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**THE PRODUCTIVITY OF WOMEN IN DEVELOPING COUNTRIES:
MEASUREMENT ISSUES AND RECOMMENDATIONS**

By

International Center for Research on Women

April, 1980

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**The views and interpretations in this publication
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TABLE OF CONTENTS

	<u>Page</u>
Introduction	1
Policy Relevance of Female Employment and Work Patterns.	2
Measuring Work in the Household.	6
Household Allocation of Time	8
What is Home Production.	9
Measuring Home Production.	12
Valuing Home Production.	13
Facts about Home, Market Production and Leisure.	15
Policy Implications.	19
Measuring Work in the Market Place	23
Measurement Concepts	23
Measures of Labor Market Performance	28
Measures of labor force participation.	29
Unemployment	30
Underemployment.	31
Recommendations.	34
Measurement of Home Production	34
Aggregate Level Assessment of Market Activities.	35
Measurement of Labor Supply.	37
Micro-Level Studies to Complement Aggregate Level Data	38
Targeting Data Collection to Policy Planning Needs	39
Footnotes.	40
References	43

INTRODUCTION

The reported participation rate of women aged 15 and over in the labor force of the developing regions of the world is 22.6 percent as compared to 52.5 percent for men. Women in these regions are reported to comprise 32.4 percent of the total work force. (ILO, 1978)

The general contention is that reported statistics on women's work participation bear little relationship to women's productive contribution to and labor force behavior in Third World economies. Census and labor force survey data, the building blocks for assessing productivity and employment behavior, have consistently undervalued women's economic participation by:

- failing to record or count the contribution, particularly of rural women, to domestic economies through non-market production,
- undercounting women's participation in the market economy.

Understanding the nature and direction of biases in the labor force literature and seeking corrective action through improvement of concepts and measurements is essential to establish a sound statistical basis for the estimation and projection of female labor supply, provide a realistic assessment of women's productive contributions to Third World economies, and make a more accurate assessment of women's economic needs. All these dimensions have policy implications for the inclusion of women into social

and economic development planning.

The policy-relevance of female employment and work patterns. Policy makers still resist the notion of women as economic beings. This resistance is in large part nourished by the failure of censuses and world data to reflect women's productive activities. The notion that increasing the utilization of women's economic resources would contribute to improving the economic picture of underdevelopment is hardly considered. Development projects are still directed primarily at women in their reproductive role. And yet the evidence of women's economic productivity is overwhelming.

In Botswana and the Upper Volta for example, rural women work 20 percent longer than men and have 20 percent less leisure time than their male partners (Kassoudji and Mueller, 1980; McSweeney, 1979). In rural Filipino households, women and children contribute almost one half of the households' market income. When economic value is imputed to home production and added to women's market income, Filipino women and children contribute a significantly greater share to the household's 'full income' than do men (Quizon and Evenson, 1978).

The validity of census data on women's work participation is increasingly being challenged by other research methodologies utilized in the field. The discrepancy between the results obtained in the two methodologies is striking in the case of women. A recent household survey carried out in several South American cities reports work participation rates for women that are anywhere between 14 percent to 30 percent higher than corresponding rates reported in the respective national censuses. (Recchini de Lattes and Weisnerman, 1979).

Much of this discrepancy is explained by women's predominant involvement in the informal sector of the urban economy where they remain "invisible" workers insofar as census enumeration is concerned. The size of the informal sectors in Bombay, Jakarta and Belo Horizonte, for example, engulfs between 53 percent and 69 percent of the working population. Female workers and those who have not completed primary education are disproportionately represented in this sector. In metropolitan Belo Horizonte, Brazil, even when women working as domestic servants are excluded from the definition of informal sector employment, 40 percent of the informal sector labor force and 60 percent of the self-employed are women (Merrick, 1978). In India, between 41 and 49 percent of the female labor force and only 15 to 17 percent of the male labor force participate in the informal sector (Mazumdar, 1976). In Belo Horizonte, male and female heads of households do not differ markedly in age or education, but more than 50 percent of the females work in the informal sector compared to 12 percent of the males. And although working in the informal sector has a significant negative effect on male earnings, the negative effect for females is twice as great. A study of the urban informal labor markets in India points out that though males and females work the same amount of time, males earn RS 200 monthly as compared to RS 105 for women. Among the self-employed, men earn RS 392; women only RS 250 (Papola, 1978).

It is critical that policy makers understand women's labor force/work behavior in the Third World as symptomatic of women's economic needs. Throughout the developing world, sex-segregated (segmented) labor markets predominate and operate to restrict the demand for female labor to precisely

those sectors with low status, low paying jobs, and little chances for mobility. Until recently this fact was seen as inconsequential since women were only considered temporary or secondary family earners. Increasingly, however, there is evidence that women are in many instances de facto heads of households with full responsibility for their own and their children's survival. Women-headed households account for 35 percent of all households in many parts of the Caribbean. Their proportion could be 18 percent in India, 23 percent in Indonesia, and about 42 percent of the households in Botswana, 18 percent in Kenya and 15 percent in Iran. Between 1960-1970, the proportion of such households had doubled in Brazil and increased by 33 percent in Morocco. (Buvinic, Youssef and Von Elm, 1978). This particular group of women have the least resources to fall back upon and end up with the lowest earnings.

In Santiago, Chile, a recent field inquiry in marginal slums showed that 29 percent of the women who headed families as compared to only 10 percent of the men fell into the lowest income bracket (CEPAL, 1973). In Guayaquil, Ecuador, a similar survey indicated that 37.5 percent of the women and 17 percent of the male family heads fell into the lowest income brackets. A representative sample survey of metropolitan Belo Horizonte revealed that 41 percent of the female headed households as compared to 26 percent of the male headed households were at poverty levels. Moreover, when households headed by prime age, divorced and separated women were singled out, the proportion who were at poverty levels reached 60 percent (Merrick, 1977). Reports from a rural income distribution survey in Botswana shows women headed households to be significantly poorer than men's

(Kossoudji and Mueller, 1980). For 15 Commonwealth Caribbean countries, 59 percent of female headed households and only 21 percent of male headed households reported "no income" or "not stated" income; on the other side of the spectrum, 54 percent of the male headed households earned a thousand dollars or more per month while only 13 percent of the female headed households earned these amounts (Buvinic, Youssef & Von Elm, 1978). This rise of households headed by women in developing countries and their poverty status portray, in extreme form, the need to correct the biases in official statistics used for development planning.

This paper uses recent facts about women's economic participation to analyze how this participation is measured, indicate limitations of the measures utilized and single out policy recommendations. It also raises and discusses the conceptual issues and the operational definitions of the concepts utilized.

The first section analyzes the measurement of women's participation in non-market production; the second focuses on measuring their participation in the marketplace. While women predominate in home production and some of the biases in recording labor force participation are specific to women, a host of other measurement biases raised here are relevant to both men and women among the poor in developing countries. The recommendations made are intended to improve measures of productivity and employment of the poor, men and women, in the Third World.

MEASURING WORK IN THE HOUSEHOLD

"What is not counted in national income is often not noticed." When Galbraith in 1973 (p.33) made this remark, it was in reference to the work or housework of women in highly industrialized, urban economies. Forty or so years earlier economists had initiated attempts to measure household production in response to a concern with the heavy workloads of U.S. farm women that dated back to the 1900's (Walker, 1977). These efforts continue today, along with a host of unresolved issues both at the definitional and measurement levels. Questions such as the definition of work and leisure or what is household production have captured the attention of many economists and sociologists in both capitalist and socialist economies. Alternative economic and sociological definitions and measures of the value of housework have been derived but are yet to be accepted by or incorporated in standard measures of aggregate output.

