Distracted Driving Research in Canada

Brian Jonah
Senior Researcher

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Observational Surveys of Driver Cell Phone Use

• Seat belt use surveys have been conducted across Canada since the mid-1970s,

• Since 2001, these surveys have been conducted in rural and urban communities in alternate years,

• Starting in 2006, observers also noted whether drivers were speaking on hand-held cell phones in both the rural and urban seat belt use surveys,

• These surveys have been funded by CCMTA and Transport Canada since 1990.
Rural Survey Methodology

- The survey was conducted in September 2006 and 2009,
- 252 sites stratified by province that includes towns with population of fewer than 10,000, but more than 1,000 inhabitants located outside any census metropolitan area or census agglomeration,
- Observation periods lasted 2 hours between 7:30 am and 18:30 pm,
- Observed only light duty vehicles (i.e., passenger cars, mini-vans, pick-ups, and sport utility vehicles,
- Vehicles were stopped at traffic light or stop sign,
- Two people observed drivers while another counted vehicles passing through site so observations could be weighted by traffic flow,
- Drivers’ cell phone use was observed,
- 22,642 drivers were observed:
  - 42.1% passenger cars
  - 26.8% minivans and SUVs
  - 31.1% pick-up trucks
Rural Driver Cell Phone Use by Jurisdiction

Rural Canada Cell Phone Use by Province/Territory

- Newfoundland & Labrador: 2006 - 1.2, 2009 - 1.4
- Prince Edward Island: 2006 - 0.8, 2009 - 2.9
- Nova Scotia: 2006 - 0.7, 2009 - 2.0
- New Brunswick: 2006 - 1.0, 2009 - 4.0
- Quebec: 2006 - 2.9, 2009 - 4.0
- Ontario: 2006 - 3.2, 2009 - 4.3
- Manitoba: 2006 - 1.6, 2009 - 4.0
- Saskatchewan: 2006 - 2.4, 2009 - 4.6
- Alberta: 2006 - 1.6, 2009 - 4.7
- British Columbia: 2006 - 1.6, 2009 - 3.0
- Yukon: 2006 - 0.6, 2009 - 2.9
- Northwest Territories: 2006 - 2.3, 2009 - 3.6
- Canada: 2006 - 2.8, 2009 - 3.6

Percentage of Drivers Using Cell Phone

CCMTA - Canadian Council of Motor Transport Administrators
Urban Survey Methodology

- The survey was conducted in September 2007 and 2010,
- 286 sites stratified by province and included communities with populations over 10,000 inhabitants,
- Observation periods lasted 2 hours between 7:30 am and 18:30 pm,
- Observed only light duty vehicles (i.e., passenger cars, mini-vans, pick-ups, and sport utility vehicles,
- Vehicles were stopped at traffic light or stop sign,
- Two people observed drivers while another counted vehicles passing through site so observations could be weighted by traffic flow,
- Drivers’ cell phone use was observed,
- About 75,000 drivers observed:
  - 54.5% in passenger cars,
  - 27.5% in minivans and SUVs,
  - 18.0% in pick-up trucks.
Urban Driver Cell Phone Use by Jurisdiction

Urban Canada Cell Phone Use by Province/Territory - 2010

- Newfoundland & Labrador: 5.6% (2007), 4.4% (2010)
- Prince Edward Island: 4.4% (2007), 3.4% (2010)
- Nova Scotia: 2.9% (2007), 3.6% (2010)
- New Brunswick: 2.9% (2007), 2.2% (2010)
- Quebec: 4.4% (2007), 3.2% (2010)
- Ontario: 7.4% (2007), 3.2% (2010)
- Manitoba: 5.1% (2007), 1.3% (2010)
- Saskatchewan: 2.8% (2007), 1.3% (2010)
- Alberta: 5.2% (2007), 5.2% (2010)
- British Columbia: 4.2% (2007), 3.3% (2010)
- Yukon: 4.2% (2007), 2.4% (2010)
- Northwest Territories: 3.4% (2007), 2.1% (2010)
- Canada: 5.9% (2007), 3.3% (2010)

Percentage of Drivers Using Cell Phone

CCMTA-Canadian Council of Motor Transport Administrators
Combined Urban/Rural Cell Phone Use 2009-2010

- Newfoundland & Labrador: 3.5%
- Prince Edward Island: 3.5%
- Nova Scotia: 3.6%
- New Brunswick: 1.8%
- Quebec: 3.3%
- Ontario: 3.3%
- Manitoba: 1.8%
- Saskatchewan: 1.8%
- Alberta: 4.9%
- British Columbia: 3.3%
- Yukon: 2.2%
- Northwest Territories: 2.1%
- Canada: 3.3%

