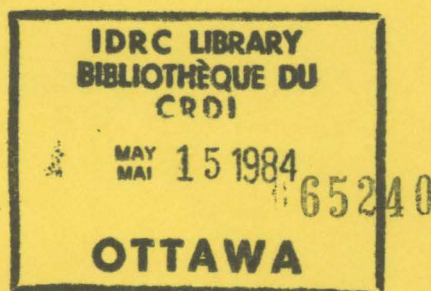


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SEAPRAP RESEARCH
REPORT NO. 81

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



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November 1981

A report of research undertaken with the assistance of an award from the Southeast Asia
Population Research Awards Program (SEAPRAP), Institute of Southeast Asian Studies,
Republic of Singapore

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(an edited version)

ACKNOWLEDGEMENTS

The investigator wishes to acknowledge two institutions and a number of people whose contributions were valuable in the realization of this project.

For financial support:

Southeast Asia Population Research Awards Program (SEAPRAP)

For office space and library facilities:

Central Philippine University (CPU)

For helpful suggestions, moral support and concern:

Mrs Erlina S Ardales, Researcher's Wife

Dr Wilfredo F Arce, SEAPRAP Program Coordinator

Dr Agustin A Pulido, CPU President

Dr Macario B Ruiz, Consultant, CPU Research Center

For wholehearted cooperation:

Respondents

Local Government Officials

To all of them I give my sincere appreciation. I assume, however, full responsibility for the ideas expressed in this report.

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640.021:658.53(914)

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Section I

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, particularly of small children, can be best explained when data on time use by the household members, particularly by the mother, are available (Juster & 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).

Study Objectives

The general objectives of this investigation is to find out how the 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'?

Significance of the Study

The many and varied uses of time use data discussed above should suffice to convince the reader of the importance of a study like this present one. This study will be appreciated even more, since a review of related literature disclosed that not much had been done on time use which is an important aspect of human life. Most of the studies done on this topic were designed and conducted to serve the needs of economists. To this investigator's knowledge, no study was conducted to find out how married women in fishing communities in the Philippines as well as in other countries allocate their time, and relate this to their fertility and other important socioeconomic characteristics. The present study is, therefore, an answer to the need for more studies on time allocation, particularly in relation to fertility and to rural folks in the fishing villages of the country.

This study can be appreciated also by those who are engaged in the country's family planning programs. As with other developing countries, high fertility is of great concern in the Philippines. Although there are signs that this high fertility level is tapering off, there still persists the worry about rapid population growth. This worry seems to be warranted. Research findings reveal that the decline in fertility does not seem to be concrete enough to be convincing. Moreover, even if fertility levels are in fact going down, the descent appears nowhere near what is considered necessary to attain development and welfare goals within a desirable period of time.

The family planning programs organized and supported by the government and some private agencies in the sixties seem to have made little impact, particularly on women in rural areas who comprise about seventy per cent of the programs' target population. The basic explanation for the less-than-expected performance of family planning programs has to do with "insufficient attention given to the motivation for small family size, i.e., the demand size" (Pernia, 1979).

The knowledge of the limited effectiveness of family planning programs in dealing with the population problem has led to approaches labeled as "beyond family planning". They take into account certain dimensions of socioeconomic development viewed as preconditions for wanting a smaller number of children than is traditionally needed and desired (Pernia, 1979). The time allocation of the mother is one such important dimension.

This study is, therefore, important to family planning crusaders in that it will shed light on the slow decline of fertility especially in rural areas. It will be useful also to our policy makers whose decisions will influence the nature of programs that will be designed to curb rapid population growth.

Limitations of the Study

To have a complete view and better understanding of the condition and functioning of the household and its individual member, it is necessary to obtain the time use behavior of every member of this social unit. This, to the investigator's mind is the ideal in the time use study of the household. The present study did not meet this

ideal. Operating on a limited budget, it is restricted to knowing the time allocation of only one household member--the mother. Numbering 317, they come from only three villages of only three fishing towns in the province of Iloilo, Philippines. No poblacion or town center was included in the area coverage of this investigation.

In terms of content, this research focused mainly on the time allocation of the women and what they perceived to be their everyday major activities, to wit, household chores (food preparation and others like house cleaning, laundry, sewing), child care, wage work and leisure or personal activity. Since this study has some bearing on women's fertility, the investigator decided to have a separate category on child care, although this is also a household activity which in most cases is being done by the woman simultaneously with other household work like food preparation, laundry, cleaning or sewing. Sometimes child care is also done at the same time with income-generating activity like tending a sari-sari store or preparing native foods or delicacies for sale. Of course, there are other activities which take some of the women's time like marketing, going to church, and participation in activities of the organizations they are affiliated with. The inclusion of these other activities would have given more insight into how the women under study budget their time. But since these activities are not done daily and regularly by the women, these were excluded from the activities considered in this study.

One important limitation of this study is that in obtaining time use data, the women were asked how they usually allocate their time in a day on the activities enumerated in the interview schedule. The pattern of their responses reveals that the season of the year (rice harvest season^I) when this study was conducted has a clear

^IWithout suggesting, this was used as time reference by the women even when they live in fishing communities. This is so because farm work is the major or secondary occupation of the majority of the households studied. The change in "farming season" affects them more than the change in their fishing activity as caused primarily by weather conditions.

influence on the activities and time use behavior of the women. Thus, the data obtained do not reflect their time use behavior during the other seasons of the year². An attempt was made to capture their time allocation for the whole year by asking them how many hours in a day, how many days in a week or month, and how many weeks or months in a year do they usually do the activities considered in this study. An examination of their total time use for each activity in a year reveals an overestimation of actual time use. Thus, the decision was made to utilize time use data for a single day.

Definition of Concepts

The following operational definitions were used in the present investigation:

Time allocation - The term refers to how the woman would usually budget her time in doing certain activities.

Fertility - This term refers to the child-bearing behavior of a woman which in this study is measured by the number of her living children.

Wage work - The term refers to the work of the woman either in or outside her home which generates for her family income which may either be in cash or in kind. This kind of work includes self-employment, employment in family-owned farm or enterprise, in government agencies and in businesses owned by private individuals. It also includes rendering personal services (such as laundry, cleaning, food preparation and the like) with pay to other people, and private practice of profession.

Unemployed respondent - This term refers to the woman who is not working for income or who is engaged in household chores and child care only.

²The other seasons, as commonly perceived by folks in this part of the country, are: the planting season when farm work is at its peak, and summer when not much work is done in the fields, giving the village folks more time for themselves, for their families, and for recreational and social activities like the fiesta celebrations.

Household income - In this study, the term refers to the total cash income of an entire household in 1979. This includes the incomes of the woman and her husband, the contributions of all other members of the family, and those incomes from all possible sources such as the sale of crops and livestock, profits from businesses of any kind like merchandise, transport and others, and incomes from fixed sources like pension and house rent.

Level of living - This term refers to the quality of life of the household as measured by five indicators. These are ownership of house and lot, housing type, source of water for drinking and cooking, fuel or power used for lighting and cooking, and type of toilet used.

Organization of Report

The remaining sections of this report are organized as follows:

Section Two reviews literature related to time use research.

Section Three discusses the methodology that was used in identifying the sample areas and the respondents and in gathering, processing and analysis of the data.

Section Four presents the demographic and socio-economic profile of the respondents.

Section Five discusses the time allocation of the women as influenced by some demographic and socioeconomic variables that were considered.

Section Six comprises the conclusions and recommendations.

II

Section 2

REVIEW OF RELATED LITERATURE

As was already mentioned, a survey of related literature reveals that few studies have been made on time allocation. To this investigator's knowledge, none of these has to do with time use behavior as related to the fertility and other socioeconomic attributes of married women in fishing communities. This is true not only in the Philippines but even in advanced countries like the United States. The same observation was made by D'Amico (1980) and by the participants in the Twelfth Summer Seminar in Population who composed the workshop group Research Issues in Family Demography.* One major recommendation of this workshop group in the concluding session of all participants is to do more studies on the time use behavior of all family members excluding, of course, children six years old and below.

