

## **Problems in the Design of Household Surveys Related to Basic Needs\***

by

**Mahar Mangahas\*\***

### **1. The Survey in the Context of a Diffuse Statistical System**

There are few hard and fast instructions for the design of household surveys, particularly when the subject matter has an important political element, as in the case of basic needs. Ideally, household survey data are meant to serve the interests of the general public; and, if one were to add "especially the interest of masses of the poor," perhaps not many objections would be raised. Yet, at the same time, the public's interests are to be served indirectly, through a complex structure of institutions that demand, supply, analyze and disseminate socio-economic data. The typical household survey is undertaken not by some imaginary monolith but by one institution among many.

The design of the survey, therefore, has to take into consideration the entire information system, and, within this system, the role of the data-gathering agency which is considering the survey. There may be several alternative sources of data. In general, the information system will include not only a central statistical service but also the statistical divisions of specialized government agencies; the latter divisions will be both keeping track of certain data from administrative files and, from time to time, conducting household surveys of their own. In addition, there are research institutions in the universities, in private business, in trade unions,

---

\*Paper prepared for an ESCAP Seminar on Household Surveys, Bangkok, 15-26 September 1980.

\*\*Vice-President, Research for Development Department, Development Academy of the Philippines.

and in other private organizations. Each institution will have its own objectives and terms of reference, which will determine its data needs.

Even on a topic of common interest, let us say housing, it will usually be impossible for one household survey to serve the needs of all institutions. Some agencies will be policy implementors, and others will be policy evaluators. There will be some system of institutional checks and balances, very likely deliberately created, both within government and between it and the non-governmental institutions, and this system will necessarily extend to the activity of data gathering. It is difficult to conceive of one and only one agency as "the" perfectly neutral and objective source of household survey data.

Of course, it may prove efficient for some agencies to cooperate, and establish a committee to oversee a common survey. Some government funds may be saved in this way. Yet, there will still be the question of the accuracy of the data, and of the integrity of the data generation system. Will a committee-designed survey on community health include items which can potentially reveal failures in the government's health program, if the health agency is also part of the committee? Is it likely that critics of the health program would be members of the committee? And, if they are, how valid will be an evaluation of the health program based on data from a survey questionnaire and implementation system decided on through compromises reached within the committee, between critics and proponents?

In the final analysis, the only real check on the accuracy of survey data is *replication*. It should not only be a potential check; it should be applied by independent institutions from time to time. Where competing research and statistical institutions are relatively young and few in number, as in the LDCs, the replications tend to be rather few, and one would expect a high social payoff from them. The warnings one hears about alleged waste from 'duplication' of statistical efforts may come, more often than not, from those with vested interests in the weaknesses of existing household surveys. Thus, although inter-agency survey efforts may be warranted in order to cut costs and to consolidate expertise, they

should not pre-empt or substitute for socioeconomic evaluations based on alternative, independent sources of information.

## 2. Data Content of Basic Needs Surveys: Well-Being Indicators

The following discussion on data content does not presuppose that all the data have to come from household surveys, let alone from one survey done by one institution. It may suit the information system to have some data come from administrative files and some from surveys; both administrative and survey data may be replicated by different agencies; and survey data may serve to verify administrative data, as well as vice-versa. In short, multiple sources are possible, and, for reasons stated earlier, even desirable.

The discussion does presuppose some faith in the efficacy, either at present or in the near future, of collective intervention, presumably by government, in the social, economic and political system, for the sake of certain national development objectives. This assumption is also implicit in, for instance, the establishment of a state planning machinery. Thus, conceptually, there have to be distinctions between social goals and their determinants, as well as, among the latter, the instruments of government policy. The outputs, the inputs, the constraints — all these need to be measured and verified, in various modules of the statistical system, and then collated and jointly analyzed.

The 'outputs' refer to aspects of final well-being. Such 'social concerns' (to use an OECD terminology) as housing, health and education have many aspects of final well-being or welfare, and it is important that 'input' measures are not substituted for them. In general, these aspects can be classified into three: (a) Growth, (b) Equity and (c) Provision for the Future. Categories (a) and (b) pertain to present conditions, and category (c) pertains to the degree of permanence of those conditions.

Under *Growth* (growth for "goods" and decline for "bads") we include indicators of aggregate or average well-being: such as average number of occupants per dwelling, average number of years of life expectancy, average number of years of schooling.

In practice, most sets of social and economic indicators have a preponderance of aggregate-oriented variables.