In part as a response to new directions in development which emphasize full utilization of human resources and meeting of basic needs, but more so with concern for global population growth, development economists began to focus in the mid-seventies on home production in the Third World. At first definitions, models and measures of home production were simply transferred from industrialized to developing settings. The empirical evidence soon showed the lack of fit between the models based on the behavior of rich households and the reality of poor households in developing economies. It

also revealed the critical importance that the understanding of "home production" in these economies may have for the design of more effective development policy.

A principal macro economic reason for estimating the value of output produced through non-market activities is that inclusion of such measures will provide a better indication of an economy's total output of goods and services than measures based on market output alone. This is particularly true in LDC's where a sizeable fraction of output is generated through the home production process. In addition, as economies industrialize and technological innovations occur, some production of a number of goods that traditionally occurred in the home is transferred to the marketplace where economies of scale can be brought to bear. This transfer of the location of production can change the nature of both non-market and market production over time. Measuring home production in LDC's will allow an understanding of the dynamics of development in modernizing economies and women's participation in this process; it should also help in designing development programs and policies that make the most efficient use of all available labor resources.¹

Quite independently, some researchers concerned with non-market production because of population/development issues, the international feminist movement in the early 1970's chose as one of its main goals the assignment of economic value to home production. The World Plan of Action adopted in 1975 at the UN World Conference for International Women's Year makes this clear. The Plan calls for developing a scientific and reliable data base to assess the economic contribution of women and singles out that special efforts should be made to measure, among others, "the economic and social

contribution of housework, handicrafts and other home-based activities." (Part 3 in Research Section of the Plan.) Further, it establishes that one of the minimum five year goals to be accomplished by 1980 should be the "recognition of the economic value of women's work in the home, in domestic food production and marketing, and in voluntary activities not traditionally remunerated".

Feminism here merges with socioeconomic development and offers what probably is one of its most socially significant contributions: the rigorous challenge to models and measures of productivity in the Third World which neglect to include the economic contribution of women in their home production roles. Feminism's unmasking of women's productive roles as independent from their over-emphasized reproduction functions can dramatically change the view of critical development problems.

The household's allocation of time. Conventional labor force measures can be seen as classifications of how people use their time. Classical economic theory saw two basic or conceptually relevant dichotomous ways by which people allocated their time: work and leisure. Changes in economic theory led to the recognition of the importance of home production in raising the household's total level of satisfaction and changed the dichotomous view of how people (or family members) allocated their time. A third categorization of time was introduced to measure the time spent by individuals within the home in the production of goods or consumables that yield utility.

The new approach to economic theory (Becker, 1965; Gronau, 1973) singled out the household as the appropriate unit of analysis since different members of the family play a different role in the production of

utility. Home production is seen as a process by which market goods are combined with the time of the individual to produce commodities which directly enter the family's utility function. The concept of "full income," that income which is achievable if all time and other resources of the family were devoted to earning income, is central to this new approach.² Full income is either spent directly on market goods or is spent indirectly by foregoing time in the market for time at home either in home production activities or leisure. The total costs of commodities is the sum of the market price for the goods used in their production and the value of time spent transforming these market goods into commodities.

Changing economic conditions which alter the value of time or change the efficiency of production will alter the allocation of time between home and market production. An increase in the earnings potential of family members will increase the total price of time intensive commodities versus non time intensive commodities, causing a shift to the production of the latter. Technological change can increase the productivity of time spent in either the home or marketplace and affect the allocation of time between these two activities.

What is home production? While advances in economic theory have contributed to a recognition that important utility producing activities occur in the household, less attention has been devoted to distinguishing between home production activities and leisure. As Gronau (1973) points out, this has partly been due to difficulties in assessing what is home production versus leisure since a large number of activities are on the borderline and definitions may vary from household to household. It is not

likely that home production and leisure activities will be affected in the same way by changes in technology, wage rates or socioeconomic variables and it is therefore important for empirical analysis to separate these two activities.

The classic definition by Reid (1934) limits home production to "unpaid activities which are carried on, by and for the members which activities might be replaced by market foods, or paid services, if circumstances such as incomes, market conditions and personal inclinations permit the sources being delegated to someone outside the household" (p.11).

Some of the unresolved issues about this definition are if services should be considered only if there are market substitutes for them, if these market substitutes should be only realistic alternatives or can they also encompass theoretical ones, and if paid activities contributing to home production should be excluded (Walker, 1977). In analyzing U.S. data, Walker includes in her definition of home production the activities of all workers, whether or not they are paid, with the main objective determining how much time is used to keep households in operation.

Reid's and Walker's definitions of home production can encompass a long list of activities which include housework and child care. Boulding (1978) groups home production activities into the following sub-categories: home craft production, home agriculture, house based barter and home services. In the latter subcategory, she distinguishes two types of service dimensions: maintenance services (cooking, house cleaning and repair, etc.) and the human service dimension of family activity which is based in the reciprocity versus exchange principle and includes child

care, conversation, and time spent in sports, creative pursuits and reflection; i.e., what many others would consider leisure activities³ (Boulding, 1977).

Mueller (1978), in offering methodological suggestions on how to measure employment in developing countries, significantly changes and restricts the term of home production to that subgroup of income earning activities that "are carried out in and around the house, produce income in cash or kind, and are on the borderline between housework and income earning activities. They may be carried on wholly or in part for household consumption." Examples are home gardening, handicrafts and food processing. Housework and child care are another major category of activities--distinguishable from non-work activities--a category that also includes fetching wood and other fuel and water, house repair and maintenance, and other housework.

Quizon and Evenson (1978) include playing with children and church and festival activities in the definition of leisure; Walker (1977) differentiates leisure from work by simply asking respondents to categorize their own behavior; for instance, she asks the mother's own perception of when she is playing with and enjoying her child (recreation) versus when she is performing child care duties (work). Mueller (1978) excludes from the concept of leisure time devoted to sleeping, going to bed and getting up. To capture these activities Gronau, in his analysis of time allocation among Israeli women, added the fourth category of physiological needs. This physiological need need not be regarded as either leisure or home production but rather as an investment in the production of human capital for the following day's activities.

The categorization of activities into home production and leisure depends very much on the subject population.⁴ The abundance of leisure is a unique characteristic of the developed world. Researchers now agree that the characteristic pattern of peasant economies are high labor inputs in home production with meager returns and very little leisure (Berry and Sabot, 1980). Little leisure time implies less ability to sub-categorize activities under leisure and may also affect the discriminating power of measures of leisure.

Measuring home production. As outlined in the previous section, researchers trying to measure home production in poor LDC households share with their counterparts doing the same in industrialized economies the definitional conflict which, in its extreme form, is manifested by counting the economic value of all work done within the home plus mothering or counting only restricted economic services, very close or controlling to market work. A variety of techniques have been employed to discriminate between home production and leisure and to gather data on both aspects of time use.

The time use or time budget survey methodology is the most accurate tool presently available to empirically derive patterns of time allocation of individuals within the household (into home and market production and leisure); time, in turn, generally is a prerequisite to assigning economic valuation to home production. The collection of time use data presents reliability and validity problems, although these tended to be exaggerated in the early literature. They do not appear to be more expensive than employment surveys (Birdsall, 1980), and there is also little reason to believe that they are more subject to observer/respondent biases.⁵

But time budgets also have shortcomings. The methodology of time budgets defines time in a physical sense only, assumes linearity and interchangeability of time units, and defines an individual unit of analysis that measures outcomes by single unit inputs. Time budgets therefore will ignore and/or transform those aspects of the reality under study where quantity of time is not a good measure of quality of outputs, where time units have varying intensiveness and/or are not interchangeable, and where social variables change the value of particular time units. Is there really, for instance, a one-to-one correspondence between quantity and quality of child care, and between the productivity of time spent in child care and time spent processing foodstuffs? Is there interchangeability between women's and men's time units spent in particular tasks?

