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INTRAHOUSEHOLD ALLOCATION OF RESOURCES AND ROLES

**An Annotated Bibliography of the Methodological
and Empirical Literature**

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Introduction

How to Use the Bibliography

This bibliography is divided into three sections listed in the table of contents, covering analytical frameworks, methodological papers, and empirical studies. Under each main heading, a series of subtopics is identified by letter. In the text, citations are listed alphabetically by author under each main heading. In the left margin, the appropriate letter or letters appear opposite the author's name. Papers dealing with a particular subtopic may be found by scanning the left margin for the letter which identifies that topic. In many cases, articles touched only lightly on a subject, and it was a matter of judgment whether to list them under the subject or not. Generally, the bibliography errs on the side of inclusiveness. Articles which fit under two main headings are listed under both of them, each time with the complete annotation.

This bibliography is very much a work in progress. The author would like to know of corrections and omissions, as well as whether the present format is useful.

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Section I

B Becker, Gary 1965

A theory of the allocation of time. Economic Journal 75 (September):493-518.

This important article is one of the earliest to suggest that household consumption should be viewed as the production of utility for household members, which means that different combinations of goods and time (the factors of this "production") can yield equal utility. This is the fundamental concept of the "New Home Economics." Time and goods can be traded off against each other. This means that the value of time used in consumption must be included along with the cost of the goods, and that the cost of time used in consumption rises as income foregone (wage rate) rises. Full income of a household thus includes both real income and the time of household members. The value of time varies by person and by time of day and week.

The author suggests that time allocation between market work and other activities will depend on the relative efficiency of different members in these activities. He suggests that income/expenditure data should be combined with time data.

B Bender, B. D. no date

A refinement of the concept of household: families, co-residence, and domestic function. American Anthropologist 69:493-504.

This article provides a clear exposition of the conceptual differences among various definitions of the family and household, stressing that each concept may define a different group of individuals.

"Family" is a kinship group, related by ties of blood and marriage, culturally defined. Co-residence frequently does not define family groups. Domestic functions, which are activities of day-to-day living including child care and food provision, also need not be shared by the family nor by the co-residential group.

Examples are given to demonstrate the independence of kinship, co-residence, and domestic function as factors defining distinct groups of persons.

B Ben-Porath, Yoram 1982

Individuals, families, and income distribution. Population and Development Review 8 (Supplement):1-13.

This article discusses the difficulty in defining the family as a unit for measuring income distribution. The family is commonly defined as the group which engages in joint income generation, pooling and redistribution. But false assumptions are often made in this connection. For example, non-coresidential family members may pool income, while spouses living together may not. Even with a great deal of culture specific information, the definition of the appropriate income unit may be arbitrary.

B Butz, William, and Stan, P. J. E. 1982

Interhousehold transfers and household structure in Malaysia. Population and Development Review 8 (Supplement):92-115.

This article uses data from the Malaysian Family Life Survey to describe resource transfers (time, money and goods) between households. Detailed information on household composition makes it possible to identify age and sex groups receiving different kinds of transfers.

Transfers are a major source of income, especially in low-income households. Nuclear households are involved in more transfers than extended, presumably because incorporation in the household masks the transfers.

The study finds systematic differences in recipients of different types of transfers. Older household heads receive money and time (services) from their children; household heads transfer more to their parents than they receive from their children. Parents give time to children, but receive money from them. Chinese household heads receive more support

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from their children than Malays; Malays exchange money and goods more, while Chinese households exchange time.

A Clark, Carol 1981

The use of the household production model to assess the relation of women's market work to child welfare. Paper prepared for the International Center for Research on Women Policy Roundtable, Washington, D.C., December.

This paper criticizes some aspects of the household production model as it is applied to analysis of the effects of women's market work. Several studies are cited which show women's market work affects their leisure more than their child care time.

The author argues the household production model overestimates the degree of choice a mother has about how much child welfare to produce. Fixed cash needs in conjunction with low wages may dictate the amount of time at work. Cultural constraints may also limit women's choice of activities. The model does not deal with how the household's utility function is determined.

Compatibility of women's work with child care is based on abstract concepts which may not reflect the best activities for the child.

The model values time in terms of income foregone, but does not deal with the fact that low women's wages and the unpaid nature of child care may cause a misallocation of resources.

A Cloud, Kathleen, and Overholt, Catherine 1982

Women's productivity in agricultural systems: an overview. Paper presented at the International Agricultural Economics Meetings, Jakarta, August.

This paper provides a general discussion, with numerous references to the literature, of factors influencing women's productivity in agriculture, and then presents an analytical framework for studying the issue.

The authors suggest that women's productivity must be studied in the context of all women's activities and their alternatives: investments in child quantity and quality (child-rearing and transmission of knowledge and skills), home-based and market productivity in household, agricultural, and wage-earning tasks. Analysis of productivity must be disaggregated by sex within the household unit, here defined as a kinship group having joint decision-making and ownership of resources, which may change over time and in response to economic conditions. The several studies are discussed in terms of the difficulty of measuring women's productivity when so many activities are not recognized or monetized, such of women's work involves simultaneous activities, labor markets are restricted, and women's access to productive resources (including training) is lower than men's.

A framework is suggested in which all the outputs of women's productive activities are measured; labor input is disaggregated by sex in all categories of production; joint production is acknowledged. The question of how the household utility function is formulated must be addressed. The problems of valuing full income, including leisure, unemployment and non-monetized tasks are discussed.

B Dorjahn, Vernon 1977

Temne household size and composition: rural changes over time and rural urban differences. Ethnology 16:105-27.

The author describes standard international census and survey definitions of the household as they have been used in research and questions the applicability of these definitions in situations involving (a) informal or consensual marriages, (b) joint or extended family households, and (c) polygamous marriages. The author describes the Temne (of central Sierra Leone) concept of the household which distinguishes between production and consumption units within a single household, and includes reference to single households consisting of two or more married males (extended families) and polygamously married males. For Temne the household is defined as a single production and income unit,

with the head of household acting as administrator on the big farm on which most economically active household members work. Within the household there may be several separate consumption units, inhabiting detached house structures. In addition to work on the big farm, individual household members work on small plots, the proceeds of which go only to the consumption unit. The wife of the household head distributes proceeds of the big farm among consumption units. The tendency of productive adults to put more time into their own rather than the communal farm is leading to the breakdown of extended farming units. The author develops a descriptive typology of Temne households including monogamous, polygynous, extended, single-parent, and solitary or unrelated households.

The author describes changes in rural household composition between 1955 and 1963. Single-parent households appeared. Average household size did not change. The most significant rural-urban differences in household composition in 1963 were: larger average household size in rural areas, no extended households in urban areas, greater frequency of monogamous households in urban areas, and single-parent households more frequent in rural areas.

B Engberg, L. A. 1974

Household differentiation and integration as predictors of child welfare in Ghanaian community. Journal of Marriage and the Family, May, 389-99.

This study in Ghana attempted to use two composite household measures along with socioeconomic indicators of individual members' status to predict child welfare. One composite measure was household integration, used to measure the degree of unity or harmony in the household. It was comprised of family organization, degree of family stability, degree of husband's authority, and status consistency between spouses. The other was household differentiation, a measure of level of living and modernization, comprised of household possessions, financial assets, social participation, and other household practices. Measures of child welfare were schooling, number of children, home improvements, and morbidity and mortality, all as reported by the mother.

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Measurement of these variables required six weeks of interviews and participant-observation by five students living in the study area, for a sample size of 118 husbands and their households. Differences in welfare by these measures were not explained by these variables, using multiple regression analysis. The author suggests that the composite measures might be more relevant if applied only to a household subunit of a woman and her children, but this is not tested.

A Epstein, T. Scarlett 1975

The ideal marriage between the economist's microapproach and the anthropologist's macroapproach to development studies. Economic Development and Cultural Change 24:29-46.

The author stresses the importance of a multidisciplinary approach to studying developing societies. Economic models often do not fit because they ignore cultural constraints or behavior where economic, social, political, and kinship roles converge. Two cases are cited where apparent economic irrationality was the result of cultural factors. In Papua New Guinea, a cocoa cooperative received no supply to sell although the price they offered was higher, because men did not want written records of their land's productivity, due to inheritance patterns. This shows the need for economic and anthropological, microlevel studies of projects.

A Evenson, R. E. 1976

On the new household economics. Journal of Agricultural Economics and Development 6 (January).

This paper discusses the relevance of the "new home economics" (see papers by Becker in this section) to developing countries. The author suggests that the assumption of a single household utility function (i.e., set of consumption preferences) is especially applicable in developing countries where families are dominated by a male head. He argues that households probably do maximize income and are aware of the market value of goods and of their time. Problems with the model are that it assumes fixed family

membership, which is often not the case, and that the household production functions for consumption items are probably not independent, so the functions will not be linear.

The author suggests the implications of the model for fertility, treating children as a consumption good whose consumption uses the mother's time intensively.

