# STATE CONSUMER PROTECTION ACTS AND COSTS TO CONSUMERS The Impact of State Consumer Acts on Automobile Insurance premiums

## **Preliminary Policy Report**

## INTRODUCTION

Over the last few decades, state consumer protection legislation has increased dramatically.<sup>1</sup> In addition to federal regulation, every state now has its own Consumer Protection Act (CPA), each of which provides for a private cause of action.<sup>2</sup> The impetus for these statutes derived from three forces emerging in the 1960s: dissatisfaction with Federal Trade Commission (FTC) consumer protection enforcement efforts, an apparent increase in popular demand for consumer protection, and the perception that common law causes of action were inadequate.

While subsequent amendments to CPAs have resulted in much variation among states, the direction of these changes suggests that state consumer protection law has expanded access to the courthouse. Generally, such changes have increased the class of eligible potential plaintiffs, reduced the burden facing plaintiffs alleging a CPA violation, and increased the scope and magnitude of available remedies.

Legislative and judicial trends towards expanded access for plaintiffs under the CPAs have contributed to a significant increase in litigation.<sup>3</sup> Expanded access has also contributed to meaningful differences in the types of consumer protection claims pursued at the federal and state levels.<sup>4</sup> Whether these changes have led to additional costs for consumers as a group is unclear.

As a matter of economics theory, CPA liability could force sellers to internalize social costs associated with deceptive selling or marketing practices and thereby enhance efficiency. For example, CPA liability could increase economic efficiency and consumer welfare by granting recourse to consumers who would otherwise bear the cost of a

<sup>&</sup>lt;sup>1</sup> See SEARLE CIVIL JUSTICE INSTITUTE, STATE CONSUMER PROTECTION ACTS, AN EMPIRICAL INVESTIGATION OF PRIVATE LITIGATION (2009), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1708175 [hereinafter SEARLE STUDY].

<sup>&</sup>lt;sup>2</sup> Iowa, the last state to adopt a private cause of action, added the provision to its CPA in July 2009. *See* Press Release, Iowa Attorney General, Consumer 'Private Right of Action': What Consumers Need to Know, (July 1, 2009) *available at* 

http://www.iowa.gov/government/ag/consumer\_advisories/general\_advice/private\_right\_of\_action.html. <sup>3</sup> SEARLE STUDY, *supra* note 1. The Searle Study generated an index (the "Expected Value Index" or EVI) to capture the overall "plaintiff friendliness" of the state CPA. For each 2008 statute, 27 CPA provisions were coded as either "benefits" or "restrictions." *Id.* The Study demonstrated that an increase in the EVI is associated with an increase in the number of reported decisions involving a CPA claim. *Id.* <sup>4</sup> *Id.* 

producer's deceptive statements. Consistent with this argument, proponents of more expansive consumer protection legislation contend that "gaps" in FTC enforcement, irrational consumer behavior, and insufficient incentive for plaintiffs to bring small, but meritorious claims justify expanded CPA liability. Proponents also claim that CPAs can correct problems that arise in markets in which sellers uniquely possess information on the quality of the products sold to consumers.<sup>5</sup>

However, economic theory identifies potential social harms associated with expansion of consumer protection liability. Specifically, if CPAs sufficiently increase expected liability for business activities associated with the production, marketing, and sale of consumer goods and services, consumers can be harmed in the form of higher prices. CPA liability can operate as a tax on goods and services sold to consumers.<sup>6</sup> CPA liability, like excise taxes, can raise the marginal costs of production for the firm and result in reduced competition and output as well as higher product prices. Further, because marketing communications can provide valuable information to consumers, CPA liability that deters informative advertising, such as partial disclosures of valuable information,<sup>7</sup> can reduce consumer welfare.<sup>8</sup> Broad interpretations of vague CPA statutes can also result in further welfare losses by introducing additional uncertainty into the business decisions of firms.<sup>9</sup>

Potential social benefits of expanded CPA liability must be balanced against potential costs when designing policy. Problematically, neither economic theory nor empirical evidence identifies a uniquely optimal amount of state CPA liability. However, the potentially negative effects on consumers of continually expanding liability suggest that

<sup>&</sup>lt;sup>5</sup> For example, one common type of CPA litigation involves so-called "vanishing premiums." In these cases, life insurance sales agents promise the customer that after a few years of payments the premiums will vanish altogether because the policy will pay for itself out of dividend or investment income. The assumptions about investment performance, however, are often quite unrealistic and under more plausible assumptions the premiums would never vanish. The consumer is unlikely to detect the misleading nature of the claims at issue. Theoretically, a CPA could improve the life insurance market in this case because consumers would have a cause of action that would, in turn, deter future misleading claims. See Broberg v. Guardian Life Ins. Co., 90 Cal. Rptr. 3d 225 (Ct. App. 2009).

<sup>&</sup>lt;sup>6</sup> See Henry N. Butler & Jason S. Johnston, *Reforming State Consumer Protection Liability: An Economic Approach*, 2010 COLUM. BUS. L. REV. 1, 44 (2010) (arguing that CPA liability amounts to "what is effectively a tax on every good or service sold to consumers.").

<sup>&</sup>lt;sup>7</sup> *Id.* notes 130-31.

<sup>&</sup>lt;sup>8</sup> *Id.* at 47-48. On the economic value of information, and advertising in particular, see Kyle Bagwell, The Economic Analysis of Advertising (Columbia Univ. Dep't of Econ. Discussion Paper Series, Paper No. 0506-01, 2005), *available at* http://oz.stern.nyu.edu/cite05/readings/cabral2.pdf; Avinash Dixit & Victor D. Norman, *Advertising and Welfare*, 9 BELL. J. ECON. 1 (1978); Philip Nelson, *Advertising as Information*, 82 J. POL. ECON. 729 (1974); Benjamin Klein & Keith B. Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. POL. ECON. 615 (1981).

<sup>&</sup>lt;sup>9</sup> In fact, the SEARLE STUDY suggests that CPA statutory language strongly affects overall CPA litigation within a state. SEARLE STUDY at 26. Business must expend resources attempting to predict how vague CPA standards will be enforced; judges must expend further resources defining illegal conduct and sorting between meritorious and frivolous claims. These added costs may be passed on to consumers in the form of higher prices or reduced innovation.

this expansion may have diminishing marginal returns.<sup>10</sup> In the context of consumer protection liability, expanding liability may generate positive consumer welfare effects up to some threshold level, but expansion beyond that critical level raises the possibility of over deterrence of business activity that benefits consumers.

Although these basic tradeoffs are well-known and recognized even by proponents of stronger consumer protection regulation,<sup>11</sup> no data currently exists that would allow for an analysis of potentially relevant effects of expanded liability on consumers. In order to provide some insight into the effects of changes to CPAs on consumers, the Searle Civil Justice Institute (SCJI) at the George Mason University Law & Economics Center commissioned the Task Force on State Consumer Protection Acts and Costs to Consumers (the Task Force). The Task Force analyzed the effects of CPAs on premiums in the automobile insurance market.

The automobile insurance market has several unique features that render it useful for addressing some of these important policy concerns. First, insurance prices are established on a state-by-state basis. This feature enables isolation of the impact of state CPA law changes on prices. Second, automobile insurance is the largest of the property casualty lines of insurance, and, unlike health insurance, which is the largest insurance market overall, individuals purchase it with a minimum of government subsidy. Accordingly, laws that alter automobile insurance premiums have a substantial impact on consumers. Third, because automobile insurance product lines are frequently the focus of CPA litigation, sufficient data are available to construct a test of the impact of CPAs on the insurance prices ultimately paid by consumers.<sup>12</sup> Fourth, automobile insurance prices are not as highly regulated as prices for many other lines of insurance.<sup>13</sup> As such, automobile

<sup>&</sup>lt;sup>10</sup> For an example of diminishing marginal returns, consider the following: the value a hungry consumer derives from consuming a candy bar may be high. However, consuming a second candy bar is likely to result in less satisfaction for the consumer, and even less for the third. The consumption value decreases with each additional candy bar. At some point (beyond the threshold of diminishing marginal returns), eating candy bars would yield negative marginal returns.

<sup>&</sup>lt;sup>11</sup> See, e.g., Jeff Sovern, Toward a New Model of Consumer Protection Statutes: The Problem of Increased Transaction Costs, 47 WM. & MARY L. REV. 1635, 1705-09 (2006) (recognizing that state CPAs can increase transaction costs and arguing for regulation that would prevent firms from passing these costs on to consumers).

<sup>&</sup>lt;sup>12</sup> Insurance companies are parties in at least 1,500 decisions in a database including over 17,000 decisions involving CPA claims from 2000-2007 in state appellate and federal district courts. SEARLE STUDY, *supra* note 1. This same database reinforces the idea that automobile insurance companies are not immune from CPA claims. In one of the largest cases, *Avery v. State Farm Mutual Automobile Insurance Company*, a nationwide class of consumers was certified and ultimately awarded \$1.2 billion at trial, \$730 million attributable to the CPA claim. *Avery v. State Farm Mut. Auto. Ins. Co.*, 216 Ill.2d 100 (Ill. 2005) (involving a nationwide class of consumers alleging that State Farm's practice of using non-Original Equipment Manufacturer parts to repair vehicles damaged in crashes was a breach of the standard contract and violated the Illinois Consumer Fraud and Deceptive Business Practices Act). The Illinois Supreme Court eventually reversed the entire award, but not until the dispute had gone on for 8 years.

<sup>&</sup>lt;sup>13</sup> Twenty-eight states either have no filing laws or have file and use laws, both of which allow considerable discretion in price setting. According to the NAIC, file and use (or use and file) laws require the rates to be submitted to the state insurance department but specific approval is not required. *See* Auto Insurance Database Report, NAT'L ASS'N OF INS. COMM'R 227 (2006/2007), *available at* 

http://www.naic.org/documents/newsroom\_2007\_auto\_report\_summary.pdf [hereinafter NAIC Automobile

insurance prices are arguably the closest the insurance market has to a market price—one that actually reflects the marginal cost of providing the insurance over a wide section of the U.S. population. Thus, automobile insurance prices likely reflect the impact of CPA changes better than other types of prices.

The Task Force found that, in general, expanding court access to potential plaintiffs through changes in CPAs leads to higher automobile insurance premiums. Further, specific CPA provisions may impact automobile insurance premiums more than others. For example, CPA provisions allowing for double and treble damages were more likely to increase automobile insurance premiums than CPA provisions allowing a private right of action. These results are sensitive due to the small number of CPA provisions that changed during the period studied,<sup>14</sup> but they are consistent with the hypothesis that CPAs increase the cost and price of automobile insurance and thus could represent consumer welfare losses.

Yet without a complete picture of insurance output or quality, drawing definitive conclusions about the relationship between these price results and overall consumer welfare is difficult. Absent conclusive evidence on the quantity of insurance purchased, the results could suggest that enhanced CPA liability increases both costs and consumer demand for insurance, thus indicating an increase in consumer welfare. Alternatively, enhanced CPA liability could increase costs but decrease demand, which reflects harm to consumers. In sum, while limited data precludes determination of the optimal scope of CPA liability from a consumer welfare perspective, the Task Force finds that expansion of CPA liability results in increased cost of automobile insurance to consumers.

Section II of this Preliminary Policy Report on State Consumer Protection Acts and Costs to Consumers (the Report) provides some historical context for CPAs and outlines several basic economic models of consumer welfare. Section III provides the Report's key research question and describes the data and methods used. Section IV presents the results of the study. Section V concludes and provides relevant policy implications for consideration.

Insurance Database]. Although automobile insurance prices may not be the least regulated insurance product line, they are one of the least regulated that have all of the other benefits mentioned above. <sup>14</sup> *See infra* section IV.B.

## I. BACKGROUND

This section explains how legislatures and courts have expanded consumers' rights under CPAs by increasing consumer access to the courts. In addition to providing historical context of CPA expansion, this section illustrates various economic models of consumer welfare. These models illustrate the tradeoffs associated with expanded consumer protection liability and the key variables necessary to analyze and determine consumer welfare effects.

#### A. PRIOR LITERATURE

In the 1960s, the FTC faced serious criticism of its consumer protection efforts, including that it misallocated its already insufficient resources,<sup>15</sup> suffered from political favoritism and regulatory capture.<sup>16</sup> and protected producers in the name of consumer protection.<sup>17</sup> Proponents of stronger regulation argued that market forces could no longer offer consumers adequate protection, as the marketplace had become too impersonal and too favorable to producers.<sup>18</sup> Similarly, these proponents claimed that common law causes of action were impractical as consumer protection devices because they required high burdens of proof.19

State legislatures responded to these widespread criticisms by enacting a diverse collection of CPAs, each designed to supplement public enforcement and to improve consumer outcomes. Most early CPAs authorized state Attorneys General to seek injunctions against specific business practices. Some allowed the Attorney General to seek restitution for injured consumers.<sup>20</sup>

More expansive modern CPA characteristics can be traced back to uniform and model statutes that appeared in the late 1960s.<sup>21</sup> The Uniform Deceptive Trade Practices Act (UDTPA), for example, granted consumers a private right of action and allowed

<sup>20</sup> N.J. STAT. ANN. § 56:8-3.1 (West 2011)

<sup>&</sup>lt;sup>15</sup> AM. BAR ASS'N COMM'N TO STUDY THE FED. TRADE COMM'N, REPORT OF THE COMMISSION TO STUDY THE FEDERAL TRADE COMMISSION (1969) at 26-28.

<sup>&</sup>lt;sup>16</sup> EDWARD R. COX, ROBERT C. FELLMETH & JOHN E. SCHULTZ, "THE NADER REPORT" ON THE FEDERAL TRADE COMMISSION (1969) at 130-40.