Valuing home production. Given that one can differentiate home production activities, the next issue is how to impute an economic value to that component of time that is spent in the production of consumables. Should the value be assigned to the process in terms of time inputs or to the product or output of time use? In the economic literature there are at least four different ways of estimating the value of home production: there is the market cost approach that calculates what would be the individual costs of hiring a market replacement for each separate function in home production; the market alternative that simply estimates as the value of home production the cost of hiring a housekeeper; a panel-judge estimate that establishes a rate based on a functional analysis of different types of domestic work; and the opportunity cost wage of relevant individuals - i.e., what the individual could earn on the market (Michel, 1977; Henrylyshin, 1976). Inputting economic value to home production is more

reliable the more similar house goods are traded in the market; minimum educational attainments and labor market demands for workers also help since minimum educational levels and demand for labour enable variations in and better measures of the opportunity costs of individuals. Both events are much more commonplace in the industrialized than developing world.

The methodology consistent with the allocation of time models is to construct a price for home produced commodities equal to the value of market goods used in the production plus the value of the time input--the value of time being the individual's opportunity cost. Establishing opportunity cost is not as straight forward in application as it is in theory since it is difficult to establish what a non market participant would be earning if she or he were on the market. One might argue that individuals are engaged in home production because the value which they place on their time exceed the market wage; alternatively, one could argue those who remain at home cannot achieve as high a wage rate in the market.

Further complicating the issue is the role of discrimination in the market. If women are relegated to low wage informal sectors or prohibited from engaging in activities to raise their marginal product (they lack access to education), it is not clear whether the private wage rate (the rate faced by the individual) bears any relationship to the value that society places on her time.

Lack of access to education has sometimes been termed pre-market discrimination since individuals are not able to acquire the necessary skills to effectively compete in the market. Post-market discrimination refers to instances where women and men with similar characteristics, in terms of education and other productivity enhancing characteristics, earn different

amounts for performing the same job or, where one group is precluded from performing the job at all strictly on the basis of sex. The existence of these forms of discrimination will alter the value of market work relative to home work and will cause an allocation of time different from which would be obtained if there were no discrimination. These considerations illustrate the difficulties encountered in attempting to value household production.

Facts about home, market production and leisure. In Third World countries unaccounted-for women, the majority of whom are critically poor, spend most of their time in market and home production. Their leisure time is minimal.

Findings from recent time use surveys in rural households show the following trends:

1. Women tend to work longer hours and have less leisure time than men. In Burundi, women rise half an hour earlier, during the day have more than an hour less leisure than men (Agripromo, 1979). In Upper Volta, the working hours of a small sample of rural women exceed those of men by about 27 percent (while men, on the average, have two more hours of leisure per day) - the greatest difference being that men take longer rest periods than women (McSweeney, 1979). The same is found in Botswana, where rural women appear to work 20 percent longer than men and have 20 percent less leisure (Kossoudji and Mueller, 1980).

2. When home production is acknowledged and added to market production, women's and children's contribution to the household (in terms of time spent at work) is greater than men's. Using data from the Laguna (Philippines) time budget survey, Quizon and Evenson (1978) give a clear portrayal of the

differential implications of counting as "work" market and home work versus counting only the former. Daily activities of household members are divided into 37 classifications under the three standard home, market, and leisure categories and an economic value is inputed to home production. Following Reid's definition, under home production are included mothering activities (child care, breast and bottle feeding) and time spent at school. Quizon and Evenson estimate the "full" income of these households, defined as the value contributed by market work plus the value of time devoted to home production and the value contributed to home production by home capital. Their estimates yield the following (see figure 1):

--fathers contribute the largest proportion of average market income but women and children together account for about 50 percent of this income.

--if home production and school activities are added to market production, so that "full" income is considered, mothers contribute slightly more than fathers, and the average of four children per family as a group contribute more than either parent; when children's time spent at school is excluded, children's contribution to full income is still greater than father's contribution to market income.

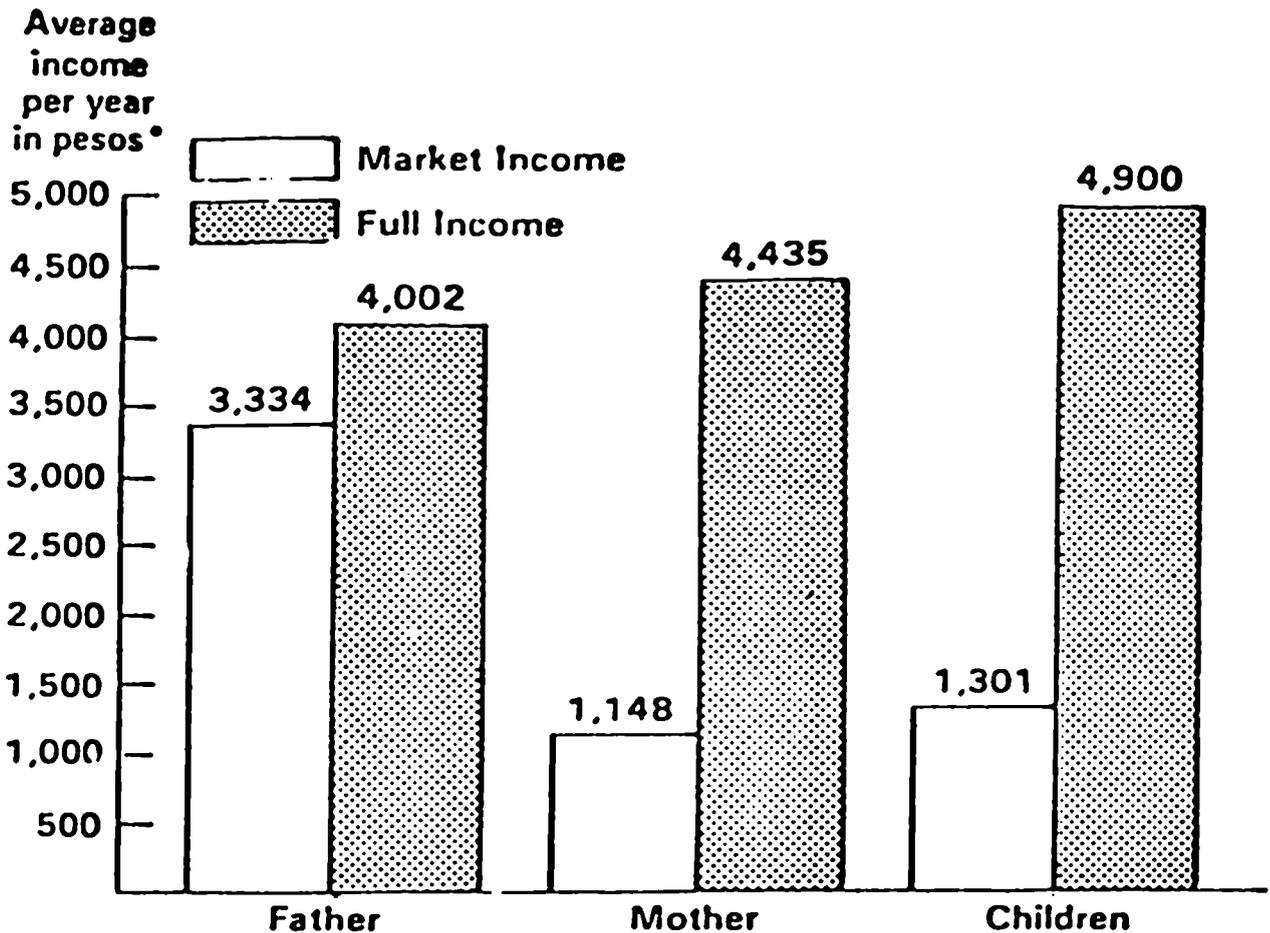
--home production is half of Filipino households' full income

--full income is higher, by about 16 percent, in households where mothers are employed;

3. In low income, LDC households women do not stay only within the confines of the home; they participate both in home and market production and the time they devote to the latter is greater the poorer is the household.

