

STATE OF SOUTH CAROLINA
ADMINISTRATIVE LAW JUDGE DIVISION

National Council on Compensation Insurance,)
)
) **Petitioner,**)
)
) **v.**)
)
South Carolina Department of Insurance,)
)
) **Respondent,**)
)
)
Philip S. Porter, Consumer Advocate)
for the State of South Carolina and)
Companion Property & Casualty Company,)
)
) **Intervenors.**)
_____)

DOCKET NO.
95-ALJ-09-0055-CC

Testimony
of
Martin M. Simons, MAAA, ACAS, FCA

On Behalf of

Philip S. Porter, Consumer Advocate
South Carolina Department of Consumer Affairs
Post Office Box 5757
Columbia, SC 29250-5757

March 2001

1 **Q. Please state your name and address for the record.**

2 **A.** My name is Martin M. Simons. My business address is Post Office Box 61020,
3 Columbia South Carolina, 29260. My e-mail address is mmsimons@msn.com. My phone
4 number is 803-348-5675.

5 **Q. Where are you currently employed?**

6 **A.** I am the sole owner of an actuarial consulting firm in my own name. My actuarial
7 consulting activity is limited to public agencies and insurance consumers. My consulting
8 firm has been active for fifteen years.

9 **Q. On whose behalf are you testifying?**

10 **A.** I am testifying on behalf of Philip S. Porter, Consumer Advocate for the State of
11 South Carolina.

12 **Q. Please discuss your background relative to providing testimony in this case.**

13 I was the Deputy Director for Actuarial Services at the South Carolina Department of
14 Insurance where I was employed from 1985 to 1997. In that capacity I was responsible
15 for the management of the Property and Casualty and the Life Accident and Health
16 Insurance Divisions. I held the Chief Property and Casualty Actuarial position at the
17 Insurance Department for my entire tenure there. I have provided testimony in several
18 hundred rate hearings in this State as well as in several other jurisdictions, regarding all
19 forms of property, casualty, workers compensation and surety insurance.

20 **Q. For how long have you been involved in the insurance business?**

21 **A.** I have over thirty-two years of experience in virtually all aspects of property and
22 casualty insurance, including experience in actuarial positions, as well as other financial

1 areas, marketing, branch management, insurance agency and regulatory experience. I
2 have been licensed as an insurance agent in California.
3 Following over 17 years of insurance industry and agency experience, I accepted the
4 position of Chief Property and Casualty Actuary with the South Carolina Insurance
5 Department and served in that capacity for twelve years. Concurrently and presently, I
6 have been the State Actuary as a contractual employee with the Insurance Division of the
7 Hawaii Department of Commerce and Consumer Affairs since 1986. I have also been
8 retained and continue to be retained by the Oklahoma Attorney General's Office for,
9 among other things, annual actuarial consultation relative to Workers' Compensation loss
10 cost filings made by the National Council on Compensation Insurance.

11 **Q. Are you a member of any professional actuarial organizations?**

12 **A.** I am an Associate of the Casualty Actuarial Society, a Member of the American
13 Academy of Actuaries and a Fellow of the Conference of Consulting Actuaries, (formerly
14 the Conference of Actuaries in Public Practice). Through my membership in the Casualty
15 Actuarial Society, I am also a member of the International Institute of Actuaries (IIA).
16 I have been invited by the Casualty Actuarial Society to speak to its members on several
17 occasions on diverse issues including “preparing rate and loss cost filings,” “giving
18 expert testimony,” “hurricane modeling in property insurance” and “providing
19 catastrophic insurance through public and quasi-public agencies”.
20 I have also been invited to speak to the members of the Conference of Consulting
21 Actuaries on various regulatory property and casualty insurance issues including the
22 explanation of changes in statutory reporting requirements based upon my work with the

1 Profitability Report and Insurance Expense Exhibit.

2 **Q. Who are your actuarial clients?**

3 **A.** As a public actuarial consultant, my clients have included the Insurance
4 Departments in Hawaii, Arkansas, Delaware, New Mexico, Illinois, Minnesota, Ohio,
5 North Dakota and Georgia. I have also consulted for the Oklahoma Senate and the
6 Oklahoma Attorney General's Office. I provide ongoing consulting for the Florida
7 Commission on Hurricane Loss Projection Methodology, a legislatively appointed
8 commission. My other clients have included the Hawaii Departments of Labor and
9 Commerce, the Louisiana Association of Business and Industry, ABC News and the
10 Provincial Insurance Board of Manitoba. My South Carolina clients have included the
11 Workers' Compensation Insurance Uninsured Employers' Fund, the Association of Self-
12 Insured Employers, the Department of Consumer Affairs, and the Patients' Compensation
13 Fund.

14 I have given courtroom testimony as an expert for State Farm Mutual Automobile
15 Insurance Company regarding an automobile insurance class action in Marion Illinois.

16 This was a case where I believed that supporting the State Farm position was in the best
17 interests of U.S. automobile insurance consumers.

18 My actuarial consulting activity in Hawaii has included virtually all areas of property and
19 casualty insurance regulation, including workers' compensation, homeowners, motor
20 vehicle insurance, all forms of personal and commercial lines of insurance as well as the
21 analysis of actuarial self-insurance filings and the development of unemployment
22 insurance rates. I am responsible in Hawaii for loss cost and rate filing approvals and

1 have provided training to the Insurance Division staff involving rate, rule and form
2 approvals for property and casualty insurance. I have testified before the Hawaii
3 legislature on several occasions, providing assistance to the legislature and to the
4 Governor's Office regarding all forms of insurance issues.

5 For the past two years, I have been employed by the Oklahoma State Senate to provide
6 actuarial consulting and advice relative to that State's Workers' Compensation Multiple
7 Employer Trust Fund. I have provided actuarial consulting relative to workers'
8 compensation loss reserves and benefit levels of the Oklahoma State Insurance Fund and
9 other statutory workers' compensation entities. I have provided assistance, including
10 expert testimony, for the Attorney General's Office and the Oklahoma Legislature
11 regarding workers' compensation loss cost issues in that State. I have testified at the
12 Oklahoma NCCI loss cost filing annual hearings before the Oklahoma Board for Property
13 and Casualty Insurance Rating in each of the past fourteen years.

14 I am currently the primary actuary and assistant team leader for the Professional Team of
15 the Florida Commission on Hurricane Loss Projection Methodology (FCHLPM), a
16 legislatively appointed commission. I have served, since its inception, as a member of the
17 Technical Advisory Committee of the Hawaii Hurricane Relief Fund.

18 **Q. Please describe your involvement with the National Association of Insurance**
19 **Commissioners.**

20 **A.** I have been involved with The National Association of Insurance Commissioners
21 (NAIC) in many different areas. The NAIC is an organization whose membership
22 includes the top insurance regulatory officials in the fifty states and the District of

1 Columbia. My involvement with the NAIC has included the following:

2 I have served as chairman of the Profitability Report Working Group. This group has
3 made several revisions to the NAIC's By Line By State Profitability Report. The report
4 presents calendar-year financial results for property and casualty insurers including the
5 return on net worth (equity) for each line of property and casualty insurance in each state.
6 It is distributed to each State Insurance Department for analyzing insurer profitability,
7 and it is sold by the NAIC to other parties who are interested in obtaining those financial
8 reports.

9 I was also the Chairman of a group that revised the Insurance Expense Exhibit, the
10 expense supplement to the Annual Statement required by statute to be filed in each state
11 by each licensed insurer each year. This group has also made revisions to the Annual
12 Statement to account for the changes made in the Expense Exhibit and the Profitability
13 Report.

