Massachusetts Automobile Insurance Regulation

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Massachusetts Automobile Insurance Regulation

The Commonwealth of Massachusetts first passed legislation regulating automobile insurance in 1925.\textsuperscript{1} Despite many modifications and changes over the years, state regulation of automobile insurance in Massachusetts remains a volatile issue. In the late 1980's criticism of state regulation reached a crescendo as the insurance system appeared to be spiraling out of control. However, at the end of 1988 a number of reforms were enacted by the state legislature in an attempt to deal with the problems plaguing the insurance market. Prior critiques of Massachusetts automobile insurance regulation were not able to address the effect of these legislative reforms as well as other changes in the regulatory system. The purpose of this paper is to examine the current state of the system and to analyze the effects of state regulation from 1989 until the present.

\textbf{1. Auto Insurance}

\textbf{A. The Industry}

The cost and availability of automobile insurance is an important issue. This is partly due to the size of the industry and the large amount of money at stake. In 1993 the insurance industry wrote $109.7 billion worth of premiums for automobile insurance. The bulk of this, $93.4 billion, was for private passenger automobile insurance.\textsuperscript{2} This issue is also important because of its widespread impact on households across the country. In 1992, there were more than 173

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\begin{itemize}
\item \textsuperscript{1}Risky Business, \textit{CAR from the Rearview Mirror: A History}, Nov. 1, 1992, p.3.
\item \textsuperscript{2}Insurance Information Institute, \textit{1995 Property/Casualty Insurance Facts}, p.35.
\end{itemize}
million licensed drivers in the nation. There were also more than 190 million automobiles, trucks, and buses registered in the country.\textsuperscript{3} Automobile insurance accounts for 2.1% of total household spending. While this may not seem like a lot, health care expenses only account for 3\% of average household spending.\textsuperscript{4} One survey reported that 50\% of American consumers considered the cost of automobile insurance to be a problem for their household budgets.\textsuperscript{5}

Automobile insurance is also important when viewed at the state level. In Massachusetts, the insurance industry wrote $2.97 billion in auto insurance premiums in 1993.\textsuperscript{6} This is a tremendous amount of money and it obviously explains much of the heated debate over state regulation. In addition, a large number of Massachusetts residents are affected. In 1992, there were more than 3.6 million registered motor vehicles in Massachusetts.\textsuperscript{7} At the same time, there were more than 4.1 million licensed drivers in the state. For many residents of Massachusetts, just like people across the country, the automobile represents the most important mode of transport in daily life. It is with these figures in mind that an evaluation of the automobile insurance market may begin.

\textbf{B. The Market for Automobile Insurance}

Insurance is the business of risk management regardless of the type of coverage being purchased. Whether you are buying automobile, life, or health insurance you are paying a fee to the insurance company for the right to share

\textsuperscript{4}1995 Property/Casualty Insurance Facts, p.49.
\textsuperscript{7}Statistical Abstract of the United States 1994, Dept. of Commerce p.628.
in a pool of reserves set aside to cover losses.\textsuperscript{8} The fee you are paying to the insurance company for this protection is your insurance premium. You receive payments, or make a claim, when you suffer damages that are covered by the insurance policy. Automobile insurance offers individuals the opportunity to pool the risk of liability and damage related to the use of an automobile. It can protect the owner against loss in the event that the motorist is involved in an accident or his car is stolen or damaged. Automobile owners are the purchasers or consumers of the insurance product while the insurance companies sell the product.

Automobile insurance exists because there is demand for such insurance. In other words, there is a market for such insurance. This market has been created by two different forces. One reason for the demand is the risk involved in the ownership and use of an automobile.\textsuperscript{9} Automobiles are often very expensive and represent a large investment by owners. Since an automobile can be stolen or damaged, owners often want to insure themselves against the possibility of a large loss. The use of an automobile also entails a risk of property damage either to one's own property or liability for damage to another's property. Finally, an accident can result in injury or death to the driver, passengers, or occupants of other vehicles leading to liability for lost earnings, medical care, and pain and suffering, as well as other damages. While there is this possibility of great loss from ownership and use of a motor vehicle, the chance of such loss is relatively low. This means that it is economically efficient for most people to pool their risks through an insurance market.

\textsuperscript{8}Consumers Digest Inc., \textit{Consumers Digest July}, 1994.

\textsuperscript{9}Simon Rottenberg, \textit{The Cost of Regulated Pricing} p.21 (Pioneer Institute For Public Policy Research 1989).
The second reason for the existence of the automobile insurance market is a state mandate requiring possession of such insurance. Many states, including Massachusetts, require a person to possess auto insurance if they are going to own a car or drive within the state.\textsuperscript{10} In such states, it is usually a crime to operate a motor vehicle without the mandatory insurance.\textsuperscript{11} The rationale for this type of legal rule follows from the tremendous damage one can cause with an automobile. The state does not want drivers who operate motor vehicles to be unable to compensate others for the damage they've caused. If one considers the high cost of health care and the loss of compensation in the event of another person's death, it is easy to see the magnitude of potential liability. In those states that don't mandate compulsory insurance there is usually a requirement that drivers involved in accidents show proof of financial responsibility, usually by posting a bond for specified amounts.

C. The Automobile Insurance Policy

Unlike some other types of insurance policies, automobile insurance is not a single type of indemnity. It actually consists of a number of different coverages including: bodily-injury liability, property-damage liability, medical payments, uninsured-motorist, collision and comprehensive. While these are the basic types of coverage, there often are a variety of other small coverages which a policyholder may also purchase. Each of these different coverages are designed to protect against specific types of losses. Usually, only a few of these coverages are mandatory, as defined by state law, while the remaining coverages are optional.


\textsuperscript{11}Details of the Massachusetts automobile insurance policy can be found in Appendix IV.
The types of indemnity which are purchased by the consumer will often depend on the legal framework governing liability in a particular jurisdiction. States have created different legal rules to address liability resulting from automobile accidents. The states can be broadly placed into two basic legal frameworks, tort systems and no-fault systems. While in theory there is a sharp distinction between the two systems, many states have adopted a mixture of the two systems.

Traditional auto liability insurance is a form of third-party insurance that provides compensation to victims of motor vehicle accidents only if some other person or persons were at fault in causing the motor vehicle accidents in which they were injured. It is third-party coverage because the insurance company (the second party) will pay a third party not named in the policy if he or she is injured by the policyholder (the first party). Bodily injury liability insurance (BI) is the basic component of a traditional automobile insurance policy. BI liability covers claims for personal injuries sustained by pedestrians or the driver and passengers of other vehicles when the policyholder is found to be at fault. This coverage typically includes medical expenses, wage losses, "pain and suffering" damages of others, as well as any legal fees incurred in the policyholder's defense. In its pure form, BI liability coverage doesn't provide any compensation for a policyholder who caused an accident, since another party was not injured. The BI coverage a motorist purchases is usually expressed as a two figure amount, e.g. $100,000/$300,000. The first figure is the maximum that will be paid per victim in an accident, while the other figure

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13 Consumers Digest July, 1994
limits the amount that will be paid per accident, regardless of the number of claims against the insured motorist.\footnote{14}{In Massachusetts the minimum BI liability requirements are $20,000/$40,000. M.G.L.A. §34A.}

No-fault liability coverage exists in one form or another in fourteen states, including Massachusetts.\footnote{15}{American Insurance Association, \textit{Summary of Selected State Laws and Regulation Relating to Automobile Insurance} 1995 p.2 (1995).} No-fault auto insurance replaces the tort system with an insurance system that compensates all victims regardless of fault.\footnote{16}{Brian W. Smith, \textit{Reexamining the Cost Benefits of No-Fault}, 42 CPCU JOURNAL 28, 29 (March 1989)} This type of insurance has accident victims recover personal-injury losses directly from their own insurance companies. This is considered a type of first-party insurance coverage since the insurance company (the second party) pays its own policyholder (the first party) when the event occurs that the insurance covers.\footnote{17}{U.S. Dept. of Transportation, \textit{Compensating Auto Accident Victims: A Follow-up Report on No-Fault Auto Insurance Experiences}, (May 1985).} At the same time, motorists face restrictions on their ability to bring a lawsuit, regardless of responsibility for the accident. In particular, injured parties have no recourse to collect damages for pain and suffering since their first party insurance will not cover it. The "operating principle of no-fault insurance is that individuals give up the right to sue others for damages and in return they are compensated for their injuries by their own insurance company regardless of fault."\footnote{18}{Kenneth J. Meier, \textit{The Policy Impact of No-Fault Automobile Insurance}, 6 \textit{Policy Studies Review} 496, 497 (February 1987).} Since the states using no-fault mandate the purchase of this first party insurance, the system provides compensation to virtually all personal-injury victims of motor vehicle accidents.

The justification for no-fault arose out of the alleged inadequacy of the tort liability system in compensating auto accident victims. Some criticism pointed to the high cost of administering the tort system, particularly attorneys' fees, which prevented some victims in accidents from receiving adequate
compensation for their injuries. The tort process was often very time consuming since a determination of fault was required thereby delaying funds for the treatment and therapy of injured parties. Critics also felt that expenditures paid for pain and suffering damages were lavish and wasteful. Proponents of no-fault suggest that the savings from elimination of the tort system's inefficiencies can be used to provide coverage for all parties injured in automobile accidents.

No-fault insurance systems vary among different states in the manner and degree with which they displace the traditional tort system. None of the states have totally replaced the tort system, so elements of both traditional tort liability and no-fault compensation co-exist within all the systems. This is because every state offers motorists the opportunity to sue when more "significant" injuries are involved. There are two basic methods, the "verbal" threshold and the "monetary" threshold, which no-fault states use to determine whether an injured party may enter the tort system and bring a claim. The "verbal threshold" allows injured parties to bring tort actions when certain injuries, descriptively defined, occur. These type of injuries might include permanent disability, loss of bodily functions, or death. The monetary threshold sets a level of medical expenses which must be exceeded before an injured party will be allowed to bring a tort suit. Massachusetts uses a monetary threshold of $2,000 before a party is allowed to bring a lawsuit.

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19 *Reexamining the Cost Benefits of No-Fault* at 29.
20 Some states have developed a system known as "add-on" no-fault. Under this regime a victim's right to bring a lawsuit is unrestricted even though the person is assured of receiving no-fault benefits. This type of no-fault system does not differ as significantly from a traditional tort system. 
21 *Id.* at 29.
22 The monetary threshold considers the value of the medical care received, not the expenditure actually required of the injured party. An injured party might have his entire medical bill covered by insurance and still overcome the threshold if the value of such care exceeded the designated level. *Commonwealth Of Massachusetts, Executive Office of Consumer Affairs and Business Regulation, Massachusetts Automobile Insurance: Yesterday, Today, Tomorrow*, p.29 (February 1988).
23 Massachusetts actually allows lawsuits in the event that an injured party suffers death, loss of a bodily function, serious disfiguration, permanent injury or disability, and fractures. Since the medical and economic costs for such injuries will nearly always exceed $2,000, the monetary
Furthermore, in nearly all states, no-fault only deals with bodily injury claims and doesn't affect liability for claims of property damage. Since the tort system prevails as a mechanism for dealing with property damage, motorists are only protected from such claims by obtaining conventional property-damage liability insurance coverage (PD). Property damage liability operates similarly to traditional BI liability insurance, except that it covers tangible property rather than people. This typically covers damage to another car or to physical structures such as garages. This means that it also a type of third-party insurance, designed to compensate others who the motorist injures. As with BI liability and/or PIP, some type of minimal property damage coverage is often required by state law. In Massachusetts, each policyholder is required to purchase $5,000 worth of property damage liability coverage.

The cornerstone of any no-fault system is a type of coverage referred to as personal injury protection (PIP). PIP usually covers the motorist and passengers in the policyholder's car, regardless of who is at fault. It typically pays for financial losses, medical expenses, as well as lost wages that injured parties suffer. It may also cover additional costs such as funeral expenses and survivors' benefits. The benefits available from this PIP coverage are usually limited under state law. It is worth noting that even in no-fault states there is often compulsory BI liability coverage above and beyond the basic PIP benefits. For instance, Massachusetts requires motorists to purchase BI liability

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25 M.G.L.A. §34O.
26 Many states have maintained tort based liability systems and still allow the purchase of some first-party coverages. In a tort liability state it is often possible to purchase first-party medical coverage in the event that the motorist is at fault in an accident. This is simply a type of first party insurance which covers the policyholder and his passengers regardless of who is at fault in an accident.
protection of $20,000/$40,000 in addition to PIP. This coverage is used to protect the motorist against liability to injured parties for damages caused by the motorist which exceed PIP benefits.\textsuperscript{28}

If a state has mandatory coverages they will often consist of BI and/or PIP coverage, depending on whether it is a no-fault states, as well as PD coverage. Massachusetts requires the purchase of BI, PIP, and PD insurance coverages. Compulsory liability requirements are justified on the grounds that they protect others whom the driver may injure in the use of his vehicle. It is intuitively reasonable to require that people should have insurance before they be allowed to carry on risky activities. The state may allow you or your property to go unprotected, but it will not allow you to injure others without the possibility of compensation. In no-fault states, the system of mandatory coverages is designed so that a determination of fault is unnecessary for relatively minor accidents. To accomplish this, it is necessary that every policyholder purchase the basic PIP coverage so that compensation will be available to cover injuries regardless of who is at fault.\textsuperscript{29}

While the discussion above dealt with those coverages which are usually compulsory, there are usually a wide variety of additional coverages that motorists have the option to purchase. Uninsured-motorist insurance covers a policyholder in the event that another driver is at fault, but carries no BI liability insurance. Depending on the state, this coverage may also include hit-and-run accidents and/or physical damage to the policyholder’s vehicle. In addition, most states extend such benefits to apply in situations where the other

\textsuperscript{28}This BI liability coverage takes effect when the other party’s PIP benefits have been exhausted.\textsuperscript{29}Despite the fact that PIP coverage is "compulsory" in Massachusetts, a policyholder is allowed to select a deductible for his or her no-fault benefits (this deductible only applies to the policyholder and/or household members, not passengers or pedestrians). Even if such a deductible is chosen, the policyholder and/or household member is still prohibited from filing a lawsuit unless the damages or injuries have exceeded state’s tort threshold. The result of this deductible is that a party can be involved in an accident and receive no compensation under the state’s no-fault system.
motorist's insurance company becomes insolvent and cannot pay a claim. Massachusetts is among the twenty states and the Dist. of Columbia which require that motorists purchase this type of coverage.

