

Introduction to the NSS Surveys of Employment and Unemployment

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NSS an introduction

- What are National Sample Surveys (NSS)?
- Who conducts these surveys?
- How often are they conducted?
- How do we obtain the findings/data of these surveys?
- What are the issues/topics/activities that are covered the NSS
- What is an NSS round?

But first some preliminaries about surveys

- Unit of study
- Respondent/informant
- Questionnaire – schedule
- Reference period
- Sample survey Vs Census/full coverage of population
- Enquiry method – NOT OBSERVATION

Unit of study & Respondent

- **An individual (self)**
 - Worker , Student, *migrant* worker
- **An enterprise**
 - Owner/manager/Accountant/supervisor of enterprise
 - Worker of the enterprise
- **A household**
 - Head of the household (maximum information?)
 - Woman of the household (availability criterion?)
 - Multiple members of household (HH + woman + children)
 - Any member of household
- **A village**
 - Headman, caste leaders, school principal
- **A slum**
 - Social workers, public utility related officers, municipal officers

NSS Surveys – household based

- Consumer Expenditure
- Employment and unemployment
- Housing Condition
- Debt and investment
- Situation Assessment Survey of Farmers
- Land & livestock holdings
- Participation & Expenditure on Education
- Domestic Tourism
- Migration
- Health

NSS Surveys – Enterprise based

- Non-agricultural Enterprises in Informal Sector
- Informal sector – Unincorporated enterprises and non-agricultural enterprises
- Unorganised manufacturing sector enterprises
- Unorganised services
- Service Sector Enterprises
- Unincorporated Non-agricultural Enterprises (Excluding Construction)

NSS Surveys – Others

- Particulars of Slum

Each survey has its own questionnaire

- Schedule 0.0: List of Households
- Schedule 0.21: Particulars of slum
- Schedule 1.0: Consumer Expenditure
- Schedule 1.2: Housing Condition
- **Schedule 10: Employment and Unemployment**
- Schedule 2.34: Unincorporated non-agricultural enterprises (excluding construction)
- Schedule 2.345: Service Sector Enterprises (excluding trade)
- Schedule 21.1: Domestic tourism

Changes to questionnaire done from time to time (see for example section 4.0.1 in Chapter-4_68.doc)

Continuing on NSS surveys

- How are the topics chosen?
- Can there be more than one issue per round?
- How often are the surveys repeated?
- What is a thick round?
- What is a thin round?

NSS surveys on employment and unemployment

- Largest household survey in India (100957 households and 459784 persons were surveyed in 2009-10.);
- 2011-12 68th round (1,01,724 households (59,700 rural and 42,024 urban) and 4,56,999 persons (2,80,763 rural and 1,76,236 urban)
- Largest geographical coverage
- Information on a wide variety of household characteristics
- Greater acceptance than other surveys (Census, NFHS
- Most comprehensive, quinquennial surveys specially designed for labour and employment issues

NSS Employment Surveys so far (thick)

Round No	Year	Reference period
27 th	1972-73	September 1972 – October 1973
32 nd	1977-78	July 1977 – June 1978
38 th	1983	January 1983 – December 1983
43 rd	1987-88	July 1987 – June 1988
50 th	1993-94	July 1993 – June 1994
55 th	1999-00	July 1999 – June 2000
61 st	2004-05	July 2004 - June 2005
66 th	2009-10	July 2009 - June 2010
68 th	2011-12	July 2011 – June 2012

Employment surveys concepts

- Economic activity
- Household
- Activity status - Worker
- Variables such as
 - Age
 - Gender
 - Education

Employment surveys what do they cover?

- (Economic) activity status,
- Industry of employment
- Occupation
- Earnings (from employment)
- Other information such as Age, education, gender, household characteristics
- Multiple occupations/jobs
- Non work status

From these surveys we can estimate

- Labour force participation rates
- Worker population ratios,
- Unemployment rates,
- Employment in the informal sector
- Informal employment,
- Average wage levels (across regions, industries, occupation and so on)

Employment surveys concepts

Three reference periods

- One year usual status
- Reference period of one week **Current weekly status**
- Each day (seven days preceding the survey)
Current daily status

Activity statuses

- Principal Status
- Subsidiary status

Employment statuses in the NSS

(page 209)

- Self employed
 - Own account (11)
 - Employer (12)
 - Unpaid family workers – helpers (21)
- Regular workers (31)
- Casual worker
 - in public works (41)
 - NREGA (42)
 - Others (52)
- Seeking employment (81)
- Worker unemployed due to illness (71/72)

Employment estimates from NSS

- Usual status – reference period of one year
 - Principal usual status workers
 - Principal usual status non workers
 - Subsidiary status workers
 - Principal and Subsidiary status workers (PS+SS)
- Current weekly status – reference period of one week
- Current daily status
 - Multiple activities during each day of the past week.

NSS rounds and sub-rounds (2011-12)

- Sub-round 1 : July - September 2011
- Sub-round 2 : October - December 2011
- Sub-round 3 : January - March 2012
- Sub-round 4 : April - June 2012

Industrial classification and occupational classification

- How are industry and occupations of households and individuals identified and coded
- For comparability across economic activities, across regions, across time and across different sources standardized industrial classification time and across regions Industrial classification codes by the CSO
- The National Industrial Classification (NIC)
- The National Occupation Classification (NCO)
- Revised from time to time.

