



International Recommendations for Industrial Statistics (IRIS) 2008 and International Recommendations for Distributive Trade Statistics (IRDTS) 2008

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History

- ▶ Since 1950s, UN has published international recommendations – to establish a coherent and uniform measurement of industrial activities – 1953, 1960, 1968 and 1983
 - Initially as part of the World Industrial Programme
- ▶ The UN Statistical Commission 2006 endorsed the proposal for developing new guidelines for industrial statistics and distributive trade statistics
- ▶ IRIS and IRDTS were developed together, with similar structure and consistent guidelines
 - Considered as first step to develop recommendations for all economic activities

New issues addressed

- ▶ Consistency with changes in concepts, definition and terminology in publications and regulations of other international organisations:
 - UNSD – System of National Accounts 2008, new classifications
 - Eurostat – statistical business register and regulations on short-term and structural business statistics
 - OECD – measurement of non-observed economy, business demography and data and metadata reporting and presentation
 - IMF – BOP manual (goods for processing, multi-territory enterprises)
 - ILO – international classification of status in employment, statistics of employment in the informal sector, and working time measurement

New issues addressed

▶ SNA 2008

- Units undertaking ancillary activities treated as a separate establishment in some specific circumstances,
- Additional element for the measure of COE like ‘employees stock option’
- Treatment of goods sent abroad for processing,
- Changes in terminology and classification of assets,
- Capitalisation of database development, and capitalisation of R&D expenditures etc.

▶ Revision of International Standard Industrial Classification of all Economic Activities (ISIC Rev. 4) and Central Product Classification (CPC Ver. 2)

New issues addressed

- ▶ Inclusion of aspects of globalisation of the industrial production process including ‘outsourcing’ and use of e-commerce
- ▶ Efforts of countries to minimise the differences between the concepts of ‘census value added’ and ‘national account value added’
- ▶ Change in valuation of industrial output to basic prices in accordance with the SNA valuation principle

Main issues and changes

► Scope

- Scope of the industrial statistics extended to include ISIC Rev.4 Section E (Sewerage, waste management and remediation services)

► Statistical units

- Comprehensive and detailed discussion on statistical units for use in the collection of industrial statistics
- Statistical units of informal sector

Main issues and changes

■ Data items

- List of data items and their definitions – reviewed and updated
 - Revenue and expenditure items – presented in more details
 - E-commerce sales – separately identified
 - Data items on quantity – important material and supplies, fuels and energy and output
- Lists of data items and their coding in IRIS 2008 and IRDTS 2008 – **fully harmonized**
 - Later potentially cover all economic sectors
- Extension of the link between the economy and the environment – data items on use of natural resources, generation of waste

Main issues and changes

- **Data sources and data compilation methods**
 - Description of data sources and data compilation methods is significantly expanded with discussion on:
 - Data sources – administrative data sources and statistical surveys
 - Business register and its use as a frame for statistical surveys
 - Data compilation methods – validation, editing, etc.
 - An outline of a data collection strategy for different segments of the economy based on an integrated approach is presented

Main issues and changes

- **Data dissemination**
 - Best practices on
 - Confidentiality protection
 - Sound revision practices
- **Performance indicators**
 - Indicators useful for assessment of the overall performance of industrial sector
 - monitoring the profitability, productivity and efficiency

Coverage of industrial/trade activities

- ▶ In conformity with the 2008 SNA production boundary all units engaged in economic activities within the scope should be covered.
 - Units of *all sizes* (with and without fixed locations) and
 - Units of all types of ownership including the govt. and household units
 - Household unincorporated enterprises
 - Goods produced by households engaging in industrial activities for own consumption should also be covered.
 - All types of units not necessarily covered through the same survey instrument.

Statistical unit

- ▶ A **statistical unit** is an entity about which information is sought and for which statistics are ultimately compiled.
- ▶ Statistical units of the production system
 - Enterprise group
 - Enterprise
 - **Establishment** (local kind-of-activity unit)
 - Kind-of-activity unit
 - Local unit

Statistical unit

- ▶ **2008 SNA recommends establishment as the most appropriate statistical unit (SU) for production and employment data**
 - Countries are encouraged to use establishment as a SU for industrial statistics
- ▶ **Choice of establishment vs enterprise as SU reflects balancing of data availability against homogeneity of economic activity.**
 - Using establishment as a unit enables
 - Homogeneity in the measurement of the economic activity
 - More accurate presentation of regional economic reality
- ▶ **Choice of SU may be guided by factors such as purpose of study, the availability and quality of requisite data, therefore, enterprise can also be used as SU**
- ▶ **In majority of cases establishment and the enterprise are same except in case of multi-establishment enterprises.**

Statistical unit

Ancillary units

Units undertaking ancillary activities are to be treated as an establishment in certain cases:

- When an establishment undertaking ancillary activities is statistically observable, i.e. records of its transactions are readily available, and
- When the ancillary units are in a geographical location different from the establishments they serve.
- Such an establishment should be classified according to its own principal activity.