The limited amount of literature on time use can be divided into two major groups. The first group, which can be called theoretical, has as its major purpose the development of a reliable and valid methodology for obtaining time-use information. The other group, which may be labeled empirical, has for its primary goal the obtaining of information on the actual use of time by the individuals. The empirical studies can be further subdivided into two categories: (a) those designed, conducted and analyzed according to the viewpoints, interests and needs of the economists, and (b) studies which relate time use data to social and demographic variables like fertility and leisure. Theoretical literature is reviewed first.

* The Seminar which was held in Honolulu (June 1-26) and in Manila (June 28-July 3, 1981) was sponsored by the East-West Center Population Institute, Philippine Commission on Population, Philippine Center Foundation and by the University of the Philippines Population Institute. The investigator was one of the Philippine participants, who joined the workshop group mentioned above.

One useful paper on time allocation is by Mueller (1978), which will be included as a chapter in the monograph entitled Employment Surveys for Developing Countries. This paper discusses the contributions of time-use data which were already mentioned in the introductory part of this report. The paper discusses also the alternative methods of collecting time-use data as well as the methodological problems involved in obtaining such data.

Of the three alternative approaches, Mueller considers personal observation as the most reliable method in obtaining time-use information. She pointed out, however, that the presence of the observer may distort the behavior of the observed who will become self-conscious. Moreover, this method is expensive and time consuming and sets severe constraint on the sample size since it requires direct and constant observation (Ho, 1979). The other method, the written diary technique, is taken by Mueller as the next most accurate. She confessed, however, that this method is impractical for less developed countries (LDC) and too demanding for populations with functionally illiterate members.

For LDC, Mueller recommends the survey method in which interviewers record time use as reported by household members. This method may either be the time-oriented approach (or "yesterday interview") or the activity-oriented approach. In the former the interviewer records the individual's time use during the day preceding the interview in chronological order, that is, from early morning to evening. In the latter survey method, the interviewer asks respondents to recall participation in each of a list of activities over a more extended time interval. Of the two survey methods, the time-oriented approach which is simple and more accurate is preferable if repeated interviews are feasible. The repeated interviews, spread over representative segments during the year, could possibly capture several variances in time use.

The other paper which is more theoretical than empirical is by Ronald D'Amico (1980). This paper presents the results of a pretest of an instrument designed to assess the time-use behavior of young Americans. The primary goal of the pretest is to explore the suitability of various alternative methods of eliciting time-use behavior from

American youth. Its subsidiary purpose was to demonstrate the utility of obtaining time-use data by relating it to the demographic, socioeconomic and other attributes of the respondents.

D'Amico argued that the "single-day diary" and "typical behavior" strategies are ineffective instruments in capturing the accurate time-use behavior of American youth. The "typical behavior" approach which asks respondents about typical behavior or the usual amount of time which individuals devote to certain activities results in over-estimation of actual time-use behavior. On the other hand, information on time-use obtained using the "single-day diary" strategy would exhibit considerable instability in the sense of being atypical of the way respondents usually allocate their time. With these considerations, D'Amico devised a method which relates time-use questions to behavior in the "last 7 days." Methodological comparisons have led the investigator to conclude that the "7-day approach is no substitute for a time-diary for generating comprehensive time-use information." He, however, used the 7-day approach in the pretest since the goal of the study is not to have a comprehensive study on an exhaustive list of activities, in which case the time diary seems most appropriate. The pretest goals were well-established and narrowly circumscribed to include only time-use information believed to impinge most directly on educational and labor market processes. In this case the 7-day approach is most reliable, thus, the decision for its use.

Results of descriptive analyses of pretest data led D'Amico to conclude that individual decisions on how to allocate their use of time is influenced by their status set, personal predispositions, available other resources and other demographic and socioeconomic factors. "What time-use trade-offs are made, particularly as role obligations accumulate ..., provides a unique portrait of the preferences and constraints confronting individuals, and how these vary for groups differentially situated throughout society."

Empirical studies reviewed here are divided into two: those which were done in foreign countries, and those conducted in this country. Those done abroad are discussed first.

The study of time-use patterns of American and Israeli families by Block (1973) and by Gronau (1976a) point out that changes in the socioeconomic conditions, that is, changes in the wage rate, income, education, and the number of children of the families that were studied differ in their effects on work at home and leisure and on the time allocation of husbands and wives.

Israeli data reveal that an increase in the wife's education results in an increase in the time she spends in the labor market. This time is withdrawn primarily from work at home, leaving leisure unaffected. On the other hand, according to US data an increase in the wife's wage rate increases her supply of labor and reduces both work at home and leisure. An increase in the husband's wage rate increases his own supply of labor which consequently reduces his work at home, but reduces that of his wife. An increase in unearned income reduces the supply of labor of both husband and wife, it reduces work at home particularly for women and it thus increases leisure.

Both studies agree that children cause their mother to transfer time from the market to home tasks. However, the amount of time transferred is inadequate for additional time needed in the care of the children, thus, the reduction of their time spent in leisure. Children have the same downward effect where the father's leisure is concerned, but in this case the father increases both work at home and work in the market.

It was also found that the person's employment status determines largely the total time that could be spent for home work and leisure. In the case of Israeli married women, the employed have less leisure than those who were not employed.

Relating civil status and time-use behavior, it was found that married men work more in the market than the unmarried ones while married women spend more time than the unmarried in tasks at home and somewhat less in the market. Gronau (1976a) observed that married people have less leisure than the unmarried, and the difference is greater for men than for women. The differences are explained by marriage and the presence of children. Israeli data disclose that marriage reduces the wife's supply of labor to the market and increases her work at home. As

for men, they hardly increase their work at home but significantly increase their supply of labor to the market. This results in a significant reduction in the time spent by married men in leisure.

Gronau (1980), using the data from the 1972 panel of the Michigan Study of Income Dynamics, studied the time usage of white married women, 660 of whom were employed while 621 were non-employed. His findings reveal that when the wife is not employed, her work at home is negatively affected but her leisure is positively affected by her unearned income and her husband's wage rate. Children tend to increase her work at home, but school children less so than younger ones. Her work at home is negatively associated with the size of her house while her potential wage rate (as approximated by her past labor force experience) does not affect her allocation of time.

The findings reveal further that when the woman is employed, a major determinant of how she budgets her time is her wage rate. This variable explains the negative effect of labor force experience on the wife's education and on her work at home. Children were found to have a negative effect on their mother's leisure, the time withdrawn from the market falling short of the increase in housework. As the child grows older and enters school, housework diminishes, but this change results in hardly any gains in leisure - the time saved in work at home is diverted back to the market.

As to income effect, the husband's wage rate has a significant positive effect on leisure, but has no effect on work at home. Similarly, work at home is not affected by changes in unearned income; their effect on leisure is positive, though weak. The woman's wage rate has a strong negative effect on both leisure and work at home. Neither unearned income nor the husband's wage rate affect the employed woman's work at home. It was also found that the woman's education is positively correlated with leisure, but its effect on work at home, though positive, is not significant. Further, the work at home of employed women is not correlated with the size of their households.

McSweeney (1979) did a study of women in the villages of Upper Volta, Africa. These communities were covered by the Upper Volta/UNESCO/UNDP Project for Equal Access of Women to Education, a ten-year systematic program designed to promote educational opportunity for girls and women and to increase their contribution to the economic and social development of the country. Its major objective was to generate precise information on women's time allocation.

Using a combined technique of overview and intensive survey, selected target and comparable control villages in the three zones reached by the project were covered by the study. Questionnaires were administered verbally to all women to gather basic personal and demographic data as well as data on schooling of children, availability and utilization of technologies, work and earnings, daily activities, and assistance in carrying out workloads. More detailed information was collected from a random sample of 30 women in each village and from women leaders in the project villages on available resources, agricultural workloads, opinions concerning technology, and the impact of technology on time allocated to various tasks and alternative use of time thus saved. Parallel questions were asked of the husbands of sample women, their responses treated as variables possibly affecting their wives' attitudes and behavior.