Motorists often purchase collision and comprehensive coverage.\textsuperscript{30} Collision insurance covers damage to the policyholder's car in a crash regardless of whether it is with another car or a stationary object. If the accident was caused by another party and they have adequate property damage liability insurance then collision coverage would be unnecessary to protect the policyholder. However, if the accident is caused by the driver or the other party is inadequately insured, then collision insurance is essential to protect the value of the vehicle. Comprehensive coverage applies to miscellaneous losses due to natural causes (e.g. fire), vandalism, and theft. Since a car, particularly a newly purchased car, represents a major investment by many motorists these coverages are often necessary to protect motorists against the possibility of a large financial loss. While this is not an exhaustive list of the available insurance coverages, the other coverages represent a relatively small portion of the premium and are nearly always optional.

D. Automobile Insurance Premiums

The insurance industry is in the business of risk management. In order to make a profit, insurance companies need to charge premiums which are sufficient to cover the expected losses they will pay out as a result of the risks they are covering. If the company believes that you represent a greater risk of loss then they will want to charge you higher premiums to cover this increased

\textsuperscript{30}Some of these drivers are in fact *required* to purchase these coverages since the entity financing the purchase of a vehicle will often require that the consumer purchase these coverages to protect the company's investment. Auto Insurance Brochure.
risk. On the other hand, if you represent less of a risk to the insurance company then it will charge you a lower premium since it will be less concerned that it will have to make a payment. There are a variety of factors that an insurer is likely to take into account when assessing the likelihood that a prospective policyholder will file a claim. In addition, the insurer may be limited in its behavior by state regulation.

When evaluating a motorist's overall insurance premium, an important factor will be the type of insurance coverages purchased. If a motorist decides not to purchase collision insurance, the insurance company doesn't have to worry about paying a claim for physical damage to his car. Since there is zero likelihood that a claim will be filed for this particular type of indemnity the motorist's overall automobile insurance premium will be lower. In a sense, this isn't an issue of what the premium will be, but whether any rate at all will be charged for some coverages.

When determining the rate for particular coverages the insurer will usually consider the motorist's age. Insurers justify the use of this variable based on statistical differences in the likelihood that the driver will be involved in an accident. While drivers under age twenty accounted for 5.2% of all licensed drivers they were involved in 13% of all accidents and 11.5% of all fatal accidents in 1992. Drivers between the ages of 20 and 24 comprised 9.9 percent of licensed drivers, but accounted for 15.9% of all accidents and 15.6% of all fatal accidents. The next age group, 25 to 34 years of age had a lesser but still disproportionate share of accidents, constituting 23.9% of all drivers and only 26.5% of accidents and 25.6% of fatal accidents.\textsuperscript{31} At least one state, Massachusetts, restricts insurers' ability to consider age as a factor when setting premiums.

\textsuperscript{31}Insurance Information Institute, 1994 Property/Casualty Facts, p.88.
Insurers often use gender as a factor in setting insurance premiums. Unless prohibited by state law, males will generally pay higher premiums than females, particularly at a younger age. This is probably due to a number of factors. While male drivers constitute 51 percent of the nation's licensed drivers, they drive about 65 percent of the miles driven each year. This may encourage insurers to assume that all other factors being equal, men are more likely to be involved in accidents since they tend to drive more. While men tend to drive more, females were actually involved in 17% more accidents than men per 10,000,000 miles driven in 1992. Despite the increased likelihood that females will be involved in an accident, men may still represent a greater risk based on the type of accidents in which men are involved. Men were involved in almost 65% more fatal accidents than women.\textsuperscript{32} Assuming that these statistics are a proxy for the likelihood of being involved in more serious accidents, and therefore greater liability, the statistics seem to support insurers. This is apparent from economic costs related to different types of accidents.

In 1992 the average economic cost of a motor vehicle death was $880,000. This compared with an economic cost of $29,500 for a nonfatal disabling injury and $6,500 for a property damage accident including only minor injuries.\textsuperscript{33} The dramatic disparity in potential liability may very well outweigh the higher risk of women being involved in minor accidents. This potential cost along with the heavier driving patterns exhibited by men gives insurers actuarial justification for charging men a higher premium since they represent a greater risk. A number of states, including Massachusetts, prohibit the use of gender in setting automobile insurance rates.\textsuperscript{34}

\textsuperscript{32}1994 Property/Casualty Facts, p.90.
\textsuperscript{34}M.G.L.A. 175E §4.
In addition to the factors mentioned above, insurers will often consider a variety of other characteristics and factors in determining the motorist's premium. The insurance industry claims that married policyholders have lower claims rate than singles and will usually be charged lower premiums for automobile insurance. Insurers also believe that a motorist's driving record is an important indicator of risk. The insurance industry considers drivers with traffic violations and previous involvement in accidents to be higher risks. Insurers may also examine the degree to which automobile will be in use. If the policyholder is using the vehicle to commute to work, there is a greater likelihood that the car will be involved in an accident than if the motorist's use is limited to grocery shopping. The location at which the car is garaged is also likely to be a factor in setting premiums. Generally, those residing in large metropolitan areas will pay more for auto insurance than those in suburban or rural locations. Insurers have found that automobiles garaged in urban areas are more likely to be involved with accidents, stolen, or vandalized. In addition, an insurer may charge premiums based on the type of vehicle being insured. If a particular vehicle is expensive to replace, attractive to thieves, or easily damaged the premium charged will be higher.

As previously noted, premiums will also be affected by state insurance regulations. Some states prohibit the use of particular variables, such as gender, in the rate setting process. The states also differ in their overall level of insurance regulation. In 1993, twenty-one states fell into the category of "prior approval" states. In these states, insurers must submit their rates to state regulators for approval before being allowed to use them. Sixteen other states used a system known as "file and use". Under this system, insurers must file

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35 Massachusetts also prohibits the use of an person's marital status when setting automobile insurance premiums. M.G.L.A. 175E §4.
36 Auto Insurance Brochure; Consumers Digest July, 1994
their rates with state regulators prior to their use, but no specific approval is necessary. Seven other states used a system referred to as "use and file" where the insurers are free to set their own premiums, but must file their rates with the state insurance department after a specified period of use. Most of the remaining states use some mixture of these systems to regulate automobile insurance. In one state, Massachusetts, the insurance commissioner determines the rates for all companies, drivers, and coverages.\textsuperscript{37}

\textbf{E. Uninsurable Motorists}

Unfortunately, some motorists are unable to obtain coverage "voluntarily" from insurers. This means that no insurer wants to offer insurance coverage to that driver. These motorists often have driving records and/or risk factors so bad that no insurance is available regardless of cost.\textsuperscript{38} This problem developed after the widespread ownership of automobiles became more common. Before that time there were no requirements for drivers to purchase insurance and insurance companies were allowed to reject those who failed to meet their criteria. However, as the financial cost of automobile accidents became clear it led to the creation of financial responsibility laws and in many states laws requiring compulsory insurance. In states with compulsory insurance laws it was actually a crime to drive without an insurance policy. Even in states whose sole requirement is one of financial responsibility, the inability to obtain insurance creates great difficulty for a motorist. If the driver gets into an accident

\textsuperscript{37}Auto Insurance Database Report, p.168-169.

\textsuperscript{38}If the insurer is limited by state regulation from charging the premium it feels is adequate then we would expect the insurer to reject the motorist. However, even in a totally unrestricted, competitive marketplace there are motorists who are unable to obtain insurance through the voluntary market. Presumably, certain categories of drivers such as young urban drivers represent such a great likelihood of loss that they can't be priced profitably or rationally. Massachusetts Automobile Insurance: Yesterday, Today, Tomorrow, p.34.
where he is at fault, any assets he possesses may be available to satisfy a
judgment against him. On the other hand, if the driver causes an accident and
does not have sufficient assets to meet the legally imposed minimum
requirements for compensation, he will lose the right to drive.\textsuperscript{39} Given the
immense importance of car ownership for both personal and occupational
needs, motorists have demanded the availability of auto insurance. In order to
rectify this problem, all fifty states and the District of Columbia have systems to
guarantee the availability of automobile insurance.\textsuperscript{40}

New Hampshire developed the first American automobile insurance
residual market in 1938. By 1959, every state had established a system for
sharing these involuntary applicants.\textsuperscript{41} New Hampshire used a scheme now
referred to as an Assigned Risk Plan (ARP) and which is used in the vast
majority of states today.\textsuperscript{42} The ARP is one of the three basic mechanisms now
used for providing insurance to those motorists unable to obtain coverage in the
voluntary market. In this system, insurance applicants who have been rejected
by insurers are randomly assigned to different companies based on the
companies' voluntary market share. After the applicant is assigned to an
insurer the company retains the motorist's premium and is responsible for the
losses or gains from that risk. One feature of this system is that responsibility for
losses on the insurance policy remain with the insurance carrier. This type of
residual market is operating as a risk-sharing mechanism since the risks of
these involuntary policyholders are spread equitably among the different
insurers.

\textsuperscript{39}Automobile Insurance Plans Service Office (AIPSO), \textit{AIPSO Facts 1993/1994 A Handbook of
\textsuperscript{40}1995 \textit{Property/Casualty Insurance Facts}, p.42.
\textsuperscript{41}AIPSO Facts 1993/1994, p.2.
\textsuperscript{42}Massachusetts Automobile Insurance: Yesterday, Today, Tomorrow, February 1988 p.37;
A second type of mechanism is the Reinsurance Facility (RF), where insurers are required to provide coverage and service the claims of any applicant, but the insurer is also allowed to cede a percentage of its policies to the Facility. The policies ceded to the facility are not "owned" by individual insurance companies but by the RF. The RF's profits or losses are then spread among all the auto insurers in the state based on their proportionate share of the market. This residual market mechanism functions as a loss sharing system rather than as a risk sharing mechanism like the ARP.

A third type of mechanism is the Joint Underwriting Association (JUA). In this system a limited number of companies act as servicing carriers, pooling together the policies of those motorists unable to receive insurance in the voluntary market. These "servicing carriers" issue and service the insurance policies but spread the profits or losses equitably among insurers in proportion to their voluntary market share. Similarly to the RF, this mechanism serves to spread losses rather than risks among the insurers. While these three systems are all designed to address the same problem, lack of available insurance in the voluntary market, they may create different incentives for insurers.43

Since greater risks are being undertaken by the insurers in these cases the premiums charged to such motorists are often significantly higher in residual markets than could be obtained through the voluntary markets.44 However, this does not mean that the insurer is making money on the policyholder. To the contrary, the motorist is likely to produce a loss for the insurer. If the premiums charged were sufficient to cover the motorist's cost it is likely that the insurer

43These three categories account for forty-eight of the fifty states. Maryland has a state fund mechanism that handles its involuntary market. Massachusetts uses a hybrid JUA/RF system. AIPSO Facts 1993/1994, p.7.
44This is not the case in Massachusetts, where legislation prohibits insurers from charging higher premiums to those being insured through the residual market. M.G.L.A. 175(§113H); Consumers Digest Inc., Consumers Digest July, 1994.
would have voluntarily insured the motorist at that rate without resorting to the residual market.

II Massachusetts Automobile Insurance Prior to 1988 Reforms

While there have been numerous changes in Massachusetts insurance regulation over the years, the most important aspect of the current system dates back to the enactment of regulation in 1925. The original legislation regulating automobile insurance granted the state's Commissioner of Insurance the power to set rates. The Commissioner of Insurance has control over nearly all aspects of rating plans, voluntary and residual market mechanisms, claims handling procedures, as well as the price of insurance coverage. These powers allow the Commissioner to set the price of insurance independently of the marketplace. The development of this system over the last seventy years is laid out below.

A. Early Regulation: 1925 to 1969

Massachusetts first passed legislation regulating automobile insurance in 1925. This legislation included a compulsory insurance provision, to be effective in 1927, and gave the Commissioner of Insurance the power to set rates and classifications for these compulsory coverages. This made it the first state in the country to require the purchase of automobile liability insurance. It wasn't until 1957 that a second state, New York, adopted compulsory

\[45\] Massachusetts Automobile Insurance: Yesterday, Today, Tomorrow, p. 53.
automobile insurance. This early trend towards regulation would also be accompanied by a system of regulation more extensive than in other states.

In response to the passage of the McCarron-Ferguson Act, Massachusetts extended rate regulation to non-compulsory automobile insurance coverages in 1947. In 1958, Massachusetts established its Assigned Risk Plan (ARP) to provide insurance to motorists unable to obtain insurance through the voluntary market. This represented the creation of Massachusetts' first residual market. The ARP assigned risk proportionately to market share and maintained a set of separate assigned risk rates. Since each premium went to its carrier and losses were paid by that carrier, this mechanism operated as risk sharing rather than loss sharing system.

In 1968, Massachusetts passed several laws limiting insurer discretion in issuing and canceling policies. One provision established the state's first "mandatory offer" requirement. This law required that insurers offer certain additional coverages to all applicants being offered the basic compulsory coverages. Another provision passed that year limited cancellation of a policy after ninety days to, nonpayment of premium, fraud or misrepresentation in obtaining the insurance, or the suspension or revocation of the motorist's (or member of the motorist's household) driver's license or registration. Additionally, the ARP became a mechanism for assuring that all applicants had access to insurance by limiting the grounds for rejection to a failure to pay automobile insurance premiums in the past twelve months or the absence of

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48 However, the regulation did not fix and establish rates, but allowed a "file and use" system for rate regulation of these coverages. Donald Hillman, Massachusetts Automobile Insurance, ES-3 and Appendix A (1976).
50 CAR from the Rearview Mirror; A History; p.3.
51 Massachusetts Automobile Insurance, Appendix A; Mass. G.L.A. 175 (113C).
52 Mass. G.L.A. 175 (22c).
valid driver's license.\textsuperscript{53} During the same year, compulsory uninsured motorist coverage was established to provide BI liability coverage when the policyholder was injured by another motorist without insurance.\textsuperscript{54}

B. Regulation from 1970 to 1982

In 1970 Massachusetts became the first state to enact a no-fault automobile insurance law.\textsuperscript{55} The enactment of no-fault was an important change in the regulatory scheme of Massachusetts automobile insurance because it dramatically changed the legal rules governing liability in motor vehicle accidents. No-fault legislation succeeded in reducing BI claims and premiums were thereby reduced. A number of other changes were also made in the law during 1970. Insurers were prohibited from refusing to issue automobile insurance policies, thus prohibiting exit from the market, or suffer the suspension of its licenses to write other lines of insurance within the state.\textsuperscript{56} In 1972 the state established no-fault coverage for property damage insurance.\textsuperscript{57}

In 1973 the state legislature passed a law authorizing the use of discounted group plans beginning in 1974.\textsuperscript{58} This statute allows employers and other organizations to work directly with insurers and insurance agents to secure auto insurance coverage for their employees or members at reduced rates. These groups were able to obtain reduced rates by applying for approval from the Massachusetts Division of Insurance. A group plan was entitled to reductions based on administrative savings for the first three years, with the

\textsuperscript{53}Mass. G.L.A.175 (113H).
\textsuperscript{54}Mass. G.L.A. 175 (113L).
\textsuperscript{55}\textit{Massachusetts Automobile Insurance: Yesterday, Today, Tomorrow}, p.53-54. The enactment of no-fault legislation was not effective until 1971.
\textsuperscript{56}Mass. G.L.A. 175E (§22H).
\textsuperscript{57}\textit{Massachusetts Automobile Insurance: Yesterday, Today, Tomorrow}, February 1988 p.54.
\textsuperscript{58}Mass. G.L.A. 175 (§193R).
opportunity to receive discounts based on claims performance after the initial three year period. At the time of its enactment this statutory provision had little impact on the state's automobile insurance markets.