Data items

- ▶ IRIS / IRDTS 2008 provide definitions of data items for data collection, compilation and dissemination
- ▶ List of data items aims at providing countries with a tool which can be used in building up their economic statistics programmes, including the development of statistical questionnaires and other data collection instruments
- ▶ Countries are encouraged to use the list of data items as reference in order to develop a list of data items in accordance with their own statistical circumstances, respondent load and available resources
 - ▶ having determined that, the definitions presented should be consistently used

Data items

- ▶ Links between business accounting and basic economic statistics
 - Terms used in the questionnaires must be familiar to business accountants
 - Understanding of business accounting is essential for conversion of data collected from businesses' records into economic data that can be used in compilation of basic economic statistics
- ▶ Differences in terminology
 - Shipments, sales, turnover
 - Operating expense
- ▶ Differences in business accounting rules
 - Valuation of assets

List of Data items

- ▶ Demography
- ▶ Employment
- ▶ Compensation of employees
- ▶ Other expenditures
- ▶ Value of shipments, receipts for services and other revenues
- ▶ Inventories
- ▶ Taxes and subsidies
- ▶ Output
- ▶ Intermediate consumption
- ▶ Value added
- ▶ Gross fixed capital formation
- ▶ Orders
- ▶ Environmental protection expenditure

Data items for International Reporting

Annual statistics

Data item	Level of details	Reporting level (in terms of ISIC Rev. 4)	Time-lag After close of the year
Demography			
Number of enterprises	By economic activity and size class	3-digit by economic activity 1-digit level for size class distribution	18 months
Employment			
Total number of persons employed	--do--	----do---	18 months
Total number of employees	--do--	---do---	18 months

Data items for International Reporting

Annual statistics

Data item	Level of details	Reporting level	Time-lag
Compensation of employees			
Wages and salaries in cash and in kind of employees	By economic activity	3-digit level of ISIC, Rev.4	18 months
Output			
Gross output at basic prices	By economic activity	3-digit level of ISIC, Rev.4	18 months
Value added			
Total value added at basic prices	By economic activity	3-digit level of ISIC, Rev.4	18 months
Gross fixed capital formation			18 months

Data items for International Reporting

Annual statistics

Data item	Level of details	Reporting level	Time-lag
<u>Environment</u>			
Environmental protection expenditure	By economic activity	3-digit level of ISIC, Rev.4	18 months
Energy consumed			
Total energy consumed (terajoules)	By economic activity	3-digit level of ISIC, Rev.4	18 months
Total water used (cubic meters)	By economic activity	3-digit level of ISIC, Rev.4	18 months

Data items for International Reporting

Quarterly statistics

Data item	Level of details	Reporting level	Time-lag
Employment			
Total number of persons employed	By economic activity	2-digit level of ISIC, Rev.4	3 months
Total number of employees	By economic activity	2-digit level of ISIC, Rev.4	3 months
Compensation of employees			
Wages and salaries in cash and in kind of employees	By economic activity	2-digit level of ISIC, Rev.4	3 months
<u>Orders</u>			
New orders received	--- do --- -	-- do ---	3 months
Unfilled orders	--- do ---	--- do ---	3 months
Index of industrial production	2-digit level		3 months

Data Sources

(a) Administrative sources

(b) Statistical surveys

- Census and the sample survey are used for collecting economic data.
- Sample survey is less costly way of data collection of precision with high frequency
- Resource intensive (both financial and manpower)
- Additional respondent burden
- Higher non-response rates and sampling errors
- Respondents may not trust the confidentiality clause.

▶ Enterprise Survey

▶ Mixed household–enterprise surveys

▶ Household surveys (for estimating household production for own final use)

Data Collection Strategy

► Covers:

- Benchmark information and its use in data collection
- Categorization of production units
- FIRST approach

Benchmark information

- ▶ A complete list of all economic units – sampling frame
 - mostly establishments for structural data (annual);
 - often enterprises for short-term (monthly or quarterly) production related statistics.
- ▶ In the context of data collection, this list is referred to as a ‘**list-frame**’.
- ▶ But ‘list-frames’ are seldom complete.
 - Business Register, based on administrative sources and/ or Economic Census

Categorisation of production units

List frame segment: Includes

▶ **Public sector units**

- All establishments of public sector enterprises.
 - Data for these are often available from Government records.
 - Thus may be excluded from the coverage of industrial survey.

