MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS

ADVISORY COUNCIL
Report on Competitive Rating
June, 1989

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Tillinghast

a Towers Perrin company

June 26, 1989

Mr. Stevens Day
Executive Director
Advisory Council
Department of Industrial Accidents
600 Washington Street
Boston, MA 02117

Dear Mr. Day:

Attached is our report providing a compilation of data to be used by the Advisory Council in evaluating the potential costs and benefits of a competitive rating system. The final report reflects editorial corrections to our draft report.

We are available to answer any questions you might have on the report.

Sincerely,

John P Tierney

John P. Tierney, FCAS, MAAA
Consulting Actuary

JPT:jmm
Enclosure

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MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
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EXECUTIVE SUMMARY

PURPOSE AND SCOPE

Tillinghast, a Towers Perrin Company, was engaged by the Commonwealth of Massachusetts, Department of Industrial Accidents (DIA) to assist the DIA's Advisory Council in the compilation of data to be used by the Advisory Council in evaluating the potential costs and benefits of a competitive rating system for workers' compensation in Massachusetts.

CONDITIONS AND LIMITATIONS

This review is based on information compiled by the DIA and various other agencies and orgainizations, such as the National Council on Compensation Insurance (NCCI), A.M. Best (Best), and the Workers' Compensation Rating and Inspection Bureau of Massachusetts (WCRIBM). Although we have not independently audited any of this data, we have no reason to question the reliability of these sources.

We have in accordance with the scope of our engagement compiled data which we believe to be relevant to the question being addressed by the Advisory Council. The information in this report is based upon a review of publicly available information that could be compiled in the time frame available for review. While we believe the data presented here is relevant to the Advisory Council's needs, it is by no means an exhaustive compilation of data. There are some areas where we believe additional information, which was not readily available, would be worthy of further investigation. We have identified these areas in our report. We have made no recommendations as to the advisability of adopting a competitive rating law in Massachusetts.

SUMMARY OF ANALYSIS

- We reviewed data over the last ten years relating to Massachusetts and twelve other states which we identified as having had experience under a competitive rating law. The experience in the competitive rating states is limited, and conditions vary from state to state, so conclusions must be very general.

- From 1978 to 1988, published workers compensation rate increases in Massachusetts were lower than those reported in seven of the twelve competitive rating states. Of the five states with lower rate increases over the full ten year period, four had much higher rate increases than Massachusetts since 1984. The states which first introduced competitive rating in 1982 - 1984 generally experienced rate decreases in the initial years, but significant rate increases in subsequent years.

- For the most part, premium dollars collected by insurers have grown more rapidly than rates over the time period reviewed. We found less correlation between growth in published rates and growth in premium dollars in some of the states which were among the first to introduce competitive rating. This suggests less uniformity of pricing practices among insurers in those states.

- The states with competitive rating reported higher average loss ratios (more benefits per premium dollar) than the national average from 1978 to 1987. Massachusetts average loss ratio during this time period was higher than all but four of the competitive rating states. The competitive rating states showed more variance in year to year loss ratios and more evidence of cyclical pricing than either Massachusetts or the nation as a whole.

- The competitive rating states report lower policyholder dividends per premium dollar than the national average. Massachusetts' dividend ratio is higher than all but two of the competitive rating states, but is still below the national average. The competitive rating states with their higher loss ratios and lower dividend ratios appear to compete more directly through upfront lower premium charges rather than through post-policy dividend ratios.

- We saw in virtually all of the states we looked at a lessening of market share concentration from 1979 through 1984, and then an increase in market concentration from 1985 to 1987.

This appears to be tied to the cyclical competitive swing in the commercial lines market during that time period and the variations in the size of the residual market, which is generally serviced by the larger carriers.

- We saw no evidence of a correlation between the number of insurers in a market and the introduction of competitive rating.

- Residual market size in virtually all of the states we reviewed grew rapidly from 1983 through 1987. The rate of growth was generally more extreme in the competitive rating states than in Massachusetts, which had a much larger residual market to start.

- Massachusetts rates charged in 1988 for the five largest Massachusetts employer classifications were generally lower than those published in the competitive rating states for those classifications.

- Other elements which are affected by competition but for which data is not available include self-insurance populations, premium financing programs and retrospective rating plans.

- While data is not available regarding geographic availability of insurance, we suspect that Massachusetts' small size and widely distributed population centers should not result in any geographic distinctions in market availability. Insurers have claims offices in many areas of the state and close to the state borders.

- There is little data available regarding the impact of competitive rating on various classifications, but insurers in most markets generally are reluctant to voluntarily insure the highest risk classifications like logging or shipbuilding.

- The are other considerations relating to current market conditions in Massachusetts which could impact the viability of a competitive rating law at this time. First a number of insurers have recently withdrawn from the market. Second, there appears to be substantial growth taking place in the residual market as insurers are reducing their level of voluntary writings.

ANALYSIS

As the basis of our analysis, we compared data arising from the Massachusetts workers' compensation insurance system with data from twelve other states which have been identified as having had at least some aspects of a competitive rating law in place.

The data elements we reviewed were those which, in our opinion, are indicative of competitive conditions in a given market, whether directly or indirectly. The data elements reviewed are discussed in detail later in this analysis section.

STATES REVIEWED

This section provides a brief description of the states reviewed as part of this analysis. The fifty states, District of Columbia and Puerto Rico each have their own rating laws as they apply to workers' compensation insurance. The states can be grouped into four broad categories of regulatory systems. They are as follows.

1. **Monopolistic Fund States.** These states are Nevada, North Dakota, Ohio, Puerto Rico, Washington, West Virginia and Wyoming. In these states, an agency of the state government is the mechanism for providing insurance; there are no commercial insurers providing coverage. Self-insurance is generally the only alternative to the state fund for employers, and this option is generally only available to the largest employers or groups of employers. Not only is there no price competition available in these states, there is no competition in areas such as service since there is a single provider.

2. **Mandatory Bureau States.** Massachusetts is included in this group, along with California, Hawaii, New Jersey, Texas and Wisconsin. In these states, all insurers are required to adhere to the rates produced and filed by a single rating bureau. In the case of Massachusetts, this is done by the WCRIBM, which compiles industry loss experience and prepares rate filings for review and approval by the Division of Insurance of the Commonwealth of Massachusetts. This type of rating law does not provide for price competition, but it does allow individual insurers to compete in areas such as dividend plans, financing arrangements, and service.

3. **States with Deviations and/or Schedule Rating Permitted.** This form of rate regulation is the dominant form of regulation, with 27 jurisdictions having a rating law of this type. Under this system, a rating bureau files rules and rates on behalf of the insurance companies. In 21 of the 27 jurisdictions, this work is done by the NCCI. Individual companies are allowed to deviate from bureau rates, but they are not required to do so. Companies are also allowed in many of these jurisdictions to use schedule rating credits and debits with individual insureds. Thus, while there is an industry standard rate, companies can compete through price differentiation.

4. **Competitive Rating States.** The remaining twelve states have rating laws which require individual insurers to file their own rates. The form and degree of competitive rating laws varies. Some states allow reference and use of advisory rates published by rating bureaus. Others require individual companies to justify and develop their own rates. The twelve states which are considered by the NCCI to be competitive rating states are as follows.

STATE	EFFECTIVE DATE	
Arkansas	June	1981
Georgia	January	1984
Illinois	August	1982
Kentucky	July	1982
Maine	January	1986
Maryland	January	1988
Michigan	January	1983
Minnesota	January	1984
New Mexico	October	1987
Oregon	July	1982
Rhode Island	September	1982
Vermont	July	1984

It is obvious from this list that some of the states have had very limited experience under a competitive rating law. Maine's law has already been revised back to a deviation/schedule rating type law. While the experience of some of these states is limited, we included all of them in our comparison group, but focused on the ones which introduced competitive rating prior to 1985.

