PCI Property Casualty Insurers Association of America

Shaping the Future of American Insurance

WISCONSIN PERSONAL AUTO INSURANCE: ANALYZING THE COST IMPACT OF SENATE BILL 348

Abstract

Wisconsin Senate Bill 348 proposes to eliminate the use of zip codes in personal auto insurance ratemaking. The legislation would, instead, allow the use of driving record, driving years and miles driven as primary rating factors. This analysis, prepared by the Property Casualty Insurers Association of America (PCI), discusses the significance of using geographical location (or territory) as a rating criterion and provides the economic impact of eliminating this factor from the rating process on Wisconsin's insured drivers. Underlying reasons why losses in certain areas of the state are higher than in other parts are offered as well.

Executive Summary

The use of territorial rating, i.e., classifying risks by geographical location, has long been used by insurance companies in their pricing of personal auto rates. No one can dispute the fact that auto accidents and crimes are more likely to take place in certain geographical locations than in others. The costs related to these occurrences are more likely to be greater in certain areas as well. There is a need for insurance companies to distinguish those regions with greater loss potential from those with less in order to achieve equity among policyholders. Different rating territories, which are determined by zip codes or where the car is garaged, were therefore created within the states to reflect dissimilarities in exposure to auto insurance risk.

Economic Impact if the Use of Territorial Rating were Repealed or Restricted

Statistical findings show that the traditional rating factor of territory is a proven predictor of loss. If any restrictions were imposed on this factor, interfering with the practice of cost-based pricing, a redistribution of premiums among policyholders would be necessary. In other words, policyholders in lower-cost areas who are usually the majority of insured drivers in the state would have an increase in their premium, while those living in higher-cost areas would have a decrease in their premium.

Figure 1 displays the estimated cost impact on Wisconsin's personal auto full coverage[1] premiums and the proportions of policyholders affected, if geographical location is eliminated as a rating criterion. The results are developed based on PCI statistical experience for the period 2003-2005.

[1] Personal auto full coverage premiums reflect liability coverages (bodily injury and property damage liability and uninsured/underinsured motorists) and full coverage comprehensive and $500 deductible collision, the most commonly purchased physical damage coverages in the state.

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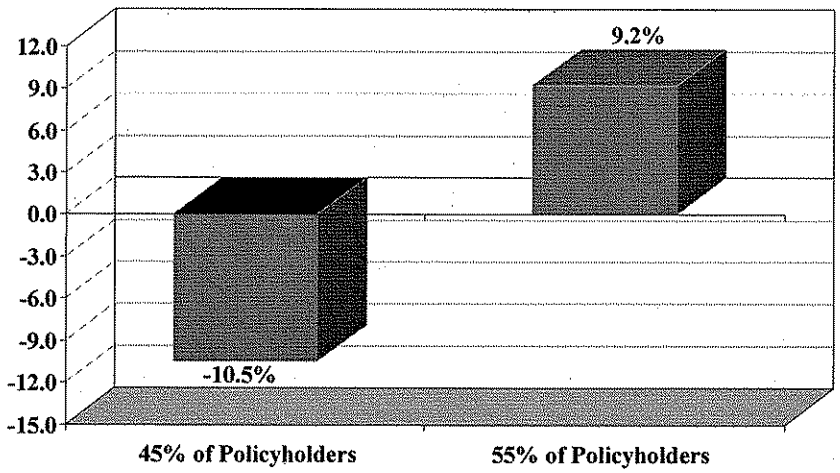
Figure 1
Estimated Percent Change
In Full Coverage Premium
If Territorial Rating were Eliminated



If territorial rating were eliminated from the auto ratemaking process due to the passage of S.B.-348, the majority of drivers in Wisconsin would have increases in their liability and physical damage premiums. Based on data compiled by the PCI,[2] it is determined that 55 percent of insured motorists, or about 2 million drivers, would see an average increase of 9.2 percent to subsidize the 10.5 percent decrease given to the remaining 45 percent. Those who stand to benefit the most from this change would be drivers living in the city of Milwaukee and its nearby suburbs, along with Racine and Kenosha. The ones most adversely affected are those living in Madison, Green Bay, Fond du Lac, Oshkosh and Sheboygan.

There are many reasons why losses vary among the different geographical locations. Some characteristics contributing to auto liability and physical damage loss potential are traffic density, health care costs, claiming behavior, exposure to uninsured drivers, and motor vehicle theft rates. Adjusting premiums to reflect dissimilarities in the driving environment should be done to place the greatest cost burden with those who incur the greatest risk. For the most part, loss costs incurred by city dwellers are higher than in rural and suburban communities, demonstrating why residents of urban areas usually pay higher insurance premiums than their counterparts in other areas.

Proposed Primary Rating Factors
Instead of geographical location, S.B. 348 would allow driving record, years of driving experience, and miles driven to be the primary rating criteria in the state. Although these factors are already used by insurers, they are considered secondary since they are not as accurate in predicting losses as the current primary factors, i.e., territory, credit-based insurance scoring, and the driver's age, gender and marital status.

