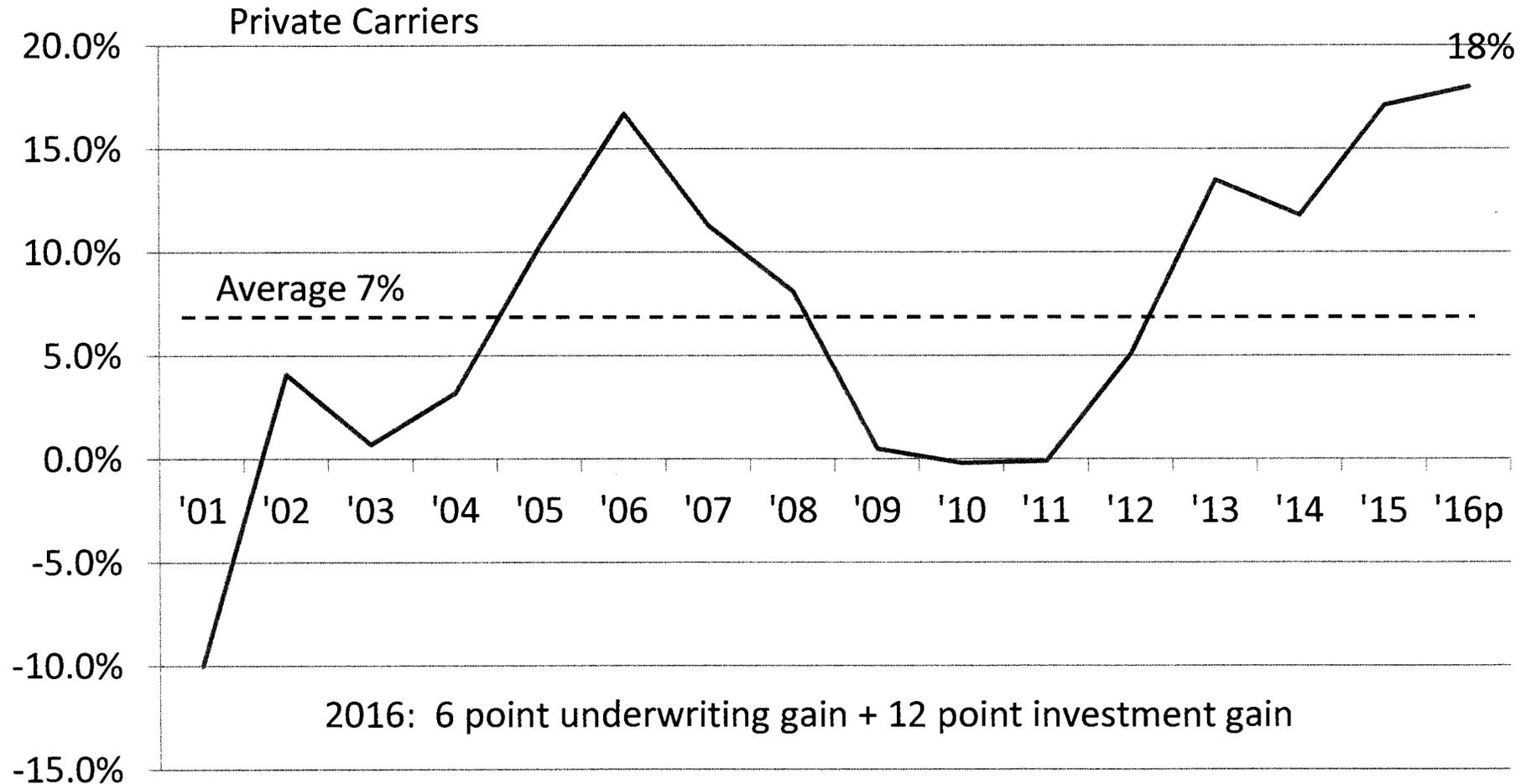
WC Lost-Time Claim Frequency Continued to Decline in 2016



Countrywide NCCI "Selected" Accident Year Combined Ratios

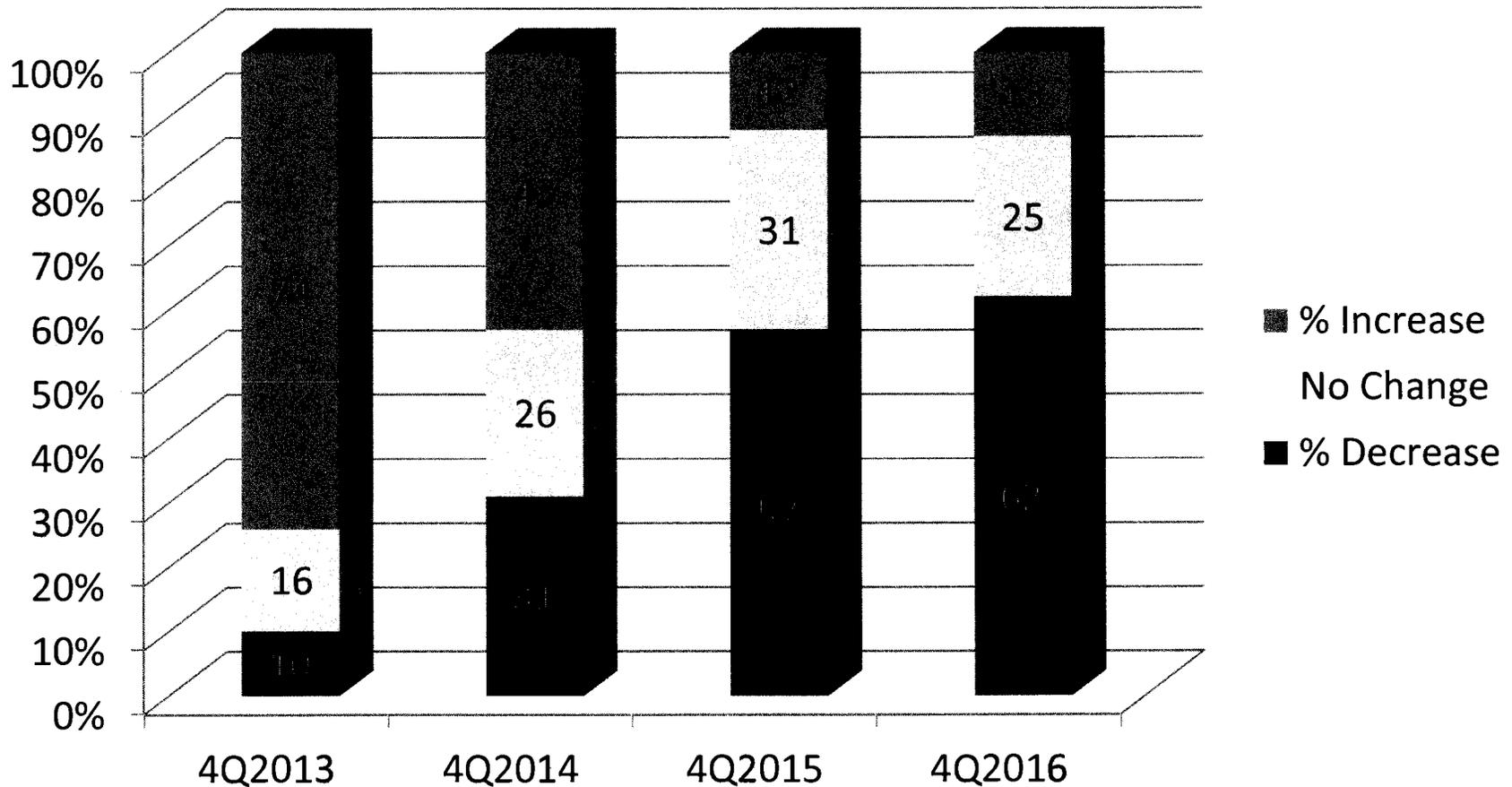


Pretax Operating Gain – Best Result Since 1997!