We would characterize six of the twelve competitive rating states as having complete competitive rating provisions. These states are Kentucky, Maryland, Michigan, Minnesota, Oregon and New Mexico. In these states, insurers are required to file

their own rates. Rating bureaus still publish advisory pure premiums, but individual insurers are required to develop their own rates. These rates are not subject to prior approval by state authorities. For the brief time that Maine had a competitive rating law, it followed the format of these six states.

The other five competitive rating states (Arkansas, Georgia, Illinois, Rhode Island and Vermont) allow insurers to adopt advisory rates. In Rhode Island, only insurers with a market share in excess of 1% are subject to the competitive rating law, and their rates are subject to prior approval.

DATA REVIEWED

In determining the data elements to be reviewed, we focused on what we considered to be important results of a competitive environment. The following elements were reviewed:

1. **Rate Level Histories.** This information measures the change in industry rate levels from 1978 to 1988. For the competitive rating states, this measure is an imperfect one since the rate change data is usually compiled only for the involuntary markets. This data element can be reviewed to determine how rates changed before and after the introduction of competitive rating. This information was derived primarily from NCCI publications.

2. **Written Premium Growth.** This measures the change in written premiums collected by insurers since 1978. This is a measure of both inflation in costs and absolute growth in a market. It also provides a measure of the before and after effect of competitive rating laws. This information was derived from A.M. Best publications.

3. **Industry Loss Ratio.** This ratio, defined as incurred losses divided by earned premium, is an indirect measure of insurer profitability. As the loss ratio goes up, the insurer is making less money, implying that the employer has received a lower price in relation to covered losses. Likewise, when the loss ratio goes down, it implies that the insurer is making more money and the employer has paid a relatively higher price. This ratio is usually inversely correlated with the rate of growth in rate changes and written premiums. This information was derived from A.M. Best publications.

4. **Adjusted Industry Loss Ratio.** This ratio is similar to the loss ratio noted above, except that it includes policyholder dividends in the numerator of the ratio. Dividends to policyholders are a tool used by insurers to enhance their competitive position. This information was derived from A.M. Best publications.

5. **Dividend Loading.** This ratio is the difference between the adjusted industry loss ratio and the industry loss ratio. It provides a measure of dividend activity relative to premiums. One would expect this ratio to drop as the industry loss ratio increases.

6. **Market Share.** We reviewed several indicators of market share data, all of which was derived from A.M. Best publications. We reviewed the market share of the top five and top ten writers to get a measure of market concentration. In general terms, increasing market concentration can be considered a sign of decreasing competition, and vice versa. We have also compiled data on the market share of national agency companies, regional or state agency companies and direct writers. Finally, we compiled information on the number of companies writing business in the state. All of this information was reviewed to see what impact, if any, the introduction of competitive rating had on market structure.

7. **Residual Market Data.** This data was compiled from information published by the NCCI. Since workers' compensation insurance is mandatory for employers, residual market mechanisms have been created to provide coverage for employers who cannot get coverage through the voluntary market. The size of the involuntary market is correlated with insurers' perception of rate adequacy. If rates are perceived to be inadequate, the residual market would be expected to grow. If insurers perceive rates to be adequate, they will compete for business and the residual market should decline. The information compiled for the residual market includes written premium growth, loss ratio and market share.

8. **Rates for Major Employee Classifications.** While rates charged for a given classification of employment are not an indicator of competition from state to state, this information gives some perspective on the current cost of workers' compensation in the various states. We compiled information on the current rates charged in the various states for Massachusetts' major employment classifications.

ORGANIZATION OF EXHIBITS

Exhibit I, Sheets 1 to 14 summarize the data we reviewed, excluding classification rates, for the twelve competitive rating states, Massachusetts, and the United States. Exhibit II, Sheets 1 to 13 give a more detailed presentation of the rate change information by state. Exhibit III presents classification rates by state.

Detailed materials supporting the preparation of these exhibits are available upon request.

OBSERVATIONS ON DATA ELEMENTS

The following discussion presents observations regarding each of the data elements reviewed. The focus of these comments will be to compare Massachusetts results with the other states.

1. **Rate Level Histories**

   Since 1978, overall Massachusetts rate levels have increase by 75.9%. Excluding the impact of changes in benefit levels during that time, rates have gone up 59.3%. Only five of the competitive rating states (Arkansas, Kentucky, Michigan, Minnesota, Vermont) have had lower rate increases during that time period. It must be noted that the Massachusetts data is representative of the entire market, while the other states data is based on either advisory rates or rates for involuntary risks subsequent to the adoption of the competitive rating law. It is possible, due to competitive conditions, that actual rates charged by insurers have changed at a different rate than shown here for the competitive rating states.

   While the magnitude of the increases are subject to some question, it is clear that the competitive rating states have not had rate increases over the past ten years significantly below the magnitude experienced by Massachusetts. Reviewing the changes on a year by year basis, it appears that the states which first introduced competitive rating laws also implemented rate decreases at the same time. However, rates have continued upward subsequent to the introduction of competitive rating. In fact, of the five states noted above that had lower rate increases than Massachusetts from 1978 to 1988, four have had much higher rate increases than Massachusetts from 1984 to 1988.

2. **Written Premium Growth.**

   Massachusetts written premiums grew by a cumulative 207.8% from 1978 to 1987, higher than all but three of the competitive rating states. The difference between Massachusetts cumulative rate of premium growth and its cumulative rate changes during the same time period is higher than any of the competitive rating states. There are several possible explanations for this observation:

   i. Varying rates of economic growth.

      An expanding economy will result in a growth in premium even without any rate level growth. Massachusetts economic growth in the 1980's may explain the high growth in written premium.

ii. Changes in benefit levels.

If benefits are substantially reduced through legislative changes, premium dollars could go down even though rate levels are going up. Three of the competitive rating states had significant reductions in benefits during this time period. These states (Kentucky, Michigan, and Minnesota) were also three of the four states that had cumulative premium growth lag behind cumulative rate growth.

iii. Unmeasurable rate level effects.

The use of experience rating plans in workers' compensation is intended to keep premium dollars and losses in balance. When rates are not adequate, the experience rating plan should generate an excess of debits over credits and make up part of the rate inadequacy. Likewise, when rates are redundant, the experience rating plans should generate an excess of credits over debits and refund part of the redundancy. From 1978 to 1987, Massachusetts rates were increased in three of the ten years; in the other years no rate change was implemented. This is in contrast to most of the other states, which had rate changes of some magnitude in most years. Only Maine and Rhode Island show the same pattern of only a few rate changes during the ten year period. These two states also showed a much higher rate of premium growth relative to rate change growth. This suggests that the lack of rate changes was made up for in part by an increase in experience rating debits.

We also observed that the correlation between cumulative premium growth and cumulative rate level growth was the least in states such as Arkansas, Kentucky and Michigan, which were among the first to introduce extensive competitive rating laws. This suggests less uniformity of pricing practices in those states.

3. **Industry Loss Ratio.**

From 1978 to 1987, the industry loss ratio in Massachusetts averaged 88.7%, or 14.1 points above the United States average. Massachusetts' average loss ratio was higher than eight of the twelve competitive rating states. Only Kentucky (89.8%), Maine (129.2%), Minnesota (92.0%) and Rhode Island (108.9%) had higher loss ratios for the ten years. Maine and Rhode Island had very little competitive activity during that time. Massachusetts' loss ratio was lower than the countrywide average only in 1984 and 1985, when national results deteriorated sharply. Massachusetts loss ratio deteriorated sharply in 1986 and 1987 while national results held steady.

at or below the national average dividend loading. Generally speaking, the competitive rating states have higher loss ratios and lower dividend ratios than the national average. This would seem to imply that in the competitive rating states insurers compete more directly through lower premium charges whereas the dividend ratio is given greater weight as a competitive tool in the non-competitive rating states.

