IPUMS samples for NSSO (India)

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To workshop on “Integrating Global Census Microdata”
Durban, South Africa 15-27 August 2009
Series of Employment and Unemployment surveys

Prior to 1972: Surveys of exploratory nature

- NSSO first collected data on employment and unemployment in the 9th round (May-September, 1955), adopting a reference period of the week

- This was followed by numerous experimentations till 19th round (1967-68).
Series of Employment and Unemployment surveys

Series after 1972: Based on Dantwala Committee recommendations - Quinquennial surveys (large sample)

27th round: July 1972-June 73
32nd round: July 1977- June 78
38th round: January-December 1983
43rd round: July 1987- June 1988
50th round: July 1993- June 1994
55th round: July 1999- June 2000
61st round: July 2004- June 2005

Annual surveys – thin samples

Objectives of Employment and Unemployment surveys

– To bring out various facets of employment and unemployment at the all-India and state level

– Provide estimates of various parameters:
  • LFPR
  • WPR
  • UR
  • Underemployment
  • Labour mobility
  • Participation in specified activities
Changes in concepts, definitions and procedure used in NSS surveys on employment and unemployment.

Three aspects as mentioned below:-

- (i) changes in the coverage of production boundary,
- (ii) changes in the measurement techniques of the employment and unemployment indicators, and
- (iii) introduction of new items in different rounds and the experience of collection of data on such items with special reference to the magnitude of the estimate and sample sizes netted in the survey for such items.
Changes in the Coverage of Production Boundary
Coverage of Economic Activities

• Prior to NSS 50th round, the concept of ‘gainful’ activity was used in NSS surveys

• The coverage of ‘gainful’ activity was similar to that of economic activity used now, except the ‘own account construction of fixed assets’

• In NSS 43rd round a question was put to ascertain the proportion of persons engaged in ‘own account construction of fixed assets during last 365 days’

• Percentage of persons engaged in own account production of fixed assets: 0.73 in rural and 0.37 in urban
Coverage of Economic Activities

• Prior to NSS 61st round, activities under ‘smuggling’ were kept outside the economic activity

• Activity status of a person was judged, in the 61st and subsequent rounds, irrespective of whether such activity was carried out illegally in the form of smuggling or not

• At data collection stage of earlier rounds, probing was perhaps not extended to ascertain whether the activity was carried out in the form of smuggling or not and have actually been considered as economic activity in all NSS surveys

• Another experimentation was done to measure the magnitude of voluntary participation without remuneration in the production of goods and services
Changes in the Concept of Measurement

• **Usual status approach:**
  
  – **In NSS 27th round, the usual principal activity category was determined by considering the normal working pattern**
    
    • The activity pursued by them over a long period in the past and which was likely to continue in the future.
    
    • Thereafter, considering the activity pursued by them during the reference period
  
  – A **broad trichotomous classification was used to determine the broad usual activity viz. worker, unemployed and not in labour force in NSS 27th, 32nd, 38th, 43rd rounds.**
  
  – Starting from NSS 50th round a **two-stage dichotomous classification is being used.**
Changes in the Concept of Measurement

- **Usual subsidiary economic activity**
  - Particulars of one usual subsidiary economic activity were collected in all quinquennial rounds of NSS, except in the NSS 55th round where particulars of 2 subsidiary economic activity particulars were collected.
  - In all rounds, earlier to NSS 61st round, no minimum number of days of work, during the last 365 days, was specified to classify subsidiary economic activity.
  - From NSS 61st round, a minimum of 30 days of work, among other things, during the last 365 days, was considered necessary for classification as usual subsidiary economic activity.
Changes in the Concept of Measurement

- **Method of determination of current weekly activity (CWS) status**
  - Prior to NSS 50th round, CWS status was determined by asking a single-shot question, viz., whether got work for at least one hour on any day during the last 7 days preceding the date of survey.
  - In NSS 50th, 55th and 61st rounds, CWS activity was determined from the time disposition for the 7 days preceding the date of survey.
  - Change in the method of determining the current weekly activity had resulted in the increase of WPR in CWS approach - more so for females than for males in both rural and urban areas.
## Estimates of WPR in CWS Approach

Number of persons employed per 1000 persons according to CWS during 1972-73 to 2004-05