Analysis of data by sex reveals that women carry out 54 per cent of the production/distribution/supply tasks, 23 per cent of crafts and other professions, 97 per cent of household tasks, and 23 per cent of community obligations. These tasks represent 56 per cent of all work performed in the 14 hours of the day. Women's workloads after the observations can also be expected to exceed those of men, as women then generally prepare the evening meal and wash up afterwards.

Results of the study disclose further that the women who were studied have 1.3 hours only of free time in the first 14 waking hours, women with monogamous husbands have higher total time allocated to the food production/supply/distribution tasks than those in polygamous households, age does not strongly affect women's time use and that females begin putting in more work hours than males beginning at age seven. Availability of technology did not correlate with the anticipated reduction in workloads or time use for work.

How rural Nicaraguan women budget their time was studied by Gillespie (1979). This investigation was prompted by the need to have information on women in general and on rural women in particular which virtually was non-existent at the time of study as revealed by a search of the literature.

Using the one-day observation method, the investigator studied three types of women according to the nature of their primary activities - housewives, potters and factory workers. Obtained data revealed that the work day of the housewives, who work in their homes and receive no monetary compensation, is "incredibly fractioned." These women constantly shift from one activity to another, taking between 5 to 15 minutes to complete each task. In contrast are the potters who fabricate various types and sizes of common clay cooking vessels. They organize all activities around a block of time (averaging nearly 4.5 hours) set aside for potting. Since their work is in their homes, they are able to take care of their children themselves. As a group, they did much less food preparation and food processing than housewives, some of these tasks being performed cooperatively by other female household members.

Women workers in a hemp-rug factory were the third group of women observed. More than half of these women were wage earners who live with either parents or parents-in-law, do the necessary household work and care for the children. Some of those who live independent of their relatives employed a servant to work in the home while others prepared the day's food before going to the factory, left their children with an aunt or sister while they worked, and took the children home for lunch and again following the afternoon shift.

To find out how people in a developing country use their time, Farouk (1980) conducted an investigation on time use in Bangladesh in 1975. Using the recall method which required the respondents (700 in all in seven unions spread over the whole country) to describe how they spent the day prior to the date of interview. The researcher discovered that the more modernized

the production techniques used by the person, the shorter the total time spent in productive work. This gives more release time for rest, for recreation and for other personal activities. In rural areas where modern techniques of production are absent, the total working hours of men are longer than in those where modern production techniques are available. The data also reveal that family expenditure-saving work (going to the market, washing clothes, cooking food at home, cleaning the house, teaching one's own children, etc.) is largely an urban phenomenon and associated with modernization. Moreover, the amount of time spent by a respondent on study and training is extremely low throughout the country, and almost totally absent in all but two rural areas.

In the case of women, their productive hours of work vary between ten and about fourteen which are considerably more than the productive work-hours of men, except in two unions. The most important time use by women seems to be in household work. Compared to men, women work more on expenditure-saving work and spend less time in personal care and mid-work rest. Women also have less recreation of a formal kind than is true of their husbands.

The data further disclose that the income of the family has no relationship with the hours of productive work of the head of the family, that the hours of production increase when a person's family capital becomes smaller, and that those who work for longer hours have less time to spend on personal care and recreation.

Three Philippine studies on time allocation were reviewed for this study. The first one is by Jayme-Ho (1976) which investigated the married women's allocation of household time resources as well as the variations in the women's time budgets due to their work status and differences in family size and composition. In this study the time data available from the Laguna Household Survey were classified into home production activities and market production activities. The latter category included activities done at home if the product is sold for profit while home production activities were sub-classified into child care, food preparation and other household activities (house-cleaning, fetching water, etc.) Work status was determined as either not working (zero hours in market production) or working.

On the average, the investigator found that mothers spent 10 hours a day or 70 hours a week on both home and market production activities. Of the total time, only 18 per cent went into market production while 82 per cent was devoted to home production. The presence of a young child (0 to 6 years old) in the family caused an increase not only in the mother's child care but also in the time for food preparation and other home activities. Market production time decreased only slightly, but with a child 0-II months, the increase in home production time and decrease in market time were more marked. Older children (10 years old and over), regardless of sex, acted as substitutes for the mother, particularly in the care of younger children, and in other home production work, but did not substitute for the mother's food preparation chore. Age composition rather than number of children seemed to have a more direct influence on the time budget of the mothers studied.

Using the result of the same survey, Jayme-Ho (1979) analyzed the variations that occur in the time budgets of women in a high-fertility rural society as the size and composition of their families vary. Her principal hypothesis is that, for many women in these societies, the time costs of child-rearing are minimized by the availability of substitute labor from older children and the informal structure of the market for labor outside the home.

Jayme-Ho reports that except during the first year of the child's life, the time spent by mothers in the care of young children draws little time from their market production and significantly more time from their leisure. When a child is less than a year old, the same reduction in leisure time occurs but there is an additional reduction in market time to compensate for even longer child care time.

Moreover, the investigator disclosed that although there is some indication that the number of children affects the mother's activities, family composition rather than size appears to be the major demographic determinant of the mother's time allocation. She also discovered that the presence of older children reduces time spent by mothers in child care and that child care on mother's time for each additional child decreases as family size increases.

Finally, Jayme-Ho found that mothers whose market activities are conducted at home or close to home spend about the same number of hours on child care as those mothers who are not employed. On the other hand, mothers working away from home spend fewer hours on child care than the other two groups of mothers.

Another Philippine study on time allocation was made by King-Quizon (1977). This study focused on the interaction between husband and wife in relation to their allocation of time for certain activities. The dependent variables that were considered are market production time, home production time, and leisure. Independent variables included own wage, own education, own age, wage of spouse, education of spouse, number of younger and older children, farm assets, home assets, wet season and cool season.

The investigator found that wage and education, school-age children, land and farm assets owned are the variables that significantly and positively affected the father's labor supply. On the other hand, wage and education were factors that raised the mother's supply of labor in the market. The presence of infants was found to reduce the mother's market labor supply but not to a significant degree. The presence of infants and pre-schoolers increased her work time at home, perhaps as the result of the reduction of time she spends for consumption or leisure.

King-Quizon further reports that mother's care time for children is increased by over 3 hours a day by having an infant. The father's home time is likewise increased by the presence of infants while school children have the opposite effect. Seasonal factors seemed to have no effect on either father or mother's market production time. As to leisure time, the number of children aged one to six was positively related to father's leisure time, implying that the brunt of child care indeed falls on the mother. With older children, mother's leisure time increased. With an increase in wage rate, however, mothers tended to substitute market work for leisure.

In conclusion, it can be said that the literature reviewed points to the need for more studies on the time allocation of household members

especially of the mother whose functions in the home affect the welfare of every member of the family. In terms of methodology, a number of problems were presented which are constraints in obtaining accurate actual time-use behavior of the individuals. This calls for developing and testing new procedures which should be able to elicit the actual time use of the person, less hampered by the many factors which influence the budgeting of one's time. Review of available literature on time use did not yield any study on how time is budgeted by people in fishing villages. This study is, therefore, a contribution not only to the very limited amounts of time-use literature, but also to learning more about the poor struggling segment of the rural populace - the fishing villagers.

The next section, Section 3, discusses the methodology employed in the present investigation.

Section 3

METHODOLOGY

The choice of a technique to be employed in research is determined largely by the problem or purpose of the study (Simon, 1966). The two other important factors to consider in the choice of an appropriate technique are the investigator's resources which include funds and manpower and the nature of the respondent population which refers to its attribute complexity and geographical dispersion (Lynch and others, 1974). Since the present investigation is exploratory in nature and considering the constraints in funds and the wide dispersion, geographically, of the respondents, the researcher decided to employ the sample survey technique.

