

B.3. Using big data for purposes of official statistics on the international supply of services

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10.10. Examples of big data that can be used for compiling statistics on the international supply of services include electronic medical records of hospital visits (may aid in compiling health services), mobile phone records (helpful in tracking movement of international visitors) and credit card records (may be useful in tracking a wide range of tourism expenditures and in compiling other trade in services transactions). Such data can be used provided that the operators and merchants involved are identified in those data as belonging to service industry. More information on such applications is included in the following sections of the present chapter.

10.11. Compilers are, therefore, encouraged to treat big data as a potential new data source and to undertake pilot projects in selected areas. It should be noted that seizing the potential of big data would require attention to the organization of an efficient data integration process and a review of existing methods for data modelling, estimation and imputation. All such modifications to the statistical process should be done in a transparent way, be part of a quality assurance programme and be properly reflected in the metadata.

Box 10.1 Country example: Eurostat project on using big data

Eurostat conducted a 15-month feasibility study in 2012-2014 on the use of mobile positioning data for tourism statistics. The project explored the usefulness of using such data for tourism statistics and related domains and assessing their strengths and weaknesses. Issues studied included access and continuity of access, trust (of producers and users of statistics), costs, concepts (in translating the existing tourism statistics concept to a new data source) and other methodological topics (e.g., representativeness and sampling within a very large number of observations). The ability of handling large data files held by mobile operators was a critical obstacle to overcome for the project to be successful. The inclusion of the project in the work programme was, among other reasons, based on promising research results in a number of countries.

Next: [B.4. Good practices in using payment cards data](#)