• , • •

# Institute of Economic Development and Research SCHOOL OF ECONOMICS University of the Philippines

Discussion Paper No. 76-26

November, 1976

TIME BUDGETS OF MARRIED WOMEN IN RURAL HOUSEHOLD: LAGUNA

by

Teresa Jayme-Ho

NOTE: IEDR Discussion Papers are preliminary versions circulated privately to elicit critical comments. References in publications to Discussion Papers should be cleared with the author(s).

hillish

#### TIME BUDGETS OF MARRIED WOMEN IN RURAL HOUSEHOLD: LAGUNA\*

by

Teresa Jayme-Ho

. Hadda or or mital Trop of

skusi edi ist supersistentes 👝 🧢 🧸

#### Introduction

1.1 Objectives of the Study and on vacant dimension . Shower that said suches

This paper is a study of the use of time as a second productive economic resource; that is, itseallocation of subject to economics constraints and objectives. The specific purposes of the study care: we consider the study care:

- median. This result is required if a to a present of the confidence which 1. To present a theoretical framework for the eranistry of the latter out of the course and a vertices of a fedge and after the analysis of the allocation of time resources within the this permending been not not described appearance of principles. household in general, and of the married woman's time Abstract to day the education resources in particular. This will involve mainly a restatement of Becker's theory of time allocation.
  - de la cape de l'este réseauxi de l'entre a el estima de la mortani. 2. To study empirically the variations that occur in the time budgets of mothers as a consequence treme development of the telephone in income the contract of

and the This study is part of a larger project funded by  $y^{\mu}$ the Agricultural Development Council, the Population Center Foundation and the Interdisciplinary Communications Program of the Smithsonian Institution. The author is grateful to Bryan Boulier, Robert E. Evenson and Barry M. Popkin for valuable suggestions made during the earlier stages of writing of this paper. Comments presented by Earl MacFarland of Williams College are also appreciated. Thinally research assistance was provided by Tina Liamzon.

Becker (1965). Becker's well-known article on the allocation of time was the first major work in this field

of study.

of differences in (a) family size and composition; and (b) work status of the mothers.

# 1.2 Significance of the Study

Before the last decade, economic theory on the household centered on the concept of the household as the consuming sector in the economy. The economic role as of the household was, simply put, to maximize the utility derived by consuming goods purchased from the market with the household's given income. It followed that the higher was the household's income, the greater too were its option in consuming baskets of market goods and, hence, the higher than a consuming baskets of market goods and, hence, the higher than a consuming baskets of market goods and, hence, the higher than a consuming baskets of market goods and, hence, the higher than a consuming baskets of market goods and, hence, the higher than a consuming baskets of market goods and, hence, the higher than a consuming baskets of market goods and, hence, the higher than a consuming baskets of market goods and the consuming the consuming goods are consuming to the consuming the consuming goods goods

Following this line of reasoning attempts to an ex-

improve the welfare status of households or equalize inside anotherized and influence where on .2 welfare distribution were centered almost exclusively on annuarized as the conform to depled and add no reposition of income. Likewise,

-ni north district of the second content of the second content the Agricultural Sevelopment of the Population Center Foundation cut the Smithsonian Tostitution. The section is graveful to the Smithsonian Tostitution. The section is graveful to the Smithsonian, Robert F. Svenson and Sarry M. Porblodewood valuable suggestions made during the Course the Starl MacKarland of this paper. Comments presented by Earl MacKarland of winistance was provided by Tina Janaton.

welfare theory and in the theory of the household have the control of the control

A 18 6 30

led to attempts to introduce measures of welfare and of economic activity that are broader and more comprehensive than income and labor force participation alone. Note such attempt is the introduction of 'social indicators' to measure the different aspects of household welfare.

New indices of welfare such as measures of health and nutrition or of learning are used to complement the usual income data. In the Philippines this approach is embodied in the recently completed Social Indicators Project of the Development Academy of the Philippines. 2/

In the area of household economics the significant development has been the introduction of the theory of time allogation. In his pioneering article on what has come to be known as the 'new home economics' Becker (1965)) proposes; the concept of the household as a producing unitary the products of the household production process are composite goods which constitute the basic welfare needs of the family e.g., food consumption, care of children, re-si creation, etc.

<sup>2/</sup>See Development Academy of the Philippines, "Measuring the Quality of Life: Philippine Social Indicators,"
1975.

 $<sup>\</sup>frac{3}{\text{The values of these welfare goods are measured by the above-mentioned social indicators.}$ 

classified as 'market-purchasable goods' and 'time.' In producing welfare goods, the household decides to use its time resources in some combination of three possible alternatives: first, time in market production or income earning activities where the income earned is exchanged in turn for market-purchasable goods; second, time in home production where the household produces goods and services instead of purchasing them from the market or, in some cases, subjects goods purchased from the market to further processing (e.g., cooking food); and third, time in consumption where the household takes time to enjoy the welfare produced (e.g., eating).

(or out of the market) may not necessarily be unproductive as far as household welfare is concerned. This point must be appreciated if one is to understand labor force behavior correctly. The decision to participate in market activities is not only a simple choice between work and leisure but, rather, a choice of working in market activities over working at home or not working at all. In other words, labor force participation is really a part of a broader economic decision - the decision of time allocation.

poids b fing . Figure is a constant to a , b , a , b , a , a , a , a , a , a , a , aThis framework of analysis is especially crucial ក្សី ១៨ ១៩៩៩៩ ដែល ១៩៤ ២០៨៦ មានបែក មេនាកែ ខេត្តប្រែក្រុមប្រើប្រាស់ when one is concerned with the economic activities of whaterouse, married women. The woman, who by force of tradition is usually better trained for household activity than the man, is quite naturally the first choice for the role of home-maket's in the family. When young children are present and when no substitute for the mother's time is available then home production by the mother is even more urgent. On the other hand, improved education and better market employment opportunities raise the opportunity cost of non-participation in market production. In addition, the insufficiency of the household sincome from other sources (e.g. the husband's income) may make market participationaby the motheraimperative! We in the district square

edian-boas west of clistandis is but at modern o Thus any attempt to increase the participation of est compagation the compact of marriage end of women in the market must be made with an understanding (1875)] (e mba qofy sando h we mbon of that deals darently of the influence of the above-mentioned factors on the originate acommunate aspects of the allegation esting contripping married woman's time allocation decision. The same date. This study we hashelly commatery in martra and applies if the objective is to improve the quality of presents the riserts of a case study prome households child rearing, nutriture from home prepared food or similar done we tot ladeb di bebiook Jake ekspose weld esple home-produced welfare goods. It goes without saying that fertility analysis would be incomplete without knowledge of the cost of raising children in terms of the mother's

time and, in turn, the contribution to household production introduced with the state of the sta

matriad women. The control we can control and tonde behaven

The present study attempts to present these interes actions between the time allocation of mothers and family size and composition as well as their labor force participation outside of the bigger project of which this study is part, there are fewdexisting studies of this nature surdealing with Philippine material . In Encarnacion (1973) and Mangahas and Ho (1976) data from the 1968 National State Demographic Survey are used to estimate various labores to force participation functions for married women was Both and these papers present Mincer-type equations where laborage force participation is viewed; among other othings goas equoa source of income and an alternative to home production. ito merus ing hose, esih preparat en appetate jus bodi My own paper on the time allocation of married women [Ho orthredelohous is file shak of teum retram odt mi morrow (1976)] is the only study I am aware of that deals directly of the influence of the lavermentioned factors on the with the economic aspects of time allocation using Philippine married wemen's time allocation decision. The same This study is basically explanatory in nature and applies if the objective is to improve the applier of presents the results of a case study of ten households whild rearing, nutriture from howe propertd food on similar whose time budgets were recorded in detail for one week bome-produced selfary goods. It goes weredo want a that each.

factility analysis would be incomised without knowledge of the cost of raising children in harms of the mother's

and a graduation of the first things are find to the first the first that the first the first that the first the fir

The unique contribution of the present study is that it presents a more comprehensive analysis of the problem of time allocation, integrating the problems of labor force participation and home production of welfare goods into one basic framework and using a fairly large and complete source of household and time data.

of the edge of degree of the property of the second of the control we

In the section that follows, we present the problem of time-allocation within the framework of the theory of home production and discuss various factors that may determine the allocation of time resources in the household. Section 3 presents a discussion of the data base used in our analysis and some description of the characteristics of the households and the mothers in the sample. In section 4 we report on the time budgets of the mothers noting how these are affected by their working status and by the age and sex composition of the family.