[2] PCI's insurance loss data for Wisconsin represent nearly 70 percent of the personal auto premium volume in this state. The years reflected are 2003-2005 combined.

The use of motor vehicle records (MVRs) ignores the lack of accidents and violations reported to state motor vehicle bureaus, due to reporting requirements, and the varying degrees of traffic law enforcement, road conditions and traffic congestion within different areas. The length of driving experience is not as accurate a loss predictor as age, since younger drivers have not attained the level of maturity and responsibility that older drivers have. And in addition to being very difficult to verify, the number of miles driven is not as accurate as where the miles are driven. While these three proposed factors are useful in risk classification systems, they should be tempered by other, more valid, rating criteria.

Conclusion

In conclusion, the use of geographical location or territory as a rating criterion has been found to be a practical method of allocating costs among policyholders. This indicator is objective, clear and unequivocal, and based upon statistically supported data that show a wide variation in insurance losses among different regions. Any restrictions placed on territorial rating would:

- create an inequitable redistribution of prices by forcing subsidies for some policyholders at the expense of the majority;
- discourage companies to operate in all areas, causing a shift in the marketplace and reducing competition;
- make it more difficult for consumers in higher-risk areas to find insurance in the voluntary market and, as a last resort, they would find it necessary to use the involuntary mechanism, where coverage selection may be limited;
- discourage insurers from offering enhanced products and services; and
- undermine the ability to influence responsible behavior on the part of individuals, causing insurance costs and rates to rise even more.

In order to remain in a competitive market, insurers must base their premiums on costs, and be allowed to use those rating tools which best evaluate the risks presented by their customers.

Introduction

Insurers face the challenge of measuring risk, as they need to know whether to accept a risk and how much to charge. Ratemaking involves measuring the probability of the occurrence of losses and the financial impact that may be expected to result from the hazards or perils against which insurance is provided. When setting the amount policyholders pay for insurance, two elements on the loss component side are examined: (1) the claim frequency, which is the likelihood of a claim occurring; and (2) the claim severity or average loss, which is the average cost per claim. Both elements together comprise the loss cost, or loss per insured vehicle.

Insurance rates are first and foremost a function of claims and their costs. The amount paid by policyholders is based on a number of underlying factors that influence the likelihood of claims and the average insurance loss. The greater the probability of occurrence or the financial impact of the event, the greater should be the price of insurance. In other words, the price of insurance should be in proportion to the risk being exchanged. To be fair, the higher the combined loss cost, the higher should be the insurance rate.

Rates for a particular geographical area are developed based on past experience for that area, which is typically independent of data reflecting other locations. The territory must contain exposure risks sufficiently large and homogeneous to allow a reasonable accuracy of predicting loss costs. For insurers to price their product equitably for their customers, they must be allowed to develop statistically well-defined categories having substantially different loss potential and loss costs.

Wisconsin Insurance Personal Auto Loss Experience

Insurance loss data vary broadly among different geographical areas in Wisconsin, indicating a need to make territorial distinctions for rating purposes. This section describes the different loss costs by statistical territory[3] for personal auto insurance. It is ultimately the loss cost, or the combination of both the claim frequency and average claim cost, that influences insurance rates. Also included is a discussion on the estimated impact on premiums if geographical location is prohibited from the ratemaking process.

PCI's personal auto[4] loss cost experience is shown in Figure 2 for selected cities and counties in Wisconsin. Appendix I itemizes claim frequency, claim severity and loss cost information for each territory, along with the estimated premium increase or decrease each location would have if insurers were no longer allowed to use the place of garaging as a rating factor.

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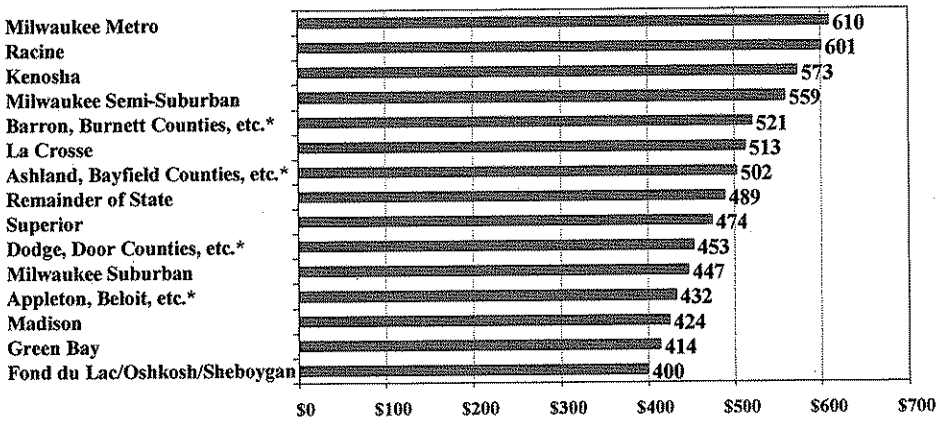
[3] PCI's statistical territories are used for the purpose of aggregating premium and loss experience from a large sample of companies and may very well differ from actual rating territories used by insurance companies.

