Road safety data analysis in France

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Head of the French Road Safety Observatory
AGENDA

I. 70 years of Road Safety data analysis
II. The French Road Safety Observatory
III. Road safety data analysis
IV. Case study: lowering the speed limit to 80 km/h
70 years of Road Safety data analysis
70 years of Road Safety data analysis

Fatalities

Fatalities within 30 days

- 18,034 in 1972
- 8,253 in 2001
- 2,944 in 2021

Years:
- 1952
- 1962
- 1972
- 1982
- 1992
- 2002
- 2012
- 2021
70 years of Road Safety data analysis
70 years of Road Safety data analysis

Fatalities within 30 days

Motorised traffic (in billions km travelled)

Number of fatalities / billion veh.km

Fatalities/traffic
70 years of Road Safety data analysis

1972: Creation of the Interministerial Road Safety Committee (CISR) and the Interministerial Road Safety Directorate (DSR)

1993: The French Road Safety Observatory is interministerial (ONISR)

2001: The Road Safety National Council (CNSR)

Government departments are engaged

- Ministry of Interior
- Ministry of Transport
- Ministry of Health
- Ministry of Justice
- Ministry of Education
- Ministry for Work

Prime Minister

CISR

DSR

CNSR

4 working groups
Expert committee

Members of Parliament

Local communities

Associations
Insurance Cies

Civil society stakeholders

Professionnal organisations

Road operators
70 years of Road Safety data analysis

Road traffic fatalities trend along some road safety measures in France
ONISR, which reports to the Interministerial Road Safety Director, is responsible for collecting, formatting, interpreting and disseminating French statistical data relating to road safety.

ONISR centralises the accident information recorded by the police forces in a national database. Assisted by the network of departmental/regional observatories and Cerema, it checks and validates the database.

ONISR directs the study and research programme financed by the Road Safety Directorate, thus guiding research, monitoring road accidentology studies and directing the evaluation of road safety measures taken or envisaged.

The main crash indicators have been certified by the French Authority for Public Statistics.

Work to be made public to justify road safety measures
The French Road Safety Observatory (ONISR)

- Independance
  - A sensitive policy
  - An interministerial policy
  - ONISR reports to the interministerial road safety director

- Quality
  - Controlled data collection
  - Automatised treatments
  - Crossing data sources
  - Published indicators
  - Crash data base in open data
  - Supervising committee

- Institutional framework
  - Certification by the French Authority for Public Statistics (in 2013 and 2019)
  - European code of best practice
  - Decree of CISR organisation
The French Road Safety Observatory (ONISR)

Road safety data analysis in France
The French Road Traffic Accident database:

- Date
- Time
- Postcode
- Crossing
- Weather
- Collision type
- GPS coordinates
- Address

**Road**
- Type
- Number
- Marker Post
- Pavement surface
- Layout
- **Factors**
- Crash localisation

**Vehicles**
- Category
- Country
- **Factors**
- Point of impact
- Main manoeuvre before crash

**Usagers**
- Driver/passenger
- Pedestrian
- Injury severity
- Age
- Gender
- Safety equipments
- Driving license
- **Factors**
- Alcohol/Drugs
Road safety data analysis

The French Road Traffic Accident database Information System

27th Sept 2022
Road safety data analysis in France
Road safety data analysis

From UN road safety pillars to data sources

- **Pillar 1**: Road safety management
  - Stakeholders: Population
  - Traffic: Vehicle ownership

- **Pillar 2**: Safer Vehicles
  - RS culture: Driving license
  - Stakeholders: Vehicle ownership

- **Pillar 3**: Safer Road Users
  - Mobility needs: Emergency services and hospitals
  - Stakeholders: Road network

- **Pillar 4**: Post-Crash Response
  - Stakeholders: Emergency services and hospitals
  - Traffic: Road network

- **Pillar 5**: Safer Driving Environment
  - Stakeholders: RS culture
  - Traffic: Road network

27th Sept 2022
Road safety data analysis in France
Road safety data analysis

Fatalities vs seriously injured (M.AIS3+ estimate):

2,944 fatalities, 240,000 injured people (incl 16,000 seriously injured) – France 2021

Priority motorised road users
Priority vulnerable road users
Priority 18-34y/o and senior people
Priority young people
Road safety data analysis

Risks according to age and mobility solution

Risk to be killed
(per billion minutes of time spent)

Risk to be seriously injured
(per billion minutes of time spent)
Road safety data analysis

Targetting presumed responsible profiles:

Among the 2,944 people who died in 2021:
- 1,807 were responsible for their crash
- 1,137 people (39%) died because of somebody else