คละสาก โดย สารสาธารณ ค.ศ.ก. 2011 ก.ม.คละ กรุปเลา การโดย ประวัติ ประชาชายาลายาลายาล

 $<sup>\</sup>frac{2}{2} \exp(-\frac{\pi}{2} + \frac{\pi}{2} + \frac{\pi$ 

# 2. Analytical Framework: Time Allocation as Resource Use in Home Production4/

2.1 The Household Production Model

chat it presents a mone compachensia a crassiass of the

gramatically in Figure land and cambe described briefly in terms of five major elements:

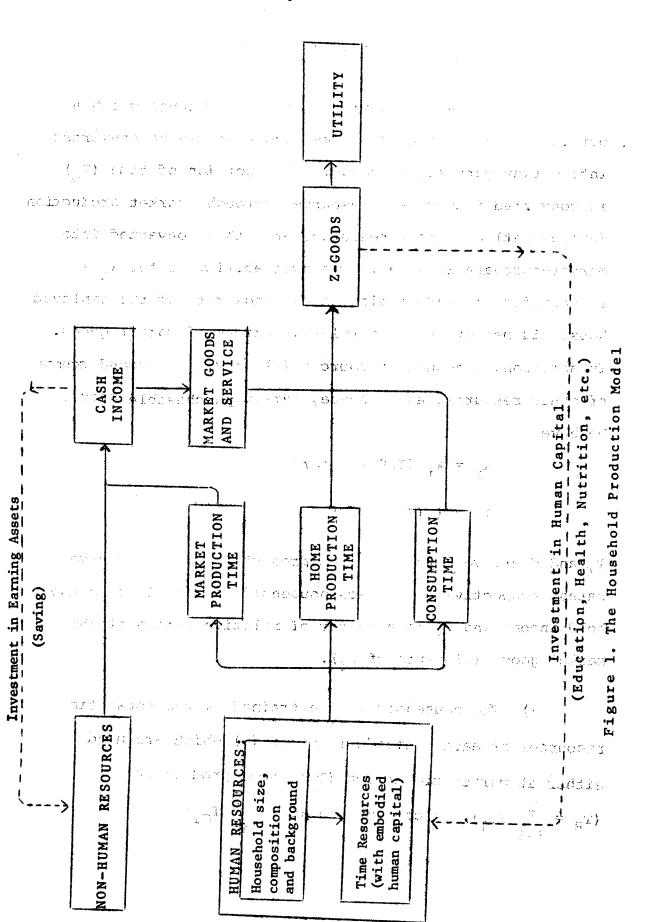
1) The household attempts to maximize utility (U) by consuming some combination of 'welfare goods' (Z<sub>i</sub>) which are the basic determinants of utility. Thus, at

see to decrease that individual seeds of the section  $\mathbf{U} = \mathbf{U} \cdot (\mathbf{Z_1}, \ \mathbf{Z_2}, \dots, \ \mathbf{Z_m})$  which is the section of the section of

The household produces these welfare goods using as inputs market purchasable goods  $(x_i)$  and time. The time inputs are of two types: home production time  $(T_{Hi})$  and consumption time  $(T_{Ci})$ . A Typical household production function would thus be seen as a second of the production of the constant of the cons

where  $x_i$  is a vector of market goods and  $T_{Hi}$  and  $T_{Ci}$  are both vectors whose elements are the time inputs of the different household members.

<sup>4/</sup>Except for some minor alterations, this section appears as Section 2 of my earlier paper on time allocation [Ho (1976)]. The ideas presented here are basically those found in Becker's (1965) article on time allocation.



portion of the household's time resources may be converted into market purchasable goods. This portion of time (T<sub>M</sub>) is converted into money resources through market production (employment) and money resources are then converted into market-purchasable goods. The availability of the x<sub>i</sub>'s is therefore dependent also on the wage rate of the employed household members and the relative prices of market goods. In addition, non-human resources (V) provide a second source of money resources and, hence, market purchasable goods. We have

$$x_i = x_i (I_1P_i)$$
 where  
 $I = I (T_M, W, V)$ 

 $T_M$  and W are vectors of market production time and wage rates, respectively, of each household member, I is household income and  $P_i$  is a vector of relative prices of the market goods (elements of  $x_i$ ).

4) The household is constrained by the total time resources of each individual member (T) which are used either at market production ( $T_H$ ), home production ( $T_H = \sum_{i=1}^{m} T_{Ci}$ ), or consumption ( $T_C = \sum_{i=1}^{m} T_{Ci}$ ).

Strain Control of the Control of the

· マガオニキャンスの

Thus

$$\mathbf{T}_{\mathbf{j}} = \mathbf{T}_{\mathbf{M}\mathbf{j}} + \mathbf{T}_{\mathbf{H}\mathbf{j}} + \mathbf{T}_{\mathbf{C}\mathbf{j}} = \mathbf{T}_{\mathbf{M}} + \mathbf{T}_{\mathbf{H}\mathbf{j}} + \mathbf{T}_{\mathbf{C}\mathbf{j}} = \mathbf{T}_{\mathbf{M}}$$

for every household member j. T<sub>j</sub> is the same for each noise in the household member and its value depends on the time frame of the analysis.

household's level of utility, welfare goods (Z-goods) have feedback effects on the productive resources of the household, contributing to the maintenance and growth of the human capital stock of the household. This investment in human capital, together with the household's investment in earning assets constitute the household's total investment.

The household and not the individual is the unit of discussion in the household production model; individual household members are assumed not to have separate utility functions. Rather, they have one common utility function which they attempt to maximize using their pooled resources of time and market goods.

medicary error terrorancey for earlier the bousehold market thou

This constraint holds true only on the assumption that the individual time components are mutually exclusive, i.e., that no two activities are done simultaneously. The problem of joint activities is discussed more intensively in section 2.3.

The Z goods which constitute the household's utility function represent indicators of the household's welfare such as food consumption, child care, watching TV, or dose the case for radi eold merber i. 🔗 just relaxing, and differ from the X-goods or market goods ometal units ear so live yeb solow eak hat that constitute utility in traditional household theory in that they involve time inputs as well as market goods inputs. Some of these Z-goods are necessities (sleep, rest, basic nutriture, etc.) and some of them are luxuries (recreation, watching TV reading a book, etc.). Furthermore the composition of the household utility function may if change over time as tastes change or as family size and want composition changes. Thus a family without a very young child will not have the 2-good 'child care' in its utility function while one with a young child will have it as a men necessity.

market goods, home production time and consumption time.

Home producttion time is time which is spent in the provision of a service of the processing of a market good the direct utility from which accrues to one or more household members, not necessarily including the household member who provides the time. This corresponds to what is ordinarily called housework (when this is done by a household member)

and odd wir from mitter service Son Birth John

and its major component is usually the mother's time. Consumption time is time spent receiving the direct utility of a Z-good and is closest to the concept of 3-413- 1 leisure. one of the state of water 1868 to the state with the state of

5 7 mm

Later Burgoon , Line

WIND SERVICE OF SERVICE

Market goods and time are clearly substitutable inputs. The Z-good food consumption, for example, may be produced with the market goods uncooked food and with home production time for marketing and cooking, or marketing and cooking time may be replaced instead by the purchased services of hired help, or cooked food may be the cooked food eaten at a restaurant. In the latter, two cases market goods are substituted for home production time. The same state of the same state of

The degree of substitutability of home production the common bearing the first and a commad als mot in Karaja T time and market goods varies Z-goods. Substitution depends 遭别 医多数缺乏 化二烷 集成形式 not only on the nature of the production function but also and of the Mark Carry of the Control of South and the control of t on the relative price and on the availability of the market good inputs. 1**40 kg/**to 1744 St. 1946 - 185. - 185. - 186. - 196. - 196. - 196. - 196. - 196. - 196. - 196. - 196. - 196. - 196.

. .) . . .

The second section of the second of the seco

The state of the state of the state of the state of

#### 2.2 Time Allocation in the Household Production Process CHARLESTAND OTHER SCHOOLS

the program of the second

The household uses its time resources in three ways: consumption, home production or market production. Both market and home production time are productive in the Colt. Chempfor sense that they generate additional utility and hence

contribute to household welfare. In most cases they also Andrew Artistan Amadon and Elegan generate the disutility involved in work effort. They following the control of the second set to a footest ite til edb differ, however, in the manner through which they enter A 1815 - 115 the utility function. While home production time enters the utility function directly, market time enterseit indirectly through the market goods and services that are purchased using cash income earned in market participation. Market time can be converted into any market good including time services (of non-members) that may substitute for home production time Thus, all home production time can be replaced by market goods if these services are available the market and if the household has sufficient cash in income to purchase them.  $\frac{5}{}$  In contrast, it is impossible to tagge of the tenth of home conduction for the household to replace all market good inputs with gues an ignigué, la pa juadonna as de pologías des des embr home production time because of the wide variety of market I columniate molumniamore ent to early sets here. The for goods entering the production functions for Z-goods. Thus, on the rate best pattern of the evaniability while home production time inputs may be zero, market good market door tearen inputs cannot be zero. However, the household's market production time may still be zero if its cash income from Zia repo aji ante de ini Pomedanici voci ilion li non-human resources are sufficient to purchase all its market good inputs. The true and a sublice sound off

descriptions are a second to the companies of the continues of the continu

placed, in some rare cases, by the services of wet nurse.

of the houseold is that each person has only twenty-four hours in a day. Thus one day's total consumption, home must production and market production time for each member must equal twenty-four hours— and total household time resources in a day will equal twenty-four times the number of household members. In addition, there is a lower limit for each individual to the number of consumption hours necessary for producing efficiently.

is the human capital embodied in each individual household member. The productivity of each unit of time used in any activity is directly related to the investment in human capital that each member has accumulated over his lifetime. This means that household time resources are actually heterogeneous and that a unit of time of one household member may be more productive than that of the another member in one activity but less productive in another activity. Thus the household stime allocation of types of time uses but also intra-household allocation of

<sup>7/</sup>Assuming the absence of joint or simultaneous activities.

time. The clearest evidence of this is the practice of assigning most home production activities to the mother to who wis usually better trained for them.

production and reserve or plancator the test cautoment or nucl The allocation of each household member's time is Commonest emily blockersed and a feet has Mercus en et et endekke dampe thus subject to the optimizing condition that the marginal กระการสารัง โดยเดิมการสร้างเป็น โดยกรีษยาการสารการ (185) utilities of the last unit of his time used in different riose sol timel serve e de la disposició de la company functions are all equal. These marginal utilities are in Puresapore aguer melante area fila c todik sako od zasubuva na turn determined by a host of other variables. The size ្មី្នទីសាខឧភៈនិនិនា ស្នុក ខេត្ត ប្រស and composition of the household determine not only the availability of substitute time resources within the household but also the form of the utility function. Thus the presence of a very young child will increase the relative marginal utility of home production time since child care is a time intensive 2-good. Increases in one member(sign) wage rate or potential wage rate will raise the marginal utility of his market production time relative to his home production times and relative to the home and market times other household members. Also an increased in income as from non-human resources or an increase in market goods and prices will reduce the relative marginal utility of allo market time! A s for asserter a compart of a compart of the compart of the contract of the con

It is very possible, however, that the equality of marginal utilities may not hold. For instance, when

the choice function for the allocation of time is not continuous (as when one is subject to fixed working hours in market participation), then it may be impossible to equate marginal utilities. A second instance is when the marginal utility of the last unit of home production time and/or consumption time is so large relative to that of the first unit of market production time that the latter is zero. 8/Both these factors, working separately or together, may best explain why most married women prefer to stay out of the labor market altogether.

