Economic Commission for Europe
Inland Transport Committee
Working Party on Transport Statistics
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Dissemination of transport statistics by The United Nations Economic Commission for Europe

Improvements to transport statistics dissemination

Note by the secretariat

I. Background

1. The United Nations Economic Commission for Europe (UNECE) disseminates data through two biennial publications — Inland Transport Statistics for Europe and North America and Statistics of Road Traffic Accidents in Europe and North America, through the annual production of Transport Statistics Infocards in advance of the annual session of the Inland Transport Committee, and through regular updates to its online transport statistics database (w3.unece.org/PXWeb/en). The data for each are collected through the Web Common Questionnaire (WebCoQ) and specialized questionnaires sent to countries. These data are updated on a regular basis with the most up-to-date data found in the online database.

2. Since the sixty-eighth session of the Working Party, the two primary publications were produced and disseminated as planned and the Infocards were similarly disseminated online in December 2017. The online database was updated through the year and substantial improvements were made to the quality and availability of the data disseminated.

II. Improvements

3. In order to further develop the work and output of Working Party, a number of improvements have been introduced to modernize the manner in which data is provided and used. These improvements are set out in this section.
A. Reorganization of website structure

4. A first step was to improve the user experience of searching data through the UNECE online transport statistics database. Several users of the website had expressed confusion with where certain data could be found, particularly for Road Safety and Road Vehicle Fleet statistics. In addition, some data collected through WebCoQ and/or published in the main UNECE transport statistics publications were not available on the website. In response, the following changes were made:

   (a) All data in the database are now disseminated;

   (b) Table titles have been reviewed to ensure clarity and consistency and to exclude extraneous information, for example:

   (i) Previous title: Road Traffic Accidents by Country, Accident Type, Road Condition and Time

   (ii) Current title: Road traffic fatalities, injuries and accidents involving injury by road condition;

   (c) Tables have been combined wherever cross-tabulations were available between variables, for example:

   Number of fatalities per 100 000 passenger cars

   Rate per 100 000 passenger cars of road traffic fatalities and injuries

   Number of injured per 100 000 passenger cars

5. These changes resulted in a decrease in the total number of tables disseminated, facilitating user navigation, while also increasing the indicator availability and eliminating indicators that are no longer collected. Changes to the Road Safety (renamed from Road Traffic Accidents) and Road Vehicle Fleet statistics were especially substantive with the consolidation of several tables and the creation of new tables with breakdowns of road traffic fatalities and injuries by gender and age group, as well as for new road vehicle registrations for vehicles other than passenger cars.

B. Upgraded data validation procedures

6. The secretariat has also improved its data validation procedures since the Working Party’s previous session. An algorithm for detecting outliers in the current online database was implemented and used to identify combinations of countries and indicators for which time series are erratic. The secretariat investigated the resulting list of indicators to determine if changes in the data were needed due to inconsistent use of units or if follow-up with countries was needed to explain breaks in the time series.

7. In addition to the secretariat’s use of this algorithm, it developed a new data validation workbook which conducts sum checks and provides an easier visual country-by-country check of data for analysis. This new tool identifies potentially incorrect data before they are published.

8. After identifying indicators requiring follow-up, the secretariat contacted countries with specific questions on unusual time series to either correct or better understand breaks in data series. The secretariat subsequently updated the relevant data in the database or added footnotes as necessary. This data validation process of checking data and following up with countries will be implemented regularly in the future.
C. Implementation of 2013 structural changes in Web Common Questionnaire

9. Changes in the structure of the Web Common Questionnaire have been in place since the 2013 data collection and sufficient data in this new format are now available. To account for these changes, the secretariat updated its website database to reflect changes in the load capacity breakdown of road goods vehicles, the addition of new (older) age categories for all road vehicles, as well as changes in the age and load capacity breakdown of inland waterway vessels. Several other tables of related indicators with the former breakdown were discontinued, but are still available on the website for the convenience of users.

10. An additional table showing the road vehicle kilometres on national territory of vehicles registered in the reporting country was added to the website to coordinate the indicators published in the online database with the indicators published in the Inland Transport Statistics for Europe and North America. Users can now choose between road vehicle kilometres run by vehicles registered in the reporting country or by all vehicles irrespective of the country of registration.

D. Publication of new indicators

11. Since 2013, a stable set of indicators on bus and coach statistics have been collected through the Web Common Questionnaire as a pilot questionnaire. Given the level of response from countries, the secretariat began publishing these data in its online database in December 2017. Indicators are collected on the number of passengers, vehicle kilometres, journeys offered, seat kilometres offered and passenger kilometres for long-distance bus and coach journeys (excluding local bus trips). Publishing these indicators will allow users to compare data between countries and with other long-distance modes of transportation such as trains.

12. As a result of a decision of the Working Party, an additional set of indicators on railway traffic accidents were collected through a pilot questionnaire sent in 2017. The secretariat sent this questionnaire to all member States not covered by the database of the European Union Agency for Railways (all 28 European Union Member States, plus the former Yugoslav Republic of Macedonia, Norway, Switzerland and Turkey). These indicators report the number of killed or injured rail passengers and employees broken down by the nature of the accident. The data are now available on the secretariat’s online database.

III. Future work

13. The secretariat will continue to work to improve its data dissemination and review its methods to find areas for improvement. The Working Party may wish to guide the secretariat on future areas of focus in this area.