Young Drivers: Attitudes, Behaviour, Motivations

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Trinity College Dublin
Age distribution of male drivers responsible for fatal single- (n=106) and two-vehicle (n=89) collisions 2001-2004 (Border region RoI + Meath)
Northern Ireland

In border District Command Units from 1998-2003

Drivers aged between 17 and 24 years

- Caused 28% of all collisions
- Caused 46% of all single-vehicle collisions
Age distribution of drivers responsible for fatal single-(n=67) and two-vehicle (n=27) collisions 2001-2004 and known to have consumed alcohol (Border region RoI + Meath)
Of drivers responsible for fatal two-vehicle collisions, and known to have consumed alcohol…

…all but one were over the legal limit

…and about half had BACs 2 to 4 times the legal limit
Contributory factors in fatal collisions, RoI border counties and Meath 2001-2004

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<thead>
<tr>
<th></th>
<th>Single vehicle (%)</th>
<th>Two-vehicle (%)</th>
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</thead>
<tbody>
<tr>
<td>Speed alone</td>
<td>26</td>
<td>44</td>
</tr>
<tr>
<td>Alcohol alone</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Speed combined with alcohol</td>
<td>47</td>
<td>16</td>
</tr>
<tr>
<td>Driver error</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
<td>14</td>
</tr>
</tbody>
</table>
Drivers *not* wearing seat-belts in fatal collisions, RoI border counties and Meath 2001-2004

<table>
<thead>
<tr>
<th>Single vehicle (%)</th>
<th>Two-vehicle (%)</th>
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<tbody>
<tr>
<td>66</td>
<td>56</td>
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</table>
OVER-REPRESENTATION OF YOUNG DRIVERS / RIDERS RESPONSIBLE FOR FATAL COLLISIONS WHERE EXCESSIVE SPEED WAS CITED AS CONTRIBUTORY FACTOR BY AGE/GENDER 1996-2004 (INDEXED AGAINST DRIVER POPULATION BY AGE/GENDER)

Source: Calculated from NRA/RSA / TGI Data
(680 Drivers Responsible 1996-2004)
OVER-REPRESENTATION OF YOUNG ADULT CAR OCCUPANTS IN ROAD DEATHS OF THOSE NOT WEARING SEATBELTS BY AGE & GENDER 1996-2004 (INDEXED AGAINST POPULATION BY AGE/GENDER)

Source: Calculated from NRA/RSA / Census Data
(696 Road Deaths 1996-2004)
We have a young driver problem and in particular a young male driver problem

We are not alone in this

- Young drivers account for about 27% of driver fatalities across OECD countries
- Young male drivers’ crash fatality rates are about three times those of young female drivers.
- Young people, especially men, are over-represented in crashes at high speed, at night, with similarly aged passengers, involving alcohol, and often when not wearing seatbelts.
HOW SAFETY MARGIN IS DETERMINED

as gap shrinks, SAFETY MARGIN decreases

CAPABILITY

TASK DEMAND
HOW SAFETY MARGIN IS DETERMINED

- Capability
- Task Demand
- Competence

Biological characteristics
Education, training, experience
HOW SAFETY MARGIN IS DETERMINED

- **COMPETENCE**
  - biological characteristics
  - education, training experience

- **CAPABILITY**
  - human factor variables
  - effort

- **TASK DEMAND**
HOW SAFETY MARGIN IS DETERMINED

COMPETENCE

human factor variables

biological characteristics
education, training, experience

effort

CAPABILITY

vehicle, environment, road users, speed

TASK DEMAND
Shift towards low safety margin (TD=C)
Shift towards low safety margin (TD=C)
Problem of poor calibration

- **Task demand/Driver capability**
  - high
  - low

- **Objective task demand**

- **Objective driver capability**

- **Actual safety margin**

- **Perceived capability**

- **Perceived safety margin**

- **Perceived task demand**
Steering to Safety Survey: young driver behaviour

18-24 age group (n=380) most often reported

‘I sometimes, or more frequently, drive faster than the speed limit…’

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<thead>
<tr>
<th></th>
<th>Own side of border (%)</th>
<th>Other side of border (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>between towns</td>
<td>38</td>
<td>41</td>
</tr>
<tr>
<td>on country roads</td>
<td>35</td>
<td>33</td>
</tr>
<tr>
<td>in built-up areas</td>
<td>35</td>
<td>31</td>
</tr>
</tbody>
</table>
Steering to Safety Survey: young driver behaviour

18-24 age group (n=380) most often reported

‘I sometimes, or more frequently,’

• overtake when I can just make it (47%)
• race another driver (30%) (mention of thrill of being chased by Gardai; casual attitude towards street racing)
• tailgate (39%)
• make a mobile call when driving (75%)
• text when driving (47%)
Steering to Safety Focus Groups: young driver behaviour

• Some young drivers
  – drink before driving to gain confidence
    “I’m a better driver when I’m drunk”
  – drinking and driving is a recurring activity
  – mates phoned in pub to warn of checkpoints
  – prevalent travelling with high BAC driver
THE CONDITIONS FOR INAPPROPRIATE HIGH SPEED
A REVIEW OF THE RESEARCH LITERATURE FROM 1995 TO 2006

R Fuller, H Bates, M Gormley and B Hannigan
School of Psychology, Trinity College, Dublin 2
S Stradling, P Broughton, N Kinnear and C O'Dolan
Transport Research Institute, Napier University, Edinburgh EH10 5BR