Figure 1

Market Income and Full Income for Family Members,
Laguna, Philippines, 1975-76



*In 1975 the rate of exchange was about 7.4 pesos to U.S. \$1.00.

NOTES: Market income is the value of market production. Full income is the total value of both market production and home production. Children's full income includes time spent in school. Excluding it, children's full income is equivalent to 3362 pesos per year.

The data are based on direct observations of a random sample of 99 rural households in Laguna in three separate 24-hour visits over an eight month period.

SOURCE: Quizon, Elizabeth K. and Robert E. Evenson. "Time Allocation and Home Production in Philippine Rural Households."

In her study of Peruvian rural households Deere (1978) shows that whereas women from the middle and rich peasantry provide only 21 percent of the total family labor days dedicated to agricultural activities, women in landless households provide 35 percent of the total labor; in Bangladesh, Cain et al, (1979) reveal that poor women spend twice the time in income earning than do rich women. While economic need increases women's participation in the marketplace, it seems that cultural variables influence the mode or nature of that participation. In Peru, Deere finds that poverty breaks the sexual division of labor in the marketplace; in Bangladesh, however, Cain observes a sexual division of labor which is rigid across economic class and is attributed to the power of patriarchy.

4. Women's and children's roles adapt to the different requirements of household and market demands, while men's roles remain resistant to change. Increasing household time burdens, like the age of the youngest child or additional children, change women's and children's but not men's allocation of time between market work, home work, and leisure (see Mueller, 1979; Birdsall and McGreevey, 1978). This finding is replicated in industrialized societies (Hawrylyshyn, 1976).

5. Contrary to the evidence from industrialized societies that show "trade-offs" between women's market work and fertility, women in poor LDC households seem not to confront "trade-offs" between child care and market work or at least between the former and market work close to home. When women enter the labour market, it is leisure time rather than home production hours that are reduced. It is leisure that responds and adapts to the different time requirements. The demand for household income makes women's market work a necessity. There is no choice not to work for wages nor is

there surplus income to purchase household services (Papola, 1980; Mueller, 1980). In addition, responsibilities for household services will fall on other members of the family. Women who work in the market place may spend significantly less time with their children (Popkin, 1980); in this case, however, older children will replace mothers' child care and/or housework time (Oppong, 1980; Ho, 1979; Safilios-Rothschild, 1980).

6. Within poor rural households, sex and age are powerful explanatory variables of the way work is allocated. The division of labor by sex within poor LDC households also varies with the household's access to land and capital (Deere, op. cit.), the specific nature of women's participation in the market place (Da Vanzo and Lee, op. cit.) and the family's life cycle.

Policy implications. The available evidence indicates that women and children in LDC's contribute significantly to the household's "full income." In addition, it appears that women's entrance into market production has not been met with an offsetting decrease in the time spent in home production activities. The leisure time of women declines as they enter the labor market. Furthermore, these studies indicate that the leisure time consumed by men is generally greater than that consumed by women.

Failure to account for the value of home production by both women and children seriously underestimates their economic contribution in LDC's. In the previous sections, an attempt has been made to highlight the issues which arise in measuring home production output. They can be summarized as follows:

- Which definitions of home production and consumption or of work and leisure in LDC's are meaningful and useful for policy formulation?
- What techniques are most appropriate in setting a value on home production activities and how can time valuation measures be designed

to account for market imperfections such as discrimination?

- What are the advantages and disadvantages of using household models in general and, in particular, the household as the unit to analyze women's productivity?
- What is the importance for policy or the development significance of measuring home production and leisure?

1. The definition or categorization of which household activities are productive and which are pure leisure is a function of or determined by the socioeconomic characteristics of the particular population under consideration and the specific stage of economic development. This makes it difficult to assign a definition to home production which is applicable cross culturally and, at the same time, is useful methodologically. An applicable cross cultural definition of home production would have to be so broad that it might lose any ability to discriminate among the different nature of home productive activities occurring in different countries.

At a minimum, a useful definition of home production should include those activities that have the potential of being transferred into the market place given the particular or projected structure of the market place and the stage of technology/capital development. These measures of home production are important because they portray shifts in the location of production of goods and services from home to the market place and are able to capture that dynamic component of development that labor force participation measures are not able to record.

2. In attempting to value the home production a series of problems must be confronted. Obviously, the use of outputs to assign an economic value to home production activities is more reliable the closer the economy

is to attaining a particular level of economic development or modernization. Where home goods are not traded in the market and/or when very low educational levels exist in the population, the assignment of economic valuation according to outputs is difficult to achieve.

If one values the time input to home production using the opportunity cost methodology advocated by many economists, one must nevertheless overcome the difficulties which exist in establishing the appropriate time price. To the extent that women may be relegated to the low paid, informal sector or lack access to education; time prices based on the market price, while relevant for the individual decision process, will reflect market imperfections and may result in women devoting more time to home production that is economically efficient. Thus, any efforts to value this time input must account for the impact of these factors.

3. Current labor supply theory recognizes the household as the appropriate unit of analysis. Household utility can be maximized through allocating the time of household members to those activities for which they have a comparative advantage. The household model recognizes that the behavioral responses of family members to economic incentives will be dependent on the incentives facing other family members.

The dynamics of aggregating individual preference functions into a household utility function and the ways in which this aggregation may vary between households and among households in different countries has been largely ignored. In some households a utility function may simply be 'dictated' by the household head and other members maximize their welfare subject to this overriding household function. This may be more likely to occur in countries where there is a rigid social structure with women

relegated to lower positions of authority. Some experts in the field of women in development argue strongly that the unit analysis should be the individual woman and not the household. Implicit in this argument is the fear that once the woman is seen within the context of the household, even if her behavior is looked at independently from that of other family members, she will be submerged within the family in research and in policy (Youssef, 1979).

The household can be the framework within which to collect data on individuals (Watts and Skidmore, 19), but it should only be one of them. Ideally, analysis should look at the household as one of the many standards for comparison or reference points for understanding women's behavior. Analysis of behavior of women within the household should be complementary to analysis of the behavior of women as individuals in the market place. Otherwise there will be an inaccurate assessment of the increase in well being among individual household members as economic development occurs.

4. The policy relevance of measuring and assigning a value to home production activities is significant. To begin with it will enable policy makers to more accurately assess an economy's growth in output over time and will highlight shifts from the non market to market sector in the provision of goods and services. The valuation of home production activities will also force a recognition of the contribution of non market participants and the trade-offs which are made in labor supply decisions. Instances where trade-offs are made in favor of home production as a consequence of market imperfections (discrimination, limited access to jobs) can be identified and policies developed to help eliminate these imperfections so that a more efficient allocation of resources can take place and a stronger rate of economic growth can occur.

MEASURING WORK IN THE MARKETPLACE

The need to redefine the parameters of women's work in developing countries has become widely recognized. The ILO acknowledges that to accurately depict women's productive contribution to the economy, it is imperative that new meanings be bestowed to the notions of 'labor,' 'paid jobs,' the concepts of 'employment' and 'productivity' and to ideas about 'intensity' and 'efficiency' (ILO, 1978). This is because internationally adopted standards, operational definitions of concepts and measures of employment are methodologically inadequate for developing nations with respect to the statistics of both men and women. The distortions, however, are a more serious problem for women because the statistics for females are much more affected than male ones by variations and ambiguities in definitions, errors and biases.

One of the implications of this distortion is that valid cross-societal and intra-societal comparisons of labor force behavior are different, because concepts and operational definitions of concepts vary by country and with time. Even if and when the same concepts are used, the re-interpretation of the statistics derived from the application of a particular concept will often be conditioned by the particular nature of the economy (Standing, 1977).