<sup>&</sup>lt;sup>17</sup> Richard A. Posner, *The Federal Trade Commission*, 37 U. CHI. L. REV. 47, 71 (1969) ("A perusal of FTC rules and decisions reveals hundreds of cases in which prohibitory orders have been entered against practices, not involving serious deception, by which sellers have attempted to market a new, often cheaper, substitute for an existing product.")

<sup>&</sup>lt;sup>18</sup> William A. Lovett, Louisiana Civil Code of 1808: State Deceptive Trade Practice Legislation, 46 Tul. L. Rev. 724, 725 (1972); James R. Withrow, Jr., The Inadequacies of Consumer Protection by Administrative Action, 1967 N.Y. STATE BAR ASS'N ANTITRUST LAW SYMPOSIUMS 58, 64 ("The difficulties being faced by the consumer today are best understood in terms of the new 'impersonality' of the market place."); see also NAT'L ASS'N OF ATTORNEYS GEN. COMM. ON THE OFFICE OF ATTORNEY GEN., REPORT ON THE OFFICE OF ATTORNEY GENERAL 395 (1971).

<sup>&</sup>lt;sup>19</sup> Robert Quinn, *Consumer Protection Comes of Age in Massachusetts*, 4 NEW ENG. L. REV. 72 (1969) ("It was, after all, primarily the failure of the legal system to provide adequate remedies which led to the great consumer movement of the past decade with the resultant deluge of new laws.").

<sup>&</sup>lt;sup>21</sup> See NAT'L ASS'N OF ATTORNEYS GEN. COMM. ON THE OFFICE OF ATT'Y GEN., REPORT ON THE OFFICE OF ATTORNEY GENERAL 395, 400 (1971).

injunctive relief absent proof of actual damages and demonstrated intent to deceive.<sup>22</sup> Another important model statute that appeared at this time was the Model Unfair Trade Practices and Consumer Protection Law (UTPCPL). The FTC developed the UTPCPL as a comprehensive composite of prior consumer protection legislation. The UTPCPL deliberately attempted to maintain its similarities to the relevant FTC standards, noting that 'due consideration and great weight' should be given to the FTC's own interpretations.<sup>23</sup> Currently, twenty-eight states refer to the FTC in their CPAs.<sup>24</sup>

Legislative amendments and judicial interpretations have broadened consumer rights under most CPAs.<sup>25</sup> Legislative amendments have generally increased consumer access to courts by, for example, allowing class actions and private claims. Other amendments repeal the "public interest" requirement to sue under the CPA. Some CPAs have truncated rigorous common-law burdens of proof to make it easier for consumers to bring claims.<sup>26</sup> Proponents of these amendments contend that consumers must be willing to file suit for CPAs to have any deterrent effect. However, critics have noted that such permissive causes of action raise the potential for harassment of legitimate business conduct<sup>27</sup> and that vague consumer fraud statutes create an environment ripe for abuse.<sup>28</sup>

The potential benefits of additional consumer protection must be evaluated while accounting for existing and alternative frameworks, as well as any costs in changing the relevant legal regime. One aspect of this inquiry relates to whether consumer protection legislation optimally supplements other enforcement mechanisms (*e.g.*, market forces, federal regulation, and state common law).<sup>29</sup> In determining the efficient level of state CPA liability, the risk of overprotection is an important consideration because it has the potential to increase the marginal cost of the firm, which, in turn, leads to higher prices and may also deter pro-competitive business activity.

Several Task Force members conducted a prior empirical study that documented changes in CPA provisions among states and over time, as well as the impact of those changes on CPA litigation activity. The resulting Searle Study found that CPAs became considerably more favorable to potential plaintiffs over time and that those states with more plaintiff-friendly CPAs also tended to have more litigation.<sup>30</sup> This dramatic shift in the scope of CPA liability, and the resulting litigation, raised the issue of whether state consumer protection enforcement was qualitatively different than presumably related FTC

<sup>28</sup> Rice, *supra* note 26, at 340.

 <sup>&</sup>lt;sup>22</sup> COMM'RS ON UNIF. STATE LAWS, HANDBOOK OF THE NATIONAL CONFERENCE OF COMMISSIONERS ON UNIFORM STATE LAWS AND PROCEEDINGS OF THE ANNUAL CONFERENCE MEETING IN ITS SEVENTY-THIRD YEAR 253, 262 (1964).
 <sup>23</sup> 29 COUNCIL OF STATE GOV'TS, 1970 Suggested Legislation 142 (1969).

 <sup>&</sup>lt;sup>24</sup> Dee Pridgen & Richard M. Alderman, Consumer Protection and the Law, vol. 1, § 2:10 (2009-2010 ed.).
 <sup>25</sup> Victor E. Schwartz & Cary Silverman, *Common-Sense Construction of Consumer Protection Acts*, 54 KAN. L. REV. 1 (2005).

 <sup>&</sup>lt;sup>26</sup> David A. Rice, *Exemplary Damages in Private Consumer Actions*, 55 IOWA L. REV. 307, 307 (1969).
 <sup>27</sup> William A. Lovett, *Louisiana Civil Code of 1808: State Deceptive Trade Practice Legislation*, 46 TUL. L. REV. 724, 744 (1972).

<sup>&</sup>lt;sup>29</sup> Butler, *supra* note 6, at 9.

<sup>&</sup>lt;sup>30</sup> SEARLE STUDY, *supra* note 1.

enforcement. Accordingly, the Searle Study analyzed the decisions of a "Shadow Federal Trade Commission" – an expert panel created for the purpose of evaluating litigated state CPA claims – in order to provide evidence of how CPAs operate when compared to the FTC consumer protection policy standard.<sup>31</sup> The expert panel found that private state CPA enforcement appears to condemn business conduct that would be lawful under the FTC standard.<sup>32</sup>

According to the expert evaluation in the Searle Study, *most* CPA claims would not amount to illegal conduct under FTC consumer protection standards – the Searle Study found that only 22% of CPA claims would constitute illegal conduct under the FTC standards.<sup>33</sup> Significantly fewer (12%) would ultimately lead to FTC enforcement.<sup>34</sup> This latter finding might be consistent with the proposition that at least some claims brought under CPAs were intended to supplement FTC enforcement. However, the Searle Study also found that the conduct underlying almost 40% of CPA claims in which the consumer plaintiff prevailed at trial and the decision was not overturned on appeal would not amount to illegal conduct under federal consumer protection law.<sup>35</sup>

The combination of these findings suggests that there is a significant and increasing amount of state CPA litigation and that state CPAs do more than merely supplement existing FTC enforcement efforts. In other words, broader CPA standards seem to allow consumers to pursue different *types* of claims than those the FTC permits.

Although the Searle Study documented the increased prevalence and use of CPAs across states and over time, those results do not directly address the issue of whether CPA liability provides net consumer benefits. There has been much policy debate over whether CPAs improve consumer outcomes, but to date there has been very little data available to facilitate that debate. In order to comprehensively evaluate potential expansion of existing CPAs, it is important to assess different aspects of consumer welfare, including the effect of changes in CPAs on consumer prices. A better understanding of the potential impact of CPAs on consumers will help policymakers to consider whether, in which direction, and in which states, to make changes to their CPAs.

## B. MODELS OF CPA LIABILITY EXPANSION AND CONSUMER WELFARE

The models motivating the analysis in this Report involve simple economic concepts. To begin, assume there was a new CPA allowing consumers of automobile insurance greater recourse in the event that their insurer violates the agreed-upon insurance contract or engages in unfair or deceptive practices. If the imposition of the new consumer protection law results in higher automobile insurance prices, one might

<sup>33</sup> SEARLE STUDY, *supra* note 1, at 39.

<sup>&</sup>lt;sup>31</sup> Id.

<sup>&</sup>lt;sup>32</sup> *Id.* at 49-50. *See also,* Henry N. Butler & Joshua D. Wright, *Are State Consumer Protection Acts Really Little-FTC Acts?*, 63 FLA. L. REV. 163 (2011).

<sup>&</sup>lt;sup>34</sup> Id.

<sup>&</sup>lt;sup>35</sup> *Id.* at 49.

intuitively believe an increase in prices unambiguously reduces consumer welfare. The reality, however, is far more nuanced.

As an illustration, a price increase in coffee might be due to the government placing a per-cup tax on coffee, thereby increasing costs to consumers. Alternatively, the price increase might be attributable to the release of a new FDA study revealing the health benefits of coffee consumption and, in turn, increasing consumer demand. In the second case, the increase in price reflects an *increase* in consumer welfare because it reflects an increase in demand (*i.e.*, consumers are willing to pay for more coffee) and not an increase in costs resulting from a tax increase.

The same factors could conceivably be at work with a new CPA. However, the economics of CPAs are more complicated than the economics in this simple coffee example. CPAs are likely to increase the cost of providing insurance. CPA compliance and litigation costs imposed upon insurance providers decrease their willingness to supply the same level of insurance for a given premium. The concept is intuitive, but the economics of how this cost increase is passed through to the observed premium and the impact on consumers is more complex.

The simplest case is one in which consumers do not at all value the new protection provided by the CPA. Because CPAs are not widely discussed in the popular press, it seems likely that few automobile insurance customers know that a new state law gives them greater recourse to sue their insurance company for contract violations. Also likely is that consumers' willingness to purchase certain levels of insurance is somewhat sensitive to changes in premiums. The logic is that if premiums rise, consumers may prefer to offset that price increase by taking a higher deductible rather than wider coverage.

Figure 1 illustrates the case in which consumers do not at all value the new protections. The increase in costs causes an increase in price from  $P_0$  to  $P_1$  and a decrease in quantity from  $Q_0$  to  $Q_1$ . This cost increase has two effects. The first is a wealth transfer from customers and shareholders of insurance companies to CPA plaintiffs and attorneys. This effect is represented by the light grey rectangle in Figure 1. This welfare box (or wealth transfer) reflects the fact that the increase in price at  $Q_1$  from the supply curve without a CPA to the supply curve with a CPA is driven by increased cost. This price increase multiplied by the quantity designated by  $Q_1$  equals the value at this Price/Quantity combination that goes to plaintiffs and attorneys rather than to customers and shareholders.

By itself the price increase is what economists call *welfare neutral*. Although consumers are unhappy with the transfer, there is no economic reason to prefer insurance shareholders and automobile insurance customers to CPA plaintiffs and their attorneys, so the wealth transfer is neutral in effect. In fact, CPA plaintiffs are a subset of insurance consumers, so a price increase acts to transfer wealth from one group of consumers to another, and to no detriment to the whole.

The second, problematic, effect is that the CPA statute, which is assumed to provide zero additional value to consumers in this case, actually reduces the level of insurance demanded by consumers. This effect unambiguously decreases consumer welfare because the consumers who no longer purchase insurance cannot receive the benefits from the cheaper plan they had before the price increase. Thus, a price increase in this example concretely predicts consumer harm. That harm is measured by the dark grey triangle in Figure 1 called *deadweight loss*. This deadweight loss triangle reflects the negative impact to consumers as measured by the decline in quantity purchased from  $Q_0$  to  $Q_1$ . Either consumers whose marginal benefit exceeds the marginal cost of purchasing insurance are refraining from purchasing insurance at the resulting higher price, or consumers whose marginal cost exceeds the marginal benefit are purchasing the insurance at the lower quantity and higher price. Both situations yield a loss to consumer welfare.

Therefore, to establish that a price increase has negatively impacted consumers, some evidence of reduced demand is needed. For auto insurance, this might manifest as an actual reduction in number of policies purchased or a decrease in coverage per policy at a given price (*i.e.*, a higher deductible).

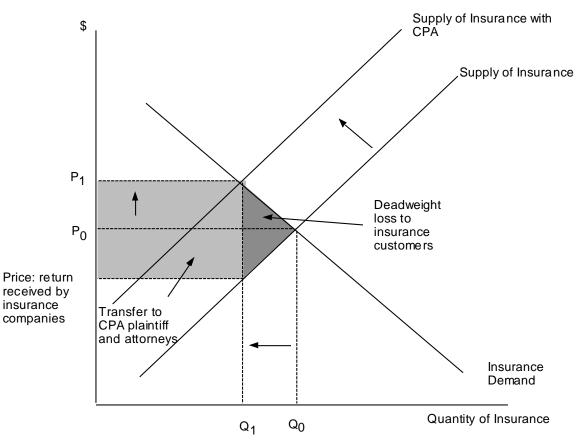


FIGURE 1 Consumer Harm from Expanded CPA Liability

Although Figure 1 suggests that increases in price accompanied by decreases in quantity demanded result in consumer harm, absent strong evidence on quantity movements, increases in price could represent consumer benefits. In other words, an

increase in price might reflect the increase in demand due to the perceived benefits from more CPA protection.

In an example of product liability,<sup>36</sup> consumers purchase a product, here a toaster, which has some risk of injury. The cost of that injury is paid either by the consumers, through purchasing life and health insurance, or by the toasters' producers, via the liability system. As a simplification, this example assumes that liability is strict and the tort system is costless (an admittedly strong assumption). In this case, consumers are indifferent between purchasing the toaster with strict liability or no liability because they have the ability to completely replicate the liability system with private insurance.<sup>37</sup> Further, there is no welfare difference because the hypothetical consumer is insured against loss through either the tort system or private insurance.<sup>38</sup>

The costs are the same in both of these cases because we have assumed zero deterrence value from the imposition of liability upon the producer, and we have further assumed that both individuals and producers can provide insurance at the same price. Thus, the product is equally safe regardless of who pays for the insurance, but the observed price in the product market is higher when the producer provides insurance via the liability system. Based on the observed price in the markets for toasters, one could erroneously conclude that the liability system increases toaster prices and costs when, in reality, two different markets are being compared: the market for toasters alone with the lower price and the market for toasters plus insurance, which commands a higher price.<sup>39</sup>

Despite the instructive power of this model, it is too simple to describe even the toaster market. In reality, the tort system carries administrative costs far greater than the health insurance system, meaning that the tort system would require an additional benefit, such as deterrence, to justify using it rather than a private insurance market.<sup>40</sup> CPAs' effects are further complicated by the fact that CPAs could conceivably increase the demand for insurance by increasing the likelihood that consumers receive an insurance payment when they experience a loss.

