

**Analysis of the Consumer Federation of America Report  
“Why Not The Best?”**

**prepared for  
National Association of Independent Insurers, National Association of Mutual Insurance  
Companies, Alliance of American Insurers, and American Insurance Association**

**prepared by  
David Appel, Ph.D.  
Milliman – USA  
New York, NY**

**December, 2001**

## I. Introduction, Summary and Limitations

### *Introduction*

In a recent paper entitled "Why Not the Best?" the Consumer Federation of American (CFA) claims to have "researched the results of regulation over the last decade in the 50 states" and concluded that "One state stands out as having the 'best practices' in the nation; California, under the remarkably effective provisions of Proposition 103."<sup>1</sup> This conclusion seems to be based on a qualitative appraisal of the Proposition 103 regulatory model relative to the CFA's own "standards for excellence" in insurance regulation, as well as an alleged "objective analysis" of the results of insurance regulation across the nation. The National Association of Independent Insurers (NAII), National Association of Mutual Insurance Companies (NAMIC), Alliance of American Insurers, and American Insurance Association (AIA) have asked Milliman USA to review and analyze the CFA's claims, and, to the extent we differ with the CFA conclusions, to provide an alternative analysis of the California experience.

### *Summary*

Our principal conclusions follow:

- ***CFA's "regulatory standards of excellence" are fundamentally inconsistent with a modern understanding of the role of regulation in a competitive market.*** The CFA standards are anti-competitive, because they essentially require direct rate or price regulation, and the suppression of competitive rate classification. Furthermore, the CFA analysis completely ignores how regulators and legislators in 50 other jurisdictions have adapted their regulatory styles to the needs of their own markets.
- ***CFA's "objective analysis" of regulatory results lacks scientific rigor and is fatally flawed.*** The CFA's empirical conclusions appear to be based solely on the change in auto insurance expenditures<sup>2</sup> over the past decade, with at most token consideration given to controlling for the multiplicity of factors that affect auto insurance costs. Any favorable developments occurring over the past decade are attributed to

---

<sup>1</sup> See pages 2 and 3.

<sup>2</sup> The use of the term "expenditures" here follows that of the NAIC. That is, it refers to the average expenditure on all auto coverages – liability, collision and comprehensive – and is calculated by dividing total earned premium for all coverages by the number of earned car years. When the term "premium" is used it refers to the average earned premium for a single coverage.

Proposition 103, simply because of their temporal correlation with the initiative, as if mere correlation implied causation.

- ***A serious analysis of California insurance premiums indicates that Proposition 103 had no meaningful effect on auto insurance costs in California.*** It has long been clear that the primary determinant of insurance rates and expenditures is the underlying cost of claims. California expenditures declined in the 1990's because the three branches of government (executive, legislative and judicial) implemented numerous changes that were intended to control what had been extremely rapidly escalating costs.
- ***It is possible that California consumers would have saved in excess of \$10 billion over the past decade, had a competitive market been permitted to function in the state.*** Comparing actual premiums in California to those that would have been predicted had the state operated in a competitive environment, we find that actual premiums exceeded predicted by between \$8.6 billion and \$13.0 billion.

In the report that follows, we elaborate on these conclusions and describe the analysis we undertook to better understand the dynamics of the California insurance market during the 1990's. The remainder of this paper is organized as follows. Part II critiques the CFA's standards for appropriate regulation. Part III provides a largely qualitative and descriptive evaluation of the CFA's claims and evidence that Proposition 103 substantially reduced cost and expenditure growth. Part IV takes a closer look at the data on cost growth to provide deeper insight into the relationship between claim cost growth and a variety of state characteristics. Whether rates may have been materially lower in California in the 1990s without price regulation is discussed in Part V.

### *Limitations*

This report has been prepared for the exclusive use of the NAI, NAMIC, the Alliance of American Insurers and the AIA. While we expect that the report will be distributed, we require that it be distributed in its entirety, and that any recipients be advised that we are available to answer questions about its contents.

## II. Market Theory, Scholarship, and the CFA's Regulatory Standards

*In the paper "Why Not The Best", the Consumer Federation of America offers eight regulatory standards which it labels "best practices". The CFA's ensuing discussion of California under Proposition 103 purports to document how these 8 standards have favorably influenced that marketplace.*

*Accordingly, this chapter reviews the regulatory standards that serve as the centerpiece to the CFA analysis. Introduction of the eight standards is followed by a discussion of the economic rationale for regulation in a competitive economy; i.e., regulation is necessary only when there are demonstrable market failures that regulation could reasonably and efficiently address. We then provide a brief review of modern market theory, including contemporary academic and judicial commentary on marketplace regulation, to provide readers a systematic framework within which the proffered "best practices" can be more objectively assessed. The chapter then analyzes the proposed regulatory standards within this more rigorous and substantive framework.*

*We conclude that the CFA's regulatory standards are inconsistent with modern economics, in that they endorse regulation at the expense of price competition. Furthermore, insofar as the advocated regulatory practices operate to suppress or unnecessarily stifle vigorous price and product competition, the most likely outcomes will be negative effects borne by the consuming marketplace as a whole, despite niche gains by some consumer sectors.*

As noted above, the CFA paper articulates a set of 8 standards by which insurance regulation is to be measured – the so-called “standards of excellence.” Those standards are:

1. Make regulation easily understood by, responsive to, accountable to and inspire confidence from the public and regulated entities.
2. Promote beneficial competition towards the end of fair profits for regulated entities and fair treatment of consumers.
3. Address the problems with selection competition and make public policy the primary determinant of risk classification schemes.
4. Provide for public involvement in the regulatory process, including institutionalized consumer participation in the review of forms, manuals and rates.
5. Provide the regulator, regulated entities, and the public with the tools to identify market problems and harmful competition.
6. Prevent harmful products from coming to market, deter regulated entities from unfair and harmful practices, stop harmful practices from continuing and provide restitution to consumers injured by harmful and unfair practices of regulated entities.
7. Promote loss prevention and loss mitigation as the most important ways for insurers to manage exposure.
8. Promote uniformity among the states at the highest levels of consumer service and protection and utilize the tools of the NAIC to help every state insurance department match the skills

and resources of large insurers operating in many states – i.e., a regulatory system that prevents regulatory arbitrage by insurers.

Some of these standards appear to be unassailable – for example, no one could reasonably argue with fair profits for insurers and fair treatment for consumers. Others may appear reasonable at first blush, but upon closer inspection reveal a subtle emphasis, which may itself be unreasonable. (For example, standard 7 asserts that loss prevention should be the most important way for *insurers* to manage exposure. While loss prevention is generally desirable, it is not clear that insurers are the parties required to engage in loss prevention activities – to the contrary, amongst the tools of risk management, loss prevention is generally regarded as the responsibility of the insured.)<sup>3</sup> Finally other standards – and ultimately the entire CFA paper – are based on the philosophy that aggressive government intervention in the competitive economy is needed to achieve the CFA’s vision of appropriate “social” goals. This section first explains why such a view is archaic and has generally been abandoned in the past two decades. We then turn to the most obvious anti-competitive and – ultimately – anti-consumer standards in the CFA’s regulatory agenda.

### *The Appropriate Role for Regulation*

The traditional rationale for regulation is to protect the public interest by efficiently mitigating market failures. As discussed by Supreme Court Justice Stephen Breyer in his 1982 treatise, *Regulation and Its Reform*, the test for efficient regulation is two pronged. First, there should be a demonstrable market failure compared to the standard of a reasonably competitive market. Second, there should be substantial evidence that regulation can efficiently address this failure, that is, that the benefits of regulation exceed its direct and indirect costs. Efficient regulation also requires matching the appropriate regulatory tool to the specific market failure.

The competitive market standard and the associated two-pronged test for efficient regulation rest upon the understanding – based on both theory and evidence – that government intervention is unlikely to improve upon outcomes in reasonably competitive markets. This understanding produced the deregulation movement of the 1970s and 1980s, when traditionally regulated sectors such as airline travel, trucking, and rail transportation were substantially deregulated. At a broader level, it was vividly reinforced by the demise of the socialist economies and the replacement of government planning with market competition.

---

<sup>3</sup> In fact, as we discuss later, one of the insurer’s most effective means of loss prevention is to establish prices which reasonably reflect differential risk and expected cost across insureds, as such prices create incentives for risk reduction by policyholders.

Overwhelming evidence demonstrates that deregulation of U.S. transportation was successful: prices declined substantially and routes expanded. Although conduct and performance in those markets are not without problems and some controversy, there is little or no sentiment for re-regulating prices. As far as the traditional public utilities are concerned, partial deregulation of energy production, transmission, and distribution have lately been criticized for contributing to supply problems in those sectors, but many other factors have contributed to their problems as well. (For an extensive discussion, see, e.g., Chandley et al, 2000; and Hogan, 1995).<sup>4</sup>

To elaborate, the telecommunications and electric utility industries (and to a lesser extent the transportation sector) are much closer to natural monopolies than are insurance markets, due to their significant scale economies and high entry and exit costs. Yet despite the sizable obstacles, regulators in these markets have chosen to embrace a system of competition and incentives over a system of price control and government micro-management, for the sake of a more efficient and more innovative industry. The task for electricity restructuring is especially daunting because of the large investment costs, the long time to build, the location specific nature of investment, and the unique characteristics of the electricity which requires close central coordination of physical supply. Even after being confronted with all these difficulties, and even in light of the difficulties in California, the recommendations by authorities in this area have not been price control or returning to the original system (Chandley et al, 2000).

In contrast to the above industries, insurance has modest entry and exit costs, and the market is characterized by a large number of suppliers. It has all the conditions required to benefit from market competition and discipline. The experience of other, formerly regulated industries, provides overwhelming evidence that Proposition 103 and CFA's regulatory standards are moving against a dominant trend toward market discipline chosen by society.

---

<sup>4</sup> Professor Hogan, the Lucius N. Littauer Professor of Public Policy and Administration at Harvard University, is an authority who has published extensively in this area. He notes that electricity systems are both complicated and highly interdependent, and that price controls are not the solution to the problems in California. In contrast to an informed technical analysis, consider the casual empiricism evident in the CFA's discussion of this issue. In their report, CFA was quick to conclude, without any citation or proof, that "a handful of energy companies have seized control of California's electricity supply and are manipulating it to maximize their profits." Chandley, et al, however, pointed out that "...there has been no direct showing that such traditional market power has been exercised at all, much less that it has been exercised on a widespread and significant basis."

## *Competition in Insurance Markets*

When assessing whether reasonable competition is likely in a given industry, it is customary to examine market structure and ease of entry. The essence of competition is a lack of coordinated action by firms. When relatively few firms dominate a market, the possibility of either tacit or active cooperation among firms increases, assuming that entry by other firms is difficult. Economists almost universally agree that market structure and ease of entry are highly conducive to competition in auto insurance and most other insurance markets.<sup>5</sup> More than 500 insurer groups, for example, write private passenger automobile and homeowners insurance in the United States, and market concentration is considered relatively low by most economists and compared with a variety of benchmarks.<sup>6</sup>

Insurance market structure makes persistent, non-competitive pricing a remote possibility. A few observers argue that concentration is high enough to be cause for concern in some states, and a few others argue that the relevant market is smaller than a state, which generally produces higher concentration measures. Collusion, however, is unlikely to raise prices even in concentrated markets if there are no entry barriers: potential entry effectively deters non-competitive behavior. Entry barriers are low for new insurers, and existing insurers generally could readily expand their writings in new states or lines of business. Consistent with vigorous competition, there is also no evidence that property-casualty insurers, as a group, have earned abnormally high profits over time. Indeed, profitability often appears relatively meager compared with many other industries. Based on generally accepted accounting principles, the average annual rate of return on net worth for the property-liability industry was 10.6% in the 1980's and 8.4% during the 1990's.<sup>7</sup>

To summarize much of the last decade of research in this area, consider the following comments by Prof. J. David Cummins, the Harry J. Loman Professor of Insurance and Risk Management at the University of Pennsylvania - Wharton School, the most prominent insurance academic institution in the nation:

“The market for private passenger automobile insurance is intensely competitive. If undisturbed by regulation, competitive market equilibrium will result in insurance prices that reflect an unbiased estimate of the expected costs of motor vehicle accidents as well as an appropriate profit for insurers, reflecting the risk they bear. There is no evidence that prices or profits in states that rely on markets to set rates are excessive or that insurers behave collusively.

---

<sup>5</sup> See, for example, Joskow (1973), Cummins and Weiss (1992), and Klein (1995).

<sup>6</sup> See Klein (1995) for further discussion of concentration in auto and homeowners insurance market. Grace and Barth (1993) and Feldhaus and Klein (1998) summarize evidence of low concentration for commercial lines.

<sup>7</sup>See Insurance Services Office (2001).

Automobile insurance price regulation tends to be imposed in response to rising automobile insurance premiums, which reflect rising claims costs...”<sup>8</sup>

Also, in the same volume, Prof Cummins notes:

“Regulating insurance prices is not a rational response to rising insurance premiums. Insurance premiums in a competitive market are driven by expected loss costs. Loss costs are determined by accident rates, the costs of auto repairs and medical care, and legal liability rules, none of which are under the direct control of insurers.”<sup>9</sup>

### *The CFA’s Standards are Anti-Competitive*

Despite references to “fair competition,” the CFA’s regulatory agenda is fundamentally anti-competitive. Most importantly, the third and fourth standards are inherently incompatible with relying on competition to determine insurance prices.

The CFA’s third standard: “Address the problems with selection competition and make public policy the primary determinant of risk classification schemes,” advocates substitution of government regulation for market-determined classification. The standard therefore unequivocally rejects competition as the appropriate method of determining prices in insurance markets. The CFA does not justify its program of price controls based on an appropriate analysis of market structure, conduct, and performance. Any attempt to do so would fail. Instead, the CFA relies on 30-year old arguments about the alleged evils of “selection competition” in insurance markets.<sup>10</sup> The CFA alleges that competition in insurance markets primarily involves unfair competition to select the best risks, with detrimental results to consumers. The proposed solution is to have rates determined by regulators and political pressure rather than market competition.

As to the fourth standard- “Provide for public involvement in the regulatory process, including institutionalized consumer participation in the review of forms, manuals and rates” – while it does not use the term “rate regulation” directly, such participation in the review of rates could not occur without government regulation of rates. Thus, the CFA implicitly, if not explicitly, advocates price controls in the form of prior regulatory approval of insurer rate changes. Prior approval regulation is

---

<sup>8</sup> Cummins, J. David, “Property Liability Insurance Price Deregulation: The Last Bastion?”, in *Deregulating Property-Liability Insurance: Restoring Competition and Increasing Market Efficiency*, American Enterprise Institute-Brookings Institution Joint Center for Regulatory Studies, forthcoming, 2001, p. 4.

<sup>9</sup> Cummins, op. cit., p. 13

<sup>10</sup> See *Full Insurance Availability* (1974), which was produced while Robert Hunter was director of the Federal Insurance Administration.



not needed in competitive markets, and it imposes direct and indirect costs that ultimately are borne by consumers. Moreover, there is abundant evidence that such regulation has not lowered average rates over time but that it has reduced coverage availability and increased insurers' risk.<sup>11</sup> We discuss these issues further below.

Modern insurance markets that are relatively free from regulatory constraints on prices and risk classification exhibit pervasive evidence of competitive pricing and risk classification.<sup>12</sup> Competition creates strong incentives for insurers to forecast costs accurately and to price and underwrite so as to avoid adverse selection (i.e., to avoid selling coverage to a disproportionate number of higher risk buyers at a rate that is too low to cover their expected costs). As a result, competition produces a dynamic environment with highly and increasingly refined systems of rate classification. Those dynamics cannot be mimicked successfully by regulation.

Unless constrained by regulation, prices vary substantially across insurers in relation to rate classification systems and underwriting standards. Insurers grow and prosper when they excel at pricing and underwriting accurately by incorporating all information in their loss forecasts that can be obtained at reasonably low cost. Insurers that lag behind suffer adverse selection, poor financial results, and declining market shares. Inaccurate rates produce losses, not profits.