[4] Auto data reflect liability coverages (bodily injury and property damage liability, and uninsured/underinsured motorists) and physical damage coverages (full coverage comprehensive and $500 deductible collision, the most commonly purchased in the state).

Figure 2
Wisconsin Personal Auto Liability and Physical Damage Insurance
Loss Costs by Geographic Location



*** See Appendix I for complete territorial definition.**

The broad range of auto liability and physical damage losses spans from Milwaukee Metropolitan with the highest loss cost of $610 down to Fond du Lac, Oshkosh and Sheboygan with the lowest loss cost of $400 (the state norm is $483). In other words, those who live in the city of Milwaukee incur costs that are 53 percent more than the cost incurred by their counterparts living in Fond du Lac, Oshkosh and Sheboygan. The loss cost for Milwaukee Metro is 26 percent higher than the statewide average ($610 – Milwaukee Metro vs. $483 – statewide average). The vast dissimilarity in auto loss data based on exposure to risk is compelling justification for creating appropriate distinctions among different geographical areas for this line of business.

On average (shown in Appendix I), the annual number of liability and physical damage claims reported in Wisconsin is 11.7 claims for every 100 vehicles that are insured. Among the different regions of the state, motorists living in La Crosse exhibit the greatest amount of claiming behavior, filing 15.5 claims per 100 insured cars per year. They report 52 percent more injury and damage claims than drivers in Fond du Lac, Oshkosh and Sheboygan who file 10.2 claims per 100 insured cars per year. With respect to costs, Milwaukee Semi-Suburban motorists incur the highest amount of claim severity ($4,678), which is 52 percent greater than the severity caused by drivers living in Madison ($3,084) and 13 percent higher than the state norm ($4,124).

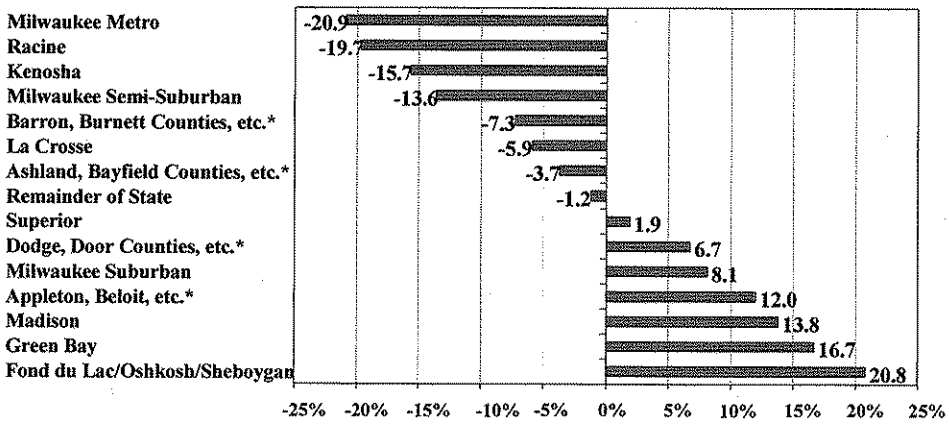
The elimination of geographical location in auto insurance ratemaking would result in the majority of Wisconsin's insured drivers (55%) paying more for their coverage. These policyholders, who are the lower risks, would receive an average increase of 9.2 percent in their premiums to offset an average 10.5 decrease given to the remaining 45 percent of drivers who are the higher risks. Figure 3 depicts the estimated premium increase or decrease given to each

location, if this scenario happens. (The table in Appendix I also shows the average premium increase or decrease for each territory.)

With an estimated average rate hike of 21 percent, those living in Fond du Lac, Oshkosh and Sheboygan would be harmed the most if territorial rating were eliminated. Other premium increases would range from about 2 percent given to those in Superior up to 17 percent given to those in Green Bay. Even motorists in Milwaukee Suburban would see average increases of 8 percent, while those in Appleton, Beloit, Chippewa Falls, Eau Claire, Janesville, Madison and Wausau would have average increases of about 12 to 14 percent.

The remaining 45 percent of policyholders in Wisconsin would have average auto premium decreases ranging from a high of 21 percent in Milwaukee Metro down to 1 percent in the remainder of the state (comprising counties such as Adams, Buffalo, Clark, Green Lake and Portage). Drivers living in Kenosha, La Crosse, Milwaukee Semi-Suburban, Racine and Ashland, Bayfield, Barron and Burnett Counties would also stand to gain if the place of garaging were abolished from insurers' rating practices.