<sup>&</sup>lt;sup>36</sup> A. Mitchell Polinsky & Steven Shavell, *The Uneasy Case for Product Liability*, 123 HARV. L. REV. 1437 (2010). <sup>37</sup> CPAs are not the only way to solve information problems associated with contracting. Because insurance customers have repeat dealings with their insurance companies, consumers are more likely in this context to learn firsthand about the effectiveness of their insurance contracts. Moreover, insurance companies spend a great deal to maintain their reputation both through advertising and via follow up surveys on claims experiences. All of these factors are in some ways duplicating the efforts of CPAs, in that they are designed to assure consumers that the company will pay off a claim. *See* Benjamin Klein & Keith B. Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. POL. ECON. 615 (1981).

<sup>&</sup>lt;sup>38</sup> There is, however, an important observational difference between private insurance and the tort system. When consumers pay for their own insurance, their demand for toasters falls by the price of the insurance, causing the producer to sell fewer toasters. By contrast, when producers pay for the insurance through the tort system, they are unwilling to supply the product at the lower price. Rather than supply the product with the liability system, producers now supply the product plus insurance against injury and simply build the insurance cost into the final product. Again, consumer demand for toasters falls due to the higher observed price for toasters.

<sup>&</sup>lt;sup>39</sup> William Landes & Richard Posner, *A Positive Economic Theory of Products Liability*, 14 J. LEGAL STUD. 535 (1985).

<sup>&</sup>lt;sup>40</sup> George L. Priest, *The Modern Expansion of Tort Liability: Its Sources, Its Effects, and Its Reform*, 5 J. ECON. PERSPECT. 31 (1991).

Regardless of these various complications, the basic economic forces at work in the automobile insurance market are similar enough to those described above to motivate the analysis in this Report. Suppose there is some uncertainty over whether an insurance contract will produce payment in the event of an injury. A CPA could increase the demand for insurance by providing an additional contractual protection. As with the toaster example, consumers are unwilling to pay as much for insurance in the absence of a CPA because the insurance is less valuable—it may not actually pay for an injury the consumer thought was covered. With the additional CPA protections, the likelihood of payment increases because the law has provided an additional recourse to consumers. Again, as in our hypothetical toaster market, the price of insurance rises from  $P_0$  to  $P_1$  but there are no welfare effects. Consumers pay more for insurance, but the increase in price exactly offsets the gain they receive from more reliable insurance, so quantity demanded remains at  $Q_0$ . A version of this offset is shown in Figure 2.

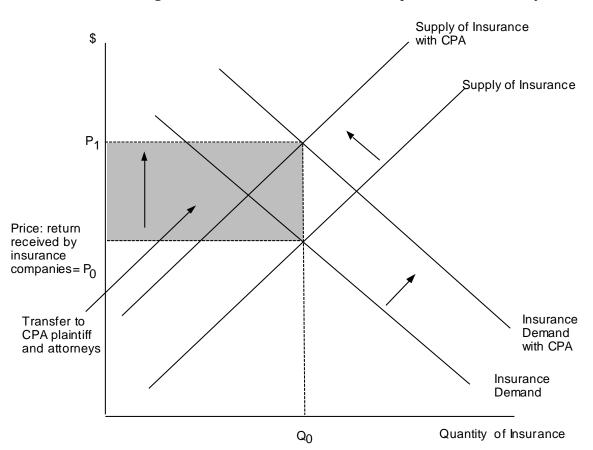


FIGURE 2 Offsetting Consumer Welfare Effects from Expanded CPA Liability

As mentioned above, consumer welfare is dependent on both the change in price of a product as well as the associated change in quantity sold of the product. Therefore, an increase in price alone does not necessarily indicate harm to consumers. If quantity increases or remains the same as prices increase, then the new product is likely providing additional benefits to consumers that are worth the cost of a price increase. On the other hand, if quantity decreases as prices increase, consumers are likely being harmed since they are not getting benefits from the new product commensurate to the price increase.

One way to measure the quantity of automobile insurance is to determine the proportion of people in the state that do not carry automobile insurance. In accordance with the models explained above, if increasing prices of automobile insurance due to CPAs were associated with a decrease in the number of insured motorists, CPAs could be associated with consumer harm. However, almost all states have requirements to purchase minimum levels of insurance. These requirements make it very difficult to observe changes in how many people would buy automobile insurance if given the option of not buying it.

An alternative, and possibly more appropriate, way to measure the quantity of automobile insurance purchased is to look at changes in the type of insurance purchased as prices increase. Although states have minimum requirements for the level of insurance that must be purchased, customers do have the option to purchase better quality insurance packages from the same provider. If higher prices cause consumers to shift toward the minimum required level, then those consumers may still be harmed by the price increases. Alternatively, if consumers keep their insurance plans or shift to higher levels of insurance, then CPAs could be providing benefits to consumers.

Insurance types are also difficult to measure, but one possible measurement is to observe changes in deductibles. The higher the deductible, the higher the risk the consumer personally takes on and the lower the level of insurance the company provides. Deductibles by state are not available consistently and so could not be used for this study.

The focus of this Report, then, is to provide some information to policymakers on at least one aspect of consumer welfare – the relationship of increased CPA liability to the consumer prices as measured by auto insurance premiums. The Task Force was not able to develop a reliable measurement of quantity in this context. Thus, the Report can only measure the costs borne by consumers due to CPAs. Any benefits, to the extent they exist, have not been captured in this analysis.

## II. METHODOLOGY AND DATA

The Task Force used automobile insurance premiums to address the following research question:

## What is the impact of different CPA provisions on automobile insurance premiums by state and over time?

The Task Force addressed the above research question by estimating a set of econometric models<sup>41</sup> to evaluate the effects of changes in CPAs on automobile insurance premiums. The models generally tested whether and to what extent changes in each state's automobile insurance premiums over time can be explained by the state's CPA provisions, the state's automobile insurance regulatory environment, the rates at which individuals in the state used automobile insurance, and other state-level demographics such as the state unemployment rate and median age. The models also accounted for any other effects on automobile insurance premiums due to the particular year in which a premium occurs (known as "year fixed effects"). Finally, the models considered the fact that certain states exempt unfair and deceptive acts pertaining to insurance from the CPA.<sup>42</sup> A complete description of the econometric models appears in Appendix A.

Figure 3 provides general descriptions for each of these variables:<sup>43</sup>

<sup>&</sup>lt;sup>41</sup> Econometric models are generally equations that specify the statistical relationship between various attributes of an economic phenomenon. For example, these types of models can explain which attributes play the largest role in changes of automobile insurance premiums.

<sup>&</sup>lt;sup>42</sup> Further explanation of this distinction can be found in section III.C.iv.

<sup>&</sup>lt;sup>43</sup> The term variable, for purposes of this Report, is defined as an attribute that can have different values for different observations. For example, the variable Combined Average Automobile Insurance Premiums has a different value for each state for every year observed in the data.

## FIGURE 3

Variable Group Name	Description
Automobile Insurance Premiums	Average combined automobile premiums (both liability and collision) charged in the state by year or the percentage change in average combined automobile insurance premiums in the state by year.
CPA Provisions	Changes in the CPAs over time, as measured by the CPA Index (discussed below) and individual CPA provisions.
Other Automobile Regulations	Variables representing any regulatory changes unrelated to CPAs that could have affected automobile insurance premiums.
Insurance Use	Variables representing the number of times automobile insurance claims may have been paid in the state over time, for example the number of automobile accidents.
Demographics	Variables representing each state's population characteristics over time.
CPA Insurance Exemption	A variable indicating which states specifically exempt insurance from the CPA. This allows for a better identification of the effects of changes in the CPA on automobile insurance premiums in states where the law is allowed to influence insurance product lines.
Year Fixed Effects	A set of variables that indicate the year in which the automobile insurance premium is charged. Taken together they account for otherwise unobservable changes in premiums due to the year.

Ideally, the impact on insurance prices of enacting a CPA law would be estimated using the standard "difference-in-difference" approach.<sup>44</sup> This approach could estimate the impact of the CPAs by comparing the difference in the pre- and post- law periods for states that adopted CPA laws to those that did not. The difficulty is that all states have now adopted some version of a CPA and, more importantly, did so decades ago, meaning that the standard difference-in-difference model is not feasible.

The data that does exist for the time period studied are changes to CPA provisions. The Task Force captured these changes with two different measures (discussed further in the next section): (1) the CPA Index, and (2) individual changes to CPA provisions among states. The first measure captured changes in the state's CPA that could encourage or facilitate a plaintiff's claim under the CPA. It is thus a measure of the ease of potential recovery in CPA litigation *within* each state. The second measure focuses on differences *among* states. All analyses focus on the time period 1994 - 2006.

## A. DESCRIPTIVE ANALYSIS OF STATE CONSUMER PROTECTION ACT CHANGES

In order to determine whether changes in CPAs have any effect on automobile insurance premiums, the Task Force first undertook a comprehensive analysis of the statutory language in all 68 CPAs and subsequent amendments from the time of their adoption through  $2009.^{45}$ 

The Task Force began by collecting and analyzing the statutory language for each CPA at the time of adoption. Based upon this analysis, 14 attributes emerged as key CPA provisions that could encourage (or discourage) potential plaintiffs from filing suit. The Task Force then identified and documented each CPA amendment from adoption through 2009 to identify any changes in these 14 attributes. To construct a measure that would track a potential plaintiff's access to the courts through a CPA suit, the Task Force classified the 14 attributes into two groups: "benefits" that may make it easier or more attractive for a potential plaintiff to file a suit (attributes 1-7) and "restrictions" that may make it more difficult or less attractive for a potential plaintiff to file a suit (attributes containing each attribute at the time of adoption.

<sup>&</sup>lt;sup>44</sup> The standard "difference-in-difference" approach is an econometric technique that measures the effect of a particular event by comparing the results from two groups. The first group is not exposed to the event (the control group) and the second group is exposed (the treatment group). In the most basic models, the control group and the treatment group are observed at a point in time before the event and then observed again after the treatment group has been exposed to the event. The differences between the two groups and the differences before and after the event will identify the true effect of the event on the treatment group. <sup>45</sup> Appendix B contains a complete list of CPAs. CPA statutory language was recorded using Westlaw, LexisNexis, Hein Online, state session laws on microfiche, and hard copies of session laws. Because some states have multiple consumer protection statutes, there are 68 CPAs over the 50 states and the District of Columbia.

FIGURE 4	
CPA Attribute Counts at the Time of Adoption	

Attribute	Attribute Number	Yes	No	
Potential Plaintiff "Benefits"				
Does the CPA allow private rights of action?	1	48	20	
Does the CPA allow for class actions in a private cause of action?	2	13	55	
Does the CPA allow for any recovery of restitution?	3	61	7	
Does the CPA allow for recovery of actual or statutory damages?	4	29	39	
Does the CPA award enhanced damages?	5	6	62	
Does the CPA allow for recovery of attorneys' fees in a private right of action?	6	35	33	
Does the CPA have a general clause for unfair/deceptive acts?	7	21	47	
Potential Plaintiff "Restrictions"				
Does the CPA limit private causes of action to consumers who buy goods or services for personal, household, or family use?	8	9	59	
Does the CPA require a "public interest impact" analysis for a private cause of action?	9	8	60	
Does the CPA require a showing of injury for a private cause of action?	10	27	41	
Does the CPA require a showing of intent/scienter?	11	8	60	
Does the CPA require an element of reliance in a private cause of action?	12	2	66	
In a private cause of action, is a prevailing defendant awarded attorneys' fees?	13	22	46	
Are the CPA remedies exclusive so that a plaintiff cannot pursue other remedies available at common law?	14	1	67	

Because the 14 attributes vary significantly across states but not much within a given state, the Task Force focused on these "within state" changes in greater detail. Specifically, the Task Force reviewed the amendments to the statutes through 2009 and recorded four additional variables capturing changes that increase or decrease plaintiffs' willingness or ability to file a suit. The additional variables were:

- Changes in remedies
- Changes in civil penalties
- Changes in statute of limitations
- Changes in the definition of consumers who can file suit

The Task Force used this information to construct a CPA Index that tracked a potential plaintiff's willingness or ability to file a suit under the state's CPA over time. A state's base CPA Index Score was determined by the number of "benefit" and "restriction" attributes present in the statutory language at the time of adoption. As such, the highest possible base CPA Index score is 14. This score would occur if all 7 benefits existed in the original CPA language but none of the 7 restrictions were present. For example, a hypothetical CPA that originally had a vague definition of "unfair and deceptive acts," allowed for recovery of actual damages, allowed for recovery of attorneys' fees, and required an element of reliance, but nothing else, would have a base CPA Index score of 9. This score is derived from the 3 benefit variables present plus the 6 restriction variables that were not present.

To track the changes in CPAs by year, the Task Force either added or subtracted 1 to the previous year's CPA Index score for each of the 14 attributes or 4 additional variables that changed during the year, if any. The CPA Index increased by 1 for changes in a variable that may encourage or enable a potential plaintiff to file a suit and it decreased by 1 for changes in a variable that may discourage or disallow a potential plaintiff to file a suit. <sup>46</sup> Taking the example above, if in the second year the CPA was amended to include a private right of action and there was also an increase in remedies allowed to a plaintiff, then the new CPA Index score would be 11. If, instead, the hypothetical CPA were amended in the second year to no longer allow for the recovery of attorneys' fees, the new CPA Index score would be 8.