At the end of 1974, approximately 4% of the states drivers were insurance through the ARP. At the beginning of 1974, the state eliminated the Assigned Risk Plan and created the Massachusetts Motor Vehicle Reinsurance Facility (Facility). This changed the Massachusetts residual market from a system of shared risks to one of shared losses. The Facility was required to accept all drivers as well as pay commissions to brokers. During the following three years the share of Massachusetts vehicles insured in the residual market more than tripled, so that by 1975 15% of the state's drivers were insured through the Facility.\(^{59}\)

In 1976 several important changes were made in the state's automobile insurance system. The state's no-fault property damage coverage was found to be too expensive and was replaced with a system of compulsory property damage liability coverage which continues today. However, an even more significant change occurred when the state passed legislation returning the market to competitive rating beginning in 1977. Open competition caused rates to rise overall and to rise substantially for some groups, such as urban and inexperienced drivers. The public outrage at this increase in rates led the Commissioner of Insurance to hold hearings to determine if "excessive" rates were being charged to consumers. The Commissioner found competition to be inadequate and regulated rates were reinstated.\(^{60}\)

After the return to regulated rates, the Commissioner issued a new classification system for motorists in 1978. This new classification system

\(^{59}\)\textit{CAR from the Rearview Mirror; A History}, p.3.
\(^{60}\)\textit{Massachusetts Automobile Insurance, ES-5; The Cost of Regulated Pricing}, p.9.
eliminated the use of age, gender, and marital status as variables in the rate setting process. The prohibitions on the use of these variables were codified by state legislation in 1979. During that year, compulsory BI liability limits were also increased from $5,000/$10,000 to $10,000/$20,000.

The inadequacy of voluntary rates resulted in 46.6% of Massachusetts drivers being insured through the residual market by 1981. In 1981, the state began requiring policyholders to purchase underinsured motorists coverage. This coverage provides additional first-party coverage to the motorist up to the levels of third-party liability coverage purchased in the motorist’s policy.

C. Regulation from 1983 to 1988

In 1983 the merit driving plan was replaced with the Safe Driver Insurance Program (SDIP). Under the SDIP drivers are assigned points for moving violations and at-fault accidents. Depending on the number of points accumulated, a surcharge will be assessed against the driver. When a driver has no violations or accidents he will qualify for credits to his SDIP policy which will lower his insurance premium. This kind of system is called "experience rating" because it is designed so that motorists pay premiums based on their driving experience rather than other variables such as age, gender, and marital status.

In 1984 the Facility was replaced by Commonwealth Automobile Reinsurers (CAR). Membership of CAR was limited to 25 companies, known as

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63 Massachusetts Automobile Insurance: Yesterday, Today, Tomorrow, p.17.
64 Massachusetts Automobile Insurance: Yesterday, Today, Tomorrow, p.55.
"servicing carriers". This changed the system from a Reinsurance Facility (RF) to a type of Joint Underwriting Association (JUA). By limiting the number of "servicing" carriers to twenty-five it was hoped that anti-fraud efforts could be coordinated and that excessive cessions could be curbed.\(^{66}\) However, losses produced by policies ceded to CAR continued to be distributed among all the insurers operating in the state. This meant that the system continued to operate as a loss sharing mechanism rather than as a risk sharing mechanism. Although the exact system for distribution of losses is complicated, the residual market's deficits were generally distributed based on the each company's share of the voluntary market without regard to the percentage of motorists ceded to CAR by particular insurers.

D. Massachusetts in 1987-1988

Despite the extensive legislation passed since 1925, the system was facing a chorus of criticism in the late 1980s. The system seemed about to collapse as Massachusetts soared to the top of every list categorizing insurance failure. Perhaps the most obvious evidence of regulatory failure in the state was the cost of insurance premiums. In 1987, A.M. Best listed Massachusetts as having an average premium of $656.\(^{67}\) According to A.M. Best, this was the highest average premium in the nation and was nearly 35% higher than the national average.\(^{68}\) Including a retroactive rate increase adopted in 1988, average premiums had gone up 18% in 1987. From 1982 to 1987 the growth

\(^{66}\)Massachusetts Automobile Insurance: Yesterday, Today, Tomorrow, p.38.

\(^{67}\)Many of the studies (including the NAIC Auto Insurance Database Report) and other data include the District of Columbia within their rankings and overall averages. Since Washington D.C. is entirely urban, it is not an appropriate comparison to Massachusetts. While it is no difficulty to remove the Dist. if Columbia from the rankings, I have not attempted to recalculate the "national average" statistics which often include the Dist. of Columbia.

\(^{68}\)The Cost of Regulated Pricing, p. 2.
rates in Massachusetts' auto insurance premiums was a staggering 71.7%.
While this was not the highest growth rate in the nation, it was 8.6% higher than
the national average.69

Less obviously, there were signs that the regulatory scheme was
producing perverse effects. Critics noted the extraordinarily high rate of auto
theft. In 1987 Massachusetts had a rate of 924 thefts per 100,000 of population.
Not only was this the highest rate in the nation, it was 9% higher than the next
highest state and was nearly 75% higher than the national average.70 In 1987,
Massachusetts also had a theft rate of 13.92 vehicles per 1,000 registered
vehicles. This was the highest rate of any state in the nation, nearly 7% higher
than the next highest state and was more than 93% higher than the national
average.

Another factor possibly providing evidence of regulatory incentives was
the state's claims rate. In 1987, Massachusetts' claims rate for property damage
liability coverage was 8.32 per 100 car years.71 Since nearly all of the states
use the tort system for handling property damage claims, this coverage provides
a more uniform basis for making comparisons between the states.72 This
statistic provides a broad view of the likelihood that claims will be filed against
the insurer. This figure placed Massachusetts number one in the rankings,
higher than the District of Columbia which is an entirely urban area. This rate
was also more than 93% higher than the national average for property claims
rate.73

Other evidence of difficulty was provided by the number of policyholders
being insured through the state's residual market mechanism, CAR. The

69Ibid. at 3.
71Auto Insurance Database Report, p.32.
73Ibid at p.39.
residual market in Massachusetts began growing rapidly after the creation of the Facility in 1974. By 1981 46% of the state's drivers were insured through the Facility. The formation of CAR in 1984 was unable to slow the growth of the residual market. In 1987, 57% of the private passenger policies were insured through the residual market.\footnote{I will be using the residual market statistics provided by the Insurance Plans Service Office (AIPSO). A comparison with CAR's Annual Reports indicates some differences in their calculation of risks ceded to the residual market in Massachusetts. Since AIPSO's compiles residual market statistics on a national basis (thereby allowing comparisons with other states and the nation as a whole) and is the source cited in many statistical abstracts, I have cited their information whenever possible.} In addition, CAR had a deficit of $410 million for its fiscal year ending in 1987.\footnote{CAR, 1994 Annual Report, p.9 (June 1994).} A residual market is meant to offer insurance to those few motorists who are unable to purchase policies voluntarily from insurers. None of the residual market mechanisms in use across the country, including CAR, were meant to replace the voluntary insurance market as the main source for automobile insurance.

One other indication of difficulty was the pattern of insurer exits. Beginning in 1986, insurance carriers began to pull out of the state. While the pullout began as a trickle, it quickly turned into a full blown exodus by some of the states largest insurers. The first carrier to exit the market was Peerless Insurance. Then, in July 1987, Fireman's Fund, the ninth largest auto insurer in the state with 4.36% of the market decided to exit the market.\footnote{Best Database Services, Experience By State (by Line) Property/Casualty 1987 Edition (1986 Data)} In November 1987 the state's third largest insurer, Kemper, with 7.3% of the market announced that it would be surrendering its license for writing auto insurance in Massachusetts.\footnote{Kemper was ultimately able to avoid forfeiture of all of its Massachusetts licenses by paying $119 million to set up a mutual insurance company to write automobile insurance for its policyholders in Massachusetts. \textit{The Standard}, Nov. 25, 1988 p.1; \textit{The Standard}, July 14, 1989.}
III Critiques of Massachusetts Regulation

Any regulatory regime, or lack of one, is bound to create a great deal of controversy and criticism. That should not be surprising given the size of the insurance industry, the fact that the automobile is the preeminent mode of transportation in this country, and that insuring against automobile accidents is a significant household expense. While most groups would have agreed that the Massachusetts' automobile insurance market had serious problems, there was no consensus on the source of the problems. Some critics held government regulation responsible for the problems.

A The Roots of Criticism

Insurance companies opposed the earliest form of government intervention in the automobile insurance market, the enactment of compulsory insurance laws.  It may have been the fear of further governmental intervention that explains that opposition, despite the increase in business those laws would be expected to bring to such companies. Once the residents of a state are required to purchase insurance in order to use an automobile they will have a tremendous stake in assuring the affordability of such insurance. This may, as in the case of Massachusetts, usher in further governmental regulation that will be unfavorable to the insurance industry.

It is the legacy of the state's earliest legislative action that Massachusetts has dealt with over the last seventy years. If the Massachusetts insurance industry was concerned about intensive state regulation in 1925, that concern remained strong in the 1980s. Many of the criticisms leveled during recent

\[ ^{78}\text{NAIC Proceedings - 1990 Vol. I B.} \]
periods have focused on the government's role in the regulatory process. One critic said, "Rates in Massachusetts are preposterous. This isn't because they are too high, but because they are being announced by the state regulator." Many of these critics alleged that it was government restrictions on insurers' ability to charge free market rates which were at the root of Massachusetts' difficulties.

B. Rate Suppression and Rate Compression

Massachusetts state law, Chapter 175E governs the regulation of rates for motor vehicle insurance. The applicable standards state among other things that "Rates shall not be excessive or inadequate, as herein defined, nor shall they be unfairly discriminatory." This type of language is not unusual and is similar to the standards applicable in other jurisdictions. It was not this language, but rather Massachusetts' broad interpretation of this provision that separated the state's regulation of insurance from others. Most states have traditionally used their regulatory powers to maintain insurer solvency so that "excessive" competition wouldn't occur. Historically, there were fears that competition would lead insurers to price risks too low, eventually creating insufficient assets to cover policyholders' losses. While there are possible criticisms of even such limited regulation, this is not the type of regulatory action which has concerned most of Massachusetts' free-market critics. Rather, it is

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80 Price Regulation in US Automobile Insurance, p.159.
82 One such concern involves the possibility of regulatory capture. In this scenario the regulators will come under the influence of the industry and fail to act in the public interest. Regulation and the Automobile Insurance Crisis, p.50.
the more substantial regulatory interference within Massachusetts that has attracted attention.

Every year since the repeal of competitive pricing in 1977, the Commissioner has determined the rates that will be charged for every type of coverage, vehicle, and motorist in the state. No insurer operating in the state is allowed to charge prices different than those set by the Commissioner of Insurance.83 Needless to say, this is a relatively unusual situation compared with the sale of most products or services around the country and in Massachusetts. In fact, while many other states regulate automobile insurance, no other state that restricts insurer behavior to such a great degree.84 Free market critics of Massachusetts regulation have tended to focus on two aspects of state regulation.

One of these aspects was alleged rate suppression by the state. Rate suppression is the imposition by regulator authority of substantially inadequate rates upon insurers. This means that the Commissioner's power to set rates was used to hold rates below the level necessary to cover expected costs.85 There is no doubt that the state was preventing the insurance industry from charging higher premiums since the state consistently rejected insurer requests for premium increases. Critics alleged that the word "excessive" had come to mean any amount more than the public was willing to pay rather than the actual cost of insurance. They rejected the notion that intensive rate regulation could provide "affordable" insurance while maintaining other goals such as insurance availability, service levels, accident prevention, pricing equity, and insurer

83 There is a limited, but increasingly important, exception to this rule through the use of group plans. This aspect of the market will be discussed below.
84 Although Texas has been cited as operating a similar system, this does not appear to be the case anymore. The NAIC indicates that the Texas board sets flex bands within which insurers can operate without prior approval. This system offers the possibility of upward or downward deviation in insurance premiums unlike the system in Massachusetts.
85 I am referring to total policy earnings (premiums plus investment earnings) versus total costs within the automobile insurance line of business.
solvency. According to this perspective, rate suppression was only buying short term relief that would eventually come back to haunt policyholders.

The other focus of critic's attention was the relative adequacy of rates being charged different groups of motorists. The Commissioner of Insurance used his powers to "fix and establish" rates to shrink the spectrum of insurance premiums being charged to different motorists. This type of action is referred to as rate compression. One element of rate compression has been accomplished by dividing the Massachusetts market into categories that would not exist in the marketplace. For example, the Commissioner of Insurance has divided the Massachusetts market into nine classes, none of which specifically reflect age, gender, or marital status. \(^{86}\) All of these factors would typically be used by insurers if premiums were being set in the marketplace. The Commissioner justified this prohibition on the grounds that such variables were an unacceptable form of discrimination. \(^{87}\)

A more traditional interpretation of "unfair discrimination" might mean the existence of rate differentials unjustified by cost differentials. This would prohibit insurers from charging policyholders different premiums if their expected losses were approximately the same. \(^{88}\) Since insurers have generally been able to show that age, gender, and marital status predict actuarially correct cost differentials, this type of discrimination would be acceptable. The result of this classification truncation is that substantial subsidies flow between parties within these particular classifications. In 1986, adults within the more "experienced" classes paid subsidies of 14% to 15% to

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\(^{86}\)These nine classes are then combined with a system of categorization based on territory. There were 26 territories during the entirety of period covered in this paper. The result is a system whereby a motorist's premium is primarily based on which class/territory cell he falls into, adjusted for driving experience.