NIC – National Industrial classification

National classification	International classification	Level of disaggregation	
NIC - 1962	ISIC Rev.1 (1958)	4 - digit	
NIC -1970	ISIC Rev.2 (1968)	4 - digit	
NIC -1987	ISIC Rev.2 (1968)		
NIC - 1998	ISIC Rev.3 (1990)	5 digit	2+1+1+1+1
NIC – 2004	ISIC Rev.3.1 (2002)	5 digit	2+1+1+1+1
NIC – 2008	ISIC Rev.4 (2006)	5 digit	2+1+1+1+1

Examples of Industry/occupations

NCO/ Code	NIC code/description	Employment status code
Sweeper / cleaner	Municipal worker, Iron and steel factory, biscuit factory, restaurant	Casual worker, regular worker, unpaid family worker, rarely own account worker
Driver (car, truck, train)	Municipal worker, Iron and steel factory, biscuit factory, taxi (service), hotel (tourism)	Casual worker, regular worker, sometimes own account worker
Welder (mig, tig, arc)	Iron and steel factory, biscuit factory, bicycle factory	Casual worker, regular worker, sometimes own account worker (grill maker in your locality) ²¹

Examples of Industry/occupations

NCO/ Code	NIC code/description	Employment status code
Lathe operator	Auto components, automobile, bicycle factory	Casual worker, regular worker, unpaid family worker, rarely own account worker
Painter	Municipal worker, self employed, auto component, automobile, bicycle factory	Casual worker, regular worker, unpaid family worker, rarely own account worker
Store keeper	Wholesale shop, warehouse, all kinds of factories, government store	Casual worker, regular worker, unpaid family worker

NSS sampling, stratification, Multiplier

Stratified multi stage sample design

- Country
- State
- District (NSS regions till 1993-94?)

First stage stratification

- Rural (villages, panchayat wards in Kerala)
- Urban (urban frame survey blocks)

Second stage stratification

- Village (households)
- Urban blocks (Households)

First stage

First stage stratification

- rural stratum comprising all rural areas of the district and
- urban stratum comprising all the urban areas of the district (one million population town / separate stratum)

2011-12 - Total number of 12784 FSU

- 7,508 villages / 5,276 urban blocks
- Allocation proportional to population
- Double weightage to urban areas
- Minimum 16 FSUs (8 rural/8 urban)
- Sub stratum in multiples of 4/equal in each sub-round

Selection of FSU

First Stage Units Selection

- selected by probability proportional to size with replacement (**PPSWR**), size being the population of the village as per Census 2001
 - FSUs were selected by using Simple Random Sampling Without Replacement (**SRSWOR**).
-
- Two independent sub-samples are drawn
 - Each stratum has minimum 4 FSU

Second stage

- Selection of Ultimate stage units (Selection of hamlet-groups/sub-blocks):
 - Creation of hamlet-groups/sub-blocks: (1200/600)
 - Hamlet-groups/sub-blocks formed only in the sample FSU by more or less equalising populations.

Approximate present population upto 1200 – 1 hamlet/sub-block

1200 to 1799 3 hamlet/sbs

1200 to 1799 4 hamlet/sbs

1800 to 2399 5 hamlet/sbs and so on

- Selection of hamlet-groups/sub-blocks

If large FSU (village or urban block) divided into hamlets/sbs,
then **two** hamlet-groups (hg)/ sub-blocks (sb) were selected
else one FSU

Selection of second stage units

(depends on focus of survey)

Stratification of Rural households (Second Stage Strata - SSS)

Code	Composition of SSS	Number of households to be surveyed	
		FSU without hamlet group	FSU with hamlet group formed
SSS1	Relatively affluent households	2	1
SSS2	Of the remaining, households having principal earning from non- agricultural activity	4	2
SSS3	Other households	2	1

NSS Sampling design and procedure (cont)

Stratification of urban households

Code	Composition of SSS	Number of households to be surveyed	
		FSU without sub block	FSU with sub-block formed
SSS1	Households having MPCE of top 10% of urban population ($\text{MPCE} > B$)	2	1
SSS2	Households having MPCE of middle 60% of urban population ($A \leq \text{MPCE} \leq B$)	4	2
SSS3	Households having MPCE of bottom 30% of urban population ($\text{MPCE} < A$)	2	1

From sample to population

Use of Multipliers

- Each sample unit has a multiplier
- In the employment unemployment surveys, the same multiplier holds for all members of a household.
- Multipliers are computed by the NSS and provided to us along with unit level data
- One example of computing the multiplier

An example

Distribution of workers in coffee curing works across states and by gender NSS estimates 2011-2012

Sl No.	State	State code	Male	Female	Total
1	Gujarat	24	2,408	0	2,408
2	Karnataka	29	1,724	82	1,806
3	Kerala	32	0	3,967	3,967
4	Tripura	16	894	0	894
5	Uttaranchal	5	2,666	0	2,666
6	India	Total	7,692	4,049	11,742

Note: computed from NSS unit level data

Actually it was a bad example, See why

Distribution of workers in coffee curing works across states and by gender - **NSS sample**, 2011-12

1	State	State code	Male	Female	Total
1	Gujarat	24	1	0	1
2	Karnataka	29	3	1	4
3	Kerala	32	0	1	1
4	Tripura	16	1	0	1
5	Uttaranchal	5	1	0	1
6	India	Total	6	2	8
From NSS unit level data					

Thank you