Under the Basic Needs orientation, the set of Growth variables would notably include proportions of the population above certain critical minimum needs, such as food, dwelling space and so on. These data are usually conveniently obtained from household surveys. The critical boundaries themselves can be established in a variety of ways, e.g., in Malaysia, the minimum food budget is that which it costs government hospitals to feed patients on normal diets. Such *ex ante* bases for setting the boundaries or thresholds can, and probably should, be checked by obtaining the people's perceptions, through a household survey, as to what they should be. Questionnaire items can also inquire whether a respondent perceives that he has or has not met a critical minimum need, without requiring a precise statement from him as to his definition of the threshold level. Experience in the Philippines and in Malaysia indicates that respondents reply to such items more easily and openly, as compared to items about 'objective facts' such as their income and expenses, which require them to strain their memories and which are more intrusive to their privacy. The use of perceptions-type items in household surveys is likely to grow substantially in the future.

Those individuals or families who fail to meet a given basic need are often, though not always, those who least deserve their fate. The aspects of *Equity* is measured by providing for certain modes of disaggregation of the data; in particular, those modes which would indicate the existence of social inequity (in the specific country context) if the data showed differences in social well-being *between* the groups formed by the disaggregation. In principle, the degree of desirable disaggregation reaches its limit when the differences in well-being *among* the members of a particular group is of little consequence, in the country context.

This is the main rationale for the use of the *family*, rather than the individual, as the basic unit of observation in the analysis of distributive equity. The family can be regarded as a group which allocates its resources among its members, in order to maximize its group welfare. In so doing, it may, for instance, deli-

berately withhold some food from children in order to keep the income-earning adults more fit for work. A hard decision, no doubt, which should be reflected in the statistics about underweight children, as well as in the statistics about family income. But it should not be construed as reflecting so-called 'intrafamily maldistribution'; to interpret it thus would be to impose some external notions of equity on the family's own judgment.

There should be a clear distinction (often missed, in actual practice) between disaggregation for the sake of measuring Equity and disaggregation for the sake of testing hypotheses as to the determinants of well-being. What is the purpose of working out 'standard' breakdowns such as income classified by sex, by age cohort, or by region? In this specific example, the sex and regional breakdowns have an Equity-orientation, supposing that it is a national objective to minimize economic differences due to sex or region of residence. But the age cohort breakdown is less pertinent to the description of economic inequity than it is to the simple explanation of economic inequality; it so happens that income naturally varies over the life cycle. If one takes special interest in the incomes of the aged, who tend to be relatively poor, it is in order to see if some improvement in their condition is happening over time (the Growth aspect), rather than to see if their incomes are getting closer to or farther from the incomes of the young and the middle-aged, viz., there does not seem to be a country which declares it inequitable per se that different age groups should be receiving different incomes.

In particular, suppose it is a declared objective that access to certain basic standards of housing, health, education, etc. should be provided to all. (This is usually regarded as implicit in the very act of constructing an official minimum standard — which may be one explanation for the frequent reluctance of government to commit itself to a standard.) If it is agreed that lack of access for reasons of poverty is inequitable, then it is vital to categorize access according to some definition of Poor-Not Poor, or according to income or some similarly suitable proxy variable. Yet this is seldom done. Very often, urban-rural and regional tabulations may be provided for the basic access variables. These will merely show

that the urban sector is better off than the rural, and that some regions are better off than others and will beg the question of what is the state of equity *within* urban areas, *within* rural areas and *within* each region. The poorest region (with the lowest proportion of inhabitants having access to a basic service) is not necessarily the most inequitable one. It is possible to have a society, e.g., China, which is generally poor, cannot afford to provide all its citizens with a certain basic service, and yet allocates the scarce service not according to ability to pay but according to social or political criteria unrelated to economic capacity (e.g., participation in the army; membership in a cooperative).

Another aspect of Equity which is as yet rarely measured pertains to the issue of 'crystallization' of access to basic services. Perfect crystallization occurs if the worst-off individuals or families with respect to health are also the worst-off with respect to housing, education and any other social service, and if the orderings of individuals from worst-off to best-off are identical along all social concerns. It would indicate that the root problem is general poverty rather specific shortages of certain services, and indicators of general purchasing power such as income and wealth would assume great importance. A matrix presentation of crystallization of access would include, in the first column, an ordering of the population in groups according to some guiding variable say income or food-calorie consumption, from lowest to highest level of attainment. Then the other columns in the matrix would pertain to separate types of social services; the entry in the  $i^{\text{th}}$  row of the column on education, for instance would state the average educational attainment of the  $i^{\text{th}}$  group of the guiding variable, say the  $i^{\text{th}}$  income class or the  $i^{\text{th}}$  food-calorie consumption class. This is one type of presentation which specifically requires data on a broad set of social services for a cross-section of individuals or families, i.e., one for which an integrated-type, basic-needs oriented household survey would be ideal. It would be extremely difficult to piece together the needed data from separate data files.