▶ **Corporate sector units**

- All establishments of corporate sector enterprises.

▶ **Other large private sector units**

- Above a certain size (cut-off point); and

▶ **Small units**

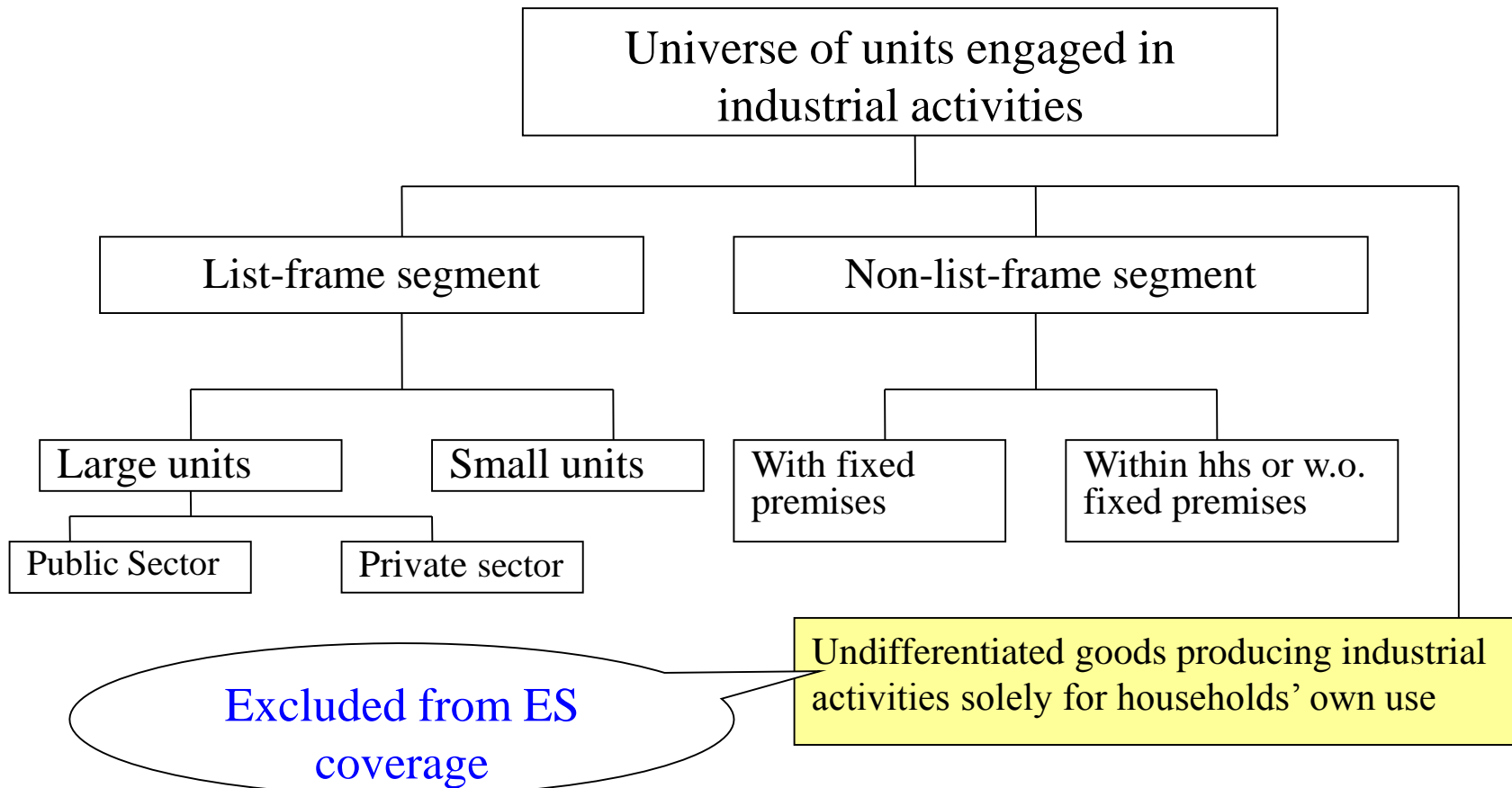
- Below a the size cut-off point.

Categorisation of production units

Non-list frame segment: includes

- ▶ **Those with fixed premises outside households:**
These are usually within the coverage of EC, but are not covered in the latest EC – either because they are ‘new born’ unit or are missed during field work.
- ▶ **Those without fixed premises – mobile units working outside households:**
These are mostly outside EC coverage and not under an effective registration system. Thus, excluded from list-frame.
- ▶ **Working within households:**
Virtually none of these are covered in the EC.