Sampling Procedure and the Respondents

The province of Iloilo is made up of 46 municipalities, 23 of which are located along the coastline. Since the target areas are the fishing communities, a list of fishing towns of the province was secured and the three sample municipalities were selected at random. For each sample municipality a list was compiled of barangays or barrios along the seashore. This was used as the sampling frame in the random selection of three barangays for each municipality under study. Thus, a total number of nine communities were covered in this study.

A total of 317 respondents cooperated in this investigation. This sample size is eleven more than the computed sample size (306) using the following sampling formula (Lynch and others, 1974) which utilized a 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. This is shown by Table 3.I.

Table 3.I: Distribution of Sample Households (HH) by Municipality and by Barangay.

Municipality/ Barangay	1979 HH Count	Total HH Studied	Percent of Sample
Buenavista:	(526)	(112)	-
Montpiller	103	22	6.9
Sto. Rosario	247	53	16.7
Zaldivar	176	37	11.7
Leganes:	(446)	(94)	-
Gua-an	76	16	5.0
Nabitanan	202	43	13.6
Napnud	168	35	11.0
Tigbauan:	(525)	(111)	-
Baguingin	229	49	15.5
Namocon	143	30	9.5
Parara Sur	152	32	10.1
Total	1496	317	100.0

The respondents for this study were the married women whose ages range from 15 years to 45 years.

Data Collection Procedure

The Interview Schedule. The personal interview technique was employed in garnering the information needed. It involves the use of the interview schedule which is a structured research tool and made up of close-ended as well as open-ended questions.

This instrument is divided into five parts. Part One elicits information about the respondent, Part Two is a set of questions which ask data about the respondent's household, Part Three contains questions which inquire about the activities and time allocation of the respondent, Part Four deals with the woman's fertility, contraception and related information, and the last part inquires about the socioeconomic profile of the respondent's household.

The interview schedule was originally prepared by the investigator in English and was later translated into Ilongo, the dialect of the target population. This was pretested in villages whose characteristics approximate those of the sample communities. As a result of the pretest, the interview schedule was revised. Questions which caused difficulties in the interviewing process or which elicited many "don't know" responses were modified.

The Data-gatherers and the Interview

Data-gatherers for this study were composed of four students in their senior year in college and two who earned their bachelor degrees two years ago. All these had interviewing experience having been involved in other studies in which the investigator had also participated or conducted. The interviewers were given an orientation regarding this particular project. They also reviewed the basics of interviewing techniques and were asked to administer the pretest of the schedule.

Since most of the interviewers were attending classes during the day, it was decided to stagger the interviewing activity into four weekends. This gave them and the supervisors enough time to carefully edit their work before they set out for the next round of interviews.

Data Processing and Analytical Procedure

To facilitate analyses, raw data in the interview schedules were coded based on the coding frame which the investigator had constructed. . No difficulty was met with items having readily categorized answers; coding difficulty was encountered in open-ended questions in which answers were categorized before they were assigned with codes.

Tabulation of the data was done manually since the sample was small and manageable. This involved the transfer of coded data into 5 x 8 inches index cards, making for an easy system of classification, cross-classification, and counting of data into categories. Tabulation results were then entered into dummy tables prepared earlier.

Analyses of the data were guided primarily by the objectives set for this study. Aside from the descriptive analyses of the social, economic and demographic profile of the respondents and their households as well as their time use, analysis was also made to find out whether the number and age of children present in the household, the presence of household help and some socioeconomic variables have some association with the way the women budget their time.

Statistical Treatment

The nature of the research itself was the determining factor in deciding what statistical tools should be used. Since the present investigation was of an exploratory type, no sophisticated statistical treatment was used. Primarily, use was made of raw scores, percentage, the averages, standard deviation, standard error and in few cases the difference and the significance of the difference between means, between medians and between proportions.

The following section, Section 4, presents the social, economic and demographic profile of the respondents and their households.

Section 4

PROFILE OF THE RESPONDENTS AND THEIR HOUSEHOLDS

The social, economic and demographic characteristics of the respondents and their households inevitably affect the time allocation of the woman. How she and the other members of her household use their time, to a large extent, also determines the kind of socioeconomic condition of her household.

This section presents the obtained data on the respondents and their households.

Respondents' Profile

Age and Marital Status. Data on the age of respondents reveal that their ages range from 15 years to 45 years. A large proportion or 58 per cent of these women were in their late twenties and early thirties. The average age for all respondents at the time of study was 32 years with a standard error of .40. Table 4.1 substantiates these.

In terms of marital status, 98 per cent of the 317 respondents were living with their husbands. Two women reported to have been deserted or separated from their husbands, while three were widowed. Only one of the respondents reported to have been married twice.

Age When First Married. Queried about their age and their husbands' when they were first married, response disclosed that the age range of the total respondents when they first married was from 15 years to 38 years with the majority (72 per cent) having married in their late teens and early twenties. In the case of their husbands, their age range when they first married was from 17 years to 46 years with the majority or 73 per cent being married also in their late teens and early twenties. The average age when the women were first married was 21 years while that of their husbands was 24 years. These are shown in Table 4.2.

Table 4.1: Age Distribution of Respondents

<u>Age Range</u>	<u>Number</u>	<u>Percent</u>
15 - 17	1	.3
18 - 20	12	3.8
21 - 23	22	6.9
24 - 26	54	17.0
27 - 29	45	14.3
30 - 32	42	13.2
33 - 35	42	13.2
36 - 38	37	11.7
39 - 41	27	8.5
42 - 45	35	11.1
Total	317	100.0
Mean Age	31.73	
Std Dev.	7.80	
Std Error	.40	

Table 4.2: Percentage Distribution of Respondents and their Husbands by Age when First Married

<u>Age Range</u>	<u>Respondents</u>	<u>Husbands</u>
15 - 17	16.1	2.5
18 - 20	31.9	13.6
21 - 23	25.9	32.5
24 - 26	13.9	26.8
27 - 29	8.8	12.9
30 - 32	2.2	6.0
33 - 46	1.2	5.7
Total Percent	100.0	100.0
Total Respondents/Cases	317	317
Median Age	21.0	24.2

Educational Attainment. Education is a very important factor which partly determines the time usage of the women. Thus, the number of years of completed schooling was among the information elicited from the respondents. On the average, it was found that the number of years of completed schooling of the respondents was seven, which in the Philippine educational system is equivalent to first year of high school. By level of educational attainment, Table 4.3 shows that half of the total respondents have some education or have finished intermediate grades; one per cent did not have any formal schooling while 17 per cent had some or finished college education or had some postgraduate work.

Table 4.3: Distribution of Respondents by Educational Attainment

<u>Education</u>	<u>Number</u>	<u>Percent</u>
No formal schooling	3	1.0
Primary	26	8.2
Intermediate	158	50.0
High school	76	24.0
College and beyond	54	17.0
Total	317	100.0
Mean number of school years completed	7.44	-
Std Dev.	2.99	-
Std Error	1.66	-

Employment. Employment data of the respondents reveal that out of 317 women only 37 per cent were engaged in income-generating activities. Sixty-six per cent of the 117 employed women were self-employed while the rest, 34 per cent, were working in private and public enterprises or institutions. Of the 40 women employed in private or public enterprises, 75 per cent were working full time with 25 per cent employed part time, that is, they were working less than eight hours a day.

Examination of the nature of the major occupation of the respondents disclosed that self-employed women are engaged in buy and sell activity (tending sari-sari stores, buying and selling farm products, fish and home-made delicacies), work in family-owned farms, and help in fishing, processing and selling of farm and marine products. On the other hand, the majority of the 40 women who were not self-employed were teachers, while the rest were office clerks, farm technicians, dressmaker/tailors or were rendering personal services (laundry, cook, etc.) to other people.

