



Session 2.1.

## Overview of measurement objectives and methods



### Learning objectives

- Be aware of why we need to produce statistics on the informal economy
- To know ...
  - What is the minimum set of data items that should be collected
  - How often should the statistics be collected
  - What are the various statistical units
  - What must we pay attention to when choosing a data collection methodology
  - What are the methodologies that exist to measure the informal economy



# Objectives of statistics on the informal economy

- To formulate, monitor and evaluate policies and programmes
  - That facilitate the transition of informal units and workers to the formal economy
  - That increase productive potential of informal units
  - That promote decent work and reduce poverty of informal workers
  - That promote the organization of informal units and workers
- To advocate for the recognition of their contribution
  - Job creation, production, income generation
  - Human capital formation
  - Mobilization of financial resources
- To improve labour statistics
  - Labour, social and economic statistics, including national accounts (exhaustiveness of GDP measurement)
- To serve as a tool for research



# Minimum set of data items that needs to be collected

- Number of workers and jobs in the informal sector
- Number of informal workers and number of informal jobs
- Number of economic units that are in the informal sector (informal sector units)
  - Number of informal sector entrepreneurs
  - Production, value added

All data items should be cross-classified by relevant variables



## Minimum set of data items: common cross-classifications

- Characteristics of workers
  - Sex, age group, level of educational attainment, urban/rural location
- Characteristics of jobs (held by workers)
  - Status in employment, main or secondary job, occupation, hours of work, type of contract, income related to employment
- Characteristics of economic units (where persons work)
  - Kind of economic activity (industry), institutional sector, size of unit, type of workplace (with premises, household-based, itinerant), type of production unit (formal, informal own account enterprise, enterprise of informal employers, households); constraints and potentials
- Characteristics of households (where workers live)
  - Size (number of household members), type of household composition (e.g., single parent, couple, no children), labour force situation of members, sex and age composition



## Recommended frequency of data collection

- Employment in the informal sector
  - Once a year
- Number and characteristics of informal sector units
  - Every five years
- Informal employment
  - Can be the same as for employment and unemployment statistics

However, in order to capture seasonal and sporadic activities, measurement should cover the whole year



# Minimum requirements for data collection methods

- Complete coverage
  - Of jobs, workers, economic units, economic activities
- Sound sample design
  - Sample frame should be comprehensive
  - Sample size should be adequate for required detail in statistics
- Inclusion of relevant questions in standard questionnaire
  - Registration, book-keeping and size of enterprise
  - Social security coverage and entitlement to holidays/sick leave



# Types of measurement methods

- Direct estimation
  - Household-based surveys with a labour force component - Labour force surveys
  - Area-based establishment-based surveys
  - Mixed household and enterprise surveys
- Indirect estimation
  - Macro-economic estimation
  - Comparative analysis of statistics from different sources

These methods are not mutually exclusive:

- Each has strengths and limitations
- They can be combined to improve coverage

The choice of method will depend on

- a) The data items that need to be measured
- b) The existing surveys and sample frames in the country
- c) The financial and human resources



# Labour force surveys

- Collect detailed information about labour force characteristics of persons during a short reference period
  - From a sample of household members
  - Sample is selected from an area-based sample frame
- Data items
  - Number of workers in the informal economy
    - Informal sector, informal employment
  - Number of informal sector entrepreneurs
- Statistical units
  - *Sample unit*: Household
  - *Observation unit*: Jobs, persons and owners of informal sector units
  - *Reporting unit*: One or more members of the household
  - *Analytical units*: Jobs and persons, owners of informal sector units



# Labour force surveys Advantages

- Existing survey infrastructure
  - Low cost of adding a set of questions on informality
- Coverage
  - Of all jobs, all branches of economic activity, all informal workers (including employees & unpaid family workers)
- Coherence
  - Data on informal sector and informal employment can be related at micro-level to other information collected in the same survey
  - Informal employment and working conditions measured at macro-level along with employment in other sectors and unemployment



