



Use of administrative data for official statistics: The Global Perspective

UN Statistics Division/DESA

Compilation of statistics based on administrative sources is increasingly common

- To create/improve/maintain base statistical registers
- To produce statistical outputs directly or in combination with other data sources
- To assess and improve quality of statistical outputs (e.g., cross-validation through microdata comparisons)



Benefits of integrating administrative data sources into statistical production process

- Reduced cost
- Reduced response burden
- Improved data coverage and availability
- Ability to compile disaggregated statistics
 - Often, the results of sample surveys pertaining to population sub-groups cannot be presented due to unacceptably large sampling error
- Improve the quality and efficiency across the entire statistical production system



Types of administrative data

- Data reported to administrative authorities by individual persons / legal entities for **legal compliance** or to **access government services**
- Data recording **decisions** made by administrative authorities
- Data generated by administrative authorities to **support planning, implementation, monitoring and evaluation** of administrative programmes

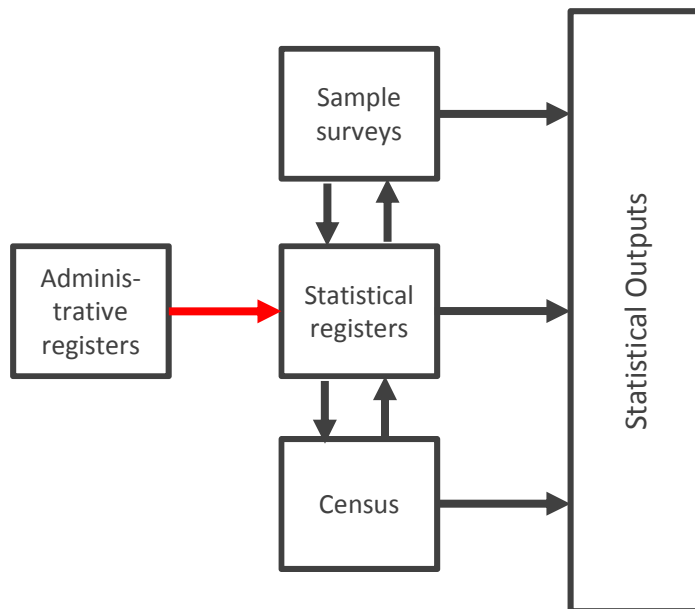


Registers

- A register is a **complete list** of all the members of a population, where each member has a unique identity
- The **identity** of each entity represented in a register can be represented through any of the following:
 - A global identity number used across different registers
 - A local identity number that is specific to the register in question
 - A unique combination of attribute values (e.g., name, address, place of birth...)



Transforming administrative data into statistical data



Data from administrative sources needs to be adapted and processed to make it suitable for statistical compilation

- Transform administrative populations into statistical populations
- Transform administrative entities into statistical units (e.g., households, enterprises)
- Transform administrative variables into statistical variables



Preconditions for effective integration of administrative data sources

- **Quality of administrative systems**
 - Coverage, timeliness, reliability, documentation...
- **System of national identity numbers**
 - For natural and legal persons, as well as of locations
- **Sound data governance**
 - For data access and collaboration with administrative authorities
- **Statistical integration frameworks**
 - Base statistical registers
 - Standard statistical classifications



System of national identity numbers

- The same identity number should follow each person, enterprise or location over its life time
- Identity numbers should have no relation to any characteristics of the objects they identify
- A good system of national identity numbers improves efficiency of both administrative and statistical production systems, and allows to link records and make comparisons



Data governance

- **Legal framework determines**
 - What data are generated by administrative systems, and how it is reported/recorded
 - The right to use data from administrative systems for statistical purposes
 - The authority to match data from different sources
 - Accountability mechanisms for data quality and the protection of data privacy and confidentiality



Data governance

- **Institutional arrangements enable NSOs to maintain close and long-term relations with administrative authorities**
 - High-level contact to promote strategic changes in administrative systems with a view to improve statistical production
 - Technical-level cooperation to understand how administrative systems are organized
 - Coordination of changes in administrative and statistical systems



Base statistical registers

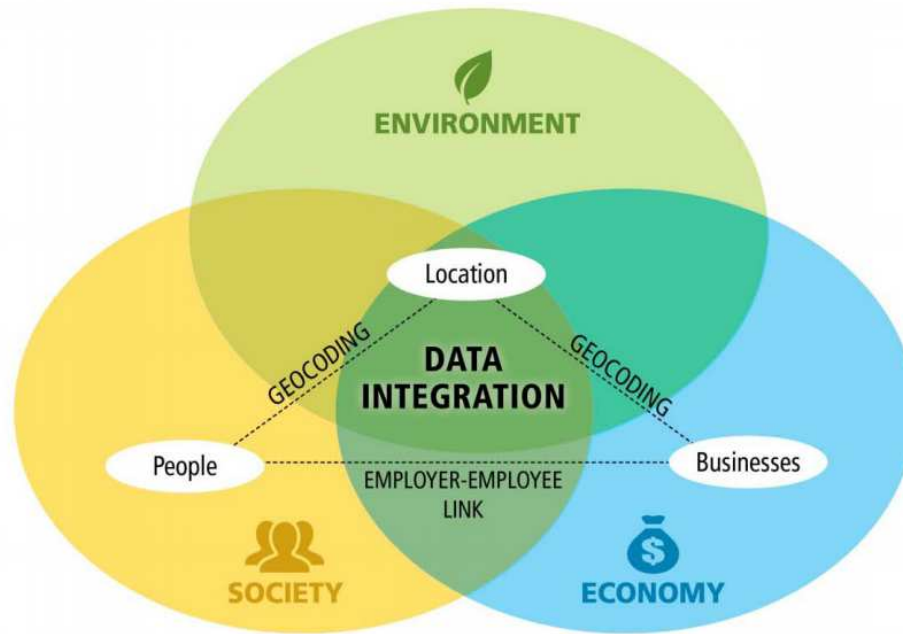
- Together with standard classifications, they constitute the **backbone of the national statistical infrastructure**:
 - Define statistical units and populations to be used across the entire statistical system
 - Provide sampling frames for collection of survey data
 - Are a primary source for demographic statistics
 - **Establish links between different sources of data**



Base statistical registers

- **Population register**
 - Identification of population units (persons, households, families...)
 - Relationships among population units (partners, ascendants, descendants)
 - Demographic characteristics (age, sex, marital status...)
 - Vital events (live births, deaths, marriages, divorces, adoptions, ...)
- **Business register**
 - Identification of business units (enterprise, establishment,...)
 - Relationships among business units (subsidiaries, head offices, ...)
 - Demographic characteristics (size, main economic activity...)
 - Business demographic events
- **Cadaster / real-estate register**
 - Identification of real estate units (land property, buildings, and dwellings,...)
 - Location (addresses, geographic coordinates, ...)





Steps to integrate administrative data in official statistics

1. Inventory of all administrative registers available
2. Mapping of administrative entity types to statistical units
3. Mapping of administrative variables to statistical variables
4. Establishing relationships among administrative registers
5. Development of statistical registers
 - Base statistical registers
 - Primary statistical registers (directly based on administrative registers)
 - Integrated statistical registers (derived from primary registers)
6. Linking microdata from statistical registers and other data sources



References

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- **Guidelines for Building Statistical Business Registers in Africa.** African Development Bank (2014)