6. **Market Share Data.**

From 1979 to 1984, Massachusetts experienced a gradual drop of market share for the largest insurers, and from 1985 through 1987 there was an increase in market share for the largest insurers. In other words, the industry went through a five year period of declining concentration followed by a three year period of increasing concentration. This movement was experienced on a national scale and generally in the competitive rating states. There appears to be two explanation for this. First, the deconcentration of market share coincides with the period when the property/casualty industry's commercial lines markets were softening, and market competition was quite high. While the price competition was greater in the other commercial lines, there might have been an impact on the market shares of the largest workers' compensation writers as commercial accounts changed companies.

A second explanation for this movement in concentration may be due to the size of the residual market. The residual market is generally written by a number of servicing carriers, who are also the largest insurers. Thus, as the residual market grows, the reported market share of the largest carriers will also grow, and vice versa. The residual market data discussed below indicates that there was a significant increase in the size of the residual market in virtually all states starting in 1985. There did not seem to be any movement in the concentration of business in the competitive rating states related to the implementation of competitive rating.

We also reviewed market shares of the national agency companies, state/regional agency companies, and direct writers. Massachusetts has a higher concentration of direct writers than is the case nationally, which may help to explain the higher dividend ratio in the state as the direct writers generally pay out dividends at a higher rate than the agency companies. There did not appear to be any shift in the market share by type of company in the competitive rating states associated with the introduction of competitive rating.

7. **Number of Companies.**

The number of insurers providing workers' compensation insurance in Massachusetts between 1978 and 1987 has varied between 99 and 103. The number of state/regional companies has grown during that time, and the number of direct writers has declined. The number of insurers in Massachusetts is lower than the number in all but four of the competitive rating states; namely Maine, Oregon, Rhode Island and Vermont.

Of the nine states that introduced competitive rating prior to 1985, four have experienced a decline in the number of insurers, while four have experienced an increase. There does not appear to be any appreciable impact on the number of insurers offering coverage due to the introduction of competitive rating.

8. **Residual Market Data.**

The residual market premium in Massachusetts grew by 160.7% from 1983 through 1987. This rate of growth was generally much lower than that experienced by most of the competitive rating states. This was due to the fact the Massachusetts residual market in 1983 was a larger percentage of the total market (13.2%) than most of the competitive rating states, which had residual market shares under 5% in 1983. Since 1983, all of the states reviewed except Maryland have experienced a significant growth in residual market share, starting in 1985. Five of the other states had residual market shares greater than that of Massachusetts in 1987. It would appear that the greater volatility in loss ratios experienced by the competitive rating states results in greater swings in the size of the residual market.

As one would expect, the residual market loss ratios are much worse than the statewide loss ratios. For the most part, the residual market loss ratios get closer to the statewide average loss ratio as the market share of the residual market grows.

9. **Estimated Current Rates.**

Rates charged for a given class of employees in a given state are dependent upon that states workers' compensation benefit structure, mix of industries, wage levels, and loss experience. Thus, one cannot draw a conclusion about the effect of competitive rating on rates in an absolute sense.

Exhibit III compares current (1988) rates for the five largest employment classifications in Massachusetts with those charged in the competitive rating states. In

four of the five classifications, the rates charged in Massachusetts were below the average of the other states. This comparison excludes rate changes implemented in early 1989 for Massachusetts and Maine. We had to estimate the rates in effect for three other states (Arkansas, Georgia, and Vermont) since the most recent rate schedules were not available to us.

OTHER DATA ELEMENTS

Part of the legislative charge to the Advisory Council is to consider the impact of competitive rating in various regions of the state and on employment classifications. Information in this regard is not readily available, and requires alternative data collection methods, such as surveys of employers. To conduct such a survey is beyond the scope of this analysis.

We have some comments on these areas. Regarding geographic distribution it has been our experience that this has been an issue in states with sparsely populated areas far removed from major population centers. In these states, it can be costly for insurers to provide the service to employers in the sparsely populated area. As a result, the choices available to employers is usually limited and there are less competitive forces at work. This would not seem likely to be an issue in Massachusetts as the state is small in size with major population centers scattered throughout the state or close to the state borders. A review of COLA reimbursement submissions at the DIA shows that large insurers maintain claims offices throughout the state, including western Massachusetts and Cape Cod. Several other insurers have claims offices near to Massachusetts in Hartford or southern New Hampshire.

Regarding the issue of employment classification, it is our experience that with the exception of some high injury rate classifications such as logging and shipbuilding underwriters will provide a market for most classifications. However, there does appear to be a greater amount of competition for the larger premium accounts versus the small accounts. The residual market plans are generally more heavily populated with small accounts than with larger accounts. The larger accounts are generally offered more flexible rating approaches as well. This emphasis on large accounts is perhaps attributable to the lower expense of servicing the accounts, the attractiveness of insuring related commercial lines exposures, and the greater predictability of their loss experience.

There are other data elements that relate to the competitive environment in the state for which limited data was available for review. These relate to self-insurance, premium financing agreements and retrospective rating agreements.

Regarding self-insurance, employers will consider self-insuring their exposure when it is perceived to be economically advantageous to do so. When insurers rates are low the economic advantage of self-insurance is also low; the economic advantages for self-insurance programs increase as insurers profits increase. Self-insurance data by state is limited, particularly historical data. We note in Massachusetts that the number of self-insurers listed in the DIA assessment base did not change significantly from 1987 to 1988.

Premium financing arrangements and retrospective rating plans are pricing mechanisms used by insurers to help tailor a program for an employers' needs. Data is not compiled on the utilization and form of these mechanisms. For the most part, they are offered to the larger accounts.

OTHER CONSIDERATIONS

Our analysis of data is through 1987 or 1988, the latest years for which complete information was available. Recent market changes in Massachusetts could have significant impact on the viability of the competitive rating program in this state. First, a number of insurers have recently withdrawn from the state due to their dissatisfaction with the state's auto insurance market. Some of these insurers, like Fireman's Fund, provided workers' compensation insurance as well. Two companies within the American Mutual group were declared insolvent by the Massachusetts Supreme Judicial Court early in 1989. American Mutual was the fifth largest workers' compensation insurer in Massachusetts in 1987. The withdrawal of these underwriters has reduced the capacity in the market place.

A second consideration relates to the residual market. It is our understanding that the volume of business that has been placed in the residual market has increased dramatically since late 1988. This suggests that insurers perceive current rates to be inadequate. If this is the case, the introduction of competitive rating at this time might result in an increase in rates, unlike the decreases experienced by some states in the mid-1980's.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Insurance Market Data
Arkansas

Year	Actual Rate Change	Written Premium Growth	Industry Loss Ratio	Industry Loss Ratio Adjusted	Dividend Loading (5) - (4)
(1)	(2)	(3)	(4)	(5)	(6)
1978	1.000	1.000	72.0%	75.2%	3.2%
1979	1.162	1.071	71.8%	74.9%	3.1%
1980	1.285	1.402	60.4%	62.6%	2.2%
1981	1.240	1.291	74.2%	78.0%	3.8%
1982	1.240	1.392	55.8%	59.4%	3.6%
1983	1.240	1.235	67.1%	71.8%	4.7%
1984	1.050	1.279	86.4%	91.8%	5.4%
1985	1.140	1.485	77.5%	81.1%	3.6%
1986	1.338	1.713	84.1%	87.4%	3.3%
1987	1.338	2.057	81.6%	84.0%	2.4%
1988	1.458				

	Market Share					Number of Companies			
Year	Top 5	Top 10	National	State	Direct Writers	National	State	Direct Writers	Total
(1)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1978	NA	NA	60.6%	13.2%	26.2%	34	43	34	111
1979	28.3%	52.6%	63.6%	15.6%	20.8%	34	46	32	112
1980	33.8%	54.6%	62.5%	14.6%	22.9%	34	47	33	114
1981	29.4%	46.5%	60.3%	19.6%	20.1%	34	49	32	115
1982	30.3%	51.8%	63.8%	16.5%	19.7%	33	51	31	115
1983	30.9%	50.2%	65.4%	18.4%	16.2%	33	52	32	117
1984	27.1%	48.9%	65.0%	15.4%	19.6%	33	51	33	117
1985	32.0%	54.6%	66.9%	12.0%	21.1%	32	49	34	115
1986	37.0%	59.6%	68.4%	9.4%	22.2%	32	47	35	114
1987	44.1%	65.5%	67.2%	8.2%	24.6%	32	49	37	118
1988									

