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EFFECT ON REPORTED LEVELS OF FEMALE LABOUR FORCE PARTICIPATION IN DEVELOPING COUNTRIES OF QUESTIONNAIRE DESIGN, SEX OF INTERVIEWER AND SEX/PROXY STATUS OF RESPONDENT: DESCRIPTION OF A METHODOLOGICAL FIELD EXPERIMENT

by

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Executive Summary

It is widely recognised that women comprise a major share of the Third World's labour force but that surveys and censuses frequently do not indicate this to be the case. In order to rectify this situation, survey questionnaires are required which, in combination with appropriate field work techniques, lend themselves toward the collection of unbiased, relatively accurate data on female labour force participation. As well, these questionnaires and field work techniques need to be feasible to implement, relatively easy to use and not require too much interview time. Unfortunately, there is little more than anecdotal information available on which are the best questionnaires and field work techniques for gathering accurate female labour force data.

With this in mind, the ILO has recently begun an experimental labour force methods test to help in meeting the above requirements by providing statistical evidence from controlled experiments on how various questionnaire types and field work techniques affect the accuracy of labour force data for women. Three major methodological issues are directly addressed in these methods tests. Each of these issues has received extensive discussion in the scientific literature on the subject, as is discussed in the previous working paper in this series (Female labour force activity in developing countries: A critique of current data collection techniques):

1. What type of questionnaire (which is parsimonious in the interview time needed to administer it) provides the most accurate data on female labour force activity, excluding unemployment? In particular, do short activity schedules or key word questionnaires provide more accurate data?

2. Does the sex of the interviewer have an effect on the reported female labour force activity rate?

3. Do proxy-respondents (i.e. persons who answer for someone else) provide different responses on female labour force activity as compared to self-respondents (i.e. persons who answer for themselves)? Do male and female proxy-respondents provide different responses?
In order to investigate the above issues (and how results differ according to the definition of labour force participation used), the Methods Test described in this paper is conducting household surveys in India (Uttar Pradesh State) and Egypt, using different types of questionnaires; male and female interviewers; self-respondents (female only) and proxy-respondents (male and female). A fully balanced, multi-stage sample design is being employed when feasible. To enable comparison of results by questionnaire type, three different questionnaires are being used. To enable comparison of results from male and female interviewers, one-half of all interviews are being done by male interviewers and one-half are being done by female interviewers. To enable comparison of responses given by self-respondents and proxy-respondents, one-half of all interviews are being answered by each of these two respondent types.

In addition to the main effects indicated above - which are built into the fully balanced sample design - a number of secondary issues/effects will also be studied/analysed in the Methods Tests. Among the secondary factors are: (1) characteristics of the person for whom labour force information is collected; (2) characteristics of the respondent (other than her/his sex and self- or proxy-status); (3) characteristics of the household and household head; (4) characteristics of the interviewer (other than her/his sex); and (5) characteristics of the interview environment.
Acknowledgements

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Preface

The ILO has recently begun a small project on "Economic Role of Women in Developing Countries: Improving Methods of Identification and Measurement". The purpose of this project is to provide statistical evidence along with practical suggestions on appropriate field work techniques and questionnaire designs for measuring more accurately the participation of women in the labour force; in other words, to help in remedying the current situation where currently available statistics undercount the labour force participation of Third World women due to various misconceptions about the definition of labour force participation in conjunction with inappropriate field work techniques and questionnaire designs.

The present paper describes an experimental methods test. The concern here is with the measurement of labour force activity, exclusive of unemployment. Investigated in a controlled survey experiment using replicate samples in Egypt and India (Uttar Pradesh State), will be the effect on reported rates of female labour force activity of questionnaire design, definition of labour force activity, sex of interviewer as well as sex and self- or proxy-status of respondents. An earlier working paper in this series dealt in more detail with general issues in the measurement of female labour force activity (Anker, 1983). Although the present paper and this earlier paper stand on their own and so can be read independently of each other, readers interested in this subject would find it useful to read both papers, as they complement each other.
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Bibliography
I. INTRODUCTION

"In order to obtain more accurate statistics on women's participation in economic activities, measurement methods should be carefully reviewed to ensure unbiased coverage of men and women. Sex biases in the form of underestimation of women's economic activity may result, for example, from incomplete coverage of unpaid economic activities, failure of respondents and enumerators to take account of women's multiple activities and use of proxy respondents. Where necessary, research should be carried out in order to identify the extent, nature and sources of the possible biases, if any, and to develop appropriate methods of reducing them." (Amended draft resolution, Thirteenth International Conference of Labour Statisticians, ILO, 1982) (underlining added for emphasis)

As discussed in a recent paper (Anker, 1983), and as implied in the above quotation, the available data on the female labour force is unsatisfactory. While it is widely recognised that women comprise a major share of the Third World's labour force, surveys and censuses frequently do not indicate this to be the case.

In order to rectify this situation, survey questionnaires are required which, in combination with appropriate field work techniques, lend themselves toward the collection of unbiased, relatively accurate data on female labour force participation. As well, these questionnaires and field work techniques need to be feasible to implement, relatively easy to use and not require too much interview time. Unfortunately, there is little more than anecdotal information available on which are the best questionnaires and field work techniques for gathering accurate female labour force data.

The purpose of the Methods Test described in this paper is to help in meeting the above requirements by providing statistical evidence from a controlled experiment on how various questionnaire types and field work techniques affect the accuracy of labour force data for women. Three major methodological issues will be directly addressed in this Methods Test. Each of these issues has received extensive
discussion in the scientific literature on this subject, and readers are referred to a recent paper by the author (Anker, 1983) for detailed discussion on these issues.

1. What type of questionnaire (which is parsimonious in the interview time needed to administer it) provides the most accurate data on female labour force activity, excluding unemployment? In particular, do short activity schedules or key word questionnaires provide more accurate data?

2. Does the sex of the interviewer have an effect on the reported female labour force activity rate?

3. Do proxy-respondents (i.e. persons who answer for someone else) provide different responses on female labour force activity as compared to self-respondents (i.e. persons who answer for themselves)? Do male and female proxy-respondents provide different responses?

In order to investigate the above issues (and how results differ according to the definition of labour force participation used), the Methods Test described in this paper will conduct household surveys, in India (Uttar Pradesh State) and Egypt, using different types of questionnaires; male and female interviewers; self-respondents (female only) and proxy-respondents (male and female). A fully balanced, multi-stage sample design will be employed when feasible. To enable comparison of results by questionnaire type, three different questionnaires will be used. To enable comparison of results from male and female interviewers, one-half of all interviews will be done by male interviewers and one-half will be done by female interviewers. To enable comparison of responses given by self-respondents and proxy-respondents, one-half of all interviews will be answered by each of these two respondent types. (Readers are referred to figure 1 below where a schematic representation of the Methods Test's sample design is presented.)

In addition to the main effects indicated above - which are built into the fully balanced sample design - a number of secondary issues/
effects will also be studied/analysed in the Methods Test. Since these secondary factors are not built into the sample design, the number of persons with particular characteristics will not be equally distributed but will be distributed in roughly the same proportions as that in the general population. Among the secondary factors to be studied in the Methods Test are five groups of factors: (1) characteristics of the person on whom labour force information is collected; (2) characteristics of the respondent (other than her/his sex and self- or proxy-status); (3) characteristics of the household and household head; (4) characteristics of the interviewer (other than her/his sex); and (5) characteristics of the interview environment.

The remainder of this paper is structured as follows. In the next section, the Methods Test study design is described - included are discussions of the sample size, the sample design and the degree of statistical confidence it will be possible to draw from study results; also included in the next section is a discussion on an unique aspect of the Methods Test - the availability of accurate benchmark data with which to estimate levels of bias. The third section is concerned with the several definitions of labour force activity which are to be used in the Methods Test. The fourth section describes the factors/effects to be tested in the Methods Test while the fifth and last section provides detailed discussions on how Methods Test questionnaires are to be completed along with reasons for including specific questions.

II. STUDY DESIGN

A schematic representation of the Methods Test's design is presented in figure 1. It is a fully balanced design using three questionnaire types (A; B; C), two interviewer types (male; female) and two respondent types (proxy-respondent; self-respondent).\textsuperscript{1,2} Thus, each questionnaire type would be administered to approximately 544

\textsuperscript{1} Available funds for the Methods Test allow for samples of 1,600-1,700 households in India and in Egypt. The sample size of 1,632 indicated in the text is simply a rough approximation.

\textsuperscript{2} Note that since the Methods Test is concerned with female labour force data, there can be no male self-respondents.
Figure 1: Schematic representation of fully balanced sample design for labour force Methods Test for total sample of 1632 questionnaires.

- 1632 Questionnaires
  - 544 Questionnaire A
    - (Repeat schema as for Questionnaire B)
    - 272 Male Interviewer
      - 136 Self-respondent
    - 272 Female Interviewer
      - 136 Proxy-respondent
  - 544 Questionnaire B
    - (Repeat schema as for Questionnaire B)
  - 544 Questionnaire C
    - (Repeat schema as for Questionnaire B)
      - 136 Self-respondent
      - 136 Proxy-respondent
persons (i.e. 1632/3); each interviewer type (i.e. male, female) would complete approximately 816 questionnaires (i.e. 1632/2), including 272 of each questionnaire type (i.e. 816/3), 408 with proxy- (and self-) respondents and with 136 of each questionnaire type for proxy- (and self-) respondents; proxy-respondents as well as self-respondents would each answer approximately 816 questionnaires (i.e. 1632/2). As a result, it will be possible to draw inferences about reported differences between these main effects, since observed differences in female labour force activity rates by factor type cannot result from differences in the other two main factor types.

In a slight digression: it is important for readers to realise that methods tests rarely provide a direct indication of which test results are closer to reality; rather, methods tests indicate how answers differ between interview settings, not which responses are more accurate. In certain tests, the simple assumption is made that the higher the rate reported the more accurate the data - on the assumption that respondents are unlikely to report events which have not occurred; thus, for example, on one study of crime, the more crime events reported the more accurate responses were assumed to be (see Woltman et al., 1980). It would be tempting to use such a simple assumption in our Methods Test, since female labour force activity rates in the Third World are generally under-reported. However, use of such a criteria would be inappropriate as it is also possible for female labour force participation to be over-reported. Boserup, for one, refers to this possibility in observing that labour force surveys tend to divide into two types - those which report virtually all adult women in the labour force and those which report virtually no adult women in the labour force (Boserup, 1976).

The optimum situation would be to have a reference point/benchmark against which to judge the accuracy of results from a methods test. In this way, it would be a straightforward procedure to draw conclusions not only on whether or not results from interview setting A differ significantly from those in interview setting B, but also on whether
or not results from setting A and/or setting B differ significantly from what is known to be correct. The Methods Test described in this paper has such benchmark data - giving it a rather unusual position among methods tests.

In the two study countries - India and Egypt - the ILO is currently collaborating on comparable studies analysing interactions between women's activities and demographic change, including the collection of detailed activity/labour force data; anthropologists are living for one year in several communities in each country and are collecting for about 100 households in each country detailed activity/time use data (as well as other data) through recall each fortnight in addition to a few days of observation; as well, for a separate sample of approximately 1,000 households in each country, there are multi-round surveys (two-round in Egypt and three-round in India) which include detailed time use/activity schedules. These studies will provide detailed labour force data with a relatively high degree of accuracy. To complement these data, the Methods Test will take new, statistically identical (i.e. replicate) samples. Then, by comparing results from the Methods Test to results from the benchmark study, we will also be in a position to estimate bias.

To illustrate more fully the sampling procedure to be used in the Methods Test, the Egyptian sample design is described below. The four stages in the multi-stage sample design used in the Egyptian benchmark study (and, therefore, to be used in our Methods Test) are as follows:

(i) Four governates were purposefully chosen so as to represent basic variation in Egypt. Governates included were from Upper Egypt, Lower Egypt, Middle Egypt and Cairo (over 25 per cent of Egypt's population lives in the greater Cairo area). The sample size for each governate was made proportional to the relative sizes of the regions they represent.
Within each selected governate, primary enumeration zones of about 200 households each were stratified according to whether they were rural, urban or semi-urban based on data from the 1976 Population Census. Sample areas/zones for the survey were chosen randomly from each strata so as to represent each of these three area types.