Several projects currently sponsored by USAID Office of Population help bridge the gap between this standard conceptual base and improved measurement definitions. Although they work from the internationally adopted standards already mentioned, they help refine and detail previously

neglected aspects of women's economic and social behavior for more than 69 developing countries.*

The present section has two aims: one, to indicate the limitations of the labor force concepts and operational definitions of concepts used for the measurement of women's productive activities and labor force behavior and two, to single out some recommendations of how data collection may be improved/renovated to provide policy planners with a sounder statistical basis for assessing the female labor supply and recognizing women's economic contribution to Third World economies. Although the recommendations are specifically geared towards refining measures of women's work, they will equally benefit the measurements of male employment.

The underlying United Nations and International Labor Office concepts and definitions are inadequate for people working in developing economies for two interrelated reasons: such concepts are designed for an economy in which the dominant form of economic activity is stable wage employment and they focus and tap dimensions which are relevant more for the urban upper middle class male than for the rest of the population in developing societies. The bias operates at both a class and sex level. As presently measured the adopted standards fail not only to tap the economic activities of low income women (and many low income men), but also to camouflage the incidence of

*Bureau of Census Data-Base on Women Project (1980). Gathers 19 table data base for women specific profiles on 69 countries to become part of the standardized Economic and Social Data Bank (ESDB) of USAID WID and Office of Population. "Census Report on Women" of The 1980 Round of Census Project (1983) provides a detailed analysis of the economic status and participation of women in 10 country studies. The objectives of both are to provide a sounder basis for development strategy planning and promote greater interest in the integration of women into economic development programs.

invisible unemployment and underemployment.

Methodological biases in the 'economic activity' concept operate more to the disadvantage of women in the Third World because of the following reasons:

1. The standard labor force concept refers to activities for which income in cash/kind is the intended or desired outcome, limiting the definition of what constitutes work to the monetised sector. This results in the exclusion of many workers from the labor force statistics because what they produce is not considered income, though it is critical to the production process. This is particularly true of work frequently performed by rural women and which constitutes an essential part of agricultural production, i.e., food processing, food storage, animal husbandry, weeding, tending, sewing and harvesting, tending to small animals, and working in dairying. Activities such as these are not monetised resulting in a gross underestimation of women's contribution to the agricultural economy and an undercounting of women in the agricultural employment statistics.

2. By the same token, the practice in the census is to exclude activities connected with domestic work, except when these are performed by paid domestic servants and/or result in the actual production of goods. This means that women's contribution to the economy as housewives through performance of household tasks, child care and a variety of other services rendered to individual household members are not taken into account, nor is the value of such services included in the conventional accounting of national income.⁹

3. A strict application of the labor force definition tends to exclude "unpaid family labor" from the economically active population. This

particular category of workers is reported in only 94 of the 159 countries for which labor force participation data for women is available.

The criterion specified by the ILO (1976) for the inclusion of unpaid family labor is that a person must be working at least one-third time during the reference period to qualify as an 'unpaid' worker. The decision among countries whether or not to enter such workers into the labor force count is, however, arbitrary. For example, the tendency in the Middle East and in rural Latin America is to treat all 'unpaid' family workers as economically inactive. In Turkey and Sri Lanka, among others, all women on the farm are counted as part of the labor force.

Interviewers have the tendency in many countries to classify rural women who identify themselves as 'housewives,' or are so identified by others, as 'economically inactive' without probing into short time work performed, with the result that women who work the equivalent of one-third time or even more appear as non workers.

4. Men and women in low income economies perform a multiplicity of economic roles in order to survive. The practice in the census is to classify individuals as economically active according to the job reported as primary activity. This has the effect of excluding consideration of the numerous productive and income generating activities which both women and men perform. The omission of secondary activities lowers the employment statistics of women more than of men for two reasons. First, many income generating activities involving women are on the borderline between homework and economic pursuits. Secondly, the bias among census enumerators is to treat women as housewives only. Instructions issued in most censuses ignore whether women periodically engaged in subsistence agriculture should be classified as economically active or not. Married women, in particular, are

automatically classified as housewives with little attempt to probe into whether or not these women are doing any productive work in agriculture or rural industry.¹²

5. Labor force surveys and censuses inquire about work performed in the past week or month and on this basis categorize the respondent as economically active or inactive. In order not to interfere with the busiest time of the agricultural year censuses and surveys are frequently taken during slack periods. Most rural men work regularly almost every week or month of the year, so that a short reference period will in very few cases distort their labor force status. Rural women, because they tend to be part of a reserve labor pool which is drawn upon according to seasonal peaks are more likely to be statistically misclassified as 'non workers' with the short one week reference period. The proposed one year reference period for employment questions would capture more accurately women's contribution to agricultural economy, but such coverage will have recall problems unless surveys are repeated several times a year.¹³

6. The labor force approach tends to exclude many activities in the informal sectors of the rural and most particularly of the urban economy which represent major sources of income to large numbers of women. 'Self employed' persons are difficult to deal with in the boundaries of the labor force concept because variability of returns, intermittent working hours and difficulties in classifying the skills involved do not permit for neat generalizations about employment; (Simmons, n.d.) hence the difficulty to categorize the 'self employed' in the informal sector as employed, underemployed, or part of those outside of the labor force.¹⁴

In addition to the definitional/measurement problems referred to above, the low reporting of economic activity for women is often indicative of cultural biases against female employment which is reflected in respondents' failure to report fully on contributions of women to economic life.

Normative expectations linked to specific class/caste/religious forms of behavior condition the kind of response given to questions which are directed to whether or not women in the household are 'working.' In traditional Islamic societies some men will hesitate to report their womenfolk as 'economically active' because of prescriptive ideals which are not always possible to uphold in reality. Responses to survey questions regarding Indian women's work patterns in rural Gujarat were affected by normative expectations regarding caste-specific behavior: namely, that women in the low caste should work and those in the upper castes should not (Standing, 1978).

Cultural biases also influence the "self-reporting" process because in many traditional rural settings female respondents are not conscious of themselves as economic beings, despite the fact that they are de facto involved in productive-market production. The self perception of women, who, though economically active, continue to 'declare themselves' as "only housewives" is a crucial factor in the underestimation of the female work force.

Measures of Labor Market Performance

The quantity of labor supply corresponding to a given number of workers varies widely depending on the customary weekly hours of work and numbers of workers available only for part-time, seasonal or irregular employment.

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The number of persons in the labor force can be converted into estimates of labor supply if sufficient information is available on the number of hours worked and the willingness and ability of individuals to work more. Clearly the supply of labor is also influenced by the volume of employment opportunities and the wage rate associated with them.

An accurate assessment of the labor market conditions in a country is dependent upon the identification of the existence and relative importance of unemployment and underemployment in the economy. In addition, one must recognize that not all economic contributions occur in the marketplace; indeed, there is a large home production sector in many LDC's and the full utilization of resources necessitates the efficient use of labor in both market and non-market activities (this sector was discussed in an earlier section).

Measures of labor force participation. Labor force participation rates measure the percent of a country's population of working age that is employed or actively seeking work. Employment generally refers to individuals who were actively engaging in paid or unpaid work for more than a specified number of hours the previous week and unemployment includes only those individuals actively seeking work during the same time period. Because a large proportion of the labor force in LDC's may be self-employed, or engaged in unpaid economic activities, measures of labor force participation which do not include these individuals can be seriously biased downwards. Furthermore, even if the self-employed are accurately counted variations in the definition of labor force participation among countries makes it difficult to compare one country's labor force participation rate with that of another (World Bank, 1978) reports that 46 out of 124 countries which provide

information on the labor force participation rates of women acknowledge exclusion of one or more of the following categories for the labor force count: unemployed, first job seekers, and unpaid workers.