Competitive pricing and underwriting in insurance markets help minimize the total cost of risk in society, which reflects the cost of losses, loss control (i.e., of measures designed to reduce the frequency and severity of losses), risk reduction, and risk transfer. Because competition produces strong incentives for accurate risk classification, given the cost of available information, and thus highly refined systems of underwriting and classification, the resulting prices generally provide material incentives for higher risk buyers to take actions to control losses and thus qualify for lower premiums and/or have lower insured losses. Competition also provides insurers with strong incentives to minimize the sum of claim costs and settlement expenses. More broadly, competitive insurance prices provide information to policymakers and other parties about the cost of accidents and about the efficacy of institutional arrangements that affect the probability and severity of losses (such as traffic safety enforcement, crime prevention, and liability rules).<sup>13</sup>

---

<sup>11</sup> See, for example, Harrington (2001) for evidence and references. Prof. Harrington concludes that "The findings, which confirm and extend those of a number of prior studies, suggest that prior approval rate regulation has had little or no effect on the relation between rate levels and claim costs over time... There is strong evidence, however, that prior approval rate regulation reduces coverage availability and increases volatility to both insurers and consumers."

<sup>12</sup> Further discussion of the extent and benefits of competitive pricing and underwriting are elaborated by Harrington (2000) and Harrington and Doerpinghaus (1993).

<sup>13</sup> Some theoretical work raises the question of whether some competitive risk classification might be socially excessive in that the benefits from classification do not outweigh the direct costs. However, this theoretical work does not

Despite some claims to the contrary, competition in pricing and risk selection does not create insurance availability problems. It promotes the ready availability of coverage at rates that are sufficient to cover expected costs and provide insurers with a reasonable expected profit. There is overwhelming evidence, for example, that the market shares of auto insurance residual markets are negligible in states without significant government intervention in pricing. Rather than indicating some breakdown of competition, the presence of “non-standard insurers,” i.e., insurers that market coverage at higher rates to drivers who have higher expected costs and/or are less likely to pay premiums and renew coverage, reflects specialization and more refined classification in the face of vigorous, cost-based competition.<sup>14</sup> Competitive insurance markets promote the availability of coverage at prices that reflect the expected costs of providing coverage. Of course, competition cannot make insurance affordable to all buyers, just as competition in the automobile market cannot make new automobiles affordable to all drivers.

Basing risk classification primarily on “public policy” considerations would likely cause regulated classifications to differ substantially from competitive classifications. The CFA implies that consumers would benefit. But the question arises: Which consumers? The CFA fails to point out that *government intervention that reduces rates for some buyers requires rates to increase for other buyers* if insurers are to cover their expected costs and achieve a reasonable expected profit.

Regulatory reductions of rates for buyers who face the highest premiums tends toward self-defeat for another reason as well. Because competitive underwriting and risk classification provide desirable incentives for policyholders to take precautions to control losses, regulatory or legislative tinkering with risk classification tends to increase total claim costs by distorting those incentives, and perhaps those of insurers. Higher risk persons or businesses whose rates are lowered by rate regulation will be more likely to engage in risky activity, and less likely to take precautions. In the case of automobile insurance, for example, lowering rates for high risk drivers will encourage them to buy more expensive cars, to buy policies with larger limits and lower deductibles, and to exercise fewer precautions to prevent accidents and theft losses than would be true if rates were determined by competition among insurers.<sup>15</sup>

---

plausibly call into question the efficiency of most classification practices, which rely heavily on low cost information. In addition, market discipline will weed out any inefficient classification systems over time.

<sup>14</sup> See Harrington and Niehaus (1998b) for further discussion of and analysis of the size of the non-standard market.

<sup>15</sup> See Rottenberg (1989) and Harrington and Doerpinghaus (1993) for further discussion in the case of auto insurance. Danzon and Harrington (1998) discuss the incentive effects of price regulation in workers’ compensation insurance and provide evidence that suppression of workers’ compensation rates in the 1980s increased insured loss growth.

Making insurance classification primarily depend on “public policy,” rather than competition, cannot make insurance cheaper for the average buyer.<sup>16</sup> The CFA’s standard would invariably require some policyholders to pay more for coverage so that other policyholders can pay less. The result is worse than a zero sum game, where the winners’ gains offset the losers’ losses. In this case, there would be a negative sum system of cross-subsidies that increased claim costs by distorting incentives for loss control. Perhaps just as important, classification restrictions might dull incentives for policymakers to take actions that attack high costs – the underlying cause of high premiums. Moreover, enforcement of regulatory restrictions on classification also requires additional regulation to mitigate insurer strategies to avoid restrictions.<sup>17</sup>

Finally, excessively restrictive regulation invariably leads to the wasteful expenditure of societal resources on political benefit seeking by interested parties. Furthermore, regulation can foster inefficiencies which otherwise would not survive in a competitive environment, increase market rigidities which hinder market innovation, and deter new entry which could provide additional capacity for high risk individuals. Unfortunately, the efficiency losses from restrictions on classification probably would be opaque to the public, in part because they are not easily measured until they become dire. They nonetheless represent a significant drawback of such restrictions.

---

<sup>16</sup> Unless, of course, rates are suppressed in the aggregate. So long as insurance buyers pay the full cost of claims and expenses, however, the average buyer’s price is constant.

<sup>17</sup> See Harrington and Doerpinghaus (1993) for detailed discussion.

### III. Proposition 103 and Cost Control: The CFA's Claims and Evidence

*The CFA report presents a wide variety of claims regarding the benefits of Proposition 103. In this section of the paper, we evaluate many of these claims, particularly those that are quantitative in nature. To organize the presentation, we follow the order that appears in Section III of the CFA paper, entitled "History of the Post Calfarm Implementation of Proposition 103 – Findings"<sup>18</sup>. In that section, the CFA states "As the following list shows, Proposition 103 has produced results that are unmatched in the nation. Under Proposition 103, these remarkable results occurred (in the 1989 to 1998 period unless specified otherwise)"<sup>19</sup>*

*We address a number of these claims below. It will be shown that the majority of these claims are based on an incomplete grasp of relevant facts, if not their outright mischaracterization. When they are not so based, they are typically undocumented assertions of cause-and-effect relationships, which amount to little more than claiming that all favorable changes since Proposition 103 are caused by Proposition 103. These claims fail to withstand close scrutiny.*

#### FINDINGS RELATIVE TO IMPACT ON PREMIUMS IN CALIFORNIA

Among other things the CFA makes the following assertions

- Between 1989 and 1997, insurance companies operating in California issued over \$1.3 billion in premium refunds to more than seven million policyholders under Proposition 103's rollback mandate.
- California consumers have saved over \$23 billion since 1988 under Proposition 103<sup>20</sup>.
- California's annual auto insurance premium fell by 4% from 1989 to 1998. California was the only state in the nation to experience a reduction during this period.

We address each of these in turn.

---

<sup>18</sup> We note at the outset that the omission of particular findings or conclusions from our discussion does not in any way imply agreement with those conclusions. We chose to focus on a sub-set of the CFA findings that are most amenable to statistical analysis.

<sup>19</sup> In many instances, we do not deny that these results occurred during the period that Proposition 103 was in effect. By the same token, the remarkable economic prosperity that we enjoyed throughout the last decade also occurred while Proposition 103 was in effect. However, correlation does not imply causation: The problem with the CFA paper is it provides virtually no evidence that beneficial changes were the result of Proposition 103, and considers no evidence or alternative explanations for the observed phenomena.

<sup>20</sup> The CFA report cites "The Regulation of Automobile Insurance in California", Jaffee and Russell, 2001.

### *\$1.3 Billion Rollback*

We only note that while it may be true that insurers issued rollbacks of \$1.3 billion, this does not demonstrate the rectitude or success of Proposition 103. For one thing, Proposition 103 required that for insurance policies sold between November 1988 and November 1989, rates were to be rolled back to 20% below their November, 1987 levels. This should have produced rollbacks of roughly 20% of 1989 earned premium. Since 1989 earned premium in California was approximately \$25.2 billion (excluding workers compensation, which was specifically exempted in the initiative), the aggregate rollback should have exceeded \$5 billion. In fact, the amount actually refunded under this provision of the initiative was less than 30% of what might have been expected. In addition, in some instances, very large rollback demands by the Insurance Department were subsequently rejected in the courts, because they failed to provide insurers adequate protection or individualized relief from the CDI's rollback regulations.<sup>21</sup>

### *\$23 Billion in Savings and 4% Premium Decrease*

The CFA provides no independent analysis to support the assertion that consumers saved over \$23 billion due to the implementation of Proposition 103. In fact, the CFA merely cites earlier work by Jaffe and Russell (2000, hereinafter cited as J&R) as support for the claim. In the discussion below, we describe the basis for the \$23 billion estimate, and provide an analysis of the logical flaws surrounding that work. (For brevity, we restrict our analysis to liability insurance, since that coverage represents nearly 90% of the estimated \$23 billion of savings.)

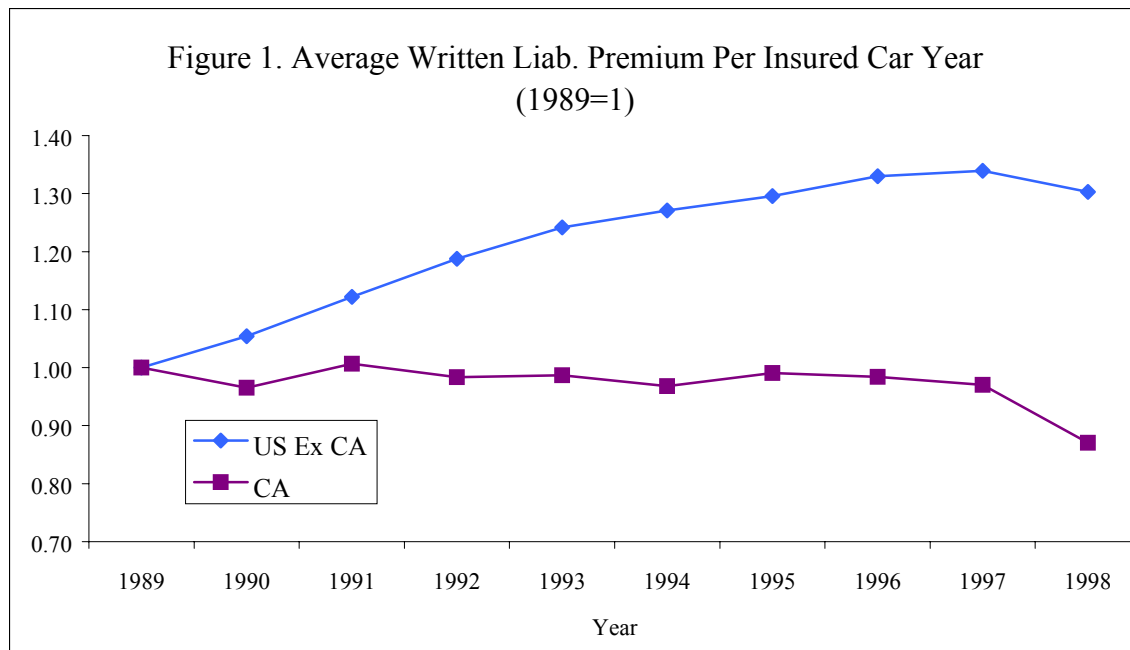
To reach their conclusion regarding savings, the CFA and J&R assume that absent Proposition 103, the annual rate of change in auto insurance premiums in California (CA) would have equaled the rate of change in the US excluding California (USX). Since auto premiums in USX increased approximately 33% between 1989 and 1998, while in CA they were relatively stable (decreasing approximately 10% in the last year), the savings under this logic have been substantial.

Of course, the obvious factor missing from this analysis is any consideration of costs; the growth rate in average claim costs per insured vehicle in California during the 1990s slowed substantially compared

---

<sup>21</sup> See, e.g., Decision on State Farm, Judge Elizabeth LaPorte. The fact that insurers challenged the Proposition and the subsequent CDI regulations in court is hardly surprising, nor was it unwarranted. The initiative as drafted contained a provision that the only way to obtain relief from the 20% rollback requirements was if the insurer was "substantially threatened with insolvency", a standard which was struck down by the California Supreme Court, and replaced with a far more reasonable fair rate of return standard. In fact, one reason why rollbacks were far short of 20% of affected premium is that once the fair return standard was applied it became evident that for many companies rates should not be reduced by 20%.

to both the 1980s experience in California and the 1990s experience countrywide. Average liability claim costs and expenditures per insured vehicle in California actually declined for the decade ending 1998. This decline coincided with a multitude, as shall be seen, of specific legislative, judicial, and voter-approved actions which, in diverse ways, were overtly designed to address rapidly escalating claim costs. The average expenditure on auto liability insurance also declined but not as rapidly as claim costs. These facts are shown in the series of figures below.<sup>22</sup>

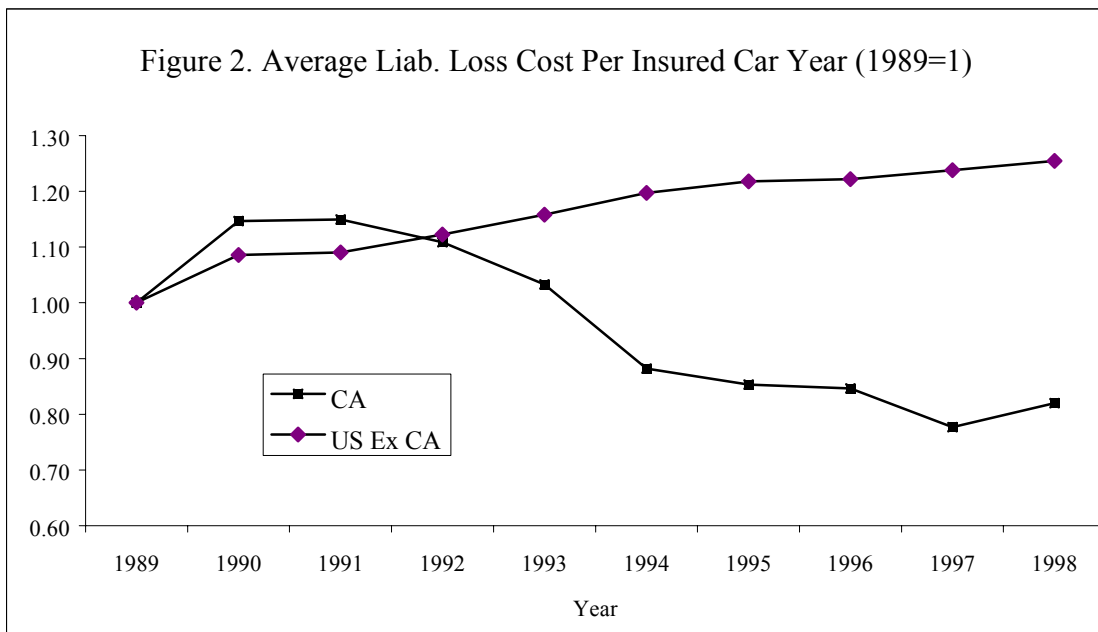


Source: “Trends in Auto Injury Claims: 2000 Edition”, Insurance Research Council, Malvern, PA, 2000

Figure 1 shows annual premiums for auto liability insurance in both California (CA) and the remainder of the nation (USX), expressed as an index with 1989 = 1.00. As can be seen, premiums in USX have indeed increased regularly over the past decade, while in CA they have been fairly level, with a moderate decline in the most recent year. Annual dollar savings are computed by taking the product of the difference between the indices (expressed in dollar terms) and the number of insured vehicles per year. As noted, this is equivalent to the assumption that, but for Proposition 103, California auto insurance premiums would have increased at the same rate as the rest of the nation. Average expenditures for collision and theft coverage combined (not shown) increased in both California and the remainder of the country, but, as stressed by the CFA, the overall growth was materially lower in California.

