



**State of Michigan**  
John Engler, Governor

**Department of Consumer & Industry Services**  
Kathleen M. Wilbur, Director

**Office of Financial and Insurance Services**  
Frank M. Fitzgerald, Commissioner

P.O. Box 30220  
Lansing, MI 48909-7720  
Toll Free (877) 999-6442  
Lansing Area (517) 373-0220  
Web site: [www.cis.state.mi.us/ofis/](http://www.cis.state.mi.us/ofis/)

**DATE:** August 20, 2001

**TO:** Interested Parties

**FROM:** Frank M. Fitzgerald  
Commissioner of the Office of Financial and Insurance Services

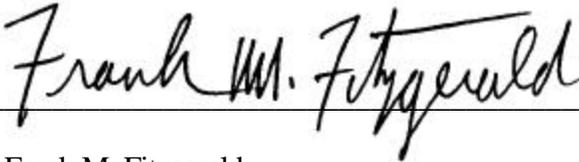
**SUBJECT:** Final Report and Certification Regarding the State of Competition in the  
Workers' Compensation Insurance Market and Commercial Liability  
Insurance Market

Pursuant to Public Act 8 of 1982 and Public Act 318 of 1986, I am submitting a consolidated final report on the state of competition in the workers' compensation insurance market and the commercial liability insurance market. The analyses and economic tests of data performed since publication of the preliminary reports on February 28, 2001 indicate that there have been no substantive changes in the results of such analyses and economic tests. Accordingly, I am adopting the above-referenced preliminary reports as the final reports on the state of competition in the workers' compensation and commercial liability insurance markets.

I am also submitting my certification as to the presence of workable competition in the commercial liability insurance market and the workers' compensation insurance market.

CERTIFICATION OF THE STATE OF  
COMPETITION IN THE  
COMMERCIAL LIABILITY INSURANCE MARKET

I hereby certify that, based on the results of the economic tests specified in MCLA 500.240(c), a reasonable degree of competition exists at this time in the commercial liability insurance market.

A handwritten signature in black ink that reads "Frank M. Fitzgerald". The signature is written in a cursive style and is positioned above a horizontal line.

Frank M. Fitzgerald  
Commissioner of the Office of Financial and  
Insurance Services

DATE: August 23, 2001



**State of Michigan**  
John Engler, Governor

**Department of Consumer & Industry Services**  
Kathleen M. Wilbur, Director

**Office of Financial and Insurance Services**  
Frank M. Fitzgerald, Commissioner

**Division of Insurance**  
P.O. Box 30220  
Lansing, Michigan 48909-7720  
Toll Free (877) 999-6442  
Lansing Area (517) 373-0220  
Web site: [www.cis.state.mi.us/ins](http://www.cis.state.mi.us/ins)

## **MEMORANDUM**

**DATE:** February 28, 2001

**TO:** Interested Parties

**FROM:** Frank M. Fitzgerald  
Commissioner of Financial and Insurance Services

**SUBJECT:** Preliminary Report and Certification Regarding the State of Competition in the Commercial Liability Insurance Market

Attached is a copy of the preliminary report on the state of competition in the commercial liability insurance market and my certification as to the presence of workable competition in the market during 2000.

This report and certification were prepared in accordance with the requirements of Section 2409(c) of the Michigan Insurance Code of 1956, as amended, MCL 500.2409(c); MSA 24.12409(c).

FMF/CJK/amf

Attachment

**STATE OF MICHIGAN**  
**DEPARTMENT OF CONSUMER & INDUSTRY SERVICES**  
**OFFICE OF FINANCIAL AND INSURANCE SERVICES**

**THE STATE OF COMPETITION IN THE**  
**COMMERCIAL LIABILITY INSURANCE MARKET**  
**PRELIMINARY REPORT 2000**

By: Frank M. Fitzgerald

Commissioner of Financial and Insurance Services

Dated: February 2001

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## EXECUTIVE SUMMARY

This report reviews and evaluates the state of competition in the commercial liability insurance market in Michigan. The report evaluates this market for calendar year 1999 as required by Act No. 318 of the Public Acts of 1986. Its purpose is to determine if competition in this market has effectively restrained commercial liability insurance premiums to reasonable levels that are not excessive or unfairly discriminatory. Economic analysis was used to determine whether current market structure, conduct, and performance are conducive to workable competition. The commercial liability insurance lines analyzed are medical malpractice and other commercial liability.

The report analyzed two measures of profitability, statewide loss ratios and return on net worth (RONW). Examining such indicia of profitability indirectly measures the industry's efficiency in delivering insurance services.

On November 28, 2000, a public hearing was held to obtain public comment on the state of competition in the commercial liability insurance market. Individuals attending the hearing sought information on the reporting process and none of them testified. In fact, to date, the only testimony given by business was in 1988 from several canoe livery businesses that were having short-term problems obtaining insurance.

The lack of testimony given since 1988 would appear to indicate that businesses are not having problems obtaining commercial liability insurance. Though not likely, it is possible that the lack of business participation indicates businesses are unaware of the existence of a forum in which to air their insurance problems. The American Insurance Association, which submitted testimony in the past, has not testified on the state of competition since 1995.

### Brief History of the Underwriting Cycle

This report was first issued in 1988 after an unanticipated change in the mid-1980s in the litigation climate resulting in operating losses. These losses, together with less-than-expected investment gains, had contributed in 1984 and 1985 to low profitability for insurers, as reflected in high statewide average loss ratios and low RONW.

The poor performance caused a loss of surplus and undermined the confidence by admitted insurers, which reduced insurance exposure. This reduced insurance availability with most of the shortfall picked up by surplus lines insurers, whose share of total business liability insurance premium in Michigan grew from 6.7% in 1984 to 15.3% in 1988.

Widespread premium rate increases, especially for certain high-risk lines in 1985 and 1986, accompanied the growth in the surplus lines segment of the market. Surplus lines insurers garnered large market shares in several markets. Overall, the increase in rates and reduced availability was a national phenomenon.

The hard market of the mid-1980s caused a public outcry over the high cost of litigation and insurance. As some called for a political solution, the Michigan Legislature enacted changes in

the tort liability law to reduce unwarranted litigation. In addition, the Insurance Code of 1956 was amended to require the former Insurance Bureau to report on the status of competition in commercial liability insurance markets.

From 1987 through 1992, the market softened slightly as insurer profitability, as shown by lower loss ratios and higher RONW, returned. While premiums over this period were stable or declining, availability problems continued in some lines of insurance and surplus lines insurers maintained their market share. Surplus lines concentration for medical malpractice insurance rose significantly through 1990 but has since trended lower. In recent years, surplus lines business has increased in one line -- other commercial liability.

In 1994, concern arose in the industry that insurance was under-priced and average commercial liability loss ratios in Michigan rose. In spite of this concern, the soft market continued through 1999. Through 1998, as premiums declined, insurer profits increased. This was especially true in Michigan for medical malpractice insurers, whose profitability peaked during the period 1995 through 1998. In 1999, however, RONW for medical malpractice insurers dropped to 10.9%.

During the 1990s, the RONW for other commercial liability insurers peaked at 22.0% in 1997 and declined to 10.4% in 1998 and 4.4% in 1999. Premium rates appear to be approaching the trough of this underwriting cycle. Earlier in the 1990s, the RONW fell to 7.9% in 1993, one year before RONW hit -1.4%. Continuing declines in premium rates will likely contribute to losses.

### Conclusions

The evidence appears to show that insurers are making medical malpractice insurance available to their constituent groups at reasonable rates. The growth in surplus lines insurers, offshore captives, risk-retention groups, and purchasing groups formed under the federal Risk Retention Act may indicate that many physicians and hospitals are dropping out of traditional insurance markets. It is concluded that the market for medical malpractice insurance is reasonably competitive.

The market for other commercial liability insurance shows that insurance is available at reasonable premium rates. This indicates that the market for other commercial liability insurance is workably competitive. As noted above, however, premium rates may be approaching the trough of the underwriting cycle and, in 2000, insurers may see their profitability turn negative.

## **BACKGROUND**

In the mid-1980s, concern about the so-called "liability crisis" caused businesses to seek a legislative solution to the high cost of liability insurance. Some persons who were concerned that this market was operating inefficiently called for increased regulation. Since little was known about the efficiency of the liability insurance market, many resisted a regulatory solution. In the end, the Michigan Legislature enacted Act No. 318 of the Public Acts of 1986, which amended the Insurance Code. The amended section 2409(c) requires the Division of Insurance to evaluate the state of competition in the commercial liability insurance market. The purpose of this report is to fulfill that mandate.

Section 2409(c) requires the Division of Insurance to complete a preliminary and a final report on the state of competition. The requirement of a preliminary report stems from the mistaken view that data will be available timely for the commercial liability market as is true for the workers' compensation market. Insurers submit data for the workers' compensation insurance market directly to the Compensation Advisory Organization of Michigan (CAOM) as they write workers' compensation insurance policies. Thus, CAOM can provide the data as requested by the Division of Insurance annually and semi-annually.

For the commercial liability report, the source of the data is the insurance company annual statements submitted annually in March and covering the previous calendar year. The data are submitted to the National Association of Insurance Commissioners (NAIC) and the states. The data are encoded by the NAIC and typically made available to the states in June of each year. These are the data used in the Division's by-line reports and annual report. Most of the data for the commercial liability report come from this NAIC database. The surplus lines data arrive semi-annually and calendar year statistics are not available until March of each year.

The profitability data used in this commercial report also come from the NAIC. The profitability statistics are generated from the annual statements after the data are encoded. The NAIC's Profitability Report typically comes out in November or December of the year following the statement year.

Due to the arrival times of these data, when the final report is produced in August there are new data available upon which to report. The timing of the profitability statistics requires use of the data from two years prior. The preliminary report, which is due January of each year, has no new data upon which to report except for the profitability data. This assumes that the NAIC's Profitability Report has been

published on schedule. Unfortunately, changes in the methods of calculating the profitability statistics have delayed publication of the Profitability Report the last couple of years until January. This has delayed completion of the commercial liability report.

In the spring of 2000, insurers filed data for this final report in their annual financial statements covering the 1999 calendar year. A public hearing addressing competition in the commercial liability insurance market was held on November 28, 2000. Information and, if applicable, testimony from the hearing and later submissions are used in preparing this report. As was true in all of the hearings since 1995, no one testified at the November 28, 2000 hearing.

In this preliminary report we will present the new profitability statistics published by NAIC that arrived near the end of January.

This report contains the statutory criteria for evaluating competition, the economic theory underlying the analysis, the exhibits reviewing the market structure in each insurance line, and the analysis of market structure and conduct. Much of the market performance data are from the Profitability Report, which include Loss Ratio and Return on Net Worth (RONW) statistics for Medical Malpractice and Other Commercial Liability insurance lines. This preliminary report reviews these data, which consist of cross-state comparisons.

Readers will note that to shorten the 1999 preliminary report, certain exhibits were eliminated. In order to maintain consistency, the numbering scheme of the exhibits retained in the 2000 preliminary report is identical to that in previous reports.

### Report Outline

This preliminary report is to evaluate and certify the state of competition in the commercial liability insurance market for 2000, as required by Public Act 318 of 1986. However, as discussed earlier, the Division of Insurance does not receive state-specific data until March and most of these data are not available until June.

This report evaluates data filed by insurers in the spring in their annual financial statements covering the previous calendar year. A public hearing addressing the issue of competition in the commercial liability insurance market was held on November 28, 2000. Typically, information and testimony from hearings and subsequent submissions are used in preparing this report. However, no one has testified at a hearing since 1995.

The remainder of the report is organized into five sections. The first covers the economic theory of using loss ratios and RONW to evaluate market performance. The second section covers testimony given at the public hearing. The third section covers the 1999 NAIC profitability data for medical malpractice insurance. The fourth section covers the 1999 NAIC profitability data for commercial liability insurance and how the data affect the conclusions presented in the final report. The final section reviews information on national trends taken from Best's and any implications the data might have for Michigan. The exhibit labels

presented here have been maintained from the final report to facilitate comparisons.

