



Economic Commission for Europe**Inland Transport Committee****Working Party on Transport Statistics****Seventy-third session**

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Item 3 of the provisional agenda

Big Data for transport statistics**Mainstreaming Mobile Phone Data into Transport Statistics
Production****Note by the secretariat***Summary*

This document discusses applications of Mobile Phone Data for producing transport statistics, and how members of the Working Party on Transport Statistics may contribute to these applications at the international level, in particular by sharing country experiences of using these data.

I. Background

1. For a number of years, the interest in using new data sources for the production of official statistics has increased. These new data sources are often examples of “big data”, which are characterised by the volume, velocity and variety of the information collected. Examples include satellite imaging, price scanner data, Automated Information System data on ship locations, information scraped from social media updates and many more. Mobile Phone Data (MPD) sources can be particularly useful in the context of transport and mobility, especially when the majority of the population carry them for most of the day.
2. Due to the COVID-19 pandemic, big data sources and particularly MPD became potentially even more attractive. Many governments under rapidly changing mobility scenarios needed to understand transport trends on a weekly or daily basis, or for small sub-national regions, data for which may not be available from traditional data sources or with too big a time lag. This desire for information was also due to a desire to track the virus itself, as mobility between regions was an important factor in viral spread within a country.
3. Responding to this, UNECE and the International Transport Forum organised two webinars in 2020 and 2021 (see ECE/TRANS/WP.6/2021/4). These informal sessions allowed statistics office to learn from the efforts of others (in countries, international organisations and the private sector) to integrate new data sources into official statistics production.

II. Mobile phone data for transport statistics

4. The United Nations Statistical Commission at its 45th session agreed to create the UN Committee of Experts on Big Data and Data Science for Official Statistics (UN-CEBD) to further investigate the benefits and challenges of Big Data (E/2014/24).¹ One of the task teams under the UN-CEBD is specifically on Mobile Phone Data (MPD), which is chaired by the International Telecommunications Union. The task team has a plan to develop several handbooks on specific use-cases of MPD, one of which is on transportation and commuting statistics.

5. The outline of this handbook has been drafted but input from statistical offices is necessary in order to improve the structure. In particular, country examples are sought of using MPD in official statistics production, as well as experimental statistics production and any ongoing research projects. Adding practical examples in this fashion will increase the value of the finished handbook for other countries.

III. The case for future work

6. In addition to providing any relevant examples of their own work with MPD, interested member States are welcome to participate actively in the group and suggest areas for future work. MPD use in transport is likely to grow in the future, and having a platform to share questions about methodology and encourage a harmonized approach will be of benefit to member States.

¹ <https://unstats.un.org/bigdata/documents/reports/statcom-2014-45th-report-E.pdf>.