Because labor force participation rates refer to a point in time they fail to recognize the migration of workers into and out of the labor force over the course of time. This is particularly true of secondary wage earners. Another measure of labor force experience, the work experience rates, indicates the percent of the population which had some employment experience over the past year. Work experience rates will be significantly higher than labor force participation rates if a particular group is not part of the full-year, full-time work force. This is perhaps more true of females in LDC's than of males.

Even if one were able to measure both work experience and labor force participation rates in a consistent manner across countries, both measures generally do not count individuals whose primary activity is home production. This has important implications for women since a large proportion engage in unpaid production in the household rather than in the market as earlier discussed.

Unemployment. The distinction between the unemployed in the labor force and those who are economically inactive is made primarily on the basis

of the question whether or not the individual was "actively" seeking work
for pay or profit during the specific reference period. This measure
identifies "open unemployment" as only a minimum estimate of the
total incidence of unemployment. The conventional approach fails to
capture all those unemployed in the excess supply sense - i.e., the
"discouraged" workers.

The discouraged worker phenomenon may be more prevalent among women than men, if women are discriminated against or precluded from taking jobs in the formal labor market. Rather than accept a wage below their marginal product in the informal market they may choose to drop out of the labor force completely.

Where special efforts have been made to measure unemployment among women the following is observed; a) In India, women constitute nearly 60 percent of the rural and 56 percent of the total unemployed; in 1971, approximately 4.5 million women as compared to 3.4 million Indian men were unemployed (Indian Council of Social Science Research, 1975); in Morocco, 1971, female unemployment accounted for 21 percent of the total rate, having increased more than tenfold during the 1960-71 period; older divorced women and the widowed were particularly overrepresented among the unemployed in both absolute terms and in relative terms to widowed and divorced men. Unemployment in the Commonwealth Caribbean is equal or somewhat higher for females than for males within the younger ages. For age groups 15-19, 45 percent of all males and 47 percent of all females were recorded as unemployed in 1971 (Chernick, ed. 1978).

Underemployment. Underemployment of labor refers to instances in which labor resources are being utilized at less than capacity. Workers in this category are generally receiving a wage that is lower than their contribution to total output. Some definitions include those workers who desire to work more hours but are unable to find employment. One definition of underemployment used by the World Bank distinguishes between two types of underemployment; visible and invisible. Visibly underemployed includes only those who prefer to work longer hours than they are able. The invisibly underemployed includes those whose earnings lie below a certain level. As such, the concept of invisible underemployment is similar to measures of poverty (World Bank, 1979) rather than an assessment of capacity versus actual use. The "discouraged workers" are those members of society who have sought unsuccessfully to obtain jobs at the market wage and have dropped out of the labor force completely. They were not actively seeking work during the past week and hence are not counted in the ranks of the unemployed; however, it is likely that most of these individuals would accept jobs at the market wage if so offered.

Few countries have attempted to measure sex differences in the incidence of underemployment. One study of labor force utilization in selected areas of Java revealed slightly higher open unemployment rates for men but much higher underemployment rates for women. A greater proportion of women (48 percent as compared to 30 percent for males) showed to be underemployed by reason of low earnings when compared to a standard of minimum economic need. (Redmane, 1977)

Analysis of employment data in Colombia likewise indicate sex differences in underemployment: men in the middle age ranges appear to be least underemployed; women in these ages are the most underemployed. (Berry and Sabot, 1976)

An ILO survey in rural Egypt showed full employment patterns for men with some seasonal underemployment between October and February. Women, on the other hand record higher underemployment rates throughout the entire year mostly because of restricted access to non-farm activities (Hansen, 1969).

RECOMMENDATIONS FOR IMPROVING DATA ON WOMEN'S WORK

A. The Measurement of Home Production

1. Define sensitive measures of home production that are useful in portraying shifts in the location of the production of goods and services from home to market place. When they are categorized by sex, they:

(a) Identify areas for women's incorporation into the market economy.

(b) Reveal changes over time in women's participation in the modern sectors of the economy.

(c) Check the sensitivity of labor force participation measures in recording multiple earners within households.

(d) Yield the intrahousehold division of labor by sex and indicate the importance of economic cultural factors in defining what is appropriate work for women.

2. Design cultural specific measures of home production in order to distinguish among various definitions of productive household activities and leisure activities.

3. Restrict definitions of home production to those activities potentially marketable given the projected structure of the marketplace and the stage of technological/capital development.

4. Avoid comparisons of work activities between the sexes in measuring the economic value of home production. If not avoided, women's productivity will be undervalued because of their lower educational/occupational attainments and consequent lower opportunity costs of time.

5. Initiate time use studies to single out home production activities which are inefficient and the technology necessary to improve their productivity.

6. Complement studies of women's behavior in the household with data on women's behavior in the marketplace. This dual approach is necessary in order to avoid inaccurate assessments of women's economic contributions and the trade-offs they face.

B. Aggregate Level Assessment of Market Activities

General

1. Expand the concept of economically active beyond "principal/main activity" to include the spectrum of women's activities and profile the multiplicity of economic/productive functions women perform.

2. Design labor force/household surveys to ask separate questions of women under the headings of "Economics of the Household" and "Individual Economics" (rather than submerging women's productivity in general household/or under male head of household). Collect data on wages and earnings in relation to hours worked per week for both women and men (at least a proxy of income according to work status).

3. Cross-classify female labor force data by age, fertility, marital, educational and health status in order to:

(a) Determine the relationship between seniority rights, promotion opportunities, increased pay for those women who are life time workers versus those who quit the workforce upon marriage.

(b) Identify intersections between female labor force behavior and types of family structures (particularly with regard to women headed-households).

(c) Identify the relationship between women's education and work and

(d) Determine work-related health needs of women.

4. Complement labor force statistics derived from improved measures of women's economic activities with (a) systematic data collection on labor output and productivity in each labor force category, and (b) an assessment of the relationship of women's labor productivity to GNP and GDP.

Informal Sector

5. Identify, in absolute terms, and in relation to male workers, the incidence and magnitude of women's economic participation in rural and urban informal sectors. Obtain data on sex distribution in sub-occupational categories. Devise time series indicators of participation by sex.

Agricultural Sector

6. Differentiate among women's agricultural activities by type. Disaggregate the data by specific subsectors and by employment status. Identify rural women as family-subsistence cultivators or agricultural wage laborers. (Wage labor should single out estate/plantation workers.)

7. Design time-frames for judging women's employment long enough to account for the seasonality of labor (particularly for the cyclical demand of women's agricultural labor and urban women's sporadic participation in the informal sector). Determine the amount of time women devote to market work over one year, utilizing a quarterly 3-month reference period to account for seasonality and to ensure accurate recall.

8. Structure questionnaires so as to guard against the omission of unpaid family labor; identify multiple work activities by the time devoted to each, and the ratio of time invested to productive output.

C. Measurement of Labor Supply

1. The possible differential effect of standard labor force measures on identifying labor force supply of male and female members of the population suggests the need for implementing a variety of new measures of labor force involvement. Work experience notes have been identified as one measure which permits identification of the extent of contact with the labor force over a period of time and is helpful in estimating the importance of part-year workers. In addition, classification of individuals on the basis of both primary and secondary activities will help ascertain the true extent of labor force involvement of women.

2. Questions designed to measure the number of non-labor force participants who would accept a job at the going wage rate will aid in providing measures of the number of discouraged workers.

3. Information which will permit one to relate human capital endowments (education and training) with wage rates and job characteristics will be useful in identifying underemployment problems. Thus, for example, if women with the same education and technical qualifications as men are receiving lower wages or relegated to the informal labor market, this can be taken as an indication of underemployment (which may, in turn, be caused by labor market discrimination). Finally, inclusion of measures of willingness and capacity to work (stated preference data), such as the amount of time workers would desire to work at a given wage will also provide some indication of underemployment.