## **I. Economic Theory Regarding Market Performance**

Economic theory provides that a competitive market will achieve an optimal allocation of resources. This means that the market price will equal the cost of the last unit of output, each firm will produce a level of output where its average cost is minimized, and investors will receive a rate of return just equal to the cost of capital. In effect, a competitive market structure causes firms to behave competitively, which, in turn, leads to market performance favorable to customers. If the Michigan commercial liability insurance market exhibits workable competition, its performance should reasonably approach the perfectly competitive ideal.

### Profitability - Loss Ratios

A useful measure of the industry's efficiency and profitability is the statewide loss ratio, which can be calculated by dividing incurred losses by earned premium. In any given year, losses reported by insurers include current year losses plus changes in estimated liabilities for prior policy periods. A loss ratio is calculated by dividing incurred losses by premiums earned during the policy period. The loss ratio reveals the amount of actual loss protection received for each premium dollar paid. The portion of premiums not paid out in losses is available for expenses and profits. All else equal, higher loss ratios suggest greater cost efficiency and/or decreased profitability, while lower loss ratios imply decreased cost efficiency and/or increased profitability. An increase in competition and rates would tend to produce lower loss ratios. Conversely, a reduction in competition and rates would tend to result in higher loss ratios.

There is the question of what loss ratio will permit a commercial liability insurer to earn a fair rate of return on investment that is consistent with reasonable competition. Determination of such a loss ratio would depend on assumptions about investment income, expenses, premium-to-surplus ratios, as well as the shape of the 'loss-tail' to which it applies. The loss-tail refers to the shape of the stream of loss claims covered by the insurance policy. A long loss-tail means claims are typically paid many years subsequent to the policy year. Given the pattern of the loss payout data, it might be possible to calculate a hypothetical competitive loss ratio as a rough benchmark to be compared with actual experience to assess the efficiency of the industry.

Comparison with respect to an absolute hypothetical loss ratio is not the only way to evaluate insurer profitability. One might compare statewide loss ratios and profitability measures for Michigan relative to other similar Great Lakes states and the rest of the United States.

For purposes of the final reports and this report, calendar year loss ratios are shown in the Appendix in the (c) exhibits for Michigan, the other Great Lakes states, and the nation. Exhibits E-1 and E-2 contain loss ratio information for all states. A column is added for each year of data which shows the state's ranking among the 50 states and District of Columbia. The states are ranked from lowest-to-highest loss ratio, i.e., lower rank implies higher profits.

Using this information, insurer profitability in Michigan can be compared with that of other states. However,

one must exercise caution when using calendar-year loss ratios, because they compare incurred losses to premiums collected in the same calendar year rather than to the premiums collected for the policy years to which the losses are attributable. Since for many commercial liability lines only a small portion of calendar year losses are actually assigned to the premiums paid that year, an individual carrier's loss ratio will vary considerably depending on whether its business is expanding or contracting. As a result, such individual ratios may not be useful for ratemaking purposes. To the extent that, in aggregate, loss-tails are consistent from year to year, statewide loss ratios are a good indicator of state-to-state profitability and efficiency. The source for the (c) exhibits is the National Association of Insurance Commissioners profitability reports, which use state page by-line data from insurers' annual reports.

#### Profitability - Return on Net Worth

The National Association of Insurance Commissioners (NAIC) has developed profitability reports by state and by line of coverage. The by-state, by-line measure of profitability examined is the return on net worth (RONW). RONW is a percentage determined as the NAIC's estimates of operating profits in each line for a state divided by the NAIC's determination of net worth allocated to each line for the given state.

#### Underwriting Cycle

While the conditions for perfect and workable competition are stated in static terms, another factor, the underwriting cycle, influences the short-term performance of the commercial liability insurance industry.

The underwriting cycle consists of successive periods of increasing and diminishing competition. Competitive or "soft" markets are characterized by falling premium rates, increased availability, growing loss ratios, and reduced surplus. Together, these conditions elevate loss ratios and eventually cause insurers to raise their rates, restrict coverages, and reduce their volume of policies written. In the especially hard phase of the cycle, surplus lines insurers can dominate the less profitable coverages for admitted insurers. Eventually, increased rates and restricted coverages restore insurer profitability and surplus, which, in turn, spurs another round of price-cutting.

The status of competition in the Michigan commercial liability insurance market must be evaluated in a long-term context. Short-term increases in rate levels and profitability do not necessarily indicate a lack of competition if rates previously charged have been insufficient to cover costs. A lack of competition would be indicated by a *sustained* period of excessive rates with no retrenchment to reasonable levels. Competition should prevent rates from becoming excessive for an extended period of time. The objective of this report is to determine whether the Michigan commercial liability insurance market reasonably meets the standards of workable competition.

## **II. PUBLIC HEARING TESTIMONY**

On November 28, 2000, a public hearing was held to elicit public comment regarding the state of competition in the commercial liability insurance market. Individuals attending the hearing sought information on the reporting process. Four of the five were new to the business. None of the attendees testified. In

fact, the only testimony given by business was in 1988 from several canoe livery businesses that were having short-term problems obtaining insurance. The lack of testimony given since 1988 would appear to indicate that businesses are not having problems obtaining commercial liability insurance. Though not likely, it is possible that the lack of business participation indicates that businesses are unaware of the existence of a forum in which to air their insurance problems.

The American Insurance Association (AIA), in the past, has submitted testimony, but it has not testified on the status of competition in this market since 1995.

### **III. MEDICAL MALPRACTICE LIABILITY INSURANCE**

Medical malpractice insurance differs from other lines of insurance in the unusually long period between the event which created the potential liability and the date on which the liability litigation is resolved and payment on the claim is due. This is true even after the tort reforms in Public Act 349 of 1993, that limited the amount of time that can elapse between the onset of a medical problem and the time when an individual can file a claim. The liability tail remains long because many years may elapse before a problem surfaces. Insurance lines having inordinately long liability tails and economic and litigation uncertainties combine to greatly complicate premium rate-setting for insurers.

Problems in availability and price of medical malpractice insurance first appeared in the liability crisis of the mid-1970s when low profitability led to the departure of many traditional insurers from the market. There were several significant changes that arose out of this situation. One was the growth of physician- and hospital-sponsored insurers. Another was the change from predominantly occurrence policies to claims-made policies. An outgrowth of the tight markets of 1985 to 1987 was the movement to surplus-lines insurers, risk-retention groups, purchasing groups and offshore captive insurers. That movement continued through 1990, leveled off until 1993, and since has declined.

Exhibit 2(a) examines the structure of the top eight insurers in the medical malpractice insurance market over the years since 1991.

#### Market Performance

Exhibit 2(c) displays loss ratios for the last 10 years through 1999 for the Great Lakes states, which have economies similar to Michigan's. Appendix E-1 provides this information for all the states. A lower loss ratio gives a state a higher ranking (the state with the lowest loss ratio would be ranked 1). A lower loss ratio is favorable to insurers and unfavorable to purchasers. Based on national averages since 1990, a loss ratio of around 75% to 80% likely would give insurers reasonable profitability at reasonable premium rates.

The loss ratios for medical malpractice during 1990 through 1999 indicate adequate rate levels and more profitable years. For the 10-year period 1990 to 1999, nationally, the loss ratios have been very stable averaging around 61%, indicating that the line has been profitable over the decade.

The loss ratios in Michigan paralleled those of the nation for most years through 1994. In 1996, 1997,

1998, and 1999, the Michigan average loss ratios were 38%, 32%, 43%, and 48%, respectively, which depart significantly from the national figures. Overall, these four years have been very profitable for Michigan medical malpractice insurers. Typically, such profitability is due to the release of excess reserves arising out of favorable resolution of claims in prior years. Claims costs could be lower than anticipated reflecting greater price stability overall and in the medical sector and advances in medical technology.

As discussed above, one must exercise caution in evaluating insurer profitability based on loss ratios since calendar year loss data are not valid for assessing adequacy of rates and profitability of liability lines. Calendar year loss ratios compare premiums collected in a given calendar year to losses incurred that year, which relate mostly to policies purchased in earlier years. Thus, current premium rates might not be excessive if the low loss ratios that are currently being observed are due to the favorable resolution of claims.

Exhibit 2(d) shows Return on Net Worth (RONW) for the Great Lakes states since 1990 as reported by the NAIC. Appendix F-1 provides the same information for all states. The narrative part of the Appendix briefly explains how the NAIC calculated these data. A low RONW, other things equal, leads to a higher ranking, which is favorable to purchasers.

Throughout the period 1986 to 1994, the RONW for the medical malpractice insurance companies in Michigan hovered near the median level of comparable states and of all states at least until 1995. The RONW statistics indicate that the period from 1995 through 1999 has been more profitable for Michigan's medical malpractice insurance companies. However, insurer profits have trended lower over this period. The RONW in Michigan for 1999, was 10.9%, down from 15.4% in 1998. The downward trend since 1995 shows that insurers are behaving competitively. The RONW figures in Michigan have averaged 17.0% since 1990, 2.4% above the national average. A review of average profitability over this period shows insurer profits are not excessive.

#### Evaluation of Competition

Based on the evidence presented here, it would appear that the market for medical malpractice insurance is dominated by a few domestic captive insurance companies whose overriding purpose has been to control the rate of increase in premiums and to make medical malpractice insurance available to their constituent groups. Those not accepted for coverage by one of these insurers are often forced into surplus lines insurance. While this conclusion is largely conjecture, it appears reasonable, given that the Division of Insurance has not received complaints regarding insurance affordability or availability.

Insureds for which the market temporarily dries up during the market contraction phase may find attractive alternatives to their previous insurance arrangements. They may create their own insurers which can compete with their former insurers. Since 1989, there has been significant growth in surplus lines insurers, offshore captives, risk-retention groups, and purchasing groups formed under the federal Risk Retention Act. This indicates that many physicians and hospitals are choosing to drop out of the traditional insurance markets.

On the surface, the market for medical malpractice insurance appears to be oligopolistic, given the large market share held by the top three insurers. It is worth noting that the top four insurers were formed by health providers, largely due to high premiums and lack of availability of adequate coverage. Overall, the market appears competitive.

The industry's average loss ratios and average RONW over time supports this conclusion. Improved profitability for the period from 1990 to 1999 has improved the financial position of these insurers since the hard market of 1985. The improved profitability has encouraged the entry of new insurance companies, a lessening of market concentration, and a reduction of premium going to surplus lines carriers. However, the market remains oligopolistic and the new market entrants may have difficulty gaining market share from established larger insurers.

**Exhibit 2(a)**

**Rank, Market Shares and Concentration of the Admitted  
Medical Malpractice Insurance Market  
1991-1993**

<u>Year</u>	<u>Rank</u>	<u>Carrier Name</u>	<u>Written Premiums (\$1,000's)</u>	<u>Market Shares (%)</u>	<u>Sum of Shares (%)</u>
1991	1.	Michigan Physicians Mut Liab Ins	55,909	37.72	37.72
	2.	Physicians Insurance Co of MI	46,588	31.44	69.16
	3.	Michigan Hospital Assn Ins Co	18,370	12.40	81.55
	4.	Butterworth Insurance Exchange	3,861	2.61	84.16
	5.	American Continental Ins Co	3,448	2.33	86.49
	6.	Saint Paul Fire & Marine Ins Co	3,392	2.29	88.77
	7.	Clarendon National Ins Co	2,919	1.97	90.74
	8.	Medical Protective Company	2,728	1.84	92.59
1992	1.	Michigan Physicians Mut Liab Ins	59,654	38.06	38.06
	2.	Physicians Insurance Co of MI	48,616	31.02	69.08
	3.	Michigan Hospital Assn Ins Co	21,644	13.81	82.89
	4.	Butterworth Insurance Exchange	4,174	2.66	85.55
	5.	Clarendon National Ins Co	3,600	2.30	87.85
	6.	Saint Paul Fire & Marine Ins Co	3,058	1.95	89.80
	7.	American Continental Ins Co	2,921	1.86	91.66
	8.	Medical Protective Company	2,271	1.45	93.11
1993	1.	Michigan Physicians Mut Liab Ins	62,066	37.69	37.69
	2.	Physicians Insurance Co of MI	49,570	30.10	67.79
	3.	Michigan Hospital Assn Ins Co	25,468	15.46	83.25
	4.	Butterworth Insurance Exchange	4,159	2.53	85.78
	5.	Clarendon National Ins Co	2,757	1.67	87.45
	6.	Saint Paul Fire & Marine Ins Co	2,614	1.59	89.04
	7.	Medical Protective Company	2,104	1.28	90.32
	8.	American Continental Ins Co	1,919	1.17	91.48