The study uses regression analysis of data from the 1961 Indian census to test the significance of the cost of women's time for fertility decisions of the household. It finds evidence consistent with the "new household economics" view that the household operates as a firm and that children may be seen as consumer goods to the parents. Measures of household wealth are associated with more children in the household while women's wages (the opportunity cost of raising--i.e., "consuming" children) are negatively associated with the number of children. Regression analysis was also used to test the significance of children's economic contribution on their schooling. The results indicate that children's wages and the productivity of their family's land (which would increase children's output) are negatively associated with children's school enrollment and positively associated with their labor force participation. Family size is also negatively associated with school enrollment, suggesting the substitution of child "quantity" for child "quality."

A Ferber, M., and Birnbaum, B. G. 1977

The new home economics: retrospects and prospects. Journal of Consumer Research 4 (June):19-28.

The authors criticize the Becker model which holds that individuals work to maximize household income. They argue that women's comparative advantage in home production is due to low market wages, not relative productivity. Research is cited to show that women's work time does not increase men's home production. The concept of diminishing marginal returns suggests that both women and men should engage in some market work and some leisure to maximize satisfaction. The

authors argue that the household's utility function results from the relative bargaining power of members with differing utility functions.

B Fischer, J. L. 1978

Summary report on the Conference on Women and Food, Women in Development. International Conference on Women and Food, at the University of Arizona, Tucson.

This brief report states as a conclusion of the conference that the family is the basic income-earning and consumption decision-making unit, and should be the focal point for program efforts. However, this statement was not universally supported; others held that programs need to be directed at individuals.

B Fjellman, Stephen 1976

Talking about talking about residence: an Akamba case. American Ethnologist 3:671-82.

This article develops a method for identifying variables which can be used to predict the type of residence pattern a particular individual will show. While the method is rather technical, the paper makes the useful suggestion that the types of households in which people reside should be defined in terms of indigenous categories, not those of the outsider. The author mentions the importance of recognizing change over time in household composition and residence pattern.

A Folbre, Nancy 1982

Exploitation comes home: a critique of the Marxian theory of family labor. Cambridge Journal of Economics 5.

This article criticizes both the Marxian and neoclassical analysis of economic dynamics in the household. While material constraints on household production force households to allocate labor and resources efficiently, exploitation of members can occur because of relative differences in bargaining

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power. Increased labor market opportunities for women not only raise the opportunity cost of their child rearing but also increase their bargaining power. Capitalist development results in fewer children because children in the capitalist labor force are of less direct benefit to their natal households than in subsistence production. Thus observed facts are subject to different interpretations from those of neoclassical or Marxian analysis.

The author suggests a measure of intrahousehold economic exploitation by including labor input into market and household production, and comparing for each member labor value produced with labor value consumed. No empirical application is given.

A Folbre, Nancy forthcoming 1983

Household production in the Philippines: a non-neoclassical approach. Economic Development and Cultural Change. Mimeo from Bowdoin College, Economics Department, November 5, 1980.

This article presents a theoretical discussion criticizing the validity of the neoclassical economic assumption of a household having a joint utility function, and uses regression analysis of data from the Laguna (Philippines) household study to test the theory. The results suggest that household utility function reflects relative bargaining power of members.

The Laguna study collected data by interview and direct observation on income and expenditure, food consumption, labor and time use, and interperson and interhousehold exchanges over several years. (See Evenson et al. 1979 for methods.)

Results of the analysis show an inequitable distribution of work and leisure. Women work more total hours than men, and women's wage labor does not reduce total work hours nor increase male hours of household work. Women's wages in the market were two-thirds of male wages, which might result in specialization in household work, but men's type of work or even unemployment was not related to the amount of male time in child care (about one hour per

week). Among children, girls spent more hours than boys in work, and the girls' hours increased with age while boys' hours did not.

Consumption was also inequitably distributed. Adult males consumed more than 100% of the RDA for protein and calories, while women consumed 79% and 87%, respectively. General consumption expenditure for children was equal by sex under age five, after which boys received more, including more direct child care time of mothers.

Intergenerational income transfer occurred in both directions. Children age 25-34 significantly increased parents' income, even if they were not living at home. The effect was greater in higher income households.

B Greenhalgh, Susan 1982

Income units: the ethnographic alternative to standardization. Population and Development Review 8:70-91.

This article discusses the important issue of how to define the household as an income-earning unit. The author suggests that co-residence is not always synonymous with joint earning and consumption of members; some co-residential groups do not share, and in other cases income sharing occurs among several households.

The case of Taiwan is discussed. The economic family (chia) is the extended kinship group. Subunits (nuclear families) may form and dissolve within the chia. Income sharing within the chia varies with its income. The relevant unit for measuring household welfare is probably the chia, not the nuclear household. Dispersal of chia members to different households has increased over time.

The article focuses on measurement of inequality in income distribution, but has important implications for measurement of household welfare.

A Gronau, Reuben 1977

Leisure, home production and work--the theory of the allocation of time revisited. Journal of Political Economy 89:1099-1123.

This theoretical article expands the "new home economics" by introducing the distinction in the model between work at home and leisure. The author suggests that work at home is a substitute for market work (in the production of goods for home consumption), so that market wages will be positively correlated with market work, and inversely correlated with home work. But the effect on leisure depends whether leisure consumption is time-intensive or goods-intensive.

Data from Israeli and United States time budget studies demonstrate that wage rates, employment, marital status, sex, and presence of children affect home work differently from leisure.

The implications for economic gains from marriage and the demand for children are discussed.

B Guyer, Jane 1980

Household budgets and women's incomes. Working paper no. 28 from Boston University, African Studies Center.

This very useful paper discusses the inapplicability of household methods to budget analysis studies in Africa and reports on a study of women's cash budgets in Cameroon.

The author holds that the concept of a household as an undifferentiated decision-making unit does not apply in Africa because of the extent of separation of male and female spheres of activity. She cites anthropological and economic studies demonstrating the relative independence of men's and women's incomes and spending decisions in several African settings, while recognizing that within households some resource transfers do take place. She suggests that African households can be viewed as "particularly dense centers in a field of exchange

relationships rather than closed units." Household members are interdependent, having complementary functions; these can change over time.

The paper reports a study of the daily cash transactions of 23 women over two months, one during the groundnut harvest (women's crop), and one during the cocoa harvest. In this setting, men are largely responsible for cocoa production for exports; women do subsistence cultivation and marketing of food crops. The study found 57% of women's cash is earned; the rest is transfers, mostly from their husbands. Husbands provide about one third of the cost of food and basic household needs. Unmarried women have lower incomes than married women, because they do not receive these transfers. Women spend 71-76% of their cash on household expenses in both seasons. In a 1964 survey, 31% of total household income (men's and women's) was spent on these items.

Women's incomes are highest during the harvest of men's crops, less because of transfers than because women can earn more from men's spending. Women's incomes have been increasing relative to men's since the 1950s because cocoa prices have declined while the demand for food in urban areas (sold by women) has increased.

B Haugerud, Angélique 1982

Conflict, competition, and cooperation: political economy of the peasant households in Embu, Kenya. Meetings of the Anthropological Association, Washington, D.C., December 3-7.

This paper reports an economic anthropological study of a coffee and a cotton-growing zone in eastern Kenya. (See Haugerud 1979, Section II for methods.)

The paper discusses problems in defining the household for research purposes, and holds that any definition is still subject to problems. One reason is that households are subject to change. In 2.5 years of field work, 20% of households were disrupted due to internal conflict. Conflicts within households resulted in some false reporting by respondents who ignored some other household members.

The paper criticizes the use of the household as the unit of analysis in research because (1) domestic organization is quite variable, so units may not be comparable; (2) the household model hides the processes of negotiation within the household, including determinants of strength and weakness of members; (3) considering the household as a homogeneous unit ignores the varying ways in which resources are acquired.

A Kuznets, Simon 1976

Demographic aspects of the size distribution of income: an exploratory essay. Economic Development and Cultural Change 25 (October):1-94.

This article discusses conceptual issues in using household income as a measure of relative welfare. First, the unit must be a household, not an individual, but the usual definition of co-residential group may include some unrelated individuals who do not depend on the units' income, and may exclude dependent kin (elderly or young single people) who ought to be included. Life span income is more equally distributed than income measured at one point in time. Households with young and elderly heads have lower incomes than households with middle-aged heads. Income as a measure of welfare should also account for the degree of variation over time as well as the average. The author holds household income increases with household size, but per person or per consumption unit income declines.

B Kuznets, Simon 1978

Size and age structure of family households: exploratory comparisons. Population and Development Review 4 (June):187-224.

This conceptually interesting article suggests that conventional measures of income distribution, which measure income of co-residential households, ignores joint decision-making on the use of income by families which do not live together. This overstates income inequality.

Household size is a function of the tendency of adults to live together and the natural rate of increase (i.e., children). Generally, in less developed countries larger households are due to natural increase, while in developed countries, joint living by adults is the dominant factor.

B Kusnic, Michael and DaVanzo, Julie 1980

Income inequality and the definition of income: the case of Malaysia. Santa Monica, Cal.: Rand Report R2416AID, June. 121 pp.

This paper discusses the conceptual issues involved in using income to measure welfare. These include the problem of defining the consumption unit, adjusting for household size (persons or adult-equivalents), and dealing with variation over time. The authors hold that leisure time and home services must be included in the definition of income, but recognize the problems of imputing a value based on wage rates. Data from the Malaysian Family Life Survey are used to test the implications of different definitions of income and household for measures of inequality.