4. Including such additional labor force measures will be useful in developing policies for incorporating women more fully into the labor force. Such information can distinguish among 'passively' unemployed, the underemployed

and discouraged worker categories; help identify voluntary and involuntary under-unemployed women; and indicate whether female underemployment patterns are created by "choice" or imposed by women's marginal status in the work market. They will help to highlight some of the employment problems faced by women in developing countries as well as the extent to which women are likely to respond to improvements in market opportunities.

D. Micro-level Studies to Complement Aggregate Level Data

1. Initiate complementary studies that identify social and economic constraints inhibiting women's full time wage employment so as to realistically measure the available supply of female labor. The typical question "Are you willing to work?", while an improvement over some data collection practices, still ignores the institutional constraints under which unemployed and underemployed women live and which determine/influence the conditions for their availability or non availability to work.

2. Promote micro-level research to provide an accurate understanding of women's underlying motivations, prejudices and goals related to work and income generation capacity, and that take account of the differences underlying such attitudes according to women's life cycle stage, ethnic/religious affiliation and family status.

3. Encourage indepth studies that focus on the particular manner in which women experience working in the formal and informal labor markets; how they confront unemployment and the search for jobs; what experiences they encounter as rural migrants.

4. Compile accurate information about the different types and number of available childcare facilities (including self help and cooperative types of

facilities) within geographical areas to assess the structural facilitators available in relation to ability to work and be involved in a variety of economic roles.

E. Targeting Data Collection to Policy Planning Needs

1. Design modules to provide policy makers with specialized information relevant to development planning on behalf of the poor.

2. Revise data collection on the poor. Distinguish the particular needs, behaviors and priorities among the rural landless, urban migrants and heads of households. Apply stratified sampling procedures to ensure the inclusion of those categories of women in poverty who are the most likely to confront severe economic problems for the purpose of baseline data building, i.e., female heads of households; older women; female domestics, unmarried daughters of working age.

3. Initiate qualitative research which focus on needs assessment and on women's definition of life events and prospects for their future. Such information should become part of the baseline-data package required for successful program/project planning.

4. Prior to the planning and implementation of programs directed to promote employment and income generating capacity for women, it is necessary to collect documentation on what are de facto the economic functions performed by rural and urban women and familial and structural features which impinge upon their economic behavior.

FOOTNOTES

1

An unanticipated negative consequence of institutionalizing the value of home production is that it could freeze the existing sexual division of labor, maintaining women in the reproductive sector and weakening their position in the labor market upon reentry (UNESCO, 1980 paragraph 91).

2

As Becker (1965) points out, not all time can be spent at a job. Certain activities such as sleeping, eating, and some minimum level of leisure are required in order to maximize productive efficiency.

3

Boulding applied and measured this human service dimension with a small sample of highly educated, middle class families in the U.S. (1977).

4

For instance, in poor, rural Third World households the human service dimension category may remain empty while something similar may occur with some definitions of house production in highly urban, industrialized economies.

5

The methods used range from pure observational methods to participant observation, to recall and diary keeping by respondents. Observational methods are particularly suited when activities are less structured and when joint activities and intensity of activities are important. Observational methods are subject to biases arising from the probability that an observer may alter the respondent's responses. Recall methods are cheaper, can be applied to larger samples, are less subject to observer biases, but suffer from respondent biases. Respondents, and particularly when they enact activities which are in conflict with one another, may distort their recollection of events. After reviewing the recent experience of collecting time use data in developing countries, Mueller favors a recall method which she calls "yesterday's interview" since it asks respondents to review the previous day's events. A cheaper, although less valid method, is the activity oriented approach where people are asked to check how many of the activities in a standard list they performed, within certain time frame periods, and for how long (see Mueller; op cit and Birdsall, op cit for reviews of time budget methods).

6

In this section no mention has been made of the specific household utility function which generates the allocation of time among the various activities of family members. In the economic theory literature much attention has been devoted to aggregation of individual preference functions to achieve a household utility function but the ability to test various aggregation theories with the available empirical evidence has been minimal. One

theory suggests that in some instances, one member of the household serves as the dictator and maximization of household utility is congruent with maximizing the individual's preference function. This type of behavior may operate in patriarchal societies where the male head of the household maximizes his utility function and the female member may maximize her own utility function subject to the constraint of her husband being able to achieve his maximum.

Another factor which affects the nature of the household utility function in LDC's is the rapid shift in household composition over time and the tendency for individuals to move in and out of households. This is likely to reduce the degree to which the individual members behave together as a unit in determining time allocation.

7

According to those standards measure of the labour force should comprise 'all persons of either sex who furnish the supply of labour available for the production of economic goods and services, including employers, self employed persons and those who assist without pay in a family economic enterprise as well as employees. It further includes unemployed persons as well as those employed during the period to which the data refer. The category of employed persons should comprise both full time and part time workers, provided that the latter work at least a minimum period while the unemployed should be defined as persons who are not at work and are seeking work for pay or profit during the period of reference. (UN, 1968)

8

The compilation of information on the economic role of African women by the Woman's Program Unit at the Economic Commission of Africa highlights the seriousness of the underestimation of women's economic contribution to rural economy. The Commission estimated that 60 percent to 80 percent of agricultural labor in Africa is carried out by women: specifically, 70 percent of food production, 50 percent of domestic food storage; 100 percent of food processing; 50 percent of animal husbandry care; 60 percent of marketing, 90 percent of brewing, 90 percent of the labor involved in securing water supply and 80 percent of self-help projects undertaken by women. These economic functions do not fall under the classification of the conventional 'economic activity' definition; as such they are either omitted or minimized in the African census count (Safilios-Rothschild, C., 1972).

9

Alfred Sauvy comments on the anomaly of this situation by citing the case of the man who by marrying his servant reduces the economically active population by one unit, although his wife's activity remains completely unchanged.

10

In Kenya, the use of the word 'job' in labor force studies resulted in an underestimation of women's work participation because 'unpaid family work' is not considered as a 'job.' Using only the word 'work' caused an over estimation, because housework was frequently considered work (Anker, R., and J.C. Knowles, 1977).

11

The Sudanese census is exceptional in that it enquires into details of both the primary and secondary economic activities of respondents. If only those Sudanese women who reported a primary activity are counted as the economically active population, the female activity rate was 10 percent; the inclusion of those reporting both primary and secondary activities, meant that the corresponding activity rate rose to 40 percent. (Standing, 1978)

12

In the 1966 Algerian census, enumerators were specifically instructed to disregard any activity of women in agriculture or rural industry if these were secondary to a woman's prime function of housewife. This change in definition resulted in a reported decline in women's work participation rates in Algeria between 1954 to 1966 from 25.2 percent to 1.7 percent.

13

Comparing the results of the 1966 Census of Iran with information compiled from two rural surveys conducted in 1971 and 1973 showed a discrepancy of more than 50 percent in female labor force rates, attributed to the differential timing of the interviews and the census count. The census was taken during the winter slack months; the two surveys during the peak season.

14

There is no clear-cut definition of the 'self employed' category as illustrated by census definitions of 3 African countries: Zambia (1969) - the self employed are defined as having their own place of business and determining their own hours of work and work program; Ghana (1970) - a person working for two or more individuals was self employed; Swaziland - a person is self employed if he is paid for the job done or goods sold, as opposed to receiving a stable salary.

15

The reference period is usually one week and the unemployed includes those who did not work or worked less than one day during that period and were actively seeking work.

16

The inclusion of discouraged workers raised the 1967 unemployment rate in Malaysia from 5.0 to 8.8 percent; and in Tanzania (1971) from 8.0 to 12 percent (Turnham, 1971; Sabot, 1977).

In Chile - where the definition of the unemployed is very rigid, the percent of the inactive population who were discouraged workers in the 1960's was 15 percent; amongst these 8 in every 10 were women (Standing 1978).