WC Pricing – Market Index Survey

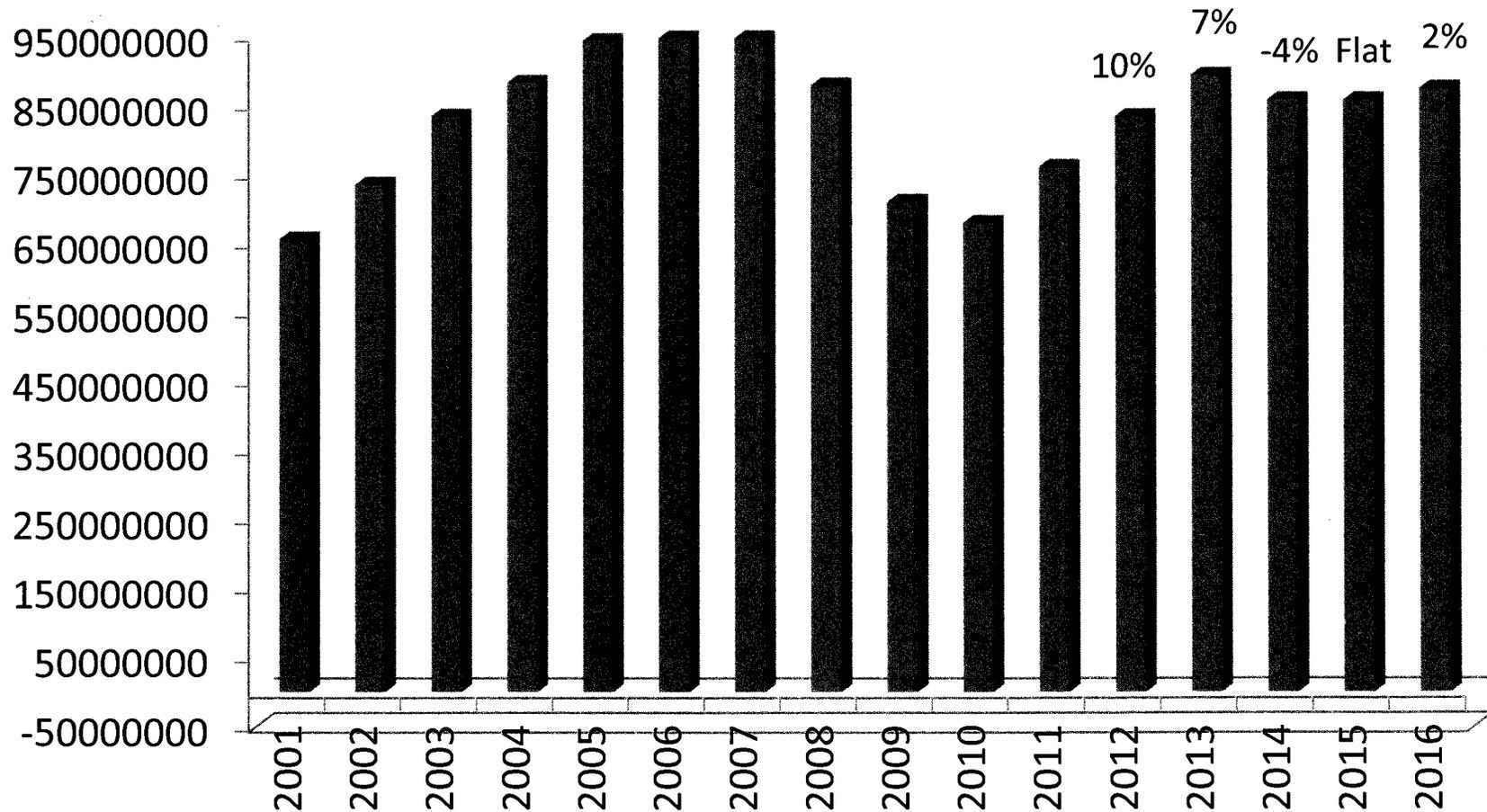
Percentage of Responses



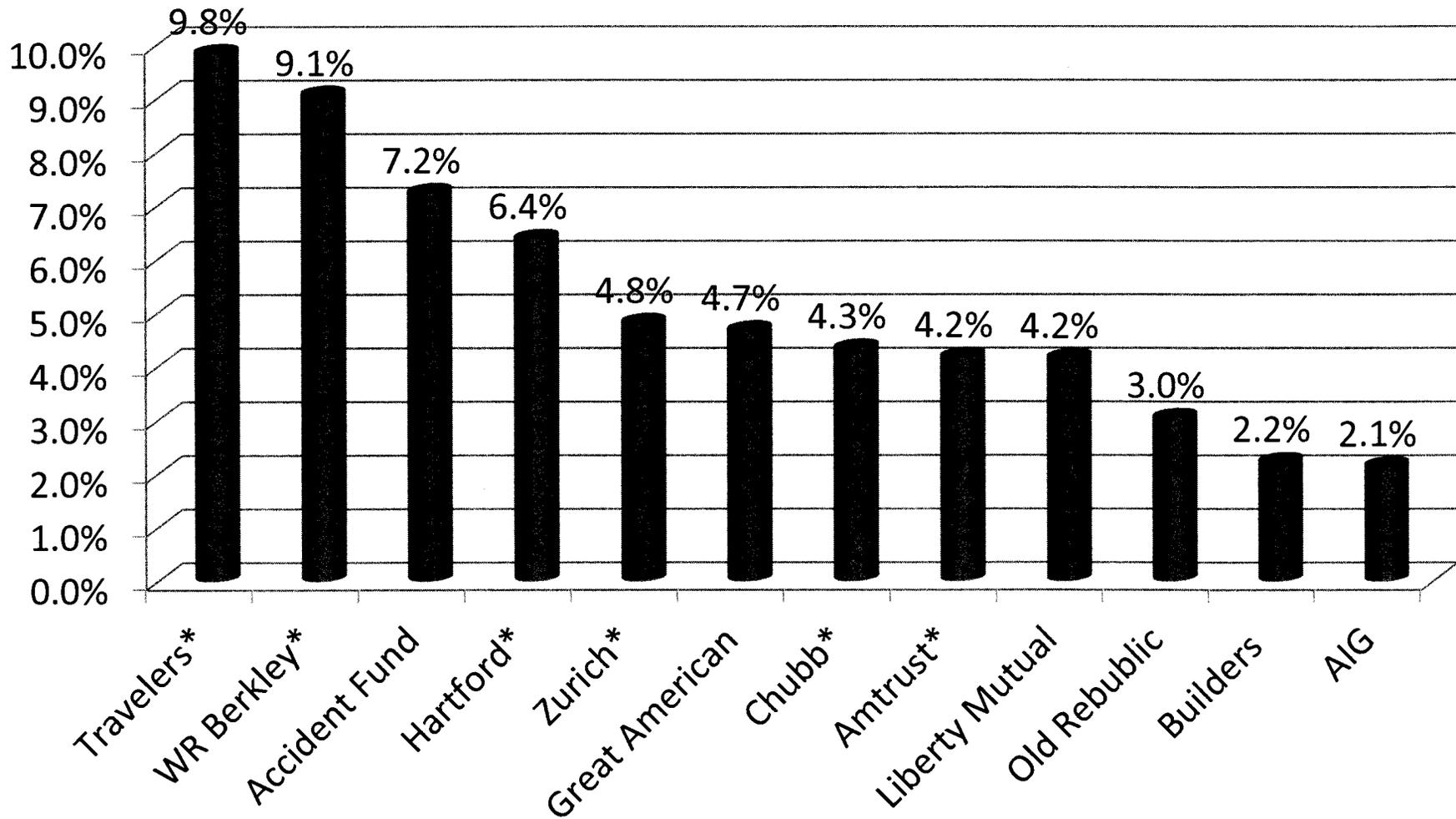
Tennessee Specific



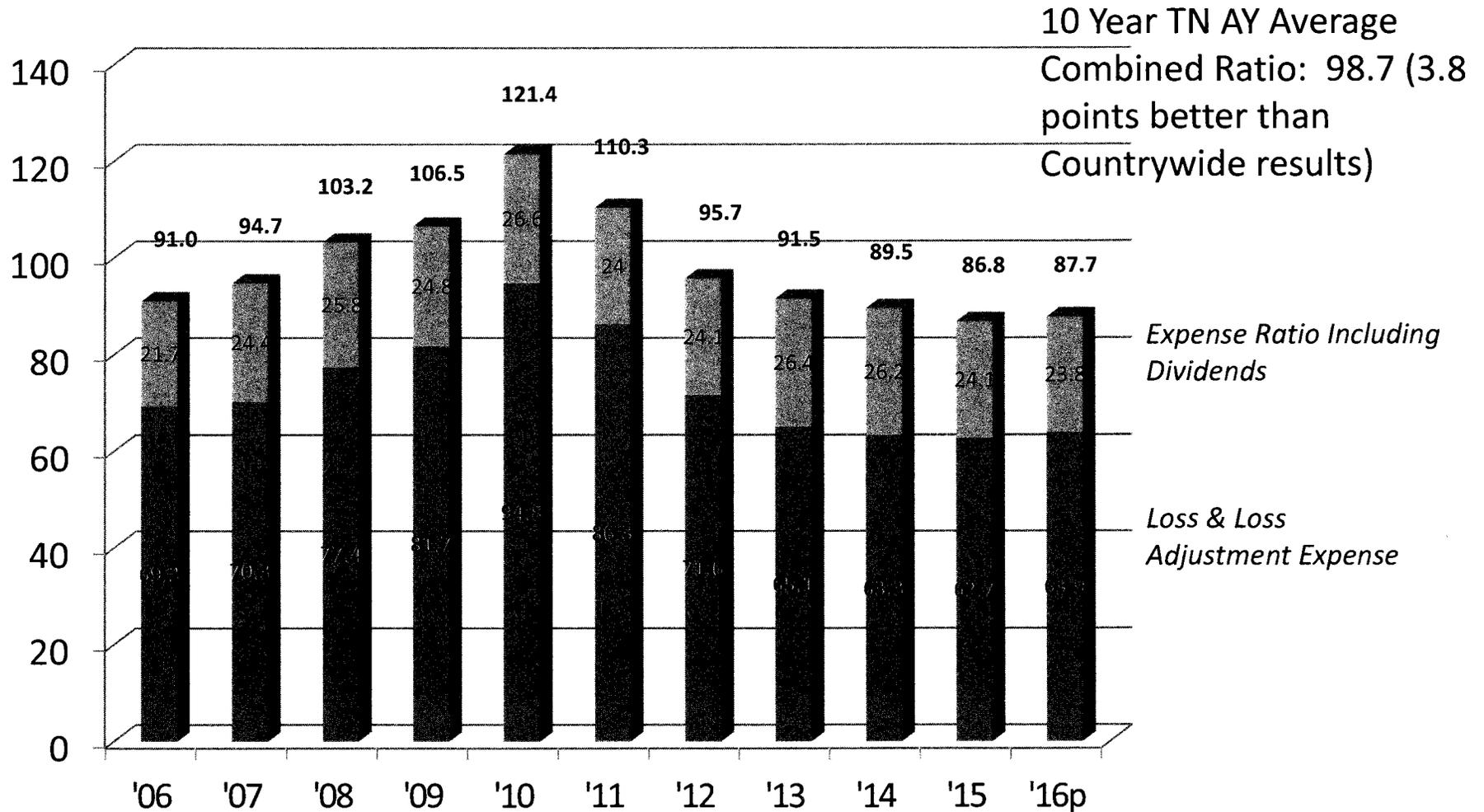
TN Direct Premium Written Premium (DPW) History



Top 12 2016 Group Market Shares



Tennessee Accident Year Combined Ratios

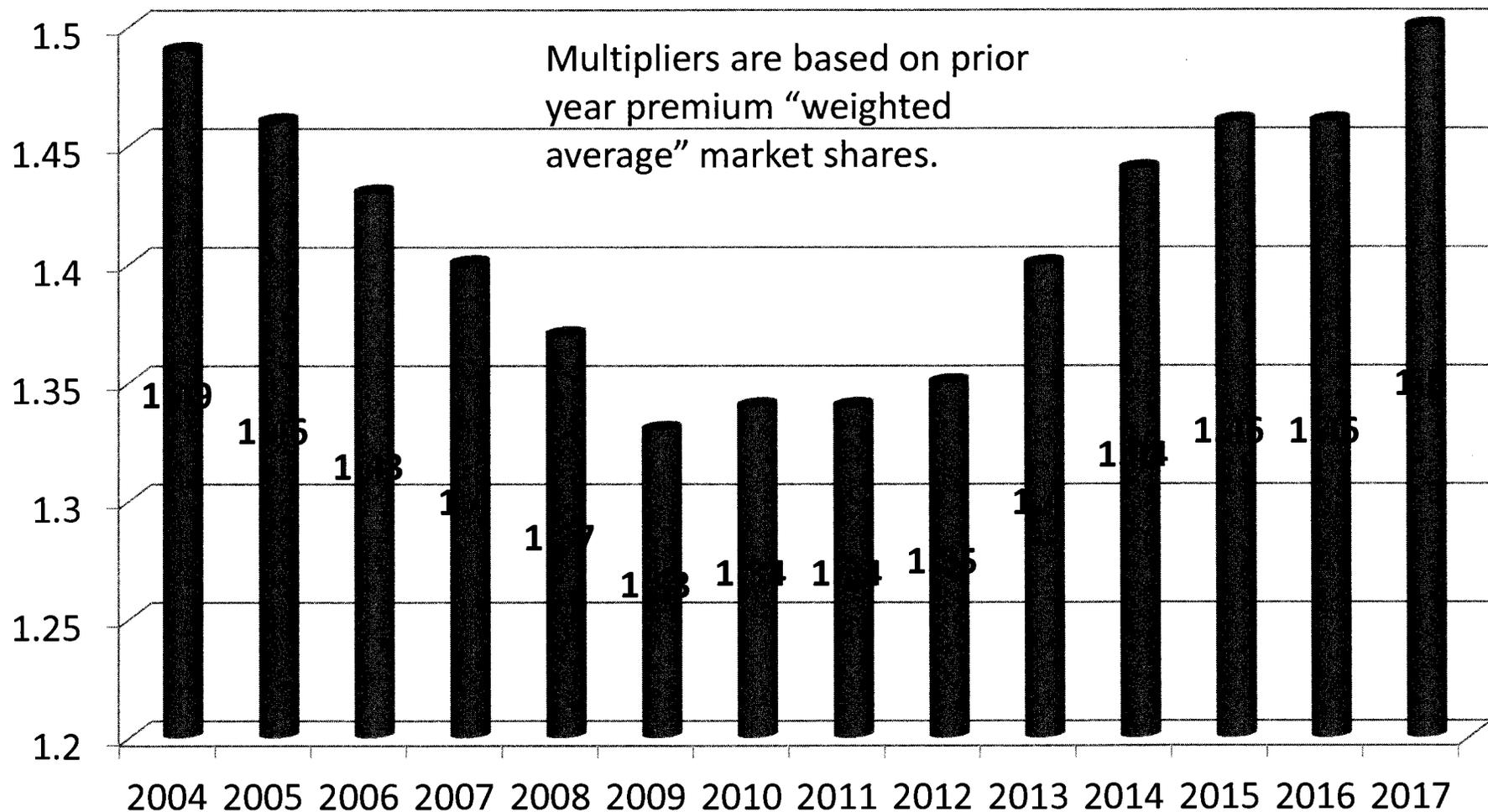


Source: NCCI

Loss Cost Filing & Final Approvals – Past 10 Years

Year Filing Made	NCCI Filed Rate	Advisory Council Recommendation	C&I Approved Rate	Effective Date
2008	-3.1%	-3.4%	-3.1%	3/1/2009
2009	-.1%	-.1%	-.1%	3/1/2010
2010	-5.1%	-5.3%	-5.1%	3/1/2011
2011	6.3%	6.3%	6.3%	11/1/11
2011	1.6%	-.3%	4%	3/1/12
2012	-5.1%	-5.1%	-5.1%	8/9/12
2012	2.3%	1.6%	2.3%	3/1/13
2013	-8.4%	-6.95%	-6.95%	3/1/14
2013	-5.9%	-5.9%	-5.9%	7/1/14
2014	-9.6%	-6.5%	-8.2%	3/1/15
2015	-0.9	-1.2	-.9	3/1/16
2016	-2.7	-2.7	-2.7	8/28/16
2016	-12.8	-12.8	-12.8	3/1/17
2017	-12.6	TBD	TBD	3/1/18