14 I was integrally involved in the NAIC's adoption of loss cost procedures as the primary
15 means of rate approval through advisory organization filings like the one in this current
16 proceeding. I provided actuarial expertise to the NAIC's Executive Committee during the
17 several hearings that were held throughout the United States as the loss cost procedures
18 were being developed.

19 I have been the Chairman of the Property and Casualty Loss Cost Working Group of the
20 NAIC, which was established to provide recommended statutory language and
21 procedures for the implementation of loss cost filings by advisory organizations in all
22 property and casualty lines except workers' compensation. I was also the Chairman of the

1 Workers' Compensation Insurance Loss Cost Working Group established by the NAIC to
2 extend the loss cost concept to Workers' Compensation insurance. South Carolina's
3 adoption of loss costs for workers' compensation insurance as well as for other lines of
4 property and casualty insurance follows the recommendations of these NAIC working
5 groups.

6 In addition, I have been a member of the liaison committee, providing communications
7 between the NAIC, insurance companies and advisory organizations (such as the NCCI)
8 during the early periods of loss cost implementation. In the early days of loss cost rating,
9 there were many questions and concerns relative to implementing the loss cost process.
10 As liaison, I provided expertise and direction to the NAIC Executive Committee, state
11 officials, insurers and consumers as the changes were implemented.

12 I was Chairman of the NAIC's CGL (Commercial General Liability) Filings Working
13 Group, a group of regulators established to present the NAIC member states with
14 technical information relative to the coverage in a general liability policy. This technical
15 group was specifically formed to provide Insurance Departments with information
16 regarding policies providing coverage for the indemnification of policyholders for
17 liabilities arising from the defense of third parties for their liabilities assumed through
18 hold harmless agreements.

19 I have been a member of the NAIC's biannual General Liability Closed Claim Study and
20 the Consumer Information Working Group. I have served as the South Carolina
21 Insurance Department representative on the Statistical, Commercial Lines and Personal
22 Lines Committees, and have provided technical consultation to the NAIC Executive

1 Committee.

2 I have provided actuarial advice to the staff of the NAIC in several areas, including
3 studies of insurance competition, consumer information, rate making and the
4 underwriting cycle. I am the author of a "white paper" which has been used by the NAIC
5 at their New Commissioners' School to provide an understanding of the basics of
6 property and casualty insurance rate regulation.

7 I have served on the NAIC's Catastrophic Insurance Working Group which was
8 established to assist states in dealing with catastrophic occurrences such as hurricanes,
9 windstorms, volcanic eruption, tsunamis and earthquakes. I have assisted in the
10 development, pricing structure and approval of the various public and quasi-public means
11 of providing coverage for those catastrophic occurrences. The Catastrophic Insurance
12 Working Group dealt with the many rating and regulatory issues that arose following the
13 extreme catastrophic insured losses associated with Hurricanes Hugo, Andrew and Iniki
14 as well as the Oakland fires and the San Francisco earthquake.

15 **Q. Have you authored any technical insurance articles?**

16 **A.** I am the author of the following property and casualty insurance articles:
17 "Looking Inside the Statistics," Best's Review, P&C Ed, May 1986; "Managing for
18 Consistency," Best's Review, P&C Ed, January 1987; "Federal Oversight: The Wrong
19 Answer," Best's Review, P&C Ed, November 1988; "Rate Regulation Revisited," Best's
20 Review, P&C Ed, July 1989; "In Defense of Rate Regulators," Best's Review, P&C Ed,
21 June 1992; and "Taking the Next Step in Hurricane Modeling," Best's Review, P&C Ed,
22 May 1997.

1 **Q. Have you previously testified in insurance rate making cases or issues?**

2 **A.** I have testified on several hundred occasions in public hearings and before
3 legislative and regulatory bodies in British Columbia, Colorado, Connecticut, Illinois,
4 Louisiana, Minnesota, Ohio, Oklahoma and Hawaii as well as in South Carolina.

5 **Q. Have you reviewed the filing made by the National Council on Compensation**
6 **Insurance in South Carolina dated November 30, 2000?**

7 **A.** Yes. On behalf of Philip S. Porter, Consumer Advocate for the State of South
8 Carolina, I reviewed the filing and requested two sets of additional information from the
9 NCCI. Responses to the first set of interrogatories were received by the Department of
10 Consumer Affairs on December 27, 2000. Responses to the second set of interrogatories
11 were received on January 15, 2001.

12 I also prepared a set of interrogatories for the Insurance Department relative to the filing
13 that was submitted to the Insurance Department. These interrogatories related to the
14 expense and profit factors that were included in the assigned risk portion of the filing.

15 According to the NCCI, the expense and profit factors in the filing were those that were
16 mandated by the Insurance Department. To aid in our analysis, the Consumer Advocate
17 requested that the Insurance Department provide the assumptions and calculations used
18 to arrive at the expense and profit factors and to provide the rates of return that are
19 expected to be earned by insurers as a result of the Department's mandated profit factors.

20 Partial responses to those interrogatories were received from the Insurance Department
21 on January 23, 2001.

22 **Q. What are loss costs?**

1 A. Loss costs (sometimes referred to as “pure premiums”) represent the claims
2 portion of the premium paid by employers for workers' compensation insurance
3 coverage. Since we need to project what we expect these loss costs to be in the future, it
4 is necessary that we have a large amount of experience from which to make those
5 projections. Individual insurance companies do not have enough experience from which
6 to estimate the future loss costs. That is why insurers pool their claim experience through
7 the National Council on Compensation Insurance. It is the pooled experience of all
8 South Carolina workers' compensation insurers that comprises the loss costs. Insurance
9 companies add their expenses to the loss costs in subsequent filings to derive the final
10 rates that will be charged to South Carolina employers in the future.

11 In the current filing, according to information included in the filer’s responses to the
12 Consumer Advocate’s interrogatories, a part of the NCCI calculations referred to as the
13 “indicated countrywide annual trend factors” are derived from “filed” information from
14 other states. The use of this information is biased on the high side since states that revised
15 the NCCI’s trend calculations based upon their own actuarial calculations are excluded
16 from the annual trends. There are also states included in the NCCI trend factor that
17 approved a lower loss cost than that which was filed by the NCCI but where the state
18 regulator did not provide a specific revision to be applied to the NCCI’s filed trend.

19 In response to the Consumer Advocate’s interrogatories, the NCCI informed us that the
20 “indicated annual trend factors based on frequency/severity analysis” (see Appendix A-
21 III in the filing) are not based upon an analysis of frequency and severity data as its name
22 would imply. They are based upon a severity-only analysis. The NCCI analysis assumes

1 that the frequency trend is flat whether the frequency loss ratio trend is flat or not. This
2 technique also produces a biased estimate of the trend since a significant portion of the
3 data is excluded in the calculations. This is especially true in South Carolina where claim
4 frequencies for workers' compensation insurance have been decreasing. In the prior
5 South Carolina Workers' Compensation Loss Cost proceeding, I had included the
6 "indicated annual trend factors based on frequency/severity analysis" in my analysis.
7 Having learned that this factor is not what it is purported to be, it is inappropriate to
8 include this factor in analyzing South Carolina loss costs as has been done in the NCCI
9 filing.

10 For these as well as other reasons, it is important that as much weight as possible be
11 given to the underlying South Carolina data in the development of the trend factors that
12 are to be used in determining the indicated South Carolina workers' compensation loss
13 costs. Based upon the fact that the "indicated countrywide annual trend factors" and the
14 "indicated annual trend factors based on frequency/severity analysis" are both biased,
15 South Carolina experience will be used almost exclusively in this testimony. My analysis
16 also provides a method for tempering that experience to account for the credibility
17 associated with such a procedure.

