Metrics of Uninsured Motorists: The Challenging Case of New Mexico


Abstract

Over the last decade, accident data provided by the Insurance Research Council has been the standard by which UM rates have been estimated for each state. However, the increasing use of a database to compare registered vehicles with insured vehicles provides a secondary estimation of UM rates. This paper examines New Mexico as it is one of only a small handful of states that provide updated monthly results of UM rates based on the matching database. According to the New Mexico Motor Vehicle Division, the percentage of uninsured motorists in New Mexico for 2005-2007 was 13.22%, 11.22%, and 10.53%, respectively. The Insurance Research Council’s estimates for the same period were 29.4%, 29.8%, and 28.9%. The focus of this study is to examine more closely the methodologies used by both sources in deriving their estimates of uninsured motorists. In addition, this paper discusses some of the demographic and cultural issues that are somewhat unique to the Southwest.

Introduction

The state of New Mexico has consistently been ranked among the states with the highest percentage of uninsured motorists (UM) by the Insurance Research Council’s (IRC) periodic studies using accident data. In 2008, according to this measure, New Mexico achieved the dubious honor of being the state with the highest percentage of uninsured motorists. However, in 2003 an insurance database was fully implemented to track insurance coverage of registered vehicles in New Mexico. Since that time the UM percentages computed by the IRC and the NM Motor Vehicle Division have diverged significantly.

The focus of this study is to examine more closely the methodologies used by both sources in deriving their estimates of uninsured motorists. Over the last decade, accident data provided by the Insurance Research Council has been the standard by which UM rates are estimated for each state. However, the increasing use of a database to compare registered
vehicles with insured vehicles provides a potential secondary estimation of UM rates. The focus of this paper is on New Mexico as it is only one of two states (up to this point in time, based on our investigation) that provide updated monthly results of UM rates based on the matching database. The other state is Utah. However, the differences between IRC outcomes and Insurance Identification Databases (IIDB) results in Utah only differ by 1-3 percent. The differences between these two sources for New Mexico are from nearly 10 percent to over 18 percent, and warrant further investigation.

It is difficult to conclusively prove that the robustness of one measure is consistently superior to the other. In fact, to a certain degree both measures may be relatively correct based on what exactly is being measured by each one. We are more interested in analyzing the reasons for the differences in results, especially over the last 3 to 4 years. In addition, this paper briefly discusses some of the demographic and cultural issues that are somewhat unique to the southwestern part of the United States in general and the state of New Mexico.

Numerous estimates of uninsured motorists have been provided by various organizations for decades. Most of these estimates are fragmentary, and for many the methods used in deriving them are elusive. To illustrate the challenge in estimating uninsured motorists, consider that during the 1980s, the National Association of Insurance Commissioners reported the uninsured motorist rate at 60 percent in New Mexico, while the rates for the same general period were estimated at 21 percent and 50 percent by the All Industry Research Advisory Council and the Insurance Information Institute, respectively. The AAMVA Uninsured Motor Vehicle Rate Working Group has identified four methods to calculate the Uninsured Motorist Rate: (1) Database Method – available in New Mexico and discussed in this paper, (2) Random Sampling Method – of greater use to states without a database tracking system, with mixed results, (3) Law
Enforcement Method – perhaps the simplest method and not the most accurate, (4) Crash Statistics Method – basically the IRC methodology, and also addressed in this study (AAMVA, 2002).

The term uninsured motorist itself can be somewhat perplexing. Theoretically it is not the motorist, but the vehicle, which is insured. In its simplest terms an uninsured motorist means a motorist who owns an uninsured vehicle. However, there is no one-to-one correspondence between “uninsured motorist” and “uninsured vehicle.” When car owners own more than one vehicle, this simple one-to-one connection may no longer hold, even when the intermingling of car owner and car driver is maintained. Suppose there are fifty car owners each owning two vehicles – one of which is insured, the other not insured. In this example, there are fifty out of fifty auto owners who failed to insure their vehicles, yielding 100 percent uninsured motorists. However, there are only 50 uninsured vehicles out of 100, yielding a 50 percent uninsured vehicle rate. There are also differences in the definition of an uninsured motorist at the state level, which creates inefficiencies in cross-state comparisons. For example, in California if a motorist who owns an insured vehicle drives a neighbor’s uninsured car, the motorist will be considered uninsured if the car is available for her regular and frequent use. If not available for regular and frequent use, the motorist is considered insured. In North Carolina, anyone who drives an uninsured vehicle is considered an uninsured motorist (Khazzoom, 2000).