Figure 3
Wisconsin Personal Auto Liability and Physical Damage Insurance
Estimated Percentage Increase/Decrease in Premium
If Territorial Rating were Eliminated



* See Appendix I for complete territorial definition.

For a description of some of the underlying reasons that explain why insurance losses vary among different areas of Wisconsin, go to Appendix II.

Proposed Primary Rating Factors

This section describes the use of motor vehicle records, years of driving experience, and miles driven as primary rating factors. Although they are currently used in the ratemaking process,

they are considered secondary since their ability to predict loss is not as accurate as other variables, such as territory (i.e., zip code), age, gender and marital status.

Motor Vehicle Records (MVRs)
Based on earlier studies conducted by the Insurance Research Council (IRC), state limitations on reporting and recording of traffic accidents make state motor vehicle records (MVRs) incomplete as a source of information on driver performance. One study found that only 4 out of 10 accidents that met the reporting requirements set by the states were cited on the available driving records of 40 jurisdictions. In Wisconsin, accidents are not reported unless damages exceed $1,000, eliminating many smaller damages for which one can be at fault. Moreover, only "surchargeable" at-fault accidents are shown. Lack of MVR performances are due to a variety of factors, such as lower-than-average numbers of police arrivals, tickets issued, and convictions, and extensive use of driver improvement courses (i.e., drivers can avoid having convictions posted on the MVR by attending traffic school in some states).[5]

Because of the many variables which make up a driving record, accident experience reported on an individual basis alone does not really have any conclusive value in terms of future loss potential. Accidents are such rare occurrences in the lives of most drivers that loss data over a period of just a few years cannot be used to distinguish "good" drivers from "bad" drivers. The average rate of reported accidents is approximately one per driver every 10 to 12 years,[6] hence the concept of identifying the "good" driver and the "bad" driver from statistics collected over a relatively short time span is invalid.

And as stated by the California Department of Motor Vehicles, "it would be incorrect to conclude…that an individual's future accident involvement can be predicted with a high degree of precision from his or past accident involvement. If only drivers who were accident-free during the prior 2 years were allowed to continue driving, at least 73.0% of the next year's accidents would still occur."[7]

Because MVRs are not entirely accurate and complete, motorists with poorer driving experience that is not reflected in their records may pay less than their fair share of the cost of accidents; in contrast, other drivers with better experience may pay more.

Years of Driving Experience
Years of driving experience is often thought to be a good substitute for age. It is hard to deny that, on average, a driver with at least several years of experience will probably have fewer losses than a driver who is just beginning. While experience has good predictive value, the age of the driver has been found to have better conclusive value of measuring accident likelihood.[8]

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[5] Insurance Research Council, *Accuracy of Motor Vehicle Records: An Analysis of Traffic Convictions*, June 2002
[6] The Institute of Transportation and Traffic Engineering
[7] California Department of Motor Vehicle, "Traffic Conviction and Accident-Record Facts," 1990
[8] Pelz and Schuman, "Are Young Drivers Really More Dangerous After Controlling for Exposure and Experience?" *Journal of Safety Research*

For example, assume there are two drivers, both in their first year of operating a motor vehicle; one is under 25 years of age and the other is an adult. Although both are learning to drive, the young motorist is also going through another learning stage – that of becoming an adult. He or she is also attaining maturity, gaining more experience and learning to accept responsibility. These are some of the factors that age measures, while driving experience cannot.

One study found that a lack of road awareness and poor attitudes to the road are primary reasons contributing to the high accident rates experienced by young male drivers. "While road awareness could be improved through experience on the road, attitude is more dependent on the age of the driver. Accident rates are found to be higher over the whole of the first 24 months of driving than for more mature novice drivers of equivalent experience."[9]

If the number of years licensed is used as a replacement for age, then many years would be required for a driver to have fully acquired the skills necessary to safely handle an automobile. This conclusion is supported by the Organization for Economy Cooperation and Development,[10] which found that "newly qualified drivers need a number of years to adapt to the driving task (about seven years)."

Miles Driven

Mileage is currently used as a rating factor, but in conjunction with other factors such as the age, gender and marital status of the driver. First of all, by itself, the use of miles traveled is not as important largely because not all miles are the same in terms of crash risk, let alone insurance risk. Traffic density and road type count much more. It really matters where those extra miles are driven and by which driver.

Research has consistently shown that insurance losses for both injuries and vehicle damage are highest in urban areas where motorists drive the fewest miles. The crash risk per mile driven is almost three times higher on non-freeways than on freeways.[11] People who drive low mileage "tend to accumulate much of their mileage on congested city streets with two-way traffic and no restriction of access, while high-mileage drivers typically accumulate most of those miles on freeways or other divided multi-lane highways with limited access."[12] The type of mileage accumulated not only influences whether a crash will occur but also whether the outcome will involve severe injury, minor injury, or property damage only.