It is important to monitor the crystallization of access because of the phenomenon of monetization of government subsidies originally provided in kind. For instance, suppose the government

regards housing as the top priority basic service, and proceeds to provide subsidized public housing to certain beneficiaries. Suppose the housing rentals were below the open market value of the housing provided; this would provide additional implicit income not in the form of better housing but in the form of extra food or higher schooling for the children. The subsidy could be monetized through various ways, such as subletting the dwelling or taking in paying lodgers; either way, the public housing will wind up benefitting some unintended (say non-poor) beneficiaries, but there will be compensation in the form of higher food consumption and schooling for the recipients who monetized their subsidies. This type of development might be approved by some, and deplored by others. The important point is that it indicates a diversion of resources from intended (at least on the surface) purposes. Even if the diversion to food were considered praiseworthy, it would seem that a public housing scheme would probably be an inefficient means of indirectly subsidizing food consumption. Some correction in government policy would be called for, and it would have to find the joint or crystallized data on housing, food and education as rather essential.

Finally, the measures of 'output' or final well-being should include some indicators of provision for the future. This is the general justification for the measurement of family *assets*\*, both human and non-human: schooling, land, home facilities, capital goods, etc. Ordinarily, these are measured in money values or are categorized as to quality. One dimension which is as yet rarely used is time, e.g., the expected number of remaining years of life of the dwelling and of home amenities. Time-concepts are now in standard use in natural-resource-oriented studies, in principle, the concept should also prove applicable to the resources which families count on in order to meet their basic needs.

### 3. Data Content of Basic Needs Surveys: Variables Instrumental to Access

The information system will be called upon to provide data

---

\*Net assets, or 'net worth', would make suitable deductions for debts; liabilities can be regarded as negative assets.

on the determinants, or 'inputs', of final well-being. Again, some data may conveniently come from household surveys, and other data from administrative files and other sources. Among these 'inputs' will be some variables amenable to government intervention, which may be termed instruments. The 'shopping list' of which input-variables need to be measured would depend a great deal on how the socio-economic system, including the government institutions which interact with the public, actually provides basic goods and services to the people. In a completely *laissez-faire* world, the fulfillment of basic needs depends primarily on purchasing power, and thus measurement of income and wealth (as well as of what are felt to be *their* determinants) would be of high priority. If one believes in the importance of 'change-agents', then one might emphasize the measurement of KAP (Knowledge-Attitudes-Practices) variables.

At present, there appears to be a trend towards direct government provision of basic services, under a somewhat complex regulatory system. The importance of an effective 'delivery system' for these services is often stressed. An individual obtains access to the desired service through a more or less complicated system of queueing, eligibility tests, waiting for release of government funds etc. Individual purchasing power or knowledge about the proffered service tend to be less material than say the ability to obtain exemptions from certain regulations, the inside connections which enable one to jump queues, etc. These real-life situations, with which we are all familiar, have only recently been incorporated into the beginnings of the so-called Theory of Access.

In such a situation, the household survey, carefully designed, can also be an important source of data. This is illustrated with the help of the following figure, which depicts some of the complexities which may exist in the provision of a service such as public housing. The actual group of beneficiaries may be several steps removed from the ideal group. Only three steps are illustrated here, but there need not be that many or that few. Presumably, there are some families or individuals who should be regarded, on certain social principles, as needy and deserving of the public service. Principles still have to be translated into rules and regula-



tions, and some principles may get lost in translation. Those who are eligible for benefits, according to the rules, may include some who are not needy (this would be an 'anomaly'), and exclude some who are (this would be a 'leak'). Due to resource limitations, not all of those who are eligible can feasibly be accommodated; and due to limitations in implementational capacity, not all of those who are promised their accommodations will actually receive them, i.e., there will be more leaks along the line. Some of the leaks may be corrective: a non-needy applicant who anomalously entered the queue at some point may find himself screened off at a later point. And there may also be corrective anomalies: some needy applicants who were unfortunately taken off the queue at an earlier point may be able to re-enter the queue at a later point (which violates the rules, but supports the social principles). The structure of the delivery system will determine the length of time spent in the queue; it could range from a few hours to a few years.