The CPA Index is thus a compilation of all identified changes, in either direction, from adoption through the end of 2009. In states with multiple CPA statutes, the Task Force selected a representative statute to perform analyses on a state-by-state basis.<sup>47</sup> Figure 5 presents summary statistics for the CPA Index from 1994 – 2006, the period over which all data needed for this study were available. The average CPA Index increased from 11.8 in 1994 to 13.0 in 2006.<sup>48</sup> Likewise, the minimum CPA Index score went from 6 to 8 and the maximum score went from 19 to 22. Thus, CPA modifications appear to provide additional motivations for a potential plaintiff to file a CPA suit over time, but with increasing variation among states.

<sup>&</sup>lt;sup>46</sup> CPA changes that merely supplement the definition of illegal conduct under the statute were excluded. Thus, these scores are conservative estimates that understate the changes in CPAs over the time period. The exclusion is to facilitate comparison between CPAs that are vague (and thus do not list types of illegal conduct) and those that include such a list. For example, a CPA which added a large number of acts to its definition of illegal conduct over time may not encourage a plaintiff to file a suit under the CPA more than a CPA which included only a vague description (i.e., "unfair and deceptive") of the prohibited conduct.
<sup>47</sup> In the case where a state had more than one CPA, the statute with the most changes over time became the representative CPA for the state.

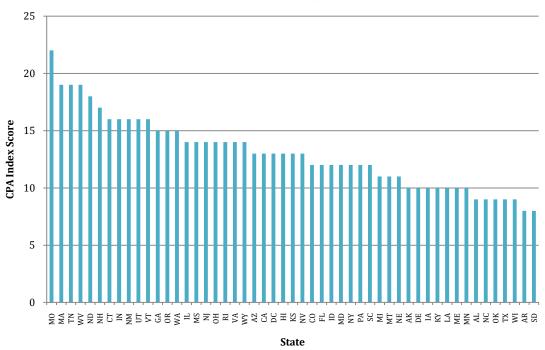
<sup>&</sup>lt;sup>48</sup> The standard deviation increased from 2.7 in 1994 to 3.2 in 2006.

CPA Index Year	CPAs	Mean	Std. Dev.	Min	Max
1994	51	11.804	2.683	6	19
1995	51	11.922	2.813	6	19
1996	51	12.000	2.835	6	19
1997	51	12.098	2.809	6	19
1998	51	12.157	2.838	6	19
1999	51	12.294	2.866	7	19
2000	51	12.431	2.907	7	20
2001	51	12.569	2.988	7	21
2002	51	12.706	3.035	8	21
2003	51	12.843	3.133	8	22
2004	51	12.843	3.158	8	22
2005	51	12.922	3.218	8	22
2006	51	13.000	3.181	8	22

FIGURE 5 CPA Index Summary Statistics

Figure 6 provides a snapshot of the CPA Index values for all fifty states and the District of Columbia in 2006. Generally, this shows the actual variation among states with regard to the CPAs.

FIGURE 6 CPA Index Scores, 2006



While Figure 6 displays the variation in the CPA Index among states, CPAs also can vary within individual states over time. Although most states did not make a large number of changes to their CPAs from 1994 – 2006, several states experienced noticeable changes in the content of their CPA statutes over the relevant time period. These states' CPA changes are depicted in Figure 7.

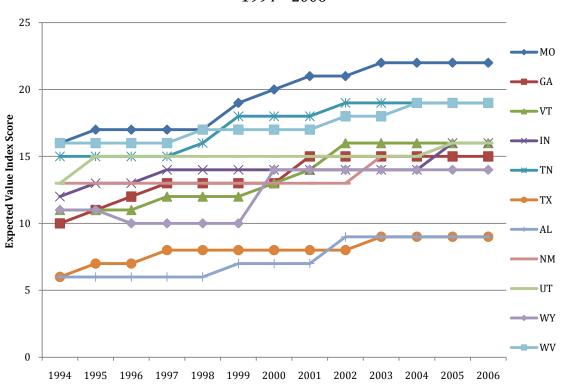


FIGURE 7 CPA Index Score for States with the Greatest Number of Changes 1994 – 2006

Although the frequency and scope of amendments to CPAs vary within and among states over time, states made changes to their CPAs during specific eras. The number of states making a change to the CPA from the prior year (either adoption or amendment) is shown in Figure 8. There are many possible reasons for this clustering of changes, including the social, political, and economic environments at the time. However, determining the specific causes for this clustering is left for future research.

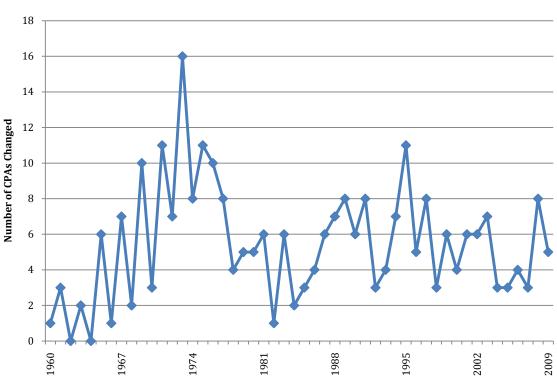


FIGURE 8 Number of States Changing the CPA from the Prior Year 1960 – 2009

As shown above, CPAs evolved differently across states over time. These differences provide sufficient variation in the CPA Index to test the relationship between these changes in CPA characteristics and consumer welfare and, specifically, whether CPA statutes that provide increased access to courts are associated with higher automobile insurance premiums in that state.

#### **B.** Descriptive Analysis of Automobile Insurance Premiums

The National Association of Insurance Commissioners (NAIC) provides data on automobile insurance premiums going back to the late 1980s. The NAIC Automobile Insurance Database<sup>49</sup> includes information on premiums and a number of potential determinants of insurance prices from 1994 - 2006. The primary measure of automobile insurance premiums in this Report is the combined average premiums, available by state and by year.<sup>50</sup> The Task Force chose this measure over other options because it represents the price faced by the typical automobile insurance consumer in a particular state-year.

<sup>&</sup>lt;sup>49</sup> NAIC Automobile Insurance Database, *supra* note 13.

<sup>&</sup>lt;sup>50</sup> *Id.* at 1-2. The NAIC defines Premiums as the "dollar amount paid for a policy" and are calculated from data provided by "statistical agents including the American Association of Insurance Services (AAIS); ISO Data, Inc. (ISO); National Independent Statistical Service (NISS); Independent Statistical Service, Inc. (ISS), a subsidiary of Property Casualty Insurers Association of America (PCI); Massachusetts Commonwealth Automobile

From 1987 - 2007, combined average premiums for automobile insurance in the United States (including Washington, DC) increased by 69.46% or at a compound average growth rate (CAGR)<sup>51</sup> of 2.54% annually. After controlling for inflation, combined average premiums remained relatively flat, declining by 7.16% over the entire time period or by an average of 0.35% annually. Figure 9 shows these trends. New Jersey had the highest combined average annual premiums during this time period, at \$1,187.17. Iowa had the lowest combined average annual premiums, at \$520.674.

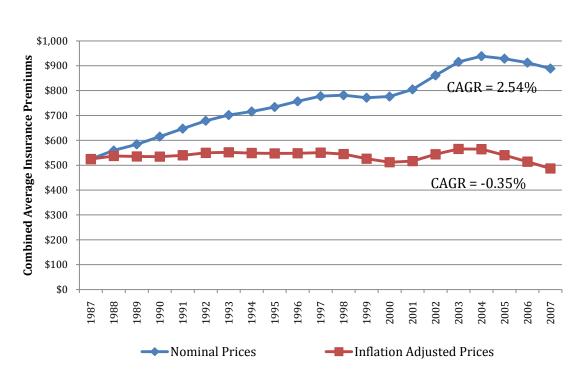


FIGURE 9 Mean Combined Average Insurance Premiums from 1987 – 2007 50 States and the District of Columbia

Similar trends hold for this Report's sample period. From 1994 - 2006, combined average premiums for automobile insurance in the United States (including Washington, DC) increased by 27.42% (CAGR of 1.88%). After controlling for inflation, combined average premiums remained relatively flat, declining by -6.33% (CAGR of -0.50%). Figure 10 shows these trends. During this sample period New Jersey had the highest combined average annual premiums, at \$1,258.10. Iowa had the lowest combined average annual premiums, at \$580.36.

Reinsurers (M-CAR); and Maryland Auto Insurance Fund (MAIF)." Data were also obtained from the California Department of Insurance and the Texas Department of Insurance.

<sup>&</sup>lt;sup>51</sup> The CAGR is the average year-over-year change in combined average premiums over the indicated time period.

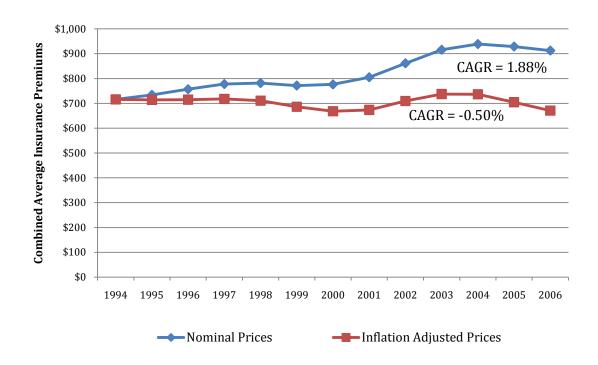


FIGURE 10 Mean Combined Average Insurance Premiums from 1994 – 2006 50 States and the District of Columbia

From 1994 - 2006, the 50 states and the District of Columbia have exhibited similar patterns of combined average insurance premium pricing for automobile customers.<sup>52</sup> Figure 11 provides general descriptive statistics and growth rates for the premiums in each state.

<sup>&</sup>lt;sup>52</sup> The NAIC average premium calculations make no "distinction as to policyholder classifications, vehicle characteristics or the selection of specific limits or deductibles, all of which significantly impact the cost of coverage... [nor does the NAIC] consider differences in state auto and tort laws, rate filing laws, traffic conditions or other demographics." The NAIC suggests that cross-state comparisons should be made with caution. *See, e.g.*, NAIC Auto Insurance Database, *supra* note 13.

FIGURE 11
Combined Average Automobile Insurance Premiums (1994 – 2006)