### 2.3 The Problem of Joint Activities

When two activities are done simultaneously by the same individual then our time constraint

VATOR CONTROL OF TRANSPORT OF TRANSPORT OF TRANSPORT OF

becomes invalid. Here we have a single unit of time being used to produce joint products, and if both activities are considered separately then we increase the total time spent on the activities involved and the right-hand-side of our equation will exceed the given time constraint

The reverse may also be true. The marginal utility of the last unit of market production may be so high relative to the first unit of home production time that the latter is zero.

T<sub>j</sub>. The theory in its present form is not able to deal with these problems of joint activities.

ាស្រុក ប៉ាន់ សាំជាន់ ១១១១១ សំខេត្តបានការក្រុម មន្តិសុំស្រែក នៅ

មាន ១.៤៤១ខែម៉ែក្រាយារ៉ា

In my earlier study of ten rural households, (1976), we found that joint production was a common occurence among the mothers involved in the survey. However, in all cases, the two or more activities done simultaneously could clearly be differentiated into one primary activity -- that activity to which the mother was giving more conscious attention -and one or more secondary activities. The secondary activity most frequently involved a passive leisure activity such as listening to the radio, smoking or chatting, or a passive productive activity such as keeping an eye on a ne metalvidaek sleeping or playing child, on a pot of cooking rice, or on The second of the second of the second a sari-sari store. Thus if we choose to ignore secondary activities and count in only primary activities, our time constraint will still hold at the loss of only minor time Decorat ansa inputs.
-iv-for ud-47 for the promotory differ to this or for the companion

at a time", i.e., can perform only one single primary activity at any one time, we can carry this rule on to the analysis of joint activities of other household members

as the first of the scool till the color to deat that the father is

av and keep our original time constraint.

### 3. On the Survey

3.1 Description of the Data Base and Definitions Used

The data set used in this study is the result of a survey of 573 households in the province of Lagura conducted over the period April 1975 to January 1976. It is a comprehensive collection of household data covering numerous aspects of the socio-economic status of the household, including detailed income, expenditure, and demographic data as well as some time and health and nutrition information. Aside from providing a rich source of cross-section household data, this data set also serves as a base for an intensive longitudinal study of some 80 households selected from the larger sample. Although the intensive phase of the project involves the collection of additional time data, only time data from the cross-section are discussed in this paper. Acres 1 STATE AND STATE OF THE STATE OF

The households in the survey were selected from 34 barrios in Laguna which represented four main types of occupational groupings, depending on the dominant means of livelihood in the particular barrio. These four types and their representation in the sample were: (1) intensive

the control of the second of the control of the con

rice farming, 12 barrios; (2) farming of other crops, 13 barrios; (3) fishing, 3 barrios; and (4) semi-urban barrios with a wage labor/factory orientation, 6 barrios.

Table 1 shows the distribution of the 573 households in the sample according to the type of barrio to which a they belong. The largest representation comes from the other crop and rice barrios (36.5 and 35.6 percent of the sample, respectively). Next are the industrial barrios (15.9 percent) and then the fishing barrios (12.0 percent). Obviously, a household located in one particular type of barrio does not necessarily derive income from the specified income source.

TABLE 1

TYPE OF BARRIO	NUMBER	PERCENT
PE modi hodopisa oco Rice	v yevane əze ni - 26.5 204	naccod sid: 35.6
lo segyt sice su Other Crops	ož hammazomkou žolje <b>209</b>	enupsä ni anktra <b>36.5</b>
to ansem tashing of	d seo parlimente es t <b>69</b>	occupational resup <b>12.0</b>
ons engyt 1000 saedd Industrial	vorskad es Eurlimes. <b>91</b>	udd a'r boodiiowd 15.9
- <b>evi</b> tamoni (1) - b	iov sim <b>ase s</b> vij ni do.	deir veprasentali
	573	100.0

orly times dails from the or subscitions are distinged in this

The most important groups of data used in the present study are the demographic data, the time and the related employment data. Each of these groups of data need some amount of clarification.

All demographic data are based on the presence of the household member in the household for at least one day during the survey week. Family members not actually living at home could influence the income and expenditure patterns of the household as well as the Tabor force status of the mother and other household members. However, since our main concern is the allocation of the mother's time as a component of the household's total available time resources, actual presence in the household seems to have the more direct bearing than other less direct contact with the household.

The time data available from the cross-section phase of the survey includes time spent on home production activities and on market production activities. The latter group includes activities done at home but the produce of which are sold for profit (e.g., weaving, food preservation,

arwa i magnadi mwakazi ka doga katazi

CONTRACTOR WITH CONTRACT TO

JOHN ENG ONES

<sup>&</sup>lt;sup>9</sup>/From here on the term survey week will be used to refer to the week preceding the day the household was surveyed.

etc.). Home gardening and livestock and poultry raising were considered market production activities only if the household received cash income 10/ from them over the past year. Otherwise, we assumed that they were done exclusivel for home consumption and were classified as home production activities. 11/

home production activities, we subclassify home production into child care (further subdivided into care of infants and care of pre-school children), food preparation (sub-sde divided into marketing and cooking/serving of food), and other household activities (such as cleaning house, fetching water, etc).

rupo jornii egal - Ban anda ra a vi tectii ena gal oved



Cash income here may be negative as in the case of livestock raising where cash expenses are incurred over the year but no sale has been made.

one may argue to the contrary that since the family has the option to sell output from these activities then they should be considered market activities. Our definition, however, is consistent with that used by the NCSO in its Labor Force Survey and is therefore more familiar to policy makers. See page 6 of "Instruction on How to Fill the Household Schedule (BCSSH Form No. 2) on Labor Force, Survey of Household (Condensed)," mimeographed, available from the NCSO.

Same to the bare on the electrones were with the eight to relieved autroped.

No time data is available on the consumption activities of the mother. Some information on consumptiontime can be deduced, however, by taking a total for production time (home plus market production) and assuming
an inverse relationship between consumption and production
times. As we explain below, this relationship may not be
a simple linear (residual) relationship if joint activities
are undertaken.

Comme I wish to street bearing in gra-

100 100 100

The time data was collected with the use the recall method. The respondent was presented with a list of activities and was asked how much time each household member spent on each activity during the past week and, in the case of certain income earning activities, during the past month. One obvious weakness of the method is its susceptibility to memory lapses or a lack of time-consciousness on the part of the respondent. A second and important weakness is its inability to identify joint activities, i.e., two or more activities done simultaneously. For instance, a mother who is cleaning the house may be keeping an eye on her child at the same time so that if this is done for one hour then this would register a total of two productive hours, one for cleaning and one for child care. There is

no way that such can occurence can be positively identified from our data and hence no way to distinguish primary
from secondary activities. 12/

policement bill (row, respect offers only small) sold note to The reference period for all time data is the survey an inverse relationary became manageron and production week, which covers a total of 168 hours. Assuming a normal sleeping pattern of 8 hours a day plus a minimum of 2 a without linear ( netweels ust attended if joint activities hours daily for recreation and personal activities, one aro wat. Bank u. would expect most mothers to have total working hours--i.e., home plus market production hours of not more than 114 hours a day or 98 hours a week. The However, we found a sizeable group of mothers having stotal sproduction hours greater than sthis  ${f v}$ and, in a few cases, even greater than 168. 5 To a large map extent, this can be attributed to the occurrence of joint activities particularly involving child care to However prop there was also an apparent tendency for mothers to report to extended hours spentudaily on activities while child care and

of this problem is dealt with in the intensive phase of this project where time data is collected by an observer actually present in the home and provides for a distinction between the main activity and any joint activity being performed. A similar breakdown is presented in my earlier (1976) paper.

the sour thin this would coquater a total of two productive fours, one for the already and suc for thild often object is:

preparing food, or minding a sari-sari store (e.g., a few mothers reported 8 hours daily on child care) where these activities were probably interspersed with other activities and not actually done cotinuously.

Finally, work status was determined by the hours spent in market production. If a mother spent zero hours at market production then she was not working; otherwise, she was working. Hence the term "work" is used here to refer to market production in particular and corresponds to the term "employment" used in most economic literature.

- 3.2 Some Characteristics of the Sample
- 3.2.1 Household Composition and Income

Of the 573 households in the sample, 8.2 percent had the father absent from the home all throughout the week and 3.3 percent had the mother absent. The average number of children per household was 3.5 with 9 percent of the households having no children at all and with one household having as many as 11 children. Table 2 shows the distribution of households by the number of children present in the household.