Technicalities such as these add a level of complexity to the calculation and analysis of the percentage of uninsured motorists. The sources of data examined in this study – from the Insurance Research Council and the New Mexico Motor Vehicles Division IIDB database – are within the time frame 2000 to 2007. The Insurance Research Council study is focused on the uninsured motorist rather than the uninsured vehicle, and supposedly factors in the complexity of
determining the uninsured motorist. The New Mexico Motor Vehicle Department, using the Insurance Identification Database (IIDB), focuses on uninsured vehicles and estimates the number of uninsured vehicles as the difference between the number of registered vehicles and the number of insured vehicles.

**Uninsured Motorists Research**

Various aspects of uninsured motorists have been studied by academics and industry professionals for at least five decades. For example, in 1967 the Journal of Risk and Insurance published a paper by Sajjad Hasmi titled, “The Problem of the Uninsured Motorist.” Prior research studies have examined a number of factors critical to the level of uninsured motorists, including the effectiveness of enforcement, computer matching databases, and compulsory insurance laws. In an empirical model tested on pooled cross-section and time-series data covering 50 states and the District of Columbia, Ma and Schmit (2000) addressed the effect of enforcement mechanisms for purchase of required insurance on the degree to which drivers choose not to insure. Their results indicate that higher levels of enforcement stringency relate to lower levels of uninsured drivers.\(^1\) In addition, they find that lower levels of poverty and populations living in metropolitan areas are also related to lower levels of uninsured drivers, while no-fault states are associated with higher levels of uninsured motorists.

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\(^1\) As an extreme international example of enforcement, legislation was introduced in 2005 by the Labour Party which would have given British police the power to seize and destroy the vehicles of uninsured drivers (House of Commons Debates, 2005).
Using the states currently employing or investigating various tools to mitigate the uninsured motorist problem, Cole and McCullough (2002) analyze the advantages and disadvantages of such techniques as improved tracking systems to identify non-compliant motorists, the use of low-cost auto policies, and proposals for pay-at-the-pump programs, compulsory insurance laws, financial responsibility laws, mandatory uninsured motorist and underinsured motorist laws, and more recently no-pay, no-play laws.

According to an August 2008 report by the Insurance Information Institute, 24 states required proof of insurance at registration, 34 states required proof of insurance at the time of an accident, and 35 states required proof at all times in the vehicle. In New Mexico, Section 66-5-205, Paragraph A & B require that the owner of a vehicle and the driver of a vehicle both have a responsibility to carry proof of insurance in that vehicle at any time that it is being operated on public roads. That is the basis for tickets given during periodic road block actions taken by police. Section 66-5-205.1 requires proof of insurance at the scene of any vehicle accident involving the vehicle and authorizes the police to take the plate off of the vehicle if no proof of insurance is available. Section 66-5-206 requires proof of insurance on registration of a vehicle but 66-5-234 requires only "affirmation" of insurance coverage for renewal of registration.

An important question involving uninsured motorists is whether they drive more cautiously or less carefully. Reasonable arguments have been made on both sides, and the limited amount of research in this area has had conflicting results. In a nationwide study of compulsory insurance regulation for the 1970-1998 time periods, Cohen and Dehejia (2004) find that while compulsory insurance rules result in a significant reduction in the incidence of uninsured motorists, there is also an unintended effect. Traffic fatalities increased two percent for each percentage-point drop in uninsured motorists, suggesting that uncovered motorists drive
more carefully. Kuan and Peck (1981) summarized in a study of California drivers that “compared to the average California driver, the financially irresponsible driver was found to have a much worst prior accident record.”

The success of insurance data reporting programs appears to be mixed in earlier years, with results improving over time, based on the conclusions of two studies. The American Association of Motor Vehicle Administrators (AAMVA) states in their 2002 AAMVA Financial Responsibility and Insurance Resource Guide that in general, no correlation exists between compulsory insurance and the number of uninsured motor vehicles on the highway. They also contend there is the same absence of correlation with insurance data reporting programs. Based on IRC studies between 1989 and 1999, of the 18 states reporting programs in place for 5 years or more, 12 showed an increase in uninsured motorists and 6 experienced improvements. AAMVA acknowledges that other factors may be involved, such as the level of enforcement and consistency of penalties. However, in a more recent survey of the 27 states that operate some type of database reporting system, a task force for the Texas Department of Insurance found that the average pre-implementation uninsured motorists rate (UMR) was 25.85 percent, and the average post-implementation UMR was 9.39 percent which is a reduction of nearly 64 percent (Texas Department of Insurance, 2005).

