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## TIME ALLOCATION AND FERTILITY BEHAVIOR OF MARRIED WOMEN IN FISHING COMMUNITIES OF ILOILO, PHILIPPINES\*

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### Introduction

Time is a basic and valuable resource which is available to all people. It is unique in that it is distributed equally to all members of society. How people use this resource can have important consequences for the distribution of outcomes of various kinds. This could be the reason for the increasing interest of social scientists in the study of time use.

Data on time allocation provides a range of benefits. They are considered indispensable for improving many social accounting systems, especially if they are supplemented by appropriate measures that specify the context in which activities take place. Moreover, information on time use provides a rich resource for analysis of a wide variety of behavioral topics. Examples of these behavioral topics are labor force participation, labor productivity, the production of household inputs (like child care and housing quality), marital stability, the use of leisure time, the dynamics of preference change, and the valuation of non-market time. Conditions like nutrition, health and mortality, particu-

larly of small children, can be best explained when data on time use by the household members, particularly by the mother, are available (Juster and Stafford, 1981; Mueller, 1978). D' Amico (1980) who assessed the time-use behavior of young Americans stressed that how time is used provides a "unique mapping of the preferences and constraints confronting individuals as well as bearing relevance at the societal level to inferences regarding quality of life and related issues."

Even fertility researchers will stand to benefit from data on time allocation. The effect of the size and composition of a household on its capacity to generate income is one important aspect of fertility analyses. Time use data can be useful in determining the economic contribution of children to the family. It will also reveal under what conditions a large family size limits a woman's ability to contribute to family income, and under what conditions it increases her labor force participation (Mueller, 1978).

The general objective of this investigation is to find out how the

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married women in fishing villages of Iloilo, Philippines allocate their time as influenced by some demographic and socioeconomic factors. Stated in question form, the specific objectives of this study are as follows:

1. How much of the women's time is allocated to (a) household chores, (b) child care, (c) wage work, and to (d) leisure or personal activity?
2. What is the fertility behavior of these women?
3. How is their time use affected by the number and age of their children, and by the presence of household help (to include relatives living with them)?
4. How is their time allocation influenced by social and economic variables like level of living, education, occupation, distance of their workplace from home, their incomes and their husbands'?

## Methodology

### Research Techniques and Samples

The choice of a research technique is determined largely by the problem of the study, by the available resources (funds and manpower), and by the nature of respondent population (attribute complexity and geographical dispersion) (Simon, 1966; Lynch, et. al., 1974). Since the present study is exploratory in nature and considering the constraints in funds and the wide geographical dispersion of the respondents, the investigator decid-

ed to use the sample survey technique.

A two-stage sampling was used to arrive at the nine communities covered in this study. This was done by listing first of all the fishing municipalities of the province. From the list the three sample towns were randomly drawn. For each sample municipality a list was made of fishing villages. This was used as the sampling frame in the random selection of three barangays for each sample town.

The needed information were gathered by interviewing the 317 respondents who were randomly drawn and who willingly cooperated in the investigation. The size of the respondents was determined with the use of the following sampling formula (Lynch, et.al., 1974) and utilizing the five per cent level of sampling error.

$$n = \frac{NZ^2 \times p(1-p)}{Nd^2 + Z^2 \times p(1-p)}$$

Where Z is the value of normal variable (1.96) for a reliability level of .95; p is the largest possible proportion (.50), d is the sampling error, N is the population, and n is the sample size.

The 317 respondents were distributed to the nine sample villages in proportion to the total number of households in each community.

### Procedure Used in Obtaining Time Use Data

Originally, it was planned to gather data on women's time use for the whole year so as to capture

their yearlong time use behavior, which varies according to events in a year. Thus, the following questions were asked: How many hours in a day do you usually use in activity X? How many days in a week/month do you do activity X? How many months in a year do you do activity X? These questions were asked for the major activities which were considered in this study. To arrive at the total time use of the women for each activity in a year, her usual time use in a day is multiplied by the number of weeks or months in a year. Examination of results reveals an overestimation of actual time use behavior. Thus, it was decided to utilize in the analyses the reported usual time use data of the women for a single day. This is more accurate than the cumulated yearlong data but fails to capture the various time use pattern of the women in a year.

One important difficulty encountered in this study was the recording of time use in borderline activities (like playing with a child is either leisure or child care work) and in activities which are done simultaneously (like child care and cooking, tending a store while cooking and caring for children). For the first problem, the interviewers were instructed to probe the type of activity as perceived by the respondent (like playing with a child is to be considered leisure, not child care). For the second problem, there is no way out (except by constant observation which is very expensive and restricts the sample size) from double or triple recording of time use for two or three

activities done simultaneously, like doing laundry while cooking and watching a small child. Thus, if one has to sum up the total time use of a woman the result would exceed her total waking hours.

The problems imply that the methodology for time use studies has not yet become well developed. There is a need, therefore, to do more studies in this area so as to come up with a methodology which will not be constrained by the problems mentioned and by other difficulties which bedeviled other time use investigations.

## Results

### The Respondents and their Households

Results of the present investigation point out that much needs to be done to improve the socio-economic conditions of the women and their households. This is borne out by the findings that, on the average, the women had only seven years of completed schooling, only 37 percent of them were gainfully employed with monthly earnings of ₱195. Only 42 percent of their total (317) was affiliated with community organizations but their involvement in the activities of their organization was quite poor.