A Lancaster, Kelvin J. 1966

A new approach to consumer theory. Journal of Political Economy 74:132-57.

This article explains, in mathematical terms relatively understandable to non-economists, an important aspect underlying the models of the "new household economics." The author suggests that goods consumed and activities performed by household members yield utility by means of their properties, not directly. This is conceptually important in understanding consumption decisions because very different sets of goods can yield similar sets of properties or characteristics; thus things which are not obviously substitutes may act as substitutes in household consumption.

To obtain utility from goods, households must combine them with the time of household members. Consumption

technology refers to the ways in which utility is derived from the goods. This may be more or less time-intensive.

The recognition of the importance of time in consumption has important implication for intrahousehold allocation, since members' time may be more or less constrained, and this may affect consumption decisions. This article, however, does not address these issues.

B Liu, Paul 1982

Income inequality over the family development cycle. Population and Development Review 8 (Supplement):53-59.

This article describes how different definitions of the household as an income earning and consumption unit can alter measures of income inequality. In the Chinese system, nuclear households (fang) exist within an extended family (chia). It is the chia which is the income-sharing unit. Income is more equal among chia than among fang. Education is an investment in future chia income since it increases children's earnings and thus the later income of parents.

A Nerlove, Marc 1974

Household and economy: toward a new theory of population and economic growth. Journal of Political Economy 82 (March-April):S200-218.

This article criticizes earlier formulations of the New Household Economics because of inherent circularity: the household's utility function reflects those of all the members, but some members (children, for example) are also arguments in the parents' utility functions. Further, there is evidence that decisions to invest in child quality (e.g., health, education) are not independent of the number and characteristics of the children.

The author stresses that the New Home Economics is a conceptual framework, not a theory of behavior. Its important elements are the idea that utility functions deal with attributes, not goods; that they

are a function of household production technology; that time and goods are direct tradeoffs through the labor market. He suggests that intergenerational transfers need to be incorporated into this analytic framework.

B Oppong, Christine 1978

Reproductive and productive roles: some conceptual and methodological issues. Paper presented to informal workshop on women's roles and demographic change, International Labor Organization, Population and Labor Policies Branch, Employment and Development Department, Geneva, November.

This paper provides a lengthy discussion of the problems involved in defining households for research and program-planning purposes. The paper consists of an extensive critical review of anthropological and economic typologies which tend to oversimplify households, to dichotomize, and to assume that people belong to only one household at a time and that households operate as a single unit. The author reviews literature on determinants of household structure and suggests the need to look at different units for different purposes. She suggests a conceptual framework for analyzing domestic behavior based on observing who fulfills what specific roles and responsibilities.

B Pollock, N. J. 1970

Breadfruit and breadwinning on Namu Atoll, Marshall Islands. Ph.D. dissertation, University of Hawaii. 332 pp.

This dissertation is the result of a participant observation study of methods of food procurement. The author notes that household composition is constantly changing as nuclear families move in and out of joint family settings. Households are defined in terms of residence location; however, mutual economic support obligations are not confined to this group, but extend along kinship lines. By tradition, the household head must be male; if no man is present, a woman may share the role with an absent male family member. The author discusses the sexual

allocation of tasks, indicating a strong sexual differentiation of acceptable work. Responsibility for decision-making is also allocated by sex. Only men may trade with the shops which buy copra, so men decide what to purchase with the cash income.

A Rosenzweig, Mark 1977

The demand for children in farm households. Journal of Political Economy 85:123-46.

This article modifies household economic theory by recognizing the dual role of children as "consumption goods" and productive laborers within the household. The author suggests that, as returns to children fall and costs rise, fertility will fall. Off-farm work opportunities lower returns to children by reducing the likelihood that children will work on the farm. Increases in the value of the wife's time also reduce fertility. The value of children is endogenous in the model, because it is affected by the number of children.

The model is tested using aggregate U.S. data. The results differ from those in which children are viewed only as a consumption good.

A Rosenzweig, Mark 1982

Wage structure and sex-based inequality: the family as intermediary. Population and Development Review 8 (Supplement):192-206.

This article suggests a simplified economic model of investment in children, based on differential sex-based wage rates and three age categories: child, parent, and elderly parent. The model suggests that inequality of income may be exacerbated if households invest more in the productivity (e.g., education) of children to whom returns will be highest (i.e., males). The model can be used to predict effects of changed wage rates on schooling decisions.

Another contributor to this decision is the relative substitutability of girls' and boys' time for

mother's time. In Indian, when women's wages rose, girls' school enrollment fell, presumably because girls were replacing their mothers at home.

B Schultz, T. Paul 1982

Family composition and income inequality. Population and Development Review 8 (Supplement).

This article discusses the mechanisms by which household income influences household composition. The two separate determinants of household composition are the decision of adults to live together and the number of surviving children per adult; income affects both determinants. Number of children is inversely related to women's wages, but directly to men's wages, and inversely to returns to child schooling. Colombian and Indian census data are used to quantify the effects of income on these two determinants. In both countries, extended family households have lower fertility than nuclear households.

A Schultz, T. Paul 1982

Women and economics of the family: some concepts and issues. Paper prepared for the Rockefeller Foundation Conference on Women, Households and Human Capital Development in Low-Income Countries, July 12-14.

This article is a conceptual discussion of how economics deals with intrahousehold allocation issues.

In economic thinking, the household or family coordinates the production and consumption of its members, and allocates its labor at market-clearing rates. Since by convention only market activities are counted, women's production tends to be underestimated; this is currently changing with the increase in time use studies. The intrahousehold allocation model assumes net gains to all household members, or they would not stay in the household. The author criticizes game theoretical and other models as being based on untested assumptions.

The author holds that policy-makers cannot easily influence allocation within the household, since households have mechanisms for substitution of resources; he suggests that human capital development is easier to target.

B Stark, Oded 1981

The asset demand for children during agricultural modernization: notes and commentary. Population and Development Review 7 (December):671-75.

This brief article discusses the "Caldwell hypothesis" that economic development causes fertility reduction because in a modern economy children's labor is not needed when young, and their economic contribution in later life is small.

The author suggests that, in the early stages of development, households may want more children because they may, as migrants to the city, provide the cash income which households need to join the modern economy. Investment in education is directly related to parental expectation of support.

The author suggests this new hypothesis needs to be tested empirically.

C UNECA/FAO no date

The role of women in population dynamics related to food and agriculture and rural development in Africa. United Nations ECA/FAO, Women's Programme Unit.

This paper describes the relations between food production, women's roles, and population in rural Africa. Although women are the primary producers and processors of food crops, program planners assume that the "small farmer" is male. In spite of the major role played by rural women in agricultural production they lack access to the tools of development, including technology, credit, and education. Most agricultural extension and research is directed to men and focuses on cash crops, thereby misdirecting information on techniques for improved food production. Further, increasing cash cropping adds to women's work burdens.

Education and employment are the major factors influencing female fertility, but education's influence on female fertility depends on the ability of women to use it in gainful employment or other community action. "Modern" sector employment correlates with lower fertility, subsistence employment with higher fertility.

The paper proposes the "unit of participation" as a measure of women's labor in various subsistence and early modernization activities. It is defined as the percentage of total labor associated with a particular task that may be attributed to women and expressed as 1 or a fraction. The unit of participation, based on the best available data, will indicate who should receive the benefits of a particular agricultural project.

C UNFAO (U.N. Food and Agriculture Organization) 1979

Women in Food Production, Food Handling and Nutrition.
Rome: U.N. Protein Advisory Group Report, June.

This is an extensive report that critically reviews research on women's economic and social roles and determinants of food consumption and nutrition in Africa. It draws on literature from the field of nutrition and diet, anthropology, sociology, and program-related research, with numerous detailed discussions of specific studies. The point is made that the household should not be the unit of analysis for program planning, since many functions relating to food production, preparation, and distribution are the responsibility of specific individuals within the household. New methods of data collection are needed to measure food consumption and nutrition; time allocation studies should be used both to identify productive activities and to calculate energy expenditure. Nutrition and social science techniques need to be combined.

The report criticizes many widely held myths and holds that empirical data are needed to confirm or contradict them. These myths include the detrimental effect of feeding patterns whereby men eat first, the detrimental effect of food taboos, the assumption

that farmers are usually men, and the assumption that all household income is equally distributed among household needs.

Conceptual analysis of determinants of nutritional status is presented, and recommendations for program planning are made.

B White, Benjamin 1980

Rural household studies in anthropological perspective, in Binswanger et al., eds., Rural Households in Asia. Singapore: Singapore University Press.

This thoughtful chapter discusses the development of anthropological approach to the study of households. The author cites several examples (Tiv, Dayak, Taiwanese, Javanese), demonstrating that various functions used to define households (e.g., coresidence, shared consumption, pooled labor) do not define the same units. He suggests that it is fruitless to search for a universal definition or comprehensive typology of the household, but that anthropologists and economists must define the household functions of interest and the groups they define in a particular setting. All societies have a range of household and family types, with groups that share resources and tasks to varying degrees. Further, households go through developmental cycles based on the tension of children approaching adulthood continuing to live under the control of aging parents. This tension creates a tendency for extended-family households to fission. Economic forces (e.g., the need for household labor) can hold households together for longer periods. This dynamic household structure has not been recognized in the early literature.