In a 2004 White Paper by the Insurance Industry Committee on Motor Vehicle Administration (IICMVA), evidence suggests that from an insurance company perspective, state reporting programs have not effectively met their main objective: to identify and track uninsured motorists. These programs are costly, difficult to implement, hard to maintain, and a burden for insured drivers. The IICMVA points out that recent ongoing advances in technology, such as
Web services and Internet-based transaction processing may provide insurers with an opportunity to provide online auto insurance corroboration to state jurisdictions.

Socioeconomic characteristics of uninsured motorists have also been an area of interest to researchers. The All Industry Research Advisory Council (AIRAC)\(^2\) conducted a survey in 1989 and found the highest number of uninsured motorists in metropolitan areas, and that the city tends to have a higher concentration of uninsured motorists than the remainder of the metropolitan area.\(^3\) Other characteristics are that motorists between 18-29 own 28% of registered vehicles and account for 52% of uninsured vehicles; motorists with less than a high school education own 17% of registered vehicles and account for 33% of uninsured vehicles; motorists renting their residence own 26% of registered vehicles and account for 50% of uninsured vehicles; unemployed motorists own 17% of registered vehicles and account for 33% of uninsured vehicles; motorists with incomes less than $7,500 own 23% of registered vehicles and account for 40% of uninsured vehicles. Government data provided and discussed in the next paragraph allows a comparison of New Mexico to the national averages with respect to these socioeconomic characteristics.

According to the U.S. Census Bureau, 75.0 percent of New Mexico’s state population lives in metropolitan areas. This compares with a range from 38.2 percent in Vermont to 94.3 percent in New Jersey. New Mexico had a median household income in 2007 of $41,509 compared to the national median of $50,740; 17.9 percent of New Mexicans are below the poverty level, versus 13.0 percent nationwide; homeownership in New Mexico in 2000 was 70.0

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\(^2\) The AIRAC changed its name to the Insurance Research Council (IRC) in 1990.

\(^3\) There is agreement with these results in the 2006 IRC Study. For example, the UM/BI claim frequency ratio in Philadelphia was nearly three times higher than in other locations measured in Pennsylvania. In Illinois the ratio in Chicago was more than twice the ratio in other parts of the state (Insurance Research Council, 2006).
percent, higher than the U.S. ownership of 66.2 percent; also in 2000, less than 79 percent of persons age 25 or older in New Mexico were high school graduates, while the national percentage was 80.4; the percentage of persons under 18 years old in 2007 was 24.5 percent nationwide, while the number in New Mexico is 25.4 percent. Most of these measures suggest that New Mexico would be expected to have a slightly higher percentage of uninsured motorists than the national average, using the socioeconomic characteristics of uninsured motorists in the 1989 All Industry Research Advisory Council (AIRAC) survey.

Insurance Identification Databases

The movement toward insurance verification reporting began in the 1970s, picked up momentum in the 1980s, and is continuing today. Each generation of reporting requirements seeks to accomplish what the previous failed to do – reduce or eliminate uninsured drivers. About half of the compulsory insurance states require some type of data reporting. Part of the motivation behind the use of insurance verification databases is to mitigate attempts by millions of motorists nationwide to skirt compulsory insurance laws. These included using counterfeit proof-of-insurance cards or obtaining a month’s coverage of insurance to get an ID card, only to cancel the policy once they get their licenses renewed or their vehicles inspected.

According to the Insurance Information Institute, as of July 2009 there were 20 states with a computer data law. Insurers must submit an entire list of insurance in effect, which may be compared with registration at a state agency. This law also includes cases where insurers are required to report new issues and/or renewals. In an additional 25 states without the computer data law, insurers must notify the Department of Motor Vehicles or another state agency of cancellation or nonrenewal of policies, and/or verify randomly selected insurance policies upon request.
In a comparison of the 20 states using a computer data law with recent IRC uninsured motorists accident data, only two of the ten states with the lowest UM percentages have the computer data law and five of the ten states with the highest UM percentages have enacted the law. Eleven states had UM rates above the national average and the other half had rates below the national average. However, it is difficult to draw any meaningful conclusions from this information as the Insurance Information Institute does not provide starting dates on when the various states initiated the computer data law. Also, there may be more urgency among states with higher UM percentages to “do something” in an attempt to control the UM rate, thus skewing the results toward higher UM numbers.