18 **Q. What do you do to determine what you believe are the appropriate loss costs**
19 **for South Carolina?**

20 **A.** For our analysis, we first determine, based on the past experience available to us,
21 what we expect those costs to be during the time period in which they are to be effective.
22 This process includes making adjustments in the underlying data available at this time.

1 In this present case only one of those adjustments, the trend factor, is the subject of
2 disagreement. It is important that the trend factor used in calculating the loss costs and
3 rates places ample weight on that which is expected to occur in workers' compensation
4 insurance in South Carolina during the time in which the loss costs and rates will be in
5 effect. The difference between the NCCI's trend factors and those which I have calculated
6 is that the NCCI has included several different underlying trend calculations (including
7 those that have been described earlier in this analysis as being biased). My analysis uses
8 the underlying South Carolina workers' compensation insurance data as much as possible.

9 **Q. Are you in agreement with the methods and conclusions contained in the**
10 **NCCI filing for calculating the trend factor?**

11 **A.** No, I believe the trends used by the NCCI in its filing, since they place very little
12 weight on the substantial improvements that have taken place in this State, will produce
13 loss costs and rates that are excessive. My approach is similar to that which was used in
14 my testimony at the previous South Carolina workers' compensation loss cost
15 proceeding. At that proceeding, there was a great deal of discussion and testimony
16 relative to whether the decreasing loss ratio trends of that time period were expected to
17 continue their downward movement. The Consumer Advocate's testimony presented
18 evidence that indicated the reductions were expected to continue. Despite the evidence
19 provided, the NCCI testified that they had performed several analyses and that their
20 analyses indicated that the reductions had "bottomed out" and that future reductions were
21 not expected to occur. Based upon the NCCI conclusion that the trend reductions would
22 not continue, they used a method very similar to that which they have used in this current

1 proceeding.

2 It is extremely important to note that in spite of the NCCI testimony to the contrary, the
3 loss ratio reductions continued for each of the next two years. Exhibit 1 at the end of this
4 testimony illustrates (according to data supplied by the NCCI) that the loss cost
5 reductions I had forecast during the last hearing did, in fact, occur.

6 Please refer to Exhibit 2 at the end of this testimony. Exhibit 2 shows the substantial
7 reductions that have taken place in the indemnity loss ratio in South Carolina over the
8 past several years. Exhibit 2 also indicates that the most recent on level indemnity loss
9 ratios are not dissimilar from those that were incurred in policy year 1982. One would
10 expect, in light of the legislative measures passed and the increased incentives and
11 concerns for workplace safety that have occurred in South Carolina since 1982, that these
12 on-level ratios would be substantially lower than those incurred in 1982.

13 Please refer to Exhibit 3 at the end of this testimony. Exhibit 3 shows the substantial
14 reductions that have taken place in the medical loss ratio in South Carolina over the past
15 several years. In addition, even accounting for increases in medical costs, it is reasonable
16 to assume that there are additional decreases that can take place to effect these medical
17 loss ratios. Further decreases are reasonably expected to occur due to the criteria cited in
18 the comments relative to indemnity trends in the previous paragraph. Additional evidence
19 for expected continuation of the decreases is provided later in this analysis.

20 The loss ratio decreases came about because of legislative changes, improved workplace
21 safety measures, an increased concern on the part of employers to provide safer
22 workplaces and other criteria including increased incentives to insurers for their

1 favorable experience. In addition, it is important to note that, according to the responses
2 received from the NCCI, the accident-year 1999 data, which is the most recent data
3 available, indicates there have already been reductions in the loss ratios since the time
4 period included in the NCCI filing. This means that based upon the most recent
5 information we have at this time, we can see additional cost reductions are taking place
6 now.

7 South Carolina employers are the providers of the premiums, and their efforts to reduce
8 accidents should be included in any projection of their future costs to the fullest extent
9 reasonable. Additional evidence for the expected continuation of the decreases is
10 provided later in this analysis.

11 **Q. Please explain why you reached the conclusion that the filing produces**
12 **excessive results.**

13 **A.** Within the filing, the NCCI has presented several different trend factors. Most of
14 the factors presented, however, are simply not indicative of the short term future
15 expectations for South Carolina workers' compensation loss cost experience. The NCCI
16 has used a trend factor that was derived from taking an average of the following trend
17 factors:

18 1) Indicated Annual Trend Factors Based on Eight-point Policy Year Exponential Trend
19 Model.

20 The eight-year exponential trend provides a reliable estimate of future loss cost
21 expectations. This trend is consistent with trend factors that have been filed and
22 approved in prior South Carolina filings, and the eight-year exponential trend factor is

1 appropriate for use in estimating the future of workers' compensation insurance in South
2 Carolina. The eight-year exponential trend should play a major role in providing a best
3 estimate of future expectations for South Carolina experience.

4 2) Indicated Annual Trend Factors Based on Seventeen-point Policy Year Exponential
5 Trend Model.

6 The differences in the underlying workers' compensation market in South Carolina
7 between the current time period and that which is covered by the seventeen year trend
8 calculation are so substantial as to make the seventeen year trend factor completely
9 irrelevant for estimating future loss costs. The South Carolina economy is simply not the
10 same as it was seventeen years ago. The laws have changed, the types of businesses in
11 the State have changed, the occurrence of workplace accidents has changed, insurance
12 company claims practices have changed and the types of employment in South Carolina
13 have changed since 1982. As is indicated by the NCCI's experience, these changes have
14 been significant, and workers' compensation loss experience from 1982 is therefore unfit
15 for projecting loss ratios in 2001 and 2002.

16 3) Indicated Trend Factor Based upon Frequency/Severity Analysis.

17 As has been stated previously in this testimony, the NCCI informed us this year that the
18 indicated trend factor based upon frequency/severity analysis does not include the results
19 of their analysis of frequency but only includes an analysis of severity. The frequency
20 reductions played the major part in bringing about the loss ratio decreases of the past
21 several years. To ignore the frequency trends completely distorts the very data from
22 which we are attempting to calculate the future loss expectations. This highly biased

1 method produces trend factors that are totally inappropriate for use in projecting loss
2 ratios. Therefore, the indicated trend factor based upon frequency/severity analysis as
3 contained in the NCCI filing is an incomplete analysis and should not be used to project
4 workers' compensation insurance loss costs.

5 4) Indicated Countrywide Annual Trend Factors.

6 The indicated countrywide annual trend factors are biased on the high side in their use in
7 these loss costs calculations. This trend factor is derived using trends from only a
8 selected number of NCCI states. The NCCI factor excludes the trend factors approved in
9 states where there had been disagreements with the NCCI's filed trends. It excludes the
10 data from any state in which the NCCI is not actively involved. The NCCI continues to
11 use these trends in spite of the fact that some of the trends have not necessarily been
12 included in the loss costs approved by some of the regulators in those states. In addition,
13 the NCCI's annual countrywide trend factor assumes that the experience for states like
14 Oklahoma and Illinois is applicable for projecting South Carolina loss costs. For several
15 reasons, the NCCI's annual countrywide trend has been rejected by regulators in some
16 states and is inappropriate for use in this proceeding, except in a most minor manner.
17 Of the trend factors included in the filing, the vast majority of weight should be derived
18 from the eight-year exponential trends. The "average" trend factors used by the NCCI are
19 based to a large extent upon factors that are inappropriate for use in South Carolina for
20 the reasons cited above. The NCCI trend factors, therefore, should not be used to
21 calculate the indicated loss costs in this State.

22 In addition to the eight-year exponential trend factors, the Consumer Advocate's office

1 requested and received from the NCCI the five-year exponential trend factors and the
2 indicated change based upon those five-year factors. The five-year trend provides us with
3 information relative to a more recent time period than that which is provided from the
4 eight-year trend data. The indications using the five-year trend factors were very similar
5 to those derived from the eight-year trend factors.