People responsible for fatal accidents according to their mobility mode in 2021

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Walking</th>
<th>Cycling</th>
<th>Moped</th>
<th>Moto</th>
<th>Car</th>
<th>LGV</th>
<th>HGV</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-13 y/o</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14-17 y/o</td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24 y/o</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21%</td>
</tr>
<tr>
<td>25-34 y/o</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18%</td>
</tr>
<tr>
<td>35-44 y/o</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14%</td>
</tr>
<tr>
<td>45-54 y/o</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13%</td>
</tr>
<tr>
<td>55-64 y/o</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12%</td>
</tr>
<tr>
<td>65-74 y/o</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9%</td>
</tr>
<tr>
<td>75-84 y/o</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7%</td>
</tr>
<tr>
<td>85 y/o +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4%</td>
</tr>
</tbody>
</table>

Numbers of presumed responsible car drivers – alive or dead

<table>
<thead>
<tr>
<th>Age Group</th>
<th>PR alive</th>
<th>PR dead</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24 y/o</td>
<td>205</td>
<td>209</td>
</tr>
<tr>
<td>25-34 y/o</td>
<td>166</td>
<td>138</td>
</tr>
<tr>
<td>35-44 y/o</td>
<td>99</td>
<td>118</td>
</tr>
<tr>
<td>45-54 y/o</td>
<td>67</td>
<td>93</td>
</tr>
<tr>
<td>55-64 y/o</td>
<td>62</td>
<td>91</td>
</tr>
<tr>
<td>65-74 y/o</td>
<td>43</td>
<td>115</td>
</tr>
<tr>
<td>75-84 y/o</td>
<td>47</td>
<td>87</td>
</tr>
<tr>
<td>85 y/o +</td>
<td>23</td>
<td>65</td>
</tr>
</tbody>
</table>

Numbers of presumed responsible car drivers per million hours driven – alive or dead

<table>
<thead>
<tr>
<th>Age Group</th>
<th>PR alive</th>
<th>PR dead</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24 y/o</td>
<td>139</td>
<td>142</td>
</tr>
<tr>
<td>25-34 y/o</td>
<td>72</td>
<td>60</td>
</tr>
<tr>
<td>35-44 y/o</td>
<td>26</td>
<td>22</td>
</tr>
<tr>
<td>45-54 y/o</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>55-64 y/o</td>
<td>24</td>
<td>21</td>
</tr>
<tr>
<td>65-74 y/o</td>
<td>68</td>
<td>64</td>
</tr>
<tr>
<td>75-84 y/o</td>
<td>125</td>
<td>93</td>
</tr>
<tr>
<td>85 y/o +</td>
<td>522</td>
<td>413</td>
</tr>
</tbody>
</table>
Road safety data analysis

Combination of human factors according to the age of presumed responsible persons

18-34 years old: 3,304 PR
- Drowsiness-fatigue: 2%
- Driving under the influence of alcohol: 7%
- Driving under the influence of drugs: 20%
- Inattention: 5%
- Priority rules violation: 1%
- Speed: 17%
- Dangerous overtaking: 3%
- Mobile phone: 1%

35-54 years old: 2,318 PR
- Dangerous overtaking: 29%
- Driving under the influence of alcohol: 10%
- Driving under the influence of drugs: 13%
- Inattention: 8%
- Speed: 10%
- Priority rules violation: 4%
- Sickness: 5%

55 years or older: 2,573 PR
- Sickness: 21%
- Inattention: 11%
- Priority rules violation: 10%
- Speed: 8%
- Wrong way: 2%
- Driving under the influence of alcohol: 5%
- 16%
Case study: lowering the speed limit to 80 km/h

Before studies

When the main network represents:
- 10% of RN+RD network length, it registers 38% of the fatalities
- 20% of RN+RD network length, it registers 55% of the fatalities
- 30% of RN+RD network length, it registers 64% of the fatalities

Cerema 2015-2017 study:
Traffic and accident shares of the main county roads

The most serious accidents occur first on the primary network, as this is where most of the traffic is
Case study: lowering the speed limit to 80 km/h

After studies

Daily average speeds in June (before) and July (after) 2018 on the network impacted by the 80 km/h on 1st July

Change in trips duration between June 2018 and June 2019 (second/km)

On average, a trip duration extended by one second per kilometre

Base 100: development of gliding 12 months fatalities 2016-2019 per network type: non-motorway network outside urban areas vs remaining network (urban areas and motorways)

Urban areas and motorways

non-motorway network outside built-up areas

80 km/h 01/07/2018
More information on our website

https://www.onisr.securite-routiere.gouv.fr/en