\(^{87}\)The Commissioner's intuitions about public values appears to have been correct since these prohibitions were subsequently enacted into law by the state legislature.

\(^{88}\)Regulation and the Automobile Insurance Crisis, p.51.
more youthful drivers within that group. In the "inexperienced" classes, males receive average subsidies of between 37% and 44%, while females pay subsidies of between 29% and 35%.

Massachusetts regulations further accentuate rate compression through two processes known as tempering and capping. Tempering and capping press premium rates for the class/territory cells more closely towards uniformity than would otherwise occur. This rate compression is in addition to the rate compression resulting from the truncated classification system. Rate tempering is accomplished by the imposition of maximum rate relativities. Rate relativity restricts the degree to which the premiums for class/territory cells can vary, regardless of the their actuarial variance in cost.\(^{89}\) Rate capping limits year to year rate changes for each class/territory cell regardless of changes in claims experience. In 1986, tempering and capping allowed some class/territory cells to pay less than 71% of their actual costs, while others paid 3% more than their actual costs to subsidize others.

The funding of the residual market deficit also creates subsidies between drivers. It shouldn't be terribly surprising that the state's residual market suffers losses every year. Since these risks were rejected by insurers in the voluntary market, an assessment was made that offering insurance to these motorists would be unprofitable. Furthermore, state law prohibits CAR from charging the motorist more than he would have been charged had his policy not been ceded to the residual market.\(^{90}\) In order to cover CAR's losses, the legislature

\(^{89}\)The Insurance Commissioner justified tempering based on the existence of greater heterogeneity, in terms of expected loss (risk), within higher premium class/territory cells than lower premium class/territory cells. This means that "good" drivers within the higher premium class/territory cells tend to be "dramatically overcharged" in comparison with "smaller overcharges" in lower premium cells. The Commissioner concluded that "the best risks in the highest rated classes are the principal victims of this injustice" and recommended tempering premiums. *Automobile Insurance Risk Classification: Equity & Accuracy*, p.196. For a bitter attack on the Commissioner's reasoning see *The Cost of Regulated Pricing*, p.29-32.

mandated that the deficit be paid by flat loading the deficit onto every policy regardless of territory or class. This provides a subsidy to those class/territory cells that are underpriced. In 1986, motorists in the voluntary market paid an average subsidy of $109 so that the average motorist insured through the residual market could receive a subsidy of $130.

The total effects of these subsidies are magnified when they are combined with one another. In 1986, the premiums of motorists based on their class varied by a factor of 4.2, while the cost of insuring different classes varied by a factor of 8.6. Policyholders in territories made up of small towns and more rural areas paid average subsidies of $48 or 12.6%, while policyholders in the other territories enjoyed average subsidies of $280 or 22%. The "experienced" driver, senior citizen, and business class drivers paid subsidies of up to $24 to 5%, so that "inexperienced" drivers could receive subsidies of up to $433 or 30%.

The SDIP program was designed to set policyholders' premiums based on driving experience. Since surcharges are set based on driver experience those drivers who impose greater costs within each cell are assessed surcharges. This allowed the SDIP to mitigate what would otherwise be even larger intra-class subsidies among drivers. However, the surcharges were not set at actuarially correct levels. This means that even within the class/territory cell "experience rating" system, the credits and surcharges did not reflect the true risk of drivers based on driving behavior. The result of this situation is that even within the class/territory cells, those drivers with good records were subsidizing those drivers with poor driving histories. When these

91AIB, Actuarial Notice 90-1 Subsidies in the 1990 Rates.
92AIB, Actuarial Notice 86-2, Subsidies in the 1986 Rates (March 21, 1986).
93The SDIP program is balanced within each class/territory cell so that the SDIP credits and surcharges have no direct effect on average rates thereby preventing a direct effect on inter-class subsidies. However, the SDIP does indirectly affect the level of inter-class subsidies by reducing the size of the residual market deficit.
different subsidies are all placed on top of one another the extent of the subsidies grows even larger.

The result of these myriad restrictions in setting premiums results is a vast system of subsidies running between different groups in Massachusetts. As noted above, these subsidies run from some residents of the state to others based on factors such as age, gender, and geographic location.

C. Effects of Rate Suppression and Rate Compression

Rate suppression refers to the use of regulatory authority to hold rates below the cost of actually providing insurance. According to the critics there are two major effects caused by adopting such a policy. The first is insurer withdrawal and the second is a concomitant reduction in the likelihood of new insurers entering the state's auto insurance market. Since insurers are in the business of making money they will be upset if they are unable to make money in the insurance business. If they perceive that this situation will continue they will attempt to withdraw from the market. This withdrawal will allow them to invest their assets somewhere else in the insurance business where they can make a profit, or perhaps in some other business altogether. Furthermore, any attempt to prevent exit by imposing exit regulations will only make this problem more difficult. If the insurer believes that the money losing situation will continue it may very well choose to pay the exit costs and gain its freedom from continued and unpredictable losses for the future.\(^{94}\) In addition, other insurers will be reluctant to enter the market if they fear that they will be unable to exit if entry into the market is unprofitable.

\(^{94}\)One of the costs of exiting the state was relinquishment of the insurer's licenses to write other lines of insurance, usually profitable, within the state. Some critics have criticized such policies as ineffective and confiscatory. Suzanne Yelen, Withdrawal Restrictions in the Automobile Insurance Market, 120 YALE L.J. 1431, 1446-1447 (April 1993).
Another way of labeling this system of subsidies is to say that automobile insurance in Massachusetts is "mispriced". Critics use this to mean that cost charged to a particular consumer does not match the price which he would pay if purchasing the product in an unregulated environment. The critics allege that a policy of mispricing insurance creates a number of problems.

One of the first criticisms is that the system is unfair to those who must pay the subsidy. This argument is based on the notion that an individual is entitled to the actuarially based premium that the market would impose if there was no government regulation. The proponents of Massachusetts regulation reject this argument charging that certain factors, such as gender, are fundamentally discriminatory and should not be used. In addition, the Commissioner decided that differences in the degree of heterogeneity within different classes of insureds resulted in unjust discrimination. While this is certainly an interesting argument, I don't intend to settle it here, since it is ultimately a value judgment. The more interesting aspect of the criticism concerns the allegation that this type of rate regulation leads to the type of insurance problems that existed in Massachusetts in the late 1980s.95

The critics contend that the state's system of subsidies will increases total accident costs over time. This theory is based on an economic analysis of a policyholder's behavior who's goal is to reduce his exposure to the risk of financial loss from owning and driving a vehicle. One option for the driver is to exercise more caution in the operation of the automobile. This could be accomplished through a number of different behaviors. The risk of being involved in an accident can be reduced by driving less, driving more slowly,

95It is worth noting that a system characterized by rate compression doesn't have to involve any degree of rate suppression. While rate compression may cause individual policies to be underpriced and operate at a loss, there is no reason that automobile insurance must operate at a loss overall. So long as insurers are allowed to recoup their overall costs, perhaps through surcharges on other policyholders, they will be able to operate at a profit.
avoiding certain traffic ways, and not driving in bad weather. It's also possible to decrease the chance of having your automobile stolen by always removing the key from the ignition before leaving the car, installing anti-theft devices, as well as not parking in particular areas with a high rate of theft.96

Another option for the motorist is to purchase insurance so that an insurer will absorb a portion of the loss which will be caused by the motorist's accidents etc. According to this economic analysis, the motorist will not purchase more coverage than is appropriate if the price of insurance adequately reflects the likely costs imposed by the policyholder.97 On the other hand, if the price of insurance coverage is too low for some risk groups then motorists within that group will purchase more insurance than is economically efficient. Since they will be able to distribute the losses resulting from their behavior to others, they will take fewer precautions, creating more accidents and allowing more thefts to occur. The overall effect of these subsidies is that "high risk drivers will tend to buy automobiles that are more costly to repair, purchase higher limits of coverage and lower deductibles, and drive less safely than if rates were unsubsidized."98 The cost of this increased inefficiency will then have to be paid by someone if the insurer is to remain solvent.

Critics also charge that this system of deprives the consumer of any incentive to shop around for the insurer who can most efficiently cover the motorist. In turn, this prevents inefficient insurers from being forced out of the marketplace by a declining market share. The only mechanism for weeding out inefficiency will be the state regulators who will have to determine the appropriate level of administrative expenses. The critics believe that the

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96 The Cost of Regulated Pricing, p.20-23.
97 Of course, in a state with compulsory liability requirements some insurance coverage must be purchased. However, a motorist can still minimize his insurance coverage by limiting his purchase to compulsory coverages and selecting the highest deductibles.
marketplace is more efficient than the government at doing this job. These critics would point to the fact that our nation uses the marketplace to set prices for the vast majority of goods and services sold in this country.

Critics also allege that rate subsidies tend to increase total accident costs by delaying policy pressure for institutions to control accident costs until costs grow much larger. This is based on the theory that the underlying problems within the system will be hidden, at least temporarily, if regulation is used to spread the burden of higher premiums across a larger population.

Lastly, the critics allege that the current system of subsidies leads some insurers to evade regulatory control. While there is wide range of actions which an insurer might take to avoid regulation, several basic measures are easily available. One is to avoid locating agents in those geographic areas, usually urban areas, where unwanted motorists live and/or work. Another method might involve selective advertising to those motorists most likely to generate profits while "hiding" from undesirable applicants. These actions will make it necessary to enact further legislation regulating insurers in an attempt to prevent such abuse.

D. CAR: Massachusetts' Residual Market Mechanism

Apart from allegations concerning rate suppression and rate compression, critics have also alleged that the residual market mechanism used by Massachusetts, CAR, actually creates inefficiencies. It does this by failing to give incentives for companies to reduce claims costs. This is a result

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99 The Cost of Regulated Pricing, p. 45.
100 Automobile Insurance Reform in South Carolina, p.436.
101 Automobile Insurance Reform in South Carolina, p.436.
of the loss-sharing nature of the mechanism. The original residual market mechanism in the state was the ARP. The ARP was a risk sharing plan under which motorists who could not obtain insurance through the voluntary market were assigned to particular insurers on the basis of market share.\textsuperscript{103} Since the insurer retained the policy, it was responsible for any losses that resulted from the motorists claims. This gave the insurer a strong incentive to minimize the claims made on the motorist's policy. While the insurer couldn't minimize the claims made by refusing to insure, that was the whole point of the ARP, it could reduce claims by monitoring fraud or other illegitimate costs attributable to the policy. In contrast, when Massachusetts switched to the Facility and thereafter to CAR, losses were distributed over the entire industry giving the insurer much less incentive to cut down on costs. The insurer has to bear the entire cost of investigating and fighting the claim, but the benefits of any reduction in losses will be shared with all the other insurers. If the insurer represents 5\% of the auto market, the insurer will only have an incentive to reduce costs if the expenditure for such action is less than 5\% of the expected losses on the policy.\textsuperscript{104}

In addition, the manner in which CAR's deficit was distributed among insurance companies had two problematic effects. The basis for this distribution was CAR's Rule 11, which effectively distributed losses among insurance carriers based on their voluntary market share in 1983. One problem was that new insurers sprang up who had very little market share in 1983. These insurance companies were able to cede all of their poor risks without picking up any of the losses which CAR suffered.\textsuperscript{105} Furthermore, since Rule 11 assessed

\textsuperscript{103}Massachusetts Insurance Yesterday, Today, and Tomorrow, p.37.\textsuperscript{104}In fact, one purpose of switching to CAR, a type of JUA residual market mechanism, was to coordinate the anti-fraud efforts of the servicing carriers. Needless to say, the statistics don't indicate that there was a great deal of effectiveness in this area as of 1987. Massachusetts Insurance Yesterday, Today, and Tomorrow, p.38.\textsuperscript{105}CAR from the Rearview Mirror: A History, p.3.
the deficit based on voluntary market share rather than on the level of cessions to CAR, there was no disincentive to cede policies to CAR.\textsuperscript{106} All of the eight insurers who had pulled out of Massachusetts by May of 1989 cited the financial burden of CAR as a key factor in their decision to withdraw.\textsuperscript{107}

IV. The Automobile Insurance Act of 1988

In 1988 the state passed The Automobile Insurance Act of 1988. The reforms did not change the underlying structure of the regulatory system, but modified and updated the system in an attempt to reduce the cost of insuring motorists in Massachusetts. It attempted to this by allowing fewer claims into the tort system, reducing the number of mandatory coverages, reduce fraudulent behavior, and decrease automobile theft. These changes were to be effective Jan. 1, 1989.

The state's tort threshold was raised from $500 to $2,000. This prevented individuals from suing motorists for damages based on pain and suffering unless the total damages exceed $2,000. The goal of this reform was to reduce the number of accidents in which injured parties were able to exit the no-fault system and enter the tort system for compensation. Since accidents covered under the no-fault system do not involve litigation expenses and do not provide for non-economic damages, the cost of providing coverage bodily injury coverage is expected to be lower. A number of other coverages were actually

\textsuperscript{106}The distribution of CAR's deficit was actually somewhat more complicated than this statement suggests. First, credits were issued to insurers who retained more policies from certain territories and classes in the voluntary market. These credits reduced the share of CAR's deficit which a particular insurers was required to absorb, thereby discouraging insurers from ceding risks otherwise considered undesirable. Secondly, the formula did allow for some adjustment on a year-to-year basis. These minor adjustments did not substantially alter the basic manner in which CAR's deficit was allocated among insurers. \textit{Actuarial Notice 86-2, Subsidies in the 1986 Rates}, p.9, n.10.

\textsuperscript{107}\textit{The Standard}, May 12, 1989.
reduced, eliminated, or made optional in order to reduce the cost of insuring motorists. Motorists were again allowed to reject the purchase of underinsured motorist coverage. Prior to this change Massachusetts was one of only fourteen other states in the country had required motorists to purchase this coverage.\textsuperscript{108} Since a mere 13\% of policyholders had chosen to buy this coverage prior to its mandatory status, consumers were now able to reduce their insurance bills.\textsuperscript{109} In addition, stacking uninsured motorists coverages was eliminated thereby reducing the scope of insurer liability.\textsuperscript{110}

Other reforms attempted to reduce the cost of insurance through elimination of abuse, fraud, and automobile theft. A direct payment system was enacted whereby consumers received payment for auto repair directly from insurers, circumventing auto body shops. This prevented auto-body shops from "burying" the deductible and passing along the increased cost to the insurance companies. A salvage title law was passed which requires the issuance of a title when a car is reported as a total loss. This prevents stolen or "junked" vehicles from being used to commit insurance fraud. A "preinspection" system was also adopted requiring that all newly insured vehicles be inspected and photographed to avoid subsequent insurance fraud.