6 This analysis and the resulting indicated loss costs include a trend factor derived mainly
7 from the eight-year exponential trend analyses provided by the NCCI. Once the
8 indications are derived using South Carolina data, this analysis will address the
9 credibility of those calculations as well as the indications resulting from those
10 calculations.

11 **Q. Please describe the calculations you performed and tell us what the indicated**
12 **South Carolina workers' compensation insurance loss cost change should be based**
13 **upon your analysis.**

14 **A.** Using information obtained from the NCCI, this analysis derives a trend based
15 upon an average of the eight-year exponential trend on a paid and a paid plus case basis.
16 Paid loss data projects the expected total losses for each policy year based on an analysis
17 of the underlying historical patterns of paid South Carolina workers' compensation
18 losses. Paid plus case data projects the expected total losses for each policy year based on
19 an analysis of the underlying historical patterns of insurance company loss reserves along
20 with the paid South Carolina workers' compensation claim data. To add conservatism to
21 these projections, the paid plus case data was taken directly from the NCCI's responses
22 and includes some effect of the countrywide trend. Based upon my earlier comments, this

1 technique produces results that provide for higher loss costs than those that would have
2 been developed using only South Carolina data. Each method (paid and paid plus case)
3 provides an acceptable way to project losses in cases like this one.

4 Employers in South Carolina have experienced substantial reductions in their workers'
5 compensation loss ratios, and these reductions have continued to occur over an extended
6 period of time. Loss ratio reductions come about as a result of legislated changes as well
7 as efforts on the part of employers to reduce workplace accidents and injuries. In
8 addition, insurers have brought about reductions in their claim costs by initiating claim
9 management techniques designed to close claims more quickly and more efficiently. The
10 percentage of South Carolina businesses written under the assigned risk plan has been
11 decreasing throughout the time period under which the experience was generated. As
12 insurers increase their voluntary writings, the incentive increases for them to manage
13 their claims more effectively. Each of these functions has played a role in producing
14 more favorable experience, and it has been shown that the loss ratio reductions in South
15 Carolina that were brought about by these as well as other criteria have been significant.

16 The approved loss cost and rates must take these improvements into consideration,
17 providing rate reductions of a magnitude that appropriately recognize their effects.

18 Employers should be rewarded for their favorable experience in reducing workplace
19 accidents. Reduced insurance costs should be passed on to employer policyholders
20 whenever possible.

21 The following factors were calculated and provided by the National Council on
22 Compensation Insurance in response to the Consumer Advocate's interrogatories. The

1 filed indications were revised by excluding from the paid loss basis factors those trend
 2 factors that have been previously described as being biased and inappropriate. To add
 3 credibility to the process, the NCCI's calculations of the paid plus case basis factors
 4 include some of the higher country-wide trend factors. The following indications are
 5 calculated placing the majority of the weighting on an analysis of the eight-year
 6 exponential trends of the workers' compensation experience in South Carolina. All other
 7 calculations are as contained in the NCCI filing. Reference in the filing to where these
 8 factors are included can be found on Exhibit I in the filing. The following factors replace
 9 line 25 on that Exhibit.

10 **Final Voluntary Pure Premium Level Change**

11 Paid loss basis	.847	-15.3%
12 Paid plus case basis	.945	- 5.5%
13 AVERAGE	.896	-10.4%

14 These two separate techniques provide an ample method of providing credibility to the
 15 calculations. Averaging these two indications provides an actuarially credible estimate of
 16 the indicated change to be applied to the current pure premiums to produce loss costs for
 17 use in South Carolina effective April 1, 2001. South Carolina experience has provided a
 18 fairly steady series of loss ratio decreases that have occurred over a long period of time.
 19 It is unnecessary and inappropriate to place greater weight on experience generated from
 20 data or assumptions that are derived from data not directly taken from the experience in
 21 this State.

22 **Q. Why do you feel that your calculated loss cost revision of minus 10.4% is**

1 **more appropriate than the NCCI's filed revision of minus 0.6%?**

2 **A.** As evidence that the techniques used in this analysis are reasonable and
3 appropriate, and as an additional check upon the results obtained above, the NCCI
4 provided us (in response to the Consumer Advocate's first set of interrogatories) the
5 experience on a calendar-accident year basis. The policy-year data included in the filing
6 (and from which this analysis and the filing results are derived) presents data through
7 policy-year 1998, which is the latest policy-year data available at this time. The calendar-
8 accident year data provides us with South Carolina workers' compensation insurance
9 experience using more recent (1999) calendar-accident year experience. This calendar-
10 accident year data is a reasonable estimator of future loss costs. The data has been used in
11 calculating the approved workers' compensation loss costs and rates in some previous
12 South Carolina proceedings. In response to the Consumer Advocate's interrogatories, the
13 NCCI has performed an actuarial analysis on the 1999 calendar-accident year data. It is
14 that analysis that provides the basis for the following comments.

15 According to the most recent NCCI experience, the 1999 calendar-accident year
16 indications produce substantially greater decreases than those produced in either the
17 NCCI's filing or in this analysis. The calendar-accident year indications produced by the
18 NCCI produce a more favorable indication even though they have included the
19 countrywide factors as the complement to their perceived credibility of South Carolina
20 experience. This provides additional evidence that the loss ratio reductions have
21 continued at a substantial rate subsequent to the time period used in either this analysis or
22 in the NCCI filing. It also provides substantial evidence that the loss ratio reductions may

1 reasonably be expected to continue into the near future.

2 The use of the paid plus case data as a complement for the paid calculations provides for
3 ample credibility while maximizing the use of South Carolina workers' compensation
4 insurance experience. If the paid policy-year experience was used in my analysis without
5 regard for the paid plus case experience, the indicated change would have been a
6 decrease of 15.3% in lieu of the decrease of 10.4% calculated in this analysis. If the
7 indicated change was based solely upon the most recent South Carolina calendar-accident
8 year experience as analyzed by the NCCI actuaries, (including the countrywide
9 experience as described earlier) that indicated change would have been a decrease of
10 18.9%. If the indication had been based upon the 1999 South Carolina calendar-accident
11 year data unadjusted by the countrywide trend data, the indication would have been for a
12 decrease of 21.3%. That the recommended 10.4% decrease is reasonable is especially
13 true in light of all the data available, including the calendar-accident year experience
14 supplied by the NCCI in response to our interrogatories.

15 The establishment of the appropriate loss costs for South Carolina workers'
16 compensation insurance is important to the economic well being of the State. The annual
17 cost differences between the filed loss costs and those recommended in this analysis are
18 over \$34 million. In addition, there are self-insurance programs that use the NCCI loss
19 costs as a basis for their rate calculations. Therefore, the overall impact of the loss cost
20 portion of this proceeding upon the South Carolina economy is substantial (well above
21 \$34,000,000). An analysis of the South Carolina workers' compensation insurance
22 assigned risk expense and profit factors (found later in this analysis) will provide

1 evidence that there are substantial savings indicated that are in addition to this \$34
2 million difference in the loss cost indications. As stated earlier in this testimony, South
3 Carolina employers are the providers of the premiums. The effects of their very
4 successful efforts to reduce accidents along with the effects of the South Carolina
5 legislature's cost reducing actions and more aggressive insurance industry claim
6 management procedures should be included in any projection of the State's future costs
7 to the fullest extent that is reasonable.

8 This State is striving to attract new businesses. The workers' compensation insurance rate
9 levels can play a major role in a corporation's decision to come to South Carolina.