Report under Contract Number PPRO 4/001/015
Improved Driver Information on Speed /Accident Risk (T201G)

Department for Transport
Road Safety Strategy Division
Zone 2/09, Great Minster House
76 Marsham Street
London SW1P 4DR
Young males compared to young females

- Drive faster
- Commit more traffic offences
- Are more persistent in risky driving
- Underestimate hazards more
- Overestimate driving skills (capability)
  - Young male drivers (≤25 years) almost three times more likely to rate themselves as excellent drivers
- Reveal more favourable attitudes to risk
- Are involved in more collisions
Understanding sex differences

• **Females more compliant** (SARTRE 3 - on main roads between towns, lowest compliance young males <25 years (43%), highest older females >55 years (92%))

• **Females less aggressive**

• **Females less prone to sensation seeking**
Adolescent Risk Taking: Implications for Public Policy

Dan Romer
Annenberg Public Policy Center

Angela Duckworth
Center for Positive Psychology
University of Pennsylvania

Presentation for
American Psychological Society

Steering to Safety - Oct 2007
Why do most 16-year-olds drive like they’re missing a part of their brain?

BECAUSE THEY ARE.

Romer and Duckworth, 2007
Relation to Risk Taking

- Despite the evidence for these maturational changes…
- There is no evidence that they are related to impulsivity or risky behavior
- Indeed, adolescent decision making ability seems remarkably similar to that of adults

Romer and Duckworth, 2007
Sensation Seeking: Ages 14 to 22

National Annenberg Survey of Youth, 2002-03

Romer and Duckworth, 2007
Implications

- sensation seeking as a “Go system” for risk taking
- adolescence as the period of increasing reward for novel and exciting experience

Romer and Duckworth, 2007
Relation to Risky Behaviour

• Sensation seeking correlated with wide range of risky behaviors:
  – Risky Driving
  – Drugs
  – Sex
  – Gambling
  – Delinquency

Romer and Duckworth, 2007
Arrests Peak

FBI, 2001

Romer and Duckworth, 2007
Drug Use Peaks

Monitoring the Future, 2003

Drug Use in 1991 Cohort

Romer and Duckworth, 2007
Peer Influence

- Another feature of extended adolescence is prolonged exposure to peers
- Sensation seekers affiliate with similar peers
- Amplify reward associated with novel experiences

Romer and Duckworth, 2007
Effects of Passengers

Williams, 2001

Romer and Duckworth, 2007
Implications

• Even though decision making ability similar to adults
• Adolescents experience greater reward for engaging in novel and exciting behavior
• Sensation seeking peak consistent with trajectories of risky behavior
• Peers amplify the effect

Romer and Duckworth, 2007
Psychosocial functions of driving

• Attract attention
• Identify with adult status
• Attract status through fast driving, demonstration of mastery
• Driving as pleasure activity: A to A
Driving without destination

*Behaviours, attitudes and motivations of pleasure drivers: an exploratory study into driving without destination amongst an Irish population*

Aoife DeBrun, Dearbhla Minogue, Lisa O’Connor, Jenny Pugh and Grace Shorten
School of Psychology, Trinity College Dublin
April, 2007
Survey

- Dublin and Monaghan NCT centres (50% of sample)
- Institute of Technology in west of Ireland (37%)
- 5th year in Dublin 3 secondary school
- Members of racers’ Haven Message Board (www.racershaven.com)
Pleasure drivers \((n=235)\)

‘one or more hours per week driving without destination’

- Most prevalent in 20-24 age group
- 80% male
- Less likely to have one or more children
- More likely
  - to drive with friends
  - to rate driving experience as fun, free, fast and relaxing
  - to rate as very important or crucial the car’s appearance, acceleration and maximum speed
- More likely
  - to admit to speeding
  - to have received penalty points
Second brief survey online, 97% \((n=113)\) from:

- RacersHaven.com
- Driver.ie
- Manic-Motorz.com
- Bebo.com
- Boards.ie
- Midnightclub.ie

- 91% male; 50% aged 20-24 years
What would you do or feel if you woke up tomorrow and could never drive again?

- Sadness (41%)
- Helpless/lost (13%)
- Suicidal (12%)
What does the feeling of driving compare to, for you?

- Freedom (23%) and Independence (13%)
- There is nothing like it (14%)
- Relaxation (14%)
- Exhilaration (10%) (17% of young pleasure drivers in CAWT study)
- Power and control (9%)
- Sex (6%)
Can we influence young drivers?

Romer and Duckworth - help youth to:

- Generate alternative solutions to problems
- Evaluate consequences
- Consider effects on others
- Recognize undue peer influence
- Seek help when needed
Can we influence young drivers?

• Romer and Duckworth’s solutions are partly educational and partly therapeutic
• May need focused enforcement in short term
• In medium term use of ISA or related technology to control repeat offenders and introduction of requirement to attend speed awareness course
Can we influence young drivers?

- In medium term, role of education and training seems central:
  - Development of appropriate attitudes to car use
  - Including development of perceived norms anchored in reality
  - Development of understanding of own impulses and needs and limitations
  - Development of understanding of social processes and effects on behaviour and how to deal with them
  - Development of skills in hazard perception
  - Development of skills in how **not** to create hazards
  - Transfer to alternative modes of self expression and sensation seeking