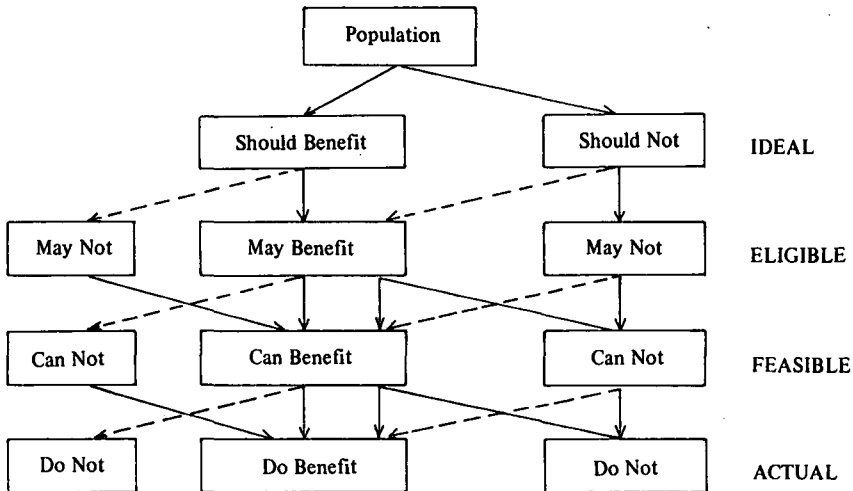
As a government expands its share of the GNP, the citizen's interaction with it will inevitably grow, and his satisfaction, or dissatisfaction with the various delivery systems will be an increasingly important consideration. A large number of ratios of instrumental efficiency (as well as of inefficiency) can be constructed out of the variables contained in the figure, and interrelationships among them noted. For instance, the ratio of actual to ideal beneficiaries is the product of the ratios of (a) eligible to ideal beneficiaries, (b) feasible to eligible beneficiaries, and (c) actual to feasible beneficiaries. Norms of instrumental efficiency will have to be developed, based on experience with such ratios in various social settings. Incidences of leaks and of anomalies will also bear measurement and evaluation; and this will lead, later on, to the analysis of their determinants and of means whereby they may be minimized.

A household survey would obviously be an important device for learning more about how effectively the delivery system operates. It could be carefully designed to systematically seek out the public's complaints or assessment of specific links or components of the system (not merely to elicit 'horror stories' to serve as grist for the mass media.)

#### 4. Concluding Remarks

This paper touched upon the manner by which the household survey can serve as an important data source for analysis in the furtherance of basic needs objectives. The household survey does not exist in an institutional vacuum; it coexists with many other data sources managed by many institutions. It may be that no one institution will see fit to undertake the surveys necessary to assemble the broad mass of data on outputs, inputs and instruments which have been mentioned. It is necessary only that all institutions, as a whole, will obtain the data; this includes the replications necessary to ensure the integrity of the entire system.

The data contents of household surveys naturally evolve and change over time. The paper discussed certain new directions which seem suitable to the basic needs framework, such as the expanded use of perceptions-type variables and of institutional efficiency in providing access to basic services.



TARGET EFFICIENCIES AND INEFFICIENCIES  
IN ACCESS TO BASIC SOCIAL SERVICES

The function of social data is to stimulate collective change for the better. It is not only for the use of social scientists but also for the direct perusal of the public in general and of society's leaders in particular. The social consciousness which it stimulates is probably as effective as, if not more effective than, the technical analyses done by social scientists in producing the desired institutional changes. This is enhanced by developing social data which are *prompt* and *frequent*. Whereas analysts are always pleased to have additional sets of data, no matter how far back in time the reference period, the general public and the leadership need information 'as fresh as the daily newspaper'. Thus there is an urgent need to develop new types of surveys, quicker to implement, to process, to summarize and to disseminate.

In general, social variables have to be reestimated at least a year; given the reaction time of the state, plus the time it takes the society to respond to a new policy or program of the state, the total 'turn-around time' would extend for at least 2-1/2 years, i.e., with data of annual frequency, a country operating on a 5-year plan could then realistically evaluate and modify its programs only twice, once in the first half and again in the second half of the plan period. Thus the cost of accuracy, in terms of time delay, can be a heavy one.

If social data are slow and infrequent, if they are unverified by competition among data-gathering institutions, then the general public will tend to lose both the interest in and the knowledge and ability to deal with the corresponding social problems. This in turn will tend to jeopardize the people's participation in the social transformation, which is itself a basic need.

### References

- Beckerman, Wilfred, *Poverty and the Impact of Income Maintenance Schemes*, Geneva: International Labor Organization, 1979.
- Brown, James and Others, editors. 1977. *Multi-Purpose Household Surveys in Developing Countries*. Development Center of the

Organization for Economic Cooperation and Development. Paris.

Cassen, Robert and Margaret Wolfson, editors. 1978. *Planning for Growing Populations*. Development Center of the Organization for Economic Cooperation and Development. Paris

Jazairi, N.T. 1976. *Approaches to the Development of Health Indicators*. The OECD Social Indicator Development Programme Special Studies No. 2, Organization for Economic Cooperation and Development. Paris

Mangahas, Mahar (ed.), *Measuring Philippine Development*, Development Academy of the Philippines, 1976.

Mangahas, Mahar, "Measuring Poverty and Equity Through Perception Variables," *Philippine Economic Journal*, Number Thirty Five, Vol. XVI, No. 4, 1977.

Ward, Michael. September 1978. "Data and Analytic Techniques for Development Programmes Based on the Principles of Equity, Access and Participation." Expert Meeting on Application of Equity Concerning Planning and Analysis of Development Brighton, U.K.