(iii)a. Five urban zones with 40 sample households in each zone were chosen for inclusion in the study as were nine semi-urban zones with 33 sample households in each zone. These zones were chosen so as to represent a range of socio-economic conditions based on data from the 1976 Population Census on percentage of adult women with a secondary level of education and percentage of adult women reported to be in the labour force.

(iii)b. Twelve villages (four in each governate) were randomly chosen for inclusion in the study - from less to more remote villages - based on how far villages were from a city/main means of transportation. In each study village, approximately 41 households were chosen for the study.

(iv) Lastly, within each basic sampling zone, a new listing of households was done so as to provide an up-to-date list of households along with information about land ownership and the adult woman in the household (marital status, employment status, education level). So as to ensure variation and range in the benchmark survey data in each basic enumeration zone, wherever possible, one household was selected from each marital status-employment status-education level-land ownership cell. (Many cells were, of course empty.) All remaining households in the study enumeration zone were chosen randomly and in proportion to their relative size.

For the Methods Test, the same localities as those identified in

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1 For Cairo, of course, there is only one type of zone - urban.
stages (i) and (ii) would be used. The areas identified in stage (iii) would be different. A new random drawing of stage (iii) sample areas would be made based on the same sampling criteria.

Selecting the actual households to be interviewed (stage (iv)) would also be different in the Methods Test than the benchmark survey. So as to reduce costs, a new census of households would not be done in the Methods Test (as was done in the benchmark survey); instead, a mapping of houses in the area would be done in the Methods Test and sample households would be randomly selected. Each of the questionnaire types, interviewer types and respondent types to be tested in the Methods Test would then be randomly assigned to sample households by pre-selection.

A. Five sampling/field design problems

1. Random selection of respondent type

A fully balanced sample design such as that set out above has practical problems associated with its implementation. While the random assignment of questionnaire type poses no problem, random selection of respondent type does, since the pre-selected respondent type has to be available for interview. While interviewers can set up a call back appointment with a particular respondent or can ask if a particular respondent is at home before beginning an interview, these possibilities are limited in practice. Making matters even more difficult is that in some societies it is often difficult for male interviewers to interview female respondents (see subsection 5 for a discussion on this).

Given these field work difficulties and given the usefulness of a

1 The resulting sample of households would not be an exact replicate sample to that used for the benchmark survey, since the benchmark survey did not select households completely randomly (see description of the procedure used in step (iv)). This should not cause a major difficulty, however, since it is possible to postweight the benchmark data so as to arrive at a sample which is equivalent to the randomly selected sample in the Methods Test; in any case, differences should be small.
fully balanced sample design in the Methods Test, respondent type will
be pre-selected (for each interviewer type and questionnaire type) for
all sample households, and as many of these pre-selected interviews as
possible will be completed. When necessary, replacement households
- by type required - would be randomly drawn for inclusion in the
Methods Test. ¹

2. **Multiple households in a sample dwelling**

The Methods Test sample will be drawn on the basis of dwelling
units whereas we are interested in the household and the individual as
the units of observation. The correspondence between dwelling unit
and household, however, is not one-to-one; there are often several
households living in a single dwelling unit. Part of this problem can
be alleviated at the mapping stage by enumerating all obviously different
dwelling units (e.g. all apartments in a building).

The problem of multiple households in what appears to be one
dwelling unit frequently arises when a joint family has broken up into
nuclear families. This problem, in turn, relates to the well-known
difficulty in defining a household, since the composition of a household
often differs depending on the definition used (e.g. whether it is based
on eating together, sleeping together, pooling income, etc.). For our
purposes, the definition based on eating together/sharing the same
kitchen appears to be best. While its limitations are recognised, it is
commonly used and is relatively easy to employ in the field.

3. **Multiple adult females in a sample household**

There will often be more than one eligible (i.e. 15-59 year old)
female in a sample household. At issue here is whether labour force
information should be collected for all eligible females in pre-selected
sample households, or for only a certain number of them (specifically
one female).

¹ To ensure that some information is available on all sample house-
holds selected (whether or not interviews are completed), it is important
that a minimum amount of information is collected and coded - particularly
the pre-selection criteria and reason for non-interview need to be
coded.
So as to reduce study costs, our intention is to randomly choose one female between the ages of 15-59 years\(^1\) from each sample household. For this purpose, questionnaires will have included in them a randomisation table (see following page). Adult women 15-59 years in the household would be listed down the page in chart A (by transferring names from the household members chart); in the process, these women would receive a unique serial number (which is listed in column 1 in chart A). The interviewer would then switch to chart B and would locate the appropriate row and column (by using the total number of females 15-59 in the household for the row; and by using the last digit of the household's ID number for the column). The intersection of this row and column in chart B would indicate the serial number of the female for whom labour force information is to be collected. For example, if there were three eligible females and the household ID were 155, the adult female with serial number 3 would be selected.\(^2\) Notice that this person's serial number is not the same as this person's person number which was assigned on the household members chart. It is for this reason that interviewers are asked to indicate in chart A the person number of the woman for whom labour force information is to be collected.

4. Random assignment of respondent type, questionnaire type and interviewer type to sample household

Questionnaires for each community would be pre-coded so that there are equal numbers of questionnaires for each of the three questionnaire types, for each of the two respondent types and for male and female interviewers. (This implies in each community a minimum of 6

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\(^1\) On most censuses and labour force surveys, persons age 15 years and above are considered to be adults. Also, the maximum working age is often taken to be 59. While these are debatable assumptions, they are easy to use, and help to concentrate our sample in a reasonable age range.

\(^2\) In those relatively few instances when a self-respondent is to be interviewed and she is physically out of the locality, she would be replaced by the woman with the next highest serial number. For proxy-respondents no such problem exists, since the respondent can be any adult household member besides the woman for whom labour force information is to be collected.
Number of women 15-59 years in household

(If more than one women 15-59 use following randomised tables for selecting female person for whom information is to be collected)

Chart A. (List adult female household members)

<table>
<thead>
<tr>
<th>Serial number</th>
<th>Names of women 15-59 in household</th>
<th>Person number of woman who was originally after using chart B</th>
<th>Person number of woman selected as replacement (if original out of station)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
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<td>4</td>
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<td>5</td>
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<td>6</td>
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<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chart B. (For choosing adult female person to be selected for interview)

<table>
<thead>
<tr>
<th>Total number of eligible women from chart A</th>
<th>Last digit of the &quot;Household ID&quot; number</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>1 1 1 1 1 1 1 1 1</td>
<td>1</td>
</tr>
<tr>
<td>2 2 2 2 1 1 2 2 1 2</td>
<td>2</td>
</tr>
<tr>
<td>3 2 2 3 2 2 2 2 1 2</td>
<td>3</td>
</tr>
<tr>
<td>4 2 3 2 2 2 4 2 4 4</td>
<td>4</td>
</tr>
<tr>
<td>5 1 1 5 4 4 5 4 3 2 2</td>
<td>5</td>
</tr>
<tr>
<td>6 6 3 1 4 1 5 5 2</td>
<td>6</td>
</tr>
<tr>
<td>7 7 1 5 1 3 3 7 5 7</td>
<td>7</td>
</tr>
<tr>
<td>8 1 5 1 5 7 3 1 3 7</td>
<td>8</td>
</tr>
</tbody>
</table>

Selection Procedure:

List in chart A all women 15-59 years in the household. Now observe the last digit of "Household ID" number and locate its last digit in the "column" of chart B and also the total number of eligible women in the "row" of chart B. The intersection point of this "row" and this "column" gives the serial number of the woman for whom labour force information is to be collected. For example, if there were 4 eligible women in a household whose household ID number was 156, then the selected woman would be the woman in the household with serial number 4 in chart A. Selected self-responder can be replaced only if she is out of station/village.
interviews by male investigators and 6 interviews by female investigators; this also implies that the total number of interviews in a community must be in multiples of 12 - i.e. 12, 24, 36, 48, 60...). Thus, for example, if there were 12 sample households in a community, female (and male) investigators would need to complete one questionnaire A (and B and C) with a self-respondent and one questionnaire A (and B and C) with a proxy-respondent.

In order to simplify the field work, each investigator need not be given a balanced distribution of questionnaires by questionnaire type and respondent-type - although it is important that particular investigators do not mainly use particular questionnaire types for interviewing particular respondent types. An assigned random number is included on the cover page in order to assist in randomising questionnaires by type. (This random number is assigned for each questionnaire based on the household's ID number using a random numbers table.)

In each community the procedure would be as follows. Equal numbers of questionnaires A, B and C would be divided into two equal stacks - one for male investigators and one for female investigators. Every other questionnaire would then be marked for self-respondent and proxy-respondent. Next, questionnaires would be given household IDs by numbering from 001 onward, as well as an assigned random number (which would be recalculated for each community corresponding to the household ID number). The two stacks of questionnaires would then be reordered from 01 onward according to the assigned random number. At this point, each stack of questionnaires (for male and female interviewers of course) would be in a random order in terms of questionnaire type and respondent type. Thus it would be appropriate to give each interviewer the number of questionnaires (with housing address written in) they are to complete in the community by taking from the top of the stack. Although in any given community, any given investigator is unlikely to have an equal number of each questionnaire type/respondent type, each interviewer should have over the course of the study approximately equal numbers of questionnaire type A, B and C with proxy- and self-respondent types.
See Appendix A for the field notes used to explain this procedure to supervisors and interviewers.

5. **Feasibility of male interviewers interviewing female respondents**

In some countries, male interviewers find it difficult to interview women. In such countries it would be impossible to implement the Methods Test's balanced study design, since male interviewers would be unable to interview female self-respondents. This is believed to be the situation in India (especially among high caste and Muslim women in "purdah") but not in Egypt.

For this reason, in India, the study design was altered; male interviewers were not constrained to interviewing proxy- or a self-respondent in particular pre-assigned sample households and were allowed to interview any available household member. Nonetheless, as it is important to know how easy it is for male interviewers to interview women and in which segments of the population it is easiest, male interviewers in India were required, after completing questionnaire C (if it was with a proxy-respondent) to attempt to interview the woman for whom labour force data had just been collected.

### B. Sample size and likely levels of significance

It is a truism that the greater the number of questionnaire types tested, the smaller the sample size for each questionnaire type and therefore the larger reported differences between questionnaire types must be for these differences to be statistically significant. (Notice that specification in the study design of respondent type and interviewer type has no effect on the distribution or number of questionnaires completed by type of questionnaire.) Testing too many questionnaire types badly reduces one's ability to draw inferences on statistical significance, whereas testing only one or two questionnaire types would be unnecessarily restrictive for this purpose. The optimum number of questionnaire types would allow conclusions regarding statistical significance to be drawn for what would be considered to be large differences
in reported female labour force activity rates but not for what would be considered to be small differences - in other words for conclusions on statistical grounds to correspond to intuitive feelings about importance. Specifically for our Methods Test, we should be in a position to conclude that observed differences in female labour force activity rates as large as .10 (for all main effects and most interaction effects) are statistically significant, but not for differences as small as .01 (i.e. for example for .20 compared to .30 but not for .20 compared to .21).

To test the significance of differences in reported labour force activity rates between two samples (e.g. samples 1 and 2), it is necessary to know their sizes \((N_1, N_2)\), their variances \((\sigma_1^2, \sigma_2^2)\), and their mean values \((\bar{X}_1, \bar{X}_2)\). The significance of these differences can then be tested using a Student t-test based on the following formula:

\[
t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}}
\]

Table 2 indicates Student t-values for differences in mean values for two samples as a function of sample size (using a balanced study design). For differences between sample means as small as .01, it is necessary to have samples considerably larger than 800 in each sample group - if one would like to draw statistically based inferences about observed differences. In contrast, for differences between two sample means as large as .10, sample sizes in each group can be as small as approximately 300 to have statistical significance at the .01 level; at a significance level of .10, it is only necessary to have sample sizes of approximately 200 in each sample group.

