

By Aaron Brandenburg, NAIC Economist and Statistical Information Manager

♦ INTRODUCTION

In the early 1990s, the auto insurance industry experienced a major shift in how auto insurance was underwritten and priced when the use of credit-based insurance scores became prevalent.¹ Now, the next revolution is underway, as the auto insurance industry has begun to implement usage-based insurance (UBI) tools to align actual driving behaviors with premium rates for auto insurance. With UBI, mileage and driving behaviors are tracked using odometer readings or in-vehicle telecommunication devices (telematics) that are usually self-installed into a special vehicle port.² However, with this technology come social and regulatory concerns. On Dec. 16, 2013, the NAIC's Center for Insurance Policy and Research (CIPR) held a two-hour event where a panel of six industry experts from various segments came together to discuss and debate the regulatory implications the movement to telematics may have on the insurance industry and consumers.

♦ TELEMATICS IN THE U.S.

The event, titled *The Future of Automobile Insurance: Telematics in the U.S.*, took place during the NAIC Fall National Meeting in Washington, D.C., and received record attendance for a CIPR event, with attendees numbering above 210. Attendees comprised of insurance regulators, industry, consumer representatives and other interested parties.

Speakers included:

- James Bielak, Property & Casualty Program Manager for the Association for Cooperative Operations Research & Development (ACORD);
- Birny Birnbaum, Executive Director of the Center for Economic Justice;
- Sandra Castagna, Property & Casualty Associate Commissioner for the Maryland Insurance Administration;
- Allen Greenberg, Senior Policy Analyst for the U.S. Department of Transportation;
- Robin A. Harbage, Global Director of Sales and Product Delivery for Towers Watson; and
- David F. Snyder, Vice President of the Property Casualty Insurers Association of America (PCI).

The event was moderated by Roger C. Lanctot, Global Automotive Practice Associate Director for Strategy Analytics. Mr. Lanctot commenced the event with an overview of some of the telematics devices that are currently on the market. He said insurance companies typically offer dis-

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counts to drivers who agree to use telematics devices and showed how insurer online portals can be used by drivers to access scores evaluating their driving behavior.

Mr. Harbage, the first panel speaker, discussed how telematics is proving to be a powerful tool. He noted usage of UBI programs is growing, and programs have already been implemented by nine of the top 10 personal auto insurers. In addition, 49 states have approved at least four UBI programs. UBI's competitive advantage stems, in part, from its ability to incentivize better driving behaviors by rewarding safer drivers with additional discounts. Moreover, tracking driving behaviors through a telematics device allows insurers to provide feedback to consumers on how to become better drivers. He said consumers benefit because they will actually be able to control their premiums, lower their risks, and better understand the link between pricing and driving behaviors.

Mr. Harbage believes insurers will benefit from telematics through enhanced pricing, product differentiation and brand awareness. At the core, telematics provides insurers ways to reduce loss costs by showing drivers how they can improve their driving. However, he pointed out that significant value could be added through ancillary services, such as vehicle maintenance reports, fuel management and concierge services. He believes the movement toward telematics will improve consumer satisfaction and retention. Nevertheless, given privacy concerns, insurers need to be transparent about what data they are collecting, what they do with it, and with whom it will be shared. He said regulators will also benefit from telematics because the devices will save lives, use more accurate variables in rating and improve the environment.

Mr. Bielak stressed the importance of telematics data standards. He described ACORD's³ new telematics data messaging standard and how it may influence the future of telematics. Mr. Bielak said there are currently multiple telematics data providers with proprietary formats and multiple data interfaces, which lead to increasing complexity and cost. ACORD is attempting to come up with a data standard for telematics.⁴ Multiple possible devices can collect data from

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¹ For more on credit-based insurance scores, see CIPR topic page: www.naic.org/cipr_topics/topic_credit_based_insurance_score.htm

² For more on Usage-Based Insurance and Telematics, see CIPR topic page: www.naic.org/cipr_topics/topic_usage_based_insurance.htm

³ ACORD is a not-for Profit Corporation that facilitates insurance industry-driven standards.