**Exhibit 2(a)**

**Rank, Market Shares and Concentration of the Admitted  
Medical Malpractice Insurance Market  
1994-1996**

<u>Year</u>	<u>Rank</u>	<u>Carrier Name</u>	<u>Written Premiums (\$1,000's)</u>	<u>Market Shares (%)</u>	<u>Sum of Shares (%)</u>
1994	1.	Michigan Physicians Mut Liab Ins	60,824	35.86	35.86
	2.	PICOM Insurance Company	50,425	29.73	65.58
	3.	Michigan Hospital Assn Ins Co	21,637	12.76	78.34
	4.	American Continental Ins Co	6,763	3.99	82.32
	5.	Butterworth Insurance Exchange	4,874	2.87	85.20
	6.	Continental Insurance Company	3,788	2.23	87.43
	7.	Chicago Insurance Company	2,460	1.45	88.88
	8.	Insurance Company of the West	2,448	1.44	90.32
1995	1.	Michigan Physicians Mut Liab Ins	56,104	33.05	33.05
	2.	PICOM Insurance Company	48,272	28.44	61.49
	3.	Michigan Hospital Assn Ins Co	23,663	13.94	75.44
	4.	American Continental Ins Co	5,995	3.53	78.97
	5.	Butterworth Insurance Exchange	5,458	3.22	82.18
	6.	Continental Insurance Company	5,179	3.05	85.23
	7.	Frontier Insurance Company	3,034	1.79	87.02
	8.	Chicago Insurance Company	2,791	1.64	88.67
1996	1.	Michigan Physicians Mut Liab Ins	53,121	31.51	31.51
	2.	PICOM Insurance Company	45,937	27.25	58.76
	3.	Michigan Hospital Assn Ins Co	24,313	14.42	73.19
	4.	Butterworth Insurance Exchange	6,648	3.94	77.13
	5.	Frontier Insurance Company	5,640	3.35	80.48
	6.	American Continental Ins Co	5,037	2.99	83.46
	7.	Continental Insurance Company	4,746	2.82	86.28
	8.	Chicago Insurance Company	2,972	1.76	88.04

**Exhibit 2(a)**

**Rank, Market Shares and Concentration of the Admitted  
Medical Malpractice Insurance Market  
1997-1999**

<u>Year</u>	<u>Rank</u>	<u>Carrier Name</u>	<u>Written Premiums (\$1,000's)</u>	<u>Market Shares (%)</u>	<u>Sum of Shares (%)</u>
1997	1.	Michigan Physicians Mut Liab Ins	47,541	30.37	30.37
	2.	PICOM Insurance Company	41,439	26.47	56.84
	3.	Michigan Hospital Assn Ins Co	28,315	18.09	74.92
	4.	Butterworth Insurance Exchange	6,754	4.31	79.24
	5.	Frontier Insurance Company	4,939	3.15	82.39
	6.	American Continental Ins Co	3,876	2.48	84.87
	7.	Medical Protective Company	3,690	2.36	87.23
	8.	Continental Insurance Company	2,846	1.82	89.04
1998	1.	Mutual Insurance Corp of Amer	47,327	30.10	30.10
	2.	ProNational Insurance Co	36,695	23.34	53.44
	3.	Michigan Hospital Asn Ins Co	26,321	16.74	70.18
	4.	Michigan Professional Ins Exchange	6,723	4.28	74.49
	5.	American Continental Insurance Co	4,802	3.05	77.51
	6.	Frontier Insurance Co	4,579	2.91	80.42
	7.	Continental Casualty Co	4,246	2.70	83.12
	8.	Medical Protective Co	3,413	2.17	85.29
1999	1.	Mutual Insurance Corp of Amer	44,449	29.24	29.24
	2.	ProNational Insurance Co	37,980	24.99	54.23
	3.	Michigan Hospital Asn Ins Co	26,930	17.72	71.95
	4.	Michigan Professional Ins Exchange	7,781	5.12	77.07
	5.	Medical Protective Co	4,237	2.79	79.85
	6.	Star Ins Co	3,841	2.53	82.38
	7.	Frontier Ins Co	3,480	2.29	84.67
	8.	American Continental Ins Co	3,151	2.07	86.74

Source of Data: National Association of Insurance Commissioners Byline Statistics from Insurer Reports

**Exhibit 2(c)**

**Loss Ratios - Medical Malpractice with Rank of State (lowest L/R to highest)**

**1990 - 1999**

YEAR	1999		1998		1997		1996		1995		1994		1993		1992		1991		1990		Average	
	LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank	
US	73.9%		73.0%		57.8%		62.9%		59.3%		59.3%		64.6%		69.5%		55.7%		53.9%		60.9%	
Illinois	63.5%	18	81.8%	35	55.8%	24	54.6%	20	73.7%	39	86.7%	45	99.9%	49	108.9%	48	84.1%	45	63.6%	44	77.3%	45
Indiana	48.1%	13	30.2%	8	25.3%	9	55.8%	21	57.1%	29	19.5%	6	35.6%	10	17.1%	5	39.1%	17	46.6%	28	37.4%	4
Michigan	47.7%	11	43.4%	14	32.0%	12	38.1%	7	26.4%	4	59.6%	33	60.9%	37	57.7%	33	63.6%	38	59.3%	39	48.8%	19
Minnesota	43.0%	10	61.5%	20	-8.9%	2	70.0%	31	27.8%	5	38.3%	13	32.8%	7	38.3%	18	50.3%	27	18.9%	5	37.2%	5
New York	76.7%	31	78.5%	34	21.9%	8	49.5%	16	46.7%	15	73.3%	37	95.0%	47	144.7%	49	77.4%	44	64.8%	45	72.8%	39
Ohio	100.5%	43	92.0%	39	86.1%	38	79.3%	36	75.4%	41	50.0%	23	78.1%	44	63.9%	35	54.6%	33	44.6%	24	72.5%	37
Pennsylvania	120.0%	48	75.7%	30	70.7%	30	67.2%	30	56.9%	28	35.0%	9	51.6%	24	23.0%	6	102.2%	49	60.1%	42	66.2%	31
Wisconsin	29.5%	4	13.9%	3	-7.2%	3	13.0%	2	45.9%	14	19.0%	5	27.1%	5	45.6%	25	48.9%	26	59.5%	40	29.5%	3

**Exhibit 2(d)**

**Return on Net Worth (RONW) - Medical Malpractice with Rank of State (lowest RONW to highest)**

**1990 - 1999**

YEAR	1999		1998		1997		1996		1995		1994		1993		1992		1991		1990		Average	
	RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank	
US	5.1%		7.6%		12.6%		12.6%		12.7%		13.7%		15.3%		15.5%		15.9%		17.4%		14.6%	
Illinois	11.3%	41	5.7%	21	12.9%	27	18.2%	43	7.6%	18	5.4%	15	3.6%	7	5.5%	6	3.1%	11	14.4%	18	8.8%	15
Indiana	4.7%	29	14.8%	40	11.2%	26	11.2%	26	9.1%	21	23.3%	40	23.5%	40	31.1%	41	25.6%	38	22.2%	27	17.7%	36
Michigan	10.9%	40	15.4%	41	19.5%	42	20.4%	46	23.5%	48	13.8%	26	18.9%	31	22.1%	30	12.0%	17	13.8%	14	17.0%	32
Minnesota	9.9%	39	10.3%	30	35.9%	51	9.2%	24	28.2%	51	24.1%	41	32.1%	48	33.6%	44	17.8%	24	45.5%	46	24.7%	47
New York	7.4%	33	9.7%	29	20.7%	46	18.8%	45	19.9%	42	14.4%	29	13.8%	18	4.0%	5	13.3%	18	17.4%	22	13.9%	24
Ohio	-2.3%	15	-4.3%	9	4.7%	16	6.8%	19	6.5%	15	19.7%	36	12.4%	14	21.9%	28	13.4%	19	21.4%	25	10.0%	18
Pennsylvania	-6.9%	7	4.9%	19	8.4%	23	7.2%	20	10.5%	25	30.1%	47	20.3%	34	44.7%	49	-7.5%	4	13.8%	14	12.6%	20
Wisconsin	12.0%	43	18.9%	45	28.3%	49	25.1%	48	19.4%	41	28.0%	45	30.0%	47	25.0%	35	18.4%	26	10.5%	9	21.6%	45

Loss Ratio and Return on Net Worth Data from NAIC Report on Profitability By-line By State 1999

#### **IV. OTHER COMMERCIAL LIABILITY INSURANCE**

Other commercial liability insurance is a catchall category containing many lines of commercial liability insurance. For reporting purposes through 1990, this category included all types of commercial liability insurance except medical malpractice liability. Specifically, other commercial liability included municipal, liquor and product liability through 1990. In 1991, changes to insurers' annual financial statements required separate reporting of the product liability insurance. Other commercial liability also includes liability coverages such as general, directors and officers, manufacturers and contractors, errors and omissions, environmental impairment, protective, legal and contractual.

Exhibit 3(a) examines the structure of the top eight insurers in the commercial liability insurance market over the years since 1991.

#### Market Performance

Exhibit 3(c) gives 10 years of loss ratios calculated by the National Association of Insurance Commissioners (NAIC) and national rankings (highest being 1) for the Great Lakes states. Appendix E-2 provides the same information for all states and the District of Columbia. The states are ranked in order from lowest-to-highest loss ratio. Thus, a lower loss ratio implies a higher ranking, which reflects favorable conditions for insurers.

Exhibit 3(c) begins three years after the hard underwriting cycle of 1985 to 1987. The loss ratios in the early 1990s varied in a very profitable range through 1993. The loss ratio peaked in 1994 ending the last hard market.

Exhibit 3(c) reveals that the statewide loss ratios in Michigan have tended to follow national loss ratios over the 10 years presented, averaging 67.0% in Michigan and 70.5% nationally. Michigan loss ratios for other commercial liability insurance in 1996 and 1997 were 47% and 34%, respectively, indicating high profitability. Based on the data from 1999, the 91.3% level of incurred losses could indicate that profits are being squeezed. The 1999 national loss ratio, at 69.9%, is an average year.

Over the past 10 years, the Michigan loss ratio has tended to be near the median of the Great Lakes states and slightly above the national median. Thus, based on the evidence in Exhibit 3(c) for 1990 to 1999, insurers' profitability in Michigan does not appear to be out of line relative to the rest of the nation or comparable states.

Exhibit 3(d) displays for other commercial liability, RONW for the Great Lakes states since 1990 based on NAIC calculations. Appendix F-2 provides the same information for all states. The states are ranked in order from lowest to the highest RONW. Thus, a lower RONW implies a higher ranking among the states, which is favorable to purchasers and unfavorable to insurers (the opposite perspective of the loss ratio ranks because of the nature of the calculation). The narrative part of the Appendix summarizes how the NAIC calculates the RONW data.

Exhibit 3(d) shows the last 10 years beginning in 1990. Since 1990, the Michigan commercial general liability insurance market profit has been at or near the average of the Great Lakes states, and slightly above the national average. Since 1990, the average insurer RONW nationally was 8.2% and 11.2% in Michigan. Michigan's average rank, at 17th, is relatively favorable to purchasers.

The 1994 data showed a loss in the other commercial liability insurance lines in Michigan. Profitability has since rebounded to new heights. The insurance market has continued to be soft since 1994. The data for 1995 through 1997 indicate a rebound in insurers' profitability. The 1999 RONW data appear to reflect that insurer profits are being squeezed.