The point is made that analyzing household behavior as a function of household structure is difficult because households change radically over time. Thus households studied over several years will not be the same households.

C World Bank 1979

Recognizing the "invisible" woman in development: the World Bank's experience. Washington, D.C.: World Bank. 33 pp.

This pamphlet reviews some of the economic and social factors that limit women's participation in the benefits of economic development in the context of Bank projects.

These factors include the separate roles of women and men in agriculture (with the risk that a development focus on men's cash crops may displace women's food crop production and increase women's work burden), the social determination of women's access to productive resources, and the time constraints on women. The effects of projects should be analyzed for men and women separately.

B Yanagisako, Silvia Junko 1979

Family and household: the analysis of domestic groups. Annual Review of Anthropology 8:161-205.

This article reviews ten years of published anthropological literature on the dynamics of the family. The author reviews definitions of households and concludes that while kinship can define the family, the household is a separate concept to be defined in functional terms. There are no set definitions of household.

The author reviews demographic, economic, and structural explanations for variation in the form of the household, and describes new perspectives in the analysis of families.

She suggests that the commonest definitions of family are nuclear, mother and children and other kinship groups, but states these may not be socially significant or have any functional meaning in a given society.

Section 11

A,B Acharya, Meena, and Bennett, Lynn 1981

D

The Rural Women of Nepal: An Aggregate Analysis and Summary of Eight Village Studies. Vol. 2, part 9. Centre for Economic Development and Administration, Tribhuvan University, Katmandu, Nepal.

This book describes the methods and summarizes the results of an intensive eight-village study of women's roles in Nepal, which has been published in eight separate volumes.

Eight villages were selected for maximum cultural variation. One researcher lived in each village for the period of the study; data were collected by participant observation, informal guided interviews of key informants, and structured interviews covering demographics, assets, income, production, expenditure, employment, credit, decision-making, and attitudes toward male and female roles. Decision-making was measured by asking senior males about four stages in the process: suggesting, deciding, implementing, and disagreeing. Thirty-five randomly selected households in each village were included in the surveys. Of these, 24 per village were selected for time allocation study by direct observation using the random spot-checking method.

The study found that, accounting for home as well as market production, women's contribution to household income is 15% higher than men's, although cash income is 73% less. The labor burden of women is 10.81 hours/day, compared with 7.51 for men. Work burdens for both sexes were lower in extended households than they were in nuclear households, and burden varied by position in the family. Junior married males worked the longest among males; among females, young daughters-in-law worked the longest hours, and adult unmarried women put in the most hours in paid labor.

Villages were distinguished by the rigidity of the dichotomy between women's and men's spheres of activity. The study found that men predominated in decision-making where the dichotomy was strong, while roles were more equal or women predominated where the dichotomy was weak. Women were more likely to

initiate suggestions than to make the final decision. Women were responsible for 40% of household labor allocation decisions; in 47% of households women kept the household cash, and in 39% men kept it. Agricultural decisions by women were commensurate with their time in agricultural production.

This book and the eight separate studies are an enormously rich source of data. Detailed methodological descriptions are given.

B,C Batiwala, S. 1981

Rural energy scarcity and nutrition: a new perspective. Economic and Political Weekly 17:329-33.

This interesting article argues that an alternative approach to alleviating malnutrition is to address energy cost rather than to try to raise food consumption.

Data from a large-scale survey (3500 persons, 560 households) of rural technology were used to estimate caloric energy use of household members. Women contributed 53% of the energy, men 31%, and children 16%. Most energy was spent on survival task such as getting water and firewood; this exceeded energy use in agriculture.

Women reported that the distribution of sorghum (the staple) in the household was 2 to 1 to .5 for men, women, and children. The author suggests that the introduction of appropriate technology to reduce women's energy expenditure is more feasible than altering distribution patterns.

B Beneria, Lourdes 1982

Accounting for women's work, in L. Beneria, ed., Women and Development. New York: Praeger.

This article discusses the fact that conventional measures of labor force participation are inaccurate because they tend to count only paid work and work that produces exchange value, thus underestimating unpaid household work that produces use value. This underestimation particularly affects women.

Secondary data, such as census information, are unreliable also because often only the self-reported "primary activity" is counted. Thus women who engage in productive work but consider themselves housewives will not be counted as economically active.

The author discusses how social relations within households affect the division of labor by defining access to means of production. This shows that public and private spheres are closely connected.

The author suggests that future studies recognize economic activities that add to human welfare irrespective of market status. Measurement should include both number of hours spent in use-value production and information about the composition and duration of specific tasks.

B Boulding, Elise 1983

Measures of women's work in the Third World: problems and suggestions, in Buvinic, Lycette, and McGreevey, eds., Women and Poverty. Baltimore: Johns Hopkins University Press.

This article discusses the fact that conventional definitions of the labor force underestimate the work of women and children, and proposes that home production, including agriculture, crafts, services, and barter, be included as a category in studies of employment.

E,F Burch, T. K., and Grendell, M. 1970

Extended family structure and fertility: some conceptual and methodological issues. Journal of Marriage and the Family 33:2.

This article discusses the hypothesis, common in literature on fertility, that women living in extended households have higher fertility. The authors hold that empirical evidence does not support this hypothesis and suggest methodological refinements are needed to study the question. These include the need to define the household more carefully, distinguishing between co-residence and

kin group; and the need to keep the time reference of fertility (current or cumulative) congruent with that of family structure.

G Butz, William 1981

Why collect retrospective data? Santa Monica, Cal.:
Rand Paper Series, December.

This brief paper compares retrospective data collection with longitudinal panel data. Both can document characteristics, behavior, and changes in the same individuals over time. Retrospective data differ from panel data in that they have no information on attrited (through death and migration) respondents; sample selection may be based on initial or terminal characteristics; quality of data is questionable, and worse with longer recall periods. Interviewing for retrospective data is more complex, but survey management is simpler than for a panel study.

The author makes the point that there are not adequate statistical or even conceptual models for dealing with data from either kind of survey that covers long time periods. He suggests that retrospective data may be a substitute for prospective surveys in some cases.

E Buvinic, Mayra, and Youssef, Nadia 1978

Women-headed households: the ignored factor in development planning. Report submitted to USAID Office of Women in Development, Washington, D.C.

This lengthy report is a rich source of information on the causes and circumstances of female-headed households in developing countries. Numerous empirical studies are cited in detail, and census data from various countries are analyzed for indications of the prevalence of female headship. The authors explain the importance of this phenomenon for targeting development aid appropriately. They stress that the assumption that traditional societies automatically protect women is not supported empirically. Studies must recognize that ideal behavior often departs from what really happens.

The authors distinguish between de facto and legally recognized women-headed households. De facto female headship results from migration, desertion, and polygamy. Census data tend to understate the proportion of women-headed households, partly because of the cultural bias in reporting "head of household." The figure is now estimated to be between 25 and 33% of all households worldwide. This figure varies widely by country and region.

Various types of female-headed households in different regions are described, based on empirical studies, in terms of their age, composition, and strategies for survival. Women and children in female-headed households are more likely to work outside the home.

In Latin America and the Caribbean, consensual unions are common and less stable than legal marriage; in much of Asia, the large age difference between husbands and wives results in widespread early widowhood. Divorce is common in a number of societies in Africa, but men are more likely to remarry these women.

Problems of measuring the prevalence of female-headed households are discussed. A table divides countries into groups by proportion of probable female-headed households.

B Cain, Mead; Khanam, S. R.; and Nahar, S. 1979

Class, patriarchy, and women's work in Bangladesh. Population and Development Review 5 (September).

This lengthy article provides a detailed discussion of the patriarchal social structure in Bangladesh and its effects on women's home production, labor force participation and wages, economic security, and status. Males control productive resources, including women's labor. The results of a study of 114 households in Mymensingh district are also reported. Twenty-four hour time budgets were collected by retrospective interview for every household member over age four every 15 days for a year. The authors argue that time allocation is the

only way to study work roles of women because home production is non-monetized, and much labor is home- or family-based.

The study found women and men work about 8.3 hours per day, of which 85% is allocated to home production for women and 64% is allocated to wage and agricultural work for men. Poorer men do more wage work; men from landed households do agricultural work. In better-off households men work fewer total hours; there is no difference for women.

Sexual division of labor is rigid. Women's market work does not affect men's home production. There are fewer wage opportunities for women than men, and wages are lower. Child care, exclusively a woman's responsibility, reduces labor force participation. Women are thus dependent on men for support.

The authors report qualitative evidence that males, especially adult males, are favored in household food distribution, since men eat first. Women often forgo their inheritance rights to obtain favor from brothers in case of widowhood. Women's greatest security is to have sons.

Women's work time varies by status in the household: new daughters-in-law work 9.7 hours; wives with children, 8.3 hours; and mothers (of household head), 5.1 hours.