<table>
<thead>
<tr>
<th>round (year)</th>
<th>WPR in CWS</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>rural</td>
<td>male</td>
<td>female</td>
<td>urban</td>
<td>male</td>
</tr>
<tr>
<td>(1)</td>
<td></td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>2004-05</td>
<td></td>
<td>524</td>
<td>275</td>
<td>537</td>
<td>152</td>
</tr>
<tr>
<td>1999-00</td>
<td></td>
<td>510</td>
<td>253</td>
<td>509</td>
<td>128</td>
</tr>
<tr>
<td>1993-94</td>
<td></td>
<td>531</td>
<td>267</td>
<td>511</td>
<td>139</td>
</tr>
<tr>
<td>1987-88</td>
<td></td>
<td>504</td>
<td>220</td>
<td>492</td>
<td>119</td>
</tr>
<tr>
<td>1983</td>
<td></td>
<td>511</td>
<td>227</td>
<td>492</td>
<td>118</td>
</tr>
<tr>
<td>1977-78</td>
<td></td>
<td>519</td>
<td>232</td>
<td>490</td>
<td>125</td>
</tr>
<tr>
<td>1972-73</td>
<td></td>
<td>530</td>
<td>277</td>
<td>491</td>
<td>123</td>
</tr>
</tbody>
</table>
Introduction of new items and experience gained from data collected on such items
Labour Mobility

- Since NSS 55th round information is collected on some aspects of labour mobility, such as:
  - whether changed establishment, status, industry, occupation, etc. during the period of last two years
  - In most cases, even at the all-India level, the sample sizes are not sufficient to draw valid inferences based on these estimates

- During NSS 66th round (July 2009 to June 2010) also information on this items will again be collected.
Labour Mobility

• It was seen from the results of NSS 61\textsuperscript{st} round that significant proportion of usual principal status workers of age 15 years and above (around 7 percent rural males, nearly 9 per cent rural females, and 7 percent each of urban males and females) have changed establishment during a period of two years.

• The proportion of persons changing status, industry or occupation during the last 2 years was, however, very low (around 1 percent).
Sample sizes for items on labour mobility

- Labour mobility – changed establishment, work status, industry division, occupation division during last 2 years

<table>
<thead>
<tr>
<th>category of persons</th>
<th>Establishment</th>
<th>Work status</th>
<th>Industry division</th>
<th>Occupation division</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>r-male</td>
<td>5583</td>
<td>779</td>
<td>989</td>
<td>1030</td>
</tr>
<tr>
<td>r-female</td>
<td>2509</td>
<td>149</td>
<td>147</td>
<td>190</td>
</tr>
<tr>
<td>r-person</td>
<td>8092</td>
<td>928</td>
<td>1136</td>
<td>1220</td>
</tr>
<tr>
<td>u-male</td>
<td>2984</td>
<td>482</td>
<td>696</td>
<td>660</td>
</tr>
<tr>
<td>u-female</td>
<td>787</td>
<td>64</td>
<td>110</td>
<td>102</td>
</tr>
<tr>
<td>u-person</td>
<td>3771</td>
<td>546</td>
<td>806</td>
<td>762</td>
</tr>
</tbody>
</table>
Employment in Informal Sector

In NSS 50th and 61st rounds, information was collected on the ‘type of enterprise’ in which the workers were engaged.

- Workers in proprietary or partnership enterprises were classified as engaged in informal sector.

<table>
<thead>
<tr>
<th>% engaged in informal sector among non-agricultural workers according to usual status (ps+ss)</th>
<th>rural</th>
<th>urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>all-India</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSS round</td>
<td>male</td>
<td>female</td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>1999-2000</td>
<td>69.5</td>
<td>75.0</td>
</tr>
<tr>
<td>2004-05</td>
<td>78.1</td>
<td>77.1</td>
</tr>
<tr>
<td>1999-2000</td>
<td>67.4</td>
<td>68.5</td>
</tr>
<tr>
<td>2004-05</td>
<td>73.7</td>
<td>63.5</td>
</tr>
</tbody>
</table>
Informal Employment

• Information on Informal Employment
  – Certain questions on the conditions of employment were included to identify informal employment during NSS 61st round
    • type of job contract
      – no written job contract, and
      – written job contract (viz., for 1 year or less, 1 year to 3 years and 3 years or more)
    • whether eligible for paid leave
    • availability of social security benefits (viz., PF/pension, gratuity, health care, maternity benefits, etc.)
    • method of payment.
  – This set of question, along with the questions on enterprise type of the workers, will again be put in NSS 66th round.
Home workers/out workers

- ILO recommendation no. 184 on Home workers

  - The work is performed in his or her home or in other premises of his or her choice, other than the workplace of the employer

  - For remuneration

  - Which results in a product or service as specified by the employer irrespective of who provides the equipment, materials or other inputs
Home workers/out workers

• NSS collected data on home-workers in 55th (1999-2000) round

• Questions put
  – Location of workplace
  – Whether worked under given specification
  – Who provided credit/raw material/equipments
  – Number of outlets of disposal
  – Basis of payment

• In NSS 61st round, this set of questions were not included in employment and unemployment survey

• However, in NSS 66th round, this set of questions will again be asked to identify homeworker/homebased workers
Retrenchment /lay-off and Closure of Units