10 Therefore, it is of the utmost importance that the workers' compensation loss costs and
11 rates are established in consideration of the most complete and appropriate information
12 available.

13 To maintain the current loss costs or to reduce the South Carolina workers' compensation
14 insurance loss costs by only 0.6% will produce loss costs and subsequent rates that are
15 excessive, in violation of South Carolina statutes. The workers' compensation loss costs
16 for use in South Carolina effective April 1, 2001 should be at an overall level that is no
17 greater than a factor of .896 times the loss costs in effect at this time. The .896 factor will
18 produce a decrease of 10.4% from the current loss costs, and will produce loss costs that
19 are not excessive or inadequate, consistent with South Carolina's statutory requirements.

20 **Q. Does the use of your recommended factor of .896 produce changes in other**
21 **portions of the NCCI filing?**

22 **A.** Yes. Please refer to Exhibit I, Section B of the NCCI filing. The Industry Group

Differentials that are shown on that exhibit must be revised in accordance with the revision in the “Final Voluntary Pure Premium Level Change” that has been discussed previously. These differentials are necessary to provide that the lost costs meet the third statutory criteria, that the rates not be unfairly discriminatory. The NCCI has calculated the appropriate differentials to be applied based upon individual classification data. We have reviewed the methods used by the NCCI to do so, and agree that those methods are reasonable. The table below produces the filed Exhibit I, Section B information both prior to and subsequent to the changes recommended in this analysis. The NCCI differentials remain unchanged from those in the filing. The changes are required due to the revision in the overall loss costs as recommended in this analysis.

Industry Group Differentials

	Differential*	NCCI Filing	Consumer Advocate
Manufacturing	1.001	0.995 (-0.5%)	0.897 (-10.3%)
Contracting	0.966	0.960 (-4.0%)	0.866 (-13.4%)
Office & Clerical	1.026	1.020 (+2.0%)	0.919 (-8.1%)
Goods & Services	1.016	1.010 (+1.0%)	0.910 (-9.0%)
Miscellaneous	1.025	1.019 (+1.9%)	0.918 (-8.2%)
TOTAL	1.000	0.994 (-0.6%)	0.896 (-10.4%)

* Differentials are taken from the Technical Support portion of the NCCI filing

Q. Did you analyze the portions of the National Council’s filing that relate to proposed changes in South Carolina’s workers’ compensation assigned risk rates?

1 A. Yes. To calculate the profit factor to be included in the South Carolina workers'
2 compensation assigned risk rates, we must first determine the appropriate return on
3 equity or surplus that will produce rates that are not excessive or inadequate. In South
4 Carolina, it has been well established in many previous workers' compensation rate
5 establishing procedures that a 15% rate of return on surplus is appropriate. Recent
6 information referenced later in this analysis will add credence that a 15% rate of return is
7 still appropriate.

8 This analysis uses methods similar to those that have been used in passed approvals in
9 South Carolina. We must first determine the amount of investment income that is
10 expected to be earned by insurers on funds held for South Carolina insureds during the
11 time that the final assigned risk workers' compensation insurance rates will be in effect.
12 Once we calculate the investment income expected to be earned, then an appropriate
13 profit factor can be calculated that will produce the target return on surplus.

14 Please refer to Exhibit 4 at the end of this testimony. Information received from the
15 NCCI in response to the Consumer Advocate's second set of interrogatories provides the
16 basis for the calculations found on that exhibit.

17 Based upon the most recent experience available, South Carolina insurers will be holding
18 \$669,150,604 in loss reserves for South Carolina policyholders during the year in which
19 the rates will be in effect. These reserves represent funds held by insurers for the payment
20 of future claims. They are funds that are provided by employer policyholders for the
21 payment of future South Carolina workers' compensation claims. The investment income
22 on these funds must be included in the determination of the returns that are earned by

1 insurers through writing workers' compensation insurance in the State. They include only
2 loss reserves that pertain to South Carolina workers' compensation insurance.

3 Based upon the most recent experience available, South Carolina insurers will be holding
4 \$89,161,145 in loss adjustment expense reserves for South Carolina policyholders during
5 the year in which the rates will be in effect. These reserves represent funds held by
6 insurers for the payment of future claim payment expenses. They are funds that are
7 provided by employer policyholders for the payment of future South Carolina workers'
8 compensation claims. The investment income on these funds must be included in the
9 determination of the returns that are earned by insurers through writing workers'
10 compensation insurance in the State. They include only loss adjustment expense reserves
11 that pertain to South Carolina workers' compensation insurance.

12 Based upon the most recent experience available, South Carolina insurers will be holding
13 \$81,967,612 in unearned premium reserves for South Carolina policyholders during the
14 year in which the rates will be in effect. These reserves represent funds held by insurers
15 for providing coverage under the unexpired portions of current policies. They are used to
16 derive the loss costs and rates that are filed and approved. The investment income on
17 these funds must be included in the determination of the returns that are earned by
18 insurers through writing workers' compensation insurance in the State. They include only
19 unearned premium reserves that pertain to South Carolina workers' compensation
20 insurance.

21 Since insurance company surplus is not allocated specifically among the states and the
22 lines of insurance, we must make an assumption relative to the surplus that specifically

1 applies to the writing of workers' compensation insurance in South Carolina. In each of
2 the previous workers' compensation hearings, the approved workers' compensation
3 insurance assigned risk profit factor calculation included the assumption that surplus
4 equal to one-half of the annual premium. This allocation was considered appropriate for
5 the rate of return calculations and for the subsequent derivation of the profit and
6 contingency factor to be included in the rates. Since the most recent workers'
7 compensation hearing at which this issue was a factor, insurers have increased their
8 surplus relative to their earned premiums. A major reason for the increases in surplus
9 relative to premiums concerns the potential catastrophic losses to which the insurers are
10 exposed as a result of their property insurance writings. Nevertheless, in light of these
11 increases, Exhibit 4 assumes that surplus allocated to South Carolina Workers'
12 Compensation insurance is equal to the South Carolina workers' compensation insurance
13 earned premiums. This revision from the previously approved one-half to the full amount
14 of the earned premiums provides for substantial conservatism (to the benefit of insurers)
15 in the final results. In the absence of this revision, the resulting profit factors and rates
16 would be lower than those indicated on Exhibit 4. It is important to note here that
17 insurers writing workers' compensation insurance in South Carolina are currently holding
18 funds in excess of \$1 billion that are being held only for this coverage in this State. The
19 Insurance Department's responses to the Consumer Advocate's interrogatories show that
20 the income from investing these funds has not been considered in the derivation of the
21 Department's mandated profit factor.
22 Exhibit 4 shows that insurers are earning a rate of return that is excessive before the

1 inclusion of a profit factor. Exhibit 4 also indicates that a negative profit factor is
2 appropriate for inclusion in the South Carolina workers' compensation insurance
3 assigned risk rates to be effective on April 1, 2001. Nevertheless, the Insurance
4 Department has mandated an additional 0.5% to be incorporated in the assigned risk rates
5 as a profit factor. The profit factor mandated by the Insurance Department is higher than
6 any workers' compensation assigned risk profit factor approved for use in South Carolina
7 for well over a decade. In addition, the profit factor mandated by the Insurance
8 Department is higher than any profit factor requested by the NCCI in any of its filings
9 over the past decade.

10 The Consumer Advocate received from the Department of Insurance a partial response to
11 its interrogatories on January 23, 2001. The responses did not provide the information
12 used by the Department to determine the rate of return that will be earned by insurers in
13 writing workers' compensation assigned risk business in this State. The Department
14 states:

15 The purpose of the 0.5% contingencies factor is to provide for the
16 volatility of non-standard WC business. While the assigned risk
17 differential provides for differences in claims severity and claim frequency
18 between assigned risk and voluntary (sic), it does not measure volatility or
19 wider variance in loss experience between assigned risk and voluntary
20 risk.