Keeping in mind the fact that project funds allow for samples of approximately 1,600-1,700 interviews in each country study, three questionnaire types appeared to be the optimal number to test (as indicated by data in table 2). According to table 2, with three

1 The variance of a proportion \(p\) equals the proportion times one minus this proportion: \(p(1-p)\).
Table 1: Student t-values for various combinations of mean values, differences between two mean values and sample sizes for each of two samples (assuming a balanced design)

<table>
<thead>
<tr>
<th>Difference of mean values</th>
<th>Sample size for each sample group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>800</td>
</tr>
<tr>
<td>.01 difference at mean values:</td>
<td></td>
</tr>
<tr>
<td>.1 vs .11</td>
<td>0.65</td>
</tr>
<tr>
<td>.3 vs .31</td>
<td>0.43</td>
</tr>
<tr>
<td>.5 vs .51</td>
<td>0.40</td>
</tr>
<tr>
<td>.05 difference at mean values:</td>
<td></td>
</tr>
<tr>
<td>.1 vs .15</td>
<td>3.03</td>
</tr>
<tr>
<td>.3 vs .35</td>
<td>2.14</td>
</tr>
<tr>
<td>.5 vs .55</td>
<td>2.01</td>
</tr>
<tr>
<td>.10 difference at mean values:</td>
<td></td>
</tr>
<tr>
<td>.1 vs .2</td>
<td>5.66</td>
</tr>
<tr>
<td>.3 vs .4</td>
<td>4.22</td>
</tr>
<tr>
<td>.5 vs .6</td>
<td>4.04</td>
</tr>
</tbody>
</table>

Notes:
Results are symmetrical around .5 so that values for a sample mean of .1 are the same as for a sample mean of .9; results for .2 are the same as for .8; results for .3 are the same as for .7, etc.
When blank, t-values in a row are lower than the lowest t-values indicated in the row.
t-values above approximately 2.69 are significant at the .01 level
t-values above approximately 2.00 are significant at the .05 level
t-values above approximately 1.65 are significant at the .10 level
Table 6: Significance of mean differences in female labour force activity rates ($\bar{X}$) for various combinations of three questionnaire types, two interviewer types and two respondent types. Main effects and high level effects are calculated for a balanced sample with 1632 interviews (blank indicates insignificant at .10 level)

<table>
<thead>
<tr>
<th>Questionnaire type/Interviewer type/Respondent type</th>
<th>Sample size</th>
<th>$\bar{X}$</th>
<th>$\bar{X}_1 - \bar{X}_2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>.1 (or .9)</td>
<td>.3 (or .7)</td>
</tr>
<tr>
<td>1. QUESTIONNAIRE TYPE A</td>
<td>544</td>
<td>*2 *3</td>
<td>*1 *3</td>
</tr>
<tr>
<td>With interviewer male:</td>
<td>272</td>
<td>*1 *3</td>
<td>*3</td>
</tr>
<tr>
<td>with female self-respondent</td>
<td>136</td>
<td>*2</td>
<td>*1</td>
</tr>
<tr>
<td>with proxy-respondent</td>
<td>136</td>
<td>*2</td>
<td>*1</td>
</tr>
<tr>
<td>With interviewer female:</td>
<td>272</td>
<td>*1 *3</td>
<td>*3</td>
</tr>
<tr>
<td>(repeat of above for interviewer male)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With (female) self-respondent:</td>
<td>272</td>
<td>*1 *3</td>
<td>*3</td>
</tr>
<tr>
<td>with interviewer female</td>
<td>136</td>
<td>*2</td>
<td>*1</td>
</tr>
<tr>
<td>with interviewer male</td>
<td>136</td>
<td>*2</td>
<td>*1</td>
</tr>
<tr>
<td>With proxy-respondent</td>
<td>272</td>
<td>*1 *3</td>
<td>*3</td>
</tr>
<tr>
<td>with interviewer female</td>
<td>136</td>
<td>*2</td>
<td>*1</td>
</tr>
<tr>
<td>with interviewer male</td>
<td>136</td>
<td>*2</td>
<td>*1</td>
</tr>
<tr>
<td>2. QUESTIONNAIRE TYPES B, C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(repeat of above for Questionnaire type A)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(continued over)
Table 2 continued

<table>
<thead>
<tr>
<th></th>
<th>.1 (or .9)</th>
<th>.3 (or .7)</th>
<th>.5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.01</td>
<td>.05</td>
<td>.10</td>
</tr>
</tbody>
</table>

3. INTERVIEWER FEMALE

| All questionnaire types together: | 816 | *3 | *3 | *2 | *3 | *2 | *3 |
| with self-respondent              | 408 | *2 | *3 | *3 | *2 | *3 |
| with proxy-respondent             | 408 | *2 | *3 | *3 | *2 |

Each questionnaire type separately (A or B or C):

| with self-respondent              | 136 | *2 | *2 | *2 |
| with proxy-respondent             | 136 | *2 | *2 | *2 |

4. INTERVIEWER MALE

(repeat of above for interviewer female)

5. SELF-RESPONDENT (female only)

| All questionnaire types together: | 816 | *3 | *3 | *2 | *3 | *2 | *3 |
| with interviewer female           | 408 | *2 | *3 | *3 | *2 | *3 |
| with interviewer male             | 408 | *2 | *3 | *3 | *2 |

Each questionnaire type separately:

| with interviewer female           | 136 | *1 | *3 | *3 |
| with interviewer male             | 136 | *1 | *3 | *3 |

6. PROXY-RESPONDENT

| All questionnaire types together: | 816 | *3 | *3 | *2 | *3 | *2 | *3 |
| with interviewer female           | 408 | *2 | *3 | *3 | *2 | *3 |
| with interviewer male             | 408 | *2 | *3 | *3 | *2 | *3 |

Notes:

*3 implies significance at .01 level
*2 implies significance at .05 level
*1 implies significance at .10 level
questionnaire types, Methods Test sample sizes will not be sufficient to draw conclusions on statistical significance due to mean differences in interview settings as small as .01. For differences in mean values of .05, the picture is mixed. The Methods Test sample will be sufficient for drawing conclusions about statistical significance for all first order main effects of: male compared to female interviewers, proxy-respondents compared to self-respondents and differences between the three questionnaire types; on the other hand, there will be insufficient sample size for observing the statistical significance between second and third order interactions (unless sample means are as low as .1 or as high as .9). For differences in means of .10 between two interview settings, sample sizes will generally be sufficient even for drawing statistical inferences about most second and third order interactions. Using three questionnaire types thus appears to be reasonable for the Methods Test.

III. DEFINITION OF LABOUR FORCE PARTICIPATION/ACTIVITY (UNEMPLOYMENT EXCLUDED)

Participation in the labour force can be defined in a number of different ways, depending, for example, on reference period employed, activities included in (excluded from) the labour force, and minimum time required for inclusion in the labour force. These factors have been discussed in earlier work, (Anker, 1980; 1983) and readers are referred to that, especially to the recent 1983 paper, for details.

Based on the types of activities which qualify an individual for inclusion in the labour force, four labour force measures were suggested in Anker (1983). Each measure provides a different perspective on the employment situation, labour market conditions, likely employment effects of government policies, women's statuses, economic contributions to family well-being and basic needs satisfaction. All four measures are concerned with distinctions in the types of activities included/excluded from the labour force; they do not consider another group of distinctions/factors related to the supply of labour such as willingness to work, seeking of work, availability for work. See Standing (1978) for a good
discussion of measurement problems related to these latter labour supply issues.

1. **Paid labour force** (persons engaged in wage or salary activities for which they are paid in cash or kind).

2. **Market-oriented labour force** (persons in the "paid labour force" plus persons engaged in activities on a family farm or in a family enterprise/business which sells some or all of its products).

3. **ILO labour force** (persons engaged in activities whose products or services should be included in national incomes accounts statistics, i.e. GNP, according to UN recommendations). This definition corresponds to that recommended by the 1982 ILO Conference of Labour Statisticians (ILO, 1982). In addition to persons in the "market-oriented labour force", the labour force defined here would include persons doing subsistence activities related to the production or processing of primary products for own consumption.

4. **Extended labour force** (persons engaged in activities which contribute to meeting their family's basic needs and which at the same time are generally purchased in developed countries). In addition to persons in the "ILO labour force" (as in 3 above), the "extended labour force" would include other subsistence activities based on the criteria given immediately above.

Data on the "paid labour force" provides planners with much of the employment information they require on the proletarianised part of the market economy. These are the persons who have "jobs" - often living in an urban area, often belonging to a union, often politically vocal, and usually with their only source of income derived from their labour services. These are the persons (in addition to the unemployed, of course) for whom planners generally feel they must create a sufficient number of jobs.
Data on the "market-oriented labour force" also provide essential information for economic planners as these are the persons whom government policies aimed at employment, pricing, subsidies, etc. directly affect. Since those engaged in subsistence activities are excluded from the "market-oriented labour force", there is a need to broaden the definition further if one is interested in a labour force measure which indicates economic activity and economic contribution. The third measure of the labour force corresponds to that recommended by the ILO. It provides a fairly comprehensive picture of the labour force based on the national incomes accounts (SNA) criterion and whether the resulting goods or services produced are supposed to be included in GNP. If measured accurately, this labour force definition should indicate that women - particularly those in rural areas and among the poor - comprise a major portion of the labour force. By reflecting the true economic contributions to labour force activity and GNP made by women, their statuses should be increased. Similarly, the importance of subsistence and small-scale activities in the Third World in meeting the population's basic needs should become more apparent. As a result, government perspectives and policies should be affected by the availability of these data.

In addition to persons included in the labour force according to definition 3 above, the "extended labour force" would include persons engaged in activities which are not included in SNA but which nonetheless make a significant contribution to meeting the family's basic needs and which are generally purchased in developing countries. Thus, the extended labour force would include activities such as gathering and preparing of fuel (e.g. gathering sticks and wood, drying crop refuse, and preparation of cow dung cakes), and making of clothes. The basic rationale underlying the concept of the extended labour force is the satisfaction of basic needs on a cross-culturally and cross-development level comparable basis and the usefulness of broadening the definition of "economic" activity beyond the often arbitrary distinctions made in the UN system of national income accounts statistics.
Such data will indicate the high activity level of women — thereby helping to dispel the mistaken notion that women are lazy and have nothing to do and thus that they are an easy to tap labour reserve with free time on their hands. Such data would also be useful for planners interested in how basic needs satisfaction and welfare levels are changing over time, since increases in the measured GNP also involve partially offsetting decreases in the unmeasured output from household and subsistence activities.\(^1\) There is also the possibility that future SNA statistics on non-monetary subsistence activities will be expanded (UN, 1979), and it would be useful to have a time series of comparable labour force data.

Those in the labour force (as defined above) will also be distinguished according to whether or not they are working part-time or full-time. For this purpose, it is intended to use three categories of labour force participants based on rough estimates of the average amount of time per day spent in labour force activities.

a. Full-time (i.e. more than four hours per day on average);

b. Part-time (between one and four hours per day on average);

c. Marginal (approximately one or less hour per per day on average).

Combining the three time categories (i.e. a-c) and four activity categories (i.e. 1-4) suggested above, one arrives at 12 labour force definitions to be used in the Methods Test (4 definitions based on activities performed, each with 3 time criteria). Thus, it will be possible to analyse how reported labour force activity rates differ according to interview circumstances and labour force definition (as, for example, when less market-oriented activities are included in the labour force or as more marginal labour force participants, in terms of time, are included in the labour force).

\(^{1}\) For a developed country example, see a recent paper on the United Kingdom which points out how the depressed economic situation resulting from a decline in the official market economy is cushioned by an increase in self-consumed "outputs" from the domestic economy (Rose, 1983).
IV. MAIN INTERVIEW SETTING EFFECTS TO BE TESTED DIRECTLY

As mentioned above, three main effects/factors are built into the fully balanced sample design of the Methods Test and so are to be tested directly: (1) questionnaire type; (2) interviewer type; (3) respondent type. Each factor is briefly discussed in this section, and readers are again referred to the recent companion paper by the author on general and conceptual issues on female labour force questionnaires for additional detail (Anker, 1983).

A. Questionnaire type

Discussion on questionnaire type in the earlier working paper distinguished between four basic types of labour force questionnaires: (1) detailed activity/time use type; (2) simplified activity/time use type; (3) simple key word type without follow-up questions; (4) detailed key word type with follow-up questions. As indicated in this earlier paper, it is our feeling that the simplified activity/time approach, is the best type for inclusion in censuses and larger labour force surveys. The simplified activity/time use questionnaire to be used in the Methods Test (Questionnaire A) is given below in subsection V.A along with discussions on the specific questions included in it.

The second questionnaire (Questionnaire B) to be used in the Methods Test is a key word questionnaire which combines questionnaire types 3 and 4 mentioned above (i.e. with and without follow up probing type questions). This questionnaire is included in the Methods Test - despite our a priori preference for a simplified activity questionnaire - mainly because key word questionnaires are used so widely at present.