**Exhibit 3(a)**

**Rank, Market Shares and Concentration of the Admitted  
Other Commercial Liability Insurance Market  
1991-1993**

<u>Year</u>	<u>Rank</u>	<u>Carrier Name</u>	<u>Written Premiums (\$1,000's)</u>	<u>Market Shares (%)</u>	<u>Sum of Shares (%)</u>
1991	1.	National Union Fire Ins Co of Pit	64.655	12.58	12.58
	2.	Insurance Co of North America	26.425	5.14	17.72
	3.	Aetna Casualtv and Suretv Co	24.106	4.69	22.41
	4.	Federal Insurance Companv	24.041	4.68	27.09
	5.	Hartford Fire Insurance Co	13.890	2.70	29.79
	6.	North Pointe Insurance Co	13.480	2.62	32.41
	7.	Auto-Owners Insurance Companv	12.975	2.52	34.93
	8.	Michigan Mutual Insurance Co	12.167	2.37	37.30
1992	1.	National Union Fire Ins Co of Pit	78.695	15.30	15.30
	2.	Insurance Co of North America	38.128	7.41	22.71
	3.	Federal Insurance Companv	26.738	5.20	27.91
	4.	Aetna Casualtv and Suretv Co	22.701	4.41	32.32
	5.	North Pointe Insurance Co	13.757	2.67	34.99
	6.	Auto-Owners Insurance Companv	13.355	2.60	37.59
	7.	Home Insurance Companv	11.311	2.20	39.79
	8.	Citizens Ins Co of America	10.640	2.07	41.86
1993	1.	National Union Fire Ins Co of Pit	52.873	11.07	11.07
	2.	Federal Insurance Companv	27.615	5.78	16.85
	3.	Aetna Casualtv and Suretv Co	20.019	4.19	21.04
	4.	Continental Insurance Companv	14.773	3.09	24.14
	5.	Auto-Owners Insurance Companv	13.658	2.86	27.00
	6.	North Pointe Insurance Co	13.612	2.85	29.85
	7.	Home Insurance Companv	13.040	2.73	32.58
	8.	Continental Casualtv Companv	10.773	2.26	34.83

**Exhibit 3(a)**

**Rank, Market Shares and Concentration of the Admitted  
Other Commercial Liability Insurance Market  
1994-1998**

<u>Year</u>	<u>Rank</u>	<u>Carrier Name</u>	<u>Written Premiums (\$1,000's)</u>	<u>Market Shares (%)</u>	<u>Sum of Shares (%)</u>
1994	1.	National Union Fire Ins Co of Pit	74.700	13.36	13.36
	2.	Insurance Co of North America	46.569	8.33	21.69
	3.	Federal Insurance Companv	28.883	5.17	26.85
	4.	Aetna Casualtv and Suretv Co	22.913	4.10	30.95
	5.	Continental Insurance Companv	16.102	2.88	33.83
	6.	Continental Casualtv Companv	13.949	2.49	36.32
	7.	North Pointe Insurance Co	13.853	2.48	38.80
	8.	Auto-Owners Insurance Companv	13.800	2.47	41.27
1995	1.	National Union Fire Ins Co of Pit	81.946	14.29	14.29
	2.	Dorinco Reinsurance Companv	39.181	6.83	21.13
	3.	Centurv Indemnity Companv	30.754	5.36	26.49
	4.	Federal Insurance Companv	29.852	5.21	31.70
	5.	Aetna Casualtv and Suretv Co	21.275	3.71	35.41
	6.	Continental Insurance Companv	16.161	2.82	38.23
	7.	Continental Casualty Company	13.761	2.40	40.63
	8.	Auto-Owners Insurance Companv	13.568	2.37	43.00
1996	1.	National Union Fire Ins Co of Pit	49.114	8.50	8.50
	2.	Dorinco Reinsurance Companv	44.435	7.69	16.19
	3.	Insurance Co of North America	40.516	7.01	23.20
	4.	Federal Insurance Companv	31.905	5.52	28.72
	5.	Zurich Insurance Co US Branch	17.296	2.99	31.71
	6.	Continental Insurance Companv	15.391	2.66	34.37
	7.	Citizens Insurance Co of America	14.113	2.44	36.81
	8.	Continental Casualtv Companv	13.740	2.38	39.19
1997	1.	Federal Insurance Companv	36.258	7.15	7.15
	2.	National Union Fire Ins Co of Pit	30.720	6.06	13.21
	3.	Insurance Co of North America	26.368	5.20	18.42
	4.	Zurich Insurance Co US Branch	21.260	4.19	22.61
	5.	Continental Casualtv Companv	15.309	3.02	25.63
	6.	Citizens Insurance Co of America	14.609	2.88	28.51
	7.	Continental Insurance Companv	14.583	2.88	31.39
	8.	North Pointe Insurance Companv	13.574	2.68	34.07
1998	1.	National Union Fire Ins Co of Pit	43.779	8.66	8.66
	2.	Federal Insurance Companv	37.314	7.38	16.05
	3.	Zurich American Insurance Co	18.509	3.66	19.71
	4.	Citizens Insurance Co of America	15.446	3.06	22.76
	5.	Continental Insurance Companv	14.155	2.80	25.57
	6.	Auto-Owners Insurance Companv	13.386	2.65	28.21
	7.	Dorinco Reinsurance Companv	12.313	2.44	30.65
	8.	North Pointe Insurance Co	11.961	2.37	33.02

**Exhibit 3(a)**

**Rank, Market Shares and Concentration of the Admitted  
Other Commercial Liability Insurance Market  
1999**

<u>Year</u>	<u>Rank</u>	<u>Carrier Name</u>	<u>Written Premiums (\$1,000's)</u>	<u>Market Shares (%)</u>	<u>Sum of Shares (%)</u>
1999	1.	Dorinco Rein Co	93.657	15.55	15.55
	2.	National Union Fire Ins Co of Pit	38.271	6.35	21.90
	3.	Federal Ins Co	31.458	5.22	27.13
	4.	American Home Assur Co	21.268	3.53	30.66
	5.	Continental Ins Co	17.566	2.92	33.57
	6.	Zurich American Ins Co	17.207	2.86	36.43
	7.	Citizens Ins Co of Amer	16.501	2.74	39.17
	8.	Continental Cas Co	14.083	2.34	41.51

Source of Data: National Association of Insurance Commissioners Byline Statistics from Insurer Reports

**Exhibit 3(c)**

**Loss Ratios - Other Liability with Rank of State (lowest L/R to highest)**

**1990 - 1999**

YEAR	1999		1998		1997		1996		1995		1994		1993		1992		1991		1990		Average	
	LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank	
US	69.9%		71.0%		62.1%		71.7%		80.6%		71.1%		77.1%		73.0%		64.6%		64.5%		70.5%	
Illinois	76.5%	36	86.7%	45	53.0%	27	61.7%	33	98.8%	45	82.7%	46	106.7%	48	50.8%	28	84.4%	45	62.2%	37	76.3%	45
Indiana	53.7%	20	20.1%	2	85.0%	47	48.3%	18	75.7%	38	61.9%	35	60.6%	29	61.5%	38	44.2%	19	35.5%	5	54.6%	24
Michigan	91.3%	45	80.6%	37	33.7%	12	46.7%	16	73.0%	34	99.6%	49	70.8%	38	64.6%	39	52.4%	31	57.7%	33	67.0%	38
Minnesota	69.1%	33	54.8%	24	54.8%	31	51.3%	21	61.7%	21	58.4%	28	41.5%	13	44.3%	17	43.1%	18	50.0%	21	52.8%	39
New York	72.3%	35	91.6%	48	101.6%	50	106.8%	50	102.5%	46	97.8%	48	86.7%	43	94.6%	49	76.3%	41	77.6%	48	90.8%	51
Ohio	79.5%	38	47.6%	15	56.4%	33	87.4%	47	71.5%	33	70.6%	39	69.2%	37	43.7%	14	49.0%	26	58.8%	34	63.4%	29
Pennsylvania	110.7%	48	55.4%	26	117.0%	51	84.3%	45	109.0%	48	107.0%	51	91.0%	45	74.3%	43	65.6%	39	60.4%	35	87.5%	49
Wisconsin	44.8%	12	49.4%	20	41.4%	20	29.1%	3	64.3%	23	54.0%	22	55.9%	24	47.1%	22	51.1%	29	49.8%	20	48.7%	13

**Exhibit 3(d)**

**Return on Net Worth (RONW) - Other Liability with Rank of State (lowest RONW to highest)**

**1990 - 1999**

YEAR	1999		1998		1997		1996		1995		1994		1993		1992		1991		1990		Average	
	RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank	
US	8.0%		9.7%		12.1%		8.6%		2.6%		6.3%		6.4%		8.3%		10.3%		9.5%		8.2%	
Illinois	8.5%	24	5.7%	11	15.9%	26	11.6%	21	-1.8%	9	3.4%	11	-2.8%	7	20.3%	34	-0.5%	9	11.9%	17	7.2%	9
Indiana	13.4%	39	22.9%	48	7.3%	10	16.7%	35	3.9%	15	11.8%	25	14.5%	28	15.0%	20	21.0%	32	29.5%	47	15.6%	32
Michigan	4.4%	13	10.4%	23	22.0%	39	18.6%	40	8.4%	28	-1.4%	3	7.9%	15	15.5%	23	15.5%	22	11.1%	15	11.2%	17
Minnesota	8.1%	23	12.2%	9	15.7%	25	14.6%	28	8.0%	27	10.8%	22	23.1%	42	23.0%	43	22.4%	37	18.6%	32	15.7%	33
New York	8.5%	24	5.5%	10	3.0%	3	1.0%	3	0.5%	12	-0.8%	4	5.1%	11	1.4%	4	6.3%	11	3.6%	6	3.4%	5
Ohio	5.9%	17	16.6%	42	12.6%	16	4.4%	8	7.7%	26	7.2%	14	10.8%	19	22.9%	42	19.9%	30	15.1%	24	12.3%	23
Pennsylvania	-0.4%	5	13.1%	29	0.5%	1	4.8%	9	-3.6%	5	-10.7%	1	-1.1%	8	6.8%	8	10.6%	13	12.4%	19	3.2%	4
Wisconsin	12.3%	33	15.4%	34	16.1%	27	21.8%	45	9.7%	30	13.6%	31	15.8%	30	19.2%	31	16.1%	23	18.0%	30	15.8%	34

Loss Ratio and Return on Net Worth Data from NAIC Report on Profitability By-line By State 1998

## Evaluation of Competition

Based on the evidence, it is concluded that the market for other commercial liability insurance is reasonably competitive. The hard phase of the underwriting cycle in 1985 to 1987 caused higher premium rates and hampered availability through more restrictive underwriting practices that negatively affected certain businesses. However, since 1987, with the turnaround in the underwriting cycle, we have observed an unprecedented period of soft markets and a more muted underwriting cycle. Competition has restrained premium levels and availability though insurer profits fell in 1992 and 1993. Insurer profits rose from 1994 to 1997 and, as insurer reserves and surplus grew, availability, as measured by surplus lines share, improved. As noted above, the 1999 data indicate price competition in recent years has reduced premiums and may be squeezing insurer profits.

### **V. National Trends and Evaluation of Competition for 1999**

A. M. Best's Company tracks and reports on some national data as part of its insurance company tracking services. In the November 1, 1999 issue of Best Week, it presented the results of a study by Risk Management Solutions, which indicated that insurance companies had excess reserves of \$100 billion. In the November 8, 1999 issue of Best Week, A.M. Best's Company published a J. P. Morgan Securities Inc. survey of commercial rates showing that rates continued to decline in 1999, albeit at a low 0.8% rate. In the November 29, 1999 issue of Best Week, it indicated that insurer insolvencies were at the lowest level in the 30 years that they have maintained records. In the December 13, 1999 issue of Best Week, it published a property and casualty statistical study indicating that through the third quarter of 1999, P&C loss ratios were continuing to rise and that some insurers were beginning to strengthen their reserves.

All of these national results point to continued soft markets through the end of 1999. The rising loss ratios indicate that insurers are competitive. On the other hand, loss ratios have risen to the point where insurers are beginning to worry about the adequacy of their reserves. This could mean markets are approaching an end to declining rates with property and casualty insurance premiums probably leveling off in 2000.

Preliminary indications are that 1999 was a good year for buyers of commercial lines of insurance. Business experienced small declines in their insurance premiums. Declines in insurer rate levels, however, may be threatening profitability. It is concluded that this market remained competitive in 1999.

