

**BRIEF
ON USE OF
ADMINISTRATIVE DATA
FOR
STATISTICAL PURPOSES
PAKISTAN**

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Structure of Statistical System

The present statistical system of Pakistan is a combination of both centralized and decentralized systems. At federal level, the main centralized set-up comprises Statistics Division and its three attached departments viz; Federal Bureau of Statistics (FBS), Population Census Organization(PCO) and Agricultural Census Organization(ACO). At provincial level, the Bureaux of Statistics are functioning as attached departments of respective Planning and Development Departments. On the decentralized side, statistical cells, both at federal and provincial levels, are also functioning in different Government departments to cope with their specific statistical needs. Headquarters of FBS, PCO and Statistics Division are located at Islamabad and that of ACO at Lahore.

Statistical Acts

There are two fundamental Acts concerning statistics. These are, Industrial Statistics Act 1942 and General Statistics Act – 1975. These Acts were enacted to collect the reliable and quality statistics by ensuring protection of privacy of respondents and to minimize the reporting burden on respondents, eliminate the duplication of statistical activities and to ensure consolidation of statistical system. Above all, these Acts aim at providing legal protection and support to the Statistical Activities in the country.

Institutional Arrangements For Data Collection

The Federal Bureau of Statistics is the principal and largest statistical organization at Federal Level responsible for the collection, compilation and dissemination of all statistics in the country. FBS is primary data collection agency, the fact-finder for the nation. Most of the primary data like Price Statistics, Trade Statistics, Labour Force, Vital Statistics and Household Income and Expenditure Statistics and a number of other series are collected through census and surveys undertaken by the FBS, while for some other series data are collected and compiled in cooperation with other producers of data. For example:-

- National Accounts
- Census of Large Scale Manufacturing Industries
- Agricultural Statistics
- Industrial Statistics
- Transport and Communication Statistics
- Mineral Production and Electricity Generation Statistics
- Environment

Some of the data collected and compiled by other agencies is used by the FBS and published in FBS publications. Examples of such data produced under secondary collection activity are cited below:

- Educational institutions and enrolment by level and sex
- Tourists arrival by routes
- Number of Crimes reported by type
- Number of hospitals/dispensaries and child welfare centres, beds and medical personnel
- Performance of Population Planning Programme in Pakistan
- Immunization Coverage
- Newspapers and periodicals by type

Data is also obtained from the administrative records. Examples of such data are :-

- Foreign Trade Statistics
- Public Finance Statistics
- Money and Banking Statistics

Administrative Data Systems for Statistical Purposes

For selecting from the alternative sources of data for building the MDGi, one must consider the National ownership, Periodicity and timeliness, Quality, and Comparability across space and time. Needless to mention that all National Statistical Offices (NSOs) have duty to produce official statistics with the highest possible quality with reference to relevance and completeness, Timeliness, Accuracy, Comparability and coherence, Accessibility and clarity, Cost efficiency, and Low response burden. Since at all times one must strike balance between the quality desired and the practical and economical realities. It is a fact that the administrative data of a country is always preferred if they possess a reasonable quality.

Major important register sources used in statistics production in Pakistan include Vital Registration System, containing information on births & deaths, buildings and dwellings, business premises, Trade Registration, Vehicle Register and Revenue record etc.

Uses of administrative data- Totally register-based statistics and the combined use of survey and register data. There are many different ways in which administrative data can be used for purposes of statistics production. These include: Direct use of register data, Register estimation, Combined use of survey and register data in the form of (i) additional information from registers, (ii) use as sampling frame, (iii) non-response control, (iv) imputation, (v) determining the structure of non-response.

Training Needs

Officials dealing with statistics in under-developing countries like Pakistan need training in the field of statistics and related fields for technical skill and capacity building.

Data from Administrative Records

Governments in all countries collect a large amount of data as a part of day to day administration. The administrative records and other related documents contain a wide variety of data on demographic, social, economic, cultural and environmental topics. The information is required in the first instance in order to complete some process including the provision of goods and services by government authorities. The main advantage of this source of data is that the cost of data collection is relatively small in relation to the costs that are incurred in conducting censuses and surveys. It may be necessary to provide some resources to actually collect all the source documents in one place but essentially the cost of data collection are usually met by the administrative process itself. The government administrative authorities that are responsible for the administrative processes that operate and maintain information collection and record keeping operations are vested with statutory authority to canvass the requisite information to ensure public compliance and response. In instances where such legislative provisions support data collection the coverage and completeness of records are usually good.

Advantages of administrative data sources

There are a number of advantages in utilizing administrative data sources to compile statistics and statistical indicators:-

- Statistics can be prepared relatively quickly and can be released earlier than data collected through censuses and surveys.
- Since certain records in the register when aggregated together could serve as a sampling frame for surveys, they could be used to check the results obtained from other inquiries.
- The costs are considerably lower when compared with censuses and surveys as data collection costs are excluded, since data has already been collected as a by product of some administrative process, and data need to be extracted only from register based records with only data entry, data management and processing and analysis costs being involved.
- Most often information on administrative unit records is available in registers of records that facilitate extraction of primary data and relatively error free compilation and aggregation of statistics.
- Since data is collected usually invoking some statutory or regulatory authority vested with the government organization the coverage and completeness of data are usually better than those derived through sample surveys.
- Where the data collection covers the entire country in terms of the government mandate the organization concerned usually has its network of provincial, district and divisional offices extending to the ward/ village levels that facilitate data reporting reducing respondent burden which also enhances response rates.

Disadvantages of administrative data sources

There are several deficiencies that are known to affect quality of data and information compiled from administrative data sources. Some of these are well known and others to a lesser extent.

