

US Underwriting News



Driving Behavior 360 adds incremental protective value over MVRs

Hannover Re's validation analysis of Driving Behavior 360

Executive summary

LexisNexis® Driving Behavior 360 has been shown to provide more protective value than a standard motor vehicle record (MVR). Driving Behavior 360 considers court data and driving violations from both in-state and out-of-state sources.

Through Hannover Re's collaborative study of Driving Behavior 360, it concluded that the product provides incremental protective value over standard MVRs, and the cost-benefit is justified even at lower face amounts.

As MVRs are an important consideration in determining an applicant's risk profile, and provide considerable protective value to life insurers, access to complete and accurate data is essential. This paper examines where Driving Behavior 360's extra protective value over MVRs comes from and why the incremental cost is justified for most cases.

Driving Behavior 360

Each state's Department of Motor Vehicles (DMV) is responsible for maintaining MVR reports that range from three to five years of history. The information in an MVR report may include driver's license information, points history, violations, convictions and license status. MVRs are state-specific and may not include all violations that occur in a different state. Driving Behavior 360 includes MVRs as well as court records, which could date back to seven years, and

national violations to help identify drivers who have additional undetected driving activity. Additionally, LexisNexis Risk Solutions is able to identify and organize driver information that may have otherwise been missed due to address changes, name changes, aliases and other updates to personal information. The information is aggregated and standardized into a comprehensive report that provides:

- Driver identification information
- State driver's license number (if available)
- Driver's license status (if available)
- Violation description (moving and non-moving)
- Violation date
- Conviction date
- Standard violation code

An analysis conducted by LexisNexis Risk Solutions concluded that Driving Behavior 360 uncovers on average 14% more violations than a standard MVR report.

Hannover Re analysis of Driving Behavior 360

Hannover Re analyzed the value of Driving Behavior 360 on two datasets, one with insured lives and the other on general population. The large and credible general population dataset provided by LexisNexis Risk Solutions had 49 million records with 523,207 deaths. The insured lives dataset included 462,293 records with 1,043 deaths that included court records with Driving Behavior 360, from 21 states, at the time of the analysis. Availability of court records is now extended to 25 states, with the remaining states including MVR data only.

For the general population, the study determined that MVRs alone reduced mortality by 7.1% and that adding Driving Behavior 360 reduced mortality by an additional percentage point. The analysis of insured lives revealed that the

protective value of MVRs alone was 6.1% compared to Driving Behavior 360 at 11.1%, adding 5.3% in incremental protective value. The study concluded that the protective value of Driving Behavior 360 was even higher for insured lives than it was for the general population.

Figure 1. Overall results – General population versus insured lives datasets

Dataset	# of records	Deaths	MVR protective value	Driving Behavior 360 protective value	Incremental protective value of Driving Behavior 360
Insured lives	462,293	1,043	-6.1%	-11.1%	-5.3%
General population	49,256,692	523,207	-7.1%	-8.1%	-1.1%

While the insured lives dataset was too small for results to be analyzed by age and gender, indications from the general population dataset point to the fact that the incremental value

of Driving Behavior 360 is most pronounced at the younger ages and for males.

Figure 2. General population dataset – Results by age and gender

Age group	# of records	Deaths	MVR protective value	Driving Behavior 360 protective value	Incremental protective value of Driving Behavior 360
18-29	12,655,989	24,622	-25.4%	-30.3%	-6.6%
30-39	10,358,727	30,460	-21.5%	-25.9%	-5.5%
40-49	8,916,309	43,670	-14.1%	-17.1%	-3.5%
50-59	8,220,618	85,797	-9.2%	-10.9%	-1.9%
60-69	5,731,517	119,710	-5.2%	-6.1%	-0.9%
70-79	2,591,923	123,522	-3.0%	-3.3%	-0.2%
80-89	781,609	95,426	-2.2%	-2.4%	-0.2%
Total	49,256,692	523,207	-7.1%	-8.1%	-1.1%

Gender

Female	22,677,740	178,591	-5.5%	-6.3%	-0.9%
Male	26,578,952	344,616	-8.0%	-9.1%	-1.3%
Total	49,256,692	523,207	-7.1%	-8.1%	-1.1%

Cost benefit conclusion

The benefit of adding court records, with additional in-state and out-of-state driving violations and data from as far back as seven years to standard MVRs in life underwriting has proven to be valuable, particularly when underwriting younger ages. The ability of Driving Behavior 360 to capture and standardize data from disparate sources is not only valuable in terms of underwriting accuracy and efficiency, but it provides a foundation for rules-based automation. Based on Hannover's cost/benefit analysis, the use of Driving Behavior 360 is cost effective at face amounts as low as \$5,000-\$10,000 and is a valuable addition to underwriting requirements for today's life programs. For additional information on this study or to discuss the expected cost/benefit for your business, please contact us.

Contact for more information



Sean Conrad, FSA, MAAA, FIA, CFA
Vice President, Actuary

Tel. (704) 731-6382
sean.conrad@hlramerica.com

www.hannover-re.com