Statistics on motor vehicles

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Statistics on motor vehicles

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Statistics on motor vehicles

Data source: Finnish Transport and Communications Agency Traficom
- Electronic transport register
- Information on road vehicles: obligation to register
- Vehicle class: passenger cars, LCV, trucks, buses and coaches, tractors, snow mobiles, motor-driven working machines, mopeds, motorcycles, four-wheelers, trailers
- Statistical unit: number of vehicles
  - By technical feature of the vehicle
  - Information on owner/possessor of the vehicle
  - Odometer readings included in motor vehicle stock
  ~ 130 variables
Data quality of vehicle register

Data quality of vehicle register is generally good

The quality of tax-related information is very good

Not mandatory variables usually lack information

Driving power

Battery electric cars (BEV), plug-in hybrid electric cars (PHEV), non plug-in hybrids

Body type (sedan/wagon)
Data collection
- Line transfer
- Data format: XML, CSV

Editing
- Conversion to SAS-data
- Rule-based editing

Processing
- Data analysis
- Publication tables
- Tailor made statistics

Dissemination
- Statistical database tables
- Metadata directed tabulation
- SAS-macros
- Metadata is managed centrally
Example Statistics

1) Monitoring CO2-emissions from new passenger cars

2) Road Traffic Performance monitoring
1) Monitoring CO2-emissions from new passenger cars

**Main data set**
- First registrations of new cars

**Data provider**
- The Finnish Transport and Communications Agency Traficom

**Additional administrative data sets**
- Supplementary datasets from Traficom to improve data quality and coverage (type approval information)
Monitoring CO2-emissions from new passenger cars

• Regulation (EU) 2019/631 sets CO2-targets for new passenger cars registered in European Union
  - Average CO2-emission limit for each car manufacturer
  - Every EU-member state sends CO2-monitoring detailed data yearly to European Environment Agency (EEA)
  - Average CO2-emissions for each car manufacturer

➢ Exceeding the target will be expensive for car manufacturer
➢ Local CO2-emissions of battery electric vehicle are zero
➢ Car manufacturers favor battery electric cars (BEV/FEV) at this moment to achieve the targets
➢ Last year 1-12/2023 every third new passenger car registered was battery electric car in Finland!
  - 30 000 new battery electric passenger cars registered in 2023, double the number of year 2022

➢ The Finnish Transport and Communications Agency Traficom is responsible to report monitor-data
  ➢ Statistics Finland and Traficom carrying out monitor-data in co-operation
2) Road Traffic Performance monitoring

<table>
<thead>
<tr>
<th>Main data set</th>
<th>Data provider</th>
<th>Additional administrative data sets</th>
</tr>
</thead>
</table>
| • Motor Vehicle Stock  
  • Point of time 31.12. | • The Finnish Transport and Communications Agency Traficom | • Traffic performance on highways by Finnish Transport Infrastructure Agency |
Road Traffic Performance monitoring

The data is based on odometer readings saved in the transport register.

At the time of regular (yearly) inspection.

Odometer readings are included in motor vehicle stock data.

The odometer data is further processed to performance data for cars by Statistics Finland.
Road Traffic Performance data

- Mileage pairs → difference → average daily driving kilometres
- There is missing values → results must be grossed up to car stock
- Stratification by car class, year of first registration, driving power (petrol, diesel, other)
- Vehicle kilometres by car class and by every strata for statistical year
- Source data for Greenhouse Gas emissions calculation in Energy sector
# Road Traffic Performance year 2021

## Million car-kilometres

<table>
<thead>
<tr>
<th>Car class</th>
<th>Highway*</th>
<th>Street and private road</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger cars</td>
<td>28,986</td>
<td>9,785</td>
<td>38,771</td>
</tr>
<tr>
<td>Vans</td>
<td>4,335</td>
<td>1,442</td>
<td>5,777</td>
</tr>
<tr>
<td>Lorries, &gt; 3,5 t</td>
<td>2,958</td>
<td>338</td>
<td>3,296</td>
</tr>
<tr>
<td>Buses and coaches</td>
<td>315</td>
<td>146</td>
<td>461</td>
</tr>
<tr>
<td><strong>All cars total</strong></td>
<td>36,594</td>
<td>11,711</td>
<td>48,305</td>
</tr>
</tbody>
</table>

*Source: Finnish Transport Infrastructure Agency*

The average passenger car travelled **14,000 kilometres** in 2021 in Finland
Data challenges for vehicle kilometres

• Total vehicle kilometres driven during year is based on regular vehicle inspections
• Legislation on passenger car and van inspections changed in 2018: first inspection after four years since first registration, after that biennial inspection at 6 to 10 years
  → Less information on the newer passenger cars and vans
    ➢ which are driven relatively lot
  → Less information on vehicle kilometres of electric cars
  → Regional traffic performance?
    • Traffic performance on highways by Finnish Transport Infrastructure Agency
Conclusions

✓ Statistics on motor vehicles is based on administrative data
✓ With regular delivery (registrations monthly, stock quarterly)

✓ Basic statistics by vehicle class and fuel type (numbers) are in good quality

✓ There are some data challenges in vehicle kilometres by detailed classifications (fuel type,...)
  ❖ Statistics Finland will try to fill these gaps
  ❖ e.g. Data concerning car sales includes odometer readings for newer cars
Thank you!

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