Queried about the place of their work, a little over half (51 per cent) reported that their work was in their barrio or neighbourhood. Thirty-five per cent and nine per cent said they worked at home and outside their village, respectively, while five per cent were employed outside their municipality. The average distance from home of their workplace is 1.7 kilometers with a standard error of .24.

Income. The income of the respondents were estimated in terms of cash. Non-cash incomes were given cash value based on the price of the items or goods at interview time. The table below presents the distribution of the women according to their annual incomes.

Table 4.4: Distribution of Respondents by Annual Income

<u>Income (P)</u>	<u>Number</u>	<u>Per cent</u>
Below 1000	31	26.5
1000 - 1999	42	35.9
2000 - 2999	10	8.5
3000 - 3999	13	11.1
4000 - 4999	6	5.1
5000 - 5999	2	1.7
6000 - 6999	1	.9
7000 - 7999	7	6.0
8000 - 8999	2	1.7
9000 - 12500	3	2.6
Total	117	100.0
Median Income	P2341	

As noted, the incomes of the total employed women range from less than ₦1000 (₦675) to ₦12500 in 1979 with the majority (61.8 per cent) having generated incomes of less than ₦2000. Computation reveals an average of ₦2341 for all working women in 1979 or an average of ₦195 per month. This is low by any standard but to the women this is significant for this can help in meeting the daily basic needs of their households, which their husbands' income cannot adequately meet.

Fertility and Other Related Information. Seventeen of the 317 respondents reported they were childless or without children under their care anymore. Asked about the number of their live children, 52 per cent said they have from one to three children, 33 per cent have four to six children and the remaining six per cent have more than six children. The highest number of children reported was 13. The mean number of children for 310 women was 3.72 with a standard error of .14.

When questioned whether they have had still births or miscarriages, 20 per cent of all respondents reported they have had still births while 19 per cent said they had experienced miscarriage.

The respondents were also asked whether or not they are using any family planning technique. Out of 317 women, 33 per cent said they are currently using a family planning technique, 19 per cent claimed to have used a contraceptive before, while 48 per cent reported they have never used any.

Data on family planning techniques used by the 106 respondents revealed that the first five techniques commonly used are depo-provera, rhythm, condom, pills and IUD. Other techniques used include tubal ligation, vasectomy (for men), withdrawal and abstinence.

Membership in Organization. Organizational participation is one activity in which a woman may allocate some of her time. Information gathered revealed that of the 317 women who were studied, less than half or 42 per cent were affiliated with community organizations.

Of these 42 per cent, 70 per cent were members of one organization, 27 per cent of two to three organizations and only three per cent had membership in four to five organizations. Additional information disclosed that 90 per cent of the total women were not active in terms of involvement in the activities of the organizations they were affiliated with. This is so because, according to most respondents, they were busy making a living or "make both ends meet" to spend much of their time on activities which do not generate any income for them.

Household Profile

Age, Sex, Fertility and Dependency Burden. There were 2036 persons in the 317 households which were considered in this study. The distribution of this sample population as to age and sex is shown in Table 4.5.

It can be noted from Table 4.5 that the median age of the total sample population was 14 years. This was three years younger than the Iloilo population census in 1975. Categorized by sex, the data show that the females were one year older than the males. Their sex ratio was found to be low which means that there were more females than males. Fertility tends to be high for this sample population with the ratio of children ages 0 to 9 years to the total women of childbearing ages (15 to 49 years) being 1.69. This means that there were two children for every childbearing woman.

In terms of dependency burden, the data tell that for every person of working age, he will support another person not of working age. This is so because the ratio of population ages 0 to 14 years plus those of ages 65 years and over to the population of working ages 15 to 64 years reveals a dependency burden measure of 1.18. This is a little higher than the dependency burden measure for the province of Iloilo which is .86 and for all rural areas of the province which is .91 (Population Census, 1975).

Table 4.5: Age and Sex Distribution of Sample Population

<u>Age</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>
0 - 4	404	206	198
5 - 9	359	186	173
10 - 14	287	134	153
15 - 19	157	76	81
20 - 24	123	46	77
25 - 29	156	69	87
30 - 34	159	82	77
35 - 39	130	69	61
40 - 44	79	33	46
45 - 49	62	39	23
50 - 54	36	15	21
55 - 59	13	6	7
60 - 64	27	12	15
65 - 69	18	8	10
70 - 74	17	6	11
75 & above	19	7	12
Total	2036	994	1042
Median Age	13.95	13.40	14.40
Child-Woman Ratio	1.69	-	-
Dependency Burden	1.18	-	-
Sex Ratio	.95	-	-

Size and Structure. Data on household size disclosed that the biggest reported household was composed of 16 persons while the smallest was that of childless couples. As shown in Table 4.6 the average (median) number of persons per household was six. This finding agrees with the result of the 1975 population census of the province and with the finding of the Panay Island

Consortium for Rural and Agricultural Development (PICRAD)* which studied the socioeconomic conditions of households in fishing communities of Panay (1981).

Table 4.6: Distribution of Sample Households by Size

<u>Number of persons</u>	<u>Number</u>	<u>Percent</u>
2	7	2.2
3 - 4	61	19.2
5 - 6	124	39.1
7 - 8	65	20.5
9 - 10	37	11.7
11 - 12	16	5.1
13 - 16	7	2.2
Total	317	100.0
Median Household Size	6.46	
Mean Household Size	8.61	
Std Dev.	14.50	
Std. Error	.82	

As to structure or organization of the family, results revealed that the majority or 66 per cent of the households under study were of the nuclear type, meaning they were composed of parents and unmarried children. This agrees with the findings of Lim (1972) who did a comparative study of nuclear and extended households in the country.

Income. In order to obtain the total income of the sample households, the respondents were asked about their household

* A Ford Foundation-funded research consortium of six academic institutions distributed in the four provinces of Panay Island. Central Philippine University, the home institution of the investigator, is a member of this consortium.

incomes from all possible sources. This included (a) the income of the household head from his major occupation, (b) the income of respondent from any income-generating activity, (c) income from contributions of other members of the household, and (d) income from all other sources like house rent, payment for farm lease, financial aid from relatives, etc. All income estimates were reckoned by the respondent net of expenses incurred in earning such income. To arrive at the total annual income of the household, income from all sources were summed up and were taken to represent, at best, only the total annual cash income of the household. No attempt was made to compute non-cash incomes consumed by the household since this would required longer interview time, which would have added greatly to the overall cost of the study. However, the data obtained from the method used provided a useful indicator of the economic condition of the households under study.

The summary of data on households total income for 1979 is given in Table 4.7.

Examination of household income data disclosed that four per cent of the samples had annual incomes of below ₦1000 while three per cent claimed to have earned in 1979 cash incomes which totalled over ₦25000. The majority or sixty six per cent of the total households under study had incomes below ₦7000. On the average (median), however, the samples earned ₦5288 for the year 1979.

Per Capita Income. Relating the total annual cash incomes of the sample households with the number of persons per household, Table 4.8 shows that the per capita income of the sample was quite small. The computed average (median) per capita was only ₦842.73 which is just ₦70 monthly per person.