Mean	Median	Stan. Dev.	Max	Min	CAGR
\$ 730.50	\$ 722.78		\$ 819.38	\$ 610.52	2.48%
			\$ 1,161.81	'	2.16%
		\$ 95.47	. ,		2.17%
		\$ 91.79	. ,		2.66%
	-				0.92%
		'			0.94%
			. ,		1.14%
\$ 970.30	\$ 929.84	\$ 100.16	\$ 1,120.28	\$ 843.82	2.35%
			, ,		2.03%
, ,			. ,		4.22%
	-	1	· /	<u>'</u>	2.75%
					-0.98%
			1 - /		2.24%
					1.94%
				<u>'</u>	1.57%
					2.40%
					2.24%
			'	<u>'</u>	2.72%
					3.03%
	-	4	. ,		2.53%
			1		2.53%
			1 - /		0.77%
<u> </u>		4	1 /		2.46%
			· /		1.80%
					2.52%
					1.89%
				<u>'</u>	3.16%
					2.76%
					2.14%
			. ,		1.65%
		1			1.26%
<u> </u>	1 /		1 /	1 /	1.47%
			-		1.38%
	· /		. ,	· /	2.25%
				'	3.29%
	'		'	<u>'</u>	2.21%
					2.28%
					2.09%
					2.05%
					1.24%
. ,	/		+ -/		2.12%
					2.54%
					2.47%
		4			1.35%
					2.13%
					2.56%
					2.60%
					2.00%
					2.51%
					1.42%
₽ 0∠2.49		ι φ 47.J4	μφ /00./2	φ JJJ.20	1.72 70
	\$ 730.50 \$ 991.86 \$ 938.56 \$ 744.60 \$ 878.31 \$ 921.57 \$ 1,015.81 \$ 970.30 \$ 1,195.49 \$ 913.83	\$ 730.50       \$ 722.78         \$ 991.86       \$ 926.96         \$ 938.56       \$ 905.30         \$ 744.60       \$ 721.84         \$ 878.31       \$ 876.53         \$ 921.57       \$ 883.77         \$ 1,015.81       \$ 993.50         \$ 970.30       \$ 929.84         \$ 1,195.49       \$ 1,189.23         \$ 970.30       \$ 929.84         \$ 1,195.49       \$ 1,189.23         \$ 913.83       \$ 835.79         \$ 841.76       \$ 810.23         \$ 944.39       \$ 930.69         \$ 625.71       \$ 608.70         \$ 756.56       \$ 729.70         \$ 690.63       \$ 667.91         \$ 580.36       \$ 557.67         \$ 682.57       \$ 682.52         \$ 776.52       \$ 739.36         \$ 1,033.55       \$ 967.21         \$ 632.93       \$ 599.84         \$ 927.78       \$ 867.59         \$ 1,032.87       \$ 1,025.47         \$ 927.78       \$ 867.59         \$ 776.52       \$ 739.36         \$ 796.61       \$ 762.84         \$ 788.41       \$ 770.22         \$ 733.86       \$ 709.59         \$ 717.11       \$ 671.57	\$ 730.50       \$ 722.78       \$ 68.67         \$ 991.86       \$ 926.96       \$ 110.40         \$ 938.56       \$ 905.30       \$ 95.47         \$ 744.60       \$ 721.84       \$ 91.79         \$ 878.31       \$ 876.53       \$ 74.01         \$ 921.57       \$ 883.77       \$ 82.87         \$ 1,015.81       \$ 993.50       \$ 60.47         \$ 970.30       \$ 929.84       \$ 100.16         \$ 1,195.49       \$ 1,189.23       \$ 99.09         \$ 913.83       \$ 835.79       \$ 164.53         \$ 841.76       \$ 810.23       \$ 88.48         \$ 944.39       \$ 930.69       \$ 108.18         \$ 625.71       \$ 608.70       \$ 67.98         \$ 756.56       \$ 729.70       \$ 65.68         \$ 90.63       \$ 667.91       \$ 57.56         \$ 776.52       \$ 739.36       \$ 91.36         \$ 1,032.55       \$ 967.21       \$ 138.65         \$ 632.93       \$ 599.88       \$ 86.72         \$ 890.96       \$ 843.99       \$ 97.33         \$ 1,032.87       \$ 1,025.47       \$ 109.37         \$ 927.78       \$ 867.59       \$ 124.40         \$ 796.61       \$ 762.84       \$ 89.53         \$ 773.86	\$ 730.50       \$ 722.78       \$ 68.67       \$ 819.38         \$ 991.86       \$ 926.96       \$ 110.40       \$ 1,161.81         \$ 938.56       \$ 905.30       \$ 95.47       \$ 1,072.25         \$ 744.60       \$ 721.84       \$ 91.79       \$ 874.89         \$ 878.31       \$ 876.53       \$ 74.01       \$ 976.24         \$ 921.57       \$ 883.77       \$ 82.87       \$ 1,074.70         \$ 1,015.81       \$ 993.50       \$ 60.47       \$ 1,120.242         \$ 970.30       \$ 929.84       \$ 100.16       \$ 1,120.28         \$ 1,195.49       \$ 1,189.23       \$ 99.09       \$ 1,346.82         \$ 913.83       \$ 835.79       \$ 164.53       \$ 1,192.67         \$ 841.76       \$ 810.23       \$ 88.48       \$ 964.83         \$ 944.39       \$ 930.69       \$ 108.18       \$ 1,096.67         \$ 625.71       \$ 608.70       \$ 67.56       \$ 773.37         \$ 580.36       \$ 557.67       \$ 74.31       \$ 686.01         \$ 690.63       \$ 667.91       \$ 57.56       \$ 773.37         \$ 580.36       \$ 557.67       \$ 74.31       \$ 682.57         \$ 632.93       \$ 99.98       \$ 86.72       \$ 763.71         \$ 1,033.55       \$ 967.21       \$	\$ 730.50       \$ 722.78       \$ 68.67       \$ 819.38       \$ 610.52         \$ 991.86       \$ 905.30       \$ 95.47       \$ 1,072.25       \$ 809.56         \$ 938.56       \$ 905.30       \$ 95.47       \$ 1,072.25       \$ 809.56         \$ 744.60       \$ 721.84       \$ 91.79       \$ 874.89       \$ 612.26         \$ 878.31       \$ 876.53       \$ 74.01       \$ 976.24       \$ 766.90         \$ 921.57       \$ 883.77       \$ 82.87       \$ 1,074.70       \$ 823.36         \$ 1,015.81       \$ 993.50       \$ 60.47       \$ 1,102.42       \$ 943.38         \$ 970.30       \$ 929.84       \$ 100.16       \$ 1,120.28       \$ 843.82         \$ 1,15.81       \$ 993.50       \$ 164.53       \$ 1,152.59       \$ 702.28         \$ 841.76       \$ 810.23       \$ 88.48       \$ 964.83       \$ 696.83         \$ 944.39       \$ 930.69       \$ 108.18       \$ 1,096.67       \$ 811.12         \$ 756.56       \$ 729.70       \$ 65.68       \$ 848.56       \$ 654.47         \$ 690.63       \$ 667.91       \$ 57.56       \$ 77.337       \$ 601.74         \$ 776.52       \$ 729.70       \$ 65.68       \$ 848.56       \$ 654.47         \$ 612.33       \$ 596.721       \$ 1.38.65

Note: CAGR is not adjusted for inflation.

## C. DESCRIPTIVE ANALYSIS OF OTHER VARIABLES AFFECTING AUTOMOBILE INSURANCE PREMIUMS

In addition to changes to CPAs, many other variables could potentially influence automobile insurance premiums. In order to isolate the specific impact of CPA changes on automobile insurance premiums, the Task Force had to account for these other influences. By adding information on other automobile regulations, insurance use, and state demographics to the analysis, the Task Force effectively "controlled" for the effects of these outside variables and isolated the effects of changes in the CPAs on automobile insurance premiums.<sup>53</sup>

## i. Other Automobile Regulations

There are several variables that can capture a state's regulatory and legal environment as it relates to automobile insurance premiums. A full list of the Other Automobile Regulations variables considered for the analysis can be found in Appendix C. The three most important variables were whether the state had compulsory liability automobile insurance, if the state allowed the insurance providers to set their own rates with little or no approval from the state insurance commissioner, and if the state had raised the legal blood alcohol content level to 0.08.<sup>54</sup> All of these variables could alter the structure of insurance markets in the particular state, in turn affecting automobile insurance premiums consumers face. These variables were included as controls for Other Automobile Regulations in all econometric models presented in the Results section below. Descriptive statistics for these control variables appear in Appendix D.

## ii. Insurance Use

In addition to the various regulatory data described above, the NAIC also collects information on variables that could contribute to the number and cost of automobile insurance claims filed. A full list of the Insurance Use variables considered for the analysis in this Report can be found in Appendix C. The most important variables were the number of thefts per 1,000 registered vehicles<sup>55</sup> and the average repair cost in the state.<sup>56</sup> Both of

<sup>&</sup>lt;sup>53</sup> In this case, controls are variables that would likely influence changes in automobile insurance premiums, but are reasonably independent from the variable of interest. Here, the variables of interest are the CPA Index and the individual CPA provisions.

<sup>&</sup>lt;sup>54</sup> The NAIC retrieved this data from the state's respective insurance departments. It can be supplemented by data available from the Insurance Information Institute and the Insurance Institute for Highway Safety. The data are available from 1994-2006 for the 50 states and Washington, DC. *See e.g.*, NAIC Auto Insurance Database Report, *supra* note 13, at 232-240. The data are available from 1994-2006 for the 50 states and Washington, DC.

<sup>&</sup>lt;sup>55</sup> The NAIC compiled this data from the Federal Bureau of Investigation (total number of auto thefts per year, per state) and the Federal Highway Administration (registered vehicles per state). The data are available from 1994-2006 for the 50 states and Washington, DC. *See, e.g.,* NAIC Auto Insurance Database Report, *supra* note 13, at 213.

<sup>&</sup>lt;sup>56</sup> NAIC collected this data from Automatic Data Processing, Inc. and Audatex, a Solera Company. The data are available from 1994-2006 for the 50 states and Washington, DC. *See, e.g.,* NAIC Auto Insurance Database Report, *supra* note 13, at 217.

these variables were included as controls for Insurance Use in all models presented herein. Descriptive statistics for these control variables also appear in Appendix D.

#### iii. Demographic Variables

The final type of data considered in the Report was Demographic Variables. A full list of Demographic Variables considered can be found in Appendix C. The most important variables were the number of lawyers per 1,000 people in the state,<sup>57</sup> per capita disposable income,<sup>58</sup> rate of unemployment,<sup>59</sup> percent of state population that is male,<sup>60</sup> and the median age of the state's population.<sup>61</sup> All of these variables were included as controls in all models presented herein. Descriptive statistics for these control variables also appear in Appendix D.

#### iv. CPA Insurance Exemption

For the purposes of the Task Force's analysis, it is important to know which CPAs potentially reach firms offering automobile insurance. It would not be surprising, for example, to find that the CPA has no effect on automobile insurance premiums in states where insurance is exempted from the CPA.

To determine whether a particular state CPA exempted insurance, the Task Force categorized as "exempt" any CPA that contained language completely exempting insurance. All other CPAs were classified as "not exempt." Using this categorization, the Task Force found that: 31 states have never had an explicit exemption for insurance in their CPAs; 18 states always had an explicit exemption for insurance in their CPAs, opting to delegate such issues to the state's insurance laws; and 2 states enacted amendments in the early 2000s specifically exempting insurance. The Task Force excluded these 20 states from the analysis.

Ideally, states that specifically exempted insurance from their CPA statutes would be used as a control group, for in almost all of the 20 states with explicit insurance exemptions, insurance companies were sued under CPA provisions at least once, and usually more, between 2000 and 2007. However, given that the laws appear to allow some CPA suits against insurance companies, there is concern that using these states as a control group would confound the impact of CPA laws and other factors. The Task Force's solution is to omit the 20 states which "exempt" insurance since it is unclear exactly what the exemption means for CPA actions against insurance companies.

<sup>&</sup>lt;sup>57</sup> Attorney data from 1994-2006 for all 50 states and Washington, DC was collected from both the American Bar Association and the Census Bureau.

<sup>&</sup>lt;sup>58</sup> The Bureau of Economic Analysis provided disposable income data for all 50 states and DC, 1994 - 2006. *See, e.g.,* NAIC Auto Insurance Database Report, *supra* note 14, at 221.

<sup>&</sup>lt;sup>59</sup> *Id.* Unemployment rates from 1994-2006 for all 50 states and DC were collected from the Bureau of Labor Statistics.

<sup>&</sup>lt;sup>60</sup> The percentage of males in the 50 states and Washington, DC from 1994-2006 was collected from the Census Bureau.

<sup>&</sup>lt;sup>61</sup> Demographic data on age from 1994-2006 for all 50 states and DC were retrieved from the Census Bureau.

#### III. RESULTS

In order to evaluate the effects of changes in state CPAs on automobile insurance premiums, the Task Force conducted three different analyses based on the CPA Index and its components. As discussed above, <sup>62</sup> the CPA Index is a measure of "pro-plaintiff" tendency in the state, in the sense that it measures the net number of changes likely to increase a plaintiff's ability or willingness to file a CPA suit. The first looked at the relationship between overall CPA changes, as measured by the CPA Index, and changes in average combined automobile insurance premiums. The second broke the CPA Index into its component parts to study the effects of individual CPA provisions on average combined automobile insurance premiums. The third evaluated the impact of individual CPA provisions on the growth rate of average combined automobile insurance premiums.

Generally, the analyses found that states with a relatively higher number of CPA Index changes that increased potential plaintiffs' access to the courthouse were associated with higher automobile insurance premiums. Exemplifying increasing marginal costs, the increases in premiums occurred after CPAs were expanded beyond a threshold level. Further, certain CPA provisions had a greater effect on automobile insurance prices than others.<sup>63</sup>

#### A. CPA INDEX EFFECTS ON AUTOMOBILE INSURANCE PREMIUMS

#### i. The Linear Impact

The Task Force's initial analysis focused on the CPA Index's effect on average combined automobile insurance premiums from 1994 – 2006 after considering the effects of all other variables, discussed in the previous section, that might impact the premiums. The first column in Figure 12 shows the impact of the CPA Index on average premiums after accounting for the effects of all other control variables. The econometric model also took into account changes in the average premiums due to the specific year (year fixed effects) and specific state (state fixed effects), which were derived from changes in the CPA Index over time and by state. Finally, the analysis included only the 31 states that did not explicitly exempt insurance from the CPA.<sup>64</sup> Based on the results presented in Figure 12,

<sup>&</sup>lt;sup>62</sup> See supra, IIIA.

<sup>&</sup>lt;sup>63</sup> The Task Force also ran all models in this section substituting CPA litigation activity for the CPA Index. CPA litigation activity is defined as the number of decisions in state appellate and federal district court involving a CPA claim by at least one of the parties from 2000 – 2006. Unlike the CPA Index, CPA litigation activity does not appear to have a statistically significant relationship with automobile insurance premiums. However, it is unclear whether this result is due to a true difference between the CPA Index and CPA litigation activity or simply a lack of available variation. The CPA Index variable is available for almost twice as many years as the CPA litigation activity variable. Where possible, the Task Force also ran models that accounted for the fact that errors might not be independent both by state and year. The results presented in the text did not change based on this correction.

<sup>&</sup>lt;sup>64</sup> Including the 20 states that explicitly exempted insurance from the CPA does alter the results presented in this report. Specifically the impact of CPA laws on premiums is no longer significant when we pool observations from all 50 states.

one could conclude that average automobile insurance premiums were higher in states with relatively larger CPA Index scores.

To conceptualize, consider Georgia's CPA Index, which is representative of the proplaintiff movements over the time period.<sup>65</sup> Figure 12, Column 1, presents estimates of Georgia's move from a CPA Index of 12 in 1996 to 15 in 2001, which produced an approximately 2% increase in the combined average annual premium in the state (2.74\*0.00740) holding all else constant. Although the Report cannot estimate the total benefits of this move to consumers, it can provide an estimate of the cost due to "proplaintiff" changes to the CPA. For example, the average combined annual premium in Georgia over the sample period was \$841.76. If this average were to increase by 2%, the average consumer in Georgia would pay an additional \$17.87 per year. Likewise, the sample average of the combined premium over the 31 states is \$838.72, suggesting that a 2% increase in premiums would raise the annual payments of the typical automobile insurance customer by \$17.81.

(2)
Non-Linear
-0.0267
(0.0221)
0.00126
(0.000808)
403
0.826
0.178
0.291
31
c

Robust standard errors clustered by state in parentheses.

All estimates include state and year fixed effects and controls found in Appendix D.