The authors report that nuclear families are becoming the norm in Bangladesh, and that traditional family support networks for women are breaking down.

C Chaudury, Rafiqul Huda 1983

Determinants of intrafamilial distribution of food and nutrient intake in a rural area of Bangladesh. Monograph (draft), Bangladesh Institute of Development Economics, Dacca, February.

This paper reports results of a 12-month survey of 108 households (572 individuals) in a village in Bangladesh. Data were obtained by observation, food weighing, and interview on food consumption, cost, source, and intrafamily allocation; on time use by

all members over age 5. The latter was used to calculate caloric needs of household members adjusted for both body weight and actual activity level.

The study found that caloric adequacy in these terms was not determined simply by sex, but also by age and position in the household. Women aged 15-30 are least likely to meet their caloric needs, possibly because they are new wives not yet established in the household, and possibly because many in the group are pregnant or lactating. Among older adults and children aged 1-3, females met their needs more than men.

In larger households, caloric adequacy is greater for all males under 30; over 30, it is greater for women. In the lean season, though, caloric adequacy is higher for males in almost all age groups. Among households that produce their own food, all members receive more food.

Household caloric adequacy does not predict caloric adequacy of individual members.

C Chen, L.; Huq, E.; and D'Souza, S. 1981

Sex bias in the family allocation of food and health care in rural Bangladesh. Population and Development Review 7:55-70.

This article describes and reports results of a careful, detailed study to test the hypothesis that the higher mortality rate of girls than boys aged 1-4 in a rural village in Bangladesh is due to sex bias in allocation of food and health care.

The study used records of the International Centre for Diarrheal Disease Research on births, deaths, and diarrheal treatment of 882 households with children under age 5. These households were surveyed to obtain baseline data on socioeconomic and anthropometric status of household members. A sample of 130 Muslim families was selected for in-depth one-year longitudinal study, including 24-hour individual and household food consumption, anthropometry, morbidity, and assets, income, and expenditure. Food consumption was measured by weighing raw food and by

direct observation of the volume of food as served, the household's utensils having been measured previously.

The study found female mortality exceeded male mortality between ages 1 and 44, the difference declining with age. Male mortality was higher in infants and in adults aged 45-64. Severe and moderate malnutrition (weight- and height-for-age) were much higher among female children; male caloric and protein consumption was greater than female in all age groups. Rates of infection were (insignificantly) lower for girls. Incidence of diarrhea did not vary by sex, but males were treated 66% more often than females. This pattern persisted to age 14, after which females used health services more.

The authors suggest that sex bias in food and health care allocation is due to the expected economic contribution of sons. The study found women distribute family food, that men rarely made explicit requests for more food, and that typically families ate the evening meal together. Women denied that they allocated food differently based on sex, but said they would favor males in conditions of scarcity.

B Deere, Carmen Diana 1982

The division of labor by sex in agriculture: a Peruvian case study. Economic Development and Cultural Change 30:795-812.

This article describes problems of estimating women's contribution to agricultural production in Cajamarca Province, Peru. Census data found a sharp decrease in women's agricultural participation from 1930 to 1970. The explanation was that early census surveys asked for descriptions of activities contributing to the household economy, while later surveys simply asked for principal occupation, so that, given cultural norms, women described themselves as housewives. Also, the period of reference was shorter in later surveys, so that unpaid family work that was reported was less likely to be counted in the later years, especially since the census occurs during the agricultural slack season.

The author discusses women's agricultural participation by economic class. Women do more such work, a higher proportion of the total, and a greater variety of tasks in poorer farm households that are more dependent on family labor.

- B Deere, Carmen Diana, and Leon de Leal, M. 1979

Measuring women's work and class position. Studies in Family Planning 10:370-78.

This article discusses several methodological problems in measuring women's economic participation by sample survey and suggests some solutions.

The unit of analysis is commonly the household, but the unit of production and reproduction may not be coterminous. Questionnaires should be designed to capture activities of both the consumption and production units; this requires previous participant observation to know the dimensions of these units. Similarly, the variety of types of activities must be known, to measure time labor force participation.

Two methods of measuring time use are compared: recall based on activity list, and a schematic to chart days of participation and individuals involved in each task. The latter method yielded a higher estimate of women's agricultural labor. A third method suggested is to ask, for each activity, for a subjective estimate of frequency of participation.

Sample design issues are also briefly discussed.

- B Engle, Patricia, and Butz, W. P. 1981

Methodological issues in collecting time use data in developing countries. Paper presented at the Society for Research on Child Development Symposium, April.

This relatively brief paper discusses the importance of time use studies, especially for quantifying the economic contribution of women, whose work may not be monetized. Data on time use are collected by observation (whole day or random time periods); recall (24-hour sequence, or by activities presented

in a list), and by diary (generally not used in LDCs). Important measurement issues are reliability from one observer to the next, validity--especially of recall--and data quality. For coding, having appropriate categories is important, and the coding system must be able to handle joint or concurrent activities.

A B Ensminger, Jean 1980
C

Household economy among the Orma: methodological issues in the collection of quantitative data among pastoralists. Discussion paper for Conference on Ecological Stress in Eastern Africa sponsored by Northwestern University and the National Museums of Kenya, Nairobi, June 15-17.

This paper describes in detail the methods used to collect data for a study of decision-making among a semi-nomadic pastoral group in Kenya. (See Ensminger ???, Section ??? for results.) The study involved more than a year of participant-observation and informal interviewing by the author as well as formal surveys by hired enumerators.

Recognizing the importance of interhousehold as well as intrahousehold exchanges, the author included three whole villages in her sample, to capture these exchanges. The study followed transhumant households in their different locations. The author states that these methods may not be applicable to other nomads, since this group does not travel far and has fixed locations.

Income expenditure information was collected from a single baseline survey and a household budget survey of all income and expenditure repeated semi-monthly, except semi-weekly during harvest. The questionnaire covered 31 types of expenditure and 8 types of income in a list developed based on participant observation.

Food consumption data were obtained through interviews conducted every five days with each person in the household who cooks or milks cattle. Period of recall was one day for food consumption, five days for sale, gifts, and consumption of ghee. Food gifts

were recorded by type, quantity, and relationship of donor or recipient. Quantities were measured in the respondent's own utensils.

Time use was measured by periodic direct observation of actual activity performed by each household member (once every ten days), and by self report (every five days), of time spent in each of 23 work-related activities during the past five days. The activity list was developed based on systematic random visiting during the period of participant observation.

A B Evenson, R. E.; Popkin, B.; and King-Quizon, E. 1979

C

Nutrition, work, and demographic behavior in rural Philippine households. Working paper no. 308, Economic Growth Center, Yale University, January.

This paper discusses the methods used to collect data for one round of a multipurpose study of households in Laguna, Philippines focusing on fertility, health, time allocation, and home and market production of various household members. Data were collected on 99 households using survey methods.

Income and expenditure data were collected by recall of seven days prior to interview, covering market work and home production. Six types of activities were specifically included, but the authors believe home produced and consumed goods were underreported.

Dietary data were obtained from a 24 hour recall and a food record which mothers were asked to keep. Food allocation to different members was measured at these times, two months apart, but the authors question the accuracy of the reports.

Time use data were collected by direct observation and recall. Observers stayed in households all day and recorded time spent on a list of 30 activities. Simultaneous activities were recorded separately. Recall was used to get information on activities away from home.

Health/nutrition status was measured by weight for height of children and recall of perceived health problems in the previous month.

Time budget results showed men who spent less time in market production spent more time on home production (child care, food preparation) and leisure. Women who spent more time in market production reduced leisure. Food preparation time was reduced only if market time exceeded six hours.

B Gillespie, H. H. 1979

Rural women's time use. Studies in Family Planning 10:383-84.

This empirical study used direct observation to obtain time budget information for women in rural Nicaragua. The article discusses the benefits of this research method.

Direct observation obtains data on the time it takes to do tasks and who does them; this information cannot be obtained by recall methods. In interviews, respondents tend to report cultural norms rather than actual behavior. Further, direct observation gives researchers a fuller understanding of the subjects; and may suggest new lines of research.

The study observed three types of women: housewives, potters, and factory workers. About half the factory workers lived with parents who performed the household maintenance work.

The study obtained food consumption data by observation. It found that husbands and children are served their meals before women, and that special foods (eggs, meat) are given to men or older male children.

D Harrington, Judith 1983

Nutritional stress and economic responsibility: a study of Nigerian women, in Buvinic, Lycette, and McGreevey, eds., Women and Poverty. Baltimore: John Hopkins University Press.

This study measures the economic and physical burdens (due to household maintenance responsibility and to pregnancy and lactation) of three groups of women in

Nigeria: Yoruba, Benin, and Kano. Data were obtained from large-scale random sample surveys which interviewed all adult (over 15) members of each sample household. A 20% subsample received a more detailed questionnaire.

The study uses an "index of economics" which uses women's responses to a series of questions on who paid for basic household needs. Each item was scored 100 if the woman paid, 0 if anyone else paid, and 50 if the expense was shared.