	Residual Market		
Year	Written Premium Growth	Loss Ratio	Market Share
(1)	(16)	(17)	(18)
1983	1.000	93.6%	2.7%
1984	1.849	119.1%	4.8%
1985	7.280	108.7%	16.3%
1986	14.116	109.0%	27.4%
1987	14.200	101.2%	23.0%
1988			--

SOURCE: (2),(16),(17),(18): NCCI.
All Other: A.M. Best.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Insurance Market Data
Georgia

Year	Actual Rate Change	Written Premium Growth	Industry Loss Ratio	Industry Loss Ratio Adjusted	Dividend Loading (5) - (4)
(1)	(2)	(3)	(4)	(5)	(6)
1978	1.000	1.000	79.2%	82.3%	3.1%
1979	1.000	1.243	70.7%	73.6%	2.9%
1980	1.000	1.396	72.8%	75.9%	3.1%
1981	1.266	1.398	80.1%	84.1%	4.0%
1982	1.203	1.448	69.7%	73.5%	3.8%
1983	1.203	1.342	83.0%	87.8%	4.8%
1984	1.171	1.483	101.5%	107.5%	6.0%
1985	1.328	1.956	100.5%	104.2%	3.7%
1986	1.461	2.645	100.8%	103.5%	2.7%
1987	1.968	3.208	86.7%	89.0%	2.3%
1988	2.362				

	Market Share					Number of Companies			
Year	Top 5	Top 10	National	State	Direct Writers	National	State	Direct Writers	Total
(1)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1978	NA	NA	53.7%	15.5%	30.8%	34	58	34	126
1979	34.4%	52.5%	55.3%	15.3%	29.3%	34	56	33	123
1980	36.6%	53.4%	58.1%	14.9%	27.0%	34	55	32	121
1981	29.7%	47.3%	58.6%	18.0%	23.3%	33	53	32	118
1982	30.9%	50.3%	60.3%	19.6%	20.1%	32	61	30	123
1983	30.0%	47.9%	58.7%	20.5%	20.8%	33	61	35	129
1984	28.0%	46.3%	61.2%	17.1%	21.7%	33	65	33	131
1985	28.7%	47.5%	59.8%	17.4%	22.8%	32	63	33	128
1986	36.5%	54.7%	62.2%	14.8%	23.1%	32	61	35	128
1987	39.2%	58.8%	65.1%	12.1%	22.8%	32	67	38	137
1988									

	Residual Market		
Year	Written Premium Growth	Loss Ratio	Market Share
(1)	(16)	(17)	(18)
1983	1.000	133.0%	2.9%
1984	1.447	136.8%	3.8%
1985	6.946	113.0%	13.9%
1986	13.111	108.0%	19.4%
1987	12.583	101.2%	15.3%
1988			

SOURCE: (2),(16),(17),(18): NCCI.
All Other: A.M. Best.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Insurance Market Data
Illinois

Year	Actual Rate Change	Written Premium Growth	Industry Loss Ratio	Industry Loss Ratio Adjusted	Dividend Loading (5) - (4)
(1)	(2)	(3)	(4)	(5)	(6)
1978	1.000	1.000	86.4%	89.0%	2.6%
1979	1.238	1.221	86.7%	89.4%	2.7%
1980	1.238	1.432	70.4%	72.4%	2.0%
1981	1.238	1.221	69.1%	71.7%	2.6%
1982	1.174	1.035	69.9%	73.1%	3.2%
1983	1.291	0.897	84.0%	88.6%	4.6%
1984	1.459	1.014	99.4%	103.9%	4.5%
1985	1.495	1.425	83.4%	85.6%	2.2%
1986	1.696	1.704	75.5%	78.4%	2.9%
1987	1.745	1.928	73.6%	76.0%	2.4%
1988	1.895				

	Market Share					Number of Companies			
Year	Top 5	Top 10	National	State	Direct Writers	National	State	Direct Writers	Total
(1)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1978	NA	NA	59.2%	14.5%	26.4%	34	81	40	155
1979	29.8%	50.7%	61.6%	15.8%	22.6%	34	79	39	152
1980	29.4%	50.8%	62.2%	17.4%	20.5%	34	80	40	154
1981	29.2%	49.1%	63.5%	15.6%	21.0%	34	80	39	153
1982	30.1%	57.9%	68.3%	11.9%	19.8%	33	77	39	149
1983	29.8%	47.9%	67.9%	13.7%	18.3%	33	75	42	150
1984	31.0%	48.4%	68.2%	11.2%	20.6%	33	73	42	148
1985	33.5%	53.6%	67.1%	12.2%	20.7%	32	71	41	144
1986	40.0%	60.0%	67.5%	10.4%	22.1%	32	68	43	143
1987	42.0%	60.9%	67.7%	9.7%	22.6%	32	74	41	147
1988									

	Residual Market		
Year	Written Premium Growth	Loss Ratio	Market Share
(1)	(16)	(17)	(18)
1983	1.000	151.1%	5.1%
1984	1.373	131.7%	6.2%
1985	4.182	102.6%	13.5%
1986	6.696	100.0%	18.1%
1987	6.196	101.2%	14.8%
1988			

SOURCE: (2),(16),(17),(18): NCCI.
All Other: A.M. Best.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Insurance Market Data
Kentucky

Year	Actual Rate Change	Written Premium Growth	Industry Loss Ratio	Industry Loss Ratio Adjusted	Dividend Loading (5) - (4)
(1)	(2)	(3)	(4)	(5)	(6)
1978	1.000	1.000	67.0%	69.1%	2.1%
1979	1.000	1.258	120.0%	123.8%	3.8%
1980	0.677	1.094	88.1%	91.9%	3.8%
1981	0.624	0.785	84.2%	88.5%	4.3%
1982	0.624	0.830	50.5%	52.9%	2.4%
1983	0.624	0.589	82.8%	87.9%	5.1%
1984	0.816	0.781	113.0%	119.2%	6.2%
1985	0.920	0.806	117.0%	123.4%	6.4%
1986	1.069	0.948	75.7%	78.8%	3.1%
1987	1.235	0.983	100.0%	102.6%	2.6%
1988	1.235				

	Market Share					Number of Companies			
Year	Top 5	Top 10	National	State	Direct Writers	National	State	Direct Writers	Total
(1)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1978	NA	NA	50.9%	23.2%	25.9%	34	51	36	121
1979	53.6%	67.8%	45.1%	33.5%	21.4%	34	49	35	118
1980	51.1%	65.9%	46.1%	35.1%	18.8%	34	49	34	117
1981	50.2%	64.9%	47.6%	37.5%	14.9%	34	48	33	115
1982	55.2%	67.8%	50.1%	35.2%	14.7%	33	52	32	117
1983	44.7%	61.5%	53.3%	27.1%	19.5%	33	53	33	119
1984	45.9%	64.1%	55.8%	28.6%	15.6%	33	55	34	122
1985	47.2%	62.8%	48.3%	32.8%	18.8%	32	51	32	115
1986	47.0%	64.3%	53.4%	26.2%	20.4%	32	50	33	115
1987	47.0%	66.2%	50.0%	22.1%	28.0%	32	52	35	119
1988									

	Residual Market		
Year	Written Premium Growth	Loss Ratio	Market Share
(1)	(16)	(17)	(18)
1983	1.000	176.7%	12.5%
1984	0.822	149.4%	7.8%
1985	1.362	128.2%	12.4%
1986	2.142	116.7%	16.6%
1987	2.529	111.0%	18.9%
1988			

SOURCE: (2),(16),(17),(18): NCCI.
All Other: A.M. Best.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Insurance Market Data
Maine