Estimates include only states that allow CPA litigation against automobile insurance companies.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

While the model estimated the impact of a CPA change on consumers, the increased costs could potentially be borne by other groups, such as shareholders of automobile insurance providers. There is reason to suspect, however, that the impact on consumers would capture most of the total increased social cost associated with CPA expansion. In the case of automobile insurance, state mandates requiring coverage for all drivers likely produce relatively inelastic demand. In effect, due to the illegality of not purchasing automobile insurance, consumers will not likely demand less insurance simply because the

<sup>&</sup>lt;sup>65</sup> Georgia is a typical state because from 1994 – 2006, the CPA Index for the 31 states in the model had a standard deviation of 2.74 and a mean of 12. Georgia had similar movements over the same time period.

price increases.<sup>66</sup> If increases in the CPA Index are the analytical equivalent of a tax on automobile insurance associated with the pro-plaintiff movement in the statute, then basic economic theory suggests that customers, not shareholders, would largely pay that tax.<sup>67</sup>

## ii. The Non-Linear Impact

An interesting and potentially important analysis explores the possibility that the relationship between the CPA Index and automobile insurance prices is non-linear (as the first model assumes). Column 2 of Figure 12 is the same as the model in Column 1, except that it includes both the CPA Index and CPA Index squared. This is a standard statistical model to test whether the relationship between the CPA Index and average automobile insurance premiums is non-linear, i.e., curved. The coefficients are not statistically significant individually, but they are jointly significant,<sup>68</sup> indicating that the relationship between the CPA Index and average automobile insurance premiums is non-linear, i.e., curved. The coefficients are not statistically significant individually, but they are jointly significant,<sup>68</sup> indicating that the relationship between the CPA Index and average automobile insurance premiums is non-linear. The linear and non-linear relationships are graphed in Figure 13.

<sup>&</sup>lt;sup>66</sup> The price elasticity of demand for a particular product is calculated as the percent change in quantity demanded for the product over the percent change in the price of the product. Blackmon and Zeckhauser estimate a demand elasticity of -.57 for Massachusetts while Jaffee and Russell estimate a price elasticity of -.63 for California. *See* B. Glenn Blackmon & Richard Zeckhauser, *Mispriced Equity: Regulated Rates for Auto Insurance in Massachusetts*, 81 AM. ECON. REV. 65 (1991); DWIGHT JAFFEE & THOMAS RUSSELL, *The Causes and Consequences of Rate Regulation in the Auto Insurance Industry, in,* THE ECONOMICS OF PROPERTY-CASUALTY INSURANCE (David F. Bradford ed. 1997).

<sup>&</sup>lt;sup>67</sup> Blackmon, *supra* note 66. As discussed in II.B., expansion of CPA liability may not act as a pure tax to consumers.

 $<sup>^{68}</sup>$  In an econometric model, a coefficient estimate is considered statistically significant if it is unlikely to have occurred by chance. Statistical significance for a single variable is measured by p-values and in the social sciences a result is generally significant if p < 0.1 (i.e., the likelihood that the result occurred by chance is less than 10%). Coefficient estimates can also be jointly significant if both are unlikely to have occurred by chance. In Figure 10, Column 2, the coefficients jointly have a p-value of 0.082 (F-stat = 2.72) indicating that together, the likelihood that the result occurred by chance is less than 10%.

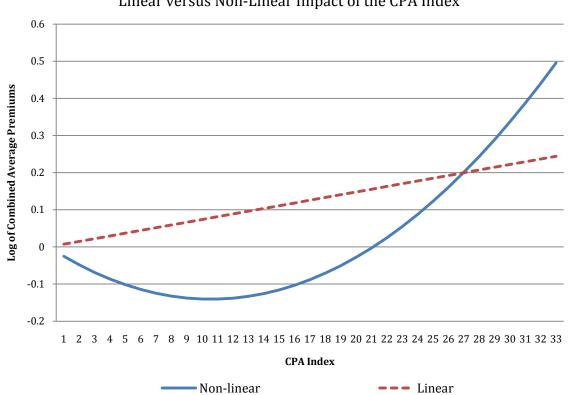


FIGURE 13 Linear versus Non-Linear Impact of the CPA Index

The non-linear trend in Figure 13 suggests that automobile insurance prices declined until states had enacted about 12 pro-plaintiff changes in their CPAs, at which point costs began to increase.<sup>69</sup> The initial decline in the non-linear CPA Index trend could be consistent with the view that state CPAs can improve consumer welfare by forcing firms to internalize the social costs of deception and the provision of misleading information. Although, without a complete understanding of how this price change affects the quantity (or quality) of insurance purchased, it is difficult to make definitive statements about consumer welfare. It is clear, though, that consumers face lower costs as CPAs initially expand access to the courts.

However, assuming that the quantity (or quality) of insurance purchased does not increase, the subsequent increase in the trend may suggest that further pro-plaintiff expansion in state CPAs can ultimately result in diminishing marginal returns for consumers. In other words, initial pro-plaintiff changes to CPAs can be welfare enhancing, but after a certain point further pro-plaintiff changes can begin to reduce consumer welfare. For example, some levels of state CPA liability can reduce the ability of insurance companies to engage in deceptive advertising that allows them to charge higher prices, thus lowering premiums and improving consumer welfare. However, beyond a threshold

<sup>&</sup>lt;sup>69</sup> This suggests that the 2% increase shown for Georgia, as calculated from the linear model, would not generalize to those states or years in which the CPA Index was below the average over all 31 states from the sample period 1994 – 2006.

level of expanded CPA liability, the CPA may deter the supply of valuable information, resulting in higher premiums and reduced competition. At a minimum, consumers are likely facing increasing marginal costs from CPA amendments that expand consumers' access to the courts.

These analyses assume that the demand for automobile insurance does not simultaneously increase when a state increases the ability of residents to bring a claim against their insurance company. This might not be the case. For example, if the ability to bring a claim decreased the likelihood of fraud by insurers making insurance more valuable, one might expect the demand for insurance to rise. However, there are reasons for skepticism that the estimated impacts were due to such demand, rather than supply, changes. One reason is that all states have CPAs during the sample period, so that the ability to bring a claim has existed for some time. Another is that most states already require drivers to purchase automobile insurance.

#### B. INDIVIDUAL CPA PROVISION EFFECTS ON AUTOMOBILE INSURANCE PREMIUMS

Another way to explore the effects of changes in CPAs on average automobile insurance premiums is to study the impact of individual, specific CPA provisions on insurance prices. Figure 14 presents the results from two such econometric models. Both models are similar to those in Figure 12 in that they include the same control variables, account for changes due to the specific year (year fixed effects), and include only the 31 states that did not exempt insurance from litigation under CPAs. However, because the 14 provisions changed infrequently within a state from 1994 – 2006, the models can no longer remove state-specific averages (it was not possible to include state fixed effects).

The first model (Figure 14, Column 1) studied the impact of all 14 of the specific CPA attributes together on automobile insurance premiums. Because the attributes were highly correlated, i.e., a state with specific CPA provisions was more likely to also have other provisions, the second model (Figure 14, Column 2) estimated the impact of each of the attributes individually. In effect, the first column shows the impact of the specific CPA provision while holding all other provisions constant, whereas the second column presents the impact of the specific CPA provision assuming the entire effect on the insurance premium was due only to the provision, thus ignoring the correlation among provisions. Differences between the two columns represent the uncertainty over whether an individual CPA provision was impacting premiums directly or in conjunction with other provisions.

Several results emerged from Figure 14. The largest effect came from provisions that allow for enhanced damages. These were associated with a 16% increase in premiums when other provisions were included in the model and a 10% increase when there were no other provisions considered. On their own, provisions for enhanced damages could cost consumers approximately \$80 per year in increased premiums.<sup>70</sup> Next, CPAs that allowed

 $<sup>^{70}</sup>$  This assumes the average premium for the 31 states in the model from 1994 – 2006 is \$838.72 and the increase due to enhanced damages provisions is 10% (\$838.72 \* 0.10 = \$83.87). Note that it is possible for

for any recovery of restitution were associated with higher premiums, about 14% higher when it was the only provision considered. Finally, provisions that allowed the defendant to recover attorneys' fees if it was the prevailing party reduced insurance premiums by about 8%.<sup>71</sup>

Individual Provision Results – Combined Average Premiums			
VARIABLES	Combined Effect (1)	Individual Effect (2)	
Definition of Acts is Vague Rather Than a List	0.0310	-0.0321	
	(0.0312)	(0.0331)	
CPA Allows Private Rights of Action	0.0490	-0.0189	
	(0.0675)	(0.0823)	
CPA Allows for Class Actions Under Private Right	0.0265	0.0347	
	(0.0472)	(0.0448)	
CPA Limits Private Causes of Action to Personal/Family/Household Use	-0.0322	0.0220	
	(0.0466)	(0.0436)	
CPA Has Public Interest Requirement	-0.0483	-0.0467	
	(0.0303)	(0.0369)	
CPA Requires Showing of Injury	0.0684	0.0477	
	(0.0418)	(0.0354)	
CPA Requires Showing of Intent	-0.00587	0.0149	
	(0.0521)	(0.0393)	
CPA Requires Showing of Reliance	0.0464	-0.000518	
	(0.0567)	(0.0488)	
CPA Allows for ANY Recovery of Restitution	0.0890	0.144***	
	(0.0584)	(0.0244)	
CPA Allows for Recovery of Actual or Statutory Damages	-0.0168	0.0513	
	(0.0322)	(0.0366)	
CPA Can Award Enhanced Damages	0.161**	0.105**	
	(0.0589)	(0.0469)	
CPA Allows for Recovery of Attorneys Fees in Private Right of Action	-0.00981	0.0206	
	(0.0467)	(0.0350)	
CPA Awards Attorneys Fees to Prevailing Defendant	-0.0773*	-0.0255	
	(0.0405)	(0.0375)	
CPA Remedies Are Exclusive - Can't Pursue in Common Law Also	NA	-0.0255	
		(0.0375)	
Observations	403	403	

FIGURE 14

Robust standard errors clustered by state in parentheses.

All estimates include year fixed effects and controls found in Appendix D.

Estimates include only states that allow CPA litigation against automobile insurance companies.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

changes in an individual CPA provision to result in higher costs than changes in the CPA Index, which depends on all CPA provisions collectively.

<sup>71</sup> Because plaintiff's attorneys receive compensation under all CPAs, this provision has the effect of making the CPA into a version of the so-called English Rule in which the loser pays the prevailing party's legal costs. A decrease in insurance premiums suggests that the rule reduces legal costs faced by insurance companies, which is consistent with economic models predicting that the English Rule represents a screen on case quality *See* James W. Hughes & Edward A. Snyder, *Litigation and Settlement under the English and American Rules: Theory and Evidence*, 38 J. L. & ECON. 225 (1995).

### C. INDIVIDUAL CPA PROVISION EFFECTS ON AUTOMOBILE INSURANCE PREMIUM GROWTH RATES

Another way to assess the impact of individual CPA provisions on automobile insurance premiums is to consider the effect of such CPA changes on the growth rate of automobile insurance premiums rather than on the level of combined average premiums. Instead of trying to explain why certain states have higher premiums than others, this analysis asks what the impact of CPA provisions will be on the rate of increase of premiums. One concern with the results in Figure 14 is if changes in CPAs did not cause higher premiums, but rather states that adopted specific provisions did so because they had higher premiums. Focusing on growth rates should mitigate that concern.<sup>72</sup>

The models in Figure 15 are identical to those in Figure 14, except that the measure used for automobile insurance premiums was the growth rate of combined average automobile insurance premiums. The model using all 14 CPA provisions is in Column 1, while the model using only the specific provision is in Column 2.

Changing the measure for automobile insurance premiums provides different results from those found in Figure 14. The two most significant findings involve private rights of action and public interest requirements. First, Figure 15 indicates that states with CPA provisions allowing a private right of action had a more rapid increase in automobile insurance premiums. The presence of a private right of action provision was associated with a 1.65% increase in growth rate of premiums after accounting for all other CPA provisions.<sup>73</sup> Given that from 1994 – 2006, the overall average growth rate of premiums was 1.78% per year,<sup>74</sup> the presence of a private right of action may have contributed 0.03% on average to the annual growth rate of premiums.<sup>75</sup>

Second, CPAs with a public interest requirement were associated with higher premium growth rates of 0.9% when considered separately and 1.0% when combined with other provisions. This effect is statistically significant, whether the provision was estimated separately or combined with other provisions. These results may be consistent with the notion that public interest provisions expand the number of lawsuits without necessarily increasing the cost of individual cases.

Several findings involving restitution and defendants' recovery of attorneys' fees were inconsistent with the results derived from the models using combined average premium levels as the measure for automobile insurance premiums. Although there are a number of possible explanations for the divergence, analyzing the underlying causes is left for a future study. As such, the Task Force cannot predict with confidence the impact of adopting any of these provisions on insurance premiums

<sup>&</sup>lt;sup>72</sup> Growth rates are not entirely without concerns. If the impact of a CPA change is immediately capitalized into premiums, then the growth rate estimates would miss that impact.

<sup>&</sup>lt;sup>73</sup> See Figure 15, column 1.

 $<sup>^{74}</sup>$  The 1.78% growth rate represents the CAGR on the average combined premium averaged for the 31 non-exempt states from 1994 – 2006.