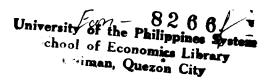


TABLE 2
DISTRIBUTION OF HOUSEHOLDS BY NUMBER OF OF CHILDREN

	NUMBER	OF	CHILDREN		ERCENT	n di salit L	; · · ·
·		0		· ·	9	11. Tr	4 %
		1			14		٠,
	: <b>7</b>	2 :		1	14		
· · ure.		3.	c:	D.H.	17	*	
		4			15		
		5			9 .,:		
		6			9		
		7	••	• John	7	ခြော့ကြီး	
	-	8.	ŧ.	************	5		
eta s		9		1N p	.1	9.7	log :
A. 124	we so i	LO	1 (1997)		<u>a</u> /		1951
£ v ć	]	<b>1</b>			<u>a</u> /		i in
		. 13				<del>- +</del>	1

 $\frac{a}{\text{Less than 0.5}\%}$ 

MEN Lie, William Commence

e ∯mer<sup>ika</sup> e e engelek

en en de la companya de la companya

In Table 3 we show the distributions of households by the presence of young children less than 1, 4 and 7 years old. These are the ages at which children are expected to require special care, but in decreasing degrees. Among the households, 16 per cent had an infant between 0 and 11 months old, a total of 42 percent had at least one child 3 years old or below, and 58 percent had at least one child 6 years old or below. Thus, in the 84 percent of the households where there were no infants, the mother was free from the time intensive task of infant-care and in the 42 percent where there were no pre-school children, she probably did little or no child care activities at all.

TABLE 3

DISTRIBUTION OF HOUSEHOLDS BY NUMBER OF YOUNG CHILDREN PRESENT

THE SECTION OF SHAPE

i		ŧ			A G	E GRO	u P
	No. o	f Chil Age Gr	dren in	1:	0-11 months	0-3 years	0-6 years
-	* 4,			<u> </u>	%	%	%
	1.2	0	. *	:	84	57	42
	Ý	1			16	27	22
:		2				14	19
:	•.	3	A	1		1	13
:	$\mathbf{V}_{\mathcal{D}_{i}}$	4		;			3
:		5	\ .				ř
•				1.2	100	100	100

· \\'.'.

Another group of children that will be of interest to use is that group 10 years old and above. By the age of 10, children are usually expected to contribute some amount of productive time either at home or in the market. This, in turn, should lessen the productive hours of the mother. In Table 4 we show the distribution of households according to the number of children 10 years old and above. Here we see that only 38 percent of the households had no child in this age bracket and that the largest number of children in this age bracket was 9.

The same table also gives this distribution by sex of the children.

DISTRIBUTION OF HOUSEHOLDS BY NUMBER OF CHILDREN
TEN YEARS OLD AND ABOVE, BY SEX

TABLE 4

oth data, the are not , did titally on an abliful steel at

No.	of Chile		owner at	Both sexes	ाम <mark>१</mark> ३)	0.00Males	7	**Females
10 у	ears &	bove	A.	%	!	%	1	%
	. <b>0</b>	1 2 2 2 2 2		38		<sup>fuit</sup> 5000	1340 ar .	5î
	1	e de la companya del companya de la companya de la companya del companya de la co	and the second second second second	13	grapher	21	e eresen	25
	2	٠.	$\Lambda \Box$	15		16	1.	13
:	3	Y	æ.	11		8	:	7
•	4	· ·		10		4		3
:	<b>5</b> [	1.		7		1	,	1
:	6			3				a/
	7			2		a/	; '	•
	8	**************************************	. A SANSAL II ATSA KANT B TANAKA	1	charte and	The Marie of Control of Control		a de contrato de la decembración d
	9	$\mathcal{M}_{\mathcal{F}}^{(1)}$	00	<u>a</u> /				
1-Marie		n i karin siyarkinamendebergi Le i siyanan	e est que la présenta suspinible de la balançais	100		100		100

 $<sup>\</sup>frac{a}{Less}$  than 0.5%

The highest annual net income reported for any household in the sample was 88,298 pesos and the lowest was -4,073. Table 5 shows the decile levels of income among the households surveyed. The table shows that the poorest 20 percent of the households had net income of 1181 pesos or less and the poorest 50 percent had incomes 3182 pesos or less. Less than 20 percent of the households had incomes of 10,000 pesos or more.

TABLE 5

DECILE LEVELS OF ANNUAL NET INCOME OF SAMPLE HOUSEHOLDS

PERCENTILE	NET INCOME
10	696
20	1181 · · · · · · ·
<b>30</b>	10.1400 % <b>1662</b>
40	2250
50	1182
60	274 Per 10 3 2 4255
70	24. 14. 5674 <sub>14.4.4.4</sub> 3.
80	8713
90	12899
100	88298
•	en de la companya de

#### 3.2.2 Characteristics of the Mothers

The mean age of the mothers in the sample is 32.3. years with a standard deviation of 7.6. 91.5 percent of them had some amount of schooling but only 13.3 percent reached high school and only 1.7 percent graduated from college (Table 6). 34.7 percent of the mothers in the sample worked during the survey week and 65.3 percent did not work during said week.

TABLE 6

DISTRIBUTION OF MOTHERS BY EDUCATIONAL ATTAINMENT

EDUCATIONAL ATTAINMENT	TIGE TOWNS
No Schooling	.: ^\ <b>8.5</b>
Primary Undergraduate	8.5 24.3
Primary Graduate	18.8
Intermediate Undergraduate	o∂ 11.8
Intermediate Graduate	23.3
Secondary Undergraduate	e6 <sub>42</sub> <b>5.6</b>
Secondary Graduate	4.0
College Undergraduate	1.0
College Graduate	1.7
	100.0

From Table 7, we see that the industrial barrios had the largest group of non-working mothers where 71:4

en e

### TABLE 7

Tradition :

## PERCENT OF MOTHERS WORKING AND NOT WORKING, to factor

Lagran, ben that example to comme the

Talon in sit of him

	WORKING %	NOT WORKING
All Mothers	34.7	65.3
edrocor noss <b>Rice</b>		63 <b>.2</b>
parti, see	and the popular section	ាន ខែមេលាលា មេខ ប្ដ
Other Crops	<b>35.4</b> 1: 1: 1: 1: 1: 1:00 රිදි. ද	64.6 20 00 20 00 00 00 00 00 00 00 00 00 00 0
Fishing		s o co <b>6512</b> eigeo
Industrial	28.6	91177-0 19 <mark>71.4</mark> 1859-15
n water a language of the second	the second of the second	un vi in to <del>ldien</del> baik
Application and the state of th	the will be taken a factor	and monet product

grande de la composition del composition de la c

The most predominant occupation (Table 8) reported among the mothers was weaving (mainly of mats and hats) which was done by 8.9 percent of the mothers. Farming and hired farm labor combined accounted for 9.5 percent while "buy and sell" enterprises covered 8.0 percent. A total of 59.9 percent of the mothers reported having no occupation. This group is smaller than the group of non-working women because it does not include those women who had some form of occupation but did not work during the survey week for some reason or another.

AL: Mothern

by the mothers to their place of work. Note that among the mothers who reported occupations, the largest group works at home or at an adjacent farm. We expect, of course, that mothers working at home or close to home are better able to schedule their time for efficient home and market production. Note, for example, that weaving, which is the most popular occupation among the mothers, is almost always done at home (84.3 percent of the time) and is therefore easily compatible with housework.

TABLE 8

QUE (1. MAY) DESCRIPTION FOR A SERVICE PROPERTY OF THE STATE OF THE STATE

OCCUPATI	10 1 34 19 ON - San -	er i samen i s Alfanta	<b>%</b>	3 <b>1</b> 7 <b></b> .
No Occupati	on	Anna ann an ann an ann an an an an an an	59.9*	
Farming			<b>3.1</b>	
Hired Farm	Labor	1.17	6.4	
Laundry Wom	an ·	•	1.6	o em
Buy and Sel	1	• •	8.0	ed byri
Sari-sari S	torėkeeper		4.7 (Magaza)	a a ministra
Teacher		#	1.4 LIO	in vi
Garments Ma	king (	i , William	1.9°12'	The last
Weaving	<b>ટ</b> ું પૈલે	.37	8.9	se lose
Others	\$.11	· P (5)	<b>4.2</b> 2.00	, 3 - Lights
<u> 4, (</u>		e "date		<u>an</u> ver
1 - A	P.15	w - #\$	100.0	et Last <sup>er</sup> 3

<sup>\*</sup>This excludes women who did not work during the survey week for some reason or another but who reported some form of occupation.

TABLE 9

DISTRIBUTION OF MOTHERS BY PLACE OF WORK OF MAIN OCCUPATION,

WHEN ALBERT AND ARREST ARRESTS AND ARRESTS

The second secon		PLACE OF WO	
OCCUPATION !	Home or Adjacent Farm	Same Barrio	Others
%€.0 •	%	1 % solitis.	No. o'%
All mothers with			Aug en 1
occupations	41.7	38.6	19.7
Farming	5.6	88.9	y.d.m.,5.6
Hired Farm Labor	0.0	94.6	•
Laundry Woman	22.2	55.6	4
Buy and Sell	21.7	32.6	45.7
Sari-sari Storekeeper	100.0	<b>0.0</b>	0.0
Teacher	0.0	62.5	37.5
Garments Making	63.6	18.2	18, 2
Weaving	84.3	7.8	7.8
Others .00%	20.8	25.0	54.2

This exclusion was the hid not work write the service of the same reason of mathematical and the same reported as me if occupation.