Tennessee Voluntary Market Weighted Average Loss Cost Multiplier History



2017 LCM Distribution (by Direct Premium Written)

Median 1.47



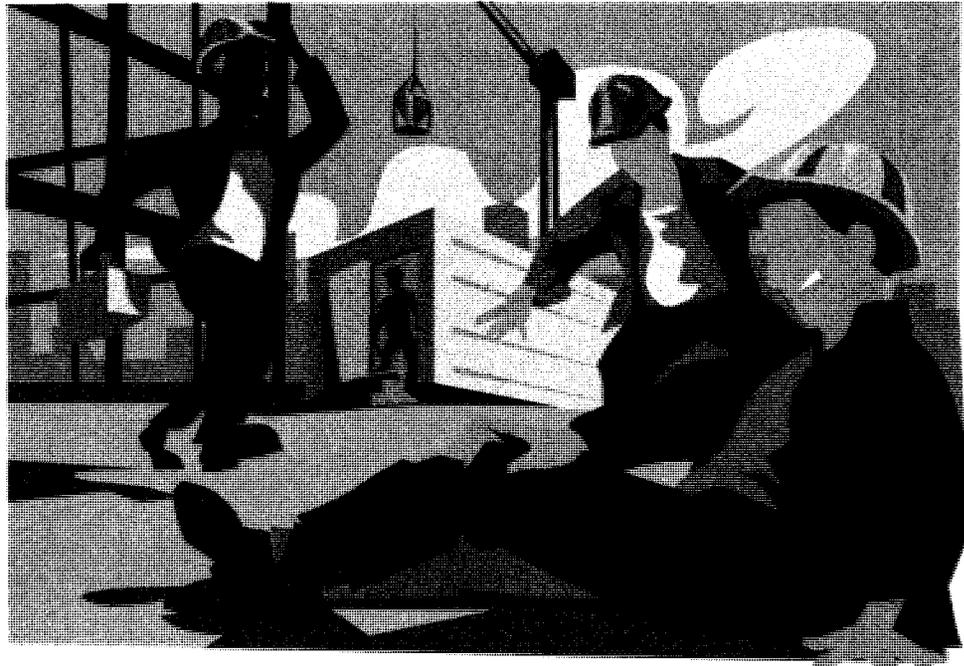
- 80% are above 1.14 and below 1.87
- 18% above 1.70 Assigned Risk LCM

A complete listing of LCMs is posted on the Department's website

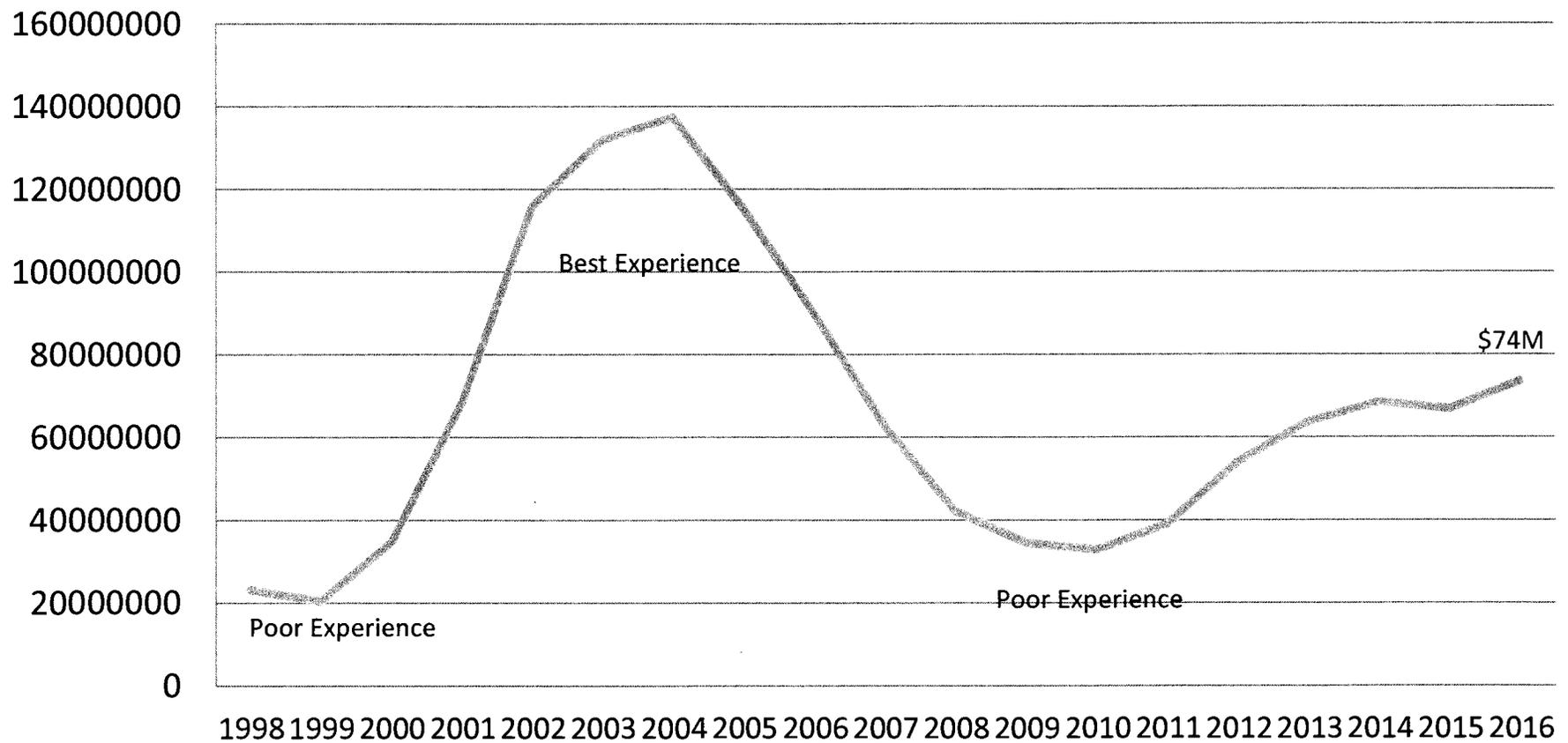
TN WC Premium Tax Revenues

	YE 8/31/13	YE 8/31/14	YE 8/31/15	YE 8/31/16
Self Insurance	\$5.8M	\$8.1M	\$6.3M	\$6.2M
Insurance	\$34.4M	\$35.7M	\$34.4M	\$33.8M
Total Premium Tax*	\$40.2M	\$43.4M	\$40.7M	\$40.0M

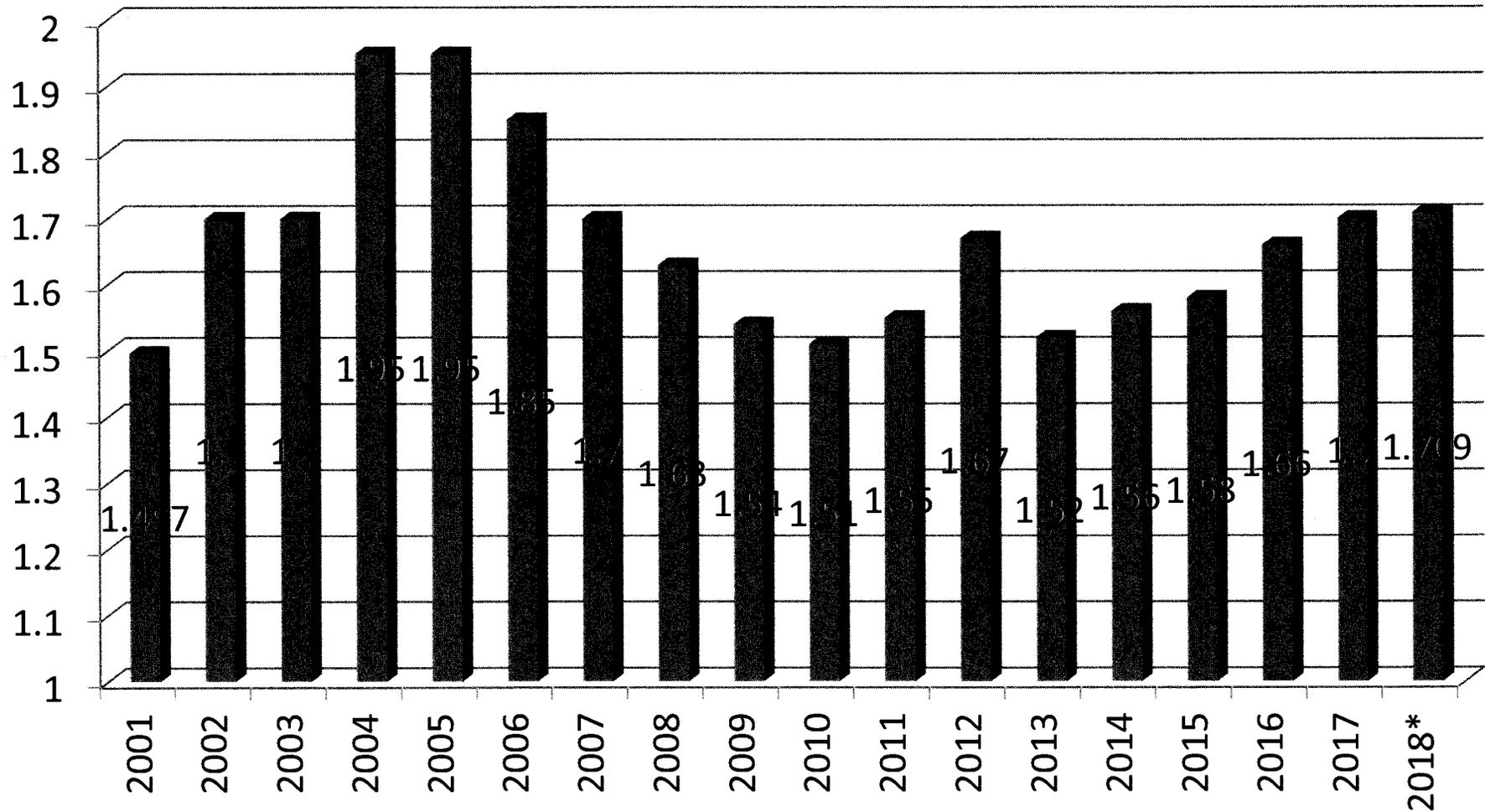
Tennessee Workers Compensation Insurance Plan (WCIP)