Secondly, the use of the car and the time the car is driven are important considerations in the ratemaking process: Suppose a suburban family has two cars. One car is used for daily commuting, and the other is used for suburban trips to stores, school, soccer practice, etc. Even if the mileage of the second car is greater, its expected risk of being involved in an accident and generating an insurance claim is lower than that of the car used for commuting.

Thirdly, the inability to accurately estimate or verify individual mileage alone diminishes the

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[9] Association of British Insurers: *Young Drivers: Improving Their Safety Records*

[10] Organization for Economy Cooperation and Development, *Road Research: Young Driver Accidents*

[11] Janke, M.K., 1991. "Accidents, Mileage and the Exaggeration of Risk." *Accident Analysis and Prevention* 23:183-88

[12] Ibid.

potential value of this concept. A major disadvantage to this pricing method is that it requires the gathering of accurate mileage data, which is an incentive for odometer tampering. If mileage were considered a primary rating factor, it is strongly expected that policyholder fraud would be relatively great. Another disadvantage to using the number of miles driven as a primary factor is that this criterion does not reflect different motorists who operate the same vehicle and, hence, their individual levels of risk.

Mileage is used today to the extent that it adds any independent new information to explain the variation of accident costs. Once all of the other rating factors are accounted for, there is relatively little that mileage can explain, which is why its effect on rates is minimal. Annual mileage does not have the highest weight in terms of explaining risk. In a study conducted by a California Actuarial Advisory Committee, the "territorial rating factor" explained almost 50 percent of the bodily injury liability risk; "years licensed" explained 14 percent; and "mileage" explained only 8 percent.[13] Where one drives is thus a more important indicator of risk than how far one drives.

Conclusion

Because insurance deals with the future, it is not known which individual will be involved in an automobile accident or how much that accident will cost. However, it is known statistically which groups of drivers are more likely to have accidents and what their expected losses will be. That is why the placement of individual drivers into classes is so important in the insurance ratemaking process. For auto liability coverages, the geographical location, driver age and gender, and credit-based insurance score are found to be the most important factors in explaining risk that is otherwise not explained by any other risk factor.[14]

The Property Casualty Insurers Association of America (PCI) is a trade association consisting of more than 1,000 insurers of all sizes and types. PCI members represent nearly 40 percent of the total property/casualty insurance business and 53 percent of the total personal auto market in the nation. In Wisconsin, PCI members represent 69 percent of the personal auto market.

[13] California Actuarial Advisory Committee Study examining the impact of the state's Proposition 103

[14] EPIC Consultants, LLC, *The Relationship of Credit-Based Insurance Scores to Private Passenger Automobile Insurance Loss Propensity*, June 2003

APPENDIX I

WISCONSIN PERSONAL AUTO INSURANCE LOSS EXPERIENCE

The table below presents Wisconsin personal auto claim frequency (per 100 insured cars), average loss (or average cost per claim) and loss cost (or average loss per insured car) for each of the statistical territories compiled by PCI. Territorial listings are presented in descending order by loss cost. The estimated increase or decrease in premium is also presented, should territorial rating be prohibited from the rating process. On average, 45 percent of insured drivers in the state would receive a reduction of 10.5 percent in their full coverage premium, while the majority representing 55 percent of insured drivers would receive an increase of 9.2 percent.

Wisconsin Personal Auto Loss Experience Liability and Physical Damage Coverages Combined				
High-Risk Territories	Claim Frequency	Average Loss	Loss Cost	% Dec. / Inc. in Premium
Milwaukee Metro	13.9	$ 4,383	$610.39	-20.9%
Racine	13.2	$ 4,546	$601.05	-19.7%
Kenosha	12.8	$ 4,477	$572.60	-15.7%
Milwaukee Semi-Suburban	11.9	$ 4,678	$558.83	-13.6%
Barron and Burnett Counties, etc., and Chippewa and Eau Claire Counties (both excluding towns of Chippewa Falls and Eau Claire) (a)	11.8	$ 4,396	$520.79	-7.3%
La Crosse	15.5	$ 3,320	$512.95	-5.9%
Ashland, Bayfield Counties, etc. (b)	12.5	$ 3,999	$501.58	-3.7%
Remainder of State (c)	11.7	$ 4,182	$488.93	-1.2%
Subtotal – Above Average	**12.4**	**$ 4,341**	**$539.83**	**-10.5%**
STATE	**11.7**	**$ 4,124**	**$482.93**	**0.0%**
Low-Risk Territories	Claim Frequency	Average Loss	Loss Cost	% Dec. / Inc. in Premium
Superior	13.9	$ 3,414	$473.78	1.9%
Counties of Brown (excluding Green Bay), Calumet, Columbia, etc. (d)	11.0	$ 4,113	$452.66	6.7%
Milwaukee Suburban	10.4	$ 4,293	$446.80	8.1%
Appleton, Beloit, Chippewa Falls, Eau Claire, Janesville and Wausau	12.0	$ 3,593	$431.36	12.0%
Madison	13.8	$ 3,084	$424.20	13.8%
Green Bay	10.6	$ 3,892	$413.84	16.7%
Fond du Lac, Oshkosh and Sheboygan	10.2	$ 3,917	$399.64	20.8%
Subtotal – Below Average	**11.2**	**$ 3,941**	**$442.35**	**9.2%**

(a) The territory of Barron and Burnett Counties and Chippewa and Eau Claire Counties (both excluding the towns of Chippewa and Eau Claire) also includes the Counties of Dunn, Lincoln, Marathon (excluding Wausau), Menominee, Pierce, Polk, Price, Rusk, St. Croix, Sawyer, Shawano, Taylor, Washburn, Waupaca, and Waushara Counties.