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1 Imposition of an interview time constraint of 10-15 effective minutes forecloses the use of detailed time use/activity questionnaires in the Methods Test. The three other types of questionnaires are, however, included in the Methods Test.

2 A similar version of this simplified activity/time use questionnaire provided reasonable data in a recent Indian survey. These data are discussed in Anker (1983) where they are compared to data collected using key word questions - showing how much higher reported female labour force activity rates are when based on an activity schedule.
It remains for the Methods Test to confirm or contradict our a priori expectations. This questionnaire begins with a typical general key word question (B1) about main activity intended to divide respondents into two categories: those (active) in the labour force and those out of the labour force (inactive and unemployed). Results from the first question on main activity (B1) - along with the additional information on time, income, etc. - provide, in some sense, a complete (and fairly typical) simple key word labour force questionnaire. Respondents are then asked questions B2 (and B3) - other typical general key word questions about secondary activity (and income earning "work"). Thus B1-B2 (and B1-B3) form other versions of relatively simple key word questionnaires. Following B3 are three follow-up type questions which mention specific labour force activities: B4 mentions family earned income such as own farm and own business activities while B5 mentions various subsistence type activities. Taken together, B1-B4 and B1-B5 form a somewhat detailed key word type questionnaire with follow-up questions. Finally, B6 is a "mop-up" question intended to capture any time consuming activities not yet mentioned in B1-B5 (which would include labour force and non-labour force activities); obviously B1-B6 form, in a sense, another detailed key word questionnaire.

Questionnaire C combines questionnaires A and B into one questionnaire by beginning with the first three general questions from questionnaire B and ending with the activity chart of questionnaire A.

In addition to questionnaires A-C, it should be noted once again that it will be possible to compare Methods Test results with those from at least two additional data sources - government labour force surveys and/or censuses from the same sample areas as well as those from the detailed, multi-round activity/time use questionnaire administered in the ongoing ILO-collaborative multi-disciplinary studies of Women's Roles and Demographic Change. It should be noted, however, that comparing results from these additional questionnaires with those from the Methods Test.

Readers are reminded that unemployment is not considered in the Methods Test.
Test will not provide a pure test of differences in questionnaire design, since field work techniques will have differed; in the multi-disciplinary study, there are only female interviewers and female self-respondents for the female activity/time use questions; on population censuses and labour force surveys, the sex of interviewers and respondents is unknown - although rough approximations of overall percentage distributions is usually available.

B. Interviewer Type

Earlier discussion on this (Anker, 1983) distinguished between interviewers according to their sex and their socio-economic-demographic background. For the Methods Test, equal numbers of male and female interviewers will be used so as to test whether or not there are significant differences in the responses each obtains. *A priori* expectations are that reported labour force activity rates will be lower for male interviewers than for female interviewers.¹

Differentiation in the socio-economic background of interviewers, on the other hand, will not be built into the fully balanced sample design. Practical considerations are responsible for this decision. First, it is uncertain *a priori* which social, economic or demographic characteristics of interviewers have an important effect on reported levels of female labour force activity. Second, there are practical limitations imposed by recruitment practices (although if a study director knew that study results would be sensitive to the socio-economic background of interviewers they employed, there would be a strong incentive to go through the additional cost and difficulty in finding the most appropriate interviewers). Third, while specific variation in socio-economic-demographic characteristics of interviewers is not built into the sample design, it nonetheless will be possible to test for the effect on reported female labour force activity of the interviewer's

¹ Readers should keep in mind that the absolute number of interviewers in the Methods Test will not be very large - approximately 7 male and 7 female interviewers in each study country. For this reason, differences in Methods Test results by sex of interviewer will need to be treated cautiously - regardless of observed levels of statistical significance - since observed differences may be due to unusual results for one or a few specific interviewers.
socio-economic-demographic background using log-linear multivariate techniques - after controlling statistically for the effect of other factors such as respondent type, sex of interviewer and questionnaire type. See subsection IV.E below for the survey questions which will be used for collecting information on the various socio-economic-demographic characteristics of the interviewers.

C. Respondent Type

Our earlier paper distinguished between self-respondents and proxy-respondents as well as between male respondents and female respondents. It was pointed out that it is generally believed that male respondents are more likely to underreport female labour force activity than are female respondents and as well that proxy-respondents provide less accurate (labour force) data (especially on detailed activities and time) than self-respondents.

Among proxy-respondents, no special effort will be made to interview equal numbers of male and female proxy-respondents. There are three main reasons for this. First, specifying by pre-selection whether respondents for sample households must be male proxy-respondents or female proxy-respondents would entail major difficulties in completing interviews as the pre-selected male or female proxy-respondent type may not be available for interview or there may be no such female or male proxy-respondent in the sample household. Second, the feasibility of other surveys following a rule of interviewing proxy-respondents of a particular sex is hardly feasible. Third, even if equal numbers of male and female proxy-respondents were interviewed in the Methods Test, households which have (do not have) male proxy-respondents will tend to be different in nature and structure than households which have (do not have) female proxy-respondents. For example, households with a nuclear family structure have an adult male who can be interviewed, but may not have a second adult female available to be a proxy-respondent.¹

¹ To a much lesser extent this same problem exists in comparing households with a self-respondent to households with a proxy-respondent, since female headed households may not have another adult who can be interviewed as a proxy-respondent.
Also note that information will be collected on the presence of other persons (in addition to the respondent and interviewer) during the interview and on the effect these other persons are believed to have had on the answers (see subsection V.E below for the questions to be used to obtain this information). Using multivariate statistical techniques it will be possible to test whether reported activity rates are affected by the presence and interference of other persons during the interview.

D. Additional Background Variables (not built into Methods Test's fully balanced design)

It is likely that Methods Test results on female labour force activity will be related to socio-economic-demographic factors which are exogenous to the main effects built into the study/sample design. Thus, reported female activity rates are likely to be related to both underlying determinants (such as family size, marital status and migrant status of the person for whom the data is collected) as well as to exogenous aspects of the interview setting which may affect the accuracy of reporting (such as presence/interference of others at the interview and socio-economic-demographic characteristics of the interviewer which were discussed above).

It is necessary to collect information on these additional factors for two main reasons. First, it is necessary to know (and to control for statistically in the analysis, if necessary) if completed Methods Test questionnaires are non-randomly distributed with respect to these additional factors. To illustrate this point, suppose that by chance male interviewers in the Methods Test collect information on labour force activity for women who are from relatively large land owning households as compared to the information collected by female interviewers (similar examples could be given for questionnaire type and for self- or proxy-respondents); if so, one would expect reported activity rates to be different for interviews conducted by male interviewers as compared to interviews conducted by female interviewers (assuming, of course, that activity rates are related to land ownership patterns). In such a circumstance, it would be necessary to control for the non-randomly
distributed "exogenous" variables in the multivariate analysis if we are to test for the significance of observed differences between the male and female interviewers. Indeed, it is likely that there will be non-randomly distributed differences in socio-economic-demographic characteristics between self-respondents and proxy-respondents, since the household structure each respondent type lives in should differ on average; for example, while female headed households have a self-respondent available for interviews, often there will not be another adult in such households available to be a proxy-respondent.

Second, some exogenous factors affecting the accuracy of reported activity rates (e.g. presence of other persons at the interview) are of interest in their own right. In particular, in societies where certain labour force activities (e.g. wage labour) are considered to reflect negatively on a household's social status, one would expect reported levels of female labour force activity to be underreported (in line with socially accepted norms), especially when additional persons are present at the interview and when a female self-respondent is being interviewed.

A listing of the additional variables to be collected in the Methods Test, along with the questionnaire instruments to be used for collecting these data, are presented below in the subsection V.E.

V. DESCRIPTION OF QUESTIONNAIRES FOR METHODS TEST

A. Questionnaire A: Simplified activity/time use questionnaire

Questionnaire A is a relative short activity/time use type questionnaire. Respondents are asked whether any of the activities listed on

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1 Readers are referred to Appendix B for the detailed activity/time use survey questionnaires and the anthropological case study forms used in the ILO's collaborative multi-disciplinary studies of Women's Roles and Demographic Change in Egypt and India.

2 Four alternative questionnaire/measurement issues which might have been included in the Methods Test (if sample size had permitted) are discussed briefly in Appendix C.
the questionnaire have been performed during the last one year. The specific activities listed on the questionnaire (here for India) are those which have been identified prior to the survey as important labour force activities which in turn implies that the activity list needs to be country and area specific. For each of the activities reportedly performed, additional, more detailed information is collected. Taken together, this information provides a basis for determining whether or not someone is in the labour force according to various definitions as well as the extent to which they are working part-time/full-time.

Questionnaire A differs from more detailed activity/time type questionnaires in two major respects. First, the list of activities is considerably shorter on questionnaire A partly because greater use is made in questionnaire A of generic terms such as agriculture for others, agriculture for family, non-agricultural wage or salary, other non-cash. Second, activities not considered to be labour force activities (e.g. child-care, cleaning) even according to our most comprehensive labour force definition (see section 3 above) are excluded from questionnaire A. Third, questionnaire A attempts to collect information on time taken for each activity performed in somewhat crude categories. Time in a day is divided into five categories (small amount; less than one-half day; about one-half day; more than one half day; full day); days spent in each activity performed is divided into 5 categories (not done; rarely or occasionally; some of the time; most of the time; throughout). In contrast, detailed activity/time questionnaires typically ask for information on time in terms of hours and minutes done during the day as well as days and weeks done during the reference period. It remains to be seen whether the simpler or the more detailed activity/time use type questionnaire provides better data i.e. whether or not the additional detail provided in the detailed schedules is more important than the additional difficulty respondents and interviewers must confront in completing these detailed schedules. A recent Indian survey where crude time categories were used, however, indicates that data on time can be collected with a reasonable degree of accuracy (Anker, 1983).
### QUESTIONNAIRE A (simplified activity/time questionnaire for individuals)

<table>
<thead>
<tr>
<th>Activities</th>
<th>Done by person in past 12 months?</th>
<th>Nature of activity</th>
<th>Amount of time in past Rahi season</th>
<th>Done for family or self (F) or others (0)</th>
<th>Distance from dwelling (Indicate payment? N/S/MH/Yes or No?)</th>
<th>Received wage or products produced?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes or No</td>
<td></td>
<td></td>
<td>(Multiple responses allowed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farming for others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farming for family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal husbandry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Processing food for preservation or storage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weaving, sewing, handicrafts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family business or petty trading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-employed (including traditional activities)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-agricultural wage or salary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other cash earnings for wages or sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free gathering of food, fruit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gathering wood, fuel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making cow dung cakes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water fetching</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home construction or improvement for family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any other important activities****</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* S = Small amount; LH = Less than half working day; AH = About half day; MH = More than half day; FD = Full day; DN = Did not do.

** TO = Throughout; MT = Most of the time; ST = Some of the time; R = Rarely, occasionally; DN = Did not do.

*** H = Home; V = Village; O = Outside village lands.

**** N = None; S = Some; MH = More than half; A = All; H = Half.

***** Explain to respondent that these activities should be only those which are either done most of the days in past 12 months for at least some time (about one-half hour) each day or activities done for at least one-half a day on days when done and for at least a total of 30 days in past 12 months.

Investigator Note: Include travel time taken for activity.
The remainder of this subsection discusses the information to be collected in questionnaire A - its rationale, its use and some of its problems.

**Activities performed (columns 1 and 2)**

The list of activities would be read to the respondent and the interviewer would indicate in column 2 which activities were done in the one year reference period. After it is established which activities were done, the respondent would be told that a little additional information is needed on the activities performed. The required information would then be filled in for the remaining columns for each activity performed.

**Occupation (column 3)**

This information is collected only for activities which are not well defined with respect to occupation.