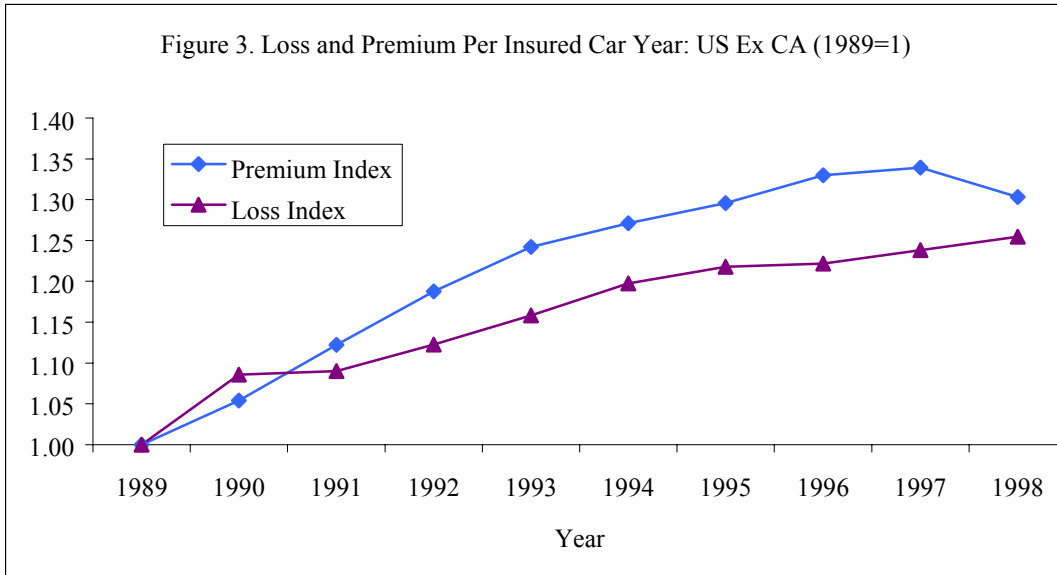
<sup>22</sup> The following summary and discussion draws from Appel (2001).

Figure 2 is analogous to Figure 1, but it shows indices of liability loss costs (as opposed to liability premium) per insured vehicle in California and the remainder of the U.S. Outside of California, liability loss costs per vehicle increased at a roughly constant rate over the decade, with the 1998 value nearly 30% higher than the 1989 value. This cost increase is entirely consistent with the cumulative average expenditure increase of approximately 33% over the same period, as shown in Figure 1. In California, however, the situation is somewhat different; although costs increased in the first year, they then leveled off and began a rather steady decline, resulting in a cumulative 20% decrease in costs over the decade. This decline was not matched by commensurate premium decreases during the 1990's: as shown in Figure 1, California average expenditures remained relatively constant through the decade, except for a 10% decline in 1998.

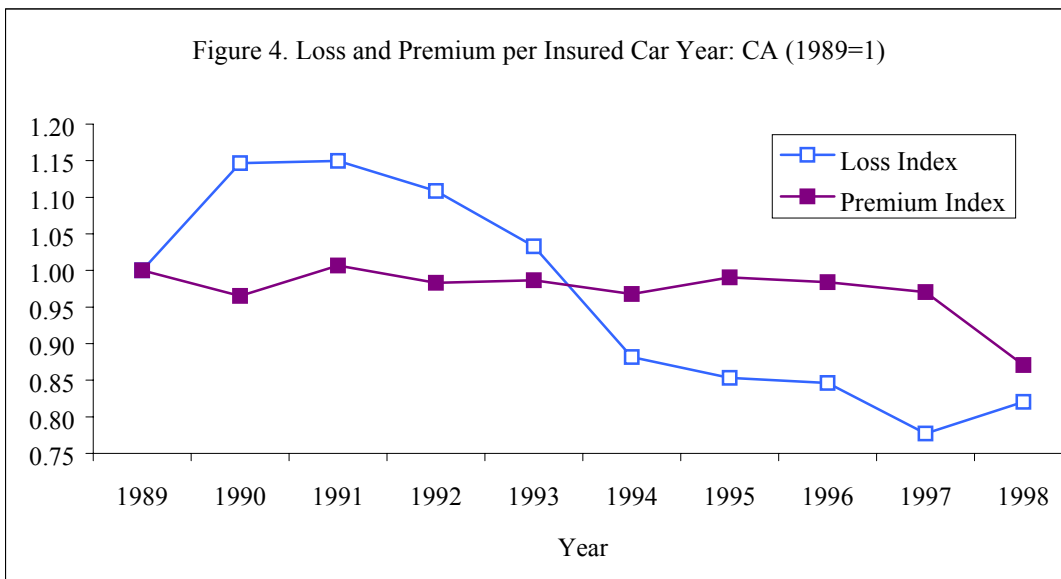


Source: "Trends in Auto Injury Claims: 2000 Edition", Insurance Research Council, Malvern, PA, 2000

Figures 3 and 4 show the contrasting situations more clearly by showing the relationship of the average written liability premium per insured car and average liability loss per insured car year, first for the U.S. excluding California (Figure 3) and then California (Figure 4). In Figure 3, the average expenditure and average cost outside of California follow very similar patterns – average expenditures increase over time as costs increase.



Source: "Trends in Auto Injury Claims: 2000 Edition", Insurance Research Council, Malvern, PA, 2000.



Source: "Trends in Auto Injury Claims: 2000 Edition", Insurance Research Council, Malvern, PA, 2000

Figure 4 illustrates a different pattern in California. Average costs initially increased, but beginning in 1991 they started a sustained decline.<sup>23</sup>

<sup>23</sup> As noted above, these cost decreases were not initially accompanied by commensurate rate decreases. We discuss this further later in the paper, but to anticipate that discussion, we believe that insurers may have delayed rate decreases in response to perceptions of heightened regulatory risk occasioned by Proposition 103.



These charts should amply demonstrate that the main factor driving insurance premiums and expenditures is the underlying cost of insured claims. Therefore, attributing the modest decrease in expenditures to Proposition 103 illustrates a primary flaw in the CFA analysis – the failure to consider the relationship between premium and loss costs. Indeed, the allegation that premium decreases were the result of Proposition 103, rather than the more obvious explanation that they were a limited response to declining loss costs, flies in the face of logic.

As explained in this paper's introduction, the CFA alleges that the favorable expenditure and claim cost results in California demonstrate that Proposition 103 produced the best system of regulation in the country. The CFA's report and follow-up analysis then provide a number of comparisons to purportedly buttress the assertion that the slowdown in claim costs and expenditures reflected enlightened regulation under Proposition 103, rather than other factors.

At one level, the CFA's assertion concerning Proposition 103's effects on average costs constitute clever media relations. Observers and analysts that seek to rebut their assertion are forced to prove a negative: Proposition 103 was not the cause of the slowdown in claim cost and expenditure growth. Unless other research can demonstrate that the differences between California and other states can be explained by other factors besides Prop 103, the CFA can tout mounting "proof" that Proposition 103 was the key. However, we pointed out earlier that the mere temporal correlation between Proposition 103 and these fundamental claim cost trends does not constitute scientific evidence that the Proposition caused these trends, particularly given the richness of the available record on California loss cost containment efforts. We provide further analysis of these issues later in the report, after discussing a number of other CFA findings.

## FINDINGS RELATIVE TO THE IMPACT ON INSURER OPERATIONS

The CFA's findings regarding insurer operations can be summarized as follows:

- Proposition 103 forced insurers to engage in cost cutting programs, and ended what is termed the "pass-through mentality" of insurance companies.
- The Proposition also induced insurers to actively pursue anti-fraud programs
- Proposition 103 has also "renewed insurers' attention to loss prevention practices... the holding down of loss costs in the nation and, particularly in California, is a legacy of Proposition 103."

The CFA also points out that insurers have been able to maintain reasonable (if not excessive) profits under Proposition 103 as well.

Before addressing these specific issues, it should be noted that as far as loss prevention, loss control, anti fraud and safety programs are concerned, Proposition 103 was silent. It contained no provisions that were intended to directly control the underlying costs of insurance, by addressing any of the cost drivers, such as fraud, drunken driving, seat belt use or the like.<sup>24</sup> In fact, when the initiative was passed, the New York Times editorialized as follows:

“Californians are mad as hell about soaring auto insurance rates, and now have done something about it. Ignoring a \$60 million advertising effort by the insurance industry, they voted to cut all property and casualty insurance premiums below 1987 levels, and to regulate future increases tightly.

“This anger notwithstanding, sky-high premiums in the competitive California insurance market reflect sky-high costs...The only way to lower insurance prices in California (and other high premium states like New Jersey and Massachusetts) is to lower costs.”<sup>25</sup>

For the CFA to assert that the development of initiatives (in all branches of government) to control these cost drivers was the result of Proposition 103 strains credulity. It is even less credible in light of the fact that such cost control programs are commonplace in many other states, yet no other state has seen it necessary to achieve these benefits by passing a similar Proposition.

#### *“Pass Through Mentality”*

The CFA’s “pass through” argument appears to be that insurers have too little incentive to control costs because they can pass through the attendant increase in costs by charging higher premiums. At best that argument incorrectly twists a fundamental principle of pricing in competitive insurance markets: increases in expected costs beyond the control of individual insurers are reflected in higher competitively determined premiums, at least over time.

What the CFA misses is that profit maximizing firms in competitive markets have strong incentives to minimize costs at all times. If the CFA’s pass through conjecture were descriptive of reality, premiums for many insurers would be inefficiently high at any point in time. If that were the case, those insurers could increase profits on their existing business immediately by taking appropriate

---

<sup>24</sup> This is in contrast to other jurisdictions, in which rate rollbacks, if they were implemented, contained specific provisions intended to contain costs. See, e.g., the Automobile Cost Reduction Act of 1998 in NJ, the 1988 Auto Insurance Reform Act in Massachusetts, or Act 6 that was passed in PA in 1990.

<sup>25</sup> NY Times, November 18, 1988

actions to control costs. Moreover, insurers that undertook such cost control would be able to undercut the prices of those that did not, increasing market share and thus providing them with even higher profits.

Thus, although the CFA's pass through story might have a certain amount of media appeal, it is incompatible with what businesses must do if they are to successfully "meet the competition" and maximize profits in a competitive environment. It assumes that most insurance companies are managed by people who eschew profits or are too obtuse or incompetent to pursue profitable opportunities for cost control. That assumption cannot be taken seriously. In any event, a governing board of a corporation or its shareholders would not approve of such a strategy. Moreover, it is incompatible with the CFA's claims about overly vigorous selection competition. Pass through of the type suggested by the CFA will not occur, provided that regulation does not denude competition and substantially eliminate the incentive for insurers to take efficient actions to control costs.

To be sure, costly and imperfect information may impede some consumers from identifying an insurer with a competitive price. A reasonably competitive environment does not guarantee that any insurer that fails to control costs will disappear. But imperfect information in insurance markets does not justify price regulation.<sup>26</sup> The preferred mode of government intervention, if any, is increased price and product information disclosure, rather than regulation of prices (or insurer expense levels).<sup>27</sup>

### *Fraud and Loss Prevention*

It is obvious from even casual analysis that the moderation in auto insurance expenditures during the 1990's in California reflects a moderation in costs. However, in order to support the position that the beneficial developments relating to cost control were due to Proposition 103, the CFA must essentially claim that the rate restrictions under the Proposition were the major factor that compelled insurers to lobby for anti-fraud and loss prevention activities. This argument is entirely unsupported in the CFA paper, and is belied by the fact that many other states have undertaken similar programs without implementing across the board rate reductions.

---

<sup>26</sup> See, for example, Plummer (1985).

<sup>27</sup> For general discussion of this issue, see Breyer (1982), pp. 161-164. Many states already publish price comparisons for representative buyers of auto and homeowners insurance. Coverage is subject to a large degree of standardization, which facilitates price comparisons by consumers. It is not particularly difficult for buyers to obtain multiple insurance quotes through traditional means, and on-line quote services are blossoming. Consumers concerned with affordability have strong incentives to search for low prices. Independent agents and brokers facilitate price comparisons among insurers that use these intermediaries, such as a large majority of commercial buyers and about one third of personal lines buyers.

The fraud problem is particularly notable, both in California and in many other jurisdictions. It is well known that insurance costs in some states are driven upward by aggressive claim filing and a willingness to build up claim costs so as to inflate a claim's medical bills and associated costs, which then permit recovery of enhanced non-economic damages associated with auto injuries. California in the late 1980's and early 1990's was just such a jurisdiction, as is evidenced by the relationship between bodily injury and property damage liability claims.

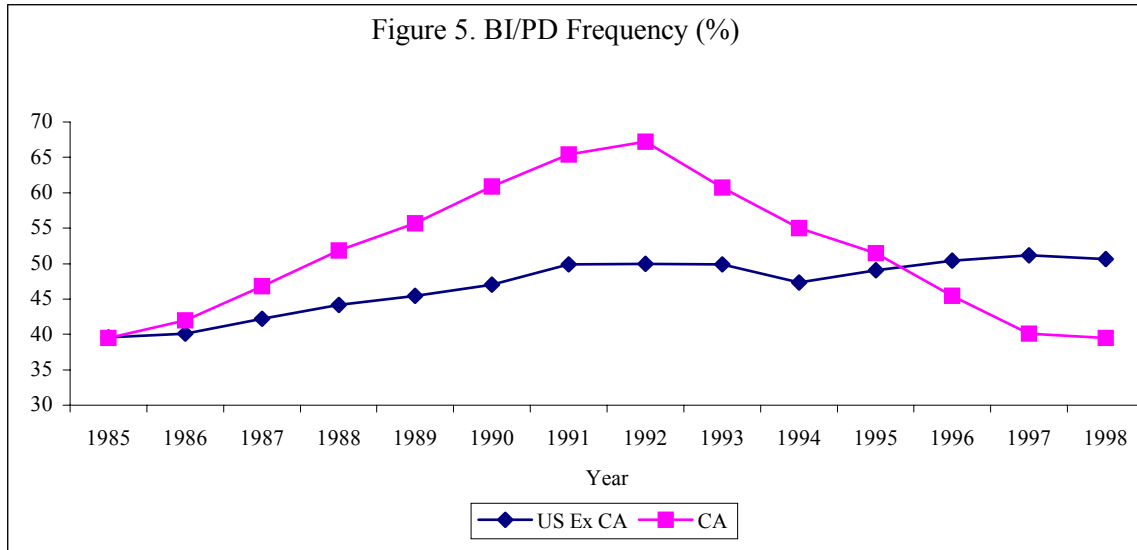
Typically an auto accident involving two vehicles results in a property damage (PD) liability claim; that is, PD liability claims are a reasonable proxy for accident frequency across insured drivers. However, fewer accidents give rise to bodily injury (BI) liability claims; only in the case of physical injury should such claims be filed. Thus, all other things equal, the ratio of BI to PD liability claims is an indicator of the aggressiveness of claiming behavior on the part of drivers<sup>28</sup>. In addition, this ratio is widely used as an indicator of possible fraud in the insurance system.<sup>29</sup> (In 1991, for example, California's Insurance Commissioner, Mr. John Garamendi, cited the increase in California's bodily injury to property damage claims ratio as a "disturbing trend", noting "California's ratio has nearly doubled in the last ten years, increasing from 30 in 1980 to 56 in 1989". He went on state that the high BI/PD ratio of California, in comparison to no-fault states like New York and Florida, reflected incentives toward fraud found in California's accident reparations system.<sup>30</sup>)

---

<sup>28</sup> See Weisberg , H. and R. Derrig, 1991, 1993

<sup>29</sup>See, Cummins, J.D. and S. Tennyson, 1992, Controlling Automobile Insurance Costs, *Journal of Economic Perspectives* 6: 95-115, or "Fighting Fraud in the Insurance Industry", Insurance Research Council, 1997. We note that in the chart above, we show the ratio of BI plus PIP claims to PD claims, to assure we do not understate frequency in no fault states (where BI frequency should theoretically be lower). California, of course, is a tort state.

