



Statistical units and their characteristics

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Economic entities

- The universe of economic entities engaged in services activities is very vast - they vary in their legal, accounting, organizational and operating structures
 - Small entities engaged in one or very few activities undertaken at or from one geographical location
 - Large and complex entities engaged in many different activities that may be carried out at or from many geographical locations
 - The units at which or from which economic activity takes place are grouped for management, administrative, and decision-making purposes into hierarchical structures
 - Higher-level organizational units own, control, or manage the lower-level production units at which production decisions are made or production takes place



Statistical and reporting units

- A statistical unit is an entity about which information is sought and for which statistics are ultimately compiled
- It is the unit at the basis of statistical aggregates and to which tabulated data refer

- **Observation units** - identifiable legal/organizational or physical entities which are able, actually or potentially, to report data about their activities
- **Analytical units** - entities created by statisticians, often by splitting or combining observation units in order to compile more detailed and more homogeneous statistics
 - Not able to report data themselves about their activities
 - Indirect methods of statistical estimation exist including imputation of such data
- **Collection units** - the units *from which* data are obtained and by which statistical forms are completed
- **Reporting units** – the units *about which* data are reported



Statistical units

- Statistical units of the production system
 - Enterprise group
 - Enterprise
 - Establishment (local kind-of-activity unit)
 - Kind-of-activity unit
 - Local unit

- Analytical units
 - Unit of homogeneous production
 - Local unit of homogeneous production



Ancillary activities and ancillary units

- **Ancillary activity** – a productive activity undertaken with the sole purpose of producing services for intermediate consumption within the same enterprise – record keeping, personnel management, warehousing
- **Ancillary establishments**
 - Units undertaken ancillary activities should be treated as an establishment in the following cases:
 - If a unit is statistically observable, in the sense that separate accounts for the production it undertakes are readily available
 - If it is in a geographically different location from the establishments it serves
 - Such an establishment should be classified according to its own principal activity
- **Ancillary corporations**
 - Subsidiary created purely in order to perform ancillary activities for the benefit of a parent corporation such as transferring the ownership of its land, buildings or equipment and whose sole function is to lease them back again to the parent corporation
 - Ancillary corporations should not be treated as separate statistical units because they can be regarded as artificial units created to avoid taxes, to minimize liabilities etc.



Recommendations on Statistical units (1)

- 1993 SNA recommends *establishment* as the most appropriate statistical unit for production and employment data
- Countries are encouraged to use *establishment* as a statistical unit in order to ensure compilation of homogeneous and geographically distributed data
- Choice of statistical units may be guided by factors such as the purpose of study, the availability and quality of data etc.
 - Enterprise can also be a statistical unit in some cases
 - In majority of cases establishment and enterprise are the same except in the case of multi-establishment enterprises
 - Choice of establishment vs. enterprise as a statistical unit reflects balancing of data availability against the homogeneity of economic activity



Recommendations on Statistical units (2)

- Kind-of-activity unit (KAU)
 - The availability of data on a KAU basis may suggest the use of this unit in trade surveys rather than the establishment
 - May be considered a suitable alternative to the establishment in countries where the larger multi-establishment enterprises organize their records on this basis
 - If KAU is used, the relationship between these units and the units used in other surveys should be indicated
- Local unit
 - Used as the statistical unit for compiling particular types of data, where no breakdown by activity is required
- Enterprise group
 - Too diverse in nature and unstable to be adopted as a statistical unit
 - Useful for financial analyses and for studying company strategies



Specific entities ⁽¹⁾

■ Retail chains

- A range of retail outlets which share a brand and operate under the same ownership or central management
- Appear as a result of vertical integration of retail trade businesses in one and the same retail trade activity class
 - Branches owned by one legal unit
 - One trade enterprise with many establishments, corresponding to different locations
 - Franchises, owned by natural persons or companies and operated under contract with the parent corporation
 - Many enterprises, corresponding to the number of franchisees
- If a retail chain operates in more than one province it should provide:
 - A list of all locations it operates
 - Totals on some of the important data items such as the number of employees, turnover, wages and salaries etc. about each location separately
 - Administrative data may be used as a proxy to reduce respondent burden