(b) The territory of Ashland and Bayfield Counties also includes Douglas (excluding Superior), Florence, Forest, Iron, Marinette and Vilas Counties.

(c) Remainder of State includes all counties not mentioned in the table or in these footnotes.

(d) The territory of Brown (excluding Green Bay), Calumet and Columbia Counties also includes the Counties of Dane (excluding Madison), Dodge, Door, Fond du Lac (excluding the town of Fond du Lac), Jefferson, Kenosha (excluding the town of Kenosha), Kewaunee, Langlade, Manitowoc, Milwaukee (excluding Milwaukee Metro and Semi-Suburban), Oconto, Oneida, Outagamie (excluding Appleton), Ozaukee (excluding Milwaukee Suburban), Racine (excluding the town of Racine), Rock (excluding Janesville and Beloit), Sheboygan (excluding the town of Sheboygan), Walworth, Washington (excluding Milwaukee Suburban), Waukesha (excluding Milwaukee Suburban), and Winnebago (excluding Appleton and Oshkosh).

Note: Liability coverages reflect bodily injury and property damage liability, and uninsured/underinsured motorists. Physical damage coverages include full coverage comprehensive and $500 deductible collision (most commonly purchased in Wisconsin).
Source: PCI, 2003-2005 combined

APPENDIX II

LOSS VARIATIONS AMONG DIFFERENT GEOGRAPHICAL LOCATIONS IN WISCONSIN

Insurance prices are set in order to cover future losses and expenses. Auto insurance rates tend to be higher in urban areas than in rural areas because drivers in cities tend to be higher risks than elsewhere. Among other conditions, they are exposed to higher traffic concentration and higher medical care costs, more uninsured drivers and higher vehicle theft rates. In addition, they tend to report injury claims more frequently whenever there is damage to the vehicle.

This section presents some of the underlying data that contribute to varying auto insurance losses among the different regions of Wisconsin. These differences indicate a need for insurers to distinguish those areas with greater loss potential from those areas with less loss potential.

Variations in Motor Vehicle Density

Higher traffic concentration in an area, especially an urbanized one, implies greater exposure to other cars and, therefore, a stronger possibility of being in an auto accident. The motor vehicle density (the number of registered vehicles per square mile) clearly has an impact on the number of auto accidents, leading to insurance claims.

Throughout all of Wisconsin, there are 98 vehicles (autos, trucks, cycles, and other) per square mile. In Milwaukee County alone, the density is 2,643 vehicles per square mile,[15] making it the most highly concentrated region in the state. On average, those driving in and around Milwaukee are 26 times more likely to see another car on the road, and possibly be involved in a collision. In contrast, the vehicle densities per square mile in the counties of Dane, Eau Claire, Racine, and Washington are respectively 347, 137, 488, and 280; the chances of colliding with another vehicle in Milwaukee County are 5 to 19 times greater than in these four counties. Among the counties with the lowest traffic densities in the state are Menominee (3 vehicles per square mile), Bayfield (13), Florence (14), Burnett (24), Crawford (31), Oconto (44), and Polk (54).

Variations in Health Care Costs

In Wisconsin, losses reflecting injuries make up 72 percent of the total auto liability loss cost.[16] The cost of health care is one of the most important factors contributing to the cost of auto injury losses and rates. There is a wide variation in injury-related hospitalization charges throughout the state, whose average is $21,752 (note that these injuries do not all result from auto accidents). Milwaukee County's charge of $26,672 is 23 percent higher than the norm, while Bayfield County's charge of $13,323 is 39 percent lower than the norm.[17]