In New Mexico, effective July 1, 2001 House Bill 847 required insurance companies to report cancelled, terminated and newly issued motor vehicle insurance policies each month to the Motor Vehicle Division. The first letters to uninsured motorists were mailed out on December 9, 2002. All insurance companies licensed to sell in New Mexico report insured vehicles monthly, and can report as often as daily. MVD registration data is matched with insurance data daily. After 60 days without insurance on the IIDB database the vehicle’s owner will receive a warning letter. After receiving this notification the owner can: (1) check the VIN on the policy and the registration for accuracy, (2) contact their insurance company to update the IIDB if they have insurance, (3) buy insurance if applicable, or (4) request an Administrative Hearing. After an additional 30 days without insurance on the IIDB database, the owner will receive a second letter informing that vehicle’s registration will be suspended within 20 days if the IIDB does not receive required insurance information. One problem with the existing system in New Mexico is that it effectively gives people at least 90 free days to go without insurance. Once a vehicle’s registration has been administratively suspended, a vehicle owner must pay a $25 reinstatement
fee once liability insurance is purchased. Given the improvement in data information this could probably easily be shortened, as under the current system there is no real penalty.\textsuperscript{4}

As noted earlier, insurance companies are responsible for updating vehicles they insure at least once a month and can report as frequently as daily. For Personal Auto Policies, insurance information is matched to registered vehicles primarily based on the Vehicle Identification Number (VIN) reported by insurance companies. Insurance information for Fleet/Commercial Policies is matched to registered vehicles by the name and address combination submitted by the insurance company. Insurance agents/companies are able to add additional owners to policies previously submitted to ensure that all vehicles covered under the policy are identified as insured. On November 11, 2002 this insurance information was made available to be fed into police vehicle monitors.

There are also other required instances of reporting. For example, companies that are self-insured are required to provide a certificate of self insurance to the Financial Responsibility Section of the MVD. Out-of-state drivers with in-state registrations (such as students or someone in the military) that have insurance issued in another state need to submit affidavits every time their policy renewes. If drivers plan to drop their insurance on vehicles that are registered and not operated, they must submit non-use affidavits.

Accuracy of data was by far the leading cause of ineffective auto insurance verification systems when they were first implemented. Several states currently employing systems experienced accuracy issues where at least 20 percent of the data reported contained errors (NAIC, 2007). For example, erroneous input of Vehicle Identification Numbers (VIN) resulted

\textsuperscript{4} There have been multiple attempts by New Mexico legislators to increase the reinstatement penalty from $25 to $100 in an effort to crack down on uninsured drivers in the state. Despite gubernatorial support in the most recent full legislative session, no action was taken on the latest proposed bill.
in numerous inaccuracies within the data. The early mismatches appear to have been minimized appreciably with experience.

**Results of the New Mexico Insurance Identification Database**

The New Mexico IIDB Program data are from the program inception in 2002 to 2008. There are basically three steps used in computing what the Motor Vehicle Division refers to as the True Uninsured Rate.

**Step One:** Insurance Vehicles Matched are divided by the Total Registered Vehicles (TRV) to get the Vehicles Insured Rate (VIR).

**Step Two:** 1 – (VIR) provides us with the Vehicles Uninsured Rate (VUR). This can also be computed by dividing the Vehicles Unknown by the Total Registered Vehicles.

**Step Three:** The VUR percentage less the Non-Use Rate percentage provides the net, or True Uninsured Rate.

They found that from the program inception to June 2, 2008, there was an increase in registered vehicles of 5.54 percent, and an increase of vehicles received from insurance companies of 35.25 percent. Insurance vehicles matched increased 41.51 percent, vehicles unknown dropped 67.37 percent, and their numbers show the uninsured rate dropping by 22.82 percent. From inception through December of 2008 the uninsured rate had dropped over 23 percentage points.
Estimating Uninsured Vehicles Using the UM/BI Ratio

One approach to estimating the size of the uninsured motorists population is by comparing the injury portion of the UM coverage with bodily injury liability (BI) coverage. The Insurance Research Council (IRC) studies collected frequency data for uninsured motorists (UM) injury claims and bodily injury (BI) liability claims for the years 1999 through 2008. According to the IRC, the ratio of UM to BI claim frequencies produces a reasonable estimate of the proportion of injury accidents caused by uninsured or hit-and-run motorists. In other words, the ratio of UM to BI claim frequencies provides an estimate of the probability than an at-fault driver...
in an accident was uninsured or unable to meet the liability for someone else’s injuries caused by the accident (IRC, 2006).