The author discusses some problems with the index. It measures specific categories of expenditure rather than the total budget; it does not reflect different degree of partial contribution; women may not accurately report the situation. A further problem (not mentioned) is that the actual decision to make it may not rest in the same person. Also, the index takes no account of possible change in economic responsibility if members' capacity to pay changes.

A nutritional stress index was developed which was the total months spent lactating or pregnant as a percentage of total reproductive life (months since first birth).

A B Haugerud, Angelique 1979
C

Methodological issues in a study of resource allocation decisions among Embu farmers. Working paper no. 357, Institution for Development Studies, University of Nairobi, Kenya, July.

This paper discusses the methods used and their rationale in an economic anthropological study of resource allocation in a coffee and cotton growing zone of rural Kenya. (See Haugerud 1981a and 1981b, Section III for results.)

The author argues that survey techniques must be combined with participant observation to obtain meaningful information. Economic models must include the social and cultural constraints on decision making and on the range of choices open to households, and the multiple objectives of many economic decisions. In LDCs some market relations are culturally determined by age, sex, and status.

25

In the present study, the author spent 2.5 years in participant observation which permitted development of questionnaires with the local names for things and adapted to local conditions.

Data were collected on income, expenditure, agricultural practices, time use, and food consumption. Interviews were conducted weekly on production, consumption, gifts in and out, and time allocation. Food consumption data were obtained from every woman who cooked. Time use data were obtained by recall, but checked by direct observation of household members at random and purposely selected times.

C Horowitz, Grace 1980

Intrafamily distribution of food and other resources. Report to the Nutrition Economics Group, OICD, USDA, Washington, D.C. July.

This paper summarizes a large number of studies of intrafamily food distribution (IFFD) and discusses their methodological shortcomings. The author suggests these studies are important for designing and evaluating nutrition interventions. Three major hypotheses in the literature are (1) inequitable food distribution is a rational response to an absolute resource constraint; (2) it is due to maladaptive food taboos and beliefs; (3) it is a problem of behavior, separate from these, with causes to be determined.

Methods used to determine IFFD include dietary recall, records and diaries, food frequencies and other shortcut methods. Problems include accuracy of recall, validity of data on consumption, and sometimes lack of knowledge on the part of the respondent (for example, when people eat from a common pot or when a mother answers for a child whose consumption she cannot monitor). Consumption is not a direct measure of nutritional status.

The author discusses possible mechanisms influencing IFFD. Positive and negative evidence on the relationship between women's work for pay and child nutrition is presented. Seasonality is discussed.

The author concludes that there is some information on IFFD, but little information on determinants of these patterns.

This paper provides a comprehensive summary of the available literature on intrafamily food allocation.

C Hull, Valerie 1982

Dietary taboos in Java: myths, mysteries and methodology. Mimeo from the Department of Demography, Australian National University. 28 pp.

This paper discusses the literature on dietary beliefs in Java. Most work is based on questionnaires, not direct observation, so the data describe normative, not actual behavior. The author stresses the importance of collecting information on actual dietary patterns and changes in pregnancy, lactation, and at other times in the life cycle. She cites two studies which give conflicting evidence about the preferential distribution of food to children, and states her own observation that children are preferentially treated in Java.

B Johnson, Alan 1975

Time allocation in a Machinguenga community. Ethnology 14:301.

This important and widely cited article details a method for collecting data on time use and reports results of this method used in a study of Peruvian Amazonian Indians.

Data were collected on a sample of 13 households containing 105 members from June 1972 through August 1973.

The method entailed spot checks of activities of all household members at various times throughout the day and on different days of the week. Predefined categories of activity were not used. Observers described whatever activities were taking place at the time of the visit before household members became aware of their presence. Activities of members not present were recorded based on interviews with those

present. Activities were recorded in longhand and then coded on computer cards in the field. The households sampled, times, and days of the visits were randomly selected. Times of observation were limited to between 6 a.m. and 7 p.m.

The study found significant differences in types of productive work performed by men and women, but no significant difference in the amount of time spent in idle (vs. productive) activity.

B King-Quizon, Elizabeth 1978

Time allocation and home production in rural Philippine households, Philippine Economic Journal 17:36:185-202.

This article reports a study of time use in Laguna, Philippines rural households. Data collection methods are described and results presented.

Data on time use were collected from adults in the sample households by recall over the past week for nonseasonal activities and for a longer period for seasonal activities. Estimates were given of hours per week spent. Leisure time was calculated as the residual after market and home production were accounted. In addition, direct observation of households was conducted in three 24-hour visits over 8 months. It was assumed that the direct observation method was more accurate. Comparison of the two methods found observation measured more than three times as much market production time of children as recall, because parents view children's work as leisure or training.

The study found that fathers who work fewer hours in the market devote more time to home production, including child care and food preparation, and to leisure. The same pattern was observed for mothers. Presence of an infant increased women's home work time by three hours per day, but a large number of children increased parents' leisure (perhaps because older children could take on some work).

Time allocation is affected by market wages (which alter the opportunity cost of home production);

education; age (market and home production increase with age until children become productive, then they decrease); seasonal change.

The data indicate that home production is economically more important than market production.

Leacock, E. 1978

Women's status in egalitarian society: implications for social evolution. California 19 (June):247-75.

This article reviews some of the empirical and theoretical literature on women's autonomy in various cultures. The author suggests that much research tends to overstate women's loss of autonomy with modernization because of the researchers' own bias. The notion of female autonomy is difficult to operationalize because it tends to force polarization of authority where this may be inappropriate.

McSweeney, B. G. 1979

Collection and analysis of data on rural women's time use. Studies in Family Planning 10:379-83.

This article describes in detail the methods used for a study of rural women's, men's, and children's time use in Upper Volta and reports results on the sexual division of labor in minutes per task. The study was to be used in planning an education project for women.

Data were collected by interview of a random sample of 30 women on resources, time allocation, the effects of technological change on time use. Data on time use were collected at three different times of year by direct observation of the sample women for the first 14 hours of the day. Activities were recorded in minutes. Similar data were collected for five men in each village, and single observations on five girls and five boys of different ages.

A comparison of observation and recall data found that recall failed to capture 44% of women's work.

The study found that women spend more hours working than men and that this pattern begins at age 7. Age of adult women did not affect their time use. However, women with co-wives worked fewer hours and spent more time in leisure (3 hours, compared with 1.75) than monogamous wives. There was a significant sexual division of labor, with women responsible for food processing, household work and child care, and many agricultural tasks, and men responsible for craft work, community obligations, and some agricultural work, particularly harvesting crops.

A B Mencher, Joan; Saradmoni, K.; and Panicker, Janaki 1979

Women in rice cultivation: some research tools.
Studies in Family Planning 10:408-12.

This article describes data collection methods used in a study of rural women's time allocation and income use in India.

A set of charts was developed which could be filled out by illiterate women. The time use chart showed simple pictures representing different activities, and two schematic pictures of the sun to indicate morning and afternoon. Women were asked to mark the box for each activity they performed in a given day. The income chart showed simple pictures of household members (man, woman, younger man and woman, girl and boy) with spaces to mark for each rupee earned by each member; or one unit of payment in kind (standard units are used).

The charts were supplemented with visits by literate but not highly educated women data collectors who met with respondents and reviewed the charts.

Tests showed respondents had no problem understanding and using the charts.

B Minge-Klevana, Wanda 1980

Does labor time decrease with industrialization?: a survey of time allocation studies. Current Anthropology 21 (June).

This article provides a good review of the methods used in labor time studies and discusses the consequences of methodological differences. The author suggests that studies must define the family, labor, time spent, and the intensity of labor performed.

The question whether labor time has decreased with industrialization is addressed.

A Mitchell, J. C. 1949

The collection and treatment of family budgets in primitive communities as a field problem. Rhodes-Livingstone Journal 8:50-56.

This article provides a general discussion of the problems of collecting data on incomes and expenditures. The author suggests working with a list of commodities which might enter household budgets, and asking about expenditure on these items. However, the problems of accuracy and statistical representativeness are acknowledged.

A,B Mueller, Eva 1978

The women's issue in measuring household economic status and behavior in developing countries. Paper prepared for the International Center for Research on Women's Conference on Women in Poverty: What Do We Know? Washington, D.C., April 30-May 2.

This paper discusses the data which, under the ideal circumstances, would be needed to analyze the causes and consequences of women's poverty in developing countries, acknowledging that no study would have the resources to obtain it all.

Information is needed which is amenable to multivariate analysis, which includes women in all

classes and lifecycle stages, and which documents employment, support systems, and attitudes of and toward women.

Employment data must cover seasonal variation, market and non-market work, and compatibility of work with other tasks. Time use studies are needed for this.

Measures of support systems must include not just amounts and values, but the nature of transactions and their dependability.

Measurement of personal sense of power requires psychological techniques.

In addition, parallel data on men would help in the analysis.

A Mueller, Eva 1983

Measuring women's poverty in developing countries, in Buvinic, Lycette, and McGreevey, eds., Women and Poverty. Baltimore: John Hopkins University Press.

This article discusses the problems of measuring women's economic status. The author suggests that microlevel data are needed on employment, networks of support, and social attitudes. These data must be gathered through personal interviews.