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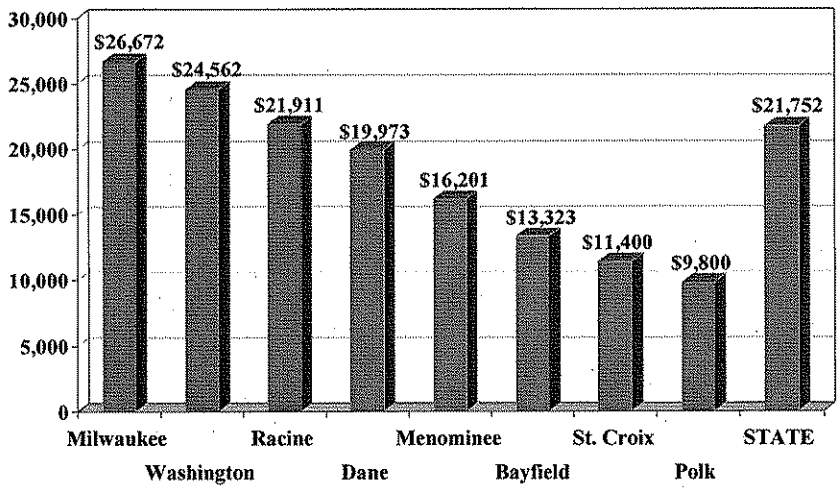
[15] Wisconsin Bureau of Vehicle Services (total number of registered vehicles) and U.S. Census Bureau (land area)

[16] PCI, *2006 Compilation of Auto Experience: Wisconsin*, 2003-2005 voluntary risk experience

[17] Wisconsin Department of Health and Family Services, Public Health Profiles, 2005 average injury-related hospitalization charges

The wide difference in hospitalization charges (Figure A-1) among the various regions is an indication of the wide difference in overall health care costs. Higher medical losses in Milwaukee indicate more expensive injury liability claims contributing to higher insurance rates for drivers in this area. On the other hand, Polk and St. Croix Counties' lower-than-average charges indicate lower health care costs and, thus, lower insurance rates.

Figure A-1
Injury-Related Hospitalization Charges
Vary Among Different Counties



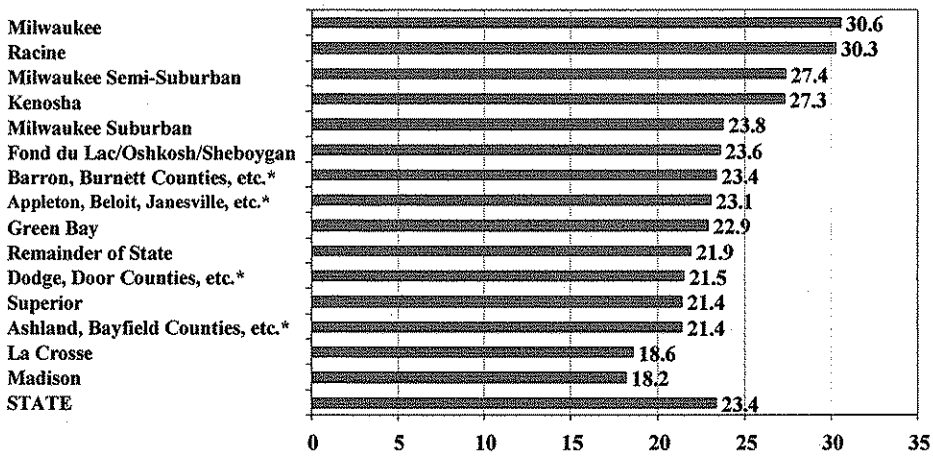
Variations in Claiming Behavior

The likelihood of an injury claim being made, if an auto accident resulting in vehicle damage occurs, is another factor contributing to insurance losses and insurance rate levels. One measurement of claiming patterns demonstrated by those injured in an accident is the ratio of injury claims per 100 property damage claims. It represents the likelihood of an injury claim being made if an accident resulting in vehicle damage occurs. One measurement to compare areas of Wisconsin reflects the claim frequency experience of the bodily injury liability to the property damage liability coverage, otherwise known as the BI-to-PD ratio.

Using PCI data, BI-to-PD ratios span from 18.2 injury claims per 100 damage claims in Madison to 30.6 injury claims per 100 damage claims in Milwaukee.[18] In other words, an injury claim is 68 percent more likely to be filed in Milwaukee than in Madison (30.6 BI-to-PD claims in Milwaukee vs. 18.2 BI-to-PD claims in Madison). Throughout the entire state, there are 23.4 injury claims filed per 100 property damage claims. Racine (30.3 injury claims per 100 damage claims), Milwaukee Semi-Suburban (27.4 injury claims), and Kenosha (27.3 injury claims) are three other locations where injuries are more likely to be reported whenever the car is damaged. In contrast, claimants living in the more rural areas are not as prone to report injuries stemming from an accident involving vehicle damage, as their ratios are lower than average (Figure A-2).

[18] PCI, *2006 Compilation of Auto Experience: Wisconsin*, 2003-2005 voluntary risk experience

Figure A-2
Claiming Behavior Varies in Wisconsin
(Number of BI Claims per 100 PD Claims)



*** See Appendix I for complete territorial definition.**

Claiming behavior is found to vary substantially among different parts of Wisconsin, where residents in some areas are more conscious of reporting injuries than their counterparts elsewhere. The variance in filing these types of claims leads to a variance in loss costs. Greater frequency of reporting injury claims leads to higher insured losses; hence, insurance rates should accordingly be higher. Such variation in claiming behavior is further evidence why a distinction among geographical locations is necessary.