The IRC’s calculation makes two implicitly fundamental suppositions. One is that the percentage of accidents that involve an insured and an uninsured motorist, where the uninsured motorist is responsible, is equivalent to the percentage of uninsured motorists. Another is that the probability of getting involved in accidents is essentially the same for insured and uninsured motorists. IRC gives no experiential evidence to support the credibility of these assumptions, nor does it make any a priori argument to support them (Khazzoom, 2000). There are other limitations of the UM to BI ratio. For example, the UM claim frequency also includes injury claims from hit-and-run accidents, and it is not known under those circumstances whether or not the at-fault driver had insurance. Also, any potential underlying differences in claiming behavior between injured parties deciding to make a BI claim versus a UM claim could affect the ratio’s underlying frequencies. Those vehicles that are not insured, but also not driven on the road, are not factored into the UM/BI ratio.

According to Khazzoom (2000) there are additional concerns with the IRC methodology. The reasoning behind IRC’s method rests on a simple example which rules out multiple ownerships of vehicles and relies on the assumption of interlocking car owner and car driver. IRC reports annual ratios calculated from data collected by three separate agencies: the National Association of Independent Insurers, the Insurance Service Office, and the National Independent Statistical Service. This limits the usefulness of these estimates in any inferential work, as the variance of the estimates and the size of the sample used in calculating these estimates are not provided by the IRC.
IRC’s calculations are likely to overstate the percentage of uninsured motorists in many states, but the range of the overestimate is unknown. Reasons for the bias include the accident proneness of the uninsured motorists. There is evidence that suggests, at least in some states, uninsured motorists tend to be disproportionately involved in accidents (Hunstad, 1999). The disparity in the nature and disposition of uninsured motorist claims and bodily-injury claims may also be a factor. Insurance companies may be relatively less forceful and more liberal in dealing with uninsured motorist claimants than they are in dealing with other claimants, including bodily injury claimants. In the case of an uninsured motorist claimant, the insurer is dealing with its own client or policyholder, one whom the company has a business relationship with and does not want to lose. A more lenient treatment of uninsured motorist claims may encourage fraud, which included in the number of uninsured motorist claims, would exacerbate the upward bias in the estimate of the percentage of uninsured motorists.

Hunstad (1999) also examines the assumptions involved in using the ratio of the frequency of UM claims to the frequency of BI claims as an estimate of the uninsured vehicle rate, Hunstad (1999) found a number of possible biases. As seen in Table 1 below, while it appears that some of the biases may act to cancel each other out, the overall bias inherent in the UM/BI ratio is to overstate the uninsured vehicle rate.

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5 If the propensity of uninsured motorists to get involved in an at-fault injury accident is at a rate of 8 percent (as opposed to 5 percent for the insured motorist), then we get a ratio of UM/BI = 0.16 instead of 0.10, which is a 60 percent overestimate of the true proportion of uninsured motorists in the population.
### Table 1
Potential Biases Contained in the UM/BI ratio

<table>
<thead>
<tr>
<th>Source of Bias</th>
<th>Effect on the Estimated Uninsured Vehicle (UV) Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Including not operated vehicles in the UV rate</td>
<td>Unknown</td>
</tr>
<tr>
<td>Including hit-and-run accidents in UM claims</td>
<td>Increase</td>
</tr>
<tr>
<td>Different rate of UM fraud</td>
<td>Unknown</td>
</tr>
<tr>
<td>Those with UM coverage not representative of those without</td>
<td>Unknown</td>
</tr>
<tr>
<td>Higher accident rate of uninsured drivers</td>
<td>Increase</td>
</tr>
<tr>
<td>Higher likelihood of filing a claim and having it paid for UM claims</td>
<td>Increase</td>
</tr>
<tr>
<td>Including Property Damage Only (PDO) accidents in the UM claim frequency</td>
<td>Increase</td>
</tr>
</tbody>
</table>