21 It has been well established in prior workers' compensation assigned risk proceedings
22 that the risk involved in the writing of workers' compensation assigned risk business is
23 no greater than that of an average risk industry. The term risk, in this instance, relates to
24 the variation in the expected results (or stock prices) from the variations in the results (or
25 stock prices) of average risk businesses over a given period of time. There has been a

1 great deal of testimony in previous workers' compensation hearings in South Carolina as
2 well as in other jurisdictions relative to the volatility that appears to be referenced in the
3 Insurance Department's response. This testimony has included (among other techniques)
4 the calculations of the "beta" coefficients associated with insurers that are active in
5 workers' compensation insurance. In each of those cases in South Carolina, it was
6 determined that the business of writing workers' compensation assigned risk insurance is
7 equivalent to the business conducted by an average risk industry. In addition, since
8 insurers are now holding greater surplus than they were in the past, the risk of writing
9 workers' compensation insurance has decreased from that which had been present during
10 those previous periods. The Consumer Advocate's office has requested the analyses upon
11 which the Department has relied to produce the "mandated" profit factors. It has
12 produced no such analysis of the risk, even though it has reversed an established position
13 on a major issue included in the final decisions from all previous workers' compensation
14 proceedings in the State.

15 Unlike businesses with higher than average risk, workers' compensation insurance
16 includes several criteria that reduce the risk inherent in the process of conducting this
17 business. As has been well established in several prior hearings in South Carolina, there
18 are several reasons why the risk associated with writing workers' compensation
19 insurance is lower (rather than higher) than the risk associated with other lines of
20 insurance and with average risk industries.

21 1) Workers' compensation insurance coverage is predicated on established statutory
22 benefits unlike insurance lines like general liability or automobile insurance. The

1 statutory benefit provisions act to provide stability to the rate making process.

2 2) Workers' compensation insurance is far less vulnerable to catastrophic or
3 extremely high losses than other lines of insurance.

4 3) Workers' compensation insurance loss costs are based upon the combined claim
5 experience of all insurers that are writing workers' compensation insurance in the
6 State. This combination of claim data using the loss cost process provides very
7 large amounts of claim data, and these large amounts of data produce substantial
8 stability in the rate making process.

9 4) The workers' compensation insurance assigned risk policies include substantial
10 charges in excess of those that are incorporated in the rates for voluntary business,
11 providing a cushion to account for the worse than average experience generated
12 by assigned risk policies. These surcharges were approved in the past only when
13 the NCCI provided ample justification to the Insurance Department.

14 The Insurance Department states that its expense factors incorporate amounts to account
15 for the purchase of reinsurance. The purchase of reinsurance provides for a significant
16 reduction in the amount of risk associated with this business prior to the consideration of
17 the profit factor. Loss costs and rates for workers' compensation assigned risk insurance
18 in South Carolina are generally revised annually, providing stability in the long term
19 results. Each of these criteria lowers the amount of risk associated with the writing of
20 workers' compensation insurance assigned risk policies.

21 In prior rate hearing proceedings in South Carolina, there has been significant testimony
22 regarding the appropriate method to use in determining rates of return and the

1 corresponding profit and contingency factor that is to be included in the assigned risk
2 rates. That prior testimony has generally included two specific methods for determining
3 these factors. The Capital Asset Pricing (CAP) method and the Internal Rate of Return
4 (IRR) method have been presented in past cases. The judge or hearing official in all prior
5 cases in this State has included the results of the IRR method in the final order in favor of
6 those produced by the CAP method. Since the factors have been mandated by the
7 Insurance Department, the NCCI has not provided its analysis of the rates of return to be
8 derived from those profit factors. We have not seen and are therefore unaware of the
9 method used by the Insurance Department to calculate the profit factor. Exhibit 4 at the
10 end of this testimony presents each step in the calculation of the appropriate profit margin
11 using the internal rate of return (IRR) approach. To abandon this well established
12 procedure on the basis of a “selected” factor derived from an unknown method that
13 produces excessive returns will produce rates that are, by definition, excessive. This
14 statutory non-compliance remains even though the rates are based on factors mandated
15 by the regulator.

16 Regardless of the amount of risk associated with the writing of workers’ compensation
17 insurance assigned risk policies, the inclusion of a 0.5% profit factor, in addition to the
18 returns already being earned by insurers, generates rates of return that are well in excess
19 of 21 percent. This is an amount that is excessive in the extreme even for businesses that
20 are actually involved in high-risk activities. To place this return in perspective, to my
21 knowledge, in no prior proceeding has the NCCI or any individual workers’
22 compensation insurer requested a rate of return in excess of 17.5%. In addition, in all

1 prior proceedings in South Carolina, all requested rates of return in excess of 15% have
2 been rejected following the results of public hearings on those requests. To allow a profit
3 factor that produces a rate of return in excess of 21% will cause employers in this State to
4 be forced to contribute to the insurance industry's earning of a profit factor that is
5 excessive in the extreme.

6 A rate of return in excess of 21% (produced by including a 0.5% profit factor) is 44%
7 greater than previously approved rates of return and is more than 23% above even the
8 highest rates of return that have been previously requested by the insurance industry. To
9 place the mandated rate of return in perspective, according to the A.M. Best Company (a
10 standard provider of financial information to the insurance industry), the average rate of
11 return for the Fortune 500 companies from 1995 through 1999 was 14%. In fact, the rate
12 of return for those Fortune 500 companies remained stable at 13% - 14% for the entire
13 period reviewed. Also according to A.M. Best, the average return on surplus of the
14 Property and Casualty Insurance Industry for that same five-year period was also 14%.

15 The Consumer Advocate's office requested the analysis upon which the Insurance
16 Department relied to produce the mandated profit factors. The Department has not
17 provided their analysis. The Department requested some of the data necessary to have
18 performed an appropriate analysis from the NCCI and some individual insurance
19 companies after the Department had received the Consumer Advocate's request.

20 While we still have not been provided with the Department's analysis, the insurance
21 company data that was submitted to them subsequent to our interrogatories does provide
22 some additional information. Based upon that information, the expense factors derived by

1 the Insurance Department appear to be based upon the insurance company with the
2 highest expenses of those insurers that are acting as servicing carriers in this State. Since
3 the Department's factors appear to be based upon the experience of the least efficient of
4 the insurer-servicing carriers, the rates of return earned by the other servicing carrier are
5 far greater than the already extremely excessive 21% described above.

6 The Insurance Department testified in the last workers' compensation insurance loss cost
7 and rate hearing that they are striving to increase competition in South Carolina. While
8 an increase in competition is generally a noble endeavor, it is not necessary (and in fact
9 will act negatively upon the State's economy) to mandate that all non-insurance business
10 owners must pay excessive returns to the insurance industry for the privilege of doing
11 business in South Carolina. Competition based upon the ability to earn excessive profits
12 is not beneficial to South Carolina citizens other than those few citizens that are the
13 recipients of those excessive profits.

14 It is important that workers compensation insurance loss costs and assigned risk rates be
15 developed so that the insurance industry is able to earn a reasonable rate of return for
16 doing business in the State. It is not necessary to provide them with an excessive rate of
17 return. As other state agencies are working to attract new businesses to South Carolina,
18 these new businesses, under the Department's mandate, will be faced with the necessity
19 of paying excessive profits to the insurance industry in order to do business in this State.
20 Employers consider the level of workers' compensation rates to be a major factor in their
21 decisions to enter a new market. Faced with this untenable and unjustifiable situation,
22 they may be prone to reconsider their decision to enter South Carolina in favor of other

1 jurisdictions.