Standard of Living. There are many indicators that can be used in determining the standard of living of a household. This study was limited to the use of six indicators which were deemed appropriate in measuring the quality of life of the households considered in this investigation. These are: (a) homelot ownership, (b) house ownership,

Table 4.7: Distribution of Sample Households by Annual Total Income, 1979

<u>Income (P)</u>	<u>Number</u>	<u>Percent</u>
Below 1000	11	3.5
1000 - 2999	65	20.5
3000 - 4999	74	23.3
5000 - 6999	59	18.6
7000 - 8999	29	9.1
9000 - 10999	28	8.8
11000 - 12999	19	6.1
13000 - 14999	8	2.5
15999 - 16999	5	1.6
17000 - 24999	9	2.8
25000 & Above	10	3.2
Total	317	100.0
Median Income	P5288.14	
Mean Income	P17 324.42	
Std Dev	P5396.30	
Std Error	P 42.66	

Table 4.8: Distribution of Respondents by Per Capita Income

<u>Income (P)</u>	<u>Number</u>	<u>Percent</u>
Below 300	35	11.0
300 - 599	79	24.9
600 - 899	55	17.4
900 - 1199	43	13.6
1200 - 1499	29	9.2
1500 - 1799	22	6.9
1800 - 2099	14	4.4
2100 - 2399	9	2.8
2400 - 2699	7	2.2

Table 4.8: Cont'd

Income (P)

2700 - 2999	5	1.9
3000 - 4199	7	2.2
4200 & Above	11	3.5
Total	317	100.0
Median	₱ 842.73	
Mean	₱ 3353.92	
Std Dev	₱ 999.50	
Std Error	₱ 70.36	

(c) source of water for cooking and drinking, (d) type of house, (e) type of toilet used, and (f) fuel or power used for lighting and cooking. Each of these six indicators has categories with corresponding weighted points. (Refer to Table 4.9 for rating scheme used.)

To determine the living standard of a household, all its points in all six indicators were summed up. The higher the points of a household the higher its standard of living. Thus, a household whose total score was below 14 points has a low standard of living, middle when its total score is from 14 to 20 points, and high when its total score is 21 points and above.

Data on standard of living as determined by the measures discussed above revealed that 19 per cent of the 317 households under study have a low living standard. The majority or 77 per cent have a medium standard of living. Only 4 per cent of the total sample have a high living standard or quality of life.

In order to have additional insights on the quality of life of the samples their distribution by different indicators utilized is given in Table 4.10.

The succeeding section, Section 5, presents the obtained data on the time allocation behavior of women considered in this study.

Table 4.9: Individual Indicators and their Categories Used in
Determining the Standard of Living of the Households

<u>Indicators/Categories</u>	<u>Weighted Points</u>
Homelot Ownership:	
Squatter	1
Rented	2
Inherited/Shared	3
Owned	4
House Ownership:	
Occupying but not paying	1
Shared but paying minimal rent	2
Rented	3
Owned	4
Type of House:	
Make-shift	1
Temporary	2
Semi-permanent	3
Permanent	4
Source of Water for Drinking and Cooking:	
River/stream/spring	1
Dug well/rain	2
Communal water system/Manual water pump	3
Private electric water pump	4
Type of Toilet Used:	
None	0
Open pit	1
Antipolo	2
Water-sealed	3
Flush type	4
Fuel/power Used:	
Lighting-	
Coconut oil	1
Kerosene	2
LPG (Gas)	3
Electricity	4
Cooking-	
Wood/charcoal	1
Kerosene	2
LPG (Gas)	3
Electricity	4

Table 4.10: Distribution of Sample Households by Individual Indicators
Used in Determining their Standard of Living

<u>Indicators/Categories</u>	<u>Number</u>	<u>Percent</u>
Homelot Ownership:	(317)	(100.0)
Squatter	141	44.5
Rented	92	29.0
Inherited/Shared	46	14.5
Owned	38	12.0
House Ownership:	(317)	(100.0)
Occupying but not paying	27	8.5
Shared but paying minimal rent	14	4.4
Rented	3	1.0
Owned	273	86.1
Type of House:	(317)	(100.0)
Make-shift	26	8.2
Temporary	201	63.4
Semi-permanent	61	19.2
Permanent	29	9.2
Source of Water for Drinking and Cooking:	(317)	(100.0)
River/stream/spring	14	4.4
Dug well/rain	100	31.6
Communal water stream/Manual water pump	197	62.1
Private electric water pump	6	1.9
Type of Toilet Used:	(317)	(100.0)
None	37	11.7
Open pit	143	45.1
Antipolo	55	17.3
Water-sealed	63	19.9
Flush type	19	6.0
Fuel/power Used:		
Lighting-	(317)	(100.0)
Coconut oil	7	2.1
Kerosene	199	62.8
LPG (Gas)	1	.4
Electricity	110	34.7
Cooking-	(317)	(100.0)
Wood/charcoal	306	96.5
Kerosene	2	.6
LPG (Gas)	6	1.9
Electricity	3	1.0

Section 5

TIME ALLOCATION

This section presents the data on the time allocation of women as well as information on how their time use behavior was influenced by social and economic factors. The socioeconomic variables considered in this study are: the women's standard of living, educational attainment, employment status, the distance of their workplace from home, their husbands' income, the number and age of their children present in the household, and the presence of household help and/or relatives.

The Method and Data Used

Before presenting the data on time use, it would be best to discuss first the procedure used in obtaining information on time use as well as the type of time data utilized in the analyses.

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 such as a change in the farming season. Thus, the following questions on how they usually allocate their time 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 days in a week or in a month and 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 considered to be leisure, not child care). For the second problem, there is no other way (except by constant observation which is very expensive and restricts the sample size) to 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 results would exceed her total waking hours.

This implies 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.

Time Allocation Data

There are four major activities of women on which this study focused. These are: (a) household chores which include food preparation, house cleaning, washing, ironing and sewing of clothes, (b) child care, which though a household work is treated separately so as to determine its individual effect on women's time use, (c) wage work, which includes activities in and outside the house and which are income generating, and (d) leisure or personal activities of the women. Table 5.I presents the average time allocation of the women in these activities.

Table 5.I: Average Time Allocation for All Women

<u>Activity</u>	<u>Hours</u>	<u>Std Dev</u>	<u>Std Error</u>
Household Chores:	6.31	2.61	.15
Food Preparation	5.51	2.52	.14
Others ¹	3.76	1.70	.10
Child Care ²	5.85	4.10	.24
Wage Work ³	5.01	2.49	.23
Leisure/Personal Activity	3.39	2.26	.13
Number of Cases	317		

¹Includes house cleaning, washing, ironing and sewing of clothes.

²Excludes 17 women who do not have children or who no longer have children under their care.

³Excludes 200 women who are not engaged in wage work.

Examination of data in Table 5.I revealed that more of women's time were allocated in doing household chores, particularly in the preparation of food for the members of the family. Compared with the average time used in child care, the difference of .46 is not significant; the obtained z-value in a z-test being 1.63 is less than the tabular z-value of 1.96 for the 95 per cent level of confidence. However, compared with the average time spent for wage work the time spent in doing household chores is significantly greater since the 1.3 difference yielded a z-value of 4.73 $\angle ((z=1.96)=5\%)$.

The above result can be explained largely by the employment data discussed in Section Four. Employment data disclosed that of the 317 respondents only 117 or 37 per cent were engaged in income-generating activities of which 66 per cent were self-employed. The nature of their work allowed them to have more time in their homes, enabling them to do household chores. Moreover, of the 40 women

who were employed in public or private institutions or enterprises only 30 women or 75 per cent work full time, which means putting in eight working hours for five to six days.

Statistical computations revealed that there was no significant difference between the average times allocated by the women to food preparation and child care since the obtained z-value is 1.21 only $\angle (Z = 1.96) = 5\%$. This may be so because as was already mentioned these two activities are, in most cases, being done by the women simultaneously. Household chores classified as "others" which include house cleaning, washing, ironing and sewing of clothes got an average time allocation of 3.76 hours which is lower than the time used in other work activities. This may be so because "other" household chores are not done daily and regularly and since these can be done at the same time with food preparation or with the care of the children.

Leisure or doing personal activities receive the lowest time budget from the women under study. This was explained by the majority of the women who said that they did not have nor intended to use much of their time in leisure or in personal activity because of their heavy work in the house, particularly in the care of their young children. If they have free or extra time they prefer to use it in income-generating activities so as to augment the ever-inadequate incomes of their husbands which they reported can hardly meet their daily basic needs.

The subsequent discussions deal with the relationship between the women's time use pattern and their selected demographic and socioeconomic characteristics.