*Source: Hunstad (1999)*

**Results of the Insurance Research Council Study**

The 2008 IRC Study estimated the percentage of uninsured drivers across the United States, including differences by state, from 2000 to 2007, using auto injury claim frequency data collected from eleven insurers representing about 50 percent of the private passenger automobile insurance market. The size of the uninsured motorists population was estimated by comparing the injury portion of the UM coverage with bodily injury liability (BI). If an insured has injuries from an auto accident caused by an at-fault motorist, he or she files a BI liability claim against the at-fault driver and seeks compensation for injuries from the accident. However, if the at-fault driver does not have liability insurance or the injured person is a victim of a hit-and-run driver, then the injured party relies on his or her own UM coverage to pay for the injury costs and property damage incurred. Claim frequencies measure the number of insurance claims per
number of insured cars, often expressed as the number of claims per hundred insured vehicles. A ratio of the UM claim frequency to the BI claim frequency produces an estimate of the percentage chance that if someone is injured in an auto accident, then the at-fault driver was uninsured. This UM to BI claim frequency ratio yields an estimate for the percentage of uninsured drivers. The ratio of UM to BI frequencies overcomes potential differences in claims frequencies by generating a measure of relative frequency, allowing comparisons across states.

As seen from Graph 2 below, the ratio of UM to BI claim frequencies nationwide steadily increased from 13.4 percent in 2000 to a peak of 14.9 in 2003, before experiencing a four-year decline down to 13.8 percent in 2007. Part of this was due to a greater drop in the BI claim frequency, while the UM claim frequency fell at a lower rate. In New Mexico, the rate in 2000 was 26.3, peaking at 29.8 in 2006, with a minimal decrease to 28.9 in 2007.

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6 An example of the calculations involved is provided by the IRC. Suppose that in a group of 10,000 vehicle owners, 1,000 (10 percent) do not have auto liability insurance. If accidents involving injuries occurred at a frequency of 5 percent, then 500 auto accidents with an injury would occur, of which fifty uninsured drivers (10 percent X 500) would be at fault for an auto injury in a year. Five of the fifty accidents (10 percent) would involve another uninsured motorist, while forty-five of the accidents would involve insured motorists as the injured parties. As a result, these forty-five injured parties would make UM claims with their own insurers, generating a claim frequency of 0.005 (45 UM claims for 9,000 insured vehicles). Meanwhile, there would be 450 BI claims for 9,000 insured vehicles, producing a BI claim frequency of 0.05. The ratio of UM to BI claim frequencies would be 0.10 or 10 percent (0.005/0.05). The ratio of UM to BI claim frequencies produces a measure of the probability that an injury to an insured car occupant is the fault of an uninsured driver.
Graph 2

Comparison of IRC and IIDB Results

As discussed earlier, differences were expected in the results of the two studies, primarily due to a divergence in methodologies. Because of inherent biases that on balance are expected to overestimate the percentage of uninsured motorists in the IRC study, we expected to see higher numbers across the board in those percentages compared to the IIDB numbers. However, it was also reasonable to anticipate similarities in the trend of uninsured motorists in both measures. The MVD IIDB results show a steep decline in the UM percentage during the first three years of database implementation, and a continuing although lowering rate of decline in the percentage through the end of 2008. There was a significant drop in the UM percentage for 2004 using the IRC accident data, but the last three years have increased and maintained a level of uninsured

motorists that is equal to or above the UM percentage levels prior to full implementation of the database.

Graph 3

Sources: Insurance Research Council, Uninsured Motorists Study, 2006 & 2008 Editions; Motor Vehicle Department, State of New Mexico

Some possible explanations for this divergence in results include:

- Many uninsured cars involved in accidents are also unregistered, so they would appear in the IRC method but not the MVD's.
- The measures provided by the New Mexico MVD are focused on vehicles registered in New Mexico only, and do not factor in out-of-state automobiles that may be uninsured.
- Car-miles on the road driven by young drivers are disproportionately more uninsured than car-miles in general because premiums are higher for these cars. Because accident involvements per million miles are 30 at age 17 and decline (rapidly) to 5 at age 30 where they stay for adult drivers, cars used by younger drivers are over-sampled on the road relative
to the overall proportion of car miles driven (Williams, 1999). This age predisposition would bias upward the UM/BI percentage used by IRC as sampling total car-miles driven.