**Appendix E-1**

**Loss Ratios - Medical Malpractice with Rank of State (from lowest to highest)**

**1990 - 1999**

YEAR	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	Average
	LossR/Rank										
US	73.9%	73.0%	57.8%	62.9%	59.3%	59.3%	64.6%	69.5%	55.7%	53.9%	63.0%
Alabama	35.6% 7	39.9% 11	-41.8% 1	48.5% 14	58.0% 30	54.9% 26	59.0% 33	27.4% 8	24.1% 9	80.4% 47	38.6% 8
Alaska	115.9% 47	16.7% 5	10.2% 6	34.7% 5	45.3% 11	39.9% 17	47.2% 19	28.9% 10	19.0% 7	24.1% 9	38.2% 1
Arizona	71.1% 29	99.4% 42	73.5% 32	75.6% 34	37.2% 6	47.9% 22	52.7% 25	35.4% 13	50.5% 28	56.7% 38	60.0% 32
Arkansas	58.9% 15	98.6% 41	143.4% 50	102.0% 49	77.5% 43	39.0% 14	66.0% 38	50.2% 28	55.9% 35	59.7% 41	75.1% 44
California	42.0% 8	41.3% 13	44.3% 18	45.0% 11	41.5% 8	37.5% 11	38.1% 12	39.8% 21	9.0% 4	35.6% 18	37.4% 7
Colorado	50.9% 14	51.1% 16	29.6% 11	45.8% 12	52.6% 22	77.1% 41	48.6% 20	36.2% 14	36.6% 15	-0.7% 3	42.8% 17
Connecticut	124.2% 49	156.2% 50	66.3% 29	57.6% 22	49.4% 17	52.4% 24	50.2% 21	53.3% 31	33.3% 13	49.5% 29	69.2% 33
Delaware	-184.9% 2	16.4% 4	32.5% 13	98.9% 47	21.2% 2	-33.3% 1	51.5% 23	27.5% 9	97.5% 47	-23.1% 2	10.4% 11
Dist of Columbia	68.1% 27	103.0% 44	37.9% 14	94.6% 46	104.3% 51	36.4% 10	70.8% 42	172.1% 50	104.7% 50	103.6% 50	89.6% 49
Florida	84.8% 36	89.0% 38	98.2% 46	70.8% 32	86.2% 47	76.4% 40	54.6% 28	64.7% 36	45.4% 23	42.8% 23	71.3% 35
Georgia	89.0% 37	71.0% 25	72.9% 31	51.1% 18	47.2% 16	57.0% 31	41.6% 13	44.2% 24	44.5% 22	54.5% 36	57.3% 27
Hawaii	115.4% 46	73.3% 28	8.8% 5	58.9% 24	62.2% 32	92.2% 47	86.6% 46	-39.1% 1	69.2% 41	30.1% 13	55.8% 12
Idaho	-189.8% 1	330.0% 51	62.1% 28	24.9% 3	73.7% 39	37.8% 12	36.4% 11	46.5% 26	1.7% 2	32.4% 15	45.6% 36
Illinois	63.5% 18	81.8% 35	55.8% 24	54.6% 20	73.7% 39	86.7% 45	99.9% 49	108.9% 48	84.1% 45	63.6% 44	77.3% 45
Indiana	48.1% 13	30.2% 8	25.3% 9	55.8% 21	57.1% 29	19.5% 6	35.6% 10	17.1% 5	39.1% 17	46.6% 28	37.4% 4
Iowa	65.6% 21	32.2% 9	101.8% 48	43.5% 9	62.2% 32	7.0% 3	60.5% 36	36.8% 15	38.5% 16	30.3% 14	47.8% 15
Kansas	66.2% 22	50.8% 15	49.9% 23	50.2% 17	55.8% 27	65.8% 35	55.6% 30	26.7% 7	4.8% 3	46.2% 26	47.2% 13
Kentucky	66.7% 23	75.9% 31	84.5% 37	107.5% 51	99.2% 49	54.9% 26	101.1% 51	72.3% 42	52.8% 32	41.3% 21	75.6% 43
Louisiana	33.6% 5	52.1% 17	28.2% 10	47.7% 13	62.9% 34	28.3% 8	32.7% 6	37.2% 16	45.9% 24	74.8% 46	44.3% 14
Maine	66.9% 24	19.4% 6	-4.1% 4	48.8% 15	24.5% 3	22.1% 7	50.6% 22	70.8% 41	69.4% 42	52.4% 33	42.1% 10
Maryland	83.0% 35	111.2% 47	77.7% 35	76.9% 35	54.9% 24	70.6% 36	45.4% 17	50.8% 29	34.2% 14	62.7% 43	66.7% 34
Massachusetts	81.8% 33	86.3% 37	95.0% 44	61.8% 25	50.0% 18	6.5% 2	22.1% 4	11.8% 4	77.3% 43	32.8% 16	52.5% 22
Michigan	47.4% 11	43.4% 14	32.0% 12	38.1% 7	26.4% 4	59.6% 33	60.9% 37	57.7% 33	63.6% 38	59.3% 39	48.8% 19
Minnesota	43.0% 10	61.5% 20	-8.9% 2	70.0% 31	27.8% 5	38.3% 13	32.8% 7	38.3% 18	50.3% 27	18.9% 5	37.2% 5
Mississippi	138.4% 51	68.3% 23	145.0% 51	100.8% 48	76.7% 42	97.9% 49	33.5% 8	44.1% 23	40.1% 20	34.5% 17	77.9% 40

Source of Data: NAIC Report on Profitability By-line By State 1998

**Appendix E-1**

**Loss Ratios - Medical Malpractice with Rank of State (from lowest to highest)**

**1990 - 1999**

YEAR	1999		1998		1997		1996		1995		1994		1993		1992		1991		1990		Average	
	LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank		LossR/Rank	
Missouri	72.5%	30	59.6%	19	48.4%	21	92.4%	44	50.9%	20	54.7%	25	54.6%	28	51.3%	30	52.3%	31	45.7%	25	58.2%	29
Montana	82.0%	34	72.7%	27	60.0%	25	90.9%	43	51.4%	21	42.2%	19	53.5%	27	72.8%	43	39.6%	19	21.7%	7	58.7%	28
Nebraska	63.7%	19	28.4%	7	40.2%	17	39.4%	8	45.8%	12	46.8%	21	43.4%	15	30.0%	11	39.4%	18	41.0%	20	41.8%	9
Nevada	127.2%	50	108.3%	46	119.2%	49	94.1%	45	55.6%	26	83.8%	44	97.7%	48	37.6%	17	52.0%	30	40.4%	19	81.6%	42
New Hampshire	67.2%	25	34.6%	10	49.6%	22	35.2%	6	61.6%	31	88.5%	46	55.9%	31	8.2%	3	51.0%	29	28.4%	12	48.0%	16
New Jersey	34.7%	6	55.2%	18	60.8%	26	105.3%	50	79.9%	44	75.6%	38	80.6%	45	90.3%	47	90.6%	46	84.9%	48	75.8%	47
New Mexico	98.7%	42	112.7%	48	91.5%	41	89.4%	42	101.6%	50	80.1%	42	59.9%	35	67.6%	38	68.6%	40	52.8%	34	82.3%	46
New York	76.7%	31	78.5%	34	21.9%	8	49.5%	16	46.7%	15	73.3%	37	95.0%	47	144.7%	49	77.4%	44	64.8%	45	72.8%	39
North Carolina	96.8%	41	81.9%	36	95.6%	45	58.5%	23	64.2%	36	75.8%	39	70.1%	41	66.4%	37	61.4%	36	54.6%	37	72.5%	38
North Dakota	95.5%	39	-139.3%	1	46.0%	20	-6.9%	1	52.8%	23	138.7%	51	0.3%	2	69.2%	40	28.9%	11	4.3%	4	29.0%	2
Ohio	100.5%	43	92.0%	39	86.1%	38	79.3%	36	75.4%	41	50.0%	23	78.1%	44	63.9%	35	54.6%	33	44.6%	24	72.5%	37
Oklahoma	59.5%	16	72.3%	26	20.0%	7	85.7%	39	72.0%	38	56.3%	30	46.8%	18	188.5%	51	44.2%	21	49.9%	30	69.5%	41
Oregon	67.3%	26	75.4%	29	39.6%	16	65.7%	28	42.4%	9	39.3%	16	-0.5%	1	60.5%	34	-31.6%	1	22.2%	8	38.0%	6
Pennsylvania	120.0%	48	75.7%	30	70.7%	30	67.2%	30	56.9%	28	35.0%	9	51.6%	24	23.0%	6	102.2%	49	60.1%	42	66.2%	31
Rhode Island	95.5%	40	69.5%	24	77.0%	34	88.1%	40	68.9%	37	39.0%	14	43.2%	14	32.2%	12	11.8%	5	46.2%	26	57.1%	20
South Carolina	64.9%	20	108.1%	45	45.9%	19	53.3%	19	37.9%	7	57.3%	32	9.7%	3	0.5%	2	67.4%	39	51.7%	32	49.7%	24
South Dakota	42.5%	9	-3.5%	2	86.6%	39	75.3%	33	42.4%	9	41.4%	18	69.8%	39	47.7%	27	17.8%	6	53.2%	35	47.3%	18
Tennessee	109.6%	44	39.9%	11	98.4%	47	65.6%	27	55.0%	25	55.2%	29	44.3%	16	39.6%	20	24.7%	10	51.2%	31	58.4%	26
Texas	115.3%	45	100.9%	43	73.6%	33	81.7%	37	85.6%	46	93.5%	48	100.4%	50	85.4%	46	98.5%	48	122.4%	51	95.7%	51
Utah	6.7%	3	150.1%	49	92.3%	42	89.1%	41	81.6%	45	81.3%	43	71.5%	43	68.0%	39	55.2%	34	24.6%	10	72.0%	48
Vermont	47.5%	12	63.8%	21	38.9%	15	62.5%	26	16.7%	1	17.6%	4	35.3%	9	74.6%	44	32.9%	12	25.7%	11	32.1%	21
Virginia	69.4%	28	76.8%	33	61.8%	27	44.4%	10	50.6%	19	46.2%	20	59.7%	34	42.5%	22	46.2%	25	42.5%	22	54.0%	23
Washington	79.5%	32	64.5%	22	79.6%	36	66.6%	29	45.8%	12	61.3%	34	57.2%	32	56.5%	32	22.3%	8	20.5%	6	55.4%	25
West Virginia	93.7%	38	76.0%	32	92.8%	43	83.8%	38	88.3%	48	123.7%	50	70.0%	40	84.0%	45	111.0%	51	89.8%	49	91.3%	50
Wisconsin	29.5%	4	13.9%	3	-7.2%	3	13.0%	2	45.9%	14	19.0%	5	27.1%	5	45.6%	25	48.9%	26	59.5%	40	29.5%	3
Wyoming	60.4%	17	98.0%	40	91.0%	40	33.9%	4	64.1%	35	54.9%	26	53.1%	26	38.4%	19	61.6%	37	-76.5%	1	47.9%	30