The main deficiencies of administrative data are the following.

- Records reported from administrative units are often incomplete or inaccurate, for one or several reasons. In some cases, financial incentives encourage misreporting. In others, the administrator(s) responsible for collecting data may not be properly trained, or methodology for recording appropriate information may be flawed.
- Because administrative data is usually aggregated at a broader level, some information content is lost relating to individual variation and equity concerns.
- Administrative data particularly that related to health service provision is inherently biased, as it is only representative of the population that has sought out the services. Those that have not sought the service may be the most in need, but by definition, cannot be included in the analysis.
- Private service providers may be less inclined or not required to contribute data to the aggregated dataset, thereby sometimes leaving out a significant population that utilizes these services.
- The system as designed will not result in the records covering the desired population or may be incomplete. Example hospital records of cases of ill health reported.
- The concepts and definitions used as required in terms of laws and regulations may be unsuitable for statistical purposes and also not conform to international standards.

- The records may contain insufficient data to provide the detail information required to accurately classify the variables.
- Some of the data may not be accurately or carefully recorded and could be incomplete or inaccurate since those items of information will be of secondary interest or value to the primary administrative purpose for which they were designed.
- There could be legal restrictions or confidentiality provisions that restrict access to the records. This is usually the case with taxation records.
- There are other limitations where the format of the record makes it difficult to extract statistical data, where records are kept in multiple registers.

Main administrative data sources in Pakistan

Some of the better known administrative data sources that are in use in Pakistan for statistical purposes include the following.

- Vital registration statistics: births, deaths, marriages, separation and divorces
- Education statistics from M/O Education record.
- Health statistics from M/O Health records
- Migration statistics and international tourism statistics from immigration and emigration records
- Crime statistics from police records and court records
- Agricultural statistics from M/O Agricultural records
- Government income and expenditure from budgetary documents of the Federal/Provincial Governments.
- Social statistics from concerned government departments
- Income statistics from income tax record of FBR
- External trade statistics from customs records on imports and exports
- Balance of payment statistics maintained by State Bank of Pakistan
- Forest cover from land and forestry records of the forest departments.
- Vehicle registration statistics from the record of District Excise & Taxation Department and Registration authorities
- Exchange rate data from State Bank of Pakistan
- Money supply from State Bank of Pakistan
- Wage statistics from wages boards.
- Social service expenditure from Planning and Development Division and Finance Division.
- Many other statistics from government departments responsible for subjects and functions delegated to them by the government.

Coordination with Administrative departments

The following statistical forums exist in Pakistan to have close coordination, interaction and cooperation among data users and producers including administrative departments.

- National Statistical Council (NSC)
- Technical Advisory Committee
- National Accounts Committee
- Technical Panels/working Groups on different areas of statistics composed of data users/producers of both public and private sectors.

According to statistical legislation, in Pakistan each and every individual/institution/department in both public and private sector is legally bound to provide information to Government of Pakistan/National Statistical Organizations for statistical purposes, which is kept confidential and used without disclosing individual's identity.

Major Obstacles/Weaknesses faced on the use of Administrative Data for Statistical Purpose

1. Non-availability of data at the time of need
2. Incomplete record
3. Non-response/partial response/late response
4. Under coverage
5. Inefficient reporting system
6. Concepts, definitions sometimes do not conform to international standards
7. Lack of trained personnel handling Administrative Record

Training already available for ministry personnel

Personnel of NSO and other Ministries of the Federal/Provincial Governments are provided on the job training. They have also access to local and foreign training in their areas of work. Various ministries have also established their own training institutions/programme for the training of their officials. Federal Bureau of Statistics also has its own Training Wing, which all round the year organizes different training programmes in the field of statistics and related fields for the officials of Statistics Division, attached departments of Statistics Division and other public sector departments/institutions to enhance their knowledge and skills.

Suitability of available training to ensure the quality of statistics generated

To a greater extent available training is well suited to ensure quality statistics. However, there is always a scope for improvement and efforts continue to improve the training programmes to make them more suitable for ensuring quality statistics.

Conformity of concept and definitions to international standards

While adopting concepts and definitions, internationally accepted/followed concepts and definitions are adopted or adapted to ensure international suitability and comparability.

Problem of incomplete or inaccurate records

Mostly records are completed and accurate, where there is found something lacking in the record efforts are made to improve the situation with mutual consultations between data users and producers.

Disaggregation of data to provide data for regions and other sub-groups

In some cases it is so and in some cases it is not so. However, data is already being compiled and disseminated on provincial and national level. Efforts have now started to compile and disseminate data on lower level i.e. on District level, with the establishment of Local government system in Pakistan.

Main uses of administrative data for statistical purpose

- A- Provide Frames for Sample Surveys
- B- To Develop update and disseminate statistical series on socio-economic sectors of the economy
- C- Policy/decision making
- D- Monitoring progress of public policies
- E- Research

Statistical series compiled and disseminated on the basis of secondary sources/administrative record in Pakistan

The following statistical series based on administrative record are kept, updated and disseminated regularly in Pakistan.

1. Public Finance
2. Exports/Imports
3. Direction of External Trade
4. Balance of Payments
5. Foreign debt and debt services
6. Foreign remittances
7. Transport & Communication
8. Education
9. Health
10. Stock Exchange/Capital Market
11. Production of Manufacturing items
12. Crimes
13. News Papers/Periodical/cinema Films
14. Climate
15. River inflows
16. Rain Fall
17. Production of crude oil
18. Production of Natural Gas
19. Electricity generation
20. Traffic Accidents
21. Visitors to Museums in Pakistan
22. Visitors to Heritage sites in Pakistan

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