⁴ The standard is currently available. Following the CIPR event, ACORD published the first version of the standard.

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vehicles. That data is transmitted to a telematics service provider that then sends data to the insurer. ACORD is focused on standardizing data from the service provider to the insurer. He said ACORD's data standard enables data delivery from a data provider to an insurer, in a common format. The final release of this first data standard was published in January 2014.

Mr. Greenberg discussed some of the societal benefits of UBI, which he also recently highlighted in the October 2013 *CIPR Newsletter* article he authored.⁵ He noted how UBI has the potential to encourage voluntary reductions in driving as well as related decreases in congestion. With conventional insurance, consumers have little opportunity to save by driving fewer miles, despite the fact that insurance claims are directly related to miles driven. Many households, especially low-income households, would prefer variable insurance costs to fixed ones and would readily accept mileage premiums that they can reduce by driving less in order to save money.

Mr. Greenberg said a reduction in miles driven curtails crash claims, relieves congestion, and diminishes air pollution and carbon emissions. He mentioned research showing another corollary benefit from fewer miles driven is strengthening cities and lessening urban sprawl. He believes the use of telematics increases insurance company profits if the UBI product encourages changes in driver exposure and behavior that reduce claims' costs more than premium reductions. He said UBI products with transparent and incremental pricing can maximize driving reductions and explained the federal government is funding several studies related to UBI.

Ms. Castagna presented a regulator's perspective, describing the state of Maryland's two over-arching policy goals related to UBI: the reduction of greenhouse gas emissions and the alignment of insurance costs with driving behavior. In 2007, a Maryland climate change commission created a plan looking at ways to reduce greenhouse gas emissions that included pay-as-you-drive insurance. This policy option tied consumer insurance costs to actual motor vehicle travel, so premiums would be directly related to hours or miles driven. She said many regulators believe auto premiums should be based on driving behavior. She also noted other factors used by insurers in rating, such as credit-based insurance scoring, marital status, education and occupation. The NAIC's Auto Insurance (C/D) Study Group is looking at whether some of these factors have an adverse impact on low-income individuals. She added it will be interesting to see if UBI replaces some of these other factors or is used in addition to the other factors.

Ms. Castagna also explained Maryland asks many questions of insurers when looking at filings related to UBI. Maryland regulators desire to know how frequently the data will be transmitted from the telematics device when the vehicle is in motion; how long the device must remain in the vehicle to obtain a "valid sample" of driving behavior data; whether the collected data will be used for purposes other than auto rating, such as law enforcement, accident/claims investigations, or marketing and sales; where the data is stored, for how long and who has access; what combination of the data results in a discount; how insurers prove an appropriate discount has been applied; and whether the laws require insurers to send notice to the insured when a premium is increased or a discount reduced or removed because of "driving behavior" or vehicle usage. She said regulators need to be able to explain to consumers in plain and simple terms how a rate is developed, and why a premium has increased or a discount is being reduced or removed.

NAIC funded consumer representative Mr. Birnbaum explained consumer and environmental organizations have long supported pay-by-the-mile and usage-priced insurance because such programs enable consumers to reduce the cost of insurance by driving fewer miles. He contrasted the current and emerging telematics-based auto insurance programs, noting that these programs were largely black-box scoring models providing relatively little feedback to consumers in a way that empowered the consumer to modify driving behavior to reduce premium costs. He cited other consumer concerns with the black-box telematics programs, including those about consumer privacy and insurer use of collected telematics data for uses other than loss mitigation and pricing. He asked if insurers were using collected telematics data for claims settlement practices and if the data were equally available to consumers if used for claim settlement.