Unpaid household work and "secondary" wage labor of women are commonly not included in measures of income; information on these may be obtained by time allocation studies. Transfer payments are often important to women's income. Amount and reliability of transfers must be measured.

The author suggests that psychological testing be used to measure women's own perceptions of their personal efficacy and work attitudes. Problems of implementing such studies are not discussed.

C Nutrition Economics Group (USDA) 1982

Intra-family food distribution: review of the literature and policy implications. Draft. Washington, D.C: Office of International Cooperation and Development, Technical Assistance Division, March.

This is a very useful paper which presents an analysis of the possible factors influencing intrafamily food distribution and then reviews in some depth the results of several food consumption surveys. Results are summarized and methodological problems are discussed.

The paper concludes with a list of information needs missing from available surveys and needed to understand intrafamily food distribution. This includes: complete information on food consumed by all members, including that eaten away from home; income related patterns, particularly attitudes toward the productivity of different household members and toward their roles, and beliefs about different kinds of foods.

H Oppong, Christine, and Chevrik, K. 1981

A field guide to research on seven roles of women: focused biographies. Working paper no. 100, Population and Labor Policies Programme, May.

This paper suggests an approach to analyzing unstructured interviewed data on women's roles and behavior. Seven roles are identified: parental, occupational, conjugal, domestic, kin, community, and individual. Each role has three aspects: behavior, expectations, and role conflict. Each aspect is divided into various categories: activities, time use, knowledge, resources, power, and relationships. A lengthy list of questions relating to each category is provided. An example of its use in analyzing some interviews with Ghanaian women is provided.

This framework appears to provide a basis for exhaustive description rather than systematic analysis.

A,D Pahl, Jan 1980

Patterns of money management within marriage. Journal of Social Policy 9 (July):313-35.

This article distinguishes three types of pattern of money allocation within marriage: the whole wage system (husband turns whole wage over to wife), the allowance system (husband provides fixed allowance to wife, who has specific responsibilities for household purchases), and pooling. The author suggests that both life cycle stage and income level of the household influence the mechanism used, but states that causal relationships are not yet known. She makes the point that the assumption that income is equitably shared among household members may underestimate the incidence of poverty which may exist if some household members are deprived.

B Peluso, Nancy Lee 1979

Collecting data on women's employment in rural Java. Studies in Family Planning 10 (November/December): 374-78.

This paper describes the research methods used to obtain information women's economic roles. The research was conducted in three stages. First, participant observation of 80 households allowed the author to understand enough to formulate meaningful questions for later stages. For each household there were five full days of participant observation and weekly follow-up visits for six months. The second stage was a household survey covering women's occupation, division of labor and decision-making in the household, and time allocation. The third stage was a survey of market women. The author holds that all stages were essential, the first to provide overall insight and the others to provide statistically supported data.

Results of the survey are not discussed.

D Safilios-Rothschild, Constantina 1969

Family sociology or wives' family sociology?: a cross-cultural examination of decision-making. Journal of Marriage and the Family 31 (May):290-301.

This article reports results of two studies of decision-making among spouses, one in Athens, Greece and one in Detroit, Michigan. In Athens, from 250 randomly chosen couples, 133 wives and 177 husbands were asked whose opinion prevailed in eight decisions. In Detroit, 160 couples with a child under age 6 were asked the same questions as well as 14 others. In Detroit, there was husband-wife agreement less than half the time. Results were similar in Athens. This raises the problem of interpreting the differences in response.

The author suggests there are problems constructing a power score based on responses to these questions. Scores generally do not account for relative importance of decisions, frequency, differential perception by the spouses. The more general was the question asked, the less the husband-wife agreement on who made the decision.

The author concludes with some recommendations for studying family power: develop the list of decisions from respondents; include perceptions of importance and frequency; analyze husbands' and wives' responses separately; include cultural prescriptions of behavior in the analysis.

D Safilios-Rothschild, Constantina 1970

The study of family power structure: a review, 1960-1969. Journal of Marriage and the Family 32:539-52.

This article provides a thorough review and thoughtful critique of studies of power structure in the household. First, the author suggests that terms relating to power, authority, influence, and decision-making have been used interchangeably in the literature, but in fact these are separate, related but not identical concepts. Power is a multidimensional concept that is measured indirectly in terms of behavioral outcome. However, power can

be thought of on many levels, from who wins a particular disagreement to who determines the nature of winning.

Most studies of power have concentrated on decision-making. A problem with these studies is that the choice of which decisions to investigate will affect results. Studies vary widely in the nature of the decisions chosen and their specificity or generality. Therefore comparisons across studies are not valid. Overall "power scores" based on numbers of decisions made can also not be compared, since the composition of the score will be different in each case. Further, such scores do not account for the relative importance and frequency of different decisions, but weight them all the same.

Most studies rely on the wife's responses alone, yet in several cases where both husband and wife were interviewed, discrepancy between husbands' and wives' responses ranged from 15-30% to 55-76%. Generally women attribute more power to themselves, while men perceive decision-making as more egalitarian. Use of children's responses is also invalid, since children's perceptions of decision-making are affected by age and sex.

A methodological controversy is whether decision-making can be studied by survey or requires observation. Survey methods are often criticized, but this paper argues that questionnaire responses are not any less accurate than observed behavior. Studies have shown that behavior varies based on the sex of the observer: wives were more actively involved in decision-making when the observer was female. A number of aspects of decision-making are not amenable to study: for example, careful timing of decision, effects of repetition, strategies of giving in to build up 'capital' for later.

The author holds that theories of family power are limited in scope and focus on a few determining variables rather than an integrated system.

D Safilios-Rothschild, Constantina no date

Female power, autonomy and domestic decision-making as it relates to the division of labor. Mimeo from the University of California, Santa Barbara.

This paper is a discussion of women's power within the household. Power is defined as self-determination and access to the same life options as men. Power may be derived from men, but this continues dependency; it may be derived from women's collective activity or through individual achievement. Women's power decreases men's power. In some--e.g., Caribbean and Latin American--settings, when women's power increases, men withdraw from family responsibilities, but in other cases, women's power results in more equitable division of labor and decision-making.

The author suggests that study of female power should be by observation and interview rather than by formal survey; that men and women must be interviewed separately; and that studies should be longitudinal to capture the dynamics of change.

A,B Sajogyo, P., et al. 1978

Studying rural women in West Java. Studies in Family Planning 10:364-70.

This very useful article discusses methods used in a study of the role of women in rural household economies in Java. The study collected data on division of labor (paid and unpaid), household income, expenditure, and consumption, production technology used, decision-making role of women, interhousehold relationships, and aspirations of rural women.

Research design was structured around measurement of time allocation of all household members, by means of repeated interviews over a 12-month period. The research relied on a short reference period to preserve accuracy. Information was obtained by structured interview and observation and by informal

interviews, case studies, and participant-observation. To avoid distortion in the direction of cultural norms, questions focused on specific recent events rather than general practices.

The sample consisted of 120 households in two villages. Households were visited by the same interviewer monthly; the questionnaires were administered at separate times to avoid fatigue. Time allocation, income, and consumption were measured using a 24-hour and a one-month reference period. Decision-making was measured by informal interview.

Analysis showed that 24-hour recall resulted in a 30 to 60% higher measure of time spent in income-earning activities than 30-day recall. This has serious implications for accuracy of survey data.

The authors point out that even with a small sample, the amount of detailed data collected was enormous and hard to manage. They stress the advantage of having qualitative data about the culture and community.

C Sharman, Anne 1980

Dietary choice and resource allocation by household and household members. Paper presented at the 79th Annual Meeting of the American Anthropological Association, December.

This paper reports results of a three-year participant-observation study of 40 urban, black, low-income households in the U.S., focusing on dietary pattern and food consumption. The author holds that, in this population, individual characteristics and personal history affect diet more than categories such as race and income class. Significant variation in number of meals and type of food was found among members of single households.

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A,C Tripp, Robert B. 1981

D

Farmers and traders: some economic determinants of nutritional status in northern Ghana. Journal of Tropical Pediatrics 27:15-22.

This article reports results of an investigation of factors resulting in good nutritional status of children in a subsistence farming and trading region of Ghana. Data on economic activities and social structure were collected by participant observation and interview. Anthropometric measurements were obtained on 187 children from 124 farming units.

In this area, men farm, and work for wages in the dry season. Women farm, do food preparation and child care, and trade. Women and men agree that women usually spend their profit from trade on family food.

The study found that women's trading had the most significant impact on economic status and on nutritional status of children, because it increased income without greatly reducing time availability. The author concludes that women's income is more directly related to children's nutritional status than men's income.

B UNECA/FAO no date

The role of women in population dynamics related to food and agriculture and rural development in Africa. United Nations ECA/FAO, Women's Programme Unit.

This paper describes the relations between food production, women's roles, and population in rural Africa. Although women are the primary producers and processors of food crops, program planners assume that the "small farmer" is male. In spite of the major role played by rural women in agricultural production they lack access to the tools of development, including technology, credit, and education. Most agricultural extension and research is directed to men and focuses on cash crops, thereby misdirecting information on techniques for improved food production. Further, increasing cash cropping adds to women's work burdens.

