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Introductory Note on Census Enumeration *
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Introductory Note on Census Enumeration

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This introduction to census enumeration highlights some areas where problems and successes were encountered during the enumeration stage of the census. My role is to set the stage for our discussion of the topic. Owing to its extreme importance for executing a successful census, we have discussed enumeration issues since the inception of census taking. Initially we did not include the item in our agenda. However, many countries mentioned that they would like the current issues in census enumeration discussed at the Symposium.

We have raised some generic issues for your consideration. Realizing that many of you have recent first-hand experiences in census enumeration, you may want to raise other issues for discussion. We would be grateful if you would raise them as well.

Method of enumeration

We have observed a gradual shift in enumeration practices. Many countries are using multiple options to collect the data ranging from the conventional face to face interview to mail out or mail back or even electronic responses through the Internet. A few countries are also pre-filling responses in the census questionnaire from their administrative records.

The criteria driving countries to choose one or another method of enumeration may include any of the following:

Budgetary constraints – over 70 percent of the census costs are often attributable to enumeration.

Authority for decisions – constitutional provisions, census laws adopted at the beginning of planning phases or administrative regulations

Production capacity – ability to produce maps (Ethiopia), capacity to print questionnaires and related documentation-based on availability of technology and expertise to maintain it. Undertaking these activities elsewhere impinges on quality and retaining control and insuring confidentiality.

Logistics capacity – bulk movement of materials to respondents and upon completion to the offices where they will be processed-transportation networks, roads, trucks etc.

Coinciding with other national activities – for instance, scheduling an election when census planning is already underway.

Seasonal weather patterns – the best assurance for a census is that it be held in mild and non-stormy weather. For instance in Mongolia, the census was scheduled for winter in order to insure that the nomads were stationary. The most recent census was undertaken in a season with unprecedented blizzards.

Security of enumerators – difficulties in enumeration where civil unrest limits security

Public attitudes – where public sentiment is opposed to the census, the census will require extensive expenditures to insure cooperation.

Other factors include: Organizational structure; Type of questionnaire and its contents; Training programme; Content and scope of the publicity campaign; and System of management of records.

Whatever method one chooses, the decisions on the method of enumeration must be taken at an early stage in census planning, as methods adopted will have direct bearing on these issues.

Most of the time decisions are based on a combination of these considerations. However cost is one of the major factors influencing the decision.

Census contents

Over the last two days we have discussed the various modalities of data collection tools such as use of short and long forms to collect basic socio-economic and demographic information. With the rising need for data, the detail of information collected on socio-economic characteristics has increased considerably and census organizations are being asked to collect more and more data that is of higher complexity and quality in countries where the census is the only source of such data. In turn, this increased demand requires better enumerators and more complex training.

Besides, in countries where such detailed data are collected on a sample basis, selection of the sample households adds another dimension to the debate. The cost and quality of the census enumeration is influenced by the systematic selection of the sample and the possibility that enumerators will alter the planned approach. Common wisdom is that quality is more likely to be assured if the sample is based on entire enumeration areas. One can also discuss the pros and cons of using random vs. cluster/stratified samples and other related issues.

- **Census/survey enumerators**

Enumerators have generally been drawn from the general public, from civil servants such as teachers or from the unemployed, university and college students. Both the length and intensity of training depends on the quality of enumerators recruited.

The qualities of good enumerators are that they are able to work independently, solve problems on the spot and know when to contact supervisors for problems that arise that are outside their scope.

How do country can select a team of enumerators who can successfully conduct the census enumeration in a given time and avoid major problems during the enumeration period.

- **Training enumerators**

The quality of training is dependent on clear and simple enumeration manuals, clear understanding of the concepts and definitions used in the questionnaire by both enumerators and supervisors among other things, duration of training and hands on experience during the training process.

Generally it has been found that training is most effectively conducted in a cascading manner with - a small group is trained and they in turn train a larger group in each region of the country. The timing of the training programme is crucial. In the ECLAC region a more effective system was found to involve some of the new technologies such as –

- **Remuneration of enumerators**

One of the most expensive parts of the census is the cost of census enumeration. The cost can be rationalized on the basis of the method of remuneration to enumerators. If teachers or other civil servants are used, the direct costs can be reduced. If you hire unemployed or recruit from the general population, resources must be mobilized for hiring, training and paying the new work force for a longer duration which increase the enumeration costs.

A reasonable remuneration with checks and balances for quality assurance is found to be more effective than a standard payment for each person. Different modalities for remuneration can be a tool for quality assurance if remuneration is based on a method that encourages high quality work. When enumerators are not rewarded for careful work or perceive that they will be paid regardless of their efforts to obtain responses from each household in their enumeration area, quality may suffer.

Timing and Logistics

The proper timing of the census is important in insuring the completeness of coverage. For example, in rural communities, there are seasons when most of the population returns to rural areas considered as their home to participate in the harvest. This makes enumeration simpler. Long national holidays are the worst time and need to be avoided. Mild weather facilitates census taking.

The logistics of the population census can be mind-boggling at all stages from printing and distributing the questionnaires to their collection for data capture and data processing. Communication between the census administrator and field units and between the interviewers and supervisors has traditionally been a challenge. A number of authors have indicated that this phase of logistics was improved through the use of cell phones and e-mail communication. Are there other development that have reduced logistical problems?

.The technology of data recording in the field is in the process of change. The direct entry of information collected in the field will enhance data quality and its timely release.

Hard to enumerate groups

People who do not have a permanent residence or those that move regularly were traditionally identified as nomads, refugees or displaced persons, floating or homeless persons who do not have a permanent abode and persons living in remote areas, inaccessible areas or areas experiencing civil unrest. In recent decades, countries have increasingly reported that urban dwellers, young persons, ethnic sub-groups and persons living in institutions are difficult to enumerate. Special provisions are described for enumerating such sub-groups of the population in several papers presented here.

Two issues – the definition of who should be enumerated and how to enumerate them need to be discussed. Some examples of groups that are difficult to identify or locate include

- Persons on footpaths or camping on the streets or in ‘vacant buildings’
- Mongolia, children were sleeping in underground tunnels with heating ducts
- Persons living in areas where there is civil unrest
- Young persons who are away from their parents households may be missed;
- Persons who may be in an area without documentation and wish to remain unnoticed
- Refugees or displaced persons - who live in camps or with the resident population;
- Persons who are nomadic and cross borders between countries.

What impact does a de jure census have on the quality of statistics on the homeless?

What is the impact on census costs of enumerating these groups?

Unforeseen events that required changes in plans

In planning the census, consideration should be given for emergencies such as floods, earthquakes, wars, outbreaks of disease and contingency plans should be made for handling such events. How countries develop such contingency plans and how countries resolve the problems arising from the inability to enumerate the population under such difficult circumstances need to be discussed in the light of recent experiences. Some countries continued the enumeration, for example India, but postponed it in the region affected by the earthquake; some delayed the entire enumeration, such as Ireland in contending with Hoof and mouth Disease; and other countries adapted in different ways.

As Ireland reported, in having to delay its census for an entire year, conducting a census requires not only good planning, but a modicum of luck.

In conclusion, if there are other issues that affected the quality and cost of enumeration, we would like to hear your experiences that led to difficulties and the solutions that were implemented.