# Labour force surveys

## Limitations

- Limited data items
  - Do not obtain information about the number of informal sector enterprises nor their characteristics
- Response errors
  - Proxy respondents may not know enough about the employment situation of other household members
  - Even employees and contributing family workers may not know enough about the enterprise in which they work to classify in the informal sector
- Unreliable estimates
  - If sample is not designed to produce estimates on the informal economy
- Lack of coverage
  - Seasonal and sporadic activities may not be covered if survey is not frequent enough or reference period is not long enough
  - Secondary jobs are usually not covered



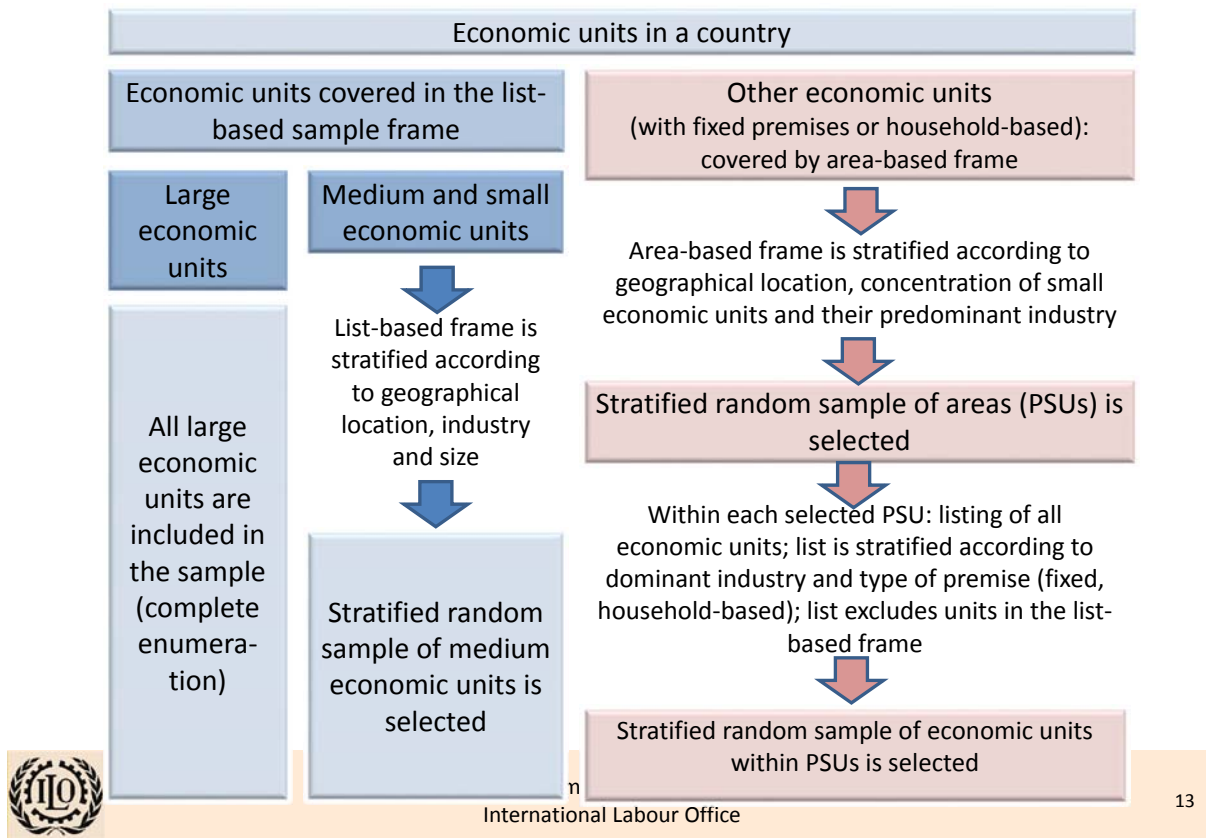
## Establishment-based surveys

- Collect information about establishments/local units/enterprises
  - From a sample of economic units
  - Sample frame is list-based complemented by an area-based frame of economic units
- Data items
  - Number of (formal and informal) establishments
    - Production, expenditures, etc.
  - Number of jobs in (formal and informal) establishments
  - Number of informal sector entrepreneurs (maybe)
  - Number of informal jobs in formal and informal units(maybe)
- Statistical units
  - *Sample unit*: Establishment / local unit
  - *Observation unit*: Establishments/enterprises, jobs
  - *Reporting unit*: Owner or manager of establishment