Year	Actual Rate Change	Written Premium Growth	Industry Loss Ratio	Industry Loss Ratio Adjusted	Dividend Loading (5) - (4)
(1)	(2)	(3)	(4)	(5)	(6)
1978	1.000	1.000	119.5%	124.8%	5.3%
1979	1.200	1.301	108.2%	112.3%	4.1%
1980	1.200	1.486	119.9%	124.2%	4.3%
1981	1.500	1.741	104.9%	109.8%	4.9%
1982	1.500	1.877	108.7%	114.2%	5.5%
1983	1.500	2.164	119.9%	126.4%	6.5%
1984	1.500	2.399	133.6%	141.2%	7.6%
1985	1.380	2.577	153.8%	161.8%	8.0%
1986	1.380	2.526	175.3%	185.5%	10.2%
1987	1.601	3.278	148.1%	152.2%	4.1%
1988	2.001				

	Market Share					Number of Companies			
Year	Top 5	Top 10	National	State	Direct Writers	National	State	Direct Writers	Total
(1)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1978	NA	NA	67.8%	3.1%	29.1%	31	28	26	85
1979	54.1%	74.9%	64.7%	3.0%	32.3%	31	30	26	87
1980	55.5%	75.0%	66.9%	3.9%	29.1%	32	31	26	89
1981	54.6%	72.9%	66.1%	3.8%	30.1%	32	32	25	89
1982	49.5%	70.1%	61.4%	3.8%	34.9%	31	36	24	91
1983	51.6%	72.6%	60.9%	4.1%	34.9%	31	40	24	95
1984	53.1%	70.9%	56.2%	4.0%	39.7%	31	39	23	93
1985	56.0%	77.6%	54.3%	3.0%	42.8%	31	37	23	91
1986	64.0%	86.1%	70.5%	2.3%	27.2%	31	38	23	92
1987	66.5%	86.3%	76.7%	1.5%	21.8%	31	33	22	86
1988									

	Residual Market		
Year	Written Premium Growth	Loss Ratio	Market Share
(1)	(16)	(17)	(18)
1983	1.000	178.9%	18.6%
1984	1.315	207.0%	22.1%
1985	2.227	177.1%	34.8%
1986	3.503	160.0%	55.9%
1987	4.468	162.0%	54.9%
1988			

SOURCE: (2),(16),(17),(18): NCCI.
All Other: A.M. Best.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Insurance Market Data
Maryland

Year	Actual Rate Change	Written Premium Growth	Industry Loss Ratio	Industry Loss Ratio Adjusted	Dividend Loading (5) - (4)
(1)	(2)	(3)	(4)	(5)	(6)
1978	1.000	1.000	88.1%	92.5%	4.4%
1979	1.246	1.333	83.1%	86.8%	3.7%
1980	1.472	1.530	68.6%	71.8%	3.2%
1981	1.714	1.775	73.8%	77.9%	4.1%
1982	1.883	1.736	56.7%	60.7%	4.0%
1983	1.903	1.833	62.5%	67.9%	5.4%
1984	1.804	1.957	68.4%	75.4%	7.0%
1985	1.844	2.112	63.8%	70.8%	7.0%
1986	1.992	2.666	62.1%	68.0%	5.9%
1987	1.816	2.693	58.7%	64.6%	5.9%
1988	2.093				

	Market Share					Number of Companies			
Year	Top 5	Top 10	National	State	Direct Writers	National	State	Direct Writers	Total
(1)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1978	NA	NA	66.7%	10.1%	23.2%	33	47	28	108
1979	36.6%	55.8%	68.8%	8.9%	22.3%	33	50	29	112
1980	38.4%	58.9%	69.6%	8.7%	21.6%	33	50	30	113
1981	35.3%	54.9%	72.1%	7.9%	20.1%	33	49	29	111
1982	35.1%	54.4%	69.0%	11.0%	20.1%	32	55	30	117
1983	33.5%	52.9%	69.3%	10.4%	20.3%	32	57	32	121
1984	33.0%	51.5%	68.1%	11.3%	20.6%	32	62	32	126
1985	32.7%	51.3%	62.4%	18.4%	19.2%	32	62	29	123
1986	38.8%	58.1%	61.2%	20.3%	18.5%	32	61	30	123
1987	38.1%	59.6%	62.2%	18.8%	18.9%	32	65	30	127
1988									

	Residual Market		
Year	Written Premium Growth	Loss Ratio	Market Share
(1)	(16)	(17)	(18)
1983	1.000	69.9%	0.6%
1984	1.059	74.1%	0.6%
1985	1.068	109.9%	0.5%
1986	2.024	165.1%	0.8%
1987	1.243	124.0%	0.5%
1988			

SOURCE: (2),(16),(17),(18): NCCI.
All Other: A.M. Best.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Insurance Market Data
Massachusetts

Year	Actual Rate Change	Written Premium Growth	Industry Loss Ratio	Industry Loss Ratio Adjusted	Dividend Loading (5) - (4)
(1)	(2)	(3)	(4)	(5)	(6)
1978	1.000	1.000	95.8%	101.7%	5.9%
1979	1.000	1.223	86.6%	91.2%	4.6%
1980	1.186	1.379	93.4%	98.2%	4.8%
1981	1.186	1.570	89.7%	94.5%	4.8%
1982	1.217	1.698	82.1%	87.2%	5.1%
1983	1.467	2.023	77.5%	82.2%	4.7%
1984	1.467	2.261	80.7%	86.4%	5.7%
1985	1.467	2.722	80.4%	86.5%	6.1%
1986	1.467	2.911	97.0%	104.5%	7.5%
1987	1.467	3.078	104.2%	110.3%	6.1%
1988	1.759				

	Market Share					Number of Companies			
Year	Top 5	Top 10	National	State	Direct Writers	National	State	Direct Writers	Total
(1)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1978	NA	NA	58.7%	6.9%	34.5%	32	38	29	99
1979	49.7%	70.3%	57.7%	5.8%	36.4%	32	42	27	101
1980	48.6%	70.4%	59.3%	5.3%	35.4%	32	39	28	99
1981	45.3%	68.5%	59.7%	5.8%	34.5%	32	42	26	100
1982	44.4%	67.4%	58.8%	7.0%	34.2%	31	46	24	101
1983	41.3%	63.4%	59.8%	7.3%	32.8%	31	43	26	100
1984	41.0%	61.6%	59.4%	7.6%	33.0%	31	44	25	100
1985	44.6%	64.6%	55.8%	8.2%	36.0%	31	46	25	102
1986	46.9%	66.7%	54.6%	7.1%	38.3%	31	48	24	103
1987	46.1%	68.3%	58.0%	4.8%	37.2%	31	48	22	101
1988									

	Residual Market		
Year	Written Premium Growth	Loss Ratio	Market Share
(1)	(16)	(17)	(18)
1983	1.000	93.1%	13.2%
1984	0.921	95.2%	10.8%
1985	1.647	112.4%	16.1%
1986	2.449	116.0%	22.4%
1987	2.607	120.4%	22.6%
1988			

SOURCE: (2),(16),(17),(18): NCCI.
All Other: A.M. Best.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Insurance Market Data
Michigan

Year	Actual Rate Change	Written Premium Growth	Industry Loss Ratio	Industry Loss Ratio Adjusted	Dividend Loading (5) - (4)
(1)	(2)	(3)	(4)	(5)	(6)
1978	1.000	1.000	72.2%	76.1%	3.9%
1979	1.143	1.173	57.9%	61.4%	3.5%
1980	1.245	1.183	59.2%	63.6%	4.4%
1981	1.245	1.095	61.7%	67.0%	5.3%
1982	0.968	0.713	59.1%	67.9%	8.8%
1983	1.054	0.703	78.6%	90.7%	12.1%
1984	1.034	0.703	85.0%	95.3%	10.3%
1985	0.963	0.854	75.8%	81.1%	5.3%
1986	1.082	1.012	78.4%	82.4%	4.0%
1987	1.211	1.133	78.6%	82.1%	3.5%
1988	1.183				