**Amount of time (columns 4-7)**

The amount of time taken to do each activity performed is recorded in columns 4-7. Respondents would be asked to estimate both: the amount of time each activity was generally done during days when performed and the number of days each activity was done during the reference period. Both estimates taken together help provide a rough estimate of the average number of hours per day (or equivalent work-days) spent in the activity during the reference period. For the number of hours an activity was usually done in a day, the following five categories would be read out to the respondent:

---

1 Note that the reference period is one year for whether or not an activity was performed while it is last season for the data on amount of time. (For this reason there is a category for not done.) It was decided to collect the data on time for last season (even though last year was used for whether or not activities were done) for two main reasons. First, and most importantly, the longer the reference period the more difficult it is for respondents to answer questions on "usual" time per day since there may be many different daily activity patterns. Second, it was felt that last season was long enough to include most activities yet to be homogeneous enough for a "usual" day to have some meaning.
N  not done
S  small amount of time
LH less than one half day
AH about one half day
MH more than one half day
FD full day

For the number of days an activity was done during the reference period, the following six categories would be read out to the respondent:
N  not done
R  rarely or occasionally
ST some of the time
MT most of the time
TO throughout

The above crude categorisation of hours and days is very similar to that used in a 1981 study in rural Gujarat, India, the results of which were discussed in Anker (1983). Recommendation of a somewhat crude classification scheme rather than more direct questions on hours per day, days per week and weeks per month is based on several considerations. First, collecting detailed information on time is a difficult as well as a laborious and time-consuming process. In areas where there is a weak consciousness of time, people generally do not think in terms of hours, and interviewers usually find it necessary to lead respondents through a day such as "yesterday" - from the time the respondent awoke until the time the respondent went to sleep. A crude categorisation scheme should reduce the level of frustration on the part of interviewers and respondents in answering different questions as well as the amount of interview time required. Second, the crude nature of these precoded categories cannot mislead data users as to the level of accuracy of the time use data as often happens when these data are collected using detailed time use formats.

Note, however, that use of crude precoded time per day and days per season categories such as those being used in the Methods Test does not prevent respondents from giving their answers directly in
hours, days/weeks. For this reason, interviewers in the Methods Test are instructed to read out to the respondent the precoded categories but to accept these answers or answers given in hours, days, etc. In a further aspect of the Methods Test - in order to observe how meaningful these precoded categories are - interviewers are also instructed to ask respondents who use these precoded categories in answering, the number of hours, days, etc. which are implied.

**Employment status** (not included explicitly for all activities; column 8)

Note that complete information on employment status (whether unpaid family worker, own account worker, wage employee, employer) is not collected in questionnaire A. There are several reasons for this. First, and foremost, employment status is not of major concern in the Methods Test. Second, it is our feeling that in developing countries employment status distinctions are difficult to make and often misleading. For example, which persons in a family enterprise or family farm are own account workers and which are unpaid family workers? In practice, in surveys and censuses, men are usually considered to be own account workers while women are usually considered to be unpaid family workers. Further, how should a person be classified who has multiple activity statuses - say, a person with a small plot of land (i.e. an own account worker or unpaid family worker) for part of the year who hires other people in peak seasons (i.e. now an employer) and who also works for other persons in slack periods (i.e. now an employee)? While it is possible to report multiple employment statuses, this is cumbersome and is usually not done. Third, the Methods Test will collect information on whether wage or salary payment is received and whether the activity is performed for family or for others. This additional information allows persons to be classified according to whether they are in the paid labour force and/or in the self-employed/not paid labour force, as recommended in the recent 1982 ILO Labour Force Recommendations (ILO, 1982). Although the paid-not paid categorisation is not identical to the employment status categorisation, it is quite similar. If one were interested in identifying employers, it would be a simple matter to ask
respondents (at the end of the activity schedule) whether or not they had hired other persons during the reporting period.

Note that for whom each activity is done is not identified in every case. In particular, this information is not collected for the following activities, on the assumption that this is adequately defined by the activity itself: agriculture for others; agriculture for family; cooking for hired labourers; processing food for storage; family business or petty trading; non-agricultural wage or salary; free gathering of food, fruit; home construction or improvement for family.

**Distance from dwelling** (columns 9, 10)

This information is not typically collected on labour-force questionnaires. Yet knowledge on distance from dwelling is important for understanding labour markets and for devising appropriate labour market policies as well as population issues (such as fertility) and women's issues (such as independence and power). Still, if total interview time and associated costs were a problem, the question on distance from dwelling could be deleted from the Methods Test as this information is not essential for investigating differences between various questionnaire types and field work techniques.

Answers on distance from dwelling are pre-coded into three categories: (1) in or near home; (2) outside of home and in community (village or city neighbourhood as the case may be); (3) outside of community. These categories help distinguish between women in terms of separation between family responsibilities and productive activities and probably imply different levels of independence. These three categories also distinguish between the supply of labour to somewhat distinct labour markets. Information is also collected on the number of kilometres from the dwelling that the activity is done.

**Wage or salary income and sales of house produced products** (columns 11, 12)

Information on whether or not wage or salary payment was received from activities performed is recorded in column 11. This information
enables us to identify those in the "paid labour force". This distinction has practical as well as substantive significance. First of all, currently available labour force data is considerably more accurate as regards the paid labour force than it is for the self-employed/not paid labour force, thereby allowing closer international and inter-temporal comparisons with existing labour force data. Second, the paid and not paid labour forces face quite different labour market situations. Third, the earning of income by women is likely to have an important effect on their status and level of independence.

Data on sales of home produced products, which is recorded in column 12, are essential for measuring the "market-oriented labour force"; persons performing activities which result in products which are sold are included in the "market-oriented labour force" whereas persons performing the same activities for own consumption only are not (although these latter people are included in the labour force according to other definitions).

Information on whether wage or salary payment is received is collected only for livestock/animal related activities and other cash earning activities. It is assumed that all other activities are specific enough that it is already known if cash (or in-kind) pay had been received. Regarding information on sales of home-produced products, respondents are asked to indicate whether they sell: none, some, more than half, or all of what they/their family produced. This information is collected for the following activities: agriculture for family; livestock; processing food for storage; weaving, sewing, handicrafts; free gathering of food/fruit; gathering or making of fuel. Information on sales is not collected for certain activities (agriculture for others, cooking for hired labourers, non-agricultural wage or salary, home construction or improvement for family) because there are no products to be sold; nor is sales data collected for family business/petty trading, as virtually all products are sold.
Information is not collected on the amount of pay earned or products sold, mainly because respondents are often reluctant to accurately report their income and in any case this is not of major interest in the Methods Test. But a persuasive argument can be made that labour force surveys should collect these data since the amount of income earned is a very important piece of information and so should be collected regardless of the difficulty involved in obtaining it or its relatively high level of inaccuracy.

C. Questionnaire B: Key word questionnaire

As discussed above and in our earlier related paper, labour force surveys typically employ what we have called "key word" questions—that is, questions that elicit information on labour force activity based mainly on a key word or phrase which is itself embedded within a longer question. Typical key words or phrases employed are: "work", "main activity", "economic activity", for "pay or profit". Since economic activity frequently is not reported in response to such key word questions, it is sometimes recommended that these key word questions be followed up with built-in probing type questions—ones which are more explicit as regards specific types of activities. For an example of this, see Freedman and Mueller (1977) which is reproduced in an Appendix in our earlier paper.

Questionnaire B in the Methods Test is similar to the Freedman-Mueller questionnaire in that both could be described as "nested" questionnaires—i.e. questionnaires with a particular ordering of questions such that with each additional question, which is more detailed/specific regarding labour force activity, a new questionnaire could be considered to have been completed. Figure 2 indicates in schematic form the flow design of questionnaire B.

Questionnaire B begins with two typical, simple key word questions:

B1 "What was your (her) main activity in the past 12 months?"

B2 "What was your (her) next most important activity in the past 12 months?"
Figure 2: Schematic representation of flow in "nested" key word questionnaire used in Methods Test (i.e. questionnaire B) (Q implies in a sense a "new" questionnaire)

B1. Main activity?

B2. Secondary activity?

B3. Worked?

3a–3g (detailed questions on first LF activity mentioned in B1–B3)

...B4. Family farm/business or other cash activity?

  Yes
  No

  4a–4g (detailed questions on these activities)

...B5. Other specific subsistence activities?

  Yes
  No

  5a–5g (detailed questions on these activities taken together)

...B6. Any other time consuming activity?

END INTERVIEW
It is important to ask about secondary activities for women, since fully employed women often report that their main activity is "housewife" or "wife". Such a response to a key word question on "main activity" is hardly surprising since the main role/activity of many employed women in terms of status, outlook and time is household related activities. The low female labour force participation rate recorded in the 1971 Indian Census - where the labour force question enquired about main activity - provides a vivid illustration of this point (see Appendix A in Anker (1983) for a discussion of 1961, 1971 and 1981 Indian Census data on female labour force participation and its relationship to the key word questions used). Taken together, questions B1 and B2 comprise a version of a simple key word questionnaire where respondents are asked about their main and secondary activities.

Persons would also be asked another typical key word question - this time (B3) using the key word "work".

B3 "Apart from ... have you (she) worked in the past 12 months?"

Taken together, questions B1-B3 form another version of a typical key word questionnaire. Particularly interesting will be the extent to which responses from B3 increase the reported level of female labour force activity.

Persons engaged in a labour force activity according to the current internationally accepted definition based on responses to questions B1, B2 or B3 would be asked specific questions (3a-3g) about this activity: its nature, time taken (hours per day in days when done and number of days done in season), done for whom, place where done, whether wage or salary payment received in cash or kind, and whether home produced products were sold. This specific information corresponds to the additional information obtained on the activity chart used in questionnaires A and C).

---

1 Since more than one labour force activity may be mentioned in response to B1-B3, there needs to be a basis for deciding which activity about which to ask questions 3a-3g. The Methods Test uses the following rule: preference is given to the first labour force activity mentioned.
All respondents would then be asked questions B4 and B5 in order to help identify additional labour force participants and additional labour force activities. Question B4 asks about family farm/family business activity and (other) cash earning activity. B5 asks about specific subsistence type activities which respondents frequently consider to be household activities. B6 asks about any other relatively time consuming activities not already mentioned in B1-B5. In following the general key word questions, B1-B3, with more specific questions, we are mainly interested in the extent to which the mention of specific activities increases the reported level of labour force participation, both by increasing the number of labour force participants and by increasing the amount of labour force activity done by women already identified as labour force participants.

B4. "(Besides...) did you (she) do something else for which family income was earned in the past 12 months such as helping out on a family farm or in a family business or do something(else)?"

B5. "Many persons (also) help their families by caring for family livestock, processing food for storage, cooking for family hired labourers, sewing clothes for family members, gathering fuel for family use. Did you (she) do any such activity in the past 12 months?"

B6. "(Apart from these activities) can you mention any other important activity in terms of time which you (she) performed in the past 12 months?"

For persons responding positively to B4 or B5, there would again be follow-up questions in order to gather details on these activities.

All questions in questionnaire B are to be asked without probing. Interviewers are to read the questions and to accept the respondents'
answers as they are given - unless respondents ask for further explanation of what a question means. The intention is to duplicate as far as possible the interview setting in large scale surveys and censuses where the level of training and supervision tend to be relatively low - and, more importantly, to guard against the possibility that conscientious and knowledgeable Methods Test interviewers will attempt to raise reported female labour force activity rates by strenuous probing.

C. **Questionnaire C: Combined key word and simplified activity/time questionnaires**

Questionnaire C combines questionnaires A and B into one questionnaire. Thus, in questionnaire C the first three questions from questionnaire B (general key word questions on "main activity", "next most important activity", "work") are followed by the activity chart from questionnaire A. Consequently, it will be possible to compare on a person by person basis responses to typical key word questions and an activity chart (by comparing responses on questionnaire C to C1-C3 with those from the activity chart). It will also be possible to observe whether data obtained on the activity chart is affected by its position in the questionnaire and the questions which precede it (by comparing answers on the activity chart from questionnaire A with those from questionnaire C).

It is important to know how useful (and sensitive) activity charts are when they are used as a follow-up section to general key word labour force questions. First, for many persons, responses to the general key word questions will provide sufficiently comprehensive answers that it would not be necessary to also ask activity questions. Second, there is great scope for adding relatively short activity charts on to labour force questionnaires currently in use without greatly affecting their basic structure, and this addition may have greater appeal to statistical offices (which are generally conservative in nature) than use of a completely new questionnaire design.
D. Cover page for questionnaires
   (Note: to be the same for all three questionnaire types - therefore
   not to be tested)

   The cover page to be used in the Methods Test is provided below.
   Household ID (i.e. identification number), interview address, assigned
   random number, pre-selected respondent type, pre-selected interviewer
   type, and pre-selected questionnaire type will be indicated on the cover
   page before the questionnaire is given to the interviewer.