Mr. Birnbaum explained the telematics programs were essentially extensions of the data mining practices of insurers that began with insurance credit scoring and which fail to achieve the critical loss mitigation role of insurance pricing because of the opaque nature of the scoring model process. He identified disparate impact as another issue of concern, asking if the telematics programs were offered equally in low- and high-income communities and whether the factors used in the telematics scoring models disfavored consumers in low-income communities. He argued insurers should not penalize consumers because of where they live and when they drive, because location and travel time for low-income

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⁵ www.naic.org/cipr_newsletter_archive/vol9_pay_as_you_drive.pdf

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consumers reflect historical and current housing discrimination and segregation. He urged regulators to examine the impact of telematics programs on auto insurance availability and affordability.

Mr. Birnbaum responded to two issues raised in the discussion. First, he raised concerns with telematics programs being presented as “discount-only” programs. He said such deceptive practices should be curtailed because these discounts—associated with rating factors that do not reduce claim costs and only redistribute premium differently among consumers—lead to surcharges for some consumers. He explained while some discounts pay for themselves with reduced claims—like discounts for anti-theft devices or wind-resistant construction—rating factors like credit scores and telematics scores simply redistribute premiums.

Mr. Birnbaum then addressed the issue of regulatory involvement in emerging telematics programs. He argued industry calls for regulators to allow “innovation” was really a euphemism for deregulation or lack of regulatory oversight. He said regulatory intervention—in the form of minimum standards for consumer privacy protection and limitations on insurer use of data other than pricing and loss mitigation—would promote beneficial competition by making the telematics programs more transparent to consumers and providing consumers with more confidence to participate in such programs because of clear consumer protections. He added it was far better to establish these consumer protection standards early in the process to avoid the types of consumer abuses found with credit scoring.

Mr. Snyder, the final speaker at the event, said this new risk classification approach improves highway safety, reduces air pollution, reduces congestion and allows for more accurate risk assessment. He believes the greatest benefit will be when this system becomes the main system for all policy-holders. He said there is an incredible social value in usage-based insurance, and the upside is phenomenal in terms of risk classification. He said society should find ways to allow insurance companies to achieve these objectives and not be weighed down by too much regulation.

Mr. Snyder said limitations on territory are detrimental because it is important for insurers to know who is driving, where, and under what circumstances. He said other factors should be added to telematics devices in the future, such as whether a seatbelt is being used. He stressed that regulators and companies should proceed in a cooperative manner in dealing with the use of telematics.

◆ SUMMARY

The CIPR event reinforced the fact UBI is here now, is increasing rapidly, and may revolutionize the auto insurance industry. The event also detailed the many logistical, social and regulatory issues that will need to be addressed as the use of telematics increases. Additional information on this CIPR event, including the agenda, presentations and audio, can be found on the CIPR website.⁶

ABOUT THE AUTHOR



Aaron Brandenburg is an Economist and Statistical Information Manager with the NAIC and has been with the organization for eight years. He conducts economic and statistical research for the NAIC and its members on a wide range of issues. He has assisted in the authoring of several NAIC publications, given presentations to numerous insurance-related groups and provided support for several NAIC working groups. He also oversees the Statistical Information Unit at the NAIC, which is responsible for publishing numerous statistical reports and responds to various insurance-related requests from state and federal officials, academics, media and industry. Brandenburg earned a Bachelor of Science in Economics and Bachelor of Arts in History from the University of Iowa and a Master of Arts in Economics from the University of Missouri-Kansas City. He also holds Chartered Property Casualty Underwriter (CPCU) and Associate in Risk Management (ARM) designations.

⁵ www.naic.org/cipr_events.htm



National Association of
Insurance Commissioners

& The CENTER
for INSURANCE
POLICY
and RESEARCH

NAIC Central Office

Center for Insurance Policy and Research

1100 Walnut Street, Suite 1500

Kansas City, MO 64106-2197

Phone: 816-842-3600

Fax: 816-783-8175

<http://www.naic.org>

<http://cipr.naic.org>

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