

APPENDIX - IV

Sample Design of NSS 57th round

General

57th round of NSS (July 2001 to June 2002) has been earmarked for conducting mainly the survey of service enterprises (excluding trade and finance) in the unorganized sector. In addition, annual survey of household consumer expenditure along with a few employment-unemployment particulars will be conducted in this round as per usual practice.

Sample Design

1. A stratified multi-stage design will be followed for this survey. The first stage units (FSUs) will be villages (Panchayat wards for Kerala) / UFS blocks (wards for 66 towns of Karnataka where UFS blocks were not used during EC '98 work) [hereinafter referred to as 66 towns of Karnataka] and the ultimate stage units (USUs) will be enterprises under coverage and households. However, in the case of larger FSUs requiring hg / sb formation, one intermediate stage will be the selection of hg's / sb's. For 66 towns of Karnataka, two UFS blocks will be selected from the selected wards - one with probability 1 having maximum number of enterprises of the category specific to the substratum (defined later) and another with SRS out of the remaining. In case, the no. of UFS blocks available in the selected wards is less than or equal to two, all of them will be selected.

2. *Sampling frame*: List of Economic Census 1998 (EC '98) villages (Panchayat wards for Kerala) / UFS blocks (wards for 66 towns of Karnataka) will be taken as the sampling frame for FSUs.

3. *Formation of strata*: Stratification is to be made on the basis of number of workers in unorganized sector enterprises engaged in the activities under coverage of NSS 57th round as per EC '98. (Hereafter, "workers" will mean **workers in unorganized sector enterprises engaged in the activities under coverage of NSS 57th round as per EC '98**).

a) **Special stratum**: One *special* stratum for Rural and Urban sector each may be formed at the State / UT level consisting of all the FSUs of the State / UT (i) having at least one big unit of an activity under coverage on the basis of its number of workers or (ii) having large number of workers engaged in the same activity as in (i). The cut-off points for identifying these FSUs are given in Statement 1. *All the FSUs of the special strata will be surveyed*. The stratum number for special stratum will be 9 for each State or UT.

b) **General strata** (hereafter, stratum will refer to *general stratum* unless otherwise mentioned) will be formed from the remaining FSUs in the following manner:

Rural: In the rural areas each NSS region will be treated as a stratum.

Urban: In the urban areas, the strata will be formed within an NSS region as under:

- (i) towns with population (P) less than or equal to 10 lakhs and
- (ii) each town with P > 10 lakhs.

as per Population Census 1991.

Statement 1: activity-wise cut-off number of workers for identifying FSUs with big unit or large number of workers for special strata		
activity	cut-off number of workers	
	at least one big unit in an FSU	total no. of workers in an FSU
(1)	(2)	(3)
1. storage & warehousing	200	300
2. hotels	200	350
3. post & telecommunications	200	250
4 mechanized road transport	250	400
5. real estate, renting and business activities	300	750
6. health and social work	500	550
7. restaurants	300	350
8. education	300	550
9. other community, social and personal service activities & other transport	400	700

4. Sub-stratification

After leaving out the FSUs which have formed part of the special strata at State/UT level, the *remaining* FSUs of a stratum are to be grouped into a number of sub-strata following the sequential steps as described below:

- sub-stratum 1: all FSUs having at least one establishment (i.e. enterprise with at least one hired worker) of Storage and Warehousing.
- sub-stratum 2: all FSUs, excluding those in the already formed sub-stratum 1, having at least one establishment of Hotel.
- sub-stratum 3: all FSUs, excluding those in the already formed sub-strata, having at least one establishment of Post and Telecommunications
- sub-stratum 4: all FSUs, excluding those in the already formed sub-strata, having at least one establishment of Mechanized road transport .
- sub-stratum 5: all FSUs, excluding those in the already formed sub-strata, having at least one establishment of Real Estate, Renting & Business Activities (i.e. Tabulation category K of NIC '98).
- sub-stratum 6: all FSUs, excluding those in the already formed sub-strata, having at least one establishment of Health & Social Work (i.e. Tabulation category N of NIC '98).
- sub-stratum 7: all FSUs, excluding those in the already formed sub-strata, having at least one establishment of Restaurant.
- sub-stratum 8: all FSUs, excluding those in the already formed sub-strata, having at least one establishment of Education (i.e. Tabulation category M of NIC '98).
- sub-stratum 9: all FSUs, excluding those in the already formed sub-strata, having at least one establishment of Other Community, Social and Personal Service Activities (i.e. Tabulation category O of NIC '98) & other transport.

sub-stratum 10: all FSUs, excluding those in the already formed sub-strata, having at least one own account enterprise (OAE) i.e. enterprise with no hired worker in any one of the Tabulation categories H, I, K, M, N, O of NIC '98.

sub-stratum 11: rest of FSUs of the stratum.

Sub-stratum number for FSUs of the special strata will be 1 to 9 only.

5. Total sample size (FSUs)

States and UTs (except A & N Islands, Dadra & Nagar Haveli and Lakshadweep) will participate with at least on equal matching basis. However, central sample size (FSUs) may be around 16000 keeping in view that there will be about 900 investigators available for the survey each having the annual work-load of 18 FSUs .

6. Allocation of total sample to States and UTs

The total sample FSUs will be allocated to the States and UTs broadly in proportion to number of workers subject to the availability of investigators ensuring more or less uniform work-load.

7. Allocation of State/ UT level sample to Rural and Urban sectors

State/UT level sample size will be allocated to rural and urban sectors in proportion to the total number of workers.

8. Allocation of Rural /Urban sector level sample size to strata / sub-strata

Rural/Urban level allocation will be further allocated to strata in proportion to the total number of workers. Again, the allocation among the constituent sub-strata of a stratum will be done in proportion to the total number of workers with weights 4 for sub-stratum 1; 3 for sub-strata 2, 4, 5, 7 and 9; 2 for sub-strata 3 & 6 and 1 for sub-strata 8,10 & 11. For sub-stratum 11, size will be taken as 1 for each FSU. (The weights for allocation of sample FSUs among sub-strata in a stratum are taken to be inversely proportional to the total number of FSUs in those sub-strata).

Minimum allocation for a sub-stratum will be 4 FSUs provided there exist at least 4 FSUs in the sub-stratum. In case there are less than 4 FSUs in a sub-stratum, all the FSUs will be allocated and surveyed.

Allocation to sub-strata may be rounded to multiple of 4 so that it is possible to allocate at least 2 FSUs to each substratum in a semi-round (six monthly) to get semi-round wise estimates.

9. Selection of FSUs

FSUs will be selected from sub-strata 1 - 10 by circular systematic sampling (CSS) with probability proportional to size (PPS), size being the number of workers in the FSU. For sub-stratum 11, FSUs will be selected by CSS with equal probability. The samples will be drawn from each sub-stratum in the form of two independent equal sub-samples. Wherever States and UTs will participate on equal matching basis a combined sample of state and central sample at the sub-stratum level will be drawn. Odd numbers will be assigned to central sample and even numbers to state sample. In case of unequal matching, central and state samples will be selected independently. However, it may lead to repetition of state and central samples.

10. Treatment of common samples (FSUs)

Special strata: As the FSUs of the special strata will be common to the central and state sample, these will be surveyed by FOD and a copy of the filled in schedule will be made available to the respective States/UTs. In states where the central sample is surveyed by the state staff, this exercise is to be carried out by them.

General strata: All the FSUs which are common in state and central samples within a sub-round, an asterisk mark will be given against them in the sample list. FOD will take up these FSUs for survey in the beginning of sub-round. A copy of the filled in schedules will be made available to the respective states by FOD if the States so desire.