<sup>30</sup> Statement of Insurance Commissioner John Garamendi, "*Auto Insurance Reform*", October 3, 1991, announcing his proposal for the adoption in California of a no-fault auto insurance plan.



Source: “Trends in Auto Injury Claims: 2000 Edition”, Insurance Research Council, Malvern, PA, 2000

Figure 5 above shows BI claims expressed as a percentage of PD claims, and as is evident from the graph, that ratio increased steadily in California throughout the 1980’s and into the early 1990’s. The ratio peaked in 1992, at a level approximately one and a half times the average in the remainder of the U.S. It then began a fairly dramatic, steady decline for the remainder of the decade. The non-California experience was quite different; the BI/PD ratio continued to increase throughout the decade. To the extent that elevated levels of this ratio proxies fraud and claiming behavior, it indicates that one would have expected costs to decline in California, relative to the rest of the nation from 1992 on.

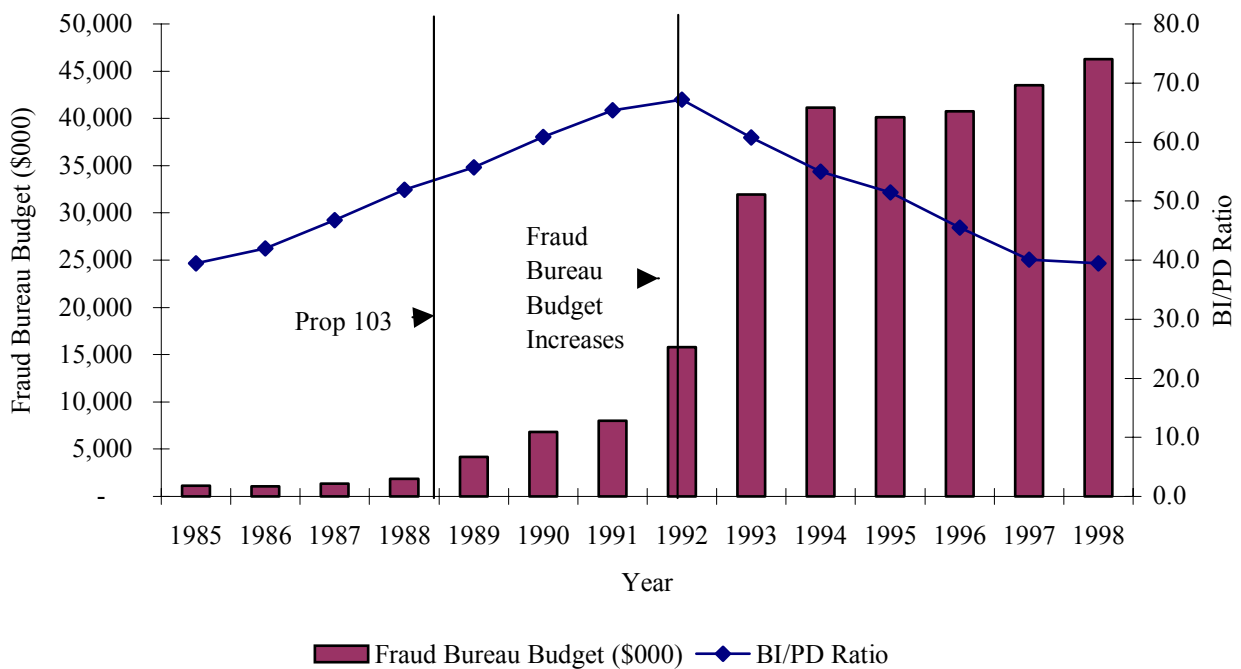
As illustrated earlier in Figure 2, liability costs per insured vehicle in California peaked in 1991 and then began a steady decline, a finding entirely consistent with the BI/PD ratios shown above. Equally consistent is the experience in the remainder of the country, where the BI/PD ratio increases, and loss costs per insured vehicle also increase continuously through the decade. The point here is not that changes in fraud / build up can fully explain changes in costs and expenditures in California. It is simply to emphasize that such changes almost certainly account for some of the slowdown in cost and expenditure growth.

To evaluate the CFA’s claim that Proposition 103 was responsible for the increased attention to fraud, we reviewed the history of anti-fraud activity in California, particularly as respects the insurance department’s anti-fraud initiatives. This review suggests that the increased anti-fraud activity in the state was hardly likely to be the result of Proposition 103. For one thing, fraud had

been the subject of concern in California for a full decade prior to the passage of Proposition 103.<sup>31</sup> However, with suspected fraud claims increasing at exponential rates, the Legislature acted in late 1991 by passing SB953, which promulgated a multi-faceted strategy to fight fraud. The Department of Insurance, in a document entitled “Summary of Budget Requests Implementing SB953, SB894 and SB1218, notes that “In the past two years, the number of auto suspected fraudulent claims referred to the Fraud Bureau has tripled.” This recognition, along with increasing public attention to the issue as evidenced by numerous publications in newspapers, periodicals and the popular press, led to dramatic increases in the anti-fraud budget of the insurance department.

As can be seen in Figure 6 below, the CDI fraud budget increased tenfold between 1989 and 1994, with the most dramatic increases in 1992 through 1994 – between three and five years after the passage of Proposition 103.<sup>32</sup> Along with the fraud budget, we also show the ratio of bodily injury to property damage liability claims, which we noted earlier is an indicator of fraud and aggressive claiming behavior.

Figure 6. California: BI/PD Ratios Vs. Fraud Bureau



<sup>31</sup> A fraud bureau was established in 1979, although resources committed to it were limited.

<sup>32</sup> The annual expenditures are calculated based on averages of adjacent fiscal year expenditures. Since the California state fiscal year runs from July 1 to June 30, averaging two fiscal years represents a reasonable estimate of the calendar year expenditures. Since there is no data prior to the 1985-1986 budget year, the 1985 expenditure is estimated by the 1985-1986 budget year expenditure.

It seems quite evident that as the incidence of BI claims increased, there was a response from the CDI to increase the fraud budget, which ultimately had the desired impact: by 1998, the California BI/PD ratio was only marginally higher than the nation as a whole (in contrast to the situation in 1992, when California's ratio was 2.3 times the national average).

While insurers were obviously concerned about the fraud problem, and would have lobbied in favor of increasing the resources devoted to the issue, that is hardly proof that Proposition 103 caused the increases. To the contrary, these increases reflect the will of the Legislature to come to grips with a problem that had been plaguing the state, and the actions of the CDI to effect changes responsive to that will.

#### FINDINGS RELATIVE TO THE IMPACT ON COMPETITION AND THE MARKETPLACE

As regards competition, the CFA provides little empirical evidence beyond the claim that within four years of 103's passage, 133 banks obtained approval to sell insurance, which they argue increased competition in the marketplace. The CFA also has the temerity to suggest that "Proposition 103 led the way to national change when, in 1999, Congress adopted the Gramm-Leach-Bliley Act allowing banks to sell insurance across the nation." In addition, CFA claims that competition has strengthened in California, and that the number of insurance corporate groups writing auto insurance in the state, has risen from 94 to 110.<sup>33</sup>

We have little to report in connection with these claims. The CFA has provided no evidence whatsoever that banks represent a significant competitive factor in California, nor have they shown that competition has strengthened. In contrast, the table below shows that none of the top 20 auto insurers in California (representing nearly 90% of the market) are banks, and that generally the same firms dominate the market today as in 1989.<sup>34</sup>

---

<sup>33</sup> Once again, CFA cites "The Regulation of Automobile Insurance in California", Jaffee and Russell, 2001.

<sup>34</sup> Note that in some cases name changes have occurred, due to merger, acquisition or the like, but the companies remain the same. As example, "Auto Club So. Cal" is the same as "Interin Auto Cl Scal", "Geico Corp" is now "Berkshire Hathaway" and "20<sup>th</sup> Cent Ins Grp" is now "Amer Intern Group".

**Table 1. Auto Liability Insurance Premium Distribution: 1988 and 1999**

<i>Rank</i>	<b>1988</b>		<b>1999</b>			
	<i>Company</i>	<i>Written Premium</i>	<i>%age share</i>	<i>Company</i>	<i>Written Premium</i>	<i>%age share</i>
1	STATE FARM GROUP	1,304,883	18.1%	STATE FARM GROUP	1,158,892	14.5%
2	FARMERS INS GROUP	928,345	12.9%	FARMERS INS GROUP	1,070,566	13.4%
3	CALIF STATE AUTO ASN	734,882	10.2%	CALIF STATE AUTO ASN	770,583	9.6%
4	ALLSTATE INS GROUP	724,854	10.1%	ALLSTATE INS GROUP	735,152	9.2%
5	INTERIN AUTO CL SCAL	525,991	7.3%	AUTO CLUB SO CAL GRP	647,622	8.1%
6	20TH CENTURY INS GRP	366,689	5.1%	MERCURY GENERAL GROUP	607,319	7.6%
7	MERCURY GENERAL CORP	275,187	3.8%	AMER INTERN GROUP	536,206	6.7%
8	USAA GROUP	241,227	3.4%	USAA GROUP	215,783	2.7%
9	COASTAL INS CO	134,339	1.9%	PROGRESSIVE GROUP	195,102	2.4%
10	CALIF CAS INDEMN GRP	111,287	1.5%	BERKSHIRE HATHAWAY	162,444	2.0%
11	HARTFORD INS GRP	109,023	1.5%	GREAT AMER P&C GROUP	159,656	2.0%
12	SAFECO INS COMPANIES	108,804	1.5%	ROYAL & SUNALLIANCE	135,899	1.7%
13	PROGRESSIVE GROUP	93,333	1.3%	SAFECO INS COMPANIES	130,703	1.6%
14	GEICO CORP GROUP	92,052	1.3%	BRISTOL WEST INS GROUP	121,005	1.5%
15	CRUM & FORSTER COS	91,635	1.3%	NATIONWIDE GROUP	111,314	1.4%
16	NATIONWIDE GROUP	85,612	1.2%	HARTFORD INS GRP	83,988	1.1%
17	FIREMAN'S FUND COS	79,976	1.1%	HDJ US GROUP	71,787	0.9%
18	COLONIAL PENN GRP	76,401	1.1%	WAWANESA INS GROUP	66,157	0.8%
19	AETNA LIFE & CAS GRP.	75,532	1.0%	GMAC INS GROUP	65,231	0.8%
20	OHIO CASUALTY GROUP	73,027	1.0%	CALIF CAS GROUP	55,290	0.7%
	top 5	4,218,955	58.6%		4,382,815	54.9%
	top 10	5,347,684	74.3%		6,099,669	76.3%
	top 20 total	6,233,079	86.6%		7,100,699	88.9%
	State Total	7,193,570			7,990,400	

As far as the number of competitors is concerned, the CFA identifies Jaffee and Russell as the source of their estimates for the number of auto insurance groups operating in California, however their data is inconsistent with the most authoritative source for these types of data – A.M Best and Co.

According to Best's Executive Data Service, the following were the California firm counts for 1988 and 1999:



	Number of Insurance Groups	
	1988	1999
Liability	142	134
Physical Damage	155	137

While we do not argue that this represents a drastic reduction in competition, the fact remains that it is a reduction of around 5% in competitors in the market, as opposed to an increase of about 15% as reported by CFA.

#### FINDINGS RELATIVE TO THE IMPACT ON FAIRNESS

The CFA’s discussion of fairness focuses primarily on the mandatory offer and renewal provisions of Proposition 103, and the fact that the absence of prior insurance coverage cannot be used by an insurer to disqualify motorists who apply for insurance coverage. They claim that “These provisions, intended to reduce the uninsured motorist pool, are in effect and successful. In 1989, 8.4% of the insureds in California were in the California Automobile Assigned Risk Plan (CAARP). In 1999, the percentage had fallen to 0.3%. The national drop from 1989 to 1998 was 7.1% to 2.1%. This represents an astounding drop in the California Assigned Risk Plan of 96%.”<sup>35</sup> While the CFA, in what must surely be an extreme of understatement, mentions in a footnote that “some of this drop may be due to the sharp increase in CAARP rates during the period” they also claim that “to the extent that is so, you would expect the uninsured motorist population to rise, which it did not.”

The CFA ostensibly provides data in support of their assertion, namely that the proportion of uninsured motorist claims in California was 23.2% in 1989 and dropped to 14.2% in 1997, the latest year reported by the Insurance Research Council. They then state: “This represents a drop of 38% in the uninsured population over the time period. The national figures were 16.3% in 1989, 13.2% in 1997, for a drop of 19%. Once again California passes the test.”

This analysis, and the attribution of both the residual market and uninsured motorist declines to Proposition 103, represent an egregious misrepresentation of history. Consider the facts: for nearly a decade preceding the passage of Proposition 103, CAARP had grown dramatically, as a result of persistent rate inadequacy which made CAARP rates far more attractive for many drivers than the rates available in the voluntary market. This is illustrated in the Table below, showing that between

---

<sup>35</sup> See CFA, p. 6

1983 and 1990, the CAARP population grew almost ten-fold (from around 132,000 cars to almost 1.23 million) while rates were persistently inadequate, as evidenced by a loss and loss adjustment expense ratio that grew as high as 166%.

**Table 2. ARP Market Loss Experience and Earned Car Years**

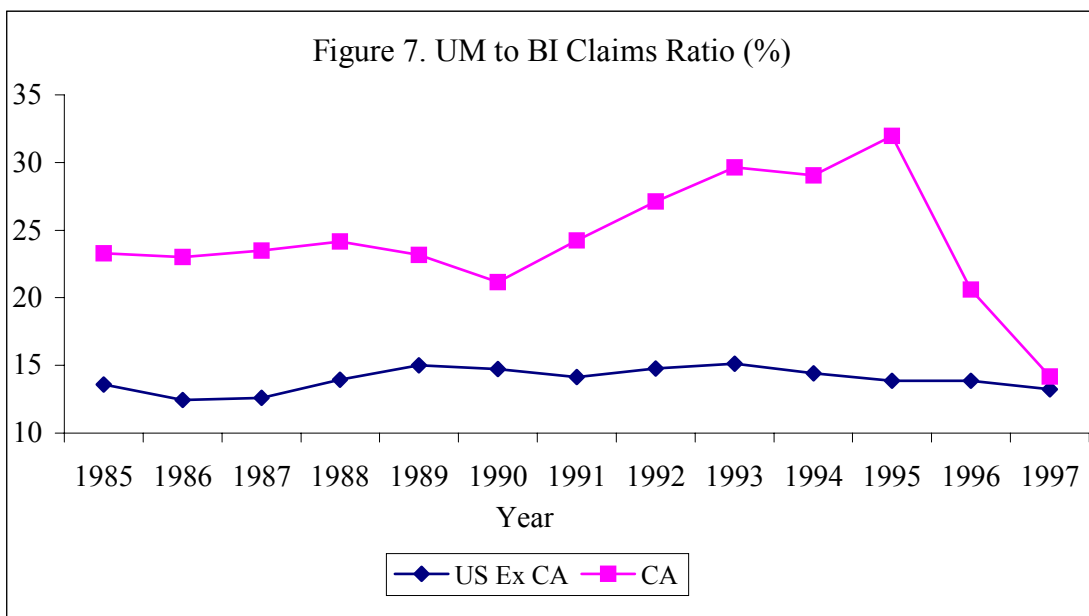
Year	Earned Premium (\$million)	Earned Car Years (\$000)	Loss & LAE Ratio (% of Earned Premium)
1980	113.6	254.2	84.5
1981	104.3	217.1	99.0
1982	86.9	165.5	108.7
1983	76.7	131.6	113.6
1984	85.1	139.3	122.2
1985	148.5	237.6	127.9
1986	240.2	380.3	138.8
1987	279.5	397.5	165.5
1988	462.9	623.1	166.0
1989	732.1	982.7	155.3
1990	889.4	1,228.1	155.2
1991	456.1	484.8	119.6
1992	222.8	170.1	107.9
1993	153.9	120.3	102.3
1994	158.3	125.9	97.2
1995	154.3	127.8	78.7
1996	124.7	106.3	69.3
1997	164.4	141.1	53.9
1998	108.4	94.3	52

In 1990, several things occurred which acted to halt and reverse these trends in California. First, and most importantly, on 10/1/90 a CAARP rate increase of 95.6% was approved – that is, rates in the residual market nearly doubled. Also, earlier in that same year (May, 1990) a regulation was implemented requiring drivers to certify under penalty of perjury that they had been denied coverage in the voluntary market, in order to qualify for CAARP. These two events surely better explain the depopulation of the California residual market than some nebulous appeal to the “fairness” provisions of Proposition 103.