E. Record of calls by interviewer

   The chart provided on the first page after the cover page - where
   all calls made by the interviewer to the sample household are recorded
   - serves two purposes. First, it provides a place for interviewers to
   indicate when a later, pre-arranged interview is to take place. Second,
   and more important, it provides a record of interviews which were not
   completed.

   The study design requires specific respondent types (self or
   proxy) to be interviewed. This may not always be possible, either
   because a household member with the pre-selected respondent character-
   istic is away from home and not contactable or because no such
   respondent type lives in the household (e.g. proxy-respondent in
   certain female headed household). When this happens, a randomly
   chosen replacement household with the same respondent type character-
   istic would need to be interviewed (so as to retain the random, fully
   balanced nature of the sample). It is important to know how easy it is
   to contact specific respondent types if conclusions are to be drawn and
   recommendations are to be made about appropriate field work techniques;
   the record of calls chart helps serve this purpose.

   For similar reasons, additional information is collected for interviews
   which are not completed: specifically why an interview was not completed
   along with some information about self-respondents who were not inter-
   viewed. As many of these self-respondent women who cannot be
   interviewed will be physically absent from their home on the day of the
   interview, often earning income, it is important to know if those not
   interviewed are an unusual group in terms of labour force activity.
METHOD TEST FOR FEMALE LABOUR FORCE
PARTICIPATION RATE

IDENTIFICATION NUMBER

ASSIGNED RANDOM NUMBER

TYPE OF RESPONDENT

Self
Respondent

ADDRESS FOR INTERVIEW

Name of household ______________________________________

Address _____________________________________________

Community __________________________________________
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<td>Date of interview</td>
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<td>(day/month/year)</td>
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<td>Outcome of interview attempt*</td>
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* 1 C - Completed  2 I- Incomplete  3 A - Appointment made for future interview

**REASONS IF INTERVIEW NOT DONE OR NOT COMPLETED (CIRCLE WHICH IS APPROPRIATE)**

**In case of SELF-RESPONDENT:**
1. There is no adult female in household (HH)
2. Selected self respondent is not available at HH
3. Refused to give interview because of other reasons (give reason)

**In case of PROXY RESPONDENT**
4. There is no proxy respondent in HH (HH with only one adult female member)
5. None of the proxy respondents were available for interview
6. Refused to give interview (give reason)

**In case of SELF-RESPONDENT NOT AVAILABLE OR REFUSED TO GIVE INTERVIEW, TRY TO GET THE FOLLOWING INFORMATION THROUGH A PROXY-RESPONDENT**

(a) Where is she now?
(b) What is she doing now?
(c) Has she worked in past 12 months to earn money for self or family?
   1 Yes 2 No
   ↓
   Did what?

_____________________________
SECTION A: HOUSEHOLD MEMBERS CHART

A1. INS: Circle the respondent who has been interviewed and indicate relationship to the woman for whom information has been collected.

<table>
<thead>
<tr>
<th>Person number</th>
<th>Name</th>
<th>Age</th>
<th>Sex M(male) or F(female)</th>
<th>Marital status*</th>
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<tbody>
<tr>
<td>1</td>
<td>Head of HH</td>
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* (1) S (Single)  (2) M (Married)  (3) D (Divorced)  (4) W (Widowed).
F. Household members' chart (note: to be the same for all three questionnaire types - therefore not to be tested)

In order to determine which women are eligible for inclusion in the sample and to eventually choose one for whom to obtain labour force data, it is necessary to have a list of all women in the household. Since it is not practical (in many countries) to ask someone to list all women in a household (respondents, especially males, may become suspicious as to why the interviewer, especially if male, wants the names, ages and marital status only of female household members), the household members' chart includes information for all household members. Additional information on age and sex are obtained in order to help establish which female household members are eligible for inclusion in the sample while information on marital status is obtained, since it is an important determinant of labour force activity.

Notice that the household members' chart is also useful in providing information on the age, sex and marital status of: the head of household, the respondent, and the woman for whom labour force information is collected. The head of household is always the first person on this chart; the respondent has the person number in this chart which has been circled; while the person number of the person for whom labour force information is to be collected is indicated in the random selection charts.

G. Questionnaire sections for additional background variables (note: to be the same for all questionnaires - therefore not to be tested)

As discussed above in subsection IV.E, it is important to know some of the main determinants of whether women are or are not in the labour force as well as some of the exogenous interview setting circumstances which may effect the degree to which this participation is reported. The additional variables to be collected in the Methods Test are given below; the superscript d designates variables which are believed to be behavioural determinants while the superscript a designates variables which are believed to affect accuracy of reporting (note that several variables affect both).
Characteristics of person for whom information is being collected

Age
Marital status
Relationship to respondent (for proxy-respondents only)
Birthplace/migrant status
Whether head of household

Household and household head characteristics

Land owned and land cultivated
Animals owned (by type)
Head of household's age
Head of household's sex
Head of household's marital status
Caste, religion
House quality and availability of electricity in house
Number of adults (total, male, female) in the household
Number of children in household

Characteristics of interviewer (in addition to interviewer's sex)

Marital status
Birthplace
Age
Previous survey experience
Interviewer's ID number
Previous occupation
Caste, religion
Education level
Mother's main "work"

1 This factor should help indicate the degree to which answers are interviewer-specific, i.e. the degree to which specific interviewers tend to get similar answers.
Interview environment characteristics

Respondent's understanding of questions (subjective appraisal of interviewer)
Presence of other persons at interview
Effect of other persons' presence on results (subjective appraisal of interviewer)

Characteristics of respondent (in addition to proxy/self status)

- Sex
- Age
- Marital status
- Relationship to person for whom labour force information collected
- Whether head of household

The questionnaire forms to be used for obtaining information on the above variables (in addition to that obtained on the household members' chart) are given below and are self-explanatory. It should be noted that there are three separate sections. There is the household level information which comprises the household members' chart, questions A2 and A3 (relationship of respondent with person for whom labour force information is to be collected; caste/religion) and section B (house, electricity, household size, land, animals). Wherever possible, this information would be collected for all households drawn in the sample, regardless of whether or not an interview was completed. In this way, a minimal amount of information would be available on all households, even on non-response households.

Also included in all questionnaires is the "interviewer's report" which would be completed by the interviewer after finishing an interview. Included are subjective judgements and observations of the interviewer on their impression of the respondent's understanding of the questions, and the effect on responses of other persons present during the interviews. Factual information would also be filled in by the interviewer on their own ID number, name and sex as well as on the presence of other persons during the interview.
A2 What is the relationship of the respondent with the female about whom the information has been collected?

A3 Caste

(a) For Hindu Respondents
1. Higher caste
2. Middle caste
3. Backward caste
4. Scheduled caste/scheduled tribe

(b) For Muslim Respondents
Ask what is your Jati?

(c) Other religious group

SECTION B: HOUSEHOLD INFORMATION

INS: SECTION B AND ONWARD QUESTIONS ARE APPLICABLE ONLY WHEN PROPOSED (SELF OR PROXY) RESPONDENT TYPE AVAILABLE FOR INTERVIEW

B1 House: 1. Pucca 2. Kuccha

B2 Electricity in house? 1. Yes 2. No

B3 Number of adults (age 15+ years) Total 

Male Female

B4 Number of children (below 15 years)

B5 Animals
Milk buffalo/cows Number owned
Other (specify type and number)

B6 Land cultivated Land owned
( acres) ( acres)
INTERVIEWER'S REPORT (to be completed after completion of interview)

Interviewer's name ____________________________

Sex: 1 Female 2 Male  ID Number ______

Other persons present during interview (MULTIPLE RESPONSES ALLOWED)

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<tr>
<td>0</td>
<td>None</td>
<td>Mother-in-law</td>
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<td>2</td>
<td>Spouse</td>
<td>Other adult male(s)</td>
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<tr>
<td>4</td>
<td>Other adult females(s)</td>
<td>Children</td>
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Effect of other person's presence on responses of respondent (as assessed by interviewer)

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<td>No answer provided and major effect</td>
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<td>6</td>
<td>Answers provided and major effect</td>
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Rating of understanding of respondent (as assessed by interviewer)

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</thead>
<tbody>
<tr>
<td>1</td>
<td>No difficulty</td>
<td>3</td>
<td>Considerable difficulty</td>
</tr>
<tr>
<td>2</td>
<td>Some difficulty</td>
<td>4</td>
<td>Great difficulty</td>
</tr>
</tbody>
</table>

Observation on time use data (as assessed by interviewer)

How do you rate respondent's understanding on questions related with amount of time done for each activity?

1 R gave the response in hr/interval without any hesitation or difficulty.
2 R found difficulty in answering time and was able to answer only after probing.
3 Even after probing R faced difficulty and hence answers may not be accurate.
Interviewer's characteristics (Note: TO BE COLLECTED FROM EACH INTERVIEWER AND THEREFORE NOT TO BE INCLUDED ON QUESTIONNAIRES)

Father's main work

Mother's main work

Birthplace: rural; urban

Age _______ Sex _______

Number of previous surveys done

Religion _______ Caste _______

Education (level completed)

Marital status

Last previous occupation
APPENDIX A:
FIELD NOTES FOR SUPERVISORS AND INTERVIEWERS
FOR INDIAN METHODS TEST
Rules for Establishing Respondent and Replacing Selected Respondent or Household if Required

Note: Female for whom labour force information is to be collected must be 15-59 years of age. All households contacted must have information to Section B (including random selection table) and final interviewer's page completed and forms kept for coding, regardless of whether or not full interview taken.

I. Female Investigator

For Self-Respondent Household

1. Choose female for whom labour force information is to be collected using random selection table.

2. This woman becomes the self-respondent for interview.

3. If unable to interview selected female because she is out of village during the field work (e.g. visiting mother-in-law, shopping in city), replace with another randomly selected female for self response which supervisor will assign.

4. If selected woman is within the village and you fail to contact her during field work (even after re-visit) or she refuses to give interview, drop this HH from sample and replace with another randomly selected household which supervisor will assign.

For Proxy-Respondent Household

1. Choose woman for whom labour force information is to be collected, using random selection table.

2. This woman is excluded as a possible proxy-respondent.

3. Any other knowledgeable adult in household can be interviewed.

4. Rule to follow is to interview head of household as first alternative, and any other knowledgeable adult in household as second alternative if necessary (excluding chosen woman for whom information is to be collected of course).
5. If unable to interview any adult proxy household member, drop household and replace with another household which supervisor will assign.

II. Male Investigator

Proxy-Respondent/Self-Respondent

1. Rule will be that no specific effort will be made to specify before the interview the respondent type in terms of self- or proxy-status.

2. Choose woman for whom labour force information is to be collected using random selection table.

3. Any knowledgeable adult household member can be interviewed, including woman for whom labour force information is being collected.

4. Rule to follow is to interview head of household as first alternative and any other knowledgeable adult household member including women for whom information is to be collected as second alternative, if necessary.

5. If unable to interview any adult member for whatever reasons, drop household and replace with another household which supervisor will assign.

Additional Interviewing for Questionnaire B

1. When questionnaire B is used, an attempt will be made to also interview self-respondents separately.

2. After completing questionnaire B (if the respondent is not a self-respondent by chance), ask to speak to woman for whom labour force information had just been collected. If asked why since this information had just been given, say that ORG wants to learn if women are able to give answers such as these. Attempt to interview woman by herself if possible; if not possible and the original respondent is still sitting around, ask him/her to please not interfere. A full questionnaire type B for self-respondents would be completed if possible.
Selection of Sample Households and Assignment of Questionnaires by Questionnaire Type and Respondent Type
For Male and Female Interviewers

I. Selection of households in village for inclusion in sample

1. Village should be divided into blocks of houses according to type of community and type of housing. This should be done with the assistance of knowledgeable persons from the village.

2. Number of households to be interviewed in each block should be proportional to the block's relative population size in the village.

3. Minimum of two households should be selected in each block.

4. Number of households interviewed in each block should be in units of 2 - i.e. 2, 4, 6, 8, 10...

5. Equal numbers of interviews should be done by male and female interviewers in each block.

6. Supervisor should randomly select houses within each block for inclusion in sample.

II. Assignment of questionnaires by male and female interviewer, by questionnaire type and by respondent type

1. In each village block, half of interviews will be done by male interviewers and half will be done by female interviewers.

2. Distribution of interviews by questionnaire type (i.e. A, B, C) for male interviewers and by questionnaire type (A, B, C) - respondent type (self and proxy) for female interviewers will be done randomly (see III below). This assignment will be done by supervisor before giving questionnaire to interviewers.