A person can only have one informal enterprise (with one or more establishments)  
But each household member may have their own informal enterprise



## Dual frames in establishment-based surveys



## Establishment-based surveys Advantages

- Full coverage
  - Of formal and informal sector units
  - Of formal and informal sector jobs
- No proxy response
  - Information is provided by entrepreneurs
- Coherence
  - Data on informal sector units can be related to economic units outside the informal sector, to obtain coherent data for the whole economy

# Establishment-based surveys

## Limitations

- Observation unit may not be equal to analytical unit
  - Enterprise versus establishment
    - Linkages between different establishments belonging to the same enterprise may not be reliable
    - Double counting of enterprises is possible, if no checking is done to identify establishments belonging to the same enterprise
  - Worker versus job
    - Requires adjustments to the observations
- Response burden: detailed information about the production, costs or sales of the unit may not be reliable because no registers are kept
- High cost of the listing operation in area-based surveys is expensive
- Requires high level of statistical infrastructure in the country
  - Economic census that covers all economic units



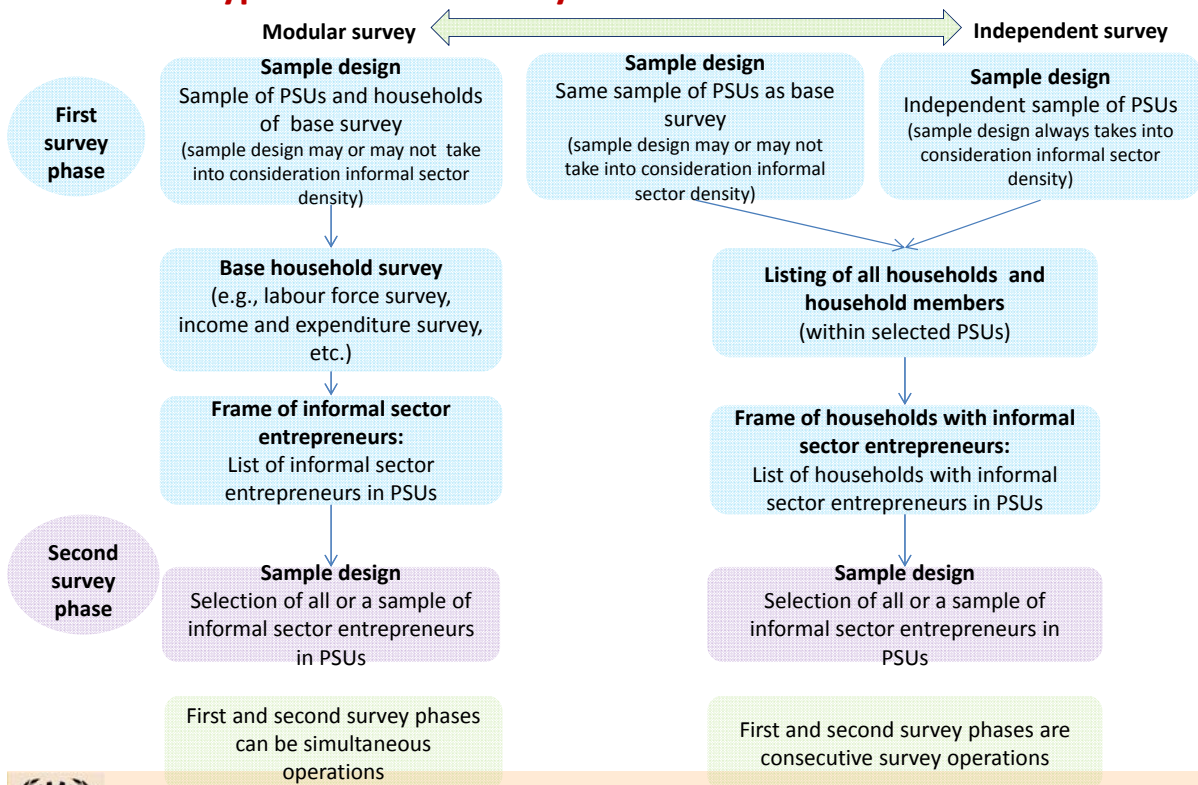
## Mixed surveys

- Collect detailed information about households and enterprises
  - From a sample of households and entrepreneurs
  - Are carried out in two phases:
    - Household survey phase (first phase) identifies informal sector entrepreneurs
    - Enterprise survey phase (second phase) obtains information about enterprises owned by informal sector entrepreneurs
- Data items
  - Number of workers and jobs in the informal economy
  - Production, income generation, costs, etc. of informal units
  - Number of informal entrepreneurs
- Statistical units
  - *Sampling units*: Households (first phase); informal sector entrepreneurs (second phase)
  - *Observation units*: Jobs, workers, and owners of informal sector unit (first phase); informal sector units (second phase)
  - *Reporting units*: One or more members of the household (first phase); owner of the informal sector unit (second phase)





## Two broad types of mixed surveys



## Mixed surveys Advantages

- Complete **coverage** of informal entrepreneurs
- It is possible to link ...
  - Information for different establishments belonging to the same enterprise
  - The characteristics of enterprises, entrepreneurs and their households
- The **low cost** of mixed modular surveys
- The lower requirements



# Mixed modular surveys

## Limitations

- Estimates may be unreliable
  - For units with fixed visible premises
    - Because generally they are too few in the sample
  - In mixed modular surveys, the sample design does not necessarily incorporate informal sector measurement as a core variable
    - The number of informal entrepreneurs may be quite small
    - No control over distribution of informal sector sample by type of activity and its representativeness