Another important change involved the adjustment of surcharges and credits assessed drivers under the SDIP. Surcharges were increased for those with poor driving histories while drivers with excellent driving histories were given increased credits. Since these new assessments reflected the actuarial

\textsuperscript{108}Massachusetts Automobile Insurance: Yesterday, Today, Tomorrow, p.16.
\textsuperscript{109}Albeit by reducing their insurance coverage.
\textsuperscript{110}Stacking coverages meant that an insured could receive the uninsured motorists coverage from two separate policies if the motorist had insured each car on a separate policy. Not only did this mandatorily expand coverage beyond the level demanded by consumers, it also resulted in forced subsidization from single car families to families with multiple cars. Massachusetts Automobile Insurance: Yesterday, Today, Tomorrow, p.17-18.
cost of insuring motorists the intra-class subsidy flowing between drivers based on the experience rating system was eliminated.\textsuperscript{111}

The 1988 reforms substantially increased the penalties for driving without insurance. A driver will face a loss of his license for 60 days with longer suspensions for subsequent offenses. Criminal fines for driving uninsured between $500 and $5000 payable to the municipality where the offense occurred. The goal of this legislation was to provide incentives to local authorities to cut down on uninsured drivers. Additionally, the motorist will be liable to CAR for an amount equal to one year's premium for the highest rated class/territory cell or $500, whichever is greater.\textsuperscript{112} Finally, a motorist can be sentenced to up to a year in jail for driving without insurance.\textsuperscript{113}

The 1988 Insurance Reform Act also called for new plans to depopulate CAR. The heart of CAR's reform was a change in Rule 11 which formulated the distribution of CAR's underwriting losses among the state's auto insurers. Instead of assigning CAR's deficit on the basis of voluntary market share, the distribution was slowly switched over to a system based on the number of cessions an insurer made to CAR. This manner of loss-sharing gave insurers a tremendous incentive to keep business in the voluntary market in order to minimize their share of CAR's losses. This incentive was increased by an expansion of the credits available for keeping policyholders from certain territories and classes in the voluntary market. The depopulation plan also modified CAR by removing the twenty-five member cap on its membership and requiring that all insurers become servicing carriers unless they elected a "buy-out" option.

\textsuperscript{111}This change did not eliminate the intra-class subsidies which result from the truncated class system in Massachusetts. For example, within each category women will still subsidize men.
\textsuperscript{112}The premium amount will probably always remain higher since the premium for this cell in 1994 was $1875. AIB, Actuarial Notice 94-1, Subsidies in the 1994 Rates, Exhibit #2, p.1.
\textsuperscript{113}Mass. G.L.A. Chap 90 (§34J).
In addition to the reforms passed in 1988 and CAR's depopulation plans, a number of other measures were subsequently taken in the hopes of lowering costs and preventing a continuation of the insurance exodus. Some of these reforms included actions designed to force policyholders to bear the increased costs related to their behavior. Frequently stolen vehicles were placed on a "high theft vehicle list" by the Insurance Commissioner. Motorists driving such vehicles are required to purchase anti-theft devices or risk being charged higher premiums for collision and comprehensive coverages. The Insurance Fraud Bureau (IFB) was formed by legislation passed in 1990. While this organization does not focus exclusively on automobile insurance fraud, that is an important part of its mission. The IFB is funded entirely by the state's insurance industry.

The Massachusetts' Division of Insurance also attempted to reduce insurer withdrawal by promulgation of tough rules governing insurer withdrawal. These rules were upheld by the Massachusetts' courts. These regulations were in addition to those powers already at the disposal of the Commissioner and CAR. Under CAR Rule 11 B.3 an insurer was obligated to pay eight years of assessments for the residual market in order to keep its licenses to write insurance within the state. The Commissioner also had the power to suspend an insurer's other licenses to write insurance in the state if he determined that such insurer stopped issuing policies other than to protect its solvency.

While the changes in automobile insurance were significant, it is equally important to understand what was not changed in the 1998 reforms. The

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114 Withdrawal Restrictions in the Automobile Insurance Market, at 1440.
115 This rule was later changed to a three year assessment of charges in 1991. Withdrawal Restrictions in the Automobile Insurance Market, p.1440.
systems of classes, territories, rate capping, and rate tempering were all left in place. The inter-class and intra-class subsidies running between different motorists remained. Policyholders placed in the residual market continued to pay fees identical to those in the voluntary market and the residual market deficit continued to be funded through a flat surcharge on each policyholder. The only rate setting aspect of the system which was changed involved the changes in SDIP surcharges. This is not to say the 1988 reforms were not significant, but rather to point out that they significantly changed some aspects of the insurance system but not others.

Much of the scathing criticism of Massachusetts regulation was based on information available prior to or soon after the 1988 reforms. Furthermore, it would take several years for the ultimate effects of this legislation to be felt. An examination of subsequent events within the state may shed light on the validity of criticisms concerning regulation of the automobile insurance within Massachusetts.

V Analysis of Recent Trends in Massachusetts Auto Insurance

The numbers and statistics cited by the critics seem to offer impressive evidence that Massachusetts’ system of insurance regulation was unworkable, resulting in serious problems for both consumers and insurance companies. While there is no doubt that the Massachusetts' regulatory system did have its failings, it is not clear that they existed to the degree which has been alleged by some critics. Furthermore, even when the system wasn't working it is necessary to establish whether the underlying forces causing these problems were correctly identified by the critics.
A. Rate Suppression

Critics alleged that state regulators were engaging in rate suppression in the insurance markets. The insurance industry and some critics pointed to the large "losses" insurers were suffering and asserted that this was proof that state regulators were suppressing premiums in the state. Despite the insurers' claims, these numbers provided little evidence that insurers were actually losing money within Massachusetts. This was insufficient evidence because it is often very difficult to evaluate whether a given company is actually making a profit based on accounting.\textsuperscript{117} A number of different assumptions are required in any audit and there are contentious debates concerning how profits should be calculated.\textsuperscript{118} The debate of these type of numbers can grow far more complicated depending on the validity of time frames as well as other factors.

The response by some has been that the insurance markets are competitive, so there is no need to evaluate the degree of profit or loss of the insurance industry. These critics contend that just as we don't monitor the profitability of farmers to determine how much they can charge for food, we likewise don't need to do so for insurers. This theory of competition is itself disputed and the subject of debate. There may be a number of factors which make the insurance product different form some other commodities. In any case, there is no possibility of competition in Massachusetts given the current system. The Commissioner sets rates and no firm is allowed to deviate upward or downward. Since insurers face no possibility of competition in Massachusetts they will attempt to use the regulatory process to achieve the

\textsuperscript{117}There have been attacks on the insurance industry regarding the inclusion of profits insurers earn on consumers' premiums being invested. \textit{Regulation and the Automobile Insurance Crisis}, p.50.

highest gains in profitability possible at the expense of the consumer.\textsuperscript{119} This gives the insurance industry ample incentive to adjust their assumptions and calculations in order to show losses where there are actually profits. Even critics of Massachusetts regulation have noted that this type of claim would be expected from the insurance industry.\textsuperscript{120} For these reasons, we must search for other evidence that insurers are unable to profit in Massachusetts. This alternate evidence is not difficult to find.

The massive amount of cessions to the residual market offers convincing evidence that motorists were paying insufficient premiums for their automobile insurance. Insurers would not cede policies to CAR if they expected to make a profit on the policies. If an insurer expects to lose money on a policy it will have a tremendous incentive to cede it to CAR so the losses from the policy will be spread over all insurers in the marketplace.\textsuperscript{121} Since 69% of all drivers were insured in the residual market in 1988 it would be reasonable to estimate that approximately 69% of all policyholders were paying insurance premiums inadequate to cover their expected costs. If fact, the percentage of cessions may have actually understated the percentage of drivers who were paying inadequate premiums. This understatement was created by a system of credits given to insurers for keeping certain types of business, in certain territories and classes, in the voluntary market.\textsuperscript{122} While it is conceivable that insurers were

\textsuperscript{119} acknowledge that the free-market critics are in favor of removing such constraints. But in the meantime, while the current system exists as it does, they must admit that it is in the insurers best interest to increase prices and reap increase profits since consumers are unable to seek lower prices.

\textsuperscript{120} Mispriced Equity, p.65.

\textsuperscript{121} Those insurers who did not operate as servicing carriers were allowed to refuse to provide insurance since they could not themselves cede policies to CAR. However, the insurer’s broker/agent would then have to direct the motorist to a servicing carrier who would provide the insurance. Assuming that the original insurers had rejected the applicant because of poor risk factors it is probably safe to assume that the servicing carrier would then cede the policy to CAR. Regardless of the exact process the result is the same, motorists who are unlikely to generate profits are ceded to CAR.

\textsuperscript{122} Massachusetts Automobile Rating and Accident Prevention Bureau (MARB) (now known as AIB) Actuarial Notice 86-2 (March 21, 1986).
making sufficient profits on the remaining policyholders within the voluntary market to generate an overall profit, there was other evidence to the contrary.

The critical evidence providing proof of rate inadequacy is exit. If insurers are making adequate profits there is no reason to expect them to discontinue serving the Massachusetts market.\textsuperscript{123} It was also state policy that any withdrawal from the automobile insurance market, except to protect the solvency of the company, would require the insurer to give up its other licenses to do business in the state. Fireman's Fund insurance company decided to exit despite the requirement that the insurer give up all of it's insurance licenses and pay a $45 million assessment to CAR before discontinuing business in the state.\textsuperscript{124} The willingness on the part of insurer's to pay these substantial penalties is additional evidence that the automobile insurance market was truly unprofitable. While the state was always able to place policyholders with insurers who remained in the market there is no doubt that situation was untenable. Even insurers who remained in the market voiced their concerns about the destruction of the private insurance throughout the state.\textsuperscript{125} The absence of alternative explanations for these withdrawals provides convincing evidence of rate suppression in Massachusetts.

If the prior critique offered evidence that Massachusetts was engaging in rate suppression, the policies undertaken at the end of the decade showed

\textsuperscript{123}Even in a competitive, unregulated marketplace where insurers are allowed to set their prices some companies may elect to withdraw. A given company may have such a small market share that it is inefficient to continue offering insurance. An organization may be too cumbersome and inefficient to make a profit in the competitive marketplace. Connecticut's experience with automobile insurance provides support for this argument. In the 1990's a number of insurers discontinued selling automobile insurance in Connecticut. One major study critical of rate suppression in many states found that Connecticut had not engaged in rate suppression. In addition, the absence of competition within the Massachusetts system makes it necessary that the Commissioner set rates which will limit the inefficiencies among insurers. While these possibilities might explain a limited amount of insurer withdrawal, they are unable to explain the degree of withdrawal experienced in Massachusetts.

\textsuperscript{124}Withdrawal Restrictions in the Automobile Insurance Market, p.1439 note 65.

attempts by the state to reverse this situation. The use of a retroactive premium hike for 1987 and a further rise in premiums in 1988 reflected such concerns by substantially raising premiums for insurance companies. The industry believed that these hikes had finally brought Massachusetts to a level of or approaching rate adequacy.\textsuperscript{126} In addition, the 1988 auto reform bill attempted to limit further rate increases by reducing the cost of insuring drivers in Massachusetts. However, the enactment of extremely stringent regulations concerning withdrawal were fought by many in the industry.

The initial aftermath of the 1988 reforms and subsequent administrative changes were not positive. The insurance industry did support the reforms and seemed pleased at their passage. However, the rules relating to insurer withdrawal failed to stem a continued exodus from the state. A number of insurers attempted to fight these regulations in court, although all of the claims were eventually settled. At the end of 1988 Allstate, the state’s fifth largest auto writer, with 6.6\% of the market, decided to leave.\textsuperscript{127} This exit was troubling because it came on the heels of the substantially insurance friendly reforms contained in the 1998 Auto Insurance Reform Act. However, there was also evidence that some insurers were satisfied with the recent changes in Massachusetts regulation. The N.H. Group which had previously informed the Commissioner that it would be withdrawing from the state, decided to continue operating within Massachusetts. Despite this change of heart, four more insurers subsequently announced their withdrawal from Massachusetts in the next two years. The last of the insurers to withdraw was Aetna, the fourth largest insurer in the state with 8.3\% of the market. If the withdrawal regulations had been successful insurers should have discontinued their withdrawals almost

\textsuperscript{126}Insurance Review, "Massachusetts Mirage?", April 1989 p.36.

\textsuperscript{127}This resulted in the quip that because of this withdrawal, Allstate would need to change its name to "MostStates" since it no longer does business in every state. Price Regulation in US Automobile Insurance, p. 168.
immediately. The continued exodus after passage of these rules doesn't offer any support for their effectiveness.

Although the cumulative effect of the state's other actions were not immediately apparent, current evidence seems to offer support for their effectiveness in reversing the policy of rate suppression and creating a profitable market within Massachusetts. Aetna's exit from the state seems to have signaled the end of the rate suppression cycle. Aetna had been the only insurer to fight the 1990 premium increase allowed by state regulators and those insurers remaining in the state seemed to be satisfied with the direction in which the state was moving. At the time of Aetna's withdrawal the consensus among insurers was that Massachusetts had finally entered a period of rate adequacy. This consensus seems to have continued since there have not been any withdrawals from the state since Aetna's exit in February of 1992. The market in Massachusetts has remained quite stable throughout the remainder of 1992 as well as 1993 and 1994. The absence of continued exits despite the very modest rate increases following 1989 lends further support to the argument that the prior rate hikes and cost cutting measures succeeded in eliminating rate suppression. While changes in Rule 11 also helped depopulate CAR, the massive decrease in the residual market's share of motorists from 73% to 22% also indicates a substantial increase in the degree of rate adequacy.

While Massachusetts succeeded in eliminating rate suppression, the measures it adopted to do so confirmed the claims leveled by critics. The state was unable to maintain its policy of rate suppression without incurring a major

128 Other parties who might have been dissatisfied had already left the state.
130 I have done extensive searching throughout traditional news sources and trade periodicals for any indication that insurers have been leaving the state or going insolvent. My statement concerning the absence must be limited to those insurers with some significant presence in the state.
side effect, insurer withdrawal. This withdrawal came despite the imposition of stringent withdrawal regulations. Ultimately, the state was forced to increase premiums and cut insurance costs in order to maintain a system of private automobile insurance in the state.