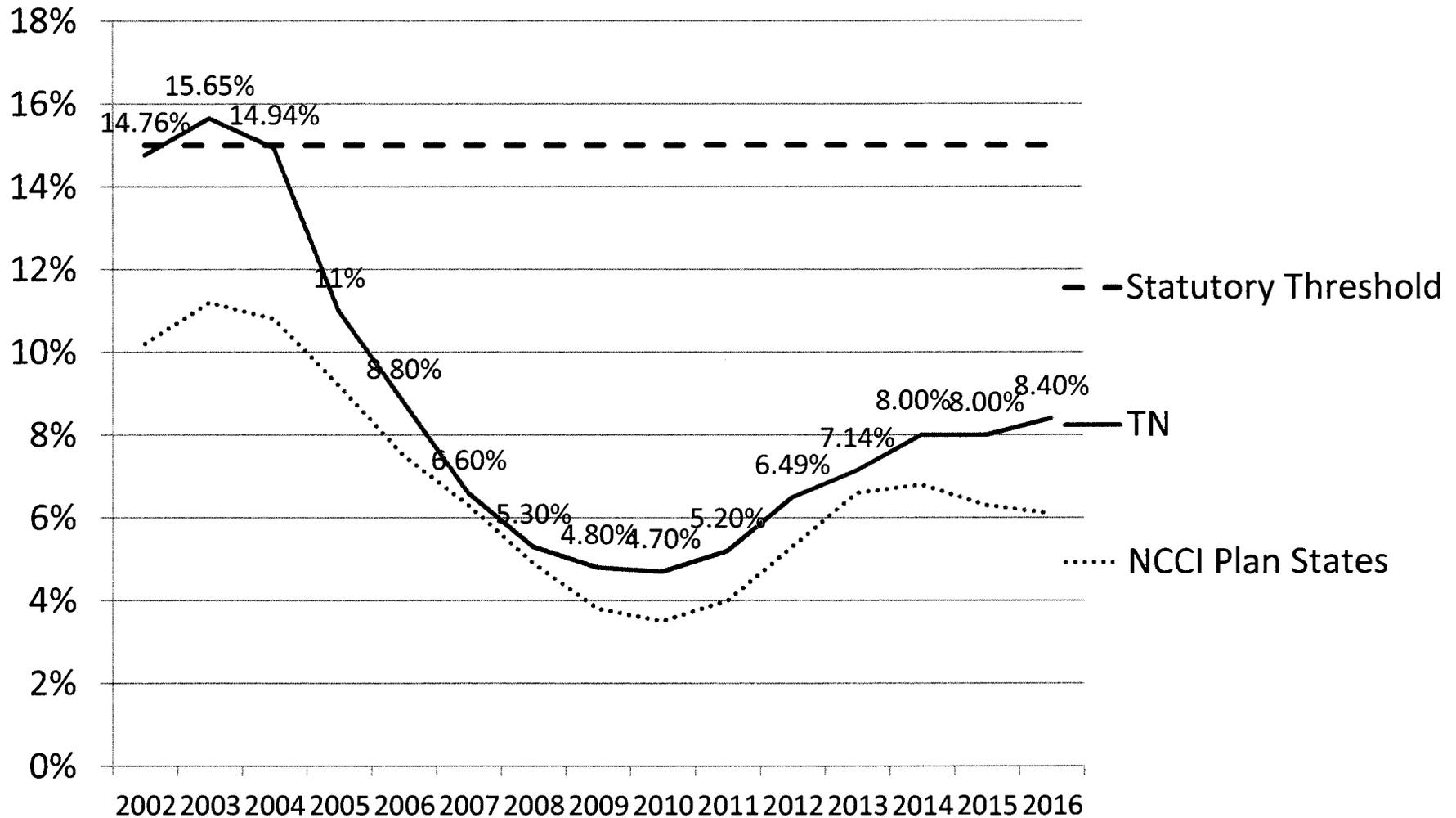
WCIP Premium History



TN WC Assigned Risk LCM History



TN Assigned Risk Market Share vs. NCCI Plan States Market Shares - NAIC Direct Premium Written



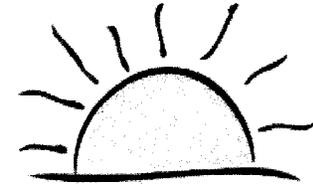
TN Department of Commerce & Insurance 2017 Assigned Risk Depopulation Initiative

- ***BrightHorizons → Comp***

- Presentations made to 16 \$100,000 and up policyholders
- Elevating claims and loss control service to these risks
 - State of the art cost containment initiatives

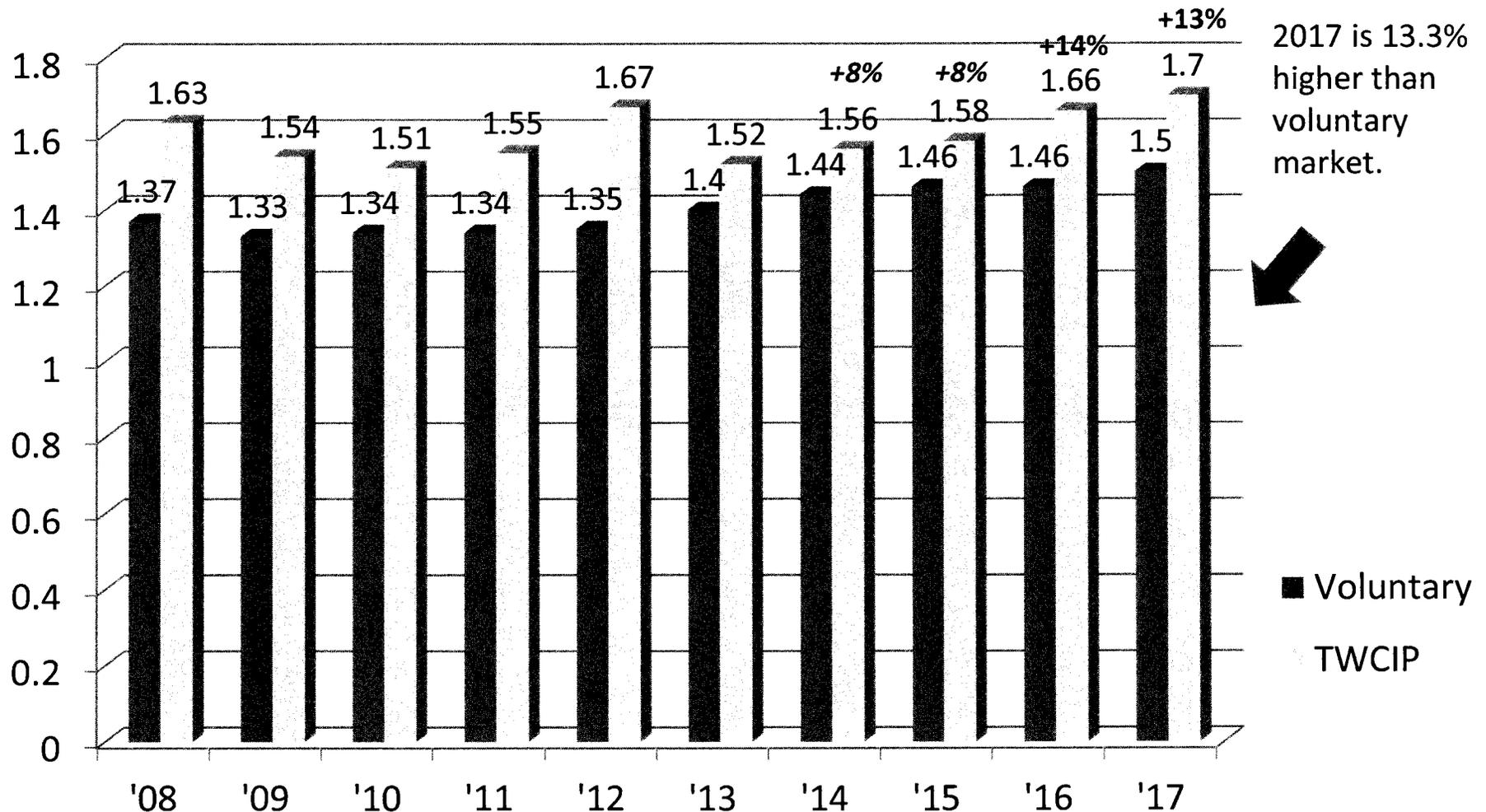
Ultimate Guide to Mastering Workers' Comp Costs