Percentage of Drivers Using Cell Phone
Characteristics of Cell Phone Users

- Drivers aged 50 years and older (2.4%) were much less likely to use a cell phone than drivers 25 to 49 years old (4.5%) and drivers under 25 years (6.7%).
- A slightly greater proportion of women (4.5%) were on the phone than of men (4.0%).
- Phone use was higher among light trucks (5.0%) and minivans/SUVs (4.8%) than in passenger cars (3.7%).
- There was a slight tendency for drivers using their phones to be less often wearing their seat belt.
Future Cell Phone Use Surveys

• Most Canadian jurisdictions have passed laws prohibiting the use of hand-held cell phones and other electronic communication devices (ECDs) over the past 4-5 years,

• CCMTA wants to assist jurisdictions in determining whether there has been any change in driver cell phone use subsequent to passage of these laws,

• Decided to repeat urban and rural surveys but observe only use of ECDs by drivers and not seat belt use,

• Currently, there is a Request for Proposal out seeking contractor to gather data.
Future ECD Use Surveys

• Surveys will be conducted in Sept 2012 in urban areas and in Sept 2013 in rural areas,

• Same sampling plan will be adopted with the same stratification as in the earlier surveys,

• Same methodology will be used to maximize comparability of the data collected (e.g., times, vehicle types, vehicles stopped at intersections, etc.) with the data from earlier surveys.
Future Surveys

• Variables observed:
  • Jurisdiction,
  • Type of vehicle driven,
  • Use of ECD by driver,
  • Type of ECD use (i.e., speaking, texting),
  • Driver age (i.e., <25, 25-49, >49),
  • Sex of driver,
  • Presence of passengers.
Pilot Study

• It is recognized that it may be difficult to distinguish between use of ECDs for speaking vs texting,
• Therefore, prior to main urban survey, we plan to conduct pilot study at 10 sites to determine observers’ reliability in distinguishing between speaking and texting on ECDs,
• It is also recognized that ECD use may be different for drivers stopped at intersections compared to those in moving vehicles,
• Therefore, observers will be stationed midblock upstream from the intersection and at intersection so that the use rates can be compared.
Analysis of Data

- Data will be used to determine rate of ECD use in each jurisdiction and nationally,
- In order to determine if there has been a change in cell phone use as result of passage of laws, only use of ECDs for speaking will be compared with cell phone use observed in earlier rural and urban surveys,
- Different survey years will be used for pre and post law comparisons in different jurisdictions since laws prohibiting hand-held devices came into effect at different times.
- Expect results for urban survey to be available in early 2013 and the combined urban/rural survey results in early 2014.
BC Observational Surveys

- U of Victoria conducted surveys for BC government to determine impact of Jan 2010 cell phone law on use,
- First survey was conducted in Feb 2009 (before law) and April 2010 (after law) at 40 intersections in Victoria,
- Observed only drivers with cell phone to ear,
- Before law was passed, survey found that cell phone use was 4.4%,
- After law was passed, survey found that cell phone use was less than 1%, an 80% reduction in cell phone use post-law.
Manitoba Education Campaign

- Manitoba Public Insurance (MPI) conducted educational campaign called “See the Signs” using TV ads in 2009 to reduce driver use of cell phones,

- MPI conducted telephone survey to evaluate campaign,

- 55% of adult drivers strongly agreed that campaign convinced them to not use a hand-held cell phones to talk or text while driving,

- 33% of adult drivers said they changed their driving habits as result of seeing the commercial.
Quebec Surveys 2006 & 2009

- Surveys conducted for Societe de l’assurance automobile du Quebec,
- 1,000 people 18+ interviewed by telephone,
- Use of cell phone increased from 52 to 56%,
- Use of cell phone while driving in last 7 days decreased from 41 to 32%,
- Cell phone use higher in 2009 for:
  - Men,
  - Respondents aged 18-24,
  - Respondents with higher income and education,
- 48% supported full cell phone prohibition in 2009.
Nova Scotia Survey

- 1,445 drivers interviewed by telephone mid 2009,
- In one month prior to interview:
  - 13% used cell phones while driving,
  - 6% used technical devices,
  - 2% texted,
  - 13% had to brake or steer to avoid collision because they were distracted by something, not just cell phone use,
- As a result of the 2008 cell phone law in NS:
  - 39% said that they no longer use hand-held devices,
  - 39% said that they use hands-free devices,
  - 22% still use hand held devices.
Conclusions

• There has been a considerable amount of research conducted in Canada on distracted driving, particularly related to the use of electronic communication devices,

• We need to know more about the effectiveness of measures to reduce this distraction (e.g. education, laws prohibiting ECD use, enforcement),

• Also, need to know more about risks posed by hands-free technology either that fitted to vehicles as original equipment or brought into vehicle by driver.