Although rate suppression was eliminated through rate hikes and insurance reforms, critics still had many complaints. Ironically, some of the steps taken by regulatory authorities to relieve insurers from the burdens of rate suppression created the other problems afflicting the state auto insurance market. In fact, the rate hikes which were instrumental in achieving rate adequacy for insurers outraged consumers.\textsuperscript{131}

B. Rate Compression

A number of the critics have alleged that the rate subsidies within the Massachusetts automobile have created excessive costs and inefficiencies.\textsuperscript{132} At least one critic, Simon Rottenberg has specifically stated that the 1988 reforms would be inadequate since they failed to address these problems.\textsuperscript{133} A review of the evidence regarding the Massachusetts insurance premiums indicates that some prior criticism was unwarranted. Furthermore, a review of recent evidence concerning the development of the automobile insurance market show modest improvement in the insurance system.

Many of the articles critical of the Massachusetts system cited A.M. Best's statistics on average insurance premiums, which showed Massachusetts as

\textsuperscript{131} The Standard, p.1, June 2, 1989.
\textsuperscript{132} While it may initially seem that the presence of rate suppression is inconsistent with the argument that state insurance premiums are exorbitant due to the presence of rate subsidies, they are not. As noted above, the largest increases in premiums occurred in 1987 and 1988 reflecting the state's intention to deal with the problem of rate suppression. Secondly, if the "mispricing" of insurance causes a great of inefficiency Massachusetts insurance might be so costly that even premiums set at extraordinarily high levels could remain inadequate.
\textsuperscript{133} The Cost of Regulated Pricing, p.46.
having the nation's highest average insurance premium in 1987.\textsuperscript{134} At least one study has criticized the method of calculation by A.M. Best citing its bias against states, such as Massachusetts, that have a high level of insured vehicles. A.M. Best calculated average premiums by dividing total premiums by the number of cars registered in the state, not the number of cars insured. This resulted in an inflated figure for states like Massachusetts with a high percentage of insured vehicles. This dispute seems to have been resolved by the development of a new formula by the National Association of Insurance Commissioners (NAIC). This new measure of insurance premiums reflects the cost of insuring a vehicle in a given state that is unaffected by differences among states in the propensity to buy collision and comprehensive coverage.\textsuperscript{135}

Their information imparts a somewhat different picture than one received from the A.M. Best information. According to NAIC figures, Massachusetts' only had the fourth highest average premium in 1987, although by 1988 even these adjusted figures showed it with the second highest premium in the nation.\textsuperscript{136} While being number two hardly refutes the critics, according to his measure Massachusetts has never claimed the top spot in terms of insurance premiums.

The state has made modest progress since the enactment of the 1988 reforms. In 1989 Massachusetts dropped three spots to become the fifth most expensive state to insure a vehicle. In the following four years it oscillated between the fourth and fifth highest spot in the national rankings. In 1990 the state climbed to the fourth highest rung before again declining and remaining as the fifth highest premium for 1991 and 1992. By 1993 Massachusetts again

\textsuperscript{134} \textit{The Cost of Regulated Pricing}, p. 26.
\textsuperscript{135} National Association of Insurance Commissioners, \textit{State Average Expenditures and Premiums for Personal Automobile Insurance 1990}.
\textsuperscript{136} I have removed Washington, D.C. from these rankings.
generated the fourth highest premiums in the nation. While Massachusetts has not dramatically improved its position, these figures do indicate modest improvement that has been maintained since 1988. In addition, the pace of premium growth was also slowed in comparison with the period prior to the reforms. From 1982 to 1987, Massachusetts' premiums increased by 71.7% which was more 8.6% more than the national average during the same period.137 From 1988 to 1993 Massachusetts only saw increases of 22.1%, which was only 3.2% above the national average for the same period. These figures seem to indicate that the 1988 reforms were at least partially successful in bringing insurance premiums under control.

Another perspective undercuts some of this progress. If Massachusetts' premiums are compared as a percentile of the national average then a disturbing picture emerges. In 1988, when NAIC data showed Massachusetts reaching its peak spot of second highest premium in the nation, the average state premium was 34% higher than the national average. Although it dropped in 1989 to slightly more than 29% of the national average, it has slowly climbed in every year since then. It rose to a little over 31% in 1990, then to almost 33% in 1991, more than 35% higher in 1992, and more than 38% over the national average in 1993. While the state has done relatively better in comparison to the other high premium states and has slowed the growth in its premiums, it has failed to halt the rise in its premiums in comparison with the rest of the nation.

In the late 1980's there had been a wealth of other evidence that the Massachusetts system was in bad shape. This evidence included the high rate of vehicle theft in the state. In 1987 Massachusetts topped the list for motor vehicle theft rate per 100,000 people and per 100,000 registered vehicles.138

137 The percentages used for the 1982-87 period reflect the old style of calculation used by A.M. Best, since NAIC data is not available earlier than 1987.
138 The Cost of Regulated Pricing, p. 26
These figures indicated that Massachusetts was failing to stop auto theft in both absolute terms and relative to the rate of auto theft in other states. If this high rate of theft may have been caused by the subsidies between drivers in automobile insurance we would not have expected a change in the rate of auto theft over time and despite the enactment of the 1988 reforms. In fact, there has been a modest but substantial improvement in the state's rate of auto theft since 1987. The most widely cited statistic for automobile theft is the rate of theft per 100,000 people as calculated by the F.B.I.\textsuperscript{139} Massachusetts has steadily fallen from having the highest rate of auto theft per 100,00 in the nation to only having the seventh highest rate of auto theft in 1992. In 1993, Massachusetts did climb to the sixth highest theft rate in the nation. By 1993 the Massachusetts theft rate per 100,000 pop. had declined by 7% since 1987, while the national rate of auto theft had risen by more than 11% since 1987. This meant that the state's rate of theft had declined from 75% higher than the national average to 35% higher than the national average.

While the statistics noted above seem to be more widely disseminated, the rate of auto theft per 1,000 registered motor vehicles seems to be a better measure. The rate per 100,000 pop. may be affected by the level of automobile ownership in the state and is therefore a less accurate gauge of the degree to which an automobile will actually be stolen. Examination of this statistic also shows some improvement in Massachusetts, although not to the degree exhibited by the decline in the rate of theft per 100,000 pop. The rate of vehicle theft per 1,000 registered vehicles actually rose from 13.92 in 1987 to 15.03 in 1991. However, this increase of 78% was in comparison with a national increase during the same time period of more than 23%. This left

\textsuperscript{139}This is the statistic cited by the National Insurance Crime Bureau (NICB) which appears to be the industry mouthpiece concerning automobile theft. It is also cited in many reports regarding automobile insurance.
Massachusetts with a rate of auto theft 70% higher than the national average in 1991 compared with a rate more than 93% higher than the national average in 1987. In 1992 there was a drop in both the state's and the nation's rate of auto theft per registered vehicle. These drops left Massachusetts with a rate of theft 7.6% less than it had been in 1987 and only 53% higher than the national average. While these figures do not paint as broad an improvement as the other figures, they do signify a modest but steady improvement in Massachusetts' situation.

Massachusetts has also experienced a modest decline in the frequency of its claim rate as exhibited by property damage liability claims. In 1987 the claim rate was 8.32 per 100 car years, the highest rate in the nation. By 1990 the state's claim rate had fallen to 7.59 per 100 car years.\textsuperscript{140} While this remains the highest claims rate in the country, it does represent a decline from 93% higher than the national average to 80% higher than the national average. Similarly, there is evidence of a decline in the cost of coverage for property damage liability. It has gone from a cost of $103.36 in 1987 to $101.80 in 1990. While this remains the highest premium for such coverage in the nation, it also represents a decline from 79% higher than the national average to only 61% higher than the national average. The less disproportionate cost for the coverage may indicate that many of the additional claims made in Massachusetts are relatively small.

One area that critics appear to have correctly predicted are incentives to avoid the regulatory constraints placed on them by the state. Critics predicted that cross subsidies would give insurers an incentive to avoid regulatory constraints. The creation of Exclusive Representative Producers (ERPs) by CAR offers support for this contention. ERP's are insurance agents appointed

\textsuperscript{140}This is the most recent data I was able to obtain in this area.
by CAR to write insurance for groups and territories that are underserved by the
insurance industry because they are unprofitable. Since the insurance industry
will not enter into voluntary contracts with such individuals, CAR assigns them to
various carriers so that all the residents of the state have access to insurance.
Despite all of the changes that occurred in the 1988 legislation and subsequent
administrative changes these ERPs are still necessary. This is not surprising
since some groups and territories are still underpriced and generally
unprofitable for insurance companies. The continued need for ERPs does offer
support to the allegation that subsidization of some drivers will have behavioral
incentives on the insurance companies that may need to be addressed by
further regulation.

An analysis of insurer behavior towards group plans does not initially
offer support for the expectation that insurers will attempt to avoid these
regulatory constraints. Group plans offer insurers opportunities to reduce
administrative costs and avoid the regulatory constraints formulated in
Massachusetts. Administrative savings are available because fewer insurance
agents are necessary to generate the business, premiums are more easily
collected via payroll deductions, and there may be an opportunity to control
costs through education and peer pressure. The use of payroll deductions may
also allow a group to obtain better financing terms than an individual could
receive on his own.\footnote{The Standard, May 27, 1994 p.6.} Perhaps more importantly, after three years an insurer
will be allowed to offer premium reductions for the group as a whole based on
its losses and expenses. Forming such plans will allow insurers to seek out
groups that are likely to have better claims experience than the general
population.\footnote{An insurer will still have to pay its share of the CAR deficit based on its utilization formula. However, since the number of cessions from group plans will be considerably lower if the right groups are chosen the insurer will also be able to minimize its share of the residual market deficit.}
was little use of these plans. Prior to 1990 only 21 groups had been approved for this program.

If insurers desired to avoid regulatory constraints we would have expected them to take advantage of such an opportunity in an attempt to avoid the regulation imposed by the Commissioner's mandated rates. This apparent inconsistency may have an explanation compatible with the theory that insurers will act to avoid regulatory constraints. It may be that the degree of rate suppression within Massachusetts was so great that insurers had no interest in expanding market share despite the savings available through group plans. In 1988, 69% of the state's motorists were insured through the residual market. As previously discussed, this may actually have underestimated the number of policies which were unprofitable. Even with a group less risky than the state average, there would be a large number, if not a majority, of unprofitable policies.

If this second explanation is correct then we would expect that utilization of group plans would rise when overall rate adequacy was achieved in the Massachusetts auto insurance market. There is evidence for this proposition since the use of groups plans has dramatically increased. At present 335 groups have state approval to offer discounts to their 227,204 members.143 In fact, during the first four months of 1994, over 175 Group Marketing Plans were approved by the Division of Insurance. This represented a 50% increase over the number of approved groups for all of 1993.

The dramatic growth in the use of these plans may also be the result of unreasonably high premiums.144 The Commissioner's price setting power prevents insurers from lowering prices and competing away excessive profits.

144 I'd like to thank Eric Kramer for this possible explanation for the growth in group plans.
Insurers may see group plans as the only possibility through which they can lower prices in an attempt of obtain more customers. If this is the explanation it may be necessary for the Commissioner to reexamine the premiums which insurers are being allowed to charge motorists. At this point, it is difficult to know which of these theories best explains the growth in the use of these plans. It may be that the administrative savings, desires to obtain an attempt of obtain combination of both reasons, lies behind their increased utilization.

Regardless of the reasons for their growth the expansion of these group plans will inevitably have an important effect on the insurance markets. In 1994 the group plans only accounted for about 3% of the market.\textsuperscript{145} Since much more than 3% of the policyholders are overpriced, subsidizing other motorists, there may be a large degree of future growth in these plans. After a period of time a significant degree of competition will eventually creep into the system. Certain groups, which have better risk profiles, will inevitably receive greater discounts that other groups.\textsuperscript{146} While there are rules to prevent the abuse of plans, certain groups will qualify for substantial discounts if they have many of the characteristics ordinarily favored in an unregulated environment. This seems to violate some of the underlying notions developed by the Commissioner of Insurance. It is not particularly fair to have insurance premiums based on arbitrary membership within a particular employer etc.

While membership in groups is not an immutable characteristic like gender or age, it is far less related to a motorist's behavior than experience rating.

The critics may also have been proven correct in their assessment that the Massachusetts' system delayed the enactment of regulatory reform. Since the costs of the system are spread more evenly across all the motorists in the

\textsuperscript{145} \textit{The Standard}, July 22, 1994.
\textsuperscript{146} The plan must consist of at least 25 members who share an affinity other than the need to purchase auto insurance. At least 35% of those eligible in the group must participate in the plan. In addition, groups can't require members to purchase their coverage through such plans.
state, increases in the cost of the system are less noticeable to any one motorist. The failure to adjust the system in any major way prior to the crisis involving extraordinary premium hikes and insurer withdrawal seems to support this view. However, in the absence of system with these type of subsidies, the results may not be any better. Some groups, primarily young and urban drivers, may have seen considerably higher premiums. In the absence of shared pain, the bulk of the drivers in the state may have simply allowed the increase in premiums being borne by particularized groups and avoid reform. This could lead to other costs to society at large. Some individuals might decline to insure thereby forcing others bear the full cost of the damages caused by their accidents. Some individuals who might otherwise be able to contribute to society if provided with access to transportation will not do so. While Massachusetts' pricing system might delay reform, it might also encourage more substantial reform to eventually take place.

Another piece of evidence cited in criticizing state regulation revolved around the tremendous growth in the size of the state's residual market. Much of the criticism concerning Massachusetts's regulation centered on the large number of policyholders insured through the residual market, CAR. This criticism focused both on the reasons so many motorists were insured through the residual market as well as the adverse affects of maintaining such a system. In 1992 6.4 million, or 4.6%, of the 140.4 million passenger cars insured in the U.S. were insured in residual markets.\textsuperscript{147} By 1992, only 21.6% of the Massachusetts' market was insured through the residual market. The number dropped even further, to 10% in 1993. The 1988 reforms and subsequent depopulation plan have clearly succeeded in this area.\textsuperscript{148}

\textsuperscript{147}AIPSO \textit{Facts} 1993/1994, p.2.
\textsuperscript{148}As I have noted previously, this drop can be attributed to an improvement in the degree of rate adequacy and changes in formula and credits used to assess CAR's deficit. These changes have caused insurers to retain some policyholders in the voluntary market even when such
An examination of Massachusetts' regulation since 1988 does offer support for some of the critic's allegations regarding rate compression. Rate compression encouraged and continues to encourage insurers to avoid voluntary relationships with agents/brokers who serve areas unprofitable for insurance companies. It also appears to have caused delay in the implementation of reform, although any disadvantages caused by delay in reform may be offset by better reform in the end. However, the majority of the evidence doesn't support the contention that rate compression was responsible for the high premiums, high level of auto theft, and high claims rate in Massachusetts during the 1980s.