### 4. Survey Results

The mothers in our sample spent an average of 68.6 hours a week on productive activities of roughly it hours a day on home and market work combined. Of these, 12.6 hours were spent weekly on market production and 56.1 hours on home production (Table 10). Hence market production-accounts for only 18.4 per cent of the total productive time of married women and, assuming the equivalence of marginal productivities per unit of time, only 18.4 per cent of their true productivity. Thus the first notable observation we can make is that reports on the economic productivity of women based on market production alone drastically understate the true contribution mothers make THE EDGE OF THE PARTY OF A to household welfare. A more accurate account of female participation in economic activity would multiply existing man-hour statistics for women five-fold.

Among the home production activities, food production was most predominant, averaging 22.5 hours or almost one-third of total productive hours of the mothers. Of the 573 mothers in the sample, only 15 spent no time at all on food preparation throughout the survey week. In contrast, 38 mothers spent zero hours on all other home production activities combined (laundry, cleaning house,

## ering the engineering of a constable of the second of the constable of the

# AVERAGE TIME SPENT ON EACH MAJOR ACTIVITY DURING THE WAY FOR THE SURVEY WEEK: ALL MOTHERS

ម.ជារំ ខ្លះក្រៅថា ប្រ

a Cav in don't and kalifer troph knowlets.

y 66 fine gwyddiainwy i thi dat ac yr	jan a tro	a raaaMa o.	THOI
r minang toanen opnost (fd. aldeb) mor ACTIVITY  Vianusant setot pit Bartin (e. 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1			ubor eci:
1	Hours	, %	
A. Home Production , paid to tark that was			
eaccivity and surface of twisters			
A.1 Child Care	9.8 (6% AS)	14.3	*
A.1.1 Care of Infants hose	as <b>6.5</b> ::	v. 1. <b>9.₁5</b> 1	eor .
A.1.2 Care of Pre-Schoolers	3.3	4.8	d <sub>stal</sub>
A.2 Food Preparation			1
A.2.1 Marketing  One of the state of the sta			
A.3 Other Home Production Made America			is:
B. Márket Production 20 . 100 ani 000000	12.6	18.4	
Total Production Time (A+B)  When the state of the same of the sam			10.1. 1001
Number of Cases the Party of Langer B	o d 4 // 12 / 157	<b>ng</b> 8 cm (8 5)	
at lett fevar. Son Justipesie e	SETAL PON		<u>.</u>

contract. Se esteam apent sero bodes of all outse bode. production activities continued (Configura discussor activities).

etc.) and 289 mothers registered zero totals for child the special and the special and the special and the care time.

On the average, mothers spent 99.4 hours weekly or over 14 hours daily on consumption (leisure) activities.

हेर पालाहें पुरुष्ठिकों के तार राज्यार का एक प्राप्त है। इस प्राप्त के प्राप्त है

figers and the care in Carner and the men the table about the about the bound of the contract of the

4.1 Effects of Family Size and Composition on the Time Allocation of the Mother

affects household productive activities in two opposing ways. First, children consume welfare goods, and hence affect; the needs of the family altering the form of the household utility function; this means a greater demand for welfare goods and a consequent increase in required productive inputs either in the form of time or goods inputs, or both. Second, sas soon as they are old enough to contribute productive time, children comprise additions to household time resources which may be applied either at home or in the market. 13/ It is obvious that what is

There are two other aspects to the role of children in the household economy: (1) children serve as consumption goods inasmuch as they provide pleasure to their parents, raising their parents' level of utility; and (2) children serve as investment goods, and are expected to yield returns in the form of future service to their parents or to the rest of the family. These points, though, are not directly relevant to the above discussion except in the implied assumption that a decision to let a child spend productive time at home or in the market at the expense of schooling means a sacrifice of future for present utility.

e i kariji je gaji je graji na prima i je karija je gaji je gaji karija (ji ji j involved here is not only the number of children but, more important, the age structure of the children. Younger children are likely to call for high levels of inputs required for child rearing and nutriture and cannot be severe expected to contribute productive time. As the children grow older, however, inputs into raising children may 4 140 A 4 reitten ill: increase (especially if they continue into higher levels of schooling) but they can also be expected to participate to some extent in household productive activities. Finally, if any differentiation exists in family attitudes towards sons and daughters then the sex of the child may affect the amount of human capital invested in the child as well the amount of time he or she spends on home or market production. In terms of their effect on the mother's time budget, therefore, children may cause either an increase of or a decrease in the mother's productive time at home and/ or in the market. The second of the second o

Our survey results showed that when at least one

young child (aged 0-6 years) was present in the family,

the mother spent 78 hours a week on productive activities,

almost 10 hours longer than the over-all average and about

22 hours longer than the average mother without a young

child (Table 11). This difference in the time budgets of

expense of somelify against the virie of future for all read

20mm 11.15

mothers with and without young children was due mainly to the 16.7 hours spent on child care by mothers with children. However, these same mothers spent longer hours on food preparation and other home production activities too, implying that a young child's effect on the mother's time comes not only directly through child care time but also indirectly through more time spent on such activities as preparing food, cleaning house, laundering clothes, etc.

Although the presence of a young child-caused the mother's market production time to decline as expected, this decline is slight and is only 3.3 hours weekly or less than one half-hour a day.

Table II also shows the time budgets of 90 mothers who had children less than one year old. This group had almost the same average productive hours as the bigger group just discussed (mothers with children 0-6 years) However, they spent longer hours on home production, which occupied 92.1 per cent of their total productive hours, with less time spent on market production. Comparing this group of mothers with those without any children aged 0-6 years (first column in Table 11), we note an increase of 30.9 hours

7.7

in home production time and a significant decline of .8.3 hours in market production time.

Take the in the god and the co

A CANDO HOUSE TO SEE A PORT OF To test the extent to which children provide and the sound of the second substitute labor to the mother's production time, we next studied the group of mothers with children ten years old and above. As the number of children in this age group increases, we can expect to find a corresponding decline in the mother's home production time for two reasons; first, the larger the number of rito mitaliant older children, the smaller the chances of there being younger children needing child care and other home production time, and second, the greater the amount of substitute labor available. We cannot make the same clear-cut predictions on market production time because whereas the mother's market time may tend to increase when younger children are not present, it and or could also decrease if the elder children are able to a contribute to family cash income by undertaking some amount of market production themselves. These expectations were borne out by our results as shown in, Table 12. As the number of children, ten years and above increased, the mother's home production time declined considerably. When an elder child was present in the family, mother's time on child care went down by

5 to 6 hours a week. Curiously, time spent on other home production activities rose slightly when one or two elder children were present but went down by 8 hours when a third or more were around. A possible explanation for this could be that most families probably could not afford to send more than one (if any at all) child to high school and therefore kept the rest of the high-school-aged children at home.

There was no fixed pattern shown for changes in market production time but total production time did decline too.

TOUGHT PORTE DESCRIPTION

er on frame.

Of the mothers with no children ten years whome old and above, 75 per cent had at least one child 0-6 rs old. This proportion goes down to 56 per restablish to the made was a constraint of the moon years old. cent for mothers with 1-2 children in this higher ee studied changes that we can into the configuration age bracket and then further down to 39 per cent for byold by on any in the additional and the control of the c those with 3 or more. Hence the reduction in the mother's the opine of the con-TYPE WINDOWS TO THE TO BUILDING TO BUILDING working hours as the number of elder children inwhere the contract was a compared to the contract of the contr creased could be due, in part, to the corresponding The state of the s F (1/4) าชอกกรีย สชน โทโดย 60 การที่สามารถ เกาะ decrease in the number of younger children. Since our real concern was the substitutability of children's leader for the tip the first and melimic time for mother's time, we subclassified this group of mothers into those with childre 0-6 years and those

without. Table 13 shows that in households where there were vounger children present, elder children did substitute for mother's time particularly in child care tasks. This substitution could not occur in households without younger children. Hence the pattern of decreasing production time for mothers as the number of elder children increases was no longer present when there were no younger children in the family. For both groups, however, there still was a decline in mother's time spent on other home production activities when there were 3 or more children 10 years old and above but the difference was leas marked for the second group.

塞达 南非洲 经收益分配 化二氯化丁二氯化丁二甲基甲二溴氮 To try to trace any differences that might IN THE STATE OF THE BOOK OF occur due to differences in sex of the elder children, rodria zrabi er nie o e Saar en alacer en imp we studied changes that occured in the mother's Contract of the same of the same of are in the art and time budgets when male children 10 years and above TOPE OF SELECTION OF SOURCE were present and when they were not and compared ntjægæk kanole skær fil these to similar changes that occured when females were eather geen. The in vacciate homes to district the exercipresent and when they were not. Columns 5 and 6 of Table 14 show these changes which appear to be quite our ress conduct the basic of the participation and seek conductions are similar for each of the individual activities. The යික පුහාතය සිටිවේ. සිට වූ සිටිවේ.නම් කොට්ට ද කාර්ත සිටින අප්පාල ලදා ද පාල්ජ greatest variations seem to lie in other home proseufs are tally set explit, rain anony seas residon duction activities where mother's time declined more,

and in market production where mother's time increased more when elder female children were present. This latter observation is not easy to explain.

The next two tables show time budgets of mothers for different family sizes. When all mothers were taken together (Table 15) there seemed to be apparent increase in the mother's home production time as family size increased accompanied by a decrease in market time. This pattern did not repeat itself, however, when the mothers were subgrouped according to the presence of children 0-6 years old (Table 16). When young children were present, total home production time was almost equal for all three groups of households and very slight (and irregular) variation occured for market production. When no young children were present, no fixed pattern appeared for any of the major activity groups.

The last four tables discussed point to the fact that variations in mothers' time budgets are more strongly influenced by the age structure of the household than by either the sex structure or total family size.