Time Use and Educational Attainment

Generally, women who acquired higher education spend much of their time working outside their homes, thus, they have less time for household chores and/or in the care of their young children. Is this true of the women considered in this study. The data

summarized below provides answers to this query.

Table 5.2: Average Time (Hour) Spent in Each Activity, by Women's Educational Attainment

<u>Activity</u>	<u>Level of Educational Attainment</u>			
	<u>None/Prim</u>	<u>Elem</u>	<u>High Sch</u>	<u>College</u>
Household chores	6.64	6.46	6.69	5.89
Child care ^I	6.33	6.42 (n=149)	7.23 (n=72)	5.69 (n=49)
Wage work ²	5.30 (n=8)	4.24 (n=60)	5.12 (n=28)	6.76 (n=21)
Leisure/personal activity	4.00	3.41	3.52	2.43
Number of cases	30	157	76	54

^IExcludes 17 women without children or who do not have children under their care anymore

²Excludes 200 women who are not engaged in wage work.

Examination of data reveals that in terms of time allocated to wage work it is the women who have college education or more who spend more of their time in this activity than those in lower levels of education. This was borne out by occupational data which disclosed that the majority of women who have some college education or who have earned college degrees were working full time outside their homes.

Time use data on household chores and child care support the finding on time allocated to wage work. It can be noted that the average time spent by college-educated women on these activities are less compared to that of women whose educational attainment is high school and below. Definitely, there is a negative association between women's education and time allocated to household chores. However, no clear association exists between time use in child care and the women's educational attainment.

Data on time used in leisure and personal activity tell that it is the women who have college education or more who spend less time in these activities while those without formal education or who finished primary grades spend more time in the same activities than any other group of women.

Time Use, Employment Status and Distance of Workplace from Home

Two other factors suspected to influence the time allocation of women were their employment status and the distance of their workplace from their homes. Data on time use by employment status are presented in Table 5.3 while time use data by distance of women's workplace from home are given in Table 5.4, in the next page.

Analysis of data in Table 5.3 reveals that compared with unemployed women, those who are employed spend less time in doing household chores, in the care of the children and in leisure or personal activity. It can be noted, however, that employed women have higher average time in doing household tasks than in wage work. This is so because most of the women engaged in income-generating activity work in or near their homes, thus, they still have the opportunity to do household work and even to take care of their children.

Relating the distance of the women's workplace from their homes and their time use behavior, the data summarized in Table 5.4 reveal that the farther their workplace from home the less number of hours are spent in household chores, which is also true in the case of time allocated to the care of their children. On the other hand, the reverse is true of time allocated to wage work: the farther the distance of the workplace the more hours spent in wage work. Time use data on leisure or personal activity indicated that women whose work is in the house have more time for leisure or personal activity than those whose work brings them to places outside their homes.

Table 5.3: Average Time (Hour) Spent in Each Activity, by
Employment Status of Women

<u>Activity</u>	<u>Employment Status</u>	
	<u>Employed</u>	<u>Unemployed</u>
Household chores	6.34	6.47
Child care ^I	5.02 (n=110)	6.88 (n=190)
Wage work	5.06	0.00
Leisure/personal activity	3.31	3.67
Number of cases	117	200

^IExcludes 17 women who do not have children or without children
under their care anymore

Table 5.4: Average Time (Hour) Spent in Each Activity, by
Distance of Workplace from Home

<u>Activity</u>	<u>Distance (km)</u>			
	<u>0</u>	<u><1-2</u>	<u>3-4</u>	<u>5 +</u>
Household chores	7.12	6.44	5.34	6.01
Child care ^I	6.28 (n=48)	6.23 (n=33)	3.93 (n=16)	4.02
Wage work	4.95	5.02	5.93	5.71
Leisure/personal activity	4.57	3.34	3.38	3.32
Number of cases	51	36	17	13

^IExcludes 7 women without children or who do not have children
under their care anymore

Time Use and Type of Employment

It is suspected that the type or nature of work engaged in by the respondent has some bearings on how she allocates her time. To find out whether there was any truth in this suspicion, an analysis of the relationship of these variables was made.

Analysis result revealed that women who were engaged in manual labor, handicrafts, processing of farm and marine products as well as in rendering personal services have higher average hours spent in household tasks and in child care than women engaged in other types of work. Farm workers and those engaged in fishing constitute the second group who allocates more time to household tasks and child care. Definitely, it is the professionals, managers and office clerks/secretaries who spend the highest average hour in wage work while those engaged in farm work and fishing spend less time in their work than the women in other work categories. In terms of time spent in leisure and personal activity, time averages disclosed that women in sales (tending sari-sari store or selling home-made delicacies or fish in the community) have more time for these activities than those in any work category, while those in the professional, managerial or clerical field have less time for leisure and personal activities than any other group. Table 5.5 substantiates all this.

Table 5.5: Average Time (Hour) Spent in Each Activity, by Type of Work

<u>Activity</u>	<u>Type of Work^I</u>			
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Household chores	4.75	6.36	6.55	7.67
Child care ²	3.06 (n=14)	4.23 (n=44)	6.33 (n=32)	5.94 (n=20)
Wage work	7.42	5.09	4.20	4.24
Leisure/personal activity	3.19	3.50	3.45	3.38
Number of cases	15	43	33	19

^I A = professional, managerial, clerical; B=sales; C=farming, fishing; D=manual labor, personal services, handicrafts and processing of farm and marine products.

² Excludes working women without children or without children under their care anymore.

Time Use and Income

Several studies have confirmed that the income of the individual or his family's plays a major role in his decision making. Is this true of women under study, particularly in deciding how to allocate their time to various activities?

To facilitate the analysis of the relationship between women's income and their time use pattern it was decided to reduce the income categories into three. These are "low" for incomes below ₦3000 per year; "middle" for incomes which range from ₦3000 to ₦5999; and "high" for incomes ₦6000 and above. Table 5.6 below, shows the distribution of the women by their annual incomes and by time allocation.

Table 5.6: Average Time (Hour) Spent in Each Activity, by Women's Annual Incomes

<u>Activity</u>	<u>Income Categories</u>		
	<u>Low</u>	<u>Middle</u>	<u>High</u>
Household chores	5.73	5.14	4.74
Child care ¹	5.35 (n=12)	5.23 (n=22)	3.88 (n=76)
Wage work ²	6.60 (n=12)	6.00 (n=22)	7.13 (n=85)
Leisure/personal activity	3.34	3.05	3.58
Number of cases: 125	13	24	88

¹ Excludes women without children or without children under their care anymore.

² Excludes women who are not engaged in wage work.

³ Includes 117 women who have incomes from wage work plus eight women who, though not working, received incomes from fixed sources.

As noted in Table 5.6, women whose annual incomes are high, allocated less number of hours in household chores and in child care than those in other income categories. For wage work, the trend is the higher the income the more hours devoted to

income-generating activities. This is logical, for the women whose time-use in wage work is greater, earn more than those who spend less time in the same activity. In terms of time spent in leisure or personal activity, those who belong to the high income category have slightly more time for these activities than those whose incomes fall under the low or middle categories.

Further analysis reveals that women of high incomes have greater average time for wage work than for household tasks and child care, with leisure and personal activity given least of their time. But in the case of women of low and middle incomes, it is the household chores which take much of their time, while leisure and personal activity receive the least time allocation.

How about the incomes of their husbands? Do they affect the women's time allocation? The data presented in Table 5.7 provide the answer to this question.

An examination of data in Table 5.7 reveals that women whose husbands' income belong to the high category have lower time averages spent in doing household chores and in the care of the children than those with husbands of low or medium incomes. Time data on wage work discloses that the association between the time used in this activity and the income of the women's husbands is positive: the higher their husbands' incomes the more hours the women spend in wage work. This is contradictory to the expectations that women would spend less time in wage work when their husbands' incomes are high. One possible explanation is that women who are married to men of high incomes are better educated ones who are themselves engaged in income-generating activities. In spite of the fact that their husbands earn relatively high incomes these women continue to work in order to meet the increasing needs of their family, which yearly inflation makes more difficult.