These recent results show that Massachusetts has made modest gains in dealing with the problems it faced in the late 1980s. Massachusetts has managed to halt the rapid increase in its automobile insurance premiums as well as maintain a lower national rank for the cost of insurance premiums. Perhaps most importantly, the comparatively modest premium increases were sufficient to maintain rate adequacy and prevent further problems of rate suppression. While insurance premiums have continued to increase more quickly than the national average, the state has also made progress in other areas.\textsuperscript{149} The rate of automobile theft per 100,000 residents has declined substantially since 1987. While there were modest increases in the rate of theft per 1,000 registered vehicles until 1992, the state's rate has steadily declined in relation to the national average. Although the state's property damage liability policyholders are expected to generate losses. This means that some of the reduction in the size of the residual market is the result of subsidies flowing between some insureds in the voluntary market to others in the voluntary market. Despite this fact, the insurance system may still benefit from the reduction in cessions to CAR if the retention of policies in the voluntary market provides better incentives for claims monitoring by insurance companies.

\textsuperscript{149}The absence of rate suppression along with a pattern of continued, albeit modest, premium increases may indicate that insurance premiums are being set too high by the Commissioner. As suggested above, the explosion in group plans noted above may offer further support for this contention. Unfortunately, a thorough discussion of this possibility is beyond the scope of this paper.
claim's rate and premiums remain high, the state's position has improved since 1987. Despite the continuation of policies which subsidize some policyholders at the expense of others, the 1988 reforms have had a positive impact on the costs and efficiency of the Massachusetts automobile insurance system.\textsuperscript{150}

VI__Massachusetts: Relative to the Rest of the Nation?

While the 1988 reforms may have succeeded in modestly improving the Massachusetts' situation, it hardly solved all of the state's problems. Those who hold rate compression responsible for the high cost of insurance premiums in the state often compare Massachusetts with the rest of the nation. They do so and find that automobile insurance premiums are considerably higher in Massachusetts than they are in the rest of the country as a whole. Furthermore, the critics of rate compression hold it responsible for creating many of the underlying factors which contribute to the high cost of insurance premiums such as a high rate of automobile theft and a high claims rate. These critics can still

\textsuperscript{150}There is some possibility that recent changes in the state's automobile insurance market have indirectly led to a decrease in the rate of compression existing within the system. Although the state has continued its policies of rate tempering and capping, as well as prohibitions on the use of age, gender and marital status, there has been a change in the size of the residual market deficit. The increase in rate adequacy as a result of premium increases, cost cutting measures enacted in the 1988 reforms, as well as changes in the method of cost distribution among companies have helped to reduce the number of cessions to CAR. As cessions to CAR declined the size of CAR's deficit has also declined. As a result of this declining deficit the portion of the premiums paid by policyholders for deficit loading has declined over the years. Since the residual market deficit is a major source of subsidies among policyholders its declining size will have reduced the degree of rate compression if all other factors were held constant. Furthermore, the 1988 reforms in the SDFP also decreased the degree of rate subsidization between policyholders by assessing actuarially correct surcharges. If this was the case, any improvements in Massachusetts' position could be attributed to the declining degree of rate compression. However, any or all of these changes may have been more than offset by increases in subsidies due to changes in the cost of insuring motorists in various classes or territories. The type of comprehensive mathematical analysis necessary to adjust for these effects is beyond the scope of this paper. Despite the decrease in the size of CAR's deficit, the remaining flat loading of the deficit together with the retention of the other regulatory policies outlined above, result in a tremendous degree of rate compression. The second half of this analysis focuses on the continuing rate compression in an attempt to provide further evidence that Massachusetts' difficulties are not the result of rate subsidies among policyholders.
point to the fact that Massachusetts' premiums are still rising faster than the 
national average and that it still remains near the top in national rankings for 
automobile theft and at the top in claims frequency.

This type of comparative evaluation ultimately rests on an underlying 
assumption that it is reasonable to compare Massachusetts with the rest of the 
nation. If the critics are incorrect in this assumption, then their arguments are 
also flawed. Massachusetts is a densely populated state situated on the east 
coast. It seems intuitively unreasonable to compare Massachusetts with a 
sparsely populated state like Wyoming. It also seems unreasonable to compare 
Massachusetts with states in the southwest with climates that may make driving 
intrinsically safer. It makes much more sense to compare Massachusetts with 
other states that are more similar in terms of factors relating to the cost of 
insurance. Other northeastern states like Connecticut, Rhode Island, New York, 
New Jersey and Pennsylvania have a number of characteristics we might 
expect to effect the cost insurance premiums, the rate of auto theft, as well as 
the likelihood of filing claims.

These northeastern states share many of the demographics that 
characterize Massachusetts. In 1991, Massachusetts had the third highest 
population density of any state. There were 766.16 people per square mile in 
the state of Massachusetts. The five other northeastern states had an average 
population of 663 people per square mile. These figures compare with a 
national average of only 71.23 persons square mile. Additionally, a greater 
proportion of the population resides in urban areas.\(^{151}\) These demographic 
statistics impact the costs of automobile insurance in several ways. They are 
linked to higher rates of crime including both insurance fraud and automobile

\(^{151}\) National Association of Independent Insurers, *Personal Automobile Insurance: An Analysis of 
theft. In turn, a higher rate of automobile theft causes will cause an increase in
the premium for comprehensive coverage. Furthermore, greater population
densities contribute to greater automobile congestion in these northeastern
states.

Massachusetts has an extremely high number of vehicles per mile of
highway. In 1992 Massachusetts' had 108 registered vehicles per mile of
highway. The group of five other northeastern states have an average of 93
registered vehicles per mile of highways. This compares with a national
average of 49 registered vehicles per mile of highway. The number of vehicles
per mile of highway is reflected in the number of automobiles traveling on the
roads. In 1992, Massachusetts has 1,391 vehicle miles of travel per 1,000
miles of road in the state. These are the fourth most densely populated roads in
the nation and 2.42 times the national average of 574 vehicle miles of travel per
1,000 miles of road. Rhode Island, New Jersey, and Connecticut are also
among the top ten states in traffic density as defined by vehicle miles per
highways miles. New York ranks eleventh in the nation and Pennsylvania
fourteenth. They collectively average 1,220 vehicle miles per 1,000 miles of
road in the state.

In addition, a much greater proportion of Massachusetts driving is done
on urban roads in comparison with the rest of the nation. Over 80% of
Massachusetts vehicle miles are on urban roads, compared with a national
average of 61% of vehicles miles on urban roads. The northeastern states are
more similar to Massachusetts in this area since they have an average of 70%
of their vehicle miles on urban roads. There is a higher accident rate on urban
roads than there is in rural roads. Across the U.S., the average injury rate for
rural roads is 73.73 accidents per 100 million vehicles miles while it is 117.86 for urban roads.\textsuperscript{152}

The combination of higher concentrations of automobiles on the roads and a greater percentage of urban driving increases the likelihood that automobile accidents will occur. There are more accidents in Massachusetts and this group of northeastern states. In 1992, the injury accident rate in Massachusetts was 141.76 compared to a national accident rate of 100.51. This compares with an average accident rate of 126.22 for the selected group of northeastern states. Two of the states within this group, New York and New Jersey, had higher accident rates, while the other three state has lower accident rates.

Another factor influencing the cost and frequency of claims may be the availability and use of attorneys. In 1991, Massachusetts had 4.57 attorneys per 1,000 in population. This was the second highest in the nation after New York with a density of 5.26 attorneys. Connecticut, Rhode Island, and New Jersey also have high densities of lawyers in comparison with the national average. These numbers are reflected in higher levels of representation. One preliminary study shows Massachusetts B1 claimants have a 71\% chance of being represented by an attorney. This figure compares with 69\% in Rhode Island, 61\% in New Jersey, 61\% in Connecticut, and 50\% in NY. These averages are considerably higher than the national average of 46\% for attorney representation.

Massachusetts also has a very high average annual pay compared with the rest of the nation. In 1990, average annual pay in Massachusetts was $26,689, 13\% higher than the national average of $23,602. The other groups of

northeastern states have an average annual pay of $26,432, which is 12% higher than the national average. Perhaps even more importantly, the state also has a much higher level of per capita disposable personal income. In 1990, Massachusetts had $19,051 of per capita disposable personal income, 20% higher than the national average of $15,898. The selected group of northeastern states have a per capita disposable income of $18,592, 17% above the national average. While these figures concerning income don't directly impact the cost of automobile insurance an NAIll study of automobile insurance concluded that they do provide important data relevant to the cost of automobile insurance. The cost of goods (automobile parts etc.) and services (mechanics time, wage losses, etc.) has an important effect on the cost of insurance. If the entire cost of living is higher in these northeastern states, it should not be surprising or problematic that insurance is proportionately more expensive in these states. The NAIll study also concluded that this information served as a proxy for likelihood that newer and more expensive cars are being operated in Massachusetts in comparison with other parts of the country.\textsuperscript{153} This would lead to higher costs for collision and comprehensive coverages since the possible loss will on average be higher for state with higher percentage of newer vehicles.

Another factor which influences the cost of automobile insurance is automobile repair costs. Massachusetts' total repair costs, including parts, labor, etc., averaged $1,741 per claim in 1992. This cost places Massachusetts twenty-fifth in national rankings for total repair costs. The other comparable northeastern states average $1995, nearly 15% more than in Massachusetts.

This variable may be the only one in which Massachusetts exhibits relatively average costs.

One of the most important factors influencing insurance costs may be medical costs. Obviously, parties who are injured in automobile accidents seek and receive medical treatment. At least one article has concluded that medical costs are the most important factor in establishing the cost of automobile insurance premiums.\textsuperscript{154} One study of the automobile insurance compensation found that medical expenses accounted for 70\% of all economic losses for claims other than fatality and permanent total disability claims.\textsuperscript{155} In 1990, Massachusetts's average daily hospital room charges were $404. Ranked by this measure Massachusetts has the sixth highest medical costs in the nation. This cost is 28\% higher than the national average of $315. The group of northeastern states together average $379, 20\% higher in terms of hospital room charges than the rest of the nation.

All of these figures suggest that Massachusetts is more directly comparable with the these other northeastern states that it is with the nation as a whole. Considering the influence these various factors would be expected to have on the cost of automobile insurance it would be astonishing if Massachusetts insurance premiums ranked close to the national average. If Massachusetts is compared with this group of other northeastern states its recent performance is very reasonable. The state's average premium from 1989 to 1993 was $913.96. The five-year average premium for the comparative group of northeastern states was $909.20. However, this picture is skewed by Pennsylvania's presence which had an average five year premium of $709.99. Massachusetts' average five year premium was higher than those of


Pennsylvania and New York, but lower than those of Connecticut, Rhode Island, and New Jersey. Massachusetts' premium increases from 1989 to 1993 averaged 4.4% annually. While the northeastern states together averaged 3.46% annually, Massachusetts again performed better than three of the five similarly situated states. When compared with other states that were similarly situated Massachusetts's premiums were very average.\textsuperscript{156}

The rate of automobile theft in Massachusetts is also quite reasonable in comparison with these other states both in terms of population and per 1,000 registered vehicles. In 1992, Massachusetts had a theft rate of 12.94 per 1,000 registered vehicles while the national rate was only 8.46 per 1,000 registered vehicles. In comparison with the northeastern group's average of 11.34, Massachusetts's rate was only 14% higher.\textsuperscript{157} While the continuation of such a high rate of automobile theft is troubling it is important to note Massachusetts continuing improvement in this area over the last few years.

These common factors linking Massachusetts with the selected group of northeastern states don't offer much help in explaining the state's claims rate. In 1990, the average claims rate for the other five states was 4.01 compared with an average of 7.59 for Massachusetts. This rate is 89% higher than the average of these other northeastern states that have many of the same underlying factors that Massachusetts possesses.\textsuperscript{158} However, premium associated with physical damage coverage was not as disproportionate. In 1990, the Massachusetts premium was $101.80 compared with the northeastern state's average physical damage premium of $69.96. While this is

\begin{itemize}
\item As mentioned in this article previously, Massachusetts also did quite well compared with the nation as a whole. The average five year annual increase nationally was 3.78% only slightly less than in Massachusetts.
\item While Pennsylvania's substantially lower rate of auto theft compensates for New York's extraordinary high rate, Massachusetts' rate is higher than any other state except for New York.
\item It's interesting to note that this group of northeastern states had a lower claims rate than the national average.
\end{itemize}
still far higher than the average premium of these other northeastern states it is only 46% higher, compared to a frequency that is 89% higher. This suggests that many of the claims being made in Massachusetts were of a relatively low value. Nevertheless, there is no doubt that Massachusetts has a significant problem in this area. This problem may be evidence that rate compression has increased inefficiencies within the automobile insurance market.\(^{159}\)

If these northeastern states engaged in the same degree of rate compression exhibited in Massachusetts it would not be surprising that similar results were obtained. Even if these other explanatory factors were present, the additional presence of rate compression might indicate that many of these problems are actually caused by rate compression. The available evidence concerning this matter does not support the conclusion that rate compression is a substantial factor in the other northeastern states as a group. It is true that a majority of these northeastern states engage in a greater degree of automobile insurance regulation than in many other parts of the country. At least two studies have concluded that a majority of the northeastern states being compared engage in government regulation restricting the rates insurers can charge motorists.\(^{160}\) Despite such regulation, these states don't seem to be engaging in rate compression to the same degree exhibited by the Massachusetts system.