TABLE 11

AVERAGE TIME SPENT ON EACH MAJOR ACTIVITY DURING THE SURVEY WEEK: BY NUMBER OF YOUNG CHILDREN PRESENT

TIVITY  TIVITY  TO Child O-6 Years   With Child O-6 Years   No Child O-11 Honths   With Child Care   Hours   X   H	15 g 11	IND	NUMBER OF CH.	CHILDREN 0-6 YEARS	YEARS	NU	MBER OF CHI	NUMBER OF CHILDREN 0-11 MONTHS	ONTHS
Home Production 41.3 74.0 66.8 85.6 53.1 79.6 72.2  A.1 Child Care of Lond 0.0 0.0 16.7 21.4 7.3 10.9 23.0  A.1.1 Care of Pre- 0.0 0.0 11.0 14.1 4.4 6.6 17.3  A.2 Food Preparation 19.9 35.7 24.4 31.3 22.4 33.6 22.6  A.2.1 Marketing 4.0 7.2 3.3 4.2 3.7 5.5 3.0  A.2.2 Cooking and Serving Food 15.9 28.5 21.1 27.1 18.7 28.0 19.6  A.3 Other Home Production Acti- 21.2 38.0 25.7 32.9 23.3 34.9 26.7  Market Production Time 55.8 100.0 78.0 100.0 66.7 100.0 78.4 (where of Cases 2483)	×	No Child	0-6 Years	With Chil	d 0-6 Years	No Child	0-11 Month	s'With Child	0-11 Months
A.1 Child Care of A.1.1 Care of A.1.2 Care of Fre-A.1.2 Care of Fre-A.2.2 Cooking and Serving Food 15.9 27.1		Hours		ੋ Hours		Hours	%		%
A.1 Child Care of A.1. Care of A.1. Care of A.1. Care of Pre- Infants	Kome Production		74.0	8*99	\$ <b>9.</b> \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	53.1	: 19 <u>.6</u> 6 9 <u>.</u> 66	72.2	92.1
A.1.1 Care of Pre- Infants  A.1.2 Care of Pre- Schöbers  A.2 Food Preparation  A.2.1 Marketing  A.2.2 Cooking and Serving Food  A.3 Other Home Production Acti- Production  A.3 Other Production  A.4.2 Serving  A.5.7 7.3 2.9 4.3 5.7  A.2.4 31.3 22.4 33.6 22.6  A.5.7 7.3 22.4 33.6 22.6  A.5.8 100.0 78.9 100.0 66.7 100.0 78.4  A.6.9 A.6.6 11.3  A.6.9 E.6.7 100.0 78.9 100.0 66.7 100.0 78.4  A.8.9 E.6.7 100.0 78.9 100.0 66.7 100.0 78.4  A.8.9 E.6.7 100.0 78.9 100.0 78.9 100.0 66.7 100.0 78.4	A.1 Child Care	0.0	0.0	16.7	21.4	7.3	10.9	23.0	29.3
A.1.2 Care of Free Schoolers 0.0 0.0 5.7 7.3 2.9 4.3 5.7 5.7 8.7    Schoolers 0.0 0.0 5.7 7.3 2.9 4.3 5.7 5.5     A.2 Food Preparation 19.9 35.7 24.4 31.3 22.4 33.6 22.6     A.2.1 Marketing and A.2.2 Cooking and Serving Food 15.9 28.5 21.1 27.1 18.7 5.5 3.0     A.3 Other Home Production Actival Activa	A.l.l Gare of programme of the programme	ರ್ ದಿನಾಗ	0.000	11.0	14.1	4.		17.3	22.1
A.2. Food Preparation 19.9 35.7 24.4 31.3 22.4 33.6 22.6  A.2.1 Marketing 4.0 7.2 3.3 4.2 3.7 5.5 3.0  A.2.2 Cooking and Serving Food 15.9 28.5 21.1 27.1 18.7 28.0 19.6  Production Activities 38.0 25.7 32.9 23.3 34.9 26.7  Market Production Time 55.8 100.0 78.0 100.0 66.7 100.0 78.4  (AB) 24.3 55.8 100.0 78.0 100.0 66.7 100.0 78.4  Mumber of Cases 243	A.1.2 Care of Pre- Schoolers		0.0	• [		. •	į	• • •	7.2
A.2.2 Cooking and Serving Food 15.9 28.5 21.1 27.1 18.7 5.5 3.0 19.6 2.3 3 Other Home Production Acti-vities 21.2 38.0 25.7 32.9 23.3 34.9 26.7 6.2 48.8 5.8 5.100.0 78.0 6.7 5.5 5.5 3.0 6.7 5.5 5.5 6.0 100.0 78.0 6.7 5.0 5.0 5.7 6.2 6.0 100.0 78.0 6.7 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	A.2 Food Preparation	19.9	35.7	24.4	31.3	22.4	33.6	22.6	28.8
A.2.2 Cooking and Serving Food 15.9 28.5 21.1 27.1 18.7 28.0 19.6 5	A.2.1 Marketing	4.0	7.2	3.3	4.2	3.7	5.5	3.0	3.8
A.3 Other Home Production Acti- vities  Market Production  The state of Cases S5.8	A.2.2 Cooking and Serving Food	15.9	İ	21.1	27.1	18.7		. 1	25.0
Market Production         14.5         26.0         11.2         26.0         11.2         26.0         11.2         26.0         11.2         26.0         11.2         26.0         11.2         26.0         11.4         13.8         20.7         6.2           (A&B)         4.8         100.0         78.0         100.0         78.4	A.3 Other Home Production Acti- vities	21.2	) - 415) <b>0*0</b> 0*14 <b>8</b>	25.75	35 <b>*</b>	73 9 <b>7</b> 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8			34.0
1 Time 55.8 100.0 778.0 100.0 66.7 2 7100.0 78.4 78.4 78.4 78.4 78.4 78.4 78.4 78.4	Market Production		26.0	11.2	14.4		1		7.9
2.243	Production				İ	E .	100.0		100.0
		243	omg	ec.Y.	11 707	gar.	33	2-16 AKT\$	0

AVERAGE TIME SPENT ON EACH MAJOR ACTIVITY DURING THE SURVEY WEEK:
BY NUMBER OF CHILDREN 10 YEARS AND ABOVE

	NUMB	ER OF C	HILD	REN	AGED 10	YEARS AN	D ABOVE
ACTIVITY		0	1	. 1	-2		3+
	Hours	%	Но	nrs	*	Hours	%
A. Home Production	63.3	84.4	် 57	.7	80.0	46.3	79.5
A.1 Child Care	15.8	21.1	6	.6	9.2	5.5	9.5
A.1.1 Care of Infants	10.8	14,4	4	• 4	6,1	3.3	5.7
A.1.2 Care of Schoolers	5.0	6.7	2	. 4	3.2	2.2	3.8
A.2 Food Preparation	22.6	30.1	23	. 6	32.7	21.4	36.8
A.2.1 Marketing A.2.2 Cooking &		3.7	4	3	5.9	3.9	6.8
Serving Food	19.8	26.4	19	3	26.8	17,4	28.9
A.3 Other Home Production	er Son o	20.2		-			
Activities 3. Market Production	· •	• :				19.4	20.6
Total Production (A&B)	75.0	100.0	72	.1	100.0	58.2	100.0
Number of Cases	21	8		16	4	19	1

TABLE 13  N EACH MAJOR ACTIVITY DURI YEARS AND ABOVE AND BY PRE OTHERS WITH CHILDREN 0-6 Y ER OF CHILDREN AGED 10 YRS 0 1-2	EACH MAJOR ACTIVI ARS AND ABOVE AND HERS WITH CHILDRE OF CHILDREN AGED	TY DURING ) BY PRESE	THE SURI	SURVEY WEEK: OF YOUNG CHILDREN				
AVERAGE TIME SPENT ON EACH BY NUTBER OF CHILDREN 10 YEARS TIVITY TOTHERS TIVITY	ARS AND ABOVE AND HERS WITH CHILDRE OF CHILDREN AGED	TY DURING	THE SURVICE OF Y	ÆY WEEK: JUNG CHILDE				
	HERS WITE CHILDRE OF CHILDREN AGED			*;				
TIVITY	HERS WITH CHILDRE  OF CHILDREN AGED  1-2		2 4 	1/A	, Ty-1			
TIVIT	OF CHILDREN AGED	3N 0-6 YEA	RS	MOTHERS 1	MOTHERS WITHOUT CHILDREN 0-6 YEARS	ILDREN (	0-6 YE	IRS
TIVITY 0 1-2	1-2	10 YRS AND	D ABOVE	NUMBER OF	CHILDREN A	AGED 10	YRS AND	ID ABOKE
		1		0	1-2		<del>‡</del>	
% Hours 7	Hours	Hours		Hours %	Hours	% 'HG	Hours	%
A. Home Production 71.4 87.2 67.1 83.9 56.2	67.1	.9 56.2	84.3	39.3 72.0	45.7 7	72.9 3	. 6.68	75.7
A.1 Child Care 21.0 25.6 11.9 14.9	11.9	13.1		- <b>.</b>	0.0	0.0	0.0	0.0
A.1.1 Care of Infants 14.4 17.6 7.7 9.6	7.7	.6 7.7	11.5	0.0	0.0	0.0	0.0	0.0
lers 6.6 .8.1 4.2 5.2	4.2	LT.	<b>□</b>	0.00 0.0	6 6	. 0.0 €	0.0	0.0
25.5 31.9	25.5	- 2		18.2 33.3	21,2	33.8 2	20.0	38.0
A.2.1 Marketing	4,3	.4 3.5	5.2	3.4 6.2	4	6.9	4.2	8.0
ng Food 21.5 26.3 21.2 26.5	21.2	.5 20.1	30.1	14.8 26.1	16.9	27.0 1	15.7	30.0
A.3 Other Home Production Activities 26.3 32.1 29.7 37.1 19.5	29.7	.1 19.5	29.2	21.1 38.6	24,7	39.4 1	19.3	36.6
D. Market Production	12.9	10.5	15.7	14.9 27.3	17.0	27.1 1	13.0	24.7
Total Production (A&B) 81.9 100.0 80.0 100.0 66.7	80.0	66.7	0.001	54.6 100.0	62.7 10	100.0 5	52.7 10	100.0
Number of Cases 7.5	<b>76</b>		75	ા 22	72		116	
・	SUA	. , .	, vi		12. 13.			

