

Undertaking #27

MPI to provide a comparison of the methodology employed in the internal MPI study versus the Northport longitudinal study.

RESPONSE:

Both of the referenced studies used driver records to determine driver performance in terms of collisions and convictions. Specifically the HDSE analysis used collisions claims information and convictions. The Northport study used accidents reported through the police (traffic accident reports), collisions claims and convictions. In understanding the differences between the two groups, the Northport study also collected information about the group's perception, attitudes, knowledge, awareness and self reported accidents and convictions.

The major difference between the two groups is the analysis procedure or methodology utilized. The Northport study used a multiple variable regression approach in determining the differences between the DE and the non-DE group. The variables modeled were age, experience, gender, and region. These have an interaction effect on the dependent measure, that is, when all variables (e.g., age, experience, gender, and region), are accounted for, there were no statistical differences between the two groups in terms of:

- Accident experience
- Claims and convictions
- Attitudes and self reported accidents and convictions

With respect to driving experience, the Northport study collected this data through the survey of respondents. The weekly driving frequency was assigned a weight based on self-reported driving frequency. In contrast, in this year's HSDE analysis, the GDL Stage of the driver was used as a proxy to determine the experience of the driver for the two groups.

Overall, in all the tests for differences, the Northport study used the multiple variable regression modeling. In contrast, the HSDE used a single variable test of differences.

The two study time periods were also different. The Northport study took place in 2000 prior to the implementation of the graduated driver licensing program in Manitoba. In situations where there was re-testing, the first licensing date was lost. In this case, the record would have shown that a driver had fewer driving years than was actually the case due to the re-testing. The HSDE study has the benefit of comparing the GDL stage with the accident or conviction occurrence date.

Finally, with respect to determination of Driver Ed vs non-Driver Ed comparison groups, in the HSDE internal analysis the determination of drivers in the Driver Ed group was improved from the 2000 study due to introduction of the Driver Education System (DES) database.