Rate compression in Massachusetts is created by three different regulatory policies. One is the Commissioner's policy of tempering and capping rate relativities among class/territory cells. Another regulatory policy causing

\(^{159}\)Since this data is one of the few statistics for which I have been unable to obtain recent information, it is conceivable that Massachusetts has improved its position in the last few years. However, the level of improvement would have to be extraordinary to overcome the tremendous disproportion that exists as recently as 1990.

compression involves rules relating to the residual market. The state prohibits increased rates for those policyholders insured through the residual market and flat loads the residual market deficit onto all policyholders through surcharges. Finally, the truncation of classifications through prohibitions on the use of age, gender, and marital status also creates rate compression. With the possible exception of New Jersey, none of the other northeastern states have policies which restrict automobile insurance premiums to the same degree.\textsuperscript{161} Connecticut, Rhode Island, and New York all allow the use of age, gender, marital status, and territorial location to be used as factors in setting insurance premiums.\textsuperscript{162} Although Pennsylvania restricts the use of gender, it does allow age and marital status to be used in setting insurance premiums. None of these states have had a comparable level of their motorists insured through their residual markets.\textsuperscript{163} Furthermore, those insured in the residual market pay higher premiums mitigating the potential subsidy to such drivers.\textsuperscript{164} Fundamentally, there is no evidence that these four other states engage in the same degree of rate compression present in Massachusetts.

\textsuperscript{161} New Jersey had an involuntary market approaching the size of Massachusetts in past years. During the five year period from 1988-1992 when 47.61% of Massachusetts motorists were insured through CAR, the New Jersey figure was 30.34%. The JUA's deficit was funded in a similar manner to Massachusetts, by assessing flat charges on all motorists in the state. Finally, New Jersey's 1990 insurance reforms modified the rating system to one based primarily on driving behavior with less emphasis on age, gender, and marital status.

\textsuperscript{162} Rhode Island does create some subsidization by limiting the degree to which premiums may vary among territories. The amount of rate compression resulting from such a price constraint cannot possibly approach the level experienced in Massachusetts.

\textsuperscript{163} During the last five years the states' respective shares of the residual market have averaged Pennsylvania 4.21%; Connecticut 7.04%; Rhode Island 10.71%, New York 16.32%; Massachusetts 47.61%.

\textsuperscript{164} I have been unable to determine either the extent of losses, if any, or the exact manner of distribution of such losses, among these states' policyholders. However, the comparatively small size of these states' residual markets along with the other differences noted above make it inconceivable that these systems are experiencing the level of rate compression present in Massachusetts.
VII Conclusion

Massachusetts has experienced significant changes since the late 1980s. The state's automobile insurance market has finally stabilized and rate suppression has been eliminated from the regulatory structure. The insurance exodus was finally halted by a combination of premium increases and cost-cutting legislative changes. These changes succeeded in improving the efficiency of the automobile insurance market despite the continuation of rate compression created by a truncated classification system, rate tempering, rate capping, and flat loading of the residual market deficit. These results are at odds with the critics' contention that rate compression was responsible for the difficulties experienced by the state's automobile insurance markets. When Massachusetts is compared with other states that are similarly situated we find that factors such as per capita income, urbanization, traffic density, medical costs and attorney representation explain the high cost of insurance premiums. The only exception to these findings lies in the state's claims rate which doesn't seem to be explained by these factors and could be the result of rate compression. Overall, Massachusetts' position relative to other states offers additional evidence that rate compression was not and is not responsible for the state's high costs. In fact, considering the underlying factors affecting the cost of insurance it would be unreasonable to expect Massachusetts premiums to be close to the national average. The state's recent results and comparative standing with other similarly situated states offer support for the continuation of the types of reforms carried out in 1988. These reforms focused on reducing the costs of insuring all drivers by eliminating litigation, preventing fraud, reducing mandatory coverages, increasing penalties for poor driving, and reducing automobile repair costs.
## APPENDIX I

### Massachusetts State Average Premiums 1986-1993

<table>
<thead>
<tr>
<th></th>
<th></th>
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<tbody>
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<td>$569.28</td>
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</tr>
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<td>1988</td>
<td>$813.83</td>
<td>2</td>
<td>$607.06</td>
<td>134%</td>
</tr>
<tr>
<td>1989</td>
<td>$820.98</td>
<td>5</td>
<td>$635.58</td>
<td>129%</td>
</tr>
<tr>
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<td>$864.11</td>
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<td>$658.83</td>
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<tr>
<td>1991</td>
<td>$912.83</td>
<td>5</td>
<td>$686.47</td>
<td>133%</td>
</tr>
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<td>$962.30</td>
<td>5</td>
<td>$710.18</td>
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</tr>
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<td>1993</td>
<td>$1009.56</td>
<td>4</td>
<td>$730.39</td>
<td>138%</td>
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### Five Year Average Premiums (1989-1993)

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<thead>
<tr>
<th>State</th>
<th>Premium</th>
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</thead>
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<tr>
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<td>$920.68</td>
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</tr>
<tr>
<td>Massachusetts</td>
<td>$913.96</td>
<td>4.4%</td>
</tr>
<tr>
<td>New Jersey</td>
<td>$1,106.96</td>
<td>.8%</td>
</tr>
<tr>
<td>New York</td>
<td>$884.39</td>
<td>5.1%</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>$709.99</td>
<td>1.4%</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>$924.01</td>
<td>5.8%</td>
</tr>
<tr>
<td>National Average</td>
<td>$684.29</td>
<td>3.8%</td>
</tr>
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</table>

---

APPENDIX II

Private Passenger Vehicles Insured Through Residual Markets

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>65%</td>
<td>6.8%</td>
<td>22.7%</td>
</tr>
<tr>
<td>1988</td>
<td>69%</td>
<td>7.1%</td>
<td>23.6%</td>
</tr>
<tr>
<td>1989</td>
<td>72.7%</td>
<td>7.1%</td>
<td>24.7%</td>
</tr>
<tr>
<td>1990</td>
<td>46.9%</td>
<td>6.3%</td>
<td>17.3%</td>
</tr>
<tr>
<td>1991</td>
<td>28%</td>
<td>5.3%</td>
<td>12.9%</td>
</tr>
<tr>
<td>1992</td>
<td>21.6%</td>
<td>4.6%</td>
<td>9.5%</td>
</tr>
</tbody>
</table>

APPENDIX III

AUTOMOBILE THEFT IN MASSACHUSETTS

Thefts per 100,000 Registrations¹

<table>
<thead>
<tr>
<th>Year</th>
<th>Mass. Rate</th>
<th>% (+/-)</th>
<th>Nat. Rate</th>
<th>% (+/-)</th>
<th>Mass./NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>13.92</td>
<td>n/a</td>
<td>7.2</td>
<td>n/a</td>
<td>193%</td>
</tr>
<tr>
<td>1988</td>
<td>13.72</td>
<td>-1.5%</td>
<td>7.77</td>
<td>+7.9%</td>
<td>177%</td>
</tr>
<tr>
<td>1989</td>
<td>14.16</td>
<td>+3.2%</td>
<td>7.65</td>
<td>-1.6%</td>
<td>185%</td>
</tr>
<tr>
<td>1990</td>
<td>14.91</td>
<td>+5.3%</td>
<td>8.67</td>
<td>+13.3%</td>
<td>172%</td>
</tr>
<tr>
<td>1991</td>
<td>15.03</td>
<td>+8%</td>
<td>8.82</td>
<td>+1.7%</td>
<td>170%</td>
</tr>
<tr>
<td>1992</td>
<td>12.94</td>
<td>-16.2%</td>
<td>8.46</td>
<td>-4.2%</td>
<td>153%</td>
</tr>
</tbody>
</table>

Thefts per 100,000 Population²

<table>
<thead>
<tr>
<th>Year</th>
<th>Mass. Rate</th>
<th>% (+/-)</th>
<th>Nat. Rate</th>
<th>% (+/-)</th>
<th>Mass./NR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>924</td>
<td>n/a</td>
<td>529</td>
<td>n/a</td>
<td>75%</td>
</tr>
<tr>
<td>1988</td>
<td>860</td>
<td>-7%</td>
<td>583</td>
<td>+11%</td>
<td>48%</td>
</tr>
<tr>
<td>1989</td>
<td>911</td>
<td>+5.9%</td>
<td>630</td>
<td>+9%</td>
<td>45%</td>
</tr>
<tr>
<td>1990</td>
<td>923</td>
<td>+1.4%</td>
<td>658</td>
<td>+5%</td>
<td>40%</td>
</tr>
<tr>
<td>1991</td>
<td>919</td>
<td>-.4%</td>
<td>659</td>
<td>+2%</td>
<td>40%</td>
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<tr>
<td>1992</td>
<td>791</td>
<td>-13.9%</td>
<td>631</td>
<td>-3%</td>
<td>25%</td>
</tr>
<tr>
<td>1993</td>
<td>816</td>
<td>+3.1%</td>
<td>605</td>
<td>-3%</td>
<td>35%</td>
</tr>
</tbody>
</table>

¹ NAIC Auto Insurance Database Report, (December 1993) p.138-139.
APPENDIX IV

The Massachusetts Automobile Insurance Policy in 1994

Compulsory Coverages

Part 1: Bodily Injury to Others (BI) - This provides the policyholder with liability coverage of $20,000 per person and $40,000 per accident. It pays for damages to anyone injured or killed by the policyholder's car, other than the policyholder or passengers in the policyholder's car, within Massachusetts.

Part 2: Personal Injury Protection (PIP) - This coverage provides up to $8,000 to cover the costs (medical expenses, replacement services, and 75% of lost wages) incurred by the policyholder, household members, passengers, and pedestrians injured in an accident regardless of who is at fault.

Part 3: Bodily Injury Caused by an Uninsured Auto - This coverage protects the policyholder, household members, and passengers against losses caused by an uninsured or unidentified driver. Minimum limits of $20,000 per person and $40,000 per accident are required.

Part 4: Damage to Someone Else's Property - This coverage pays up to $5,000 to other people for property damage, including costs resulting from the loss of use of that property, when the policyholder causes an accident.

Optional Coverages

Part 5: Optional Bodily Injury to Others - This supplementary coverage increases the liability protection beyond the amounts required in Part 1. It also extends BI liability coverage to accidents caused by the policyholder anywhere in the U.S. and Canada, as well as covering guests in the policyholder's vehicle.

Part 6: Medical Payments - This covers medical expenses for the policyholder, household members, and passengers, beyond the amounts covered by PIP.

Part 7: Collision - This provides coverage for collision damage to the policyholder's vehicle regardless of who caused the accident. A policyholder

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1 The information and language used in this appendix is adapted from the following two publications. Commonwealth of Massachusetts, Division of Insurance, Executive Office of Consumer Affairs and Business Regulation, Smart Choices: Saving Money On Your Massachusetts Auto Insurance 1994; Commonwealth Of Massachusetts, Executive Office of Consumer Affairs and Business Regulation, Massachusetts Automobile Insurance: Yesterday, Today, Tomorrow, p.47-49 (February 1998).

2 Despite the fact that PIP is "compulsory", it is possible to select a deductible for no-fault benefits. This deductible only applies to the policyholder and/or household members, not passengers or pedestrians. The policyholder can select deductible from $100 all the way up to the full PIP benefit of $8,000.
may also choose an option where the deductible is waived when an accident is caused by another identifiable driver.

Part 8: Limited Collision - This coverage will only allow the policyholder to collect for collision damage if he or she is not more than 50% at fault in the accident.

Part 9: Comprehensive - This coverage pays for damages caused to the policyholder’s car from dangers other than collision, such as fire, theft, and vandalism. It also provides up to $15 a day (to a maximum of $450) for substitute transportation until a policyholder’s stolen vehicle is recovered.

Part 10: Substitute Transportation - This coverage pays up to $15 a day (maximum limit of $450) for substitute transportation when the policyholder’s vehicle is undergoing collision repairs.

Part 11: Towing and Labor - This coverage pays up to $25 for towing and labor charges whenever the policyholder’s vehicle breaks down.

Part 12: Bodily Injury Caused by an Underinsured Auto - This is supplementary coverage for the mandatory Bodily Injury Caused by an Uninsured Auto. It will pay for bodily injury damages to the policyholder, household members, and passengers when the accident is caused by someone without enough insurance to cover the damages. It pays up to the difference between the total amount collected from the BI liability insurance covering the owner of the other car, and the limits the policyholder has purchased for this coverage.
### Appendix #5

#### 1993 Massachusetts Private Passenger Automobile

**1993 Average Rates for the Compulsory Package**

<table>
<thead>
<tr>
<th>Territory</th>
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<th>15</th>
<th>17</th>
<th>18</th>
<th>20</th>
<th>21</th>
<th>25</th>
<th>26</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>369.73</td>
<td>277.54</td>
<td>705.75</td>
<td>467.37</td>
<td>1,219.44</td>
<td>638.82</td>
<td>1,101.35</td>
<td>580.17</td>
<td>391.78</td>
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<tr>
<td>2</td>
<td>398.65</td>
<td>299.27</td>
<td>718.71</td>
<td>511.72</td>
<td>1,225.33</td>
<td>735.81</td>
<td>1,107.88</td>
<td>668.09</td>
<td>438.24</td>
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<tr>
<td>3</td>
<td>396.28</td>
<td>297.61</td>
<td>733.85</td>
<td>499.76</td>
<td>1,307.90</td>
<td>765.31</td>
<td>1,182.65</td>
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<td>4</td>
<td>431.69</td>
<td>325.03</td>
<td>829.13</td>
<td>547.51</td>
<td>1,339.23</td>
<td>794.36</td>
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<td>5</td>
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<td>325.10</td>
<td>841.53</td>
<td>549.08</td>
<td>1,420.18</td>
<td>889.99</td>
<td>1,284.48</td>
<td>805.74</td>
<td>501.63</td>
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<td>6</td>
<td>467.59</td>
<td>350.26</td>
<td>875.64</td>
<td>597.21</td>
<td>1,411.92</td>
<td>928.51</td>
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<td>840.51</td>
<td>507.27</td>
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<td>493.18</td>
<td>368.64</td>
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<td>634.40</td>
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<td>854.82</td>
<td>568.74</td>
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<td>741.40</td>
<td>1,606.76</td>
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Source: Automobile Insurers Bureau of Massachusetts, Actuarial Notice 93-1 Subsidies in the 1993 Rates, Exhibit #2 Page 1-7 (February 12, 1993)
### 1993 Massachusetts Private Passenger Automobile

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### 1993 Massachusetts Private Passenger Automobile

#### 1993 Percentage Subsidies for the Compulsory Package

Due to Tempering and Capping

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**Note:** A subsidy donor is denoted with a (+) and a subsidy recipient is denoted with a (-).
### 1993 Massachusetts Private Passenger Automobile

#### 1993 Percentage Subsidies for the Compulsory Package

Due to Tempering and Capping and Flat Loading of the Residual Market Deficit

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