Categorisation for data collection

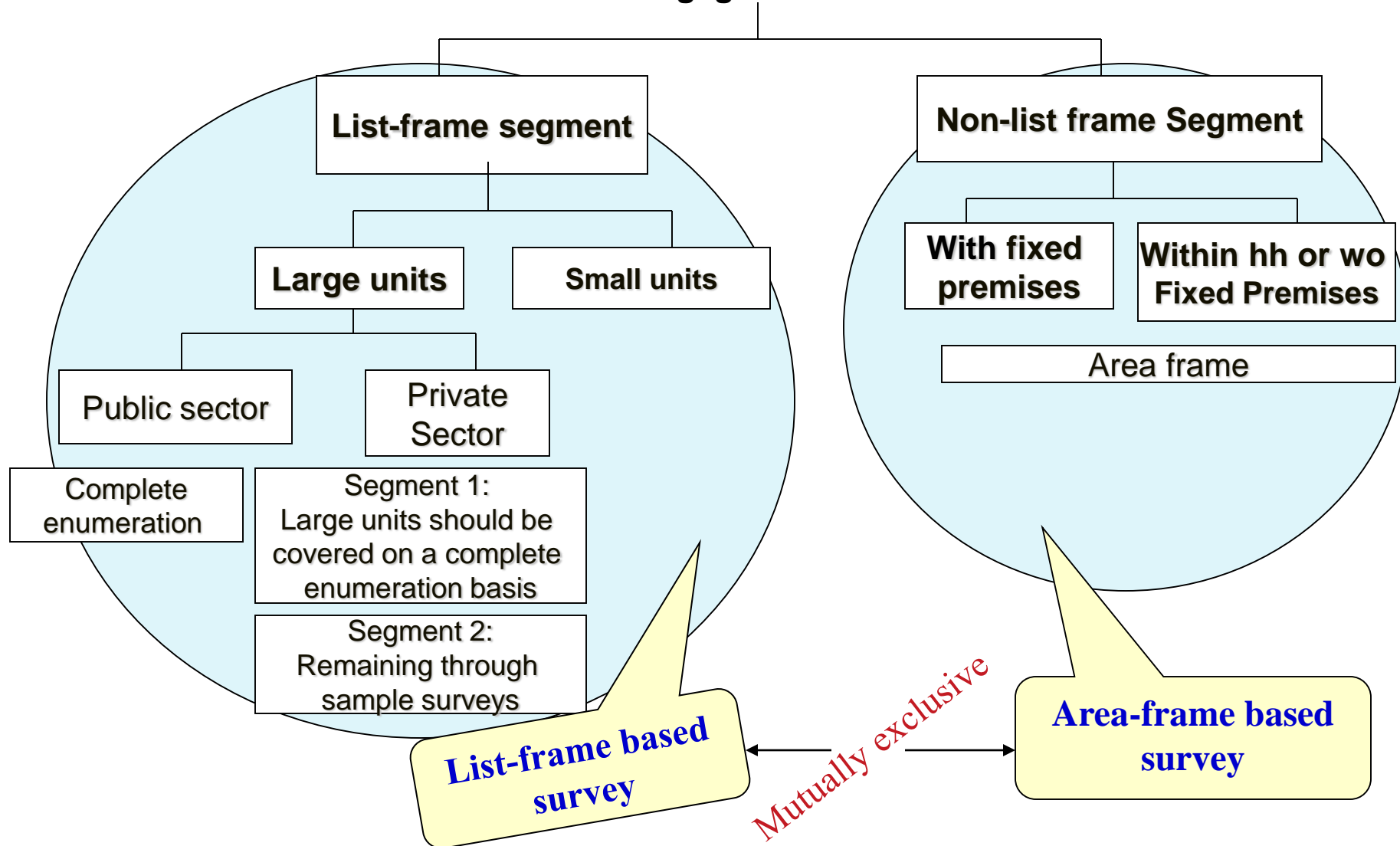


Data Collection Strategy

- ▶ **Basic Approach – FIRST**
- ▶ **Avoiding overlap – operational rules:**
 - Classification by main activity
 - Between-surveys non-overlap: alternative methods
- ▶ **List-frame based survey component:**
 - Survey design: available options
 - Integrating annual and infra-annual enquiries
- ▶ **Area-frame based survey component:**
 - Main alternative approaches
 - Area-frame based enterprise survey
 - Mixed household enterprise survey

Data collection strategy

Universe of units engaged in industrial activities



Thank You