	Market Share					Number of Companies			
Year	Top 5	Top 10	National	State	Direct Writers	National	State	Direct Writers	Total
(1)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1978	NA	NA	68.9%	8.3%	22.8%	34	63	31	128
1979	32.9%	54.6%	68.5%	9.1%	22.4%	34	63	31	128
1980	29.3%	50.5%	68.5%	10.5%	20.9%	34	60	31	125
1981	29.7%	50.3%	69.3%	10.8%	20.0%	34	62	28	124
1982	28.7%	48.1%	66.4%	12.2%	21.4%	33	66	30	129
1983	35.0%	53.2%	71.9%	10.6%	17.5%	33	63	32	128
1984	33.9%	54.1%	68.0%	12.6%	19.4%	33	61	30	124
1985	34.2%	55.1%	67.9%	10.9%	21.2%	32	57	33	122
1986	36.6%	60.3%	65.7%	12.0%	22.4%	32	55	34	121
1987	38.4%	60.6%	63.2%	13.8%	23.0%	32	61	34	127
1988									

	Residual Market		
Year	Written Premium Growth	Loss Ratio	Market Share
(1)	(16)	(17)	(18)
1983	1.000	82.7%	3.4%
1984	1.042	100.8%	3.5%
1985	3.261	111.9%	9.1%
1986	5.786	95.0%	13.6%
1987	5.321	96.2%	11.2%
1988			

SOURCE: (2),(16),(17),(18): NCCI.
All Other: A.M. Best.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Insurance Market Data
Minnesota

Year	Actual Rate Change	Written Premium Growth	Industry Loss Ratio	Industry Loss Ratio Adjusted	Dividend Loading (5) - (4)
(1)	(2)	(3)	(4)	(5)	(6)
1978	1.000	1.000	91.5%	95.9%	4.4%
1979	1.000	1.115	79.5%	83.3%	3.8%
1980	1.000	1.112	82.9%	87.0%	4.1%
1981	0.950	1.091	94.6%	99.6%	5.0%
1982	0.950	0.934	96.7%	104.0%	7.3%
1983	0.989	0.904	78.4%	84.0%	5.6%
1984	1.084	0.958	118.3%	126.2%	7.9%
1985	1.327	1.313	93.5%	97.7%	4.2%
1986	1.327	1.433	94.9%	99.4%	4.5%
1987	1.656	1.358	89.2%	94.0%	4.8%
1988	1.656				

	Market Share					Number of Companies			
Year	Top 5	Top 10	National	State	Direct Writers	National	State	Direct Writers	Total
(1)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1978	NA	NA	55.8%	12.2%	32.0%	34	62	38	134
1979	37.3%	55.1%	58.0%	11.3%	30.8%	34	61	39	134
1980	37.0%	54.5%	58.7%	10.8%	30.5%	34	58	39	131
1981	35.5%	52.7%	61.9%	11.9%	26.2%	34	61	36	131
1982	31.4%	50.7%	63.0%	12.8%	24.2%	33	60	37	130
1983	32.5%	52.7%	59.7%	12.5%	27.7%	33	62	40	135
1984	32.8%	53.8%	60.3%	8.5%	31.2%	33	62	38	133
1985	34.9%	55.8%	55.8%	6.8%	37.4%	32	61	36	129
1986	35.2%	54.9%	53.4%	7.6%	39.0%	32	58	36	126
1987	37.9%	56.2%	50.3%	11.0%	38.6%	32	55	37	124
1988									

	Residual Market		
Year	Written Premium Growth	Loss Ratio	Market Share
(1)	(16)	(17)	(18)
1983	NA	NA	NA
1984	NA	NA	NA
1985	NA	NA	NA
1986	NA	NA	NA
1987	NA	NA	NA
1988			

SOURCE: (2),(16),(17),(18): NCCI.
All Other: A.M. Best.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Insurance Market Data
Oregon

Year	Actual Rate Change	Written Premium Growth	Industry Loss Ratio	Industry Loss Ratio Adjusted	Dividend Loading (5) - (4)
(1)	(2)	(3)	(4)	(5)	(6)
1978	1.000	1.000	59.6%	64.7%	5.1%
1979	1.006	1.125	55.0%	61.4%	6.4%
1980	0.929	1.168	56.2%	63.0%	6.8%
1981	0.877	0.876	63.5%	76.0%	12.5%
1982	1.067	0.782	64.5%	73.3%	8.8%
1983	0.985	0.719	88.2%	94.4%	6.2%
1984	1.090	0.933	102.3%	107.0%	4.7%
1985	1.256	1.233	91.8%	93.6%	1.8%
1986	1.614	1.503	94.3%	95.9%	1.6%
1987	1.816	1.792	84.4%	85.3%	0.9%
1988	1.816				

	Market Share					Number of Companies			
Year	Top 5	Top 10	National	State	Direct Writers	National	State	Direct Writers	Total
(1)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1978	NA	NA	35.8%	40.3%	23.9%	34	27	24	85
1979	65.5%	79.3%	35.4%	8.9%	55.6%	34	24	25	83
1980	57.3%	74.9%	41.9%	13.2%	44.9%	34	29	24	87
1981	52.4%	69.8%	43.5%	42.4%	14.1%	34	33	22	89
1982	49.2%	67.7%	65.5%	17.3%	17.3%	33	36	22	91
1983	50.7%	68.0%	63.0%	14.3%	22.8%	33	36	25	94
1984	52.3%	67.4%	57.2%	10.6%	32.2%	33	38	25	96
1985	55.4%	70.5%	44.4%	7.3%	48.3%	32	34	25	91
1986	56.3%	71.7%	43.8%	3.2%	53.0%	32	31	25	88
1987	61.6%	77.0%	41.1%	1.7%	57.2%	32	33	26	91
1988									

	Residual Market		
Year	Written Premium Growth	Loss Ratio	Market Share
(1)	(16)	(17)	(18)
1983	1.000	192.4%	0.5%
1984	3.355	174.0%	1.2%
1985	18.177	104.9%	4.8%
1986	34.731	118.0%	7.5%
1987	28.476	114.5%	5.2%
1988			

SOURCE: (2),(16),(17),(18): NCCI.
All Other: A.M. Best.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Insurance Market Data
Rhode Island

Year	Actual Rate Change	Written Premium Growth	Industry Loss Ratio	Industry Loss Ratio Adjusted	Dividend Loading (5) - (4)
(1)	(2)	(3)	(4)	(5)	(6)
1978	1.000	1.000	103.8%	106.9%	3.1%
1979	1.000	1.102	105.2%	109.1%	3.9%
1980	1.137	1.313	117.3%	121.8%	4.5%
1981	1.137	1.523	109.9%	113.0%	3.1%
1982	1.376	1.606	106.1%	109.9%	3.8%
1983	1.376	1.709	94.0%	98.0%	4.0%
1984	1.376	1.780	95.0%	100.0%	5.0%
1985	1.685	1.877	118.2%	125.1%	6.9%
1986	1.685	2.331	118.2%	122.4%	4.2%
1987	1.685	2.717	121.3%	125.1%	3.8%
1988	2.006				

	Market Share					Number of Companies			
Year	Top 5	Top 10	National	State	Direct Writers	National	State	Direct Writers	Total
(1)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1978	NA	NA	64.6%	7.2%	28.2%	32	29	26	87
1979	57.7%	73.3%	62.3%	7.1%	30.7%	32	36	25	93
1980	57.0%	74.1%	65.0%	6.3%	28.7%	32	35	25	92
1981	60.7%	74.6%	66.4%	6.7%	26.9%	32	37	26	95
1982	59.0%	73.9%	64.0%	8.6%	27.4%	31	35	23	89
1983	54.0%	70.7%	60.7%	10.2%	29.1%	31	38	23	92
1984	51.6%	70.0%	61.3%	10.0%	28.7%	31	38	21	90
1985	58.1%	78.3%	55.4%	9.7%	34.9%	31	36	21	88
1986	60.1%	78.6%	54.8%	9.3%	36.0%	31	35	23	89
1987	63.4%	83.0%	57.6%	10.6%	31.9%	31	35	24	90
1988									