•#

TABLE 14

AVERAGE TIME SPENT ON EACH MAJOR ACTIVITY DURING THE SURVEY WEEK:

BY NUMBER OF CHILDREN 10 YEARS AND ABOVE AND BY SEX OF THE CHILDREN

,450F-

	-							,		, .		
			NUMBE	NUMBER OF CHILDREN 10 YEARS AND ABOVE	LDREN	10 YEAR	S AND	ABOVE		TIME	TIME DIFFERENTIALS	
# E	•		- И А	LES	•		FEM	ALES		MALES	FEMALES	S
ACILVIII	184 		NOME (1)	OME	OR PORE!	ION NO		* ONE OF	110RE	(2)-(1)	; (¢)-(3)	
		Tours	% 	*Hours	2	o.	%	Hours	* %	Hours	' HHours	
A. Home Production		61.2	8332	50.9	80.2	61.3	84.6	50.5	78.4	-10.3	-10.8	
A.1 Child Care	3.6	13.5	.18.3	6.9	4.6.	12.7	17.5	9.9	10.2	- 7.5	- 6.1	
A.1.1 Care of Infants		9.3	12.6	3.7	5.8		12.0	<b>1.</b>	4.9	ا ا ا	4.6	
A.1.2 Care of Pre-Schoolers	ers	4.3		2.3	3.6	4.0	5.5	2.5	6.0	- 2.0	1.5	
A.2 Food Preparation		23,3	3.2	21.6	34.0	22.6	31.2	20.1	31.2	- 1:7	- 2.5	
A.2.1 Marketing		3.4	4.6	3.8	6.0	2.9	4.0	4.4	8.9	4.0	1.5	
A.2.2 Cooking and Serving Food	g Food	19.9	27.0	17.8	28.0	19.7	27.2	18.0	28.0	्त <u>्</u>	- 1.7	
A.3 Other Home Production Activities 24.4	tivities	24.4	33.2		36.7	26.0∃	35.9	21.5	33.4	14	- 4.5	<del>, , , , , , , , , , , , , , , , , , , </del>
B. Market Production	50°	12.4	16.8	12.9	20.3	11.2	15.4	14.2	22.0	0.5	3.0	
Total Production (A+B)	11951 [1	73.6	100.0	63.5	100.0	100.0 72.5	100.0 64.4	9.79	100.0	-10.1	- 8.1	
Number of Cases	oga Jord	9	286		287	. 295	6 E3)	278	8	40		
	ent.	s struct	. L.A	Λ (.	5 S.A	A.		satoti		ATEVA		

AVERAGE TIME SPENT ON EACH MAJOR ACTIVITY DURING THE SURVEY WEEK:

BY NUMBER OF CHILDREN PRESENT

	-	;					· .	<del></del>		. 1011	
		-		•.	1	1	) 	NU	: <del> </del>	OF CHILDREN	를 걸
		ΑĊ	TIV	ΙΤΥ			<u>. in 60</u>	0-2	1	3-5	6+
		T. A. A. C.	क जा (क			!	Hours	%	Hou	rs %	Hours %
-A.	Home	P	rodi	cti	on.		53.1	79.8	^ <b>56</b> •	7 1 81.8	60.9 84.3
	A.1	í		.5			9.2	13.8	. <u>.</u> .		12.8 17.7
		A	1,1	Car	of	Infants	6.2	9.3	5.	8 8.5	8.3 11.5
		Α,	1.2		e of pole	rre-	3.0	,	2.	9 4.2	4.5 6.2
	A. 2	Fo	od I	rep	arat	ion	20.9	31.4	22.	1 32.3	25.7 35.6
		A	2.1	Marl	ketii	ng	3.4		3.	4 5.0	4.4 6.1
		A	2.2		king ving		17.6	26.5	18.	7 27.3	21.3 29.5
	A. 3	0	her				· (*)		in i	>	22.4 31.0
В.	Mark	et	Pr	oduc	tion		13.4	. 20.2	. 12	6 18.3	11.3 15.7
	Tota	1	Pro	luct	ion	(A&B)	66.5	100.0	68	5 100.0	72.2 100.0
	Numb	er	of	Cas	es	N.	21	1		237	125

TARLE 16

AVERAGE TIME SPENT ON EACH MAJOR ACTIVITY DURING THE SURVEY WEEK

BY NUTBER OF CHILDREN AND BY PRESENCE OF YOUNG CHILDREN

		2 E.B				-				300			-			<b>.</b>
			**			**			<b>*</b> \$	9 5	ili 🛴		3 17	1	17	1
	ARS			2	87.8	0.0	0.0	0.0	39.3	<b>8.</b> 6	30.6	38.3	19,2	100.0		ľ
	4X 9	,	<b>5</b>	S						*				1	75	1
	WITHOUT CHILDREN 0-6 YEARS	REN		Hours	46.2	0.0	0.0	0.0	22.5	4.9	17.5	21.9	11.0	57.2		
7	LDRE	CHILDREN	3 E.S	,	66.3	0.0	0.0	0.0	31.5	. 9.9	25.0	35.0	33.7	100.0	ari z	13% 115
	CH)	OF (	3-5		99		J	O	33	Œ	25	35	33	100	2	
í	THOU	NUMBER OF	Ų.	Hours	39.2	0.0	0.0	0.0	18.6	3.9	14.8	₹20.6	19.9	.69	92	
	S WI	NO	-	, %	α <b>π</b> .	0.0	0.0	0.0	34.2 18.6	ેલ <b>છ</b> •્છ	27.7 14.8	37.3	<b>q</b> :	100.0 59.1	10	
	MOTHERS		02		らた。	S	0	C	34	9	27	37	28.2	100	11.7	17
	100	NA.	Ö	Hours	45.C	0.0	ಂ	0.0	20,02	4.0	16,2	21.8	16.5	58.5	-	
	•	•	•					ထ					1		194.	
	RS		4-9	84	85.3	21.7	13,9	7.	34.6	5.4	29.2	29.0	14.7	100.0	200	
	YEARS		9	Hours	9 <b>.</b> 99	16.9	10.8		26.9 U	4.2	22,7	22.6	11.4	77.3	91	
	i 0-6	REN.	-	, Ho									•		1. "	) i ;
	ERS WITH CHILDREN 0-6	OF CHILDREN	3-5	%	84.7	18.0	11.9	6.9	30.8	3.9	26.9	35.9	\$ 15.3	100.0		
	CHI	0F (	3	្ត ទរព		2	<b>7.</b> 6	8.4	m.	3.1		m) set i	]	l	145	. 1.1
	MI TH	NUTBER	•	Hours	8,99	14.2	o.	7	24.3		21;2	28.3	12:1	78.9		
	ERS	NO		%	- 9°2	7.9	7.8	9.8	ω ω	3.4	5.4	2.3	2.4	0.0	134	
	MOTHE		0-2	rs	9 87	2 26	9	9	0 28		4 25	7 _ 32	√	6.4 100	94	
j		- :	ig tid in	Hours	6.99	20.2	13.6	9.9	22.	2	19.4	24.	1.00 p	76.	12	
	6U.	t Í	g: T	 اد			1 1	ti i	* 5		77			ty tj	į	Mir
O	C :	a	7.7	9	ij i		. (, -	S	1		Food		1		44	
	tia	`{ <b>(</b> i	-	: : <u>.</u> }	r - r - i	v ;	7 7	001e		1.5	Serving	*	A.A	18.7	: 1xx	. ;
C	70	.F13	M <sup>ili</sup> C	** <b>Y</b> ***i			Infants	-Sch	· · · ·		Ser	tion	to grade		ff-2	211.7)
, -	1	•	H H	er s g i	.5.		Inf	Pre	ion	ng	and	oduc		(A&B)	12	
		: · .	7. T	: F 5	uo.	ø	Care of	jo,	arat	keti	Cooking	e Pr	tion	ion	Se	4 .377
. X	11		ACT	1.1	lucti	Car	Car	Car	Prep	Mar	ος. 	Hom	oqno	dựct	Cases	lin 8
			7		Prod	hild	A.1.1	A.1.2 Care of Pre-Schoolers	,ood	A.2.1 Marketing	A.2.2	ther	t Pr	Pro	r of	
					A. Home Production	A.1 Child Care	¥	A	A.2 Food Preparation	¥	Ą	A.3 Other Home Production	3. Market Production	Total Production	Number of	
					A. E	₹ .	6.7		<b>.</b>			A	*	₽~!	Z	•

d.

no de

ndi

4.2 Effects of Employment on the Time Allocation of the Mother

The next point of concern in our study is the variation in mothers' time budgets that resulted from their employment in the market. An interesting pattern emerges when we compare the time budgets of women who were working with those of women who were not working (Table 17). While employed mothers worked an average of 89.1 hours a week, mothers who were not employed worked only 57.7 hours, exclusively on home production. The additional 36.4 hours of market work of employed women was not compensated by an equivalent or even nearly equivalent reduction in home production hours: working mothers spent only 4.7 hours less, weekly, on home production than non-working mothers.