3. Supervisor would have addresses of selected sample households written on questionnaires before giving them to investigators. Supervisor must not look at type of questionnaire or respondent type in giving out the questionnaires.
(Done in HQ before going to village)

III. Household ID numbers would be given to each of the 60 questionnaires. For each village there would be 20 questionnaire A, 20 questionnaire B, 20 questionnaire C. Each of the 20 questionnaire A (similarly for questionnaire B and questionnaire C) would have indicated whether interviewer is to be a male or female in equal numbers by noting on the cover page (i.e. 10 for each sex for each questionnaire type). For female interviewers for questionnaire A (similarly for questionnaire B and questionnaire C), every other questionnaire would be indicated as having a proxy-respondent or a self-respondent. For male interviewer questionnaires, there would be no indication as to respondent type as this is not relevant for them.

The supervisor would now randomly assign a number from 1 to 60 to each questionnaire. The assigned random number from 1 to 60 for each questionnaire would be chosen using a random numbers table. The supervisor would close his/her eyes and point to this random numbers table. Where his/her finger falls would be the starting point in this table for this village. The questionnaire with the ID number corresponding to the first number in this table after the starting point between 1 and 60 (inclusive) which he/she comes to would be assigned the random number 1; the questionnaire with an ID corresponding to the next number found in the random numbers table would be assigned the random number 2; and so forth. All questionnaires would then be put into 2 groups (male and female interviewer groups) in order of their assigned random number.

IV. Replace of households where prescribed type of interview was not possible

1. Neighbouring household would be taken as the replacement household and would be assigned by the supervisor (in the village block of course).
2. Questionnaire type (and respondent type if questionnaire is to be done by female investigator) must remain the same as for household being replaced.

3. Interviewer must remain as male or female as was already assigned for the household being replaced.

V. Final distribution of questionnaires in each village would be as follows

<table>
<thead>
<tr>
<th>Male Interviewers</th>
<th>Female Interviewers</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 questionnaire A</td>
<td>10 questionnaire A with:</td>
</tr>
<tr>
<td>10 questionnaire B</td>
<td>5 self-respondent</td>
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<tr>
<td>10 questionnaire C</td>
<td>5 proxy-respondent</td>
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<td></td>
<td>10 questionnaire B with:</td>
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<tr>
<td></td>
<td>5 self-respondent</td>
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<tr>
<td></td>
<td>5 proxy-respondent</td>
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<td></td>
<td>10 questionnaire C with:</td>
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<td></td>
<td>5 self-respondent</td>
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<tr>
<td></td>
<td>5 proxy-respondent</td>
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</tbody>
</table>
APPENDIX B

Detailed activity/time use questionnaires schedules used in the ILO's collaborative (ORG, New Delhi and DRTPC, University of Cairo) multi-disciplinary studies of women's roles and demographic change in Egypt and in India (Uttar Pradesh State)
<table>
<thead>
<tr>
<th>Activity</th>
<th>Did R do activity &quot;/&quot; if yes</th>
<th>Occupation or nature of activity</th>
<th>Amount of Time</th>
<th>Did R receive cash directly?</th>
<th>Type of payment</th>
<th>Ant for season</th>
<th>Value for season</th>
<th>Distance from dwelling to where activity performed (in km)</th>
<th>Number of children normally with R when activity is done?</th>
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</thead>
<tbody>
<tr>
<td>01 Crop cultivation for family</td>
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<td>06 Home gardening</td>
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<td>08 Crop cultivation for others</td>
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<td>12 Improving land for family (e.g. levelling fencing, canals)</td>
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a Asked only if activity is done away from home.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Did R do activity /'/' if yes</th>
<th>Occupation or nature of activity</th>
<th>Amount of Time</th>
<th>No. of days in past 7 (i.e. week)</th>
<th>No. of weeks in past season</th>
<th>No. of hrs/mins in typical day</th>
<th>Made any payment; No payment, cash (piece rate), cash (time rate), exchange in kind</th>
<th>If cash received</th>
<th>(if in kind or exchange)</th>
<th>Type of payment</th>
<th>Ant. for season</th>
<th>Ant. for season</th>
<th>Value for season</th>
<th>Distance from dwelling to where activity performed (in kms.)</th>
<th>Number of children normally with R when activity is done</th>
<th>Number of children normally with R when activity is done</th>
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<tr>
<td>15. Fishing hunting</td>
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<td>20. Animal husbandry for family</td>
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<td>23. Animal husbandry for others</td>
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<td>30. Non-agricultural wage and salary</td>
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<td>31. Non-agricultural wage and salary</td>
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<td>40. Self-employed business or professional</td>
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</tbody>
</table>
Activity | Did R do activity "Y" if yes | Occupation or nature of activity | Amount of time | Did R receive cash | Amount for season | Ant. for season | Type of payment | Ant. for season | Value for season | Distance from dwelling to where activity performed (in kms) | Number of children normally with R when activity is done |
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
43. Handicraft | | | | | | | | | | | |
45 Service for others (e.g. laundering, sewing, cleaning) | | | | | | | | | | | |
46 | | | | | | | | | | | |
48 Trading | | | | | | | | | | | |
50 Other income earning | | | | | | | | | | | |
51 | | | | | | | | | | | |
60 Home construction, repairs or improvements for others (including floors) | | | | | | | | | | | |
61 Home construction, repairs or improvement for family (including floors) | | | | | | | | | | | |
63 Gathering sticks, other fuel, for family | | | | | | | | | | | |
<table>
<thead>
<tr>
<th>Activity</th>
<th>Did R do activity &quot;yes&quot; if yes</th>
<th>Occupation or nature of activity</th>
<th>Amount of time</th>
<th>Did R receive cash (if yes)</th>
<th>Cash received in kind (if yes)</th>
<th>Type of payment (in kind or exchange)</th>
<th>Value for season (in kins.)</th>
<th>Distance from dwelling to where activity performed</th>
<th>Number of children normally with R when activity was done</th>
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<tbody>
<tr>
<td>65</td>
<td></td>
<td>Family</td>
<td>No pay</td>
<td></td>
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<td></td>
<td></td>
<td>Less than 2 years/2-4 years/5-9 years</td>
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<tr>
<td>67</td>
<td></td>
<td>Family</td>
<td>No pay</td>
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<tr>
<td>69</td>
<td></td>
<td>Family</td>
<td>No pay</td>
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<td>71</td>
<td></td>
<td>Family</td>
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<td>73</td>
<td></td>
<td>Family</td>
<td>No pay</td>
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<td>75</td>
<td></td>
<td>Family</td>
<td>No pay</td>
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<tr>
<td>77</td>
<td></td>
<td>Family</td>
<td>No pay</td>
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<td>79</td>
<td></td>
<td>Family</td>
<td>No pay</td>
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<td>80</td>
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<td>Family</td>
<td>No pay</td>
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<tr>
<td>82</td>
<td></td>
<td>Family</td>
<td>No pay</td>
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<tr>
<td>Activity</td>
<td>Did R do activity if yes</td>
<td>Occupation or nature of activity</td>
<td>Amount of Time</td>
<td>Did R receive cash for season</td>
<td>(If in kind or exchange)</td>
<td>Distance from dwelling to where activity performed (in kms.)</td>
<td>Number of children normally with R when activity is done</td>
<td>Less than 2 years</td>
<td>2-4 years</td>
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<tr>
<td>84 Washing clothes for family</td>
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<td>Family</td>
<td>No pay</td>
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<tr>
<td>85 Childcare (main purpose) for family</td>
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<td>Family</td>
<td>No pay</td>
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<tr>
<td>86 School attending/studying for day school</td>
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<td></td>
<td>Self</td>
<td>No pay</td>
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<tr>
<td>87 Training (e.g. literacy, extension classes)</td>
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<td></td>
<td></td>
<td>Self</td>
<td>No pay</td>
<td></td>
<td></td>
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<tr>
<td>88 Leisure, rest, recreation</td>
<td></td>
<td></td>
<td></td>
<td>Self</td>
<td>No pay</td>
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<tr>
<td>89 Visiting, talking with others</td>
<td></td>
<td></td>
<td></td>
<td>Self</td>
<td>No pay</td>
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<tr>
<td>90 Attending festivals, religious and social functions</td>
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<td>Self</td>
<td>No pay</td>
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<tr>
<td>91 Illness, receiving medical care</td>
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<td>Self</td>
<td>No pay</td>
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<tr>
<td>92 Looking for work while unemployed</td>
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<td>Self</td>
<td>No pay</td>
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<tr>
<td>Activity</td>
<td>Did R do activity &quot;Y&quot; if yes</td>
<td>Occupation or nature of activity</td>
<td>Amount of Time</td>
<td>Did R receive payment: No payments, cash (-piece rate), cash (tinc rate), exchange, in kind</td>
<td>Distance from dwelling to where activity performed (in kms.)</td>
<td>Number of children normally with R when activity is done</td>
<td>(If in kind or exchange)</td>
<td>Type of payment</td>
<td>Ant. for season</td>
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<td>Other</td>
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</tr>
</tbody>
</table>

Source: R. Anker (1980)
K.1 Activity/Time Use
(To be collected once every 15 days for main informant and once every 30 days for other household members 6 years or above)

<table>
<thead>
<tr>
<th>Community:</th>
<th>HH No.:</th>
<th>Name of R&lt;sup&gt;a&lt;/sup&gt;:</th>
<th>R's person no.&lt;sup&gt;a&lt;/sup&gt;:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of person info. is for</td>
<td></td>
<td>Person's person no.:</td>
<td>Investigator:</td>
</tr>
</tbody>
</table>

Yesterday's date and day of week: _______  
Yesterday unusual? Yes/NO  
How unusual? _______  

<table>
<thead>
<tr>
<th>Activity (and activity number)*</th>
<th>Nature/ description of activity</th>
<th>Amount of time</th>
<th>Done for: family (F) or self (S), other relative (OR), non-relative (NR)</th>
<th>Payment</th>
<th>No. of children present when work done outside home</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yesterday (hrs/mins)</td>
<td>No. of days in past 7 days done: 15/30 days done</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>In the past</td>
<td>TOTMTST/</td>
<td>R**</td>
<td>Total in cash for 15/30 days (Rs)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11)

* READ OUT LIST OF ACTIVITIES FROM ACCOMPANYING FORM K.1a AND RECORD THOSE PERFORMED IN COLUMN 1.
** TO = throughout; MT = most of time; ST = some of the time; R = rarely.
a Respondent should be person for whom the information is collected. See text for possible exceptions.
### K.1a: Worksheet to Help Recording Yesterday Information for Activity/Time Use (FORM K.1)

**Community:** __________  **Household No.:** ______

**Yesterday's date:** ______  **Investigator:** ______

**Name of person info. for:** ______  **Person No.:** ______

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 a.m.-6 a.m.</td>
<td></td>
</tr>
<tr>
<td>6 a.m.-7 a.m.</td>
<td></td>
</tr>
<tr>
<td>7 a.m.-8 a.m.</td>
<td></td>
</tr>
<tr>
<td>8 a.m.-9 a.m.</td>
<td></td>
</tr>
<tr>
<td>9 a.m.-10 a.m.</td>
<td></td>
</tr>
<tr>
<td>10 a.m.-11 a.m.</td>
<td></td>
</tr>
<tr>
<td>11 a.m.-12 a.m.</td>
<td></td>
</tr>
<tr>
<td>12 a.m.-1 p.m.</td>
<td></td>
</tr>
<tr>
<td>1. p.m.</td>
<td></td>
</tr>
<tr>
<td>2. p.m.</td>
<td></td>
</tr>
<tr>
<td>3. p.m.</td>
<td></td>
</tr>
<tr>
<td>4. p.m.</td>
<td></td>
</tr>
<tr>
<td>5. p.m.</td>
<td></td>
</tr>
<tr>
<td>6. p.m.</td>
<td></td>
</tr>
<tr>
<td>7. p.m.</td>
<td></td>
</tr>
<tr>
<td>8. p.m.</td>
<td></td>
</tr>
<tr>
<td>9. p.m.</td>
<td></td>
</tr>
<tr>
<td>10. p.m.</td>
<td></td>
</tr>
<tr>
<td>Till sleep</td>
<td></td>
</tr>
</tbody>
</table>
K.2  **Place of Activities and Control over Cash Received**  
(To be collected once every season for main female informant only)

Community:  
Household No.:  
Yesterday's date and day of week:  
Investigator:  
Name of person info. for:  
Main female informant's person No.:  
(RESPONDENT MUST BE MAIN INFORMANT)

<table>
<thead>
<tr>
<th>Activity performed</th>
<th>Date of interview from fort-nightly/monthly interview</th>
<th>Distance from dwelling to where activity performed (in km.)</th>
<th>Time needed to reach the place of activity and mode of transportation used</th>
<th>Cash ever received? (Yes or no)</th>
<th>(IF CASH RECEIVED)</th>
<th>Received R's control on spending this cash? None, some, complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
</tr>
</tbody>
</table>


K.3 Observation Regarding Activity/Time Use
(To be collected once every 60 days for main female informant and once every season for each other household members six years or above. To be collected on the day prior to interview for activity/time use - see K.1).