Table 5.7: Average Time (Hour) Spent in Each Activity, by Annual Incomes of Women's Husbands

<u>Activity</u>	<u>In one Categories¹</u>		
	<u>Low</u>	<u>Middle</u>	<u>High</u>
Household chores	6.99	6.60	6.15
Child care ²	6.37 (n=125)	5.88 (n=96)	5.78 (n=79)
Wage work ³	4.49 (n=60)	5.17 (n=30)	7.15 (n=27)
Leisure/personal activity	3.51	3.49	3.62
Number of cases	135	99	83

¹ Categorization is the same with that of the women's income.

² Excludes women without children or without children under their care anymore.

³ Excludes women who are not engaged in wage work.

Table 5.7 further shows that women with husbands of high incomes have more time for leisure and personal activity than those whose husbands earn less.

The data further disclose that women with husbands of high incomes put more hours in wage work than in household tasks and child care, with leisure and personal activity getting least of their time. On the other hand, women in other income (husbands') categories allocate more time to household tasks and child care than to wage work, with leisure and personal activity also receiving less time allocation.

Time Use and Living Standard

The living standard of the woman's household is believed to be a strong determinant in her actual time-use behavior. To find out whether this is true in the case of the women under study, this variable was analyzed with the women's time use.

Using six indicators (refer to Section 4 for the indicators used), the living standard of women's households were categorized into "low", "medium" and "high". (Refer also to Section 4 for the basis of this categorization). Table 5.8 presents the women's average time-use by their households' standard of living.

Table 5.8: Average Time (Hour) Spent in Each Activity, by Standard of Living

<u>Activity</u>	<u>Low</u>	<u>Categories</u>	
		<u>Middle</u>	<u>High</u>
Household chores	7.03	6.32	5.22
Child care ¹	6.84 (n=57)	6.08 (n=233)	6.45 (n=10)
Wage work ²	4.35 (n=21)	4.99 (n=88)	7.29 (n=8)
Leisure/personal activity	3.71	3.37	4.58
Number of cases	59	246	12

¹Excludes women without children or without children under their care anymore.

²Excludes women who are not engaged in wage work.

Examination of data in the table above reveals that the higher the living standard of women the less time they spend in household tasks. The same trend is exhibited by time-use data in child care: the higher the standard of living of the women, the less time is spent in child care, although the trend is not smooth. Inversely, the higher the standard of living of women, the more time they spend in wage work as well as in leisure and personal activity. That women whose quality of life is high still allocate much of their time in wage work is understandable. Inflation and the increasing demands of their families motivate them to do so. Their desire to maintain their relatively higher socioeconomic status have the same kind of effect in their decision on how to budget their time.

Further examination disclosed that women whose standard of living is high allocate more time in wage work than in any other activity. In the case of women whose quality of life is either low or medium, time averages show that it is the household tasks and child care which receive most of their time-use.

Time Use and Presence of Children

The presence of children, their number and age composition are expected to have considerable influence on how a mother allocates her time to various activities. Table 5.9 below, presents women's time allocation as influenced by their number of children.

Table 5.9: Average Time (Hours) Spent in Each Activity, by Number of Children Present

<u>Activity</u>	<u>Number of Children</u>		
	<u>0-2</u>	<u>3-5</u>	<u>6+</u>
Household chores	6.00	6.44	6.92
Child care ¹	5.57 (n=94)	6.01	6.14
Wage work ²	4.94 (n=32)	5.02 (n=62)	4.77 (n=23)
Leisure/personal activity	3.66	3.52	3.02
Number of cases	111	154	52

¹Excludes women without children or without children under their care anymore.

²Excludes women not engaged in wage work.

It will be noted from the above table that there is a positive association between number of children and women's time-use in household chores and in child care. As the number of children increases the average number of hours spent in household tasks and in the care of the children also increases. The inverse

is true between time-use in leisure and personal activity and the number of children: as the number of children increases the average number of hours spent in leisure/personal activity decreases.

Relating time-use to wage work and number of children, the data reveal that no significant variation exists in the time allocation of women grouped according to their number of children. This means that for the women covered in this study, the number of their children does not affect the amount of time they allocate to their wage work.

It is also expected that the presence of young children will affect considerably the way the women would budget their time.

Table 5.10 lends support to this expectation.

Table 5.10: Average Time (Hours) Spent in Each Activity, by Age of Youngest Child

<u>Activity</u>	<u>Age of Youngest Child (Years)</u>		
	<u>-1</u>	<u>1-6</u>	<u>6+</u>
Household chores	6.28	6.55	5.32
Child care	8.60	6.30	1.56
Wage work ¹	5.05 (n=32)	4.77 (n=47)	5.67 (n=21)
Leisure/personal activity	3.24	3.55	3.65
Number of cases ²	73	195	32

¹Excludes mothers not engaged in wage work.

²Excludes mothers without children or without children under their care anymore.

As can be noted from Table 5.10, mothers with younger children spend more time in household tasks and child care than those with older children six years and above. But mothers with younger children have less time for wage work and even for leisure and personal activity than those with older children.

Moreover, women with a youngest child six years old and above allocate the biggest part of their time in wage work, while child care receives the least of their time. Those who have children aged one to six years spend most of their time in household tasks and child care, with leisure and personal activity allocated the least of their time. In the case of women whose youngest child is less than a year old, the biggest part of their time is devoted to child care, giving leisure and personal activity the least of their time budget.

The data presented in Table 5.9 and 5.10 inform that for the women under study the number as well as age composition of their children affect or influence their time allocation for various activities except wage work. However, a deeper look at these two tables tells more. The difference in the time budget in household chores and child care is not much among women grouped by number of children (Table 5.9). But the difference in the time averages in the same activities, particularly child care, is more pronounced between women grouped according to age of youngest child (Table 5.10). This implies that between the two variables, number of children and age of youngest child, it is the former variable and not the latter which greatly affects the women's time use.

Time Use and Presence of Household Help

The presence of household help who may either be the family's relatives or maids is expected to affect the women's use of their time. Time averages in Table 5.11 reveal that contrary to expectations, women with household help allocate more time in child care than those without help. A probable explanation for this finding is that even with household help women in this study do not entrust fully the care of their children to their relatives or maids. And because their work (for those who were working) does not bring them far from their homes they still have time to take care of their children.

Table 5.11 reveals further that compared with women without household help, those with household help have lower average time for household tasks but have more time for wage work and for leisure/personal activity.

Table 5.11: Average Time (Hours) Spent in Each Activity, by Presence of Household Help

<u>Activity</u>	<u>W/ Hh Help</u>	<u>W/o Hh Help</u>
Household chores	6.15	6.63
Child care ¹	6.87 (n=96)	6.29 (n=204)
Wage work ²	5.88 (n=34)	4.38 (n=66)
Leisure/personal activity	3.83	3.31
Number of cases	108	209

¹Excludes women without children or without children under their care anymore.

²Excludes women who are not engaged in wage work.

Section 6

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

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

The conditions of the women's households were not any better. The dependents and the young outnumbered the working adults, and their fertility tends to be high. With an average of six persons per household, their average per capita income which ₦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 per cent of them were practising family planning techniques.

Since 63 per cent of the 317 women were not engaged in wage work, and considering that those who work do their income-generating activities in or at least not far from their homes, it is not surprising to find out that the biggest proportion of women's time is allocated to household chores and child care. Less time is spent in wage work, while leisure/personal activity is given the least of their time budget.

As was 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 employment 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 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/ 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 of 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 incomes and time use in household chores and child care is negative, while that between income and time use in wage work and leisure/personal activity is positive. The same trend is revealed 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 not 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.

What do these findings on time use tell us? For the women under study 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 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 allocation 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 how the programs 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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