	Residual Market		
Year	Written Premium Growth	Loss Ratio	Market Share
(1)	(16)	(17)	(18)
1983	1.000	125.7%	16.3%
1984	0.945	160.2%	14.8%
1985	1.977	129.8%	29.4%
1986	3.657	120.0%	43.8%
1987	3.597	124.4%	37.0%
1988			

SOURCE: (2),(16),(17),(18): NCCI.
All Other: A.M. Best.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Insurance Market Data
United States

Year	Actual Rate Change	Written Premium Growth	Industry Loss Ratio	Industry Loss Ratio Adjusted	Dividend Loading (5) - (4)
(1)	(2)	(3)	(4)	(5)	(6)
1978	NA	1.000	74.2%	77.9%	3.7%
1979	NA	1.179	71.0%	75.3%	4.3%
1980	NA	1.295	65.7%	70.4%	4.7%
1981	NA	1.330	66.5%	71.9%	5.4%
1982	NA	1.267	63.8%	70.4%	6.6%
1983	NA	1.266	70.3%	77.9%	7.6%
1984	NA	1.368	83.2%	92.0%	8.8%
1985	NA	1.604	82.8%	90.2%	7.4%
1986	NA	1.873	85.1%	91.1%	6.0%
1987	NA	2.094	83.3%	88.5%	5.2%
1988	NA				

	Market Share					Number of Companies			
Year	Top 5	Top 10	National	State	Direct Writers	National	State	Direct Writers	Total
(1)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1978	NA	NA	56.7%	16.9%	26.4%	34	215	90	339
1979	29.1%	45.5%	57.7%	16.6%	25.7%	34	210	91	335
1980	29.3%	45.0%	59.3%	16.4%	24.3%	34	225	96	355
1981	28.2%	44.0%	60.1%	17.7%	22.2%	34	231	94	359
1982	28.3%	44.4%	60.8%	17.9%	21.3%	33	234	97	364
1983	27.8%	44.8%	61.2%	18.1%	20.6%	33	233	103	369
1984	27.6%	45.0%	60.9%	17.7%	21.4%	33	230	102	365
1985	29.2%	47.6%	59.8%	17.2%	23.0%	32	242	102	376
1986	32.1%	51.6%	58.9%	16.8%	24.3%	32	236	103	371
1987	33.8%	53.3%	60.1%	15.5%	24.4%	32	249	103	384
1988									

	Residual Market		
Year	Written Premium Growth	Loss Ratio	Market Share
(1)	(16)	(17)	(18)
1983	NA	NA	NA
1984	NA	NA	NA
1985	NA	NA	NA
1986	NA	NA	NA
1987	NA	NA	NA
1988			

SOURCE: (2): NCCI.
All Other: A.M. Best.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Rate Level Histories
Arkansas

Year	Experience Change	Benefit Change	Miscellaneous	Combined Change
(1)	(2)	(3)	(4)	(5)
1978	1.000	1.000	1.000	1.000
1979	1.049	1.101	1.006	1.162
1980	1.094	1.142	1.029	1.285
1981	1.021	1.202	1.011	1.240
1982	1.021	1.202	1.011	1.240
1983	1.021	1.202	1.011	1.240
1984	0.836	1.231	1.021	1.050
1985	0.954	1.231	0.971	1.140
1986	1.170	1.256	0.911	1.338
1987	1.170	1.256	0.911	1.338
1988	1.314	1.266	0.877	1.458

SOURCE: NCCI Annual Statistical Bulletin.
Numbers on a cumulative basis with 12/31/78 = 1.000.

Subsequent to 8/84 the combined rate level change applies to assigned risk pool only.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Rate Level Histories
Georgia

Year	Experience Change	Benefit Change	Miscellaneous	Combined Change
(1)	(2)	(3)	(4)	(5)
1978	1.000	1.000	1.000	1.000
1979	1.000	1.000	1.000	1.000
1980	1.000	1.000	1.000	1.000
1981	1.266	1.000	1.000	1.266
1982	1.203	1.000	1.000	1.203
1983	1.203	1.000	1.000	1.203
1984	1.227	1.066	0.896	1.171
1985	1.308	1.108	0.917	1.328
1986	1.472	1.161	0.854	1.461
1987	5.301	1.161	0.320	1.968
1988	11.456	1.161	0.178	2.362

SOURCE: NCCI Annual Statistical Bulletin.
Numbers on a cumulative basis with 12/31/78 = 1.000.

Subsequent to 7/81 the combined rate level change applies to assigned risk pool only.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Rate Level Histories
Illinois

Year	Experience Change	Benefit Change	Miscellaneous	Combined Change
(1)	(2)	(3)	(4)	(5)
1978	1.000	1.000	1.000	1.000
1979	1.240	1.007	0.991	1.238
1980	1.240	1.007	0.991	1.238
1981	1.240	1.007	0.991	1.238
1982	1.180	1.007	0.991	1.174
1983	1.299	1.007	0.991	1.291
1984	1.432	1.012	1.010	1.459
1985	1.504	0.986	1.012	1.495
1986	1.701	0.988	1.013	1.696
1987	1.822	0.990	0.971	1.745
1988	2.233	0.996	0.856	1.895

SOURCE: NCCI Annual Statistical Bulletin.
Numbers on a cumulative basis with 12/31/78 = 1.000.

Subsequent to 1/83 the combined rate level change applies to assigned risk pool only.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Rate Level Histories
Kentucky

Year	Experience Change	Benefit Change	Miscellaneous	Combined Change
(1)	(2)	(3)	(4)	(5)
1978	1.000	1.000	1.000	1.000
1979	1.000	1.000	1.000	1.000
1980	0.928	0.758	0.962	0.677
1981	0.840	0.769	0.966	0.624
1982	0.840	0.769	0.966	0.624
1983	0.840	0.769	0.966	0.624
1984	1.114	0.816	0.898	0.816
1985	1.281	0.828	0.869	0.920
1986	1.636	0.833	0.784	1.069
1987	2.153	0.835	0.686	1.235
1988	2.153	0.835	0.686	1.235

SOURCE: NCCI Annual Statistical Bulletin.
Numbers on a cumulative basis with 12/31/78 = 1.000.

Subsequent to 2/84 the combined rate level change applies to assigned risk pool only.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Rate Level Histories
Maine

Year	Experience Change	Benefit Change	Miscellaneous	Combined Change
(1)	(2)	(3)	(4)	(5)
1978	1.000	1.000	1.000	1.000
1979	1.198	1.002	1.000	1.200
1980	1.198	1.002	1.000	1.200
1981	1.489	1.009	0.999	1.500
1982	1.489	1.009	0.919	1.500
1983	1.489	1.009	0.919	1.500
1984	1.489	1.009	0.919	1.500
1985	1.489	1.009	0.919	1.380
1986	1.489	1.009	0.919	1.380
1987	1.489	1.009	0.919	1.601
1988	3.826	0.594	0.759	2.001

SOURCE: NCCI Annual Statistical Bulletin.
Numbers on a cumulative basis with 12/31/78 = 1.000.

Subsequent to 6/87 the combined rate level change applies to assigned risk pool only.
Rate leval change effective 4/88 applies to voluntary market/safety pool.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Rate Level Histories
Maryland

Year	Experience Change	Benefit Change	Miscellaneous	Combined Change
(1)	(2)	(3)	(4)	(5)
1978	1.000	1.000	1.000	1.000
1979	1.226	1.032	0.985	1.246
1980	1.226	1.211	0.992	1.472
1981	1.410	1.226	0.992	1.714
1982	1.410	1.347	0.992	1.883
1983	1.379	1.376	1.003	1.903
1984	1.240	1.423	1.023	1.804
1985	1.240	1.454	1.023	1.844
1986	1.340	1.491	0.997	1.992
1987	1.253	1.524	0.951	1.816
1988	1.158	1.583	1.142	2.093

SOURCE: NCCI Annual Statistical Bulletin.
Numbers on a cumulative basis with 12/31/78 = 1.000.