Community: __________________________ Household no.: ___________ Investigator: __________________________

Name of person information for: __________________________________ Person's person no.: ___________

Name of R: __________________________ R's person no.: __________________________

Place where observed: __________________________ Day and date of observation: __________________________

Day of observation unusual? Yes/no. (If yes) How unusual? __________________________

<table>
<thead>
<tr>
<th>Time</th>
<th>Activities</th>
<th>Intensity of work L/M/H*</th>
<th>Technology/tools used</th>
<th>No. of children present and level of interference in work N/L/M/H**</th>
<th>Observed (O) or reported (R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 a.m.-6 a.m.</td>
<td>1 2 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 a.m.-7 a.m.</td>
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<tr>
<td>7 a.m.-8 a.m.</td>
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<tr>
<td>8 a.m.-9 a.m.</td>
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<tr>
<td>9 a.m.-10 a.m.</td>
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<tr>
<td>10 a.m.-11 a.m.</td>
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<tr>
<td>11 a.m.-12 a.m.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>12 a.m.-1 p.m.</td>
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</tr>
</tbody>
</table>

* L = low; M = medium; H = High
** N = no interference; L = low interference; M = medium interference; H = high interference.

Recall only to be used where necessary such as at night and in early morning.

Source: Nag, Anker and Khan (1982)
APPENDIX C

Four selected questionnaire measurement issues which could have been included in the Labour Force Methods Test (if sample size had permitted)

Three different questionnaires will be used in the Methods Test as described in the text. There will be one key word type questionnaire, one simplified activity/time use type questionnaire and a third questionnaire which combines these two other types.

There are, of course, numerous measurement/questionnaire issues which could be tested in the Methods Test (given a sufficient sample size). Four such additional possibilities are discussed briefly in this appendix—although it needs reiterating that they will be used in the Methods Test.

a. Reference period

All three of the questionnaires to be used in the Methods Test use a one-year reference period for establishing whether or not activities are done, since this is generally considered to be most appropriate reference period for developing countries where there is a high degree of seasonality in activity patterns. Yet, it is common in labour force surveys around the World to use a shorter reference period—usually one week—especially when measuring unemployment. Thus, it would have been possible for the Methods Test to also include a questionnaire with a short reference period (i.e. one week).

b. Amount of time

It could be argued that the most important problem with the activity type labour force questions to be used in the Methods Test is the crude manner in which information on the "amount of time" is collected. For this reason, the Methods Test could have tested alternative formats for collecting time use data. This has not been done (despite our feeling
that the accuracy of the time data will be suspect), for two main reasons. First, and by far more important, our interest is not in collecting very accurate data on time. We are only interested in rough orders of magnitude on time so as to broadly classify persons in terms of their integration into the labour force. For this purpose, our categorisation should suffice. Second, a detailed hours-minute approach to collecting time data is being used in the ILO's collaborative on-going multi-disciplinary studies of Women's Roles and Demographic Change and it will be possible to compare these survey data to the time use data obtained from the Methods Test, since these studies have samples which are replicates of each other.

c. Activity schedule format for all household members

It would have been possible to include in the Methods Test an activity schedule format which collects information for all adult members of the household as censuses and labour force surveys usually collect information for all household members. In addition, respondents may be more reluctant to report that certain labour force activities are done by female household members when responses on this are given at the same time as those for male household members; similarly, respondents may tend to understate the time and money contributed by female household members when this information is juxtaposed with that of male household members; further, the length and tediousness of a household formatted activity schedule might affect responses. Finally, if recommendations are to be made on appropriate questionnaires for future labour force surveys, it would be useful to know the quality of the male labour force data (including time use data) resulting from such questionnaires. Despite these advantages, a household formatted activity/time use questionnaire was not used for two main reasons. First, the focus of the Methods Test is on female activity and using a questionnaire type for all household members would not have greatly furthered this objective while it would have increased costs. Second, previous experience indicates that for men reasonably accurate labour force data is obtained with both activity schedules and key word questions.
d. **Unemployment**

It has been stressed several times in this paper that the Methods Test is not concerned with measuring unemployment. This restriction has been imposed in order to focus Methods Test attention and resources on what we feel is the most important issue at hand for women—measuring the high level of female economic/labour force activity—and is not intended to belittle the importance of improving the measurement of unemployment.

It is our feeling that the issues involved in measuring unemployment, particularly in the developing world, are both difficult and important but that they deserve a separate enquiry. One would want to understand and be in a position to measure distinctions between willingness to work, interest in working, seeking of work, availability for work; one would also want to know what constitutes seeking of work and what constitutes realistic job expectations. In addition, one would also want to distinguish between interest, availability, etc. for different components of the labour market, for example with respect to: location (e.g. in or around home, in the village/community, within commuting distance); type of job (e.g. specific type, blue-collar, white-collar); type of employer (e.g. wage unemployment, salary employment, self-employment, unpaid family work); level of income required; hours and days willing to work; as well as other possibly important factors such as sex distribution in workplace, type of travel to workplace required, arrangements for child-care required, etc. In short, studying the well-known problems in both applying the concept of unemployment in the developing world and measuring it (also in the developed world for that matter) requires its own Methods Test, one which would pay greater attention and have larger sample sizes/more resources than are possible in the Methods Test described in this paper.
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Rose, R. (1983): Getting by in three economies: The resources of the official, unofficial and domestic economies, Studies in Public Policy No. 110 (Glasgow, Centre of Study of Public Policy, University of Strathclyde).


Selected Publications of the Population and Labour Policies Research Programme

1. General Material on the Research Programme


This report includes a full bibliography. This publication (3rd edition, summer 1981) is available in French. (*)

2. Books and Monographs

[A number of free copies are available for individuals and institutions in less developed countries. Requests for these should be addressed to the Documentalist, Population and Labour Policies Branch, Employment and Development Department, ILO, CH-1211 Geneva 22, Switzerland.]

R. Anker: Research on women's roles and demographic change: Survey questionnaires for households, women, men and communities with background explanations (Geneva, ILO, 1980). (*)

R. Anker and M. Anker: Reproductive behavior in households of rural Gujarat: Social, economic and community factors (New Delhi, Concept Publishing Co., 1982). (****)

R. Anker, M. Buvinic and N. Youssef (eds.): Women's roles and population trends in the Third World (London, Croom Helm, 1982). (****)


---: Surveys of internal migration in low-income countries: The need for and content of community-level variables (Geneva, ILO, 1981). (*)

S. Braganca et al.: The simulation of economic and demographic development in Brazil (Geneva, ILO, 1980). (*)

M.G. Castro, L.M. Fraenkel et al.: Migration in Brazil: Approaches to analysis and policy design (Brussels, Ordina, 1979). (****


Availability code: * available on request from ILO, Population and Labour Policies Branch; ** available for sale from ILO Publications; *** available for sale from a commercial publisher.


P. Peek and G. Standing (eds.): State policies and migration: Studies in Latin America and the Caribbean (London, Croom Helm, 1982). (***)


---: Conceptualising territorial mobility in low-income countries (Geneva, ILO, 1982). (**)

---: Analysing inter-relationships between migration and employment (Geneva, ILO, 1982). (*)


G. Standing and R. Szal: Poverty and basic needs (Geneva, ILO, 1979). (**)

3. Recent Articles


---: "State policies and internal migration in Asia", in International Labour Review (Geneva, ILO), Mar.-Apr. 1981, Vol. 120, No. 2, pp. 231-44.


---: "Income and inequality as determinants of mortality: An international cross-section analysis", in Population Studies, 1979, Vol. 33, No. 2.


4. Recent Working Papers in print

WEP Working Papers are preliminary documents circulated informally in a limited number of copies solely to stimulate discussion and critical comment. They are restricted and should not be cited without permission. A set of selected WEP Research Working Papers, completed by annual supplements, is available in microfiche form for sale to the public; orders should be sent to ILO Publications, International Labour Office, CH-1211 Geneva 22, Switzerland. Many, but not all, of the papers in this series exist or may be issued in microfiche form.

WEP 2-21/WP.82 Feasibility study for the construction of an economic-demographic model for Indonesia - by Andrew Elek, January 1980.

WEP 2-21/WP.84 Bachue modules: Population, household income and labour market - by René Wéry, January 1980.

WEP 2-21/WP.86 Endogenising demographic variables in demo-economic models: The Bachue experience - by René Wéry and Gerry Rodgers, April 1980.

WEP 2-21/WP.87 The exploitation of children in the "informal sector": Some propositions for research - by Alain Morice, May 1980.

WEP 2-21/WP.89 Labour market structure, child employment, and reproductive behaviour in rural South Asia - by Mead Cain and A.B.M. Khorsheed Alam Mozumder, June 1980.


WEP 2-21/WP.93 The Labour Market of Bachue-Brazil - by Maria Helena da Cunha Rato and Sergio Luiz de Bragança, September 1980.

WEP 2-21/WP.101 Patterns of migration in Tanzania - by Henry Bernstein, March 1981.

WEP 2-21/WP.102 Concept and measurement of human reproduction in economic models of fertility behaviour - by Ghazi Farooq, March 1981.

WEP 2-21/WP.103 The political economy of investment in human capital - by Irma Adelman and Jairus M. Hihn, March 1981.

These working papers are available free, while stocks last, from ILO, Population and Labour Policies Branch, CH-1211 Geneva 22, Switzerland.
A field guide to research on seven roles of women: Focused biographies
- by Christine Oppong and Katie Church, May 1981.

How child labour was eradicated in the USSR: Integrating school and society
- by V.N. Yagodkin, July 1981.

The impact of public policies on migration and development in Ghana, with special reference to the Asutsuare sugar cane project area
- by N.O. Addo, August 1981.

A guide to anthropological study of women's roles and demographic change in India

Patterns and determinants of female labour force participation in Cyprus
- by William J. House, April 1982.

Labour market segmentation: Evidence from Cyprus
- by William J. House, April 1982.

Circulation and proletarianisation
- by Guy Standing, September 1982.

Seasonal labour migration in Tanzania: The case of Ludewa District
- by Christopher Lwoga, November 1982.

Familial roles and fertility: Some labour policy aspects
- by Christine Oppong, December 1982.

Documentation of women's work in Nigeria: Problems and solutions

Craftswomen in Kerdassa, Egypt: Household production and reproduction
- Patricia D. Lynch, with Hoda Fahmy, February 1983.

Population growth, poverty and inequality in an international perspective

Women in fishing villages on the Kerala Coast: Demographic and socio-economic impacts of a fisheries development project
- by Leela Gulati, March 1983.

Interdependence between female employment and fertility in Hungary
- by Barnabás Barta, András Klinger, Károly Miltényi and György Vukovich, March 1983.

Poverty ten years on: Incomes and work among the poor of rural Bihar
- by Gerry Rodgers, May 1983.

Circulatory migration and social differentiation in the Andes
- by Julian Laite, April 1983.

On circular migration: From the distaff side: Women left behind in the forests of East Kalimantan
- by Carol Colfer, May 1983.

Les sept roles et le statut des femmes: Ebauche d'une approche conceptuelle et methodologique
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Paternal costs, role strain and fertility regulation: Some Ghanaian evidence
- by Christine Oppong, May 1983

Population growth, poverty and inequality in an international perspective: Mark II
- by Gerry Rodgers, June 1983.

Female labour force activity in developing countries: A critique of current data collection techniques
- by Richard Anker, July 1983.

Effect on reported levels of female labour force participation in developing countries of questionnaire design, sex of interviewer and sex/proxy status of respondent: Description of a methodological field experiment
- Richard Anker, July 1983.