The conditions of the women's households were not any better. The dependents and the young outnumbered the working adults, and the women's fertility tends to be high. With an average of six persons per household, their average per capita income which is ₱70 monthly is quite low, although using six indicators they were found to be

enjoying an "average" quality of life.

On the average, the respondents' age is 32 years, young enough to raise the four-children-per-woman average. The prospect is not very good for these women and their families considering that only 33 percent of them were practising family planning techniques.

### Findings on Women's Time Allocation

Analysis of data on time use reveals that the biggest proportion of women's time is allocated to household chores<sup>1</sup> and child care<sup>2</sup>. Wage work<sup>3</sup> received less of their time while leisure/personal activity has the least share of their time budget. That household chores and child care get the lion's share of the women's time may be explained by the fact that 63 percent of the 317 women were not engaged in wage work, and those who work do their income-generating activities in or at least not far from their homes.

As we expected, it is the college-educated women who spend more time in wage work and less time in household tasks and child care than women of lower educational attainment. However, it is the women without formal education, or those who have reached primary level, who have more time for leisure or personal activity.

Relating time use and employ-

ment status, it was found that the average time spent by the unemployed for household chores does not differ much from that of the employed. This is so because most of the employed women work in or near their homes, thus, they still have time for household tasks and even for the care of their children. However, the unemployed have more time for child care and for leisure or personal activity.

Analysis of time use data by distance of women's workplace from home reveals that there is a negative association between the former variable and time spent in household chores, child care and leisure or personal activity; positive association between workplace distance and time use in wage work.

Data on time use and type of employment disclosed that women engaged in manual labor, personal services, handicrafts and in processing farm and marine products have a higher average time on household tasks than any other group of women classified by type of work. But it is the professionals and office workers who have higher average hours for wage work but less time for all other activities than any other group of women.

Analysis of time use data and income reveals that the association between women's income and time use in household chores and in child care is negative, while that

<sup>1</sup>Include food preparation, house cleaning, washing, ironing and sewing clothes.

<sup>2</sup>A household work but is treated separately in order to determine its individual effect on women's time use.

<sup>3</sup>Includes income-generating activities in and outside the house.

between income and time use in wage work and leisure/personal activity is positive. The same trend emerged when their husbands' incomes were analyzed with their time budget.

Relating time use and women's standard or level of living, it was found that the association between the latter variable and the time spent in household tasks and in child care is negative. The inverse is true between standard of living and time allocated to wage work, and leisure or personal activity.

Examination of time use data and the number and age of youngest child disclosed that both the latter variables affect the women's time allocation. The data seem to suggest, however, that it is the age of the youngest child which greatly determines how the women should allocate their time.

Contrary to expectations, women with household help have a higher average time in the care of their children than those without household help. This means that the care of young children is fully entrusted to household help, more so because their work (for women who are working) does not take them far away from their homes. As expected, women with household help have lower average time for household tasks but have higher average hours for wage work and leisure/personal activity than those without household help.

## Comments and Recommendations

What do the findings of this study tell us? For the women who were studied and for their sisters in

fishing communities of Iloilo province whose socioeconomic status approximates theirs', much of their time budget is allocated to doing household tasks and in caring for their young children. This, as confirmed by some respondents, is not by choice but is forced upon them by circumstances. If there were an opportunity, they would spend much of their time in productive or income-generating activities in order to augment the ever-insufficient incomes of their husbands. However, they do not want to neglect their home duties, particularly the care of their young children, whom they do not want to entrust fully to household help. This is a dilemma for these women. One way out of this dilemma is to provide the women with productive work which they can do in or near their homes. Cottage industries like shellcraft, bamboocraft, weaving, manufacture of native delicacies, backyard poultry and piggery are some of the productive work in which these women can engage. But for women whose economic condition is quite low, the lack of capital to invest in these projects is a major problem. This is where both the public and private agencies should come in. They can provide these people not only with financial support, but with technical assistance as well.

Results also inform us that women with college education, employed full time away from their homes earn high incomes but deprive their household members of much of their time. To some extent this affects the welfare of the

household members, particularly the youngest. On the other side of the coin, however, by working these women are able to meet some of the daily needs of their households, to make use of their college training, to enhance their personalities, and to contribute significantly to the development of their communities. Although most people would say that their primary responsibility is to their families, they themselves prefer to work since "with inflation life is getting more and more difficult."

### Recommendations

In terms of methodology, it is suggested that future studies should exhaustively cover all the activities of the women, not just for a day. As was mentioned elsewhere in this report, the use of time by women, particularly those working on farms or those engaged in fishing, vary during the year. The variation is the result primarily of the change in seasons. It is recommended, therefore, that a number of interviews, spaced throughout the year and to cover different seasons, be made so as to capture the time use of the women during the entire year.

Moreover, how the other members of the household budget their

time to some extent, also affects the woman's time use. It is suggested that the time use of other household members be covered by future studies, for this would give better insight and a better perspective in analyzing how a woman allocates her time.

A bigger sample should also be considered by future studies on time use. Though expensive, this will provide a stronger foundation on which to base one's generalizations. Furthermore, studies on time allocation should not be restricted to fishing communities. Communities with different geographical and economic conditions should be included, for surely the time use pattern of people in these communities would be different from those in fishing communities.

For policy makers, it is recommended that in planning programs they should also look into the time use pattern of the people. Such knowledge will provide guidelines as to how the program should be carried out and how the people and their families would be affected by the program. In the long run, the main concern is that development programs should be implemented to serve and benefit the people, not the other way around.

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