Another example of CFA’s misrepresentation of history on this issue is evident when considering the statement, noted above, that “some of this drop [in CAARP population] may be due to the sharp increase in CAARP rates during the period, but to the extent that’s so, you would expect the uninsured motorist population to rise, which it did not.” The CFA then notes that the proportion of

uninsured motorist claims in California was 23.2% in 1989 and dropped to 14.2% in 1997, and states, in conclusion: “This represents a drop of 38% in the uninsured population over the time period. The national figures were 16.3% in 1989, 13.2% in 1997, for a drop of 19%. Once again California passes the test.”

This is disinformation in the extreme; while the CFA’s numbers are correct, their conclusion is absolutely erroneous. The reality of the uninsured motorist population in California, as measured by the ratio of uninsured motorists (UM) claims to bodily injury (BI) claims, is depicted in the table and chart below:



Source: Insurance Research Council

It is evident from the chart above that the proportion of uninsured motorists increased in California during most of the history of Proposition 103, even as that ratio was declining countrywide. This is shown even more clearly in the table below.

**Table 3. UM to BI Claim Ratio: CA vs. US Ex CA**

Year	CA	US exCA	Ratio CA to USX
1985	23.30	13.57	1.72
1986	23.00	12.46	1.85
1987	23.48	12.62	1.86
1988	24.17	13.94	1.73
1989	23.19	15.00	1.55
1990	21.15	14.73	1.44
1991	24.22	14.14	1.71
1992	27.10	14.77	1.83
1993	29.66	15.14	1.96
1994	29.04	14.43	2.01
1995	31.94	13.88	2.30
1996	20.61	13.85	1.49
1997	14.20	13.22	1.07

The CFA alleges that “California passes the test” because the UM proportion declined between 1989 and 1997. What they do not report is that that ratio increased from 23.2% in California in 1989 (approximately 55% higher than the national average), to 31.9% in 1995 (130% higher than the national average), and only began to decline in 1996. However, rather than report the complete facts, the CFA chooses to attribute the drop in 1996 and 1997 to Proposition 103, despite the fact that for five years after the passage of the initiative the UM population increased dramatically, both in the absolute and relative to the nation as a whole.

Instead of this misleading characterization, there is a perfectly rational explanation for the declines in the last few years of this time series. This was an issue of growing importance in California in the mid 1990’s.<sup>36</sup> In response to heightened concern, in 1996 the Legislature passed a bill (AB650) which required proof of insurance coverage in order to renew a vehicle registration, and authorized police to impound vehicles driven by persons without proof of financial responsibility. In addition, in 1996 California voters passed Proposition 213, which barred uninsured motorists from suing for pain and suffering resulting from an auto accident. These two developments, along with the heightened attention to the problem that is evident from the legislative analyses, are far more durable explanations for the decline in the uninsured population than Proposition 103.

---

<sup>36</sup> See, for example, the discussion of AB 650 in the 1995 legislative session, as reflected in the Senate Floor Analysis of the bill.

## FINDINGS RELATIVE TO THE NATIONAL IMPACT OF PROPOSITION 103

The principal CFA claims in this area are that Proposition 103 has spurred significant insurance reform activity in numerous states (at page 35 of the report they cite 40 states, but fail to elaborate). CFA also alleges that “Over 1,000 Proposition 103-style reforms have been introduced in state legislatures”, however there is no indication of the number that have passed, nor whether that constitutes a large proportion of all legislation over the past 10 years. Furthermore, despite the superlatives, CFA can cite only a handful of jurisdictions in which rollbacks or what are termed “other significant Proposition 103-type reforms” were passed. These states, according to the report, include Texas, South Carolina, Pennsylvania and New Jersey. In addition to these legislative activities, the CFA also argues that Proposition 103 forced the Insurance Services Office (ISO), an insurance industry statistical and advisory organization to stop filing prospective loss costs in California, and they suggest that the Proposition was behind the decision for the National Council on Compensation Insurance (NCCI) to stop filing prospective rates as well.<sup>37</sup>

In response to these claims, we can only note that as with so much of the CFA report, there is precious little documentation in support of these allegations. For example, we are unaware of any jurisdiction in the nation in which a Proposition 103 style reform was actually enacted, where rates were retrospectively rolled back and there was absolutely no provision for efforts at cost containment. In states such as Pennsylvania, Texas and New Jersey rate rollbacks were prospective in nature, and to our knowledge, intended to reflect the prospective savings associated with reforms aimed at cost control. This is quite a different legislative paradigm than the initiative.

As far as the activities of industry advisory organizations, such as ISO or the NCCI, we only note that the CFA report is factually incorrect when it claims that ISO does not file prospective loss costs in California. Proposition 103 did not prohibit the operation of advisory organizations as claimed by the CFA report. California Insurance Code section 1855 governs the operation of advisory organizations and has been on the books since 1947. It was not repealed by Prop 103. California Insurance Code section 1855.5 was originally enacted in 1989, amended in 1991 and 1993 and was further amended in September 1996 to explicitly provide that advisory organizations could prepare and distribute manuals containing prospective cost information. ISO has been filing and distributing prospective loss costs under the regulation and Insurance Code section 1855.5 since they were

---

<sup>37</sup> At page 36, CFA says: “In California, happily, ISO and the other rate bureaus can’t function this way. So there are no prospective loss costs filed in California by ISO. This is a great advance and one of the key reasons prices have moderated in the state.”

adopted in 1996.<sup>38</sup> And as regards the behavior of NCCI, it is worth noting that Proposition 103 did not apply to workers compensation, and in any event, NCCI has never been a licensed statistical agent or advisory organization in California.

## OTHER CFA FINDINGS

In the section of the report entitled “Why Did Proposition 103 Achieve So Much Compared to Other Regulatory Systems?” the CFA suggest three main explanations: the implementation of “full competition” by permitting banks to sell insurance, allowing agent rebates and the like; the elimination of the “pass through” mentality of the insurance industry; and the incentives for safety resulting from the 20% good driver discount and related classification restrictions contained in the initiative. We have already discussed the first two of these, and pointed out that (1) there has been no meaningful change in the competitive environment over the past decade, and (2) the arguments regarding a “pass through” mentality on the part of insurers are unsupported by any factual evidence, inconsistent with profit maximization in a competitive economy, and inconsistent with the CFA’s own claims about insurer selection competition. We now turn briefly to the issue of the good driver discount.

In theory, mandatory rate surcharges for accidents and violations obviously can encourage safety and reduce costs. Mandatory incarceration for at-fault accidents, for example, would almost certainly cause drivers to exercise greater care when driving. But this theoretical principle does not imply that Proposition 103’s rating restrictions on balance improved safety. The CFA argument that they did suffers on at least three accounts. First, the CFA presents no evidence that the restrictions produced materially higher surcharges for California drivers with accidents or violations compared to other states. Second, the effects of the rating restrictions in Proposition 103 on cost control are theoretically ambiguous given that the mandatory offer and renewal provisions could produce below market rates and surcharges for some drivers. Third, even if there were evidence that the rating restrictions helped lower costs, it cannot be presumed that the restrictions were economically efficient. The CFA offers no coherent explanation of why competitive rating, which produces rates that are closely aligned with expected claim costs, including the effects on expected costs of past accidents and violations, fails to provide efficient incentives.

---

<sup>38</sup> Even before its last amendment in June of 1996, the Department of Insurance adopted a regulation (Cal Admin Code title 10 section 2199.2.1 et. seq.), that interpreted and implemented Insurance Code section 1855.5 as it had been amended in 1993. The regulation recognized that Insurance Code section 1855.5 permitted the filing and distribution of advisory organization manuals that include prospective cost information.

To elaborate concerning the possible incentive effects of the mandatory “good driver” discount, California law stipulates that anyone classified as a “good driver” must receive a discount of 20% and may not be denied coverage by any insurer. Since the definition of a good driver was sufficiently liberal to include more than 90% of the drivers in the state, rates declined only negligibly for most drivers.<sup>39</sup> That is, in order to comply with the requirements under the law, insurers tended to increase rates substantially for non-good drivers, so that good driver rates were then 20% below the others, and thus in compliance.

Moreover, incentive effects depend largely on the size of rate increases for accidents and violations, as opposed to whether an individual’s rate actually declined. California is hardly the only state in which significant penalties for a bad driving record (or discounts for a good record) exist. In fact, in most states, many insurers have “no claim” discounts, and many use tiered rating plans that provide discounts for “preferred risks” – i.e., drivers with favorable records.<sup>40</sup> The CFA provides no evidence that such discounts are greater in California, let alone large enough to contribute materially to the differential in cost and expenditure growth between California and countrywide.

Estimating the effects of the California good driver discount would likely require estimating a model of insured accident costs using cross-state data over time, with appropriate control variables for other factors that affect accidents and claims, and including a variable to properly measure the discounts for safe driving that are available either through state mandates (as in California) or through market mechanisms (as in virtually all other states).

## OTHER CONSIDERATIONS

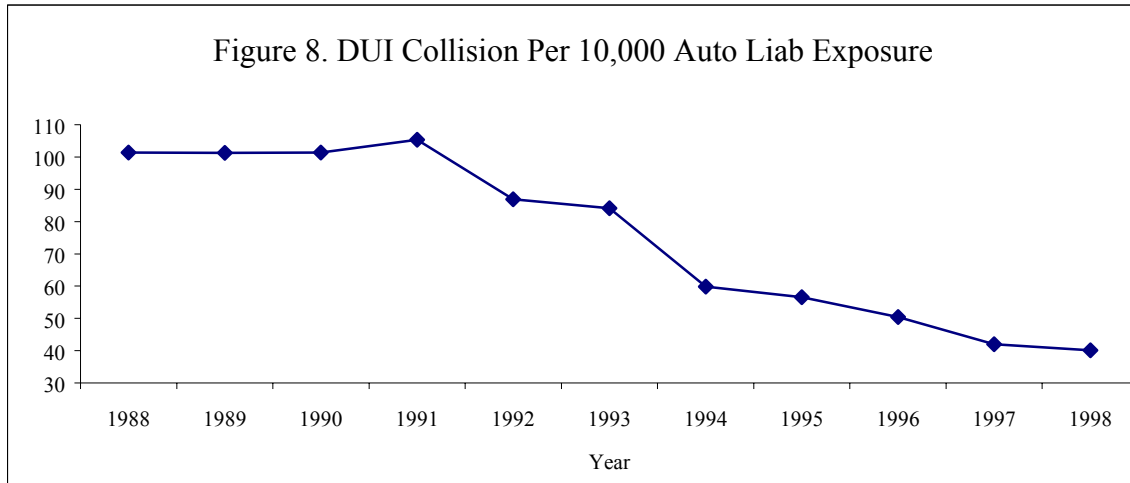
In contrast to the CFA’s report and the many claims contained therein, the scientific support for the relationship between Proposition 103 and cost growth is indeed tenuous. As we noted above, average claim cost growth and expenditure growth slowed substantially in California compared to the rest of the nation, and the slowdown was substantially greater for liability related coverages than for physical damage and theft coverage. In addition, California adopted a variety of policy initiatives in the late 1980s and 1990s – apart from Proposition 103 – that would be predicted to reduce claim costs. Those policies (some of which have already been discussed) include:

---

<sup>39</sup> Lyn Hunstead, Measuring and Modifying the Effects of Auto Rating Factors, *Journal of Insurance Regulation*, Vol. 14, No. 2, Winter 1995. Hunstead indicates that 92% of all drivers qualified for the good driver discount.

<sup>40</sup> There are also jurisdictions which have imposed far more punitive surcharges for at fault accidents, moving violations and the like. Consider, for example, the experience in New Jersey under the Driver Improvement Program (DIP), or Massachusetts under the Safe Driver Insurance Plan.

- The blood alcohol standard for driving under the influence of alcohol (DUI) was reduced to 0.08 percent in 1990, and enforcement of DUI laws intensified during the 1990s. The numbers of DUI related claims dropped substantially, falling by approximately 60% through the 1990s (Figure 8).



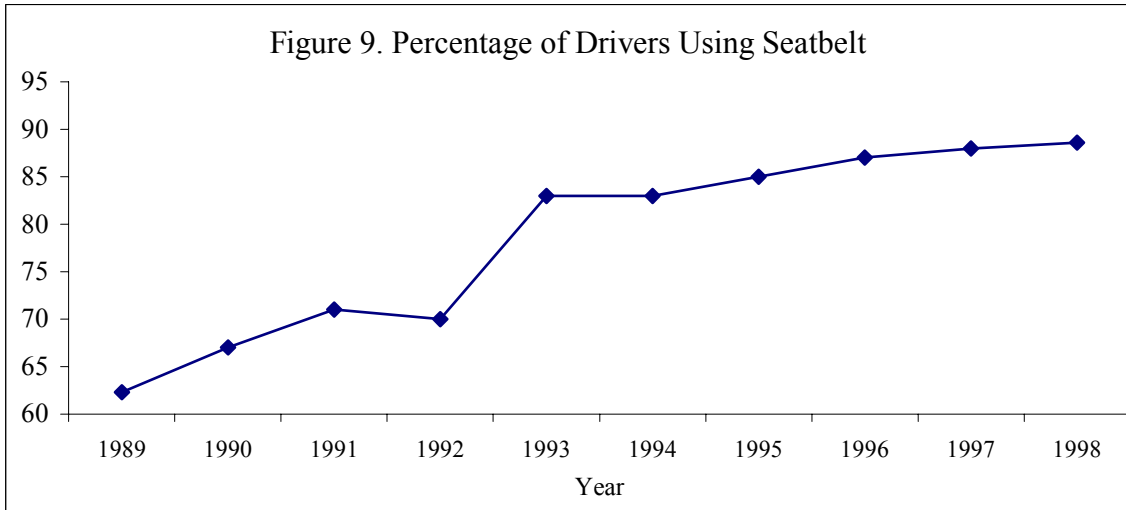
Source: Department of California Highway Patrol Statewide Integrated Traffic Records System.

- A mandatory seatbelt law with secondary enforcement was enacted in 1986 and was followed by a change to a primary enforcement law in 1993.<sup>41</sup> Seat belt usage increased substantially in the late 1980s and jumped in 1993 (Figure 9). This is highly significant change inasmuch as the National Highway Traffic and Safety Administration documents the significant effect that seatbelt use has on the medical loss costs of belted versus unbelted victims.<sup>42</sup>

<sup>41</sup> Secondary enforcement of seatbelt law means one can only be cited if one is stopped and cited for another offense. Primary enforcement means one can be stopped and cited solely for a seatbelt violation.