 $<sup>^{75} 0.03\% = 1.65\%*1.78\%.</sup>$ 

VARIABLES	Combined Effect (1)	Individual Effect (2)
Definition of Acts is Vague Rather Than a List	-0.000305	0.000324
	(0.00252)	(0.00268)
CPA Allows Private Rights of Action	0.0165**	0.0176
	(0.00622)	(0.0117)
CPA Allows for Class Actions Under Private Right	-0.000184	0.000466
	(0.00357)	(0.00407)
CPA Limits Private Causes of Action to Personal/Family/Household Use	-0.00494	-0.00239
	(0.00369)	(0.00315)
CPA Has Public Interest Requirement	0.0106***	0.00896**
	(0.00296)	(0.00341)
CPA Requires Showing of Injury	-0.00369	-0.00269
	(0.00229)	(0.00254)
CPA Requires Showing of Intent	-0.00428	-0.000543
	(0.00336)	(0.00248)
CPA Requires Showing of Reliance	0.00301	0.00459

FIGURE 15 Individual Provision Results – Combined Average Premium Growth Rates

Conclusions

	(0.00683)	(0.00897)
CPA Allows for ANY Recovery of Restitution	0.00533	-0.00594**
	(0.00460)	(0.00225)
CPA Allows for Recovery of Actual or Statutory Damages	-0.00152	-0.00243
	(0.00349)	(0.00246)
CPA Can Award Enhanced Damages	-0.00369	-0.00480
	(0.00309)	(0.00359)
CPA Allows for Recovery of Attorneys Fees in Private Right of Action	-0.00215	0.00349
	(0.00417)	(0.00338)
CPA Awards Attorneys Fees to Prevailing Defendant	0.00909**	0.00603
	(0.00333)	(0.00391)
CPA Remedies Are Exclusive - Can't Pursue in Common Law Also	NA	0.00603
		(0.00391)
Observations	403	403
Robust standard errors clustered by state in parentheses. All estimates include year fixed effe		dix D.
Estimates include only states that allow CPA litigation against automobile insurance companies	es.	
*** p<0.01. ** p<0.05. * p<0.1		

## **IV.** CONCLUSIONS

The Searle Civil Justice Institute Preliminary Policy Report on Consumer Protection Acts and Costs to Consumers (the Report) provides evidence on the impact of changes to Consumer Protection Acts (CPAs) on automobile insurance costs to consumers. During the sample period from 1994 – 2006, the CPA Index, a measure of a potential plaintiff's ability or willingness to file a suit under the CPA, increased for almost every state. This suggests that CPA changes over time have almost universally increased access to the courthouse for potential CPA plaintiffs. The critical policy question is whether even further expansion of consumer protection liability will result in negative consequences for consumers.

Data on the consumer effects associated with more expansive consumer protection liability has been largely absent from policy discourse. In order to capture the effects on consumers of expanding CPA liability, the Task Force on State Consumer Protection Acts and Costs to Consumers focused on the automobile insurance market. While caution should be exercised in generalizing the findings in this Report to other insurance products, the results could be used to inform CPA policy debates and to highlight the importance of

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considering both the potential benefits and the potential costs of expanding liability when attempting to identify consumer protection policies that maximize consumer welfare.

The key research findings of this Report include:

- 1. *On average, states have increased access to the courthouse by making it easier to sue under CPA statutes.* The CPA Index is a measure of "pro-plaintiff" activity in the state because it measures the net number of changes likely to increase a plaintiff's ability or willingness to file a CPA suit. The average CPA Index increased from 11.8 in 1994 to 13.0 in 2006, suggesting that state CPAs during this time period became more "pro-plaintiff."
- 2. *States with relatively more "pro-plaintiff" CPAs are associated with higher automobile insurance premiums.* For states that do not exempt insurance from their CPAs, increases in the CPA Index scores are associated with higher combined average automobile insurance premiums. For example, a one standard deviation increase from the average CPA Index results in a 2.0% increase in combined average premiums. Given an overall combined average annual premium of \$838.72, a 2.0% increase translates to an additional \$17.81 paid by the average consumer of automobile insurance annually.
- 3. *Price increases occur after "pro-plaintiff" CPA statutes expand beyond a threshold level.* Initial changes that increase the CPA Index may lead to decreased combined average premiums but additional changes ultimately result in higher premiums. Policymakers should take into account both the costs and benefits of a potential expansion in CPA liability.
- 4. *Many states have reached the threshold where additional CPA liability is likely to increase automobile insurance premiums.* For many states, CPA statutes have already been expanded to the point of increasing marginal costs and possibly diminishing marginal returns for consumers. At average CPA levels, a marginal expansion of CPA liability is likely associated with higher prices.
- 5. *Changes in CPA provisions that allow for enhanced damages are associated with automobile insurance premium increases ranging from 10 16%.* Not all CPA provisions contribute equally to changes in automobile insurance premiums. The largest effect of CPA changes on insurance premiums involves provisions that allow for enhanced damages. These provisions, on their own, may increase the cost of premiums by \$80 per year.

Combined, these findings and empirical observations in the SCJI Preliminary Policy Report on Consumer Protection Acts and Costs to Consumers have critical implications for state and federal policymakers:

- 1. *Continued expansion of CPAs may ultimately make consumers worse off.* Consumer protection is no exception to the rule that there is no such thing as a free lunch. State consumer protection legislation and litigation can impose considerable financial costs on consumers. Although consumers may initially benefit from expansion of their legal rights, the continued expansion of liability is costly and may ultimately cause consumer harm.
- 2. Policymakers considering incremental state consumer protection legislation or regulation should be required to articulate tangible benefits to justify the costs imposed on consumers. Policymakers must remain mindful that no policy measure advances only benefits to the exclusion of any costs. Consumer protection provisions are no exception, and any perceived benefits must be balanced against any potential costs.
- 3. *Consumer protection reforms that allow enhanced or treble damages appear to create the greatest cost burden to consumers.* Not all consumer protection provisions have the same impact. While the benefits of CPA reform may outweigh the costs in some circumstances, the costs may clearly outweigh the benefits in others. Supplementing CPAs with enhanced or treble damage provisions must be accompanied with persuasive evidence that consumer benefits will exceed the likely increase in premiums.
- 4. *The analysis contained in this Preliminary Report could apply to other consumer protection enforcement efforts, including those at the federal level.* It is not unreasonable to extend this analysis to other consumer protection issues, such as those emerging from the Consumer Financial Protection Bureau and the Consumer Product Safety Commission.

This Preliminary Policy Report contributes new and useful information to the policy debates on CPAs. This new information must be read and interpreted with appropriate caution. Focusing on prices allows for the suggestion that expanded CPAs might have important negative consumer welfare effects holding non-price dimensions constant. However, the Report is not able to capture changes in non-price consumer welfare. Further, it is unclear how much of the total increase in costs associated with expanded liability under CPAs are borne by shareholders of automobile insurance providers rather than by consumers. Nevertheless, there is reason to suspect that consumers bear the bulk of the costs associated with CPA expansion. While these limitations suggest important areas for future research, the Report contributes valuable data to CPA policy debates by demonstrating that, at least in one major consumer product market, continued expansion of CPA liability is likely to result in increased costs to consumers in the form of higher product prices.

## APPENDIX A: ECONOMETRIC MODEL DESCRIPTIONS

A generalized model for predicting the effects of changes in CPAs on insurance premiums is characterized by the following generalized equation:

#### *Insurance Premiums*<sub>*it*</sub> =

 $f(CPA Provisions_{it}, Other Regulations_{it}, Insurance Use_{it}, Demographic Variables_{it}, \theta_t)$ 

where *i* = state

t = year

 $\theta_t$  = year fixed effects.

The model assumes insurance pricing by state over time is a function of the state's regulatory environment, the insurance use rates, and the state-level demographics. The dependent *Insurance Premiums* variable set consists of average combined automobile premiums (both liability and collusion) charged in the state by year or by the percentage change in average combined automobile insurance premiums in the state by year.

Independent variables include *CPA Provisions*, which controls for changes in the CPAs over time. The regressions also include: *Other Regulations*, which include controls for any regulatory changes unrelated to CPAs that could have affected automobile insurance prices; *Insurance Use*, which includes controls for the number of times automobile insurance claims may have been paid in the state over time, for example the number of automobile accidents; and *Demographic Variables*, which control for each state's population characteristics over time. All models include year fixed effects and, where possible, state fixed effects as well.

Estimating the impact of CPAs on insurance prices presents an econometric challenge because there are very few CPA provisions enacted during the time period in which automobile insurance premium information is available. The solution is to examine changes to the CPA's provisions. The first measure, called the CPA Index, is designed to measure changes in the state's CPA that would likely motivate a potential plaintiff to bring a claim under the CPA. It is thus a within state measure of the ease of recovery in CPA litigation. The second measure examines the cross-sectional impact of CPA provisions between states.

Another important variable takes into account the relationship between states' CPAs and insurance laws. Some states specifically exempt insurance from claims under the CPA, preferring to place any deceptive or unfair acts involving insurance under the purview of that state's insurance laws. Other states' CPAs remain silent on whether insurance falls under the CPA. Understanding which states specifically exempt insurance from the CPA allows for better identification of the effects of changes in the CPA on automobile insurance premiums where the law is allowed to influence insurance product lines.

State	Common Title	Statute (as of June 2008)
Alabama	The Alabama Deceptive Trade Practices Act	Ala. Code §§ 8-19-1 to 8-19-15
Alaska	The Alaska Unfair Trade Practices and Consumer Protection Act	AS §§ 45.50.471 to 45.50.561
Arizona	Arizona's Consumer Fraud Act	Ariz. Rev. Stat. Ann. §§ 44-1521 to 44- 1534
Arkansas	The Deceptive Trade Practices Act	Ark. Code Ann. §§ 4-88-101 to 4-88-115 (general provisions); Ark. Code Ann. §§ 4-88-101 to 4-88-706 (entire act)
California	California's Unfair Competition Law (UCL)	Ca. Bus. & Prof. Code §§ 17200 to 17210 (previously, Ca. Civil Code § 3369)
California	Consumers Legal Remedies Act (CLRA)	Cal. Civ. Code § 1750 to 1784
California	Unfair Practices Act (UPA)	Ca. Bus. & Prof. Code §§ 17000 to 17101
Colorado	The Colorado Consumer Protection Act (CCPA)	C.R.S. §§ 6-1-101 to 6-1-115 (general provisions); C.R.S. §§ 6-1-101 to 6-1-1120 (entire act)
Connecticut	Connecticut Unfair Trade Practices Act (CUTPA)	Conn. Gen. Stat. §§ 42-110a to 42-110q
Delaware	Consumer Fraud Act	Del. Code Ann. tit. 6, §§ 2511 to 2527
Delaware	Deceptive Trade Practices Act	Del. Code Ann. tit. 6, §§ 2531 to 2536
District of Columbia	District of Columbia Consumer Protection Procedures Act (DCCPPA)	DC Code §§ 28-3901 to 28-3913
Florida	Florida Deceptive and Unfair Trade Practices Act (FDUTPA)	Fla. Stat. §§ 501.201 to 501.213
Georgia	Uniform Deceptive Trade Practices Act	OCGA §§ 10-1-370 to 10-1-375
Georgia	Georgia Fair Business Practices Act (FBPA)	OCGA §§ 10-1-390 to 10-1-407
Hawaii	Uniform Deceptive Trade Practices Act	Haw. Rev. Stat. §§ 481A-1 to 481A-5
Idaho	Idaho Consumer Protection Act (ICPA)	Idaho Code §§ 48-601 to 48-619
Illinois	Illinois Consumer Fraud and Deceptive Business Practices Act (ICFA)	815 ILCS 505/1 to 505/12
Illinois	Uniform Deceptive Trade Practices Act	815 ILCS 510/1 to 510/7
Indiana	The Indiana Deceptive Consumer Sales Act	Indiana Code §§ 24-5-0.5-1 to 24-5-0.5-12
Iowa	The Iowa Consumer Fraud Act	Iowa Code § 714.16
Kansas	The Kansas Consumer Protection Act (KCPA)	K.S.A. §§ 50-623 to 50-643 (general provisions); K.S.A. §§ 50-623 to 50-6113 (entire act)
Kentucky	The Kentucky Consumer Protection Act	KRS §§ 367.110 to 367.300
Louisiana	The Louisiana Unfair Trade Practices and Consumer Protection Act (LUTPA)	La. R.S. §§ 51:1401 to 51:1425
Maine	The Maine Unfair Trade Practices Act (UTPA)	5 M.R.S.A. §§ 205-A to 214

APPENDIX B: LIST OF CONSUMER PROTECTION ACTS

State	Common Title	Statute (as of June 2008)		
Maine	Uniform Deceptive Trade Practices Act	10 M.R.S.A. §§ 1211 to 1216		
Maryland	Maryland Consumer Protection Act	Md. Com. Law Code Ann. §§ 13-101 to 13-501		
Massachusetts	The Massachusetts Regulation of Business Practice and Consumer Protection Act (Chapter 93A)	Mass. Gen. L. ch. 93A §§ 1 to 11		
Michigan	The Michigan Consumer Protection Act (MCPA)	Mich Comp. Laws §§ 445.901 to 445.922		
Minnesota	Deceptive Trade Practices Act	Minn. Stat. §§ 325D.43 to 325D.48		
Minnesota	Minnesota Consumer Fraud Act	Minn. Stat. §§ 325F.68 to 325F.70		
Mississippi	The Mississippi Consumer Protection Act (MCPA); also cited as the Mississippi Unfair and Deceptive Practices Act or the Mississippi Unfair Trade Practices Act	MISS. CODE ANN. §§ 75-24-1 to 75-24- 27 (general provisions); MISS. CODE ANN. §§ 75-24-1 to 75-24- 217 (entire act)		
Missouri	Merchandising Practices Act	MO. REV. STAT. §§ 407.010 to 407.309 (general provisions); MO. REV. STAT. §§ 407.010 to 407.1370 (entire act)		
Montana	Montana Unfair Trade Practices and Consumer Protection Act (MCPA)	Montana Code §§ 30-14-101 to 30-14- 143		
Nebraska	Uniform Deceptive Trade Practices Act	R.R.S. Neb. §§ 87-301 to 87-306		
Nebraska	Consumer Protection Act	R.R.S. Neb. §§ 59-1601 to 59-1623		
Nevada	Nevada Consumer Fraud Statute	NRS § 41.600 (previously 1973 Nev. Stat. 1483) NRS § 119.330 NRS § 205.2747 NRS § 482.36655 to 482.36667 NRS § 482.351 NRS §§ 598.0903 to 598.0999		
Nevada	Nevada Unfair Trade Practices Act	NRS § 598A.010 to 598A.280		
New Hampshire	New Hampshire's Consumer Protection Act (or Regulation of Business Practices for Consumer Protection Act)	N.H. RSA §§ 358-A:1 to 358-A:13		
New Jersey	Consumer Fraud Act	N.J.S.A. §§ 56:8-1 to 56:8-20 (general provisions); N.J.S.A. §§ 56:8-1 to 56:8-181 (entire act)		
New Mexico	New Mexico's Unfair Practices Act (UPA)	N.M. Stat. Ann. §§ 57-12-1 to 57-12-26		
New York	New York's Deceptive Business Acts and Practices statute (or Consumer Protection Act)	N.Y. GEN. BUS. §§ 349 to 350-f-1		
North Carolina	North Carolina unfair trade practices law (or Unfair and Deceptive Trade Practices Act)	N.C.G.S. §§ 75-1 to 75-42		