- The nine insurers who participated in the IRC study represent approximately 50 percent of the private passenger auto liability insurance premiums within the United States. Seven of the nine insurers were writing private passenger auto liability premiums in the state of New Mexico in 2007 (the most recent year available), representing an aggregate 53 percent of the market within the state.

- The NM data includes Uninsured Motorist Physical Damage which is mandatory in NM.

- There may be an issue related to Underinsured Motorists coverage (UIM). While the Insurance Research Council explicitly requested that underinsured motorist claims be excluded from their data collection, we have no way of knowing if that is the case. This could potentially skew results for two reasons. It is likely that NM has a higher percentage of drivers with low liability limits due to lower income levels. This would contribute to more UIM claims. In addition, the representative companies included in the IRC study generally insure standard risks. Companies that specialize in non-standard risks – which would be more likely to carry minimum limits – are not represented in the IRC data.

At the time this study was written, we had only identified New Mexico and Utah as states providing publicly available monthly data on UM percentages using data comparing insured vehicles and registered vehicles in their respective states. California also makes similar information available periodically, but the most recent year accessible is 2004. Table 2 below provides a comparison of IRC results to IIDB results for each of these states.
Table 2
Comparison of UM Rates – Accident Data versus Database Matching

<table>
<thead>
<tr>
<th>Year</th>
<th>IRC</th>
<th>IIDB</th>
<th>Diff</th>
<th>IRC</th>
<th>IIDB</th>
<th>Diff</th>
<th>IRC</th>
<th>IIDB</th>
<th>Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>26.3</td>
<td>n/a</td>
<td>-</td>
<td>19.5</td>
<td>14.2</td>
<td>5.3</td>
<td>8.1</td>
<td>9.6</td>
<td>(1.5)</td>
</tr>
<tr>
<td>2001</td>
<td>28.1</td>
<td>n/a</td>
<td>-</td>
<td>20.7</td>
<td>13.1</td>
<td>7.6</td>
<td>9.1</td>
<td>9.7</td>
<td>(0.6)</td>
</tr>
<tr>
<td>2002</td>
<td>27.4</td>
<td>n/a</td>
<td>-</td>
<td>22.3</td>
<td>14.3</td>
<td>8.0</td>
<td>9.3</td>
<td>8.7</td>
<td>0.6</td>
</tr>
<tr>
<td>2003</td>
<td>29.7</td>
<td>19.8</td>
<td>9.9</td>
<td>23.8</td>
<td>14.3</td>
<td>9.5</td>
<td>8.8</td>
<td>7.0</td>
<td>1.8</td>
</tr>
<tr>
<td>2004</td>
<td>24.3</td>
<td>14.5</td>
<td>9.8</td>
<td>24.8</td>
<td>14.4</td>
<td>10.4</td>
<td>9.3</td>
<td>6.5</td>
<td>2.8</td>
</tr>
<tr>
<td>2005</td>
<td>29.4</td>
<td>13.2</td>
<td>16.2</td>
<td>21.0</td>
<td>n/a</td>
<td>-</td>
<td>7.5</td>
<td>5.6</td>
<td>1.9</td>
</tr>
<tr>
<td>2006</td>
<td>29.8</td>
<td>11.2</td>
<td>18.6</td>
<td>20.9</td>
<td>n/a</td>
<td>-</td>
<td>7.7</td>
<td>5.8</td>
<td>1.9</td>
</tr>
<tr>
<td>2007</td>
<td>28.9</td>
<td>10.5</td>
<td>18.4</td>
<td>18.1</td>
<td>n/a</td>
<td>-</td>
<td>8.1</td>
<td>5.2</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Sources: State Departments of Insurance; IRC Uninsured Motorist Studies 2006 & 2008

As can be seen from these results, UM rates in Utah appear to be relatively consistent using both measures. One would expect the differences in these measures to be minimized with increasing database experience. However, in New Mexico the gap between the two measures is significant and the gradient of change is actually increasing. In the following section, we examine some of the cultural issues that while exigent to quantify, may provide some insight into the complexity of measuring UM rates in this area of the United States.

Cultural Issues

There are some relatively unique cultural characteristics found in the southwestern United States, and they are certainly included in New Mexico. While it is difficult to ascertain the potentially confounding effect of these cultural issues on the metrics of uninsured motorists, they merit mention and are discussed briefly in this section.