Education and employment are the major factors influencing female fertility, but education's influence on female fertility depends on the ability of women to use it in gainful employment or other community action. "Modern" sector employment correlates with lower fertility, subsistence employment with higher fertility.

The paper proposes the "unit of participation" as a measure of women's labor in various subsistence and early modernization activities. It is defined as the percentage of total labor associated with a particular task that may be attributed to women and expressed as 1 or a fraction. The unit of participation, based on the best available data, will indicate who should receive the benefits of a particular agricultural project.

G UNFAO (U.N. Food and Agriculture Organization) 1979

Women in Food Production, Food Handling and Nutrition.
Rome: U.N. Protein Advisory Group Report, June.

This is an extensive report that critically reviews research on women's economic and social roles and determinants of food consumption and nutrition in Africa. It draws on literature from the field of nutrition and diet, anthropology, sociology, and program-related research, with numerous detailed discussions of specific studies. The point is made that the household should not be the unit of analysis for program planning, since many functions relating to food production, preparation, and distribution are the responsibility of specific individuals within the household. New methods of data collection are needed to measure food consumption and nutrition; time allocation studies should be used both to identify productive activities and to calculate energy expenditure. Nutrition and social science techniques need to be combined.

The report criticizes many widely held myths and holds that empirical data are needed to confirm or contradict them. These myths include the detrimental effect of feeding patterns whereby men eat first, the detrimental effect of food taboos, the assumption

that farmers are usually men, and the assumption that all household income is equally distributed among household needs.

Conceptual analysis of determinants of nutritional status is presented, and recommendations for program planning are made.

B,G USAID (U. S. Agency for International Development) 1980

The productivity of women in developing countries: measurement issues and recommendations. Paper prepared by the International Center for Research on Women for USAID. 43 pp.

This paper discusses the problem of underreporting of women's economically productive activities, explains why it is important to recognize the economic contributions of women in planning development projects, and makes recommendations for improving data on women's work. Numerous studies are cited that demonstrate the importance of women's home and market production, and the tendency of women's work to be underreported in surveys.

An awareness of women's productive roles is important because of equity considerations (women's needs may not be met by male-oriented programs), the increasing prevalence of women-headed households, and the major contribution of women's work to overall production.

A major issue is recognizing and appropriately evaluating home production. Problems of assigning value to non-traded goods and services are discussed, and different ways of dealing with the issue in the literature are described. Time studies are proposed as the most accurate tool for measuring production, despite problems of simultaneous activities, variable intensity of tasks, and lack of interchangeability of time units. Another issue is the underestimation of informal sector and seasonal activity which affects both men and women.

The point is made that analysis of household behavior ignores the different behaviors and preferences of

members. Flaws in the "new household economics" model are discussed.

A series of specific recommendations for data collection is presented.

C USDA Nutrition Economics Groups 1982

Intra-family food distribution: review of the literature and policy implications. Washington, D.C.: Office of International Cooperation and Development, Technical Assistance Division, USDA, March.

This useful paper describes in some detail the methods and results of four nutrition surveys in Liberia; Morinda, India; Tamil Nadu; India, and Nigeria. Methodological problems common to the surveys are discussed: lack of information on food consumed away from home, data on all household members, and patterns related to income level. Especially, information is needed on the reasons underlying patterns of food distribution within families. Examples of such possible reasons include social and religiously based sex and age bias, role of community standards, changing economic roles of household members (especially women), attitudes toward members seen as unproductive, roles of different household members in deciding on patterns of distribution, roles in the decision to sell or consume food.

E Watts, H. W., and Skidmore, F. 1978

Household structure: necessary changes in categorization and data collection. Paper prepared for Conference on Issues in Federal Statistical Needs Relating to Women. Bethesda, Md., April.

This brief article suggests that statistical reporting needs to be revised to accommodate recent increases in the labor force participation of women, in sole earners who are female, and in one-person households. The authors suggest that the U.S. Census and Current Population Survey use the individual as the unit of analysis, and indicate household and family membership as attributes of the individual. Such a system would permit charting of inter-

household ties of responsibility (e.g., in divorce) and would permit an individual to be associated differently with a family and a household.

(While proposed for the United States, this system has possibly even greater applicability to developing nations.)

Section III

B Abdullah, T. A., and Zeidenstein, S. 1975

Socioeconomic implications of HYV rice production on rural women of Bangladesh. Paper prepared for seminar on socioeconomic implications of HYV rice, Dacca, April.

This paper first explains the dynamics by which modernizing agriculture can negatively affect women by reducing their knowledge base and thus their economic contribution relative to men. The authors then provide a detailed breakdown of agricultural and processing tasks performed by women in Bangladesh to show that the census estimate of 10.8% economically active women is a gross understatement.

The authors hold that, given the involvement of women in production, it is appropriate to train and provide technology to women, but that usually activities are shifted to the male sphere when they become profitable. This has the further disadvantage of reducing income-earning opportunities for women.

D Abeille, Barbara 1979

A study of female life in Mauritania. Paper prepared for the USAID Office of Women in Development, Washington, D.C., July.

This paper provides descriptive information on women's roles, based on informal interviews with key informants.

An increasing number of girls now go to school, and women are increasingly entering paid employment. Women nominally can manage their own property and business, but working women report asking their husbands' advice on decisions and sharing their incomes by pooling or by paying some expenses.

Women have no decision-making power in their personal lives until after they have been married. The father decides most issues before marriage, then the husband. After one divorce, women have more say in choosing their next partner.

People now express a desire for daughters as well as sons to finish school so as to have financial independence.

A B Acharya, Meena, and Bennett, Lynn 1981

D

The Rural Women of Nepal: An Aggregate Analysis and Summary of Eight Village Studies. Vol. 2, part 9. Centre for Economic Development and Administration, Tribhuvan University, Katmandu, Nepal.

This book describes the methods and summarizes the results of an intensive eight-village study of women's roles in Nepal, which has been published in eight separate volumes.

Eight villages were selected for maximum cultural variation. One researcher lived in each village for the period of the study; data were collected by participant observation, informal guided interviews of key informants, and structured interviews covering demographics, assets, income, production, expenditure, employment, credit, decision-making, and attitudes toward male and female roles. Decision-making was measured by asking senior males about four stages in the process: suggesting, deciding, implementing, and disagreeing. Thirty-five randomly selected households in each village were included in the surveys. Of these, 24 per village were selected for time allocation study by direct observation using the random spot-checking method.

The study found that, accounting for home as well as market production, women's contribution to household income is 15% higher than men's, although cash income is 73% less. The labor burden of women is 10.81 hours/day, compared with 7.51 for men. Work burdens for both sexes were lower in extended households than they were in nuclear households, and burden varied by position in the family. Junior married males worked the longest among males; among females, young daughters-in-law worked the longest hours, and adult unmarried women put in the most hours in paid labor.

Villages were distinguished by the rigidity of the dichotomy between women's and men's spheres of activity. The study found that men predominated in decision-making where the dichotomy was strong, while

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roles were more equal or women predominated where the dichotomy was weak. Women were more likely to initiate suggestions than to make the final decision. Women were responsible for 40% of household labor allocation decisions; in 47% of households women kept the household cash, and in 39% men kept it. Agricultural decisions by women were commensurate with their time in agricultural production.

This book and the eight separate studies are an enormously rich source of data. Detailed methodological descriptions are given.

A B Adefolu Akinbode, I.; Owazi, O. C.; and Olay, W. C. 1982

Women participation in selected rural development programmes in the northern states of Nigeria. Journal of Rural Development 5:109-32.

This article reports the results of a study of determinants of women's participation in rural development programs and briefly reviews literature on women's economic roles in Nigeria and other countries of sub-Saharan Africa.

The literature suggests that women have separate economic spheres from men and that most women engage in commercial activities to have money of their own. This is true even of secluded Muslim wives in northern Nigeria, whose husbands and children obtain raw materials for them and market their products.

In the reported study, 348 women from five states that had female extension programs were interviewed. The study found 87.5% participated. Women, not men, made the decision. Participation was related to literacy, number of children, occupation and income of the woman, and occupation of her husband.

A B Aguiar, Neuma 1976

Brazilian families and households in different systems of production. Paper presented for Center for Research in Women in Higher Education and Development, Wellesley College Conference on Women in Development, Wellesley, Mass., June.

This paper describes control of income and patterns of labor force participation in households living on plantations and in nearby roadside squatter settlements, with comparative data from an urban slum. Data were collected by recorded interviews of about 50 minutes with women from the sample households (N not reported).

On plantations, housing is provided to families. Only the head is required to work, but large families are favored in hiring because women and children also contribute labor. Women who work in the fields combine this with child care and household tasks; women engaged in factory-style processing delegate these tasks to their daughters. Women's work results in more family participation, including the husband, in home tasks, under the woman's management.

Women working in the home generally manage the family finances; women working outside the home leave this to their husbands. Single women are more likely to work outside the home than married women.

In the roadside settlement, married women are more likely to work outside the home. Children also work and contribute all their earnings to the household.

A B Ahmad, Parveen 1980
D E

Income Earning as Related to the Changing Status of Village Women in Bangladesh: A Case Study. Dacca: Women for Women Study