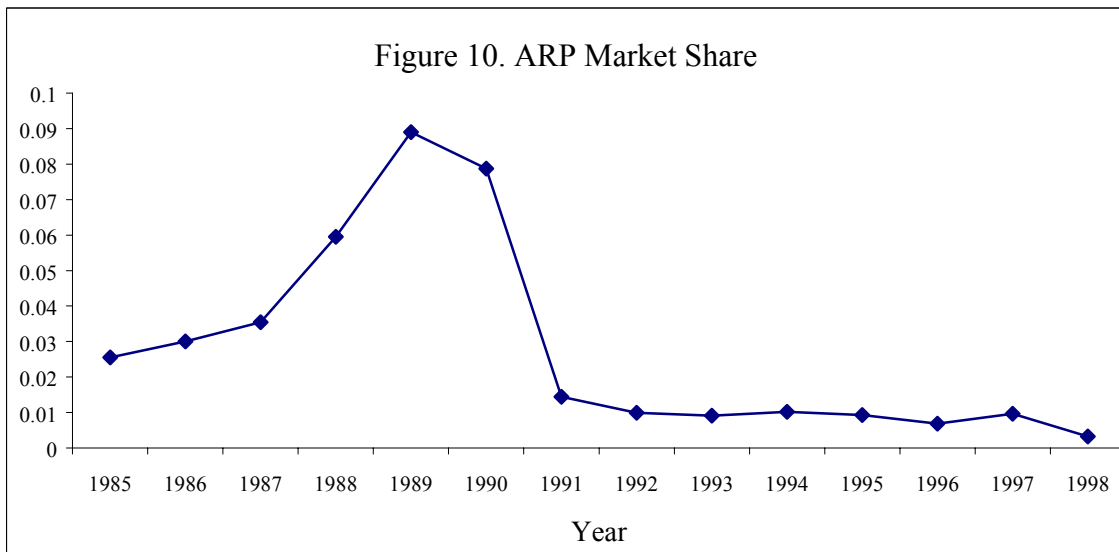
<sup>42</sup>"Crash costs skyrocket when vehicle occupants are not wearing seat belts because unbelted crash victims sustain more severe injuries and more fatalities than belted victims. Belted victims average 60 to 80 percent lower hospital costs than unbelted victims", NHTSA website, "The Facts: The Economic Costs of Non-Belt Use", <http://www.nhtsa.dot.gov/people/injury/airbags/seatbelt/economic.htm>





Source: Department of Transportation, National highway traffic safety administration

- Subsidies to the California Automobile Assigned Risk Plan (CAARP) were substantially eliminated by greater enforcement of requirements that drivers be refused insurance and by a rate increase of more than 95%. As we discussed earlier, subsequent to these events, the size of the plan diminished substantially (see Figure 10). As respects the impact on costs, elimination of assigned risk plan subsidies would eliminate the disincentives for cost control inherent in subsidized insurance for high-risk drivers, thus helping to control claim costs.



Source: AIPSO.

- We also discussed above that enforcement of the state's compulsory liability insurance law intensified. In 1996, the state's voters approved a law prohibiting uninsured drivers from

suing for pain and suffering, and the Legislature also passed a law permitting vehicle impoundment if a driver is uninsured. Evidence suggests that the number of uninsured drivers declined materially in the late 1990s. That development could have contributed to the subsequent reduction in average costs and expenditures per car year, because the number of insured vehicles could grow more rapidly than insured claim costs. While liability claim costs will grow as more drivers buy liability coverage, the costs of uninsured motorist coverage will decline.

- The state adopted substantial anti-fraud measures, increasing the insurance department fraud budget by a factor of 10 in the decade between 1989 and 1995.

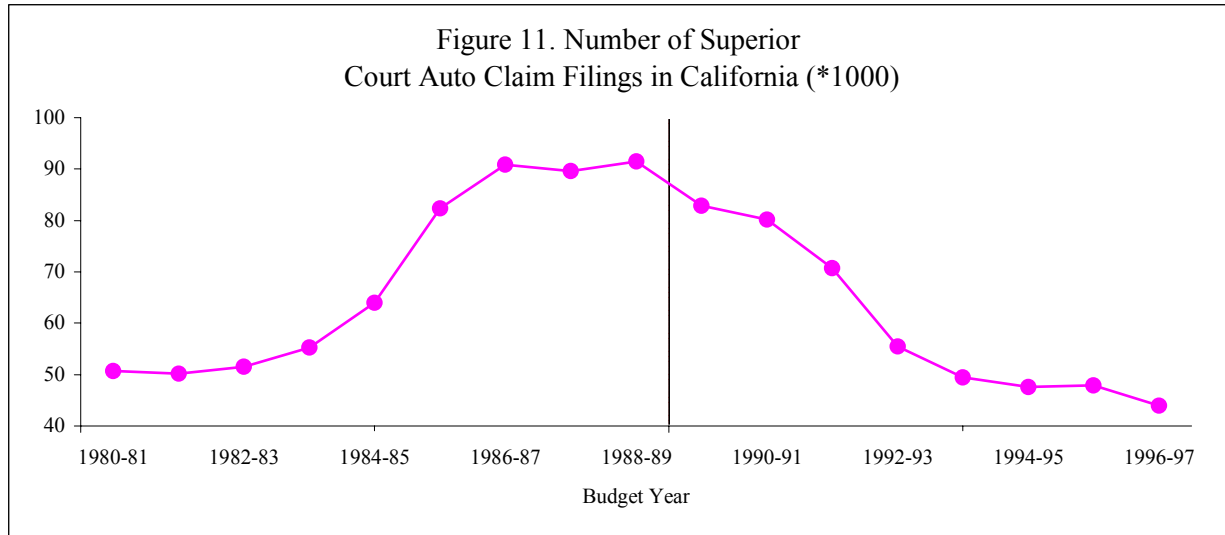
In addition to these initiatives, there was one other fundamental change in the California landscape during this time period that clearly had a salutary impact on auto insurance costs: the California Supreme Court's *Moradi-Shalal* decision in 1988, which prohibited third-party lawsuits for insurer bad faith under the state's Unfair Trade Practices Act. Many observers believe this was a key consideration in controlling the growth in insurance expenditures during the 1990's. We first provide some statistics regarding the impact of *Moradi-Shalal*, and then discuss the CFA's interpretation of those facts.

To understand the importance of *Moradi*, it is important to consider judicial history in California prior to the 1980's. In 1979, the California Supreme Court, in the *Royal Globe* decision, held that the California Unfair Trade Practices Act created a private cause of action directly against an insurance company by third party claimants, and held that a single violation of the Act was sufficient basis for a claim for punitive damages. This unleashed an onslaught of litigation in California courts, both for auto liability claims as well as other liability claims. (Since our interest is on auto insurance costs, we focus on those claims alone in the analysis below.)

The growth in such claims is shown in the chart below: between 1980 and 1987 California Superior Court auto liability claims filings increased 82%, from around 50,000 to in excess of 90,000 per year.<sup>43</sup>

---

<sup>43</sup> Under *Royal Globe*, an underlying liability claim served as a necessary predicate to the filing of the second lawsuit, with its assertion of insurer bad faith, for which the available remedy was unlimited punitive damages. California Judicial Council records document the rapid increase in such lawsuits.



In addition, average claim severity quadrupled, leading to dramatic increases in auto liability insurance costs (and rates) in the state. By 1988, when the *Moradi-Shalal* case came before the court, it was clear that the situation had deteriorated considerably. Indeed, the court, in *Moradi*, said of the previous doctrine: “Royal Globe may tend to encourage unwarranted settlement demands by claimants, and to coerce inflated settlements by insurers seeking to avoid the cost of a second lawsuit and exposure to a bad faith action.” As a result, *Royal Globe* was reversed: the Court said “These articles emphasize the erroneous nature of our holding...and the undesirable social and economic effects of the decision (i.e., multiple litigation, unwarranted bad faith claims, coercive settlements excessive jury awards and escalating insurance, legal and other ‘transaction’ costs).”

Since it would be impossible to claim that *Moradi-Shalal* was a result of Proposition 103, CFA is forced to attempt to prove the absurd: that the change in the legal environment was not a significant contributor to the reduction in California insurance costs and expenditures. The putative “proof” of that proposition is the CFA comparison of expenditure changes in states which are characterized as having “Moradi type laws” with expenditure changes in other states. The CFA asserts the following “States with Moradi-type laws had rate increases over the last decade of 41.5% on average while states overall had increases averaging 38.9%. So Moradi did not contribute to the savings in California by this measure.”

This comparison strains credulity. First of all, there is no attempt to control for any other factors that might influence costs, as if all other cost drivers were constant across jurisdictions. Secondly, there is no consideration of whether the legal environment in the states had changed during the time period,

as was the case in California. Finally, if CFA relied on the same interpretation of these data as they did when analyzing seatbelt laws, the numbers would support a conclusion that laws which prohibit third party bad faith claims actually *increase* costs.

To elaborate briefly on these points, we first note that the legal changes occasioned by *Royal Globe* clearly led to rapid increases in costs, which the CFA does not take note of, while the subsequent change under *Moradi-Shalal* simply restored the prior condition. It is a change in environmental trends that is likely to result in substantive cost impacts; the failure to provide information on whether other state's laws had changed during the period constitutes a critical omission from the CFA study.

As far as concluding that Moradi laws increase costs, consider that if the 26 states CFA identifies as having Moradi type laws had average expenditure increases of 41.5%, while all states in total had an average increase of 38.9%, then simple arithmetic implies that the 25 states without Moradi type laws had an average increase of 36.2%. According to the analytical techniques employed by CFA for the analysis of seatbelt laws, the difference in expenditure growth over the decade is an estimate of the impact of that factor on costs. Since states with Moradi laws had cost growth of 41.5% while other states had growth of 36.2%, logical consistency would require the CFA to conclude that Moradi laws increase costs by 5.3%.<sup>44</sup>

#### SUMMARY OF CFA CLAIMS

As the discussion above indicates, there is no single, obvious cost driver that explains the differential between California and countrywide cost and expenditure. However, the CFA argues that such cost drivers cannot explain the differential, and that in fact it must be due to the benefits of Proposition 103.

The CFA's simple statistical analyses can be criticized for poor measurement of the control characteristics (e.g., not considering when Moradi-type laws were adopted or the conditions prior to their adoption). Those analyses also fail to consider simultaneously the effects of all measurable, potentially relevant characteristics that could affect cost growth. If possible, remedying those defects

---

<sup>44</sup> To derive its conclusions regarding seatbelt savings, the CFA actually compares the increases in selected states with the average increase in the nation as a whole. However such an analysis is inappropriate; the correct comparison is between states with a particular characteristic and states without that characteristic. Had we followed the CFA algorithm, the conclusion would have been that Moradi laws increase costs by 2.6% (41.5% - 38.9%).

would provide a more accurate estimate of the differences in cost growth, if any, between California and other states with similar characteristics. Even then, the inherent inability to measure differences across states in factors such as the intensity or administration of government policies that affect cost growth would make the analysis suggestive at best.

Perhaps more important, even if the best designed analysis showed slower growth in costs in California after 1988, it would not imply that the regulatory program put into place because of Proposition 103 caused that result. The old adage “correlation does not imply causation” applies in this instance as well. California's extraordinary auto insurance cost decline that surrounded the enactment and implementation of Proposition 103 was associated with substantially greater focus by California insurers, consumers, and policymakers on cost control. That this greater focus and concern were manifested in ways that slowed cost growth is surely good news for California drivers and offers a salutary endorsement of thoughtfully conceived, and carefully implemented, policymaking. But the fact these favorable outcomes were in fact forecast and anticipated by their originators is hardly surprising and cannot be attributed to the Proposition 103 regulatory program based on the CFA’s arguments and evidence.

In order to make a compelling case for its claims, the CFA needs (1) solid conceptual arguments for how the specific features of the Proposition 103 regulations would be likely to affect costs materially and (2) careful empirical analysis that links those specific regulations to cost growth. The CFA report and follow-up analysis contain neither.

#### **IV. Proposition 103, Auto Expenditure and Cost Control: A Closer Look**

*As stated at the outset, this paper undertakes to review and analyze the CFA report and, to the extent that analysis warrants, to develop an alternative explanation of the factors that produced change in auto insurance expenditures in California. As discussed above, the CFA’s explanation is not well-supported by academic theory nor the empirical record from California -- in effect the CFA report is simply misleading. In this section of the paper, we propose an alternative explanation of the California experience that is based on fundamental principles of economics and actuarial science. The basic elements of this explanation are as follows:*

1. *Insurance premiums and expenditures are primarily dependent on the costs of insured events.*
2. *When loss costs increase rapidly, there is mounting political pressure to control costs and rates.*
3. *Loss costs themselves depend on underlying population characteristics, costs of vehicle repair and medical services, and the legal liability system, among other things.*

4. *In order to evaluate the impact of any single factor on premiums, it is necessary to understand the impact of that factor on losses, after controlling for other relevant characteristics.*
5. *A more carefully specified analysis of California experience during the 1990's indicates that Proposition 103 had no statistically significant impact on California losses or rates.*

### *Insurance Premiums Depend on Insurance Costs*

Although it would seem to require no proof, the CFA analysis claiming that Proposition 103 caused the reduction in California's auto insurance expenditure in the 1990s suggests that in the long run factors other than costs may in fact drive insurance expenditures. This simplistic approach is misleading because insurance premium *is* primarily driven by loss costs, while loss costs, in turn, are driven by many factors. The analysis we undertook begins with a simple demonstration of that proposition.

The fact that premium is primarily driven by loss costs was first demonstrated by Figures 3 and 4, which show the relationship between premium and loss cost. However, to provide further evidence, we conducted a regression analysis using data on auto liability rates and costs for 51 jurisdictions over a period of 19 years.<sup>45</sup> The model we estimated is simple: premiums per car year (the so-called dependent variable) are described as a function of the lagged value of insurance loss costs per car year (the so-called independent variable).<sup>46</sup> In order to account for the fact that several prior year's losses may impact next year's premium, we estimated three separate models, using three different measures of lag loss. These lag loss measures include last year's loss, the weighted average loss costs for last two years, and the weighted averaged loss costs for the last three years. (The weights for the last-two-year average are 2 for last year and 1 for two years before. The weights for the last-three-year average are 3 for last year, 2 for the year before that, and 1 for the year third year before.)

The results are shown in Table 5 below. The R-square measures the percentage of variation in premium explained by the loss cost variable. The p-value measures the statistical level of significance of the independent variable. The lower the p-value, the more likely that the independent variable has an independent effect on the dependent variable as suggested by the coefficient estimate, and so the higher is the level of statistical significance. A p-value of 10% or 5% or less is usually considered statistically significant in academic studies. The results reported

---

<sup>45</sup> The data for Kentucky prior to 1989 were unavailable.

<sup>46</sup> As is well known, insurance ratemaking depends on a projection of historical costs into the future. Thus, the lagged value of losses should explain the majority of the variation in premiums across states and over time.

in Table 4 indicate that loss costs explain more than 87% of the fluctuations in premium over time. Note that not only are the R-squares very high, the p-values are all less than 0.00001%, which is extremely significant.