• In NSS 50th, 55th and 61st round Data collected on two aspects
  – For those who were found unemployed on all the 7 days of the week but had worked earlier, the reason for break in employment
    • Loss of earlier job
    • Lay-off without pay
    • Closure of the unit
  – For those who have changed nature of work
    • retrenchment/lay-off
    • closure of unit
Retrenchment /lay-off and Closure of Units- Some Results

Percentage of unemployed persons (unemployed on all the 7 days) but ever worked for different reasons of unemployment: 2004-2005

<table>
<thead>
<tr>
<th>reason for unemployment</th>
<th>all-India</th>
<th>rural</th>
<th>urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>loss of earlier job</td>
<td></td>
<td>2.8</td>
<td>9.9</td>
</tr>
<tr>
<td>quit earlier job</td>
<td></td>
<td>4.7</td>
<td>17.8</td>
</tr>
<tr>
<td>lay-off without pay</td>
<td></td>
<td>0.7</td>
<td>2.0</td>
</tr>
<tr>
<td>closure of unit</td>
<td></td>
<td>2.0</td>
<td>8.1</td>
</tr>
<tr>
<td>no work in the enterprise</td>
<td></td>
<td>16.5</td>
<td>14.0</td>
</tr>
<tr>
<td>no work in the area</td>
<td></td>
<td>57.1</td>
<td>24.0</td>
</tr>
<tr>
<td>others</td>
<td></td>
<td>15.9</td>
<td>24.1</td>
</tr>
</tbody>
</table>
Participation of Persons in the Specified Activities

- Follow up questions for persons engaged in domestic duties in the usual principal status:
  - Coverage has been all persons who were engaged in the domestic duties in the principal status, except for NSS 55th round wherein the coverage was restricted to the females only
  - In NSS 61st round, the follow-up questions were put to both males and females
  - In NSS 66th round also these follow-up questions will be put to both males and females
  - Proportion of persons engaged in domestic duties was 37.9% among females but only 0.4% among males
Participation of Persons in the Specified Activities - Some Results

• Among women of age 5 years and above, 16.4% in rural area and 4.6% in urban area engaged in domestic duties as per their usual status but found to be engaged in the specified economic activities including the processing of primary products for own consumption.

• The WPR for women age 5 years and above in rural and urban areas were 37% and 18% respectively.

• Therefore, the upper bound of the WPR for women aged 5 years and above in rural and urban areas is 53.4% and 22.6%, respectively.
Voluntary participation without remuneration in production of goods and services

- In employment and unemployment surveys of NSSO, participation without remuneration in production of goods and services not considered as an economic activity. Thus, the persons engaged in such activities are not considered as workers.

- In pursuance of the National Accounts Division (NAD) of CSO, information in respect of ‘voluntary participation without remuneration in production of goods and services’ along with the industry of activity was collected in NSS 61st round.

- Note that the information was collected for persons who were not employed in usual principal status and also in usual subsidiary status.
Voluntary participation without remuneration in production of goods and services

• Merely 1 per cent of the non-working people in the rural areas had participated voluntarily in the production of goods and services at least for 30 days during the period of 365 days preceding the date of survey.
• The proportion is found to be much less than 1 per cent in the urban areas.
• These questions will not be asked in NSS 66th round.
**Information on skill**

- Historically, in NSS 27th, 32nd and 50th rounds, information was collected in respect of some specified skills acquired by the individuals.
- The results were not satisfactory as most of the people reported to have acquired skill ‘other-unspecified’.
- The collection of this information was restricted to the non-workers (according to usual principal status) of age 15 years and above in NSS 55th round.
- The results showed that nearly 89 per cent of the non-workers in the rural areas and 86 per cent of the non-workers in the urban areas reported to have skill ‘other-unspecified’.
- Besides, nearly 3 per cent non-workers in the rural areas did not report skill possessed by them and they were ‘not recorded’ cases. The estimate was 2 per cent in the urban areas.
Table 7: Per 1000 distribution of persons (15 years & above) not pursuing any economic activity (i.e. non-workers) according to the usual principal status by type of skill possessed during 1999-2000

<table>
<thead>
<tr>
<th>category of persons</th>
<th>specific skill</th>
<th>others</th>
<th>n.r.</th>
<th>all</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSS 55th round (1999-2000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rural male</td>
<td>56</td>
<td>905</td>
<td>39</td>
<td>1000</td>
</tr>
<tr>
<td>rural female</td>
<td>83</td>
<td>890</td>
<td>27</td>
<td>1000</td>
</tr>
<tr>
<td>urban male</td>
<td>96</td>
<td>881</td>
<td>23</td>
<td>1000</td>
</tr>
<tr>
<td>urban female</td>
<td>134</td>
<td>849</td>
<td>17</td>
<td>1000</td>
</tr>
</tbody>
</table>
Seeking or Available or Suitable for the Type of Occupation

• In NSS 61\textsuperscript{st} round, information on ‘seeking or available or suitable for the type of occupation’ was collected for persons of age below 75 years who were either unemployed or were out of labour force in the usual principal status (i.e., non-workers).