REFERENCES

- Agripromo, Inades-Formation, Abidjou, Cote-d'Ivoire, No. 27, 1979
- Becker, G. "A Theory of the Allocation of Time," Economic Journal Vol. 75: 493-517, 1965
- Berry, A. and Sabot, R. H. "Unemployment and Economic Development," Paper to be presented at the Sixth World Congress of the International Economic Association, Mexico City, 4-9 August, 1980 (second draft, Nov. 1979)
- Birdsall, N. "Rapporteur's Report," Asia Society Workshop on Time Budget Data, September 15, 1978
- Boulding, E. "The Human Service Component of Non-Market Productivity in 10 Colorado Households," Rouyaumont, France, 1977
- "Productivity and Poverty of Third World Women: Problems in Measurement," Buvinic, M. (ed), Poverty as a Women's Issue, Washington, D. C., O. D. C. forthcoming
- Buvinic, M., Youssef, N. and Von Elm, B. Women-Headed Households: The Ignored Factor in Development Planning, Prepared for USAID/WID, International Center for Research on Women, Washington, D. C., 1978
- Cain, M., Khanam, S. R., and Nahar, S. "Class, Patriarchy, and the Structure of Women's Work in Rural Bangladesh," Center for Policy Studies, Working Paper No. 43, New York, the Population Council, 1979
- CEPAL "El Estrato Popular Urbano: Informe de Investigacion Sobre Santiago," 1973, Cited in M. Wolfe, "Participation of Women in Development in Latin America," Paper presented at the Regional Seminar for Latin America on the Integration of Women in Development with Special Reference to Population Factors, Caracas: 1975
- Chernichovsky, D. "Socioeconomic Correlates of Fertility Behavior in Rural Botswana" (mimeo) World Bank, May 1979
- Chernick, E. (ed) The Common Wealth Caribbean: The Integration Experience, A World Bank Country Economic Report, Baltimore: Johns Hopkins University Press, 1978
- Da Vanzo, J. and Lee, D. L. "The Compatibility of Childcare with Labor Force Participation and Non Market Activities: Preliminary Evidence from Malaysian Time Budget Data," Buvinic, M. (ed), Poverty as a Women's Issue, Washington, D. C., O. D. C., forthcoming
- Deere, C. D. "The Allocation of Familial Labor and the Formation of Peasant Household Income in Peruvian Sierra," Buvinic, M. (ed), Poverty as a Women's Issue, Washington, D. C., O. D. C., forthcoming, 1980

- Galbraith, J. Economics and the Public Purpose, New York, N. Y., Sign
- Gronau, R. "The Intra-Family Allocation of Time: The Value of the Hour
Time," American Economic Review Vol. 63: 634-651 September, 1973
- Hansen, B. "Employment and Wages in Rural Egypt," American Economic
Review
- Hawrylyshin, O. "Value of Household Services: A Survey of Empirical
Estimates," Review of Income and Wealth Vol. 22: 101-131, 1976
- Kossoudji, S. and Muellor, E. "The Economic and Demographic Status of
Headed Households in Botswana," mimeo Population Studies Center, Univ
of Michigan, 1980
- International Labour Office Yearbook of Labour Statistics 1978, Interna
Labour Office, Geneva, 1979
- McSweeney, B. G. "An Approach to Collecting and Examining Data on Rura
Women's Time Use and Some Tentative Findings: The Case of Upper Volta
Working paper prepared for the Seminar on Rural Women and the Sexual
Division of Labor, the Population Council, New York, March 30, 1979
- Merrick, T. "Household Structure and Poverty in Families Headed by Wom
The Case of Belo Horizonte," presented at the Latin American Studies
Association's Joint Meetings, Houston, Texas, Nov. 7, 1978
- Michel, A. "Problematique Nouvelle de la Production Domestique Non Mar
Presented at Roundtable on "Economy and Sociology of the Family,"
sponsored by the National Center of Scientific Research (France) and
(USA) Rouyaumont, France, 1977
- Mueller, E. "Design of Employment for Developing Countries," Working p
World Bank, 1978
- Nerlove, M. "Toward a New Theory of Population and Economic Growth 197
in T. W. Schultz (ed), Economics of the Family: Marriage, Children and
Human Capital, University of Chicago, Chicago, 1974
- Oppong, C. "Family Structure and Women's Reproductive and Productive R
Some Conceptual and Methodological Issues," Prepared for I. L. O. The
of Women and Demographic Change Research Program, Geneva, 1980
- Papola, T. S. "Sex Discrimination in the Urban Labour Market: Some Prop
tions Based on Indian Evidence," Prepared for the I. L. O. The Role of
Women and Demographic Change Research Program, Geneva, 1980
- Popkin, B. "Women, Work and Child Welfare," Buvinic, M. (ed) Poverty as
Woman's Issue Washington, D. C., O. D. C., forthcoming, 1980

- Quizon, E. and Evenson, R. "Time Allocation and Home Production in Phillipine Rural Households," Buvinic, M. (ed) Poverty as a Woman's Issue, Washington, D. C., O. D. C., forthcoming, 1980
- Recchini de Lattes, Z. and Weirnerman, C. H. "Informacion de Censos y Encuestas de Hogares Para el Analisis de la Mano de Obra Femenina en America Latina y el Caribe: Evaluacion de Deficiencias y Recomendaciones Para Superarlas," E/CEPAL/L. 206, UNECOSOC, ECLS, 1979
- Redmana, H. and Moir, H. Labor Force and Labor Utilization in Selected Areas in Java: Results of an Experimental Survey, Vol. 1, Monograph Series of National Institute of Economic and Social Research Leknas-Lipi, 1977
- Reid, M. Economics of Household Production, New York, Wiley, 1934
- Sabot, R. H. Economic Development and Urban Migration: A Study of Tanzania, Oxford, Clarendon Press, 1978
- Safilios-Rothschild, C. "The Current Status of Women Cross Culturally: Changes and Persisting Barriers," Theological Studies, Vol. : 577-604, 197
- "Female Power, Autonomy and Demographic Change in the Third World," Prepared for I. L. O. The Role of Women and Demographic Change Research Program, Geneva, 1980
- "Methodological Problems Involved in the Cross Cultural Examination of Indicators Related to the Status of Women," Revised version of paper presented at the APA Meetings, Toronto, Canada, 1972
- "The Role of the Family: A Neglected Aspect of Poverty," World Development Report, 1980
- Simmons, E. "Economic Research and Women in Rural Development in Northern Nigeria," mimeo
- Standing, G. "Education and Female Labor Force Participation," International Labour Review, Vol. 114 (3): 281-297, Geneva, 1976
- Female Labor Supply in an Urbanizing Economy, International Labour Office: World Employment Program, Geneva, 1976
- Labor Force Participation and Development, International Labour Office: World Employment Program, Geneva, 1977
- and Sneeahan. G. Labour Force Participation in Low Income Countries, International Labour Office: World Employment Program, Geneva, 1978
- Turnham, D. The Employment Problem in Less Developed Countries, Paris, OECD, 1970

United Nations, Methods of Analysis: Census Data on Economic Activities of the Population, Department of Economic and Social Affairs, Population Studies #43, New York, 1968

United Nations Economic and Social Council, Commission on the Status of Women, "Report of the Security General" E/CN.6/635, 9 January 1980

Walker, K. "Quantitative Measurement of Productive Household Activities," Prepared for National Center of Scientific Research (France) and NSF (USA) Seminar, Royaumont, France, 1977

Watts, H. W. and Skidmore, F. "Household Structure: Necessary Changes in Categorization and Data Collection," Prepared for the Census Bureau Conference on Issues in Federal Statistical Needs Relating to Women, Bethesda, Md., April 27-28, 1978

Youssef, N. "The Interrelationship Between the Division of Labor in the Household, Women's Roles and Their Impact Upon Fertility," Paper presented at the: Informal Workshop on Women's Role and Demographic Research Program, International Labour Office, Geneva, November, 1978