- Around 70% of respondents have opted to employ independent safety consultants or no cost TOSHA Consultation Services
- Monitor results via Access database
- OBJECTIVE: Improve risk to attract voluntary markets
- WINNERS: Employer, employees, and assigned risk plan



LCM History: Voluntary vs. TWCIP/WCIP

Assigned Risk Plan LCM On Average 14% Higher



WCIP NCCI 3/1/18 Rate and Rating Filings

- Overall LCM increase of .5%
 - Underlying LCM: 1.709
- Overall Pending Rate Change: -12.2

Currently Three Active Self-Insured Groups

Self Insured Groups

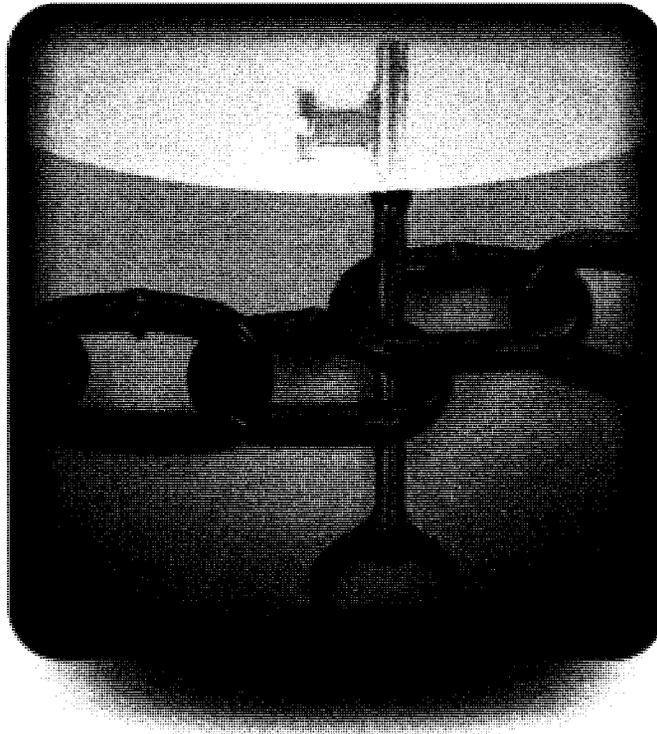
Comptrust AGC of Tennessee

Tennessee Automotive Association

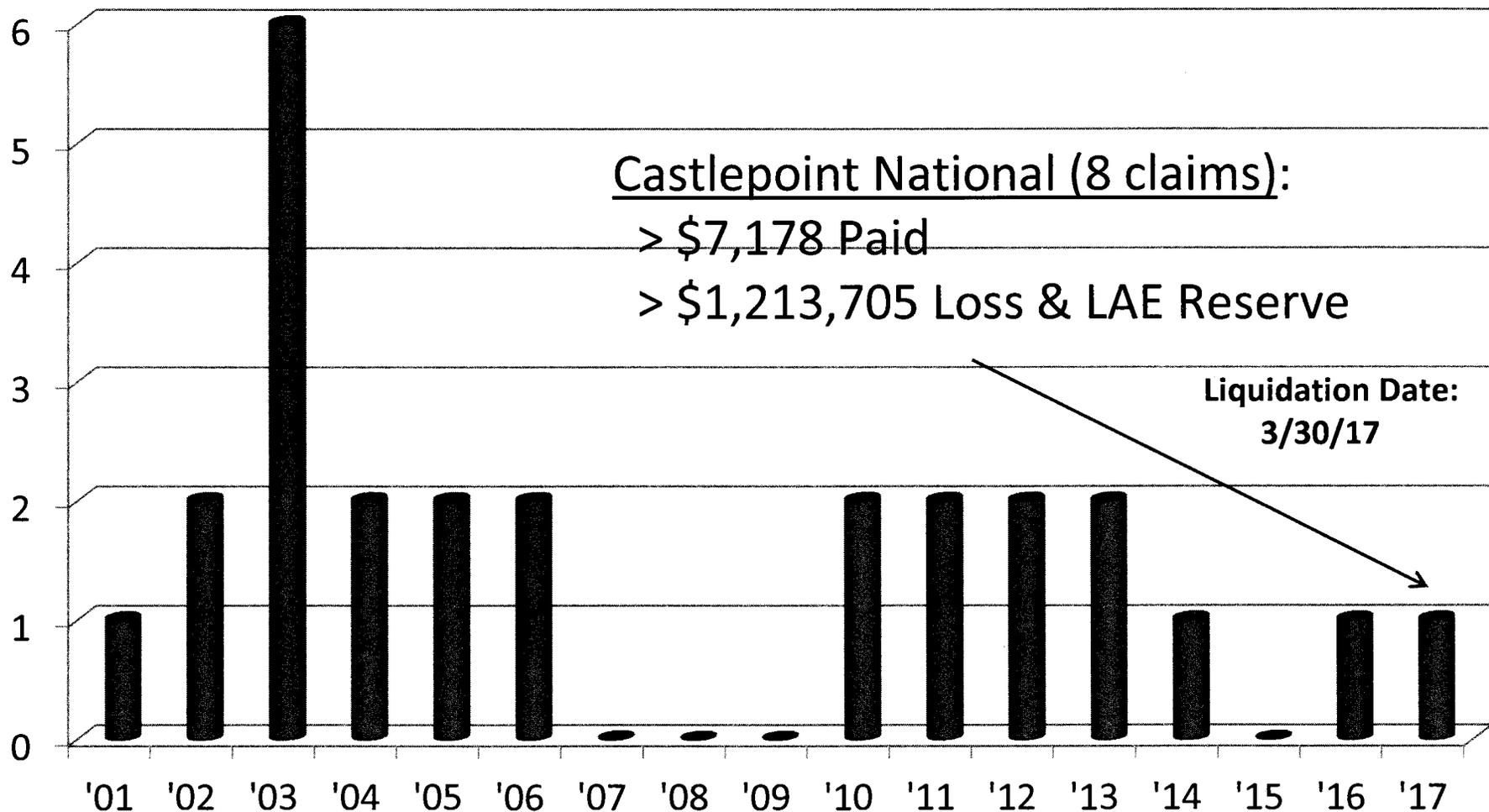
Tennessee Forestry Association

Insolvencies

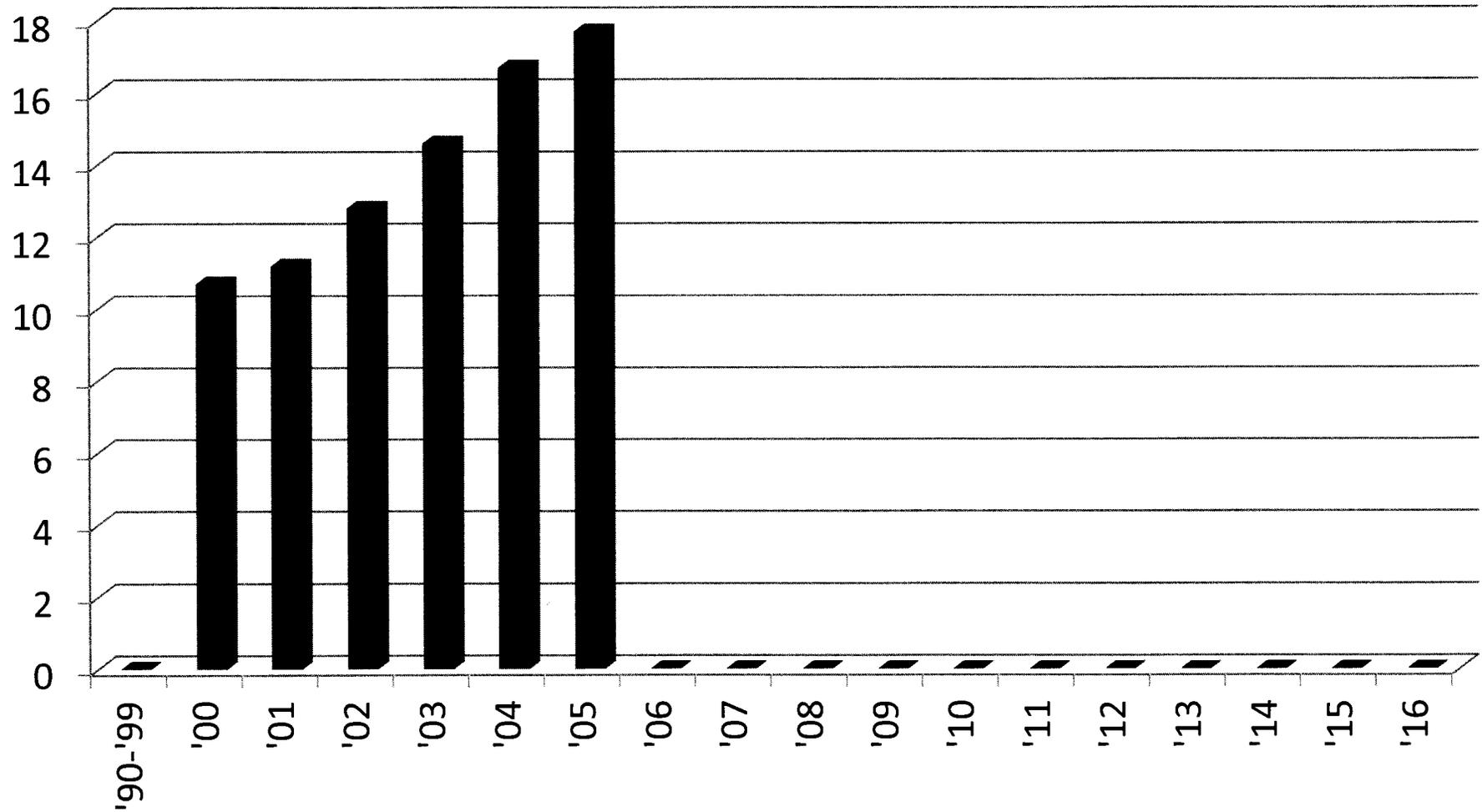
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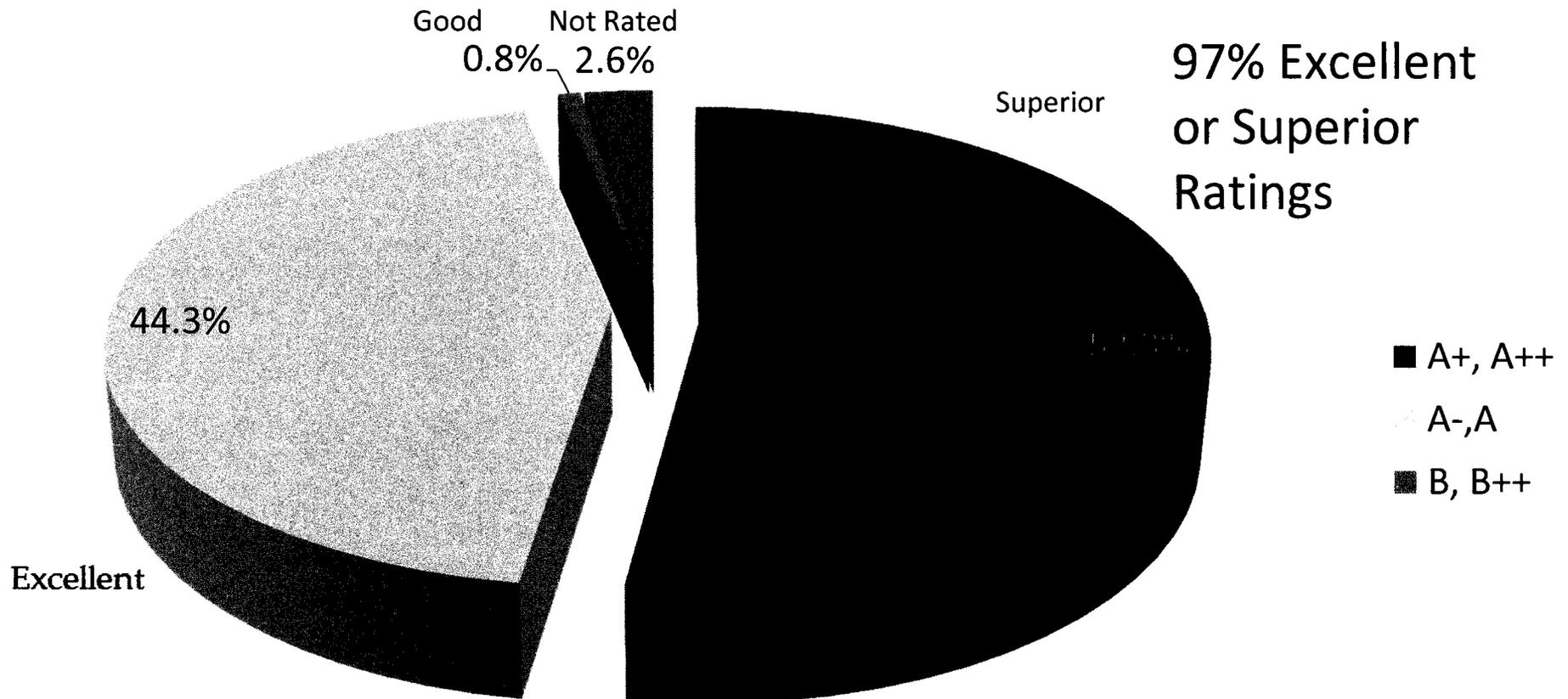
Number of WC Carrier Insolvencies Per Year Impacting TN/2017 Liquidation



TN Guaranty Fund Assessment History (Millions)



A.M. Best Ratings for Companies with >\$1M Premium – Premium Shares



Source: A.M. Best; As of July 2017

Wrap Up: Defining the Market Condition

“Adapting”...

NCCI CEO Bill Donnell at 2017 AIS

In order to stay relevant and be responsive to our stakeholders, we must adapt.

The workers compensation system remains as relevant today as it did more than 100 years ago because through its history it has successfully adapted.



EXHIBIT 7A

STATE OF TENNESSEE

Chair: David H. Lillard,
Jr.
State Treasurer