Source of Data: NAIC Report on Profitability By-line By State 1999

**Appendix E-2**

**Loss Ratios - Other Commercial Liability with Rank of State (from lowest to highest)**  
**1990 - 1999**

YEAR	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	Average
	LossR/Rank										
US	69.9%	71.0%	62.1%	71.7%	80.6%	71.1%	77.1%	73.0%	64.6%	64.5%	70.6%
Alabama	122.5% 49	81.2% 39	80.8% 44	57.0% 29	68.4% 27	57.6% 27	52.7% 21	47.4% 23	59.4% 36	74.6% 47	70.2% 40
Alaska	68.7% 32	52.0% 21	30.6% 10	12.1% 1	48.9% 8	51.6% 21	66.9% 35	43.7% 14	97.6% 50	45.9% 17	51.8% 17
Arizona	85.5% 41	61.1% 31	65.9% 40	75.9% 42	63.4% 22	59.4% 29	77.8% 39	89.1% 48	92.8% 49	68.8% 45	74.0% 42
Arkansas	185.6% 51	43.2% 11	52.8% 26	54.1% 26	60.1% 20	38.5% 9	61.9% 31	48.4% 25	41.9% 17	36.6% 6	62.3% 34
California	67.0% 30	82.4% 41	70.6% 43	78.0% 43	95.3% 43	78.8% 44	130.5% 51	130.2% 51	76.3% 41	83.3% 50	89.2% 50
Colorado	64.7% 29	54.3% 23	-66.6% 1	146.4% 51	68.9% 30	49.4% 19	58.3% 27	52.3% 29	53.6% 32	62.7% 38	54.4% 23
Connecticut	95.8% 46	55.8% 27	59.3% 36	97.1% 49	97.8% 44	56.1% 24	79.2% 40	75.6% 45	72.4% 40	47.7% 18	73.7% 41
Delaware	82.3% 39	74.5% 36	68.6% 41	39.0% 9	128.1% 50	102.7% 50	66.6% 34	40.5% 11	87.9% 47	66.8% 43	75.7% 44
Dist of Colombia	39.4% 7	56.0% 28	57.7% 35	31.9% 5	47.6% 7	35.4% 5	53.3% 22	53.8% 33	36.4% 9	41.2% 11	45.3% 11
Florida	67.2% 31	52.8% 22	63.0% 37	69.6% 36	67.3% 26	61.7% 34	60.7% 30	77.4% 46	82.4% 44	63.9% 41	66.6% 37
Georgia	79.3% 37	47.6% 15	63.8% 38	52.2% 22	68.7% 28	49.1% 17	48.8% 18	57.8% 35	56.0% 33	57.0% 32	58.0% 27
Hawaii	46.8% 14	38.9% 9	41.1% 19	55.4% 27	46.7% 6	39.3% 10	32.4% 4	36.4% 5	36.1% 8	41.5% 12	41.5% 7
Idaho	50.6% 17	35.2% 7	40.2% 17	50.9% 20	130.8% 51	67.9% 36	80.6% 41	45.1% 19	35.2% 7	50.5% 23	58.7% 28
Illinois	76.5% 36	86.7% 45	53.0% 27	61.7% 33	98.8% 45	82.7% 46	106.7% 48	50.8% 28	84.4% 45	62.2% 37	76.4% 45
Indiana	53.7% 20	20.1% 2	85.0% 47	48.3% 18	75.7% 38	61.9% 35	60.6% 29	61.5% 38	44.2% 19	35.5% 5	54.7% 24
Iowa	43.7% 10	42.9% 10	39.9% 16	31.5% 4	36.9% 2	50.3% 20	34.5% 6	42.3% 13	41.3% 15	47.8% 19	41.1% 6
Kansas	56.1% 22	84.8% 43	28.1% 6	41.5% 12	55.1% 16	59.4% 29	49.3% 19	32.7% 3	49.1% 27	55.4% 30	51.2% 16
Kentucky	54.6% 21	34.8% 6	69.1% 42	75.7% 41	69.1% 31	38.2% 8	47.3% 17	50.1% 27	37.8% 11	43.5% 15	52.0% 18
Louisiana	83.5% 40	85.6% 44	87.4% 49	87.0% 46	84.7% 41	60.9% 31	62.9% 33	87.5% 47	116.6% 51	82.0% 49	83.8% 48
Maine	-12.2% 1	48.2% 19	34.4% 14	36.9% 7	75.2% 37	42.6% 12	37.9% 10	44.6% 18	34.2% 5	51.7% 25	39.4% 5
Maryland	58.8% 24	45.9% 12	28.9% 8	61.7% 33	54.8% 14	49.1% 17	58.5% 28	40.3% 10	35.1% 6	54.1% 28	48.7% 12
Massachusetts	26.7% 5	102.5% 49	33.7% 12	59.8% 31	56.7% 18	54.0% 22	40.5% 11	43.9% 16	64.5% 38	67.3% 44	54.9% 25
Michigan	91.3% 45	80.6% 37	33.7% 12	46.7% 16	73.0% 34	99.6% 49	70.8% 38	64.6% 39	52.4% 31	57.7% 33	67.0% 38
Minnesota	69.1% 33	54.8% 24	54.8% 31	51.3% 21	61.7% 21	58.4% 28	41.5% 13	44.3% 17	43.1% 18	50.0% 21	53.0% 39
Mississippi	91.2% 44	80.7% 38	64.5% 39	71.9% 39	68.8% 29	80.7% 45	50.2% 20	66.6% 40	47.4% 23	73.8% 46	69.6% 39

Source of Data: NAIC Report on Profitability By-line By State 1999

**Appendix E-2**

**Loss Ratios - Other Commercial Liability with Rank of State (from lowest to highest)**

**1990 - 1999**

YEAR	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	Average
	LossR/Rank										
Missouri	61.6% 28	81.6% 40	55.5% 32	59.2% 30	79.3% 39	67.9% 36	47.2% 16	71.8% 41	61.1% 37	64.0% 42	64.9% 36
Montana	57.5% 23	47.7% 18	-10.4% 2	53.6% 25	109.0% 48	60.9% 31	103.4% 47	52.6% 31	25.8% 4	41.0% 9	54.1% 22
Nebraska	51.9% 18	29.1% 5	20.9% 4	41.4% 11	36.7% 1	46.8% 16	43.4% 14	30.0% 2	39.4% 12	41.0% 9	38.1% 3
Nevada	108.1% 47	90.9% 46	56.9% 34	53.0% 23	54.8% 14	60.9% 31	56.8% 25	29.6% 1	41.8% 16	51.9% 27	60.5% 32
New Hampshire	48.6% 15	119.8% 51	41.4% 20	69.7% 37	66.2% 25	-3.3% 1	116.8% 50	52.5% 30	47.3% 22	33.3% 2	59.2% 31
New Jersey	50.5% 16	111.6% 50	84.7% 46	74.4% 40	108.3% 47	86.4% 47	62.4% 32	75.4% 44	59.3% 35	56.8% 31	77.0% 46
New Mexico	13.3% 2	35.7% 8	17.2% 3	59.9% 32	79.5% 40	71.6% 40	87.9% 44	52.7% 32	78.2% 43	43.6% 16	54.0% 21
New York	72.3% 35	91.6% 48	101.6% 50	106.8% 50	102.5% 46	97.8% 48	86.7% 43	94.6% 49	76.3% 41	77.6% 48	90.8% 51
North Carolina	24.6% 4	68.8% 35	34.5% 15	46.1% 15	49.6% 9	42.8% 13	45.3% 15	38.9% 7	37.6% 10	34.7% 4	42.3% 10
North Dakota	41.8% 8	22.3% 4	27.8% 5	21.6% 2	54.5% 12	33.4% 4	37.0% 9	40.8% 12	21.8% 2	34.6% 3	33.6% 1
Ohio	79.5% 38	47.6% 15	56.4% 33	87.4% 47	71.5% 33	70.6% 39	69.2% 37	43.7% 14	49.0% 26	58.8% 34	63.4% 35
Oklahoma	45.7% 13	83.2% 42	54.2% 29	69.8% 38	73.5% 35	38.1% 7	68.0% 36	48.1% 24	57.8% 34	50.0% 21	58.8% 29
Oregon	86.2% 42	68.3% 34	43.3% 23	55.7% 28	52.0% 10	46.6% 15	34.9% 7	49.4% 26	24.3% 3	40.3% 8	50.1% 15
Pennsylvania	110.7% 48	55.4% 26	117.0% 51	84.3% 45	109.0% 48	107.0% 51	91.0% 45	74.3% 43	65.6% 39	60.4% 35	87.5% 49
Rhode Island	52.0% 19	67.4% 33	81.2% 45	50.6% 19	65.9% 24	45.8% 14	40.6% 12	45.5% 20	39.7% 14	61.2% 36	55.0% 26
South Carolina	31.0% 6	55.1% 25	29.5% 9	62.5% 35	73.6% 36	57.3% 26	80.7% 42	39.4% 9	52.1% 30	42.9% 14	52.4% 19
South Dakota	18.9% 3	57.2% 29	32.6% 11	36.1% 6	54.5% 12	37.3% 6	36.4% 8	39.3% 8	39.5% 13	39.2% 7	39.1% 4
Tennessee	59.7% 25	46.6% 13	46.0% 24	38.9% 8	46.5% 5	39.4% 11	32.4% 4	34.2% 4	20.8% 1	51.1% 24	41.6% 8
Texas	61.5% 27	62.6% 32	54.2% 29	95.5% 48	87.0% 42	68.8% 38	102.6% 46	97.7% 50	87.8% 46	95.4% 51	81.3% 47
Utah	70.2% 34	21.1% 3	53.6% 28	41.6% 13	55.6% 17	56.9% 25	28.1% 1	60.0% 37	49.9% 28	51.8% 26	48.9% 14
Vermont	44.3% 11	47.4% 14	85.6% 48	80.6% 44	58.7% 19	74.4% 43	29.4% 3	54.0% 34	89.5% 48	24.1% 1	58.8% 30
Virginia	59.7% 26	47.6% 15	40.2% 17	46.7% 16	42.8% 4	26.9% 2	28.3% 2	38.2% 6	47.5% 24	41.8% 13	42.0% 9
Washington	88.1% 43	58.0% 30	51.2% 25	45.4% 14	70.1% 32	73.2% 41	53.5% 23	72.2% 42	44.2% 19	63.1% 39	61.9% 33
West Virginia	169.8% 50	90.9% 46	42.9% 22	53.5% 24	39.4% 3	73.4% 42	106.7% 48	58.5% 36	47.5% 24	63.1% 39	74.6% 43
Wisconsin	44.8% 12	49.4% 20	41.4% 20	29.1% 3	64.3% 23	54.0% 22	55.9% 24	47.1% 22	51.1% 29	49.8% 20	48.7% 13
Wyoming	43.4% 9	-21.8% 1	28.7% 7	39.2% 10	52.5% 11	27.0% 3	57.6% 26	46.9% 21	46.5% 21	55.3% 29	37.5% 2