**Table 4. Results of Regressing Liability Premium on Lag Liability Loss  
Dep. Variable: Liability Premium Per Car Year**

Variable	Estimate	p-value
<u>Regression 1</u>		
Intercept	51.83	<0.001
Average Loss Cost Last Year	1.71	<0.001
R-Square	0.8774	
<u>Regression 2</u>		
Intercept	52.33	<0.001
Weighted Average Loss Costs of Last Two Years	1.73	<0.001
R-Square	0.8865	
<u>Regression 3</u>		
Intercept	54.12	<0.001
Weighted Average Loss Costs of Last Three Years	1.74	<0.001
R-Square	0.8908	

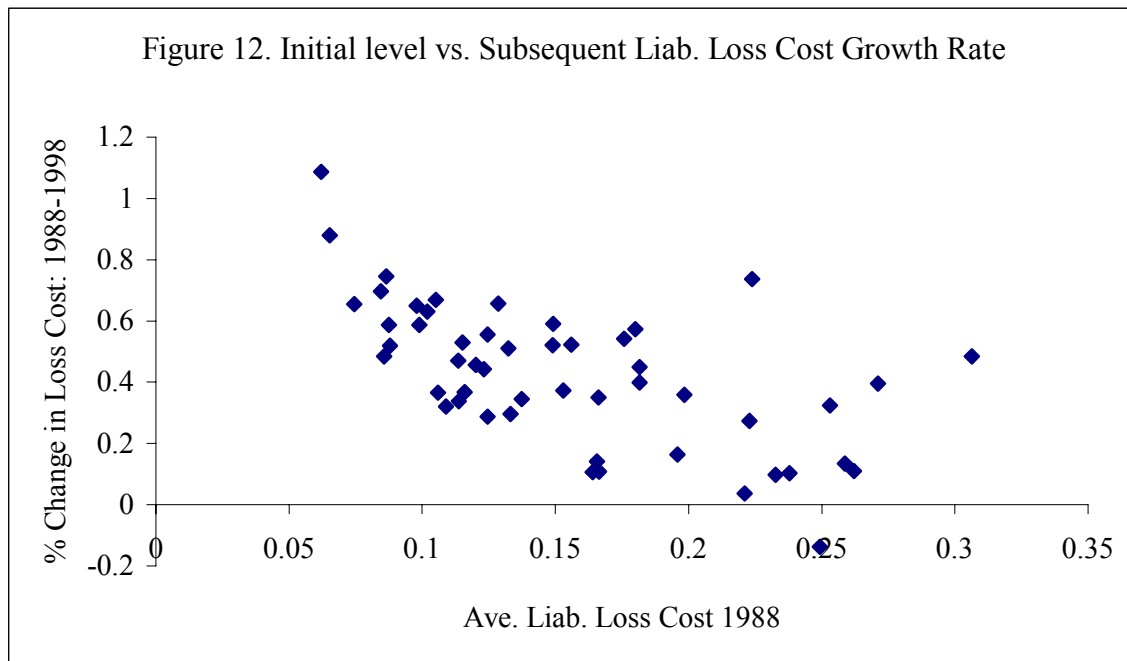
These results demonstrate unambiguously that losses are the primary determinant of insurance premiums.

*High Costs Create Political Pressure for Cost Control*

Rapid growth in claim costs and premiums produces substantial political pressure for government action to reduce premiums. One possible response, which has occurred in some states and years, is to hold rate increases below increases in expected costs.<sup>47</sup> An alternative but not mutually exclusive response is for the government to take steps to reduce the growth of claim costs. The latter response represents one reason that states with high costs at a point in time tend to have slower subsequent cost growth than states with low costs. This phenomenon is illustrated in Figure 12, which plots the

<sup>47</sup> See Harrington (1992).

growth in average claim costs during 1989-98 by state versus the average claim cost per insured vehicle in 1989.



Source: “Trends in Auto Injury Claims: 2000 Edition”, Insurance Research Council, Malvern, PA, 2000

As is clear from the downward sloping pattern of points in the figure above, there is generally an inverse relationship between the level of costs at a moment in time and the subsequent change in costs. Thus, those states with high levels of costs in 1988 tended to have low growth in costs over the subsequent decade.

This ought not to be surprising. The rapid cost growth in California in the 1980s created enormous pressure for cost control as a means of achieving heightened affordability. Similarly, the 1988 ballot initiative, Proposition 104, that would have created a no-fault insurance system and subsequent California legislative proposals for the adoption by California of a no-fault law <sup>48</sup>, might have encouraged traditional no-fault opponents (including California trial lawyers) to press for actions to reduce costs, thereby reducing pressure for the state to adopt no-fault. Those events very likely contributed to cost control initiatives in the late 1980s and 1990s (anti-fraud and drunk driving measures, elimination of CAARP subsidies, tougher seat belt laws, Moradi-Shalal, and so on). However, even if Proposition 103 somehow increased pressure for policy initiatives to control costs,

<sup>48</sup> See, for example, Assembly Bill 354 (Johnston) of the California 1989-90 Legislative session and Senate Bill 941 (Johnston) of the 1991-92 California Legislative Session as well as the endorsement of no-fault insurance in 1991 by California Insurance Commissioner John Garamendi, as cited at footnote 29.



that would not imply that the specific provisions of the Proposition were beneficial to consumers or relatively harmless.

Like a few other analysts (notably, Jaffe and Russell), the CFA emphasizes that many of the dire projections about the devastating effects of Proposition 103 on the California market did not materialize. The CFA implies that this provides evidence that Proposition 103's provisions were good policy. That implication is nonsense. The fact that it required Court decisions and a variety of cost control initiatives to facilitate an orderly market directly undermines the CFA's claim that the Proposition 103 led to the "best" regulation in the country.

#### *Loss Costs Depend on State Characteristics*

To best understand the decline in loss costs in recent years, the ideal approach would be to systematically take into account all of the important factors driving insurance losses. It is only when all of the major drivers are simultaneously taken into account that one can then accurately sort out the independent impact of each one of them on the loss costs of insurance. To that end, we performed two multiple regression analyses. First, we performed a multiple regression of the percentage change in loss costs from 1989 through 1998 on the changes in a number of important drivers of insurance loss costs together with a binary indicator for California to determine the actual impact of Proposition 103 on the loss costs experience in California. Second, we performed a regression of average loss costs on the California fraud budget and a binary indicator for the post Proposition 103 period to determine the impact of Proposition 103. We also tried including additional variables for this analysis as well.

#### *Cross Sectional Growth Rate Regression – Evaluating the Impact of Proposition 103*

The following presents the details of the multiple regression analyses. The results of the analyses verify that once other factors simultaneously affecting insurance loss costs are taken into consideration, there is no evidence that Proposition 103 has helped to reduce loss costs in auto insurance.

More specifically, we used an econometric technique called multiple regression to estimate the *independent* effects of the following factors on the percentage change in average cost per car year for BI, PD and PIP:

1. California dummy (equals 1 for CA and 0 otherwise);
2. Percentage Change in the percentage of adults between 18 and 24;
3. Percentage Change in the percentage of population within metro areas;
4. Average annual percentage change in alcohol consumption per capita;
5. Percentage Change in UM to BI claim frequency ratio;<sup>49</sup>
6. South Carolina binary variable (equals 1 for SC and 0 otherwise);
7. High residual market binary variable (equals 1 for five states with the highest residual market concentration including MA, NC, SC, NY and NJ and 0 otherwise);
8. Seatbelt law index<sup>50</sup>;
9. Percentage of years with nofault law or PIP coverage;
10. Average loss cost in 1989 in millions.

All of the change or growth rate variables are for the post Proposition 103 period. A brief discussion of the expected signs on each of the variables is provided below. Multiple regression allows one to simultaneously measure the separate and independent impact of several factors on one dependent variable (which is the change in average loss cost in this particular case). It accomplishes this by holding each of the other factors constant and then measures the covariation of one single factor with the dependent variable. When an event is caused by a variety of factors, this is the standard approach to access the independent effect of each factor.

The sign and magnitude of the coefficient estimate for each of the ten factors provide an estimate of the direction and magnitude of impact of that factor, or characteristic, on the percentage change in loss costs. For example, we would expect the change in the percentage of youthful drivers to have a positive sign; that is, a state with a larger change in the proportion of drivers between 18 and 24 should have a larger growth in loss costs. The expected signs on the remaining factors are shown in the table below.

Factor	Expected Sign/direction of impact
Percentage of adults over 65	negative
Percentage of pop. between 18 and 24	positive
Percentage of pop. in metropolitan areas	positive
Alcohol consumption	positive
Uninsured motorists	positive
High residual market share	positive

---

<sup>49</sup> The UM to BI claim frequency ratio data is obtained from Insurance Research Council for the years 1976-1986 and 1989-1997. For the regression analysis, the 1997 numbers are assumed to be the same as the 1998 numbers.

<sup>50</sup> The effects of seatbelt laws are expected to increase for a few years after initial enactment as people's behavior gradually changes over time. The seatbelt law index is constructed to capture this impact as follows: for any particular year, states with a primary seatbelt laws at is given a score of 2; states with a secondary seatbelt law is given a score of 1; states without seatbelt laws is given a score of 0. The seatbelt law index is simply the sum of scores for each state from 1989 through 1998 divided by the number of years, 9.

Seatbelt laws Index	negative
South Carolina	negative
PIP and nofault law may	ambiguous <sup>51</sup>

The CA binary variable is included to capture the impact of Proposition 103 on loss costs; if, after controlling for these other determinants of losses, Proposition 103 actually had a salutary effect on costs, the sign would be negative.

While we tried to include as many of the important driving factors of loss costs as possible, there are still many for which we simply do not have available data. For example, data on much of the changes in legal and regulatory regime, variations in fraud bureau budget, and accurate state price level variations are not available to us. Instead, we have included the initial loss costs as a proxy for the level of any governmental loss control effort in response to initial loss cost as discussed before.

The estimated coefficients for the factors are presented in Tables 5 and 8. Table 5 reports the results using data for the period 1989-1998, the only time period considered in the CFA report. Note that in this model the California dummy has a statistically insignificant coefficient, indicating that no clear statistical evidence that Proposition 103 leads to lower loss costs.<sup>52</sup>

It seems unlikely that the impact of Proposition 103 would take a full decade to realize; in fact, one might plausibly expect the effects on loss cost growth should be the highest in the years immediately after the passage of the Proposition. Therefore, instead of looking at just the loss growth from the 1989 through 1998 period, we also investigate the independent impacts of factors driving the loss

<sup>51</sup> On the one hand, PIP coverage may increase growth rate as medical cost usually grows faster than average CPI. On the other hand, nofault law may decrease loss costs due to lower legal fees, or increase loss costs when nofault laws are potentially more vulnerable to fraud.

<sup>52</sup> The following table provides the summary statistics for the multiple regressions:

Variable	Mean	Std. Dev.	Min	Max
% change in average loss costs, 1989-98	0.309	0.207	-0.180	0.726
Average loss cost in 1989 (\$1,000)	0.167	0.065	0.072	0.317
California	0.020	0.140	0	1
1989-98 % change in % of adult pop 18-24	-0.115	0.111	-0.375	0.152
1989-98 % change in % of pop inside metro	0.013	0.025	-0.036	0.086
1989-98 % change in alcohol consumption per capita	-0.007	0.009	-0.027	0.010
1989-98 % change in um to bi claim freq. Ratio	-0.094	0.297	-0.527	1.105
South Carolina	0.020	0.140	0	1
MA, NC, SC, NY, or NJ	0.098	0.300	0	1
Seatbelt law index, 1989-98	1.137	0.571	0	2
% of years nofault or PIP, 1989-98	0.420	0.484	0	1

growth for successively shorter periods after 1989, using the same multiple regression technique. Table 6 reports the results of the multiple regression analyses on successively shorter periods after the passage of Proposition 103. The results indicate that the California dummy variable is always insignificant. In fact, it is actually positive and statistically most significant for the period immediately after Proposition 103. The coefficient actually suggests that Proposition 103 increases loss costs by an average of around 5.5% per year, based on the 1989-1991 result. These results strongly indicate that there are other factors responsible for the declining loss costs in the 1990's, which are not well captured in the statistical model.

**Table 5. Regression Results for Growth Rates 1989-98**  
**Dep. Var.= % Change In Average Loss Cost: 1989-1998**

Variable	Coeff. Estimate	p-value
Intercept	0.706	0.000
Average loss cost in 1989	-1.787	0.002
California	-0.102	0.509
1989-98 % change in % of adult pop 18-24	0.358	0.161
1989-98 % change in % of pop inside metro	-0.825	0.401
1989-98 % change in alcohol consumption per capita	4.112	0.183
1989-98 % change in um to bi claim freq. Ratio	0.199	0.039
South Carolina	-0.629	0.000
Dummy for high residual market (MA, NC, SC, NY, or NJ)	0.190	0.066
Seatbelt law index, 1989-98	-0.036	0.319
% of years nofault or PIP, 1989-98	0.094	0.058
R-Square	0.676	
Largest Collinearity Condition Index	15.0	

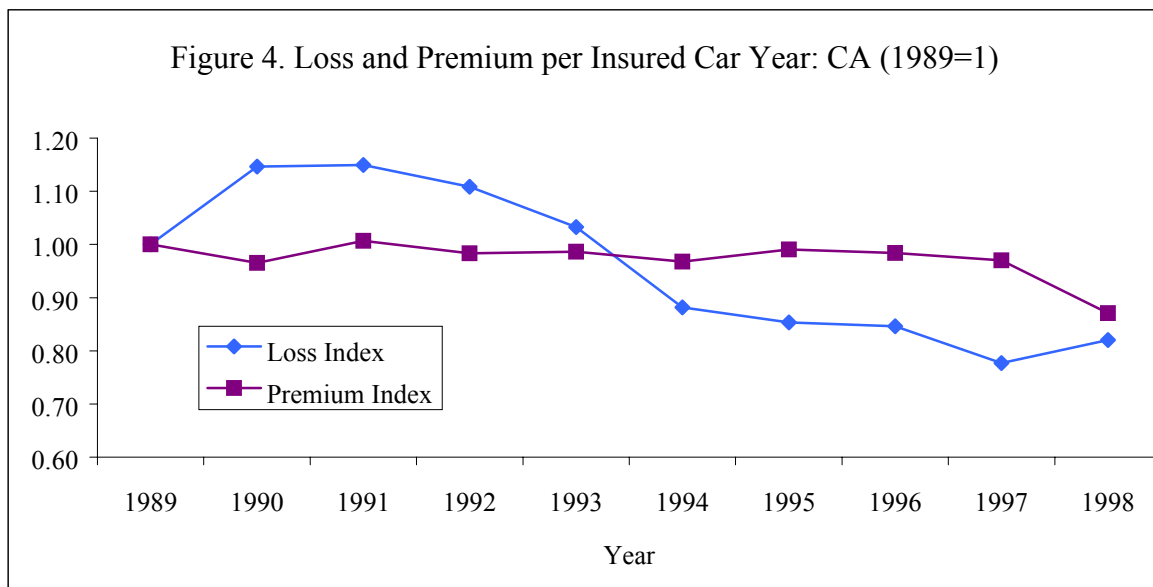
**Table 6. Coefficient Estimates for the CA Dummy for Alternative Periods of Growth**

Growth Period	Coeff. Estimate for the CA Dummy	p-value
1989-97	-0.079	0.564
1989-96	-0.034	0.799
1989-95	-0.169	0.294
1989-94	-0.121	0.402
1989-93	-0.066	0.669
1989-92	0.051	0.669
1989-91	0.118	0.169
1989-90	0.088	0.141

## V. Would Premiums Have Been Lower Without Proposition 103?

*In this section of the paper, we consider whether Proposition 103 may have increased the cost of auto insurance in California. Based on national data about the relationship between auto insurance premiums and costs, we calculate the premiums California insurance buyers might have paid had a more competitive rating environment had existed in California when cost factors began their rapid decline in the 1990s. Based on four alternative projection methods, we find that actual premiums paid in California exceeded predicted premiums by between \$8.6 and \$13.0 billion over the 1989 – 1998 period.*

As illustrated earlier in Figure 4, average liability costs increased initially after 1988, but beginning in 1991 they start a sustained decline, which was not accompanied by comparable rate decreases. The CFA report argues that the relatively high profits that ensued reflected the alleged negligence or malfeasance of California Insurance Commissioner Quackenbush. There is, however, a more plausible explanation for the observed data in view of both theory and evidence on the effects of rate regulation and regulatory lag on profits.



The post-Proposition regulatory environment in California could have induced insurers to defer rate reductions in response to declining costs; in effect, insurers may have retained the increased profits as a hedge against future regulatory risk. A rational insurer, acting in its individual self interest, could easily require a higher expected profit margin in response to the increased uncertainty associated with

the Proposition 103 regulatory regime.<sup>53</sup> As evidence of this uncertainty, note that no final regulations have yet been issued to govern the prior approval process, even though the insurance department began to hold hearings about rating factors as early as 1990. In addition, for more than a decade after the passage of Proposition 103, insurers were faced with the prospect that territorial ratemaking would be prohibited, which would have severely limited the ability to achieve adequate rates.<sup>54</sup>

Accordingly, a vital question for public policymakers to consider is how loss ratios and premiums might have differed following Proposition 103 if California's experience had mimicked that in states with competitive rating laws. Figure 12 and Table 9 provides illustrative evidence in this regard.