It seems evident that, on the average, mothers look on market production opportunities as supplements to rather than substitutes for home production. The implication here is that the marginal productivities of the first units of home production time exceed that of the first unit of market production time of the average mother. (From our observations, this refers to the first 50 or so hours of home production). It would be interesting to find out whether the same conclusions would hold for a different group, say

of mothers in urban households, where income levels, educational backgrounds, and employment opportunities may differ.

Casual observation of mothers of higher educational attainment who work in the market but do hardly any home production hint at an entirely different situation.

Fig. 1. In the Windshift of a control of the street of the

Among working mothers, further variations in time budgets existed as the mother's place of work changed (Table 18). Mothers working away from home spent slightly less time on home production than mothers whose market particularly true for food preparation on which mothers working at home spent an average of 3 hours more per week than those who worked outside the home in the same barrio, and an average of 5 hours more than those who worked outside the home in the same barrio, side the barrio. These differences, though slight, could have some bearing on the quality of food preparation that the mother was able to accomplish.

More obvious differences exist among the market production hours of these three groups of mothers. The farther away the mother's place of work from home, the longer the hours spent, on the average, on market production. (Our figures for market time do not include travel time). It

#/

seems logical that anyone working a long distance from home would have to work long enough at that job to compensate for time and money expenses on travel.

noise there error var villes in

ារបក ខាស់លោក ១៥៤ ២០ ១០១២ ០៨២ មួយមា Our final table was set up to observe changes in contact and contact with the view of the decision of th Visutano of the daid time budgets of mothers as they varied their hours of work in the market (Table 19). A curious pattern emerges in this table for the home production time of mothers in the three categories. Hours of home production are almost equal for mothers who worked in the market less than 20 hours and those who worked more than 40 hours, but are significantly lower for those mothers who worked in the market 20 to 40 hours. There does not seem to be any logical explanation for this occurence and it seems best to to hold any analysis and hope that further evidence will eventually clarify the matter of the specific of the same

and never mover of rock to be there will be wildness those ever . It is a green to the transfer on the

FOR FILLING PROME TURNS PROPER AT 10 SHOUND PROF ett. "sundrim to oquent thati weld to be equal mouseupberg eds comed acces discovite usuals of respect the same and the longer may betwee switt, on the iverage, or member product onthe dispuse for market time do not include travel time).

TABLE 17 AVERAGE TIME SPENT ON EACH MAJOR ACTIVITY DURING THE SURVEY WEEK: BY WORK STATUS

H	- 1541000 a) 4	, wo	RK S	TATU	S
	ACTIVITY	WO1	cking	Non-Wo	rking
		' Hours	%	' Hours	%
	A. Home Production	53.0	59.5	57.7	100.0
;;;	. A.1 Child Care	7.5	8,4	11.0	19.1
	A.1.1 Care of Infants	4.7	5.3	7.4	12.8
	A.1.2 Care of Pre-Schoolers	2.8	3,1	3.6	6.2
	A.2 Food Preparation	22.8	25.6	22.3	38.6
	A.2.1 Marketing	4.1	4.6	3.4 Nambash	
	A.2.2 Cooking and Serving  Food  Food	18.7	21.0	19.0	32.9
1	.d.A.3 Other Home Production	22.7	25.5	24.4	42.3
£	B. Market Production	36.4	40.9	0.0	0.0
<u>U</u>	Total Production (A&B)	89.1	100.0	57.7	100.0
	Number of Cases	ere <del>agrag</del> e and the end of each	199	3	74

are the confidence of the first three first of the confidence of t where you report the god substitute of a

TABLE 18

AVERAGE TIME SPENT ON EACH MAJOR ACTIVITY DURING SURVEY WEEK:

BY PLACE OF WORK OF MAIN OCCUPATION<sup>2</sup>

	1					
en en en en en en en en en en en en en e				MAIN OCC	UPATIO	N
ACTIVITY	, Hor	me or ent Farm	' Samo	e Barrio	' Ot	her
1.300 mm	Hours	%	'Hours	<b>%</b>	'Hours	
A. Home Production	56.7	71.2	50.8	63.5	52.6	
A.1 Child Care	9.8	12,1	7.6	9.5	8.8	
A.1.1 Care of Infants	7.0	8.6	4.8	5.3	4.3	
A.1.2 Care of Pre-Schoolers	2.8	3.5	2.8	3.5	4.5	
A.2 Food Preparation	24.9	30.7 <sup>2.7</sup>	21.9	27.3	19.9	
A.2.1 Marketing	4.2	5.2	3.3	4.1	3.6	
A.2.2 Cooking & Serving Food	20.6	25.4	18.6	23.3	16.3	
A.3 Other Home Production .	22.2	27.4	21:3	2373	16.3	
B. Market Production	24.6	30.4	29.4		33.6	
Total Production Time (A&B)	81.0	100.0	80.0	100.0	86.2	
Number of Cases	9	4	8	38		45

Includes all employed women plus 28 mothers who reported occupations but of not work during the survey week.

Hisport to be well produced to the TABLE 1995 of the 1995 of the

The content of the same content the content of the

# AVERAGE TIME SPENT BY WORKING MOTHERS ON EACH MAJOR ACTIVITY DURING THE SURVEY WEEK BY HOURS OF EMPLOYMENT

t was reserved figure and an extensi	A A A A	H(	OURS OF E	MPLOYME	NT : 154 325	S
ACTIVITY	20 1	lours	; 20-40	Hours	40 1	
	nours	/0	Hours			
glan - Planter Lagborg ind	ζ 3 - 10°.	96.0		3500 <b>61.1</b>	ar (√) 55.2	51.2
. Home Production	33.3	00.9	47.1	7 7 7 7 7		
A.1 Child Care			7.7			
A.1.1 Care of Infants						
A.1.2 Care of Pre-Schoolers	3.4	5.3	1.7	2.2	3.2	3.0
A.2 Food Preparation	22.0	34.6	20.8	27.0	24.3	22.5
A.2.1 Marketing	3.4	5.3	3.5	4.5	4.7	
A.2.2 Cooking & Serving Food	18.6	29.2	17.3	22.4	19.6	18.2
A.3 Other Home Production	26.3	41.4	18.6	24.1	23.2	21.5
Market Production	9.5	14.9	30.0	38.9	52.8	48.9
Total Production Time (A&B)	63.6	100.0	77.1	100.0	107.9	100.0
Number of Cases					18	

tambar ordin july on a data or englishmen dat entem yilin dali yilin kerinteri

· 我们有一个我们的一样的一个人的一直被靠在这些一个的数数的数据,这个一个人的一个一种最高的"多种",不是一个人们不是一个

associated to able production as in a label softwo

### 5. Summary of Findings

To summarize, we restate the following major findings of our study:

- 1. Mothers in the households surveyed spent an average of 70 hours a week (10 hours a day) on home and market production work combined and 98 hours (14 hours a day) on consumption. Of this total production time, only 18 per cent went to market production and 82 per cent to home production.
- the family caused an increase not only in the mother's child care time but also in the time she spent on food preparation and on other home production activities. Market production decreased but only slightly. When a child 0-11 months was present however the increase in home production time and the decrease in market production time was more
  - 3. Elder children (10 years and above) provided substitute labor to the mother's home production time, particularly in the care of younger children and, to some extent, in other home production activities; they did not substitute for mother's food preparation activities. No evidence of sex differentials among elder children was observed.

- 4. The total number of children had no direct influence on the mother's time budget. Family composition rather than size proved to be the major determinant of the mother's time allocation.
- 5. Employment in the labor market (market production time greater than zero) did not reduce the mother's home production activities significantly; hence working spent an additional 36.4 hours weekly (5.2 hours daily) on productive activities than non-working mothers.
- 6. Mothers whose place of market employment was at home of close to home spent longer hours on home production, especially food preparation, and shorter hours on market production.

regional Cillins for Asset (975).

STATES LUBRISHOLDER CO

Mincour, Jacob, "febrar of the mandern accessor of Varcholist Manager of Varcholist Manager of Marcholist Companies of Second Companies of Labor Record Companies of Labor Record Companies of Manager of Companies Comp

### BIBLIOGRAPHY

serifor to bu

00 \$50000 B - 16/31

--OP VIŽAIDACSU

Becker, Gary. "A Theory of the Allocation of Time"

Economic Journal, 75, September 1965, pp. 493-

markayracht a chur chur churchte

Encarnación, José, Jr. "Fertility and Labor Force Participation: Philippines 1968" (DP 73-13, IEDR, University of the Philippines, 1973).

dolouio ...

. :::::!hg =

- Ho, Teresa Jayme. "Time Allocation, Home Production and Labor Force Participation of Married Women: An Exploratory Survey" (IEDR, University of the Philippines, 1976).
- Journal of Political Economy, 81 (supplement), March-April 1973.

is the factorise devices to costs seen to

Mangahas, Mahar and Teresa Jayme Ho. "Income and Labor Force Participation Rates of Women in the Philippines" (Paper submitted to the ILO Regional Offices for Asia, 1976).

Listica: We guotaery

Mincer, Jacob. "Labor Force Participation of Married Women" in Universities-National Bureau Committee for Economic Research, Aspects of Labor Economics (Princeton: Princeton University Press for the NBER, 1962) pp. 63-97.