Subsequent to 1/88 the combined rate level change applies to assigned risk pool only.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Rate Level Histories
Massachusetts

Year	Experience Change	Benefit Change	Miscellaneous	Combined Change
(1)	(2)	(3)	(4)	(5)
1978	1.000	1.000	1.000	1.000
1979	1.000	1.000	1.000	1.000
1980	1.181	1.004	1.000	1.186
1981	1.181	1.004	1.000	1.186
1982	1.181	1.030	1.000	1.217
1983	1.338	1.096	1.000	1.467
1984	1.338	1.096	1.000	1.467
1985	1.338	1.096	1.000	1.467
1986	1.338	1.096	1.000	1.467
1987	1.338	1.096	1.000	1.467
1988	1.519	1.105	1.048	1.759

SOURCE: NCCI Annual Statistical Bulletin.
Numbers on a cumulative basis with 12/31/78 = 1.000.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Rate Level Histories
Michigan

Year	Experience Change	Benefit Change	Miscellaneous	Combined Change
(1)	(2)	(3)	(4)	(5)
1978	1.000	1.000	1.000	1.000
1979	1.121	1.035	0.985	1.143
1980	1.164	1.086	0.985	1.245
1981	1.164	1.086	0.985	1.245
1982	0.855	1.136	0.997	0.968
1983	1.100	1.062	0.901	1.054
1984	1.127	1.065	0.860	1.034
1985	1.095	1.067	0.824	0.963
1986	1.304	1.070	0.774	1.082
1987	1.469	1.077	0.764	1.211
1988	1.484	1.079	0.737	1.183

SOURCE: NCCI Annual Statistical Bulletin.
Numbers on a cumulative basis with 12/31/78 = 1.000.

Subsequent to 1/83 the combined rate level change applies to assigned risk pool only.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Rate Level Histories
Minnesota

Year	Experience Change	Benefit Change	Miscellaneous	Combined Change
(1)	(2)	(3)	(4)	(5)
1978	1.000	1.000	1.000	1.000
1979	1.000	1.000	1.000	1.000
1980	1.000	1.000	1.000	1.000
1981	1.091	0.871	1.000	0.950
1982	1.091	0.871	1.000	0.950
1983	1.091	0.871	1.041	0.989
1984	1.091	0.871	1.141	1.084
1985	NA	NA	NA	1.327
1986	NA	NA	NA	1.327
1987	NA	NA	NA	1.656
1988	NA	NA	NA	1.656

SOURCE: NCCI Annual Statistical Bulletin.
Numbers on a cumulative basis with 12/31/78 = 1.000.

Subsequent to 1/84 the combined rate level change applies to assigned risk pool only.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Rate Level Histories
New Mexico

Year	Experience Change	Benefit Change	Miscellaneous	Combined Change
(1)	(2)	(3)	(4)	(5)
1978	1.000	1.000	1.000	1.000
1979	1.089	1.013	0.999	1.102
1980	1.126	1.027	0.999	1.156
1981	1.195	1.047	0.999	1.249
1982	1.277	1.068	1.003	1.367
1983	1.423	1.085	1.010	1.558
1984	1.440	1.093	1.037	1.631
1985	1.495	1.099	1.046	1.714
1986	1.495	1.099	1.046	1.714
1987	1.744	1.166	1.049	2.129
1988	1.744	1.166	1.049	2.129

SOURCE: NCCI Annual Statistical Bulletin.
Numbers on a cumulative basis with 12/31/78 = 1.000.

Subsequent to 10/87 the combined rate level change applies to assigned risk pool only.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Rate Level Histories
Oregon

Year	Experience Change	Benefit Change	Miscellaneous	Combined Change
(1)	(2)	(3)	(4)	(5)
1978	1.000	1.000	1.000	1.000
1979	1.000	1.000	1.006	1.006
1980	0.906	1.030	0.996	0.929
1981	0.795	1.075	1.026	0.877
1982	0.823	1.087	1.192	1.067
1983	0.760	1.087	1.192	0.985
1984	0.819	1.091	1.219	1.090
1985	0.908	1.123	1.232	1.256
1986	1.022	1.264	1.249	1.614
1987	1.244	1.268	1.150	1.816
1988	1.345	1.249	1.080	1.816

SOURCE: NCCI Annual Statistical Bulletin.
Numbers on a cumulative basis with 12/31/78 = 1.000.

Subsequent to 7/82 the combined rate level change applies to assigned risk pool only.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Rate Level Histories
Rhode Island

Year	Experience Change	Benefit Change	Miscellaneous	Combined Change
(1)	(2)	(3)	(4)	(5)
1978	1.000	1.000	1.000	1.000
1979	1.000	1.000	1.000	1.000
1980	1.137	1.000	1.000	1.137
1981	1.137	1.000	1.000	1.137
1982	1.368	1.007	0.999	1.376
1983	1.368	1.007	0.999	1.376
1984	1.368	1.007	0.999	1.376
1985	1.744	0.968	0.999	1.685
1986	1.744	0.968	0.999	1.685
1987	1.744	0.968	0.999	1.685
1988	2.673	0.961	0.781	2.006

SOURCE: NCCI Annual Statistical Bulletin.
Numbers on a cumulative basis with 12/31/78 = 1.000.

Subsequent to 11/85 the combined rate level change applies to assigned risk pool only.

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Rate Level Histories
Vermont

Year	Experience Change	Benefit Change	Miscellaneous	Combined Change
(1)	(2)	(3)	(4)	(5)
1978	1.000	1.000	1.000	1.000
1979	1.100	0.997	1.000	1.097
1980	1.100	0.997	1.000	1.097
1981	0.967	1.057	1.000	1.022
1982	0.866	1.135	1.004	0.988
1983	0.981	1.156	1.020	1.158
1984	1.042	1.174	1.031	1.263
1985	1.143	1.193	1.040	1.419
1986	1.172	1.228	1.046	1.501
1987	1.217	1.238	1.045	1.569
1988	1.326	1.248	1.017	1.678

SOURCE: NCCI Annual Statistical Bulletin.
Numbers on a cumulative basis with 12/31/78 = 1.000.

Subsequent to 7/85 the combined rate level change applies to assigned risk pool only.

22-Jun-89
BEST DATA

MASSACHUSETTS DEPARTMENT OF INDUSTRIAL ACCIDENTS
ADVISORY COUNCIL
Comparison of Estimated Current Rates

EXHIBIT III

State	Effective Date	Class: Clerical 8810	Class: Instrument Mfg 3685	Class: Colleges 8868	Class: Hospital 8833	Class: Restaurants 9079
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Arkansas	12/86	0.36	1.53	0.66	1.59	2.53
Georgia	9/87	0.55	2.51	0.46	1.48	4.90
Illinois	1/88	0.29	2.16	0.50	1.24	2.96
Kentucky	7/87	0.30	2.82	0.46	1.47	2.56
Maine	4/88	0.33	1.99	0.41	1.28	2.49
Maryland	1/88	0.32	0.82	0.29	0.94	2.00
Mass.	1/88	0.31	1.94	0.40	2.00	2.67
Michigan	1/88	0.40	2.67	0.40	1.77	3.02
Minnesota	9/87	0.59	2.03	0.86	2.88	4.55
New Mexico	10/87	0.54	2.35	0.68	2.59	4.78
Oregon	1/88	0.71	2.39	0.80	2.77	6.83
Rhode Is.	4/88	0.35	2.28	0.50	1.85	3.61
Vermont	7/87	0.21	1.07	0.35	1.57	1.86

SOURCE: NCCI.

NOTES:
Arkansas increase 12/86 rates by 9%.
Georgia increase 9/87 rates by 20%.
Vermont increase 7/87 rates by 7%.
Maine does not reflect 22.5% increase effective 3/89.
Massachusetts does not reflect 14.1% increase effective 1/89.