Source of Data: NAIC Report on Profitability By-line By State 1999

**Appendix F-1**

**Return on Net Worth - Medical Malpractice Insurance with Rank of State (from lowest to highest)**

**1990 - 1999**

YEAR	1999		1998		1997		1996		1995		1994		1993		1992		1991		1990		Average	
	RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank		RONW/Rank	
US	5.1%		7.6%		12.6%		12.6%		12.7%		13.7%		15.3%		15.5%		15.9%		17.4%		12.8%	
Alabama	18.1%	47	17.9%	43	22.5%	48	15.2%	40	16.3%	37	16.0%	31	16.4%	27	31.1%	41	37.2%	43	-5.0%	3	18.6%	39
Alaska	-16.2%	2	19.0%	46	19.9%	45	13.9%	35	14.1%	35	11.3%	20	3.0%	6	16.0%	19	39.8%	47	38.0%	42	15.9%	28
Arizona	4.3%	27	-1.4%	12	4.7%	16	2.7%	14	12.4%	27	13.8%	26	14.5%	22	19.2%	23	14.6%	21	10.5%	9	9.5%	16
Arkansas	9.4%	37	0.7%	16	-13.8%	2	-4.7%	3	0.4%	7	16.0%	31	7.0%	9	15.2%	16	11.7%	16	8.3%	8	5.0%	6
California	8.8%	36	13.8%	38	13.8%	30	11.6%	28	12.9%	29	15.0%	30	15.1%	24	15.9%	18	37.7%	44	25.6%	33	17.0%	32
Colorado	11.4%	42	12.2%	37	20.9%	47	18.4%	44	8.1%	19	-3.6%	8	13.4%	16	26.1%	37	24.2%	35	62.7%	49	19.4%	41
Connecticut	2.0%	20	-4.5%	8	12.9%	27	13.7%	34	17.9%	39	16.3%	33	23.6%	41	22.0%	29	29.6%	40	21.5%	26	15.5%	27
Delaware	58.4%	49	19.8%	47	16.5%	36	1.9%	12	23.3%	47	53.7%	51	15.5%	26	30.0%	40	-6.9%	5	63.4%	50	27.6%	49
Dist of Columbia	8.1%	35	-5.4%	6	19.0%	41	-1.3%	9	-3.8%	4	25.8%	43	17.0%	29	-26.3%	2	-21.2%	1	-27.6%	1	-1.6%	2
Florida	-2.8%	12	-0.5%	14	-5.1%	6	7.7%	21	-4.7%	2	-0.7%	10	15.4%	25	14.7%	15	19.7%	29	23.5%	30	6.7%	9
Georgia	-0.6%	16	6.7%	23	6.9%	21	13.9%	35	14.6%	36	12.9%	24	23.2%	39	25.8%	36	19.0%	28	13.9%	16	13.6%	23
Hawaii	-16.6%	1	-4.7%	7	19.7%	43	3.5%	16	0.9%	8	-8.8%	4	-9.1%	2	54.5%	51	-1.2%	7	28.0%	35	6.6%	8
Idaho	76.5%	51	-68.4%	1	8.7%	24	21.2%	47	-0.1%	6	18.6%	35	14.8%	23	8.4%	9	53.2%	50	31.5%	37	16.4%	29
Illinois	11.3%	41	5.7%	21	12.9%	27	18.2%	43	7.6%	18	5.4%	15	3.6%	7	5.5%	6	3.1%	11	14.4%	18	8.8%	15
Indiana	4.7%	29	14.8%	40	11.2%	26	11.2%	26	9.1%	21	23.3%	40	23.5%	40	31.1%	41	25.6%	38	22.2%	27	17.7%	36
Iowa	5.7%	31	20.2%	49	-0.5%	8	17.4%	41	13.3%	31	35.8%	50	16.9%	28	31.8%	43	25.5%	37	34.1%	40	20.0%	43
Kansas	3.2%	25	9.0%	26	10.2%	25	13.6%	33	10.1%	24	4.2%	13	11.3%	12	35.1%	47	49.4%	49	17.7%	23	16.4%	29
Kentucky	2.3%	21	5.6%	20	3.1%	14	-3.9%	5	-2.8%	5	13.9%	28	-0.1%	5	13.6%	12	15.1%	22	24.1%	31	7.1%	11
Louisiana	12.5%	44	9.5%	28	17.7%	39	11.3%	27	2.1%	11	19.9%	37	22.8%	38	20.7%	26	20.9%	30	6.5%	7	14.4%	25
Maine	3.2%	25	18.8%	44	33.8%	50	12.9%	31	25.4%	50	29.4%	46	19.0%	32	14.0%	14	5.3%	12	13.9%	16	17.6%	35
Maryland	0.3%	17	-7.4%	4	1.2%	10	8.5%	22	7.1%	16	2.3%	11	14.2%	20	19.8%	25	23.0%	34	4.8%	6	7.4%	13
Massachusetts	4.7%	29	9.3%	27	7.0%	22	14.0%	37	16.7%	38	34.1%	49	28.3%	46	34.5%	46	0.5%	8	30.5%	36	18.0%	37
Michigan	10.9%	40	15.4%	41	19.5%	42	20.4%	46	23.5%	48	13.8%	26	18.9%	31	22.1%	30	12.0%	17	13.8%	14	17.0%	32
Minnesota	9.9%	39	10.3%	30	35.9%	51	9.2%	24	28.2%	51	24.1%	41	32.1%	48	33.6%	44	17.8%	24	45.5%	46	24.7%	47
Mississippi	-8.0%	5	7.0%	24	-18.3%	1	-5.2%	2	2.8%	12	-9.8%	3	26.2%	44	23.0%	33	22.3%	33	27.3%	34	6.7%	9

Source of Data: NAIC Report on Profitability By-line By State 1999

**Appendix F-1**

**Return on Net Worth - Medical Malpractice Insurance with Rank of State (from lowest to highest)**

**1990 - 1999**

YEAR	1999		1998		1997		1996		1995		1994		1993		1992		1991		1990		Average	
	RONW/Rank																					
Missouri	72.5%	50	59.6%	19	48.4%	21	92.4%	44	50.9%	20	54.7%	25	54.6%	28	51.3%	30	52.3%	31	45.7%	25	56.2%	51
Montana	1.8%	19	11.6%	35	14.5%	31	-5.8%	1	12.2%	26	20.1%	38	13.2%	15	7.2%	8	24.9%	36	46.5%	47	14.6%	26
Nebraska	6.7%	32	19.8%	47	15.4%	35	18.1%	42	13.6%	32	27.9%	44	25.5%	43	21.2%	27	35.9%	42	35.5%	41	22.0%	46
Nevada	-8.3%	3	-0.7%	13	-9.3%	4	-3.8%	6	13.6%	32	-3.5%	9	-11.0%	1	27.8%	38	14.0%	20	24.9%	32	4.4%	5
New Hampshire	2.3%	21	17.8%	42	13.4%	29	25.2%	49	9.9%	23	-5.5%	6	14.0%	19	42.0%	48	18.1%	25	32.4%	38	17.0%	32
New Jersey	17.0%	46	14.3%	39	14.7%	32	4.9%	17	7.3%	17	8.2%	16	9.6%	11	1.8%	4	-2.0%	6	-2.8%	4	7.3%	12
New Mexico	-2.5%	14	-12.2%	2	-6.0%	5	-1.6%	7	1.0%	9	-5.7%	5	5.8%	8	-3.7%	3	1.7%	9	14.4%	18	-0.9%	3
New York	7.4%	33	9.7%	29	20.7%	46	18.8%	45	19.9%	42	14.4%	29	13.8%	18	4.0%	5	13.3%	18	17.4%	22	13.9%	24
North Carolina	-4.1%	10	4.0%	18	1.2%	10	11.8%	30	8.4%	20	4.2%	13	11.9%	13	17.3%	20	7.8%	13	12.9%	11	7.5%	14
North Dakota	-4.8%	8	78.1%	51	16.6%	37	37.9%	51	20.0%	43	-21.9%	1	52.6%	51	18.2%	21	32.8%	41	52.7%	48	28.2%	50
Ohio	-2.3%	15	-4.3%	9	4.7%	16	6.8%	19	6.5%	15	19.7%	36	12.4%	14	21.9%	28	13.4%	19	21.4%	25	10.0%	18
Oklahoma	7.4%	33	5.7%	21	19.7%	43	0.8%	10	4.7%	14	9.7%	18	18.2%	30	-46.3%	1	21.2%	31	14.5%	20	5.6%	7
Oregon	9.8%	38	7.8%	25	14.9%	33	8.8%	23	20.4%	44	20.8%	39	45.0%	50	15.6%	17	65.9%	51	38.2%	43	24.7%	47
Pennsylvania	-6.9%	7	4.9%	19	8.4%	23	7.2%	20	10.5%	25	30.1%	47	20.3%	34	44.7%	49	-7.5%	4	13.8%	14	12.6%	20
Rhode Island	-2.8%	12	11.5%	33	0.6%	9	-4.3%	4	-5.6%	1	11.7%	21	23.9%	42	33.7%	45	39.6%	46	23.0%	29	13.1%	21
South Carolina	4.3%	27	-6.5%	5	14.9%	33	13.2%	32	22.9%	46	10.4%	19	34.5%	49	48.0%	50	8.4%	14	17.1%	21	16.7%	31
South Dakota	12.7%	45	31.3%	50	3.5%	15	2.9%	15	18.6%	40	24.3%	42	13.7%	17	22.4%	32	41.1%	48	13.6%	13	18.4%	38
Tennessee	-4.3%	9	11.5%	33	1.5%	13	9.8%	25	13.8%	34	11.7%	21	19.7%	33	22.1%	30	22.2%	32	12.9%	11	12.1%	19
Texas	-8.2%	4	-1.7%	11	6.7%	20	1.5%	11	-4.0%	3	-4.4%	7	-2.9%	4	5.6%	7	-9.4%	2	-26.3%	2	-4.3%	1
Utah	26.5%	48	-10.6%	3	1.4%	12	2.1%	13	3.5%	13	3.1%	12	9.0%	10	13.8%	13	9.4%	15	41.2%	44	9.9%	17
Vermont	0.7%	18	12.0%	36	17.9%	40	14.0%	37	24.4%	49	31.9%	48	26.5%	45	10.6%	10	27.7%	39	33.9%	39	20.0%	43
Virginia	2.5%	23	3.4%	17	6.3%	19	14.7%	39	12.8%	28	18.1%	34	14.2%	20	19.0%	22	18.9%	27	22.5%	28	13.2%	22
Washington	2.7%	24	10.3%	30	5.8%	18	11.6%	28	22.4%	45	12.5%	23	20.3%	34	19.7%	24	39.2%	45	44.5%	45	18.9%	40
West Virginia	-7.6%	6	-2.5%	10	-3.3%	7	6.1%	18	9.7%	22	-15.5%	2	20.7%	37	12.4%	11	-8.6%	3	-1.9%	5	1.0%	4
Wisconsin	12.0%	43	18.9%	45	28.3%	49	25.1%	48	19.4%	41	28.0%	45	30.0%	47	25.0%	35	18.4%	26	10.5%	9	21.6%	45
Wyoming	-3.1%	11	-0.5%	14	-11.8%	3	33.4%	50	1.1%	10	8.3%	17	-5.1%	3	28.4%	39	2.0%	10	142.9%	51	19.6%	42

Source of Data: NAIC Report on Profitability By-line By State 1999

**Appendix F-2**

**Return on Net Worth - Other Commercial Liability Insurance with Rank of State (from lowest to highest)**

**1990 - 1999**

YEAR	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	Average
	RONW/Rank										
US	8.0%	9.7%	12.1%	8.6%	2.6%	6.3%	6.4%	8.3%	10.3%	9.5%	8.2%
Alabama	-8.9%	3.0% 7	1.9% 2	12.1% 22	6.0% 21	12.7% 26	16.3% 32	18.0% 27	11.2% 15	0.7% 4	7.3% 11
Alaska	6.4%	12.2% 23	21.0% 37	30.7% 50	13.9% 42	9.8% 19	7.7% 14	14.7% 19	-18.1% 1	21.6% 35	12.0% 25
Arizona	1.0%	10.3% 20	7.2% 9	2.7% 6	6.9% 24	13.6% 31	7.1% 12	2.2% 5	-9.4% 3	3.6% 6	4.5% 7
Arkansas	-38.6%	18.0% 44	14.3% 22	16.3% 33	9.9% 31	22.5% 46	13.6% 27	14.1% 18	22.3% 36	28.1% 46	12.0% 42
California	5.7%	3.1% 8	6.4% 8	4.0% 7	-3.5% 6	2.4% 10	-11.3% 3	-13.1% 1	5.3% 10	-1.2% 2	-0.2% 1
Colorado	7.2%	12.7% 27	52.0% 48	-15.8% 1	4.9% 18	12.9% 27	12.4% 24	15.3% 22	14.8% 21	9.2% 14	12.6% 22
Connecticut	5.8%	16.2% 39	14.6% 23	-1.4% 2	-0.3% 11	11.5% 23	7.3% 13	2.7% 6	6.6% 12	21.4% 34	8.4% 11
Delaware	7.0%	9.9% 18	5.9% 6	21.8% 45	-15.9% 2	-2.5% 2	10.0% 18	20.9% 35	-6.2% 5	5.6% 8	5.7% 6
Dist of Columbia	20.3%	6.3% 14	13.4% 17	23.3% 47	14.4% 44	16.0% 35	17.0% 33	11.8% 14	27.3% 45	25.0% 42	17.5% 40
Florida	6.7%	14.4% 30	98.0% 51	7.5% 14	7.3% 25	10.5% 21	13.2% 26	8.2% 11	-2.0% 8	8.5% 10	8.4% 33
Georgia	3.7%	15.3% 33	90.0% 50	13.9% 25	4.5% 16	15.1% 34	15.9% 31	13.5% 15	13.0% 17	11.7% 16	11.6% 47
Hawaii	10.6%	16.2% 39	14.0% 21	11.0% 18	13.6% 41	16.7% 36	19.4% 34	23.1% 44	26.0% 43	23.8% 40	17.4% 38
Idaho	12.7%	16.5% 41	18.3% 32	19.4% 41	-21.4% 1	3.8% 12	-1.1% 8	20.9% 35	27.5% 46	16.5% 27	11.3% 20
Illinois	8.5%	5.7% 11	15.9% 26	11.6% 21	-1.8% 9	3.4% 11	-2.8% 7	20.3% 34	-0.5% 9	11.9% 17	7.2% 8
Indiana	13.4%	22.9% 48	7.3% 10	16.7% 35	3.9% 15	11.8% 25	14.5% 28	15.0% 20	21.0% 32	29.5% 47	15.6% 30
Iowa	15.9%	15.8% 38	18.7% 33	24.2% 48	21.6% 49	14.2% 33	26.3% 47	22.1% 39	22.2% 35	18.5% 31	19.9% 48
Kansas	4.7%	2.0% 6	16.5% 29	17.6% 38	10.5% 33	11.5% 23	15.4% 29	25.1% 48	17.9% 25	13.3% 20	13.5% 28
Kentucky	9.9%	18.0% 44	8.1% 11	5.6% 12	6.4% 22	21.8% 45	20.0% 36	17.7% 26	24.4% 40	22.4% 36	15.4% 32
Louisiana	1.9%	4.1% 32	3.8% 5	2.6% 5	-3.3% 8	8.3% 17	11.8% 22	0.0% 3	-13.7% 2	2.5% 5	1.8% 3
Maine	32.8%	14.9% 34	18.9% 35	20.9% 44	3.5% 14	20.1% 41	19.6% 35	22.8% 41	27.6% 47	16.4% 26	19.7% 36
Maryland	9.7%	15.4% 5	23.0% 42	9.6% 16	15.2% 45	17.4% 38	12.7% 25	21.7% 38	26.5% 44	14.7% 23	16.6% 35
Massachusetts	17.4%	1.4% 21	19.6% 36	12.9% 24	11.8% 34	13.2% 29	20.8% 40	19.6% 33	10.8% 14	8.5% 10	13.6% 18
Michigan	4.4%	10.4% 23	22.0% 39	18.6% 40	8.4% 28	-1.4% 3	7.9% 15	15.5% 23	15.5% 22	11.1% 15	11.2% 21
Minnesota	8.1%	12.2% 9	15.7% 25	14.6% 28	8.0% 27	10.8% 22	23.1% 42	23.0% 43	22.4% 37	18.6% 32	15.7% 37
Mississippi	1.7%	4.6% 17	10.9% 13	7.1% 13	6.6% 23	0.4% 6	20.0% 36	9.5% 13	19.1% 27	-0.4% 3	7.9% 9