Around 9-10 percent of the population of New Mexico consists of Native Americans. From its earliest days, the United States has recognized the sovereign status of Indian tribes as
domestic dependent nations. If there is a non-tribal member involved in an accident on a state or federal road, then the jurisdiction belongs to the highway patrol or state police. If the incident wholly involves tribal members, then the jurisdiction belongs to the tribe or the Bureau of Indian affairs if the tribe does not practice self-determination.

New Mexico is also one of 10 states that do not require proof of lawful presence from those applying for a driver’s license, and the expiration of the license is not tied to a temporary visa. Proponents of this liberal policy argue that illegal aliens are going to drive no matter what, so issuing those licenses will improve the safety of our roads by ensuring that they have passed a driving test and purchased automobile insurance. Those who oppose this policy counter that most illegal aliens are low-wage workers who send a significant portion of their earnings to their home countries in the form of remittances, have little incentive to spend their wages on car insurance, and even less incentive to wait for the police to arrive after an accident, since contact with law enforcement authorities could result in deportation.

As a border state, there may be issues related to Mexican nationals driving to the U.S. It is not unusual to see a number of vehicles with Mexican license plates in southern New Mexico, or even other parts of the state at any given time. The biometric border crossing card (BCC) is a laminated, credit card-style document with many security features and ten-year validity. Called a "laser visa," the card is both a BCC and a B1/B2 visitor's visa. Most Mexican visitors to the U.S., whether traveling to the border region or beyond, receive a laser visa.

According to an insurance broker in Juarez, Mexico, automobile insurance in Mexico is primarily regulated at the state level. In the state of Chihuahua, which borders New Mexico, there is a combined limit of around $50,000-$60,000, depending on the exchange rate. It is indexed to the minimum wage, and there is a small fine (less than $100) if cited for not having
insurance. There is no proof of insurance required for registration purposes, and the uninsured motorist laws are not enforced often. There is a tendency for accidents to turn from civil actions to criminal cases relatively quickly, so that is implicitly used as motivation to obtain automobile insurance. About 1 ½ years ago major insurers operating in Mexico began offering U.S. Tourist Liability, with some providing coverage equal to the minimum limits required in each state traveled to in the U.S. More insurers are now offering this option on Mexican automobile insurance policies.

While these cultural issues may have an indirect influence on uninsured motorists’ claims, it should be noted that they are not explicitly considered in insurer’s ratemaking models. As stated by the representative of a leading automobile insurance company operating in New Mexico, “we do not track our UM loss data according to whether the car has Mexican license plates. Rather, UM rates are based on the actual loss experience produced from claims involving uninsured and underinsured motorists. We employ actuarial methods in using that loss experience to predict future UM risk.” In response to the sovereignty of Native American tribes, the same representative responded that, “we do not gather or consider that type of information in any aspect of our operations.”

**Summary and Conclusion**

Due to the complexities associated with separating uninsured vehicles from uninsured drivers and especially to the significant differences in methodologies, we suggest that neither study’s results provide a “true” measure of uninsured motorists. Intuitively, one would expect that improvements in the tracking of vehicles registered but not insured would be accompanied by a significant decrease in the percentage of uninsured motorists in the state.
The percentage of uninsured motorists at fault in accident data is troublesome, yet this issue appears to be receiving increased legislative attention in New Mexico. As referenced earlier, state legislation has been introduced that would increase the reinstatement penalty to $100 for suspended vehicle registrations. Also, the second largest city in New Mexico, Las Cruces, passed an ordinance in 2009 to impound vehicles if the driver does not have a valid driver’s license or vehicle insurance. Time will tell what regulatory measures will ultimately be successful in reducing the percentage of uninsured motorists on U.S. highways, but given the extrapolative correlation between the percent of uninsured motorists and the unemployment rate (IRC 2008), it may take a while longer to determine the optimal solution.

It was surprising to find that very few states that have implemented the insurance verification database with vehicle registrations are using the information to measure the percentage of uninsured motorists. Perhaps this is due to the technical difficulties experienced by many states when setting up these systems, along with numerous user errors such as improperly entered vehicle identification numbers. At any rate, we would encourage state regulators to consider using the data to compile an additional measure of uninsured motorists in their state. One advantage of using the database comparing insured vehicles to registered vehicles is that you avoid some of the state-level differences in the definition of an uninsured driver.
References


New Mexico Department of Transportation