2 As Exhibit 4 (at the end of this testimony) indicates, the profit factor to be incorporated
3 in the South Carolina workers' compensation insurance assigned risk rates should be no
4 greater than a factor of - 6.06% (negative 6.06%). A profit factor of - 6.06% (negative
5 6.06%) will provide for a reasonable rate of return on surplus for insurers writing
6 workers' compensation insurance in this State under assumptions that are made giving
7 every benefit in the calculation process to the insurance industry's position. The -6.06%
8 (negative 6.06%) profit factor calculated on Exhibit 4 provides for several considerations
9 that result in projected rates of return that are on the low side of any estimates of actual
10 expected rates of return. Based upon the estimates produced on Exhibit 4 insurers can
11 actually be expected to earn rates of return in excess of the targeted 15.0% return. In
12 addition, the 15.0% rate of return that will be earned by including a -6.06% (negative
13 6.06%) profit factor are in excess of the rates of return being earned by the companies
14 that make up the Fortune 500. While we maintain that workers' compensation insurance
15 is an average risk endeavor, this process produces ample additional consideration for any
16 possible added risk that may be associated with this business. While it is reasonable to
17 include a lower (greater negative) factor, a factor greater than - 6.06% (negative 6.06%)
18 will produce excessive rates.

19 **Q. Why should we be concerned with the profit factors for a relatively small**
20 **number of assigned risk policies?**

21 **A.** There are several reasons to be concerned that the assigned risk profit factors are
22 calculated in an appropriate manner, and that the rates of return earned by insurers on

1 those policies are reasonable. South Carolina law (Section 38-73-430) requires that the
2 rates for workers' compensation (as well as other lines of) insurance shall not be
3 excessive, inadequate or unfairly discriminatory. There is no relief from these
4 requirements based upon the number of policyholders that may be affected. In addition if
5 the workers' compensation insurance assigned risk rates in South Carolina are to be
6 "self-sustaining," it is imperative that the rates be calculated in a manner that produces a
7 best estimate of self-sustaining rates.

8 Businesses written in the assigned risk program are faced with incentives to improve
9 workplace safety and hence improve their workers' compensation experience. Included
10 as part of these incentives are assigned risk surcharges that can be substantial.

11 Eventually, through loss control and reduction activities, employers are able to "earn "
12 the acceptance of an insurer in the voluntary market. It is not beneficial, reasonable or
13 legal to force these business-owners to pay excessive premiums to the insurance industry
14 in addition to the approved penalties and surcharges they are already required to pay
15 simply because they are being written in the workers' compensation assigned risk
16 program.

17 The Insurance Department ultimately approves the expense and profit factors used by all
18 property and casualty insurance companies for all lines of insurance written in South
19 Carolina. It is important that each of the expense and profit factors is appropriately
20 analyzed and justified prior to their approval. Regulatory mandates resulting in excessive
21 rates of return are detrimental to South Carolinians regardless of the line of insurance.

22 Factors mandated by the Insurance Department should be based upon accepted statistical

1 methods and calculations and should result in the expectation of reasonable rates of
2 return for insurers.

3 **Q. Will you please summarize your testimony?**

4 **A.** Yes. The South Carolina workers' compensation insurance loss costs filed by the
5 NCCI are excessive. The loss costs approved for use in South Carolina effective on April
6 1, 2001 should be at a level that is 10.4% below the level of loss costs in effect at the
7 current time.

8 The assigned risk rates filed by the NCCI are excessive. The NCCI should revise the
9 South Carolina workers' compensation assigned risk insurance rates in accordance with
10 the 10.4% reduction in loss costs cited above.

11 In addition, the 0.5% profit factor mandated by the South Carolina Insurance Department
12 is excessive. The NCCI should revise the South Carolina workers' compensation
13 insurance assigned risk rates by replacing the 0.5% profit factor included in the filed rates
14 with a profit factor of - 6.06%.

15 If the above amendments are made to the NCCI filing, the resulting workers'
16 compensation insurance loss costs and the rates resulting from those loss costs will not be
17 excessive or inadequate. It is important to note that these conclusions relative to the loss
18 costs for insurers (other than those writing workers' compensation assigned risk
19 insurance in South Carolina) are valid only if the subsequent rate filing approvals are
20 derived in consideration of an appropriate analysis of the insurers' expected rates of
21 return.

22 Earlier in this testimony are recommendations for amendments to be made to the NCCI's

1 filed industrial classification relativities. These adjustments and the corresponding
2 changes to the individual classification rates derived from the amended relativities will
3 provide loss costs and rates that are not unfairly discriminatory.

4 **Q. Does this complete your testimony?**

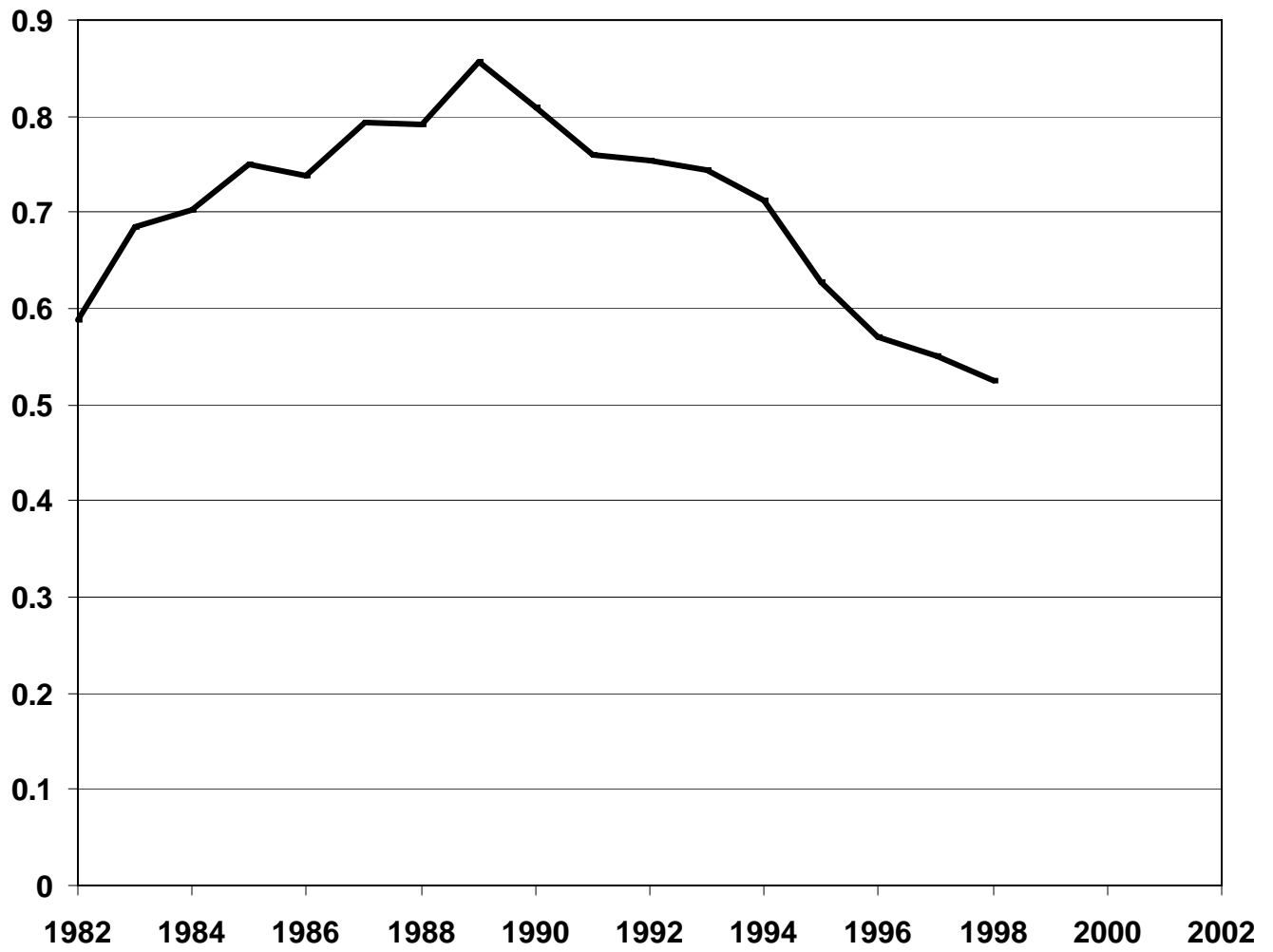
5 **A.** Yes, it does.