Figure 12 plots personal auto liability and auto physical damage loss ratios in California and the average loss ratios for states with competitive rating laws during 1981-1998.<sup>55</sup> The auto liability loss ratio in California exceeded the average auto liability loss ratio in competitive rating states through 1988 but was less than that average each year thereafter. During 1981-1988, the mean auto liability loss ratio in California exceeded the mean value in competitive rating states by 2.8 percentage points. During, 1989-1998, however, the mean auto liability loss ratio in California was 8.6 percentage points lower than the mean value for competitive rating states.

The auto physical damage (collision and theft) loss ratios show less distinct differences, but the mean difference between auto physical damage loss ratios in California and competitive rating states also declined following the enactment of Proposition 103. During 1981-1988, the mean auto physical damage loss ratio in California was 0.8 percentage points higher in California than the average in states with competitive rating laws. During, 1989-1998, the mean auto physical damage loss ratio in California was 0.9% lower than the mean value for competitive rating states.

---

<sup>53</sup> The hypothesis that Proposition 103 increased uncertainty for California insurers is consistent with the results of event studies such as Fields, Ghosh, Kidwell and Klein [1990]. Dixit (198x) provides detailed analysis of the reasons that regulatory uncertainty will increase required profit margins in regulated industries.

<sup>54</sup> As noted by J&R, one of the provisions of Proposition 103 specified the order in which variables were to enter the ratemaking process, and restricted the ability to rate on a territorial basis. This provision, which was widely viewed as an attempt to impose cross subsidies from rural to urban areas, was strongly opposed by insurers. On Jan. 4, 2001, the California Appellate Court upheld a ruling permitting territorial rating, stating "unrefuted evidence establishes that territory is a more important determinant of the risk of loss than any other single factor." This ruling appears to put to rest nearly 13 years of appeals on this matter.

<sup>55</sup> States with file-and-use, use-and-file, and file only laws were classified as competitive rating using the categorization in Harrington (2001). The loss ratios are adjusted for dividends; they do not include loss adjustment expenses, which were not reported by state during much of the period. A.M. Best company data on losses, dividends, and premiums were used for 1981-1992. NAIC data were used for 1993-1998.

Fig. 13

**Auto Liability and Auto Physical Damage Loss Ratios in California and Competitive Rating States, 1981-1998**

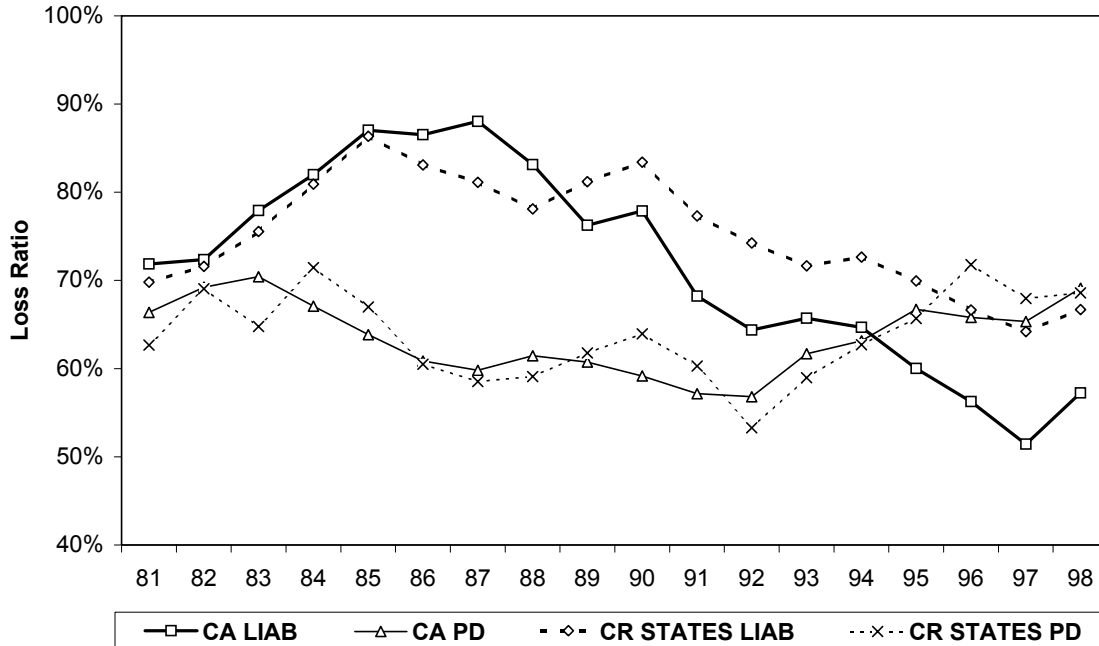


Table 9 illustrates the difference between actual (earned) premiums in California during 1989-1998 and the projected premiums that would have been earned given the same incurred loss values had California's loss ratios mimicked those in states with competitive rating laws. Four projection methods were used:<sup>56</sup>

1. The projected California loss ratio in a given year equals the mean loss ratio for competitive rating states during that year.
2. The projected California loss ratio equals mean loss ratio in competitive rating states plus the average difference between the loss ratio in California and states with competitive rating during 1981-1988. This method allows for the average influence of factors that may have caused California's loss ratio to differ from the average value in competitive rating states during 1981-1988 and that might have persisted in later years.
3. The projected California loss ratio equals the predicted value from a regression model, estimated separately for liability and physical damage with data for competitive rating states,

<sup>56</sup> The projected earned premiums in each case equal incurred losses in California divided by the projected loss ratio for California. The premium decreases shown equal California's actual earned premiums minus its projected earned premiums, summed over the 1989-1998 period.

which includes two or more control variables that could contribute to differences in loss ratios among states.<sup>57</sup>

4. The projected California loss ratio equals the predicted value from a regression model plus the average difference between the actual and predicted loss ratio in California 1981-1998. This method allows for the average influence of factors that may have caused California's loss ratio to differ from the average predicted value from the regressions for 1981-1988 and that might have persisted in later years.

Table 9

Projected Decrease in Auto Insurance Earned Premiums During 1989-1998  
if Loss Ratios in California Equaled those in States with Competitive Rating Laws  
(\$ billions)

CA Loss Ratio Projection Method	Liability	Physical Damage	Total
Projected CA loss ratio for each coverage equals mean loss ratio for competitive rating states in that year	\$9.5	\$0.5	\$10.0
Projected CA loss ratio equals mean competitive rating loss ratio plus average difference between CA and other competitive states' loss ratios during 1981-1988	\$12.0	\$1.0	\$13.0
Projected CA loss ratio equals predicted value from regression model estimated with data for competitive rating states	\$7.8	\$2.6	\$10.4
Projected CA loss ratio equals predicted value from regression model plus average difference between actual CA loss ratio and predicted CA loss ratio during 1981-1998	\$7.8	\$0.8	\$8.6

Consistent with the loss ratios shown in Figure 12, each projection method produces large premium changes for auto liability coverage and much smaller values for physical damage. The projected premium reductions range from \$7.8 billion to \$12 billion for auto liability, from \$0.8 billion to \$2.6

<sup>57</sup> The regression equation for auto liability includes three control variables: (1) the market share of auto liability earned premiums for direct writing insurers, (2) personal injury protection premiums as a proportion of total premiums for liability and related coverages, and (3) the lagged (one-year) value of the average loss per liability insurance written car year. The physical damage equation included the market share of auto physical damage earned premiums for direct writers and the lagged value of the average physical damage loss per liability insurance written car year. Harrington (2001) uses (and discusses) similar control variables.



billion for auto physical damage, and from \$8.6 billion to \$13 billion overall. I emphasize that these results are meant to be illustrative only. The amount of premiums that would have been charged given loss experience but for Proposition 103 is unknowable. However, if Proposition 103 increased insurers' risk and therefore discouraged them from reducing premiums more in response to slower loss growth, the magnitude of these numbers suggests that the effects could have dwarfed the magnitude of any rate rollbacks.

## **VI. Conclusion**

The foregoing report has provided a comprehensive analysis of the CFA claims regarding the impact of Proposition 103 on the California auto insurance marketplace. As we have shown in detail, there is little support for the CFA's allegations regarding the "remarkably effective provisions of Proposition 103." To the contrary, based upon our review of a substantial amount of original and derived data, as well as a comprehensive review of the academic literature, we reiterate the following principal conclusions:

- *CFA's "regulatory standards of excellence" are fundamentally inconsistent with a modern understanding of the role of regulation in a competitive market.*
- *CFA's "objective analysis" of regulatory results lacks scientific rigor and is fatally flawed.*
- *A serious analysis of California insurance premiums indicates that Proposition 103 had no meaningful effect on auto insurance costs in California.*
- *It is possible that California consumers would have saved in excess of \$10 billion over the past decade, had a competitive market been permitted to function in the state.*

## Selected Bibliography

- Abraham, Kenneth S., 1985, Efficiency and Fairness in Insurance Risk Classification, *Virginia Law Review*, 71: 403-451.
- Appel, 2001
- Baumol, William J., 1991, Technological Imperatives, Productivity and Insurance Costs, *The Geneva Papers on Risk and Insurance*, 16: 154-165.
- Belsley, D.A., Kuh, E., and Welsch, R.E. (1980), *Regression Diagnostics*, New York: John Wiley & Sons, Inc.
- Blackmon, B. Glenn Jr. and Richard Zeckhauser, 1991, Mispriced Equity: Regulated Rates for Auto Insurance in Massachusetts, *American Economic Review*, 81: 65-69.
- Breyer, Stephen, 1982, *Regulation and Its Reform* (Cambridge, Mass.: Harvard University Press).
- CFA
- CFA
- Consumer Federation of America, Consumers Union, National Insurance Consumer Organization, and Public Interest, 1989, Reducing Auto Insurance Rates: A Comprehensive Program, Washington, D.C.
- Cummins, J. David and Sharon Tennyson, 1992, Controlling Automobile Insurance Costs, *Journal of Economic Perspectives*, 6: 95-115.
- Cummins, J. David and Mary Weiss, 1992, Regulation and the Automobile Insurance Crisis, *Regulation: Cato Review of Business & Government*, 15 (Spring): 48-59.
- Cummins, 2001
- Danzon, Patricia, 1983, Rating Bureaus in U.S. Property-Liability Insurance Markets: Anti- or Pro-Competitive, *Geneva Papers on Risk and Insurance*, 8: 371-402.
- Danzon, Patricia M. and Scott E. Harrington, 1998, *Rate Regulation of Workers' Compensation Insurance: How Price Controls Increase Costs* (Washington, D.C.: American Enterprise Institute).
- Eisenach, Jeffrey, 1985, *The Role of Collective Pricing in Auto Insurance*, Staff Report, Bureau of Economics, U.S. Federal Trade Commission, 1985.
- Epstein, Richard A., 1999, Exit Rights and Insurance Regulation: From Federalism to Takings, *George Mason University Law Review*, 7.
- Full Insurance Availability*
- Grace, Martin F. and Michael M. Barth, 1993, The Regulation and Structure of Nonlife Insurance in the United States, Working Paper, Financial Sector Development, The World Bank.
- Grace and Klein, 2001
- Grabowski, Henry, W. Kip Viscusi, and William N. Evans, 1989, Price and Availability Tradeoffs of Automobile Insurance Regulation, *The Journal of Risk and Insurance*, 56: 275-99.
- Gron, Anne, 1993, Regulation and the Prevalence of Direct Writers in Property-Casualty Insurance, Working paper, University of Chicago Graduate School of Business.
- Hanson, John, Robert Dineen, and Michael Johnson, 1974, Monitoring Competition: A Means of Regulating the Property and Liability Insurance Business, *Supplement to the NAIC Proceedings*.

- Harrington, Scott E., 1984, The Impact of Rate Regulation on Prices and Underwriting Results in the Property-Liability Insurance Industry: A Survey, *Journal of Risk and Insurance*, 51: 577-623.
- Harrington, Scott E., 1992, Presidential Address: Rate Suppression, *Journal of Risk and Insurance*, 59: 185-202.
- Harrington, 2000
- Harrington, 2001
- Harrington, Scott, and Greg Niehaus, 1992, Dealing with Insurance Availability and Affordability Problems in Inner Cities: An Analysis of the California Proposal, *Journal of Insurance Regulation*, 11.
- Harrington, Scott E. and Helen I. Doerpinghaus, 1993, The Economics and Politics of Automobile Insurance Rate Classification, *Journal of Risk and Insurance*, 60: 59-84.
- Harrington Scott E. and Greg Niehaus, 1998, Race, Redlining, and Automobile Insurance Prices, *Journal of Business*, 71.
- Hunstead, Measuring and Modifying the Effects of Auto Rating Factors, *Journal of Insurance Regulation*, Vol. 14, No. 2, Winter 1995.
- Insurance Services Office, *1998 Insurer Financial Results* (New York: Insurance Services Office).
- Ippolito, 1979, The Effects of Price Regulation in the Automobile Insurance Industry, *Journal of Law and Economics*, 22: 55-89.
- Jaffee, Dwight, and Thomas Russell, 1995, The Causes and Consequences of Rate Regulation in the Auto Insurance Industry, presented at National Bureau of Economic Research, Property-Casualty Insurance Group Meeting, February 10-11.
- Jaffee and Russell, 2001
- Joskow, Paul, 1973, Cartels, Competition, and Regulation in the Property-Liability Insurance Industry, *Bell Journal of Economics and Management Science*, 4: 375-427.
- Joskow, Paul and Linda McLaughlin, 1991, McCarran-Ferguson Act Reform: More Competition or More Regulation, *Journal of Risk and Uncertainty*, 4: 373-401.
- Klein, Robert, 1995, Market Structure and Performance in Personal Auto and Homeowners Insurance, *NAIC Research Quarterly*, 1: 13-29.
- Kramer, Orin S., 1991, *Rate Suppression & Its Consequences* (New York: I.I.I. Press).
- Long, John, and Robert I. Mehr, 1981, *The Illinois System of Insurance Pricing – Practices and Attitudes of Selected Insurers* (Bloomington, Ind.: Insurance Research Associates).
- MacAvoy, Paul, ed., 1977, *Federal-State Regulation of the Pricing and Marketing of Insurance* (Washington, D.C.: American Enterprise Institute).
- Morrow, J. Glen, 1992, Regulatory Environments: Do They Matter?, *Journal of Insurance Regulation*, 11: 19-52.
- Macey, Jonathan R. and Geoffrey P. Miller, 1993, *Costly Policies: State Regulation and Antitrust Regulation in Insurance Markets* (Washington, D.C.: American Enterprise Institute).
- Nadel, M., 1982, Auto Insurance: The Irrelevance of Regulation, *Regulation*, 6: 37-42.
- Pauly, Mark V., Paul Kleindorfer, and Howard Kunreuther, 1986, Regulation and Quality Competition in the U.S. Insurance Industry, in *The Economics of Insurance Regulation*, Jorg Finsinger and Mark Pauly, Eds. (Macmillan Press).

- Plummer, M., 1985, *The Availability and Utility of Consumer Information on Auto Insurance*, U.S. Federal Trade Commission, 1985.
- Rottenberg, Simon, 1989, *The Cost of Regulated Pricing: A Critical Analysis of Auto Insurance Premium Rate-Setting in Massachusetts* (Boston: Pioneer Institute for Public Policy Research).
- Smith, Eric and Randall Wright, 1992, Why is Automobile Insurance in Philadelphia so Damn Expensive? *American Economic Review*, 82: 756-772.
- Special Committee on Regulatory Re-engineering, 1998, A White Paper on the Streamlining of Commercial Lines Insurance Regulation, report to the National Association of Insurance Commissioners.
- Tennyson, Sharon and S.J. Suponic, 1995, Rate Regulation and the Industrial Organization of Automobile Insurance, presented at National Bureau of Economic Research, Property-Casualty Insurance Group Meeting, February 10-11.