• The results of NSS 61\textsuperscript{st} round also show that it is difficult to collect the ‘skill’ level of the persons who are not in labour force

• In NSS 66\textsuperscript{th} round also information on this item will be collected.
Self-employed Persons Who Reported Their Earnings as Remunerative

• In the quinquennial round surveys, wage and salary earnings, for the work done during the week, are collected in respect of the employees (i.e., regular wage/salaried employees and casual labours).

• In order to get an idea about the earnings of the self-employed, two indirect questions were asked, in NSS 61\textsuperscript{st} round, to the self-employed persons according to usual status (ps+ss), namely,
  – ‘do you regard the current earning from the self-employment as remunerative?’ and ‘
  – what amount per month would you regard as remunerative?’

• It may be noted that in NSS 66\textsuperscript{th} round, these questions will again be asked.
Participation in NREG works

• Information on number of members who got work for at least 60 days in ‘public works’ during last 365 days is being collected from NSS 43rd round.

• With the implementation of NREGA in 2005, all the public works programmes have been brought under one umbrella.

• It is important to note that now, NREGA envisages 100 days of guaranteed unskilled wage employment to each household in rural areas of the entire country seeking such employment, and has gained momentum in recent times.

• In view of this in NSS 66th round, information from rural households will be collected on the following three items:
  a) Whether the household has NREG job card?
  b) Whether got work in NREG works during last 365 days
  c) Number of days worked
  d) Mode of payment
Sampling Design

Stratification: Rural Areas

In NSS 27th round, strata were formed, within each region, by grouping tehsils (except in two cases where part of tehsils has been considered) which were (i) contiguous, (ii) having similar crop-pattern, population density and about the same altitude above sea level and (iii) having good transport and communication facilities amongst them.

- The formation of strata is done in such a way that total rural population is about the same for each stratum within a region in a state/union territory.
Sampling Design-Contd

• In NSS 32nd round, the whole of India was divided into a number of basic strata so that the basic strata do not cut across district boundaries. Each district with less than 1.5 million 1971 census rural population formed one basic stratum by itself except in Gujarat and Arunachal Pradesh where some districts with less than 1.5 million population have been divided into two or more basic strata.

• A district with more than 1.5 million 1971 census rural population was divided into a number of basic strata, depending on its rural population, by grouping contiguous tehsils (sub-divisions in Bihar, Orissa and West Bengal) homogeneous as far as possible with respect to rural population density and crop pattern. Basic strata so formed was treated as basic strata for both rural and urban sectors.
Rural:

- In other NSS quinquennial rounds, generally each district (sometimes a group of them and part of a district in case of large districts) forms a separate stratum. However, in the 55th round, all small villages of population less than or equal 100 and all villages of population above 15000 formed two special strata (no. 1 and 2, respectively) at the State level other than the districts as separate strata.
- Again, in NSS 61st round also in the rural areas, the basic stratum of the rural areas was formed comprising of all rural areas of the district.
Stratification-Urban Areas

- In NSS 27th round, in each state/union territory, towns with population less than 50,000 during 1971 census formed stratum 1 and the remaining towns and cities, except the 4 cities, viz., Bombay, Calcutta, Delhi and Madras, formed stratum 2. Each one of these 4 big cities forms stratum 3 of its respective state.
- In other rounds, except in NSS 61st round, strata were formed within each NSS region by grouping cities and towns. In NSS 61st round, urban stratum was formed comprising of all the urban areas of the district.
Selection procedure of FSUs:

- The villages in rural areas and the urban frame survey blocks in the urban areas, generally constituted the frame for selection of FSUs,

- **Rural**: Circular systematically with probability proportional to population in general. In 55th round, equal probability sampling was adopted in the case special stratum 1 and PPS systematic sampling for the rest. In NSS 61st round, FSUs were selected by Probability Proportional to Size With Replacement (PPSWR), size being the population as per Population Census 2001.
Selection procedure of FSUs:

- **Urban**: Circular systematically with equal probability, in general. In 55th round, equal probability sampling was adopted in the case of urban. In NSS 61st round, FSUs were selected by Simple Random Sampling Without Replacement (SRSWOR).

C. Selection procedure of SSUs (households):

- In NSS 38th round, households were selected by equal probability sampling. However, in NSS 43rd, 50th and 55th round, the households were selected by Circular systematically with equal probability. In NSS 61st round, the households were selected by SRSWOR.
THANKS