**Policy Year Loss Ratios
From NCCI Filing Appendix A-III**

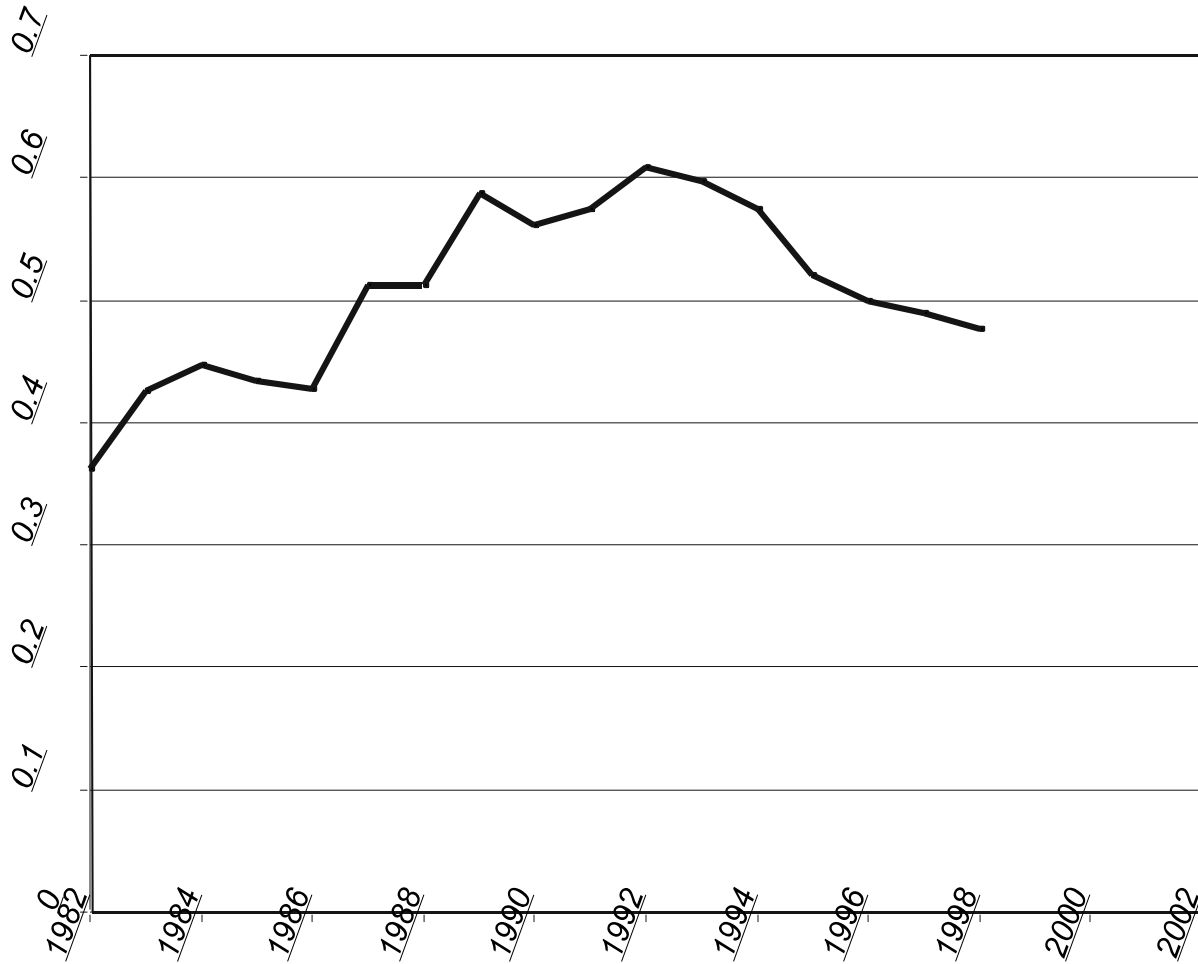
policy year	on-level indemnity loss ratio	On-level Medical Loss ratio
1982	0.589	0.362
1983	0.684	0.426
1984	0.702	0.447
1985	0.750	0.434
1986	0.738	0.427
1987	0.794	0.512
1988	0.792	0.512
1989	0.856	0.588
1990	0.810	0.562
1991	0.759	0.574
1992	0.753	0.609
1993	0.745	0.598
1994	0.713	0.574
1995	0.627	0.521
1996	0.571	0.499
1997	0.550	0.490
1998	0.525	0.477

Note: The source of this information is the South Carolina Workers' Compensation Voluntary Loss Cost and Assigned Risk Rate Filing, dated November 30, 2000.

ON-LEVEL IDEMUNITY LOSS RATIOS



ON-LEVEL MEDICAL LOSS RATIOS



**Calculation of Profit Factor
To Derive a 15% Rate of Return on Surplus**

A. Calendar year earned premium	\$319,504,717		
B. SC WC Loss Reserves @ 12/31/98	\$648,959,967		
C. SC WC Loss Reserves @ 12/31/99	\$689,341,240		
D. Average SC WC Loss Reserves (B+C)/2	\$669,150,604		
E. SC WC LAE Reserves @ 12/31/98	\$ 86,486,085		
F. SC WC LAE Reserves @ 12/31/99	\$ 91,836,205		
G. Average SC WC LAE Reserves (E+F)/2	\$ 89,161,145		
H. SC WC Unearned Premium Reserve @ 12/31/98	\$ 82,746,886		
I. SC WC Unearned Premium Reserve @ 12/31/99	\$ 81,188,338		
J. Average SC WC Unearned Premium Reserve (H+I)/2	\$ 81,967,612		
K. Average SC WC Total Reserves (D+G+J)	\$840,279,361		
L. After Tax Investment Yield	5.966%		
M. Investment Income Earned on SC WC Reserves (KxL)	\$ 50,131,067		
		@ 75%*	@100%*
N. Surplus	\$239,628,538	\$319,504,717	
O. Surplus Available for Investing (.9 x N)	\$215,665,684	\$287,554,245	
P. Investment Income Earned from Surplus (LxO)	\$ 12,866,615	\$ 17,155,486	
Q. Total SC WC Investment Income Earned (M+P)	\$ 62,997,682	\$ 67,286,553	
R. Investment Income as a Percent of line (A)	19.72%	21.06%	
S. Investment Income as a Percent of Surplus (Q/N)	26.29%	21.06%	
T. Target Return on Surplus	15.00%	15.00%	
U. Indicated Profit Factor Based on Return on Surplus (T-S)	-11.29%	-6.06%	

Notes:

* Data on lines N through U calculated separately based on 75% and 100% surplus/premium

All underlying data from NCCI second response to CA interrogatories

Surplus reduced by 10% on line O to account for funds not available for investing