## **APPENDIX B (Cont.)**

State     Common Title     Statute (as of June 2008)						
State	Consumer Fraud and Unlawful Credit					
North Dakota	Practices	N.D. Cent. Code §§ 51-15-01 to 51-15-11				
		0.R.C. §§ 1345.01 to 1345.13				
Ohio	Ohio's Consumer Sales Practices Act	(general provisions);				
	(CSPA)	0.R.C. §§ 1345.01 to 1345.99				
		(entire act)				
Ohio	Deceptive Trade Practices Act	0.R.C. §§ 4165.01 to 4165.04				
	Oklahoma Consumer Protection Act	15 Okla. Stat. §§ 751 to 763				
Oklahoma		(general provisions);				
		15 Okla. Stat. §§ 751 to 1024 (entire act)				
Oklahoma	Deceptive Trade Practices Act	78 Okla. Stat. §§ 51 to 55				
Oregon	Unlawful Trade Practices Act (UTPA)	ORS §§ 646.605 to 646.656				
Donneylyania	Unfair Trade Practices and Consumer	72  Pp C S A S 201 1 to 201 0 2				
Pennsylvania	Protection Law (UTPCPL)	73 Pa. C.S.A. §§ 201-1 to 201-9.3				
Rhode Island	Rhode Island's Unfair Trade Practice and	R.I. Gen. Laws §§ 6.13.1-1 to 6.13.1-28				
	Consumer Protection Act (UPTA)	1.1. den. Laws 33 0.13.1-1 (0 0.13.1-28				
		S.C. Code Ann. §§ 37-1-101 to 37-1-303				
South Carolina	South Carolina Consumer Protection	(general provisions);				
South Carolina	Code (SCCPC)	S.C. Code Ann. §§ 37-1-101 to 37-25-80				
		(entire act)				
	Unfair Trade Practices Act	S.C. Code Ann. §§ 39-5-10 to 39-5-170				
South Carolina		(general provisions);				
South Carolina	Unian Trade Tractices Act	S.C. Code Ann. §§ 39-5-10 to 39-5-560				
		(entire act)				
		S.D. Codified Laws §§ 37-24-1 to 37-24-				
South Dakota	Deceptive Trade Practices and Consumer	35 (general provisions);				
South Dakota	Protection Act	S.D. Codified Laws §§ 37-24-1 to 37-24-				
		48 (entire act)				
Tennessee	The Tennessee Consumer Protection Act	Tenn. Code Ann. §§ 47-18-101 to 47-18-				
Tennessee	of 1977 (TCPA)	128				
Texas	Texas Deceptive Trade Practices -	Tex. Bus. & Com. Code §§ 17.41 to 17.63				
1 CAUS	Consumer Protection Act	10x, 5u3, & com, coue 38 17.41 to 17.05				
Utah	Utah's Consumer Sales Practices Act	Utah Code Ann. §§ 13-11-1 to 13-11-23				
	(UCSPA)	0 tan coue Ann. 33 13-11-1 to 13-11-23				
Vermont		9 V.S.A. §§ 2451 to 2466a				
	Vermont Consumer Fraud Act (VCFA)	(general provisions);				
		9 V.S.A. §§ 2451 to 2480n (entire act)				
Virginia	Consumer Protection Law	Va. Code Ann. §§ 59.1-196 to 59.1-207				
Virginia	No title	Va. Code Ann. §§ 18.2-214 and 18.2-216				
		and 18.2-240 and 18.2-245				
Virginia	No title	Va. Code Ann. § 59.1-68.3				
Washington	The Washington Consumer Protection	RCW §§ 19.86.010 to 19.86.920				
	Act					

# APPENDIX B (Cont.)

State	Common Title	Statute (as of June 2008)		
West Virginia	The West Virginia Consumer Credit and Protection Act	West Virginia Code §§ 46A-1-101 to 46A-1-108 and 46A-6-101 to 46A-6-110 (general provisions); West Virginia Code §§ 46A-1-101 to 46A-8-102 (entire act)		
Wisconsin	"Fraudulent Representations" Statute (Deceptive Trade Practices Act)	Wis. Stat. §§ 100.18(1) to 100.18(12)(b)		
Wisconsin	"Methods of Competition and Trade Practices" (Unfair Trade Practices Statues)	Wis. Stat. §§ 100.20(1) to 100.20(6)		
Wisconsin	Wisconsin Consumer Act	Wis. Stat. §§ 421 to 427		
Wyoming	Wyoming Consumer Protection Act	Wyo. Stat. Ann. §§ 40-12-101 to 40-12- 114		

## **APPENDIX B (Cont.)**

Sources:

Product Liability Advisory Council

Alan S. Brown and Larry E. Hepler, Comparison of Consumer Fraud Statutes Across the 50 States, 55 FDCC QUARTERLY 263 (2005).

## **APPENDIX C:** Other Variables Affecting Automobile Insurance Premiums

Variable	Rationale					
Other Automobile Regulations						
Rate Filling Laws for Private Passenger Insurance <sup>1†</sup>						
Type of State Tort Insurance Law <sup>2†</sup>	Included because of the potential for state insurance					
State Tort Threshold <sup>3†</sup>	regulations to increase costs, foster cost savings, or					
Compulsory Liability Insurance <sup>†</sup>	alter the structure of insurance markets, in turn					
Protections, Compulsory Uninsured Motorist Liability <sup>†</sup>	effecting insurance premium costs consumers fac					
Liability Limits <sup>†</sup>						
Seat Belt Use Laws <sup>†</sup>	Included because of the potential for these laws to					
Maximum Fine for Seat Belt Infraction <sup>†</sup>	effect the number of car accidents that occur, in turn					
Maximum Speed Limit <sup>†</sup>	increasing the total cost of claims payouts and thus					
Drunk Driving Blood Alcohol Content Limit Level <sup>†</sup>	raising premium prices as cost are passed to					
Admin. License Suspension for Drunk Driving Offense <sup>†</sup>	consumers.					
Insurai	nce Use					
Average Automobile Repair Cost per Claim <sup>o</sup>						
Number of Automobile Thefts per 1,000 Reg. Vehicles <sup>‡</sup>	Included because of the potential for these variables					
Fatal Accident Rates (per 1,000 Reg. Vehicles) <sup>∆</sup>	to affect the number of car accidents that occur, in					
Fatal Accident Rates (per 1 million Vehicles Miles) <sup>A</sup>	turn increasing the total cost of claims payouts and					
Traffic Density (per 1,000 Reg. Vehicles) $^{\Delta}$	thus raising premium prices as cost are passed to					
Traffic Density (per 1 million Vehicles Miles) $^{\Delta}$	consumers.					
Total Outpatient Visits $\Omega$						
Total Outpatient Surgeries <sup>n</sup>						
Number of Hospital Admissions $\Omega$	Included these health care related metrics in an					
Number of Hospital Inpatient Days $\Omega$	attempt to account for the demand and price of health					
Net Hospital Expenses <sup>Ω</sup>	care and therefore, the cost of claims paid.					
Physicians per 1,000 Residents in State <sup>n</sup>	is Variables					
Demograph	1					
Per Capita Disposable Income*	Included because the economic condition and					
State Population Density*	geographic arrangement of a state's population may					
Total Population*	affect the number of insurance claims.					
Percent of State Population that is $Male^{4\Sigma}$	Included these variables based on statistical evidence					
Median Age <sup>5∞</sup>	that suggests these groups have propensity to					
Percent of State Pop. Between Ages of 15 and 24⁵∞	contribute to car accidents, thus increasing the					
Percent of State Pop. Over Age 75 <sup>5∞</sup>	number of claims filed and in turn premium prices.					
Unemployment Rate∏	Included for the potential of altered driving patterns. The unemployed could either drive proportionately more given the lack of time committed to work and their efforts to obtain employment, or less given budget constraints and the absence of the need to commute during peak traffic hours.					
Number of Attorneys per 1,000 Residents in State $^{\checkmark}$	Included because of the potential that more lawyers in a given state may increase the likelihood that a driver files a claim and increasing the average cost of claims.					

#### **APPENDIX C (Cont.)**

- <sup>†</sup> The NAIC retrieved this data from the state's respective insurance departments. It can be supplemented by data available from the Insurance Information Institute and the Insurance Institute for Highway Safety. *See e.g.*, NAIC Auto Insurance Database Report.
- <sup>o</sup> NAIC collected this data from Automatic Data Processing, Inc. and Audatex, a Solera Company. See e.g., NAIC Auto Insurance Database Report 2006/2007, p. 217.
- <sup>‡</sup> The NAIC compiled this data from the Federal Bureau of Investigation (total number of auto thefts per year, per state) and the Federal Highway Administration (registered vehicles per state). *See e.g.*, NAIC Auto Insurance Database Report.
- <sup>A</sup> This information was collected from the Federal Highway Administration. *See e.g.,* NAIC Auto Insurance Database Report.
- <sup>Ω</sup> This data, with the exception of physician statistics, was retrieved by the NAIC from the 2006 and 2008 editions of "Hospital Statistics", a book published by Health Forum LLC, An American Hospital Association Company. The physician statistics were retrieved from the 2008 edition of "Physician Characteristics and Distribution in the US" which is a publication of the American Medical Association and with population numbers retrieved from the U.S. Census Bureau. *See e.g.*, NAIC Auto Insurance Database Report.
- \* The total population and population density numbers were retrieved from the U.S. Census Bureau and the Bureau of Economic Analysis was the source of disposable income data. *See e.g.*, NAIC Auto Insurance Database Report.
- $\Sigma$  The percentage of males in the 50 states and Washington, DC from 1987-2007 was collected from the Census Bureau.
- <sup>∞</sup> Demographic data on population and age from 1987-2007 were retrieved from the Census Bureau.
- II *Id.* Unemployment rates from 1987-2007 were collected from the Bureau of Labor Statistics.
- $^{\sqrt{}}$  Attorney data from 1994-2006 was collected from both the American Bar Association and the Census Bureau.
- <sup>1</sup> The rate filing laws by state range from having the state insurance commissioner set rates to having the insurance providers set rates without being approved by the state insurance department. *See e.g.*, NAIC Auto Insurance Database Report.
- <sup>2</sup> The NAIC classifies tort insurance laws into three categories based on how liability is assigned in an accident: Tort, No-fault, and Add-on. The categories are defined as follows: Tort third-party benefits with no tort limitation; No-fault compulsory first-party benefits with general tort limitation; Add-on first-party benefits, either compulsory or optional, with no tort limitation in general. *See e.g.*, NAIC Auto Insurance Database Report.
- <sup>3</sup> The NAIC classifies tort threshold types into four categories based on the threshold that must be reached before a person may sue for damages resulting from an accident: None, Dollar Amount, Verbal, and Choice. The categories are defined as follows: None there is no limitation on the ability to sue; Dollar Amount damages must exceed a given dollar amount (varies); Verbal Damages must exceed a statutory level of seriousness (varies); Choice Consumers may choose whether to accept limits on their ability to sue. *See e.g.*, NAIC Auto Insurance Database Report.
- <sup>4</sup> See Laureen Regan, Sharon Tennyson, and Mary Weiss, 2009, The Relationship Between Auto Insurance Rate Regulation and Insured Loss Costs: An Empirical Analysis, Journal of Insurance Regulation, 34.
- <sup>5</sup> Scott E. Harrington, *A Note on the Impact of Auto Insurance Rate Regulation*, 69(1) REV. ECON. STAT. 168 (1987).

APPENDIX D:
<b>DESCRIPTIVE STATISTICS FOR KEY CONTROL VARIABLES</b>

Variable	Obs	Mean	Std. Dev.	Min	Max			
Other Automobile Regulations								
"No" or "Limited" Insurance Rate Approval Requirement	663	0.51	0.50	0.00	1.00			
Compulsory Liability Insurance	663	0.73	0.44	0.00	1.00			
Blood Alcohol Content Limit to Operate Vehicle is 0.08	663	0.56	0.50	0.00	1.00			
Insurance Use								
Vehicle Thefts per 1,000 Registered Vehicles	663	5.40	5.05	0.82	43.09			
Average Auto Repair Cost per Claim	663	\$2,149.49	\$289.33	\$1,353.43	\$2,943.43			
Demographic Variables								
Lawyers per 1,000 People in State	663	4.27	7.48	1.85	60.83			
Per Capita Disposable Personal Income	663	\$24,816.93	\$5,554.45	\$14,504.00	\$49,739.00			
Percent of State Population that is Unemployed	663	4.84	1.20	2.30	8.70			
Percent of State Population that is Male	663	0.49	0.01	0.47	0.53			
Median Age of State Population	663	35.58	2.02	26.70	41.03			