Characteristics of Police-reported Road Traffic Crashes in Ethiopia over a Six Year Period

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Outline

• Background
• Methods
• Results
• Conclusions
Background (Ethiopia)
Background (cntd)

- Over 90% of the world’s road traffic fatalities in developing countries
- Vehicle population in Ethiopia: ca 400,000
- Road network: 52,000 kilometres <19% paved
- Over six year period
  - 14,542 fatalities
  - 51,573 injuries
Methods

Source of Data

• Ethiopian Police Commission (six years’ data 2005-2010)
• Population census data (2007)

Analysis

• Descriptive statistics
Results - time variation of crashes

Number of Crashes vs Time of Day

- 2009
- 2008
- 2007
- 2006
- 2005
- Average
## Fatalities for Road Users in Gender and Age Groups

<table>
<thead>
<tr>
<th>Age</th>
<th>Drivers</th>
<th>Passengers</th>
<th>Pedestrians</th>
<th>Total</th>
<th>Annual Fatalities per 100,000 pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>&lt;18</td>
<td>45</td>
<td>6</td>
<td>513</td>
<td>271</td>
<td>3,120</td>
</tr>
<tr>
<td>18-30</td>
<td>506</td>
<td>28</td>
<td>2,262</td>
<td>612</td>
<td>5,651</td>
</tr>
<tr>
<td>31-50</td>
<td>355</td>
<td>29</td>
<td>1,274</td>
<td>308</td>
<td>3,949</td>
</tr>
<tr>
<td>≥ 51</td>
<td>96</td>
<td>5</td>
<td>295</td>
<td>167</td>
<td>1,822</td>
</tr>
<tr>
<td>Total</td>
<td>1,002</td>
<td>68</td>
<td>4,344</td>
<td>1,358</td>
<td>14,542</td>
</tr>
</tbody>
</table>
Fatalities by road user types

- Drivers: 7%
- Pedestrians: 54%
- Passengers: 39%
Results - Road environment

- Road types

- Midblock (non-intersection) areas

- Crashes by land use
  - rural villages, CBD and urban residential areas
Results - crashes by collision types

- Collision types
  - 49% pedestrian-vehicle collision
  - 17% rollover crashes
Results - crashes by vehicle types

- Commercial: 48%
- Buses: 35%
- Car: 10%
- Others: 7%
Conclusions

- The variation of crashes by time of day follows a similar pattern to variations in traffic volumes.
- Road users age between 18-30 are overrepresented.
- Most crashes occurred on paved and two-way two-lane roads (interstate and cities).
- The absence of a median area contributed to higher crashes.
- Pedestrian crashes are the dominant type (road users and collision types).
- Commercial vehicles, and buses have a high involvement.
Thank you