david.lillard@tn.gov

Voting Members:
Kerry Dove
Bruce D. Fox
John M. Garrett
Brian Hunt
Bob Pitts
Paul Shaffer

Non-Voting Members:
Joy Baker
Jason Denton
Sandra Fletchall
Keith B. Graves
John Harris
Lynn Vo Lawyer
Sam E. Murrell, III
A. Gregory Ramos
Pam Smith



Ex Officio Members:
Senator Jack Johnson
Representative Jimmy Eldridge
Commissioner Julie Mix-McPeak
Administrator Abbie Hudgens

Larry Scroggs, Administrator

Advisory Council on Workers' Compensation

TREASURY DEPARTMENT
ANDREW JACKSON BLDG., 13TH FLOOR
502 DEADERICK STREET
NASHVILLE, TENNESSEE 37243
Telephone: (615) 289-4603

October 15, 2018

The Honorable Julie Mix-McPeak, Commissioner
Tennessee Department of Commerce & Insurance
500 Davy Crockett Tower
500 James Robertson Parkway
Nashville, Tennessee 37243

Re: NCCI – Law Only Workers' Compensation Voluntary Loss Cost Filing

Dear Commissioner McPeak:

On August 27, 2018, the *National Council on Compensation Insurance* (NCCI) submitted to you its Law Only Filing, with a proposed effective date of March 1, 2019. The NCCI proposed an overall decrease in loss cost in the state voluntary market of 19.0%. While the change in loss cost varies depending on the employer's classification, the average changes in the five industry groups are: Manufacturing, -18.0%; Contracting, -20.7%; Office and Clerical, -20.6%; Goods and Services, -19.7%; and Miscellaneous, -16.8%. Following receipt of the filing from your office, copies of the filing were distributed to members of the Advisory Council for review.