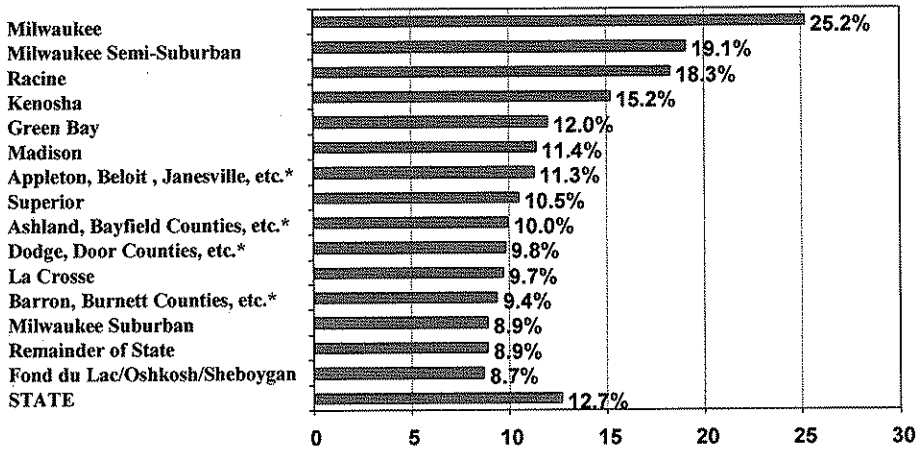
Variations in Uninsured Motorist Population

Motorists with insurance usually pay an added premium to protect themselves from the group of drivers who have no liability coverage. The amount of their uninsured motorist coverage rate is influenced by the size of this group.

The uninsured driver population in the state of Wisconsin is about 12.7 percent.[19] In contrast, Milwaukee's U.M. population (25.5%) is estimated to be more than twice the statewide average, while surrounding areas of the city have lower populations (19.1% - Semi-Suburban and 8.9% - Suburban) than the urban area (Figure A-3). Clearly, policyholders residing in Milwaukee are exposed to a higher proportion of uninsured drivers; hence their U.M. coverage rates are higher, contributing to a higher overall premium.

[19] Ibid.

Figure A-3
Estimated Uninsured Motorist Populations
Vary Throughout the State



*** See Appendix I for complete territorial definition.**

Variations in Motor Vehicle Theft Rates

According to the Federal Bureau of Investigation, the 2006 motor vehicle theft rate for the state of Wisconsin is about 25 thefts per 10,000 capita. With a theft rate of 142 cars per 10,000 capita in Milwaukee, people living here are 5.7 times more prone to have their autos stolen than in the state as a whole.[20] Areas such as Hurley, Madison, Racine, Superior, Minocqua and West Bend have respectively 95, 59, 46, 28, 14 and 4 car thefts per 10,000 capita.

Even places that are nearby one another can show vastly different crime rates, especially in an urban versus suburban setting. For example, the city of Milwaukee has a much higher theft rate than some of its nearby locations (Milwaukee – 142 vs. West Milwaukee – 102, Butler – 71 and South Milwaukee – 18).

The vast disparity in motor vehicle theft rates contributes to the difference in comprehensive coverage losses among Wisconsin areas (Figure A-4). Since the claim frequency is another element that is part of the ratemaking process, higher theft rates indicate higher insurance claims reported in certain areas and, hence, higher comprehensive coverage rates.

[20] Federal Bureau of Investigation, *Crime in the U.S., 2006*

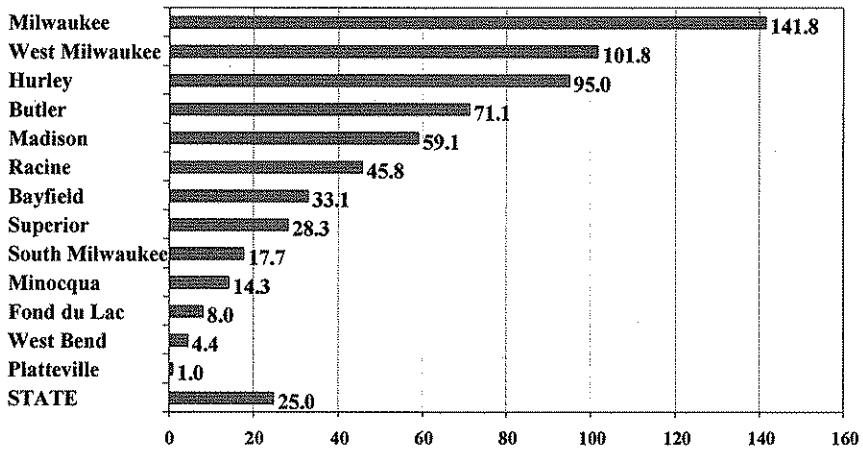



Figure A-4
Various Wisconsin Locations
Motor Vehicle Theft Rates - 2006