    - No guarantee to obtain reliable separate estimates for each type of informal sector activity
- Complexity of survey operations of mixed independent surveys
- Cost of mixed independent surveys as compared to mixed modular surveys



## Summing up: Data items

	<i>Labour force survey</i>	<i>Establishment surveys</i>	<i>Mixed surveys</i>
Number of workers/jobs in the informal sector	workers, jobs	jobs	workers, jobs
Number of informal workers/jobs	workers, jobs	informal jobs in the informal sector	jobs, workers
Number of informal units / entrepreneurs	entrepreneurs	units	entrepreneurs
Production, income, costs, value added	no	yes	yes



# Indirect measurement methods

- Common before the surge of surveys
  - Approximate estimates of employment in the informal sector and informal employment
- Two approaches
  - Residual balance
    - Mainly to estimate employment in the informal sector and informal employment
    - Can also be used to estimate value added
    - Combine data from different sources
  - Macro-economic estimation (econometric models)
    - Mainly for national accounts for estimation of value added
    - Also to estimate number of informal units
    - Combine aggregated variables



## Indirect measurement methods Residual balance approach

- Compares two sources
  - Population census or household survey (exhaustive source) – covering all employment
  - Economic census, establishment survey or administrative records (“register” source) – covering the “formal” sector
- Problems
  - Different units: persons – jobs – may over or under-estimate informal employment
  - “Register” source may cover less than the “formal” sector



# Indirect measurement methods

## Macro-economic estimation techniques

- Compares aggregated economic variables according to a set of assumptions
  - Supply-based methods
    - Determine production based on data about the supply of inputs that are used in producing goods and services: raw materials, labour, land, fixe capital, stocks, etc.
      - Labour input method
  - Demand-based methods
    - Determine production based on data on the uses of goods and services : household consumption, as intermediate consumption of other units, as exports, etc.



## Macro-economic estimation techniques

### Limitations

- Approximate and hypothetical
  - Depend on assumptions made
  - Depend on coverage and quality of data used
- No specific identification of informal sector due to inclusion of statistically unrecorded activities of other parts of the economy
- Can only provide estimates of the size of the informal sector, but not on its composition, functioning and other characteristics



# Quizzzz!!!

What survey do we use ....

- When the main objective is to measure the number of workers in the informal sector or in informal employment?
- When the main objective is to measure value added of the informal sector
- When the objective is to measure the number of economic units in the informal sector and their characteristics
- When the objective is to measure both the number of workers and production in the informal sector
- When no direct measurement exists