Source of Data: NAIC Report on Profitability By-line By State 1999

**Appendix F-2**

**Return on Net Worth - Other Commercial Liability Insurance with Rank of State (from lowest to highest)**

**1990 - 1999**

YEAR	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	Average
	RONW/Rank										
Missouri	9.7%	8.0% 34	15.3% 24	14.7% 29	4.5% 16	8.2% 15	20.2% 38	9.0% 12	11.6% 16	8.6% 12	11.0% 16
Montana	7.8%	15.4% 47	34.7% 47	13.9% 25	-10.5% 4	10.2% 20	-11.1% 4	13.9% 16	36.6% 49	25.2% 44	13.6% 29
Nebraska	12.5%	22.2% 2	27.4% 46	20.5% 43	24.2% 51	20.5% 42	23.0% 41	31.7% 51	24.0% 39	24.6% 41	23.1% 50
Nevada	-10.3%	-3.0% 2	9.2% 12	12.3% 23	11.9% 35	9.2% 18	10.9% 20	18.7% 29	22.1% 34	15.5% 25	9.6% 23
New Hampshire	14.7%	-4.3% 1	16.9% 30	9.5% 15	8.7% 29	40.7% 51	-12.1% 2	17.5% 25	20.3% 31	31.0% 50	14.3% 27
New Jersey	12.7%	0.9% 4	62.0% 49	11.2% 19	-10.7% 3	-0.2% 5	11.6% 21	6.8% 8	13.2% 18	14.5% 22	6.6% 17
New Mexico	19.7%	20.2% 46	25.2% 43	11.2% 19	-1.1% 10	2.2% 9	-6.7% 5	15.2% 21	-2.2% 7	22.6% 37	10.6% 13
New York	8.5%	5.5% 10	3.0% 3	1.0% 3	0.5% 12	-0.8% 4	5.1% 11	1.4% 4	6.3% 11	3.6% 6	3.4% 4
North Carolina	21.9%	7.0% 16	22.7% 40	17.5% 37	14.1% 43	22.6% 47	20.2% 38	26.3% 49	25.4% 41	30.3% 48	20.8% 46
North Dakota	13.9%	28.3% 50	26.2% 45	28.3% 49	12.7% 40	27.8% 50	28.4% 49	24.2% 45	38.4% 51	30.8% 49	25.9% 51
Ohio	5.9%	16.6% 42	12.6% 16	4.4% 8	7.7% 26	7.2% 14	10.8% 19	22.9% 42	19.9% 30	15.1% 24	12.3% 10
Oklahoma	12.3%	5.8% 13	12.0% 15	5.1% 11	2.9% 13	20.8% 43	9.3% 17	19.5% 32	13.7% 19	19.8% 33	12.0% 19
Oregon	1.0%	6.6% 15	16.2% 28	14.3% 27	12.6% 39	17.0% 37	24.0% 44	18.7% 29	33.6% 48	25.0% 42	16.9% 41
Pennsylvania	-0.4%	13.1% 29	0.5% 1	4.8% 9	-3.6% 5	-10.7% 1	-1.1% 8	6.8% 8	10.6% 13	12.4% 19	3.2% 5
Rhode Island	12.3%	12.5% 26	6.1% 7	16.1% 31	12.3% 38	18.1% 39	23.5% 43	22.4% 40	25.8% 42	12.3% 18	16.1% 34
South Carolina	17.8%	12.7% 27	21.7% 38	10.9% 17	5.0% 19	13.1% 28	-0.1% 10	21.3% 37	14.6% 20	22.7% 38	14.0% 24
South Dakota	25.0%	10.0% 19	22.7% 40	20.4% 42	10.4% 32	23.0% 48	26.0% 46	24.5% 46	23.5% 38	25.8% 45	21.1% 44
Tennessee	10.3%	15.4% 34	17.3% 31	16.8% 36	17.4% 47	21.3% 44	27.8% 48	28.2% 50	38.1% 50	17.2% 28	21.0% 49
Texas	8.9%	12.3% 25	13.4% 17	1.0% 3	-3.4% 7	5.9% 13	-5.1% 6	-5.6% 2	-5.2% 6	-13.1% 1	0.9% 2
Utah	1.2%	24.6% 49	11.4% 14	17.8% 39	12.1% 37	13.4% 30	28.8% 50	13.9% 16	17.5% 24	17.8% 29	15.8% 39
Vermont	13.7%	16.6% 42	3.7% 4	5.0% 10	16.2% 46	8.2% 15	25.6% 45	18.4% 28	-6.5% 4	37.0% 51	13.8% 26
Virginia	10.4%	14.4% 30	18.7% 33	15.9% 30	20.2% 48	26.8% 49	30.3% 51	24.5% 46	18.1% 26	23.4% 39	20.3% 43
Washington	-0.4%	10.6% 22	13.5% 19	16.4% 34	5.3% 20	1.8% 8	11.8% 22	6.5% 7	21.4% 33	8.8% 13	9.6% 14
West Virginia	-17.6%	5.7% 11	13.9% 20	16.1% 31	22.6% 50	1.7% 7	-15.1% 1	16.7% 24	19.7% 28	7.6% 9	7.1% 15
Wisconsin	12.3%	15.4% 34	16.1% 27	21.8% 45	9.7% 30	13.6% 31	15.8% 30	19.2% 31	16.1% 23	18.0% 30	15.8% 31
Wyoming	15.1%	38.3% 51	25.7% 44	34.3% 51	11.9% 35	19.1% 40	8.2% 16	7.4% 10	19.8% 29	13.6% 21	19.3% 45

Source of Data: NAIC Report on Profitability By-line By State 1999

### **NAIC's Calculation of Return of Net Worth**

The purpose of this appendix is not to reproduce the explanations in the NAIC Profitability Report but to show how the NAIC calculates the statistics. Those who wish to pursue the technical aspects of these calculations should review that report.

Return on net worth is a percentage determined as NAIC's estimates of operating profits by line and by state divided by NAIC's determination of net worth that is allocated to the respective line and state. NAIC estimates by-line, by-state operating profits as the sum of three by-line, by-state ratios: an underwriting profit ratio plus a total investment ratio less a federal tax ratio. NAIC determines net worth in each line as national net worth allocated to each state and each line using, for a given line in a given state, that state's fraction of the national quantity including surplus, excess statutory reserves, unauthorized reinsurance, non-admitted assets, prepaid expenses, salvage and subrogation, and deducting deferred taxes. The following sections discuss the component ratios.

#### Underwriting Profits Ratio

To obtain the by-line by-state underwriting profit ratios, NAIC uses several factors determined as ratios of direct earned premiums. The by-line by-state underwriting profit ratios is the residual after subtracting from one (essentially the ratio of earned premiums to itself) the sum of the by-line, by-state ratios for losses incurred, loss adjustment expenses, general expenses, selling expenses, dividends, licenses, fees, and taxes. The paragraphs below discuss each component.

NAIC determines some of these ratios specifically to each state and line of insurance where data are available from each insurer's state page. From the state page-data, NAIC determines, for each line of insurance premiums earned, loss ratios (the most critical components of this calculation) and dividend ratios.

Recent changes to the annual statement have added to the state-page data allocated loss adjustment expenses, commissions and brokerage expenses, and expenses for state taxes, licenses and fees, each of which they develop into ratios of earned premiums. Prior to 1992, these data had to be allocated from national data in the Insurance Expense Exhibits. Prior to 1993, before NAIC mandated reporting of loss data on a net basis, loss data were adjusted by a factor of .997 to reflect salvage and subrogation recoveries. NAIC adjusts several of these ratios to put them on a Generally Accepted Accounting Principles (GAAP) basis.

Some data continue to be only available in the Insurance Expense Exhibit supplement to the Annual Statement at the national level and are not allocated to specific states. NAIC allocates the insurers' national by-line unallocated loss adjustment expenses to each state using each state's fraction of national losses incurred. The allocated and unallocated loss adjustment expenses are combined to obtain the by-line, by-state loss adjustment expense ratio.

General expenses are available by line but are not allocated by state. NAIC determines the general expense ratio as general expenses adjusted to a GAAP basis and divided by national earned premiums by-line. National by-line other acquisition expenses are allocated to each state and line using the respective ratio of

premiums earned to national premiums written. The denominators of the allocation ratios were chosen to adjust the data to a GAAP basis. After the ratio of by-line by-state other acquisition expenses to premiums earned ratio is determined, the commissions and brokerage expense ratio is added to obtain the selling expense ratio.

#### Total Investment Gain Ratio

The total investment gain ratio is one of the more complex and controversial ratios used in the RONW calculation. The by-line, by-state investment gain ratio is the ratio of investment gains allocated to each state and line divided by the respective premiums earned for the given line and state. Somewhat simplified, the calculation of the by-line, by-state investment gain is national investment gain allocated using the by-state and by-line fraction of the national quantity for surplus, less agent balances and plus reserves for losses, loss adjustment expense and unearned premium.

Obtaining the national and statewide quantities for agent balances and reserves for losses, loss adjustment expense, and unearned premium is straightforward. National surplus is also obtained easily as policyholders' surplus. NAIC allocates industry surplus by line and by state through the application of a given state and insurance line fraction of national earned premiums plus reserves for losses, loss adjustment expense and unearned premiums.

#### Federal Tax Ratio

NAIC estimates federal taxes for each line and state by applying the applicable tax rate to the respective underwriting profit ratio and total investment gain ratio. There are provisions estimating taxes on 15% of the interest on tax-exempt municipal bonds. Other adjustments include a double deduction for the drawdown of pre-1987 loss and loss-adjustment reserves, which are based on payout patterns.

**CERTIFICATION OF THE STATE OF  
COMPETITION IN THE  
COMMERCIAL LIABILITY INSURANCE MARKET**

I hereby certify that, based on the results of the economic tests specified in MCLA 500.2409 (c), a reasonable degree of competition exists at this time with respect to the Michigan commercial liability insurance market.

A handwritten signature in cursive script, reading "Frank M. Fitzgerald", is written above a solid horizontal line.

Frank M. Fitzgerald  
Commissioner of Financial and Insurance Services

Date: February 28, 2001