The Advisory Council met on Thursday, October 11, 2018, to consider the filing as required by Tennessee Code Annotated § 50-6-402(b). The Advisory Council received comments from its consulting actuary, Ms. Mary Jean King of *By the Numbers Actuarial Consulting, Inc.* (BYNAC) and Mr. Chris Burkhalter of *The Burkhalter Group* (TBG), consulting actuary to the Department of Commerce & Insurance. They were followed by the response and presentation by NCCI Director and Actuary, Mr. Dan Cunningham. Previously, on August 27, 2018, Mr. Cunningham had presented a detailed overview of the filing at a meeting of the Advisory Council.

Ms. King of BYNAC stated the NCCI proposed decrease of 19.0% for the Tennessee voluntary workers' compensation insurance market had been reasonably calculated in accordance with actuarial standards of practice considering the two year period relied upon by NCCI in reaching its calculation of a -19.0% decrease. Ms. King indicated BYNAC reviewed paid as well as paid + case development and experience for policy years 2012 through 2014 in addition to the 2015 and 2016 policy years underlying the filing in order to test the assumptions of NCCI in selecting the data and development methods for review. In Ms. King's opinion a longer experience period of at least four years is preferable for the filing

indication. Using the four year period, BYNAC's experience indication for the voluntary loss cost level is -9.1%, compared to NCCI's -19.0%.

Mr. Burkhalter of TBG also spoke to the Advisory Council concerning its review of the NCCI filing and stated the proposed decrease of 19.0% was actuarially sound based on the anticipated market conditions considering the two year period used by NCCI in its calculations. Mr. Burkhalter said BWRB had used a five year average in arriving at its own overall indication of -10.2%.

Mr. Cunningham of NCCI responded to the comments of the consulting actuaries, indicating policy years 2015 and 2016 better measure the Tennessee market conditions. Mr. Cunningham said a longer evaluation period could be considered whenever there is volatility in the period utilized. However, in Mr. Cunningham's opinion the most recent data for 2015 and 2016 is somewhat standard in the actuarial field and is more indicative of "what is happening going forward." He said the stability indicated in the two year period is closer to what will happen in future years because the Tennessee market is very stable considering the countrywide market.

After consideration of the presentations by the three actuaries, the voting members of the Advisory Council in attendance unanimously approved a motion by member Bob Pitts, seconded by member Bruce Fox, to recommend that the Department of Commerce & Insurance adopt a -14.0% loss cost decrease factor rather than the -19.0% proposed by NCCI.

This written comment and recommendation fulfills the statutory responsibility of the Advisory Council on Workers' Compensation concerning the NCCI Law Only Tennessee Voluntary Loss Cost Filing proposed to be effective March 1, 2019. Please contact me if you have any questions or need more information.

Sincerely yours,



David H. Lillard, Jr.
State Treasurer and Chairman,
Advisory Council on Workers' Compensation

cc: Members of the Advisory Council

EXHIBIT 7B

STATE OF TENNESSEE

Chair: David H. Lillard,
Jr.
State Treasurer
david.lillard@tn.gov



Ex Officio Members:
Senator Jack Johnson
Representative Jimmy Eldridge
Commissioner Julie Mix-McPeak
Administrator Abbie Hudgens

Voting Members:
Kerry Dove
Bruce D. Fox
John M. Garrett
Brian Hunt
Bob Pitts
Paul Shaffer

Advisory Council on Workers' Compensation

Larry Scroggs, Administrator

TREASURY DEPARTMENT
ANDREW JACKSON BLDG., 13TH FLOOR
502 DEADERICK STREET
NASHVILLE, TENNESSEE 37243
Telephone: (615) 770-1754

Non-Voting Members:
Joy Baker
Jason Denton
Sandra Fletchall
Keith B. Graves
John Harris
Lynn Vo Lawyer
Jerry Mayo
Sam E. Murrell, III
A. Gregory Ramos
Pam Smith

October 13, 2017

The Honorable Julie Mix-McPeak, Commissioner
Tennessee Department of Commerce & Insurance
500 Davy Crockett Tower
500 James Robertson Parkway
Nashville, Tennessee 37243

Re: NCCI – Law Only Workers' Compensation Voluntary Loss Cost Filing

Dear Commissioner McPeak:

On August 24, 2017, the *National Council on Compensation Insurance* (NCCI) submitted to you its Law Only Filing, with a proposed effective date of March 1, 2018. The NCCI proposed an overall decrease in loss cost in the state voluntary market of 12.6%. While the change in loss cost varies depending on the employer's classification, the average change in the five industry groups is: Manufacturing, -11.3%; Contracting, -15.0%; Office and Clerical, -13.2%; Goods and Services, -12.9%; and Miscellaneous, -11.4%. Following receipt of the filing from your office, copies of the filing were distributed to members of the Advisory Council for review.

The Advisory Council met on Wednesday, October 11, 2017, to consider the filing as required by Tennessee Code Annotated § 50-6-402(b). The Advisory Council received comments from its consulting actuary, Ms. Mary Jean King of *By the Numbers Actuarial Consulting, Inc.* (BYNAC) and Mr. Chris Burkhalter of *Bickerstaff, Whatley, Ryan & Burkhalter, Inc.* (BWRB), consulting actuary to the Department of Commerce & Insurance. They were followed by the response and presentation by NCCI Director and Actuary, Ms. Ann Marie Smith. Previously, on September 6, 2017, Ms. Smith had presented a detailed overview of the filing at a meeting of the Advisory Council.

Ms. King of BYNAC stated the NCCI proposed decrease of 12.6% for the Tennessee voluntary workers' compensation insurance market had been reasonably calculated in accordance with actuarial standards of practice considering the two year period relied upon by NCCI in reaching its calculation of a -12.6% decrease. Ms. King indicated BYNAC reviewed paid as well as paid + case development and experience for policy years 2012 and 2013 in addition to the 2014 and 2015 policy years underlying the filing in order to test the assumptions of NCCI in selecting the data and development methods

for review. In Ms. King's opinion a longer experience period of four years is preferable for the filing indication. Using the four year period, BYNAC's experience indication for the voluntary loss cost level is -8.1%, compared to NCCI's -12.6%.

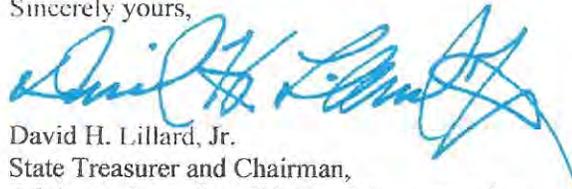
Mr. Burkhalter of BWRB also spoke to the Advisory Council concerning its review of the NCCI filing and stated the proposed decrease of 12.6% was actuarially sound based on the anticipated market conditions considering the two year period used by NCCI in its calculations. Mr. Burkhalter said BWRB had used a five year average in arriving at its own overall indication of -8.7%.

Ms. Smith of NCCI responded to the comments of the consulting actuaries, indicating policy years 2014 and 2015 better measure the Tennessee market conditions. Ms. Smith said a longer evaluation period could be considered whenever there is volatility in the period utilized. However, in Ms. Smith's opinion the most recent data for 2014 and 2015 is "more telling," particularly since the Tennessee market is much more stable than the countrywide market.

After consideration of the presentations by the three actuaries, the four voting members of the Advisory Council in attendance unanimously recommended that the Department of Commerce & Insurance adopt the NCCI filing.

This written comment and recommendation fulfills the statutory responsibility of the Advisory Council on Workers' Compensation concerning the NCCI Law Only Tennessee Voluntary Loss Cost Filing proposed to be effective March 1, 2018. Please contact me if you have any questions or need more information.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "David H. Lillard, Jr.", is written over the typed name.

David H. Lillard, Jr.
State Treasurer and Chairman,
Advisory Council on Workers' Compensation

cc: Members of the Advisory Council