Specific entities ⁽²⁾

- Department stores/"shops-within-shops"
 - Department store – a retail establishment which specializes in selling a wide range of products without a single predominant merchandise line (non-specialized stores)
 - Could be part of a retail chain
 - Could be an individual store
 - Identification of local units needs special attention
 - In principle, the retail local units will be precisely equivalent to retail stores
 - When a department store is letting out part of its retail space to other retailers
 - Number of local units is equal to the number of shops
 - Department store and all other shops on the same premises are treated as separate statistical units



Specific entities ⁽³⁾

■ Franchising

- *Franchisees* are independent legal units which sign a contract with another legal unit, the *franchiser*, to engage in an activity making use of trademarks, trading styles and marketing support provided by the franchiser, usually in return for a fee or a share of the sales or profits
- Franchisees should be considered as separate enterprises as they consist of a complete combination of factors of production, and run the full entrepreneurial risk



Specific entities ⁽⁴⁾

- Market places, street markets
 - Outdoor locations where goods and services are exchanged
 - The traders have stalls, but not entire stores
 - Usually another unit is the owner and operates the location where the market is situated
 - Units are treated similarly to the treatment of department stores
 - Individual retailers on the market place and its owner will be treated as separate statistical units
 - Market place will have as many local units as is the number of stalls
 - Farmers selling their output at farmers' markets are not treated as trade units



Informal sector units ⁽¹⁾

- Informal sector
 - The services industry is characterized by a large number of informal units
 - Trade carried out without a fixed location, in homes, small shops or stalls
 - Units are operated by an individual working either alone, as self-employed entrepreneur, or with the help of unpaid family workers
- Definition of informal sector - according to the types of production units of which it is composed - 15th ICLS
 - Units engaged in the production of goods or services with the primary objective of generating employment and incomes to the persons concerned and which operate within the production boundary of the SNA
 - low level of organisation
 - little or no division between labour and capital as factors of production
 - on a small scale



Informal sector units ⁽²⁾

- Informal sector enterprises
 - A subset of households unincorporated enterprises
 - Owned by individuals or households that are not constituted as separate legal entities independently of their owners
 - Have at least some production for sale or barter on the market
 - No complete accounts are available that would permit a financial separation of the production activities of the enterprise from the other activities of its owner (s)
 - Fixed and other capital used does not belong to the enterprise as such but to the household members
 - Expenditure for production is often indistinguishable from household expenditure and capital equipment such as buildings or vehicles may be used indistinguishably for business and household purposes
 - Additional criteria for defining the informal sector enterprises
 - Size – the size in terms of employment should be below a nationally determined threshold
 - Non-registration of the enterprises or its employees



Informal sector units ⁽³⁾

- Types of informal sector enterprises
 - Informal own-account enterprises
 - Enterprises of informal employers
- Informal sector enterprises engaged in distributive trade
 - Any production unit that is engaged in resale of new or used goods and services on the market and that has the characteristics described above
 - Activities may be undertaken inside or outside the enterprise owner's home, and they may be carried out in identifiable premises, unidentifiable premises or without fixed location
 - Mobile units in distributive trade sector such as street vendors and hawkers
 - Should be considered as separate enterprises if they constitute self-employed persons
 - Should be considered as employees if they work for enterprises of informal employers that meet the enterprise-based criteria
 - Both informal sector enterprises in urban and rural areas should be included



Characteristics of statistical units

- Characteristics of statistical units are data items used for:
 - Their unique identification
 - Their classification within particular activity area of distributive trade
 - Description of various aspects of their structure, operation and relationship with other units

- Characteristics of statistical units are a precondition for:
 - Effective organization of the statistical sample surveys
 - Making comparisons and links between data from different data sources thus, significantly reducing the duplication in data collection and response burden

- Types of analysis
 - Geographical
 - Activity
 - Legal and ownership
 - Size class



Main characteristics

- Identification code
- Location
- Kind of activity
- Type of operation
- Type of economic organization
- Type of legal organization
- Type of ownership
- Size
- Demographic characteristics
- Period of operation



Identification code

- Unique number assigned to a statistical unit which may comprise digits identifying its geographic location, kind of economic activity, whether a unit is a principal producing unit or an ancillary unit, link to its subsidiaries/principal if any
 - Allows their registration in a statistical business register or inclusion in a sampling frame
 - Permits the collection of information about them via administrative sources
 - Provides a sampling base for statistical surveys
 - Permit demographic analysis of the population of units
- Identification code must not change throughout the life of the unit, although some of the other unit's characteristics may change



Location

- Physical location of the enterprise, mailing address, contact person
 - The location is defined as the place at which the unit is physically performing its activities not as where its mailing address is

- Location serves two important purposes
 - To identify the units and to classify them by geographical regions
 - If a unit operates in more than one location, to allocate its economic activity to the location in which it actually takes place

- Location in case of multi-establishment enterprises
 - Multi establishment enterprise may be requested to provide location details about each establishment it has
 - The establishment may be asked about the name and location of the enterprise that owns it



Kind of activity (1)

- Kind of activity is the type of production in which a unit is engaged
 - Principal variable which determines the activity class of the unit
 - To be determined according to ISIC, Rev.4



Kind of activity (2)

- General principles for determining the kind of activity of a unit
 - It is determined by the kind of its principal activity; secondary and ancillary activities are to be disregarded
 - If a unit is engaged in several types of independent activities, but the unit itself cannot be segregated into separate statistical units - the largest share of value added by using the “top-down” method
 - If value added cannot be determined, classification has to be done by using substitute criteria
 - Substitutes based on output (recommended) - turnover
 - Substitutes based on input – wages and salaries, employment



Type of operation

- Refers to different methods (ways) of organization of the activity eg wholesale and retail trade
- Used in defining the activities of groups and classes in Section G of ISIC, Rev.4

- Wholesale trade
 - Wholesale trade on own account (ISIC groups 462-469)
 - Specialized wholesale trade (groups 462-466);
 - Non-specialized wholesale trade (group 469).
 - Commission trade (group 461)

- Retail trade
 - Retail trade in stores (groups 471-477)
 - Specialized stores (groups 472-477)
 - Non-specialized stores (group 471)
 - Food predominantly
 - Others
 - Retail trade not in stores
 - Retail trade via stall or markets (group 478)
 - Others (e-commerce)



Other characteristics (1)

- **Type of economic organization** - intended to indicate whether the establishment is *the sole establishment* of the enterprise of immediate ownership or is part of a *multi-establishment enterprise*

- **Type of legal organization** - legal form of the economic entity which owns the unit
 - Incorporated units
 - Corporations
 - Other incorporated entities
 - Cooperatives
 - Limited partnerships
 - NPIs
 - Unincorporated units

- **Type of ownership**
 - Public
 - Private



Other characteristics (2)

- **Size** - an important stratification characteristic, essential for sample design and grossing up techniques
 - Size based on employment (recommended)
 - To be measured in terms of the average number of persons employed
 - Total number of persons employed in a single period – second best alternative
 - Recommended classification - 1, 2-9, 10-19, 20-49, 50-249, 250 and more
 - Size based on turnover – limited application for international comparisons
 - Size based on sales space – of national interest only

- **Period of operation** - indicates the period during which a trade unit has been in operation during the reference period
 - in operation since (date)
 - temporarily or seasonally inactive
 - ceased operation (date)
 - sold or leased to another operator (name of new operator)



Demographic characteristics

- Provide information about the period of economic activity of a given unit
 - Include the date of commencement and cessation of unit's activity
 - If compiled on a regular basis, they can provide useful information on:
 - rate of creation of new units
 - chance of units survival
 - differences in dynamics of units between ISIC classes
 - trends in the population of units
- Business demography statistics – growing demand from a wide range of users for production of internationally comparable statistics on business demography of statistical units
 - Require up-to-date business register
 - Key demographic events
 - births and deaths
 - break-ups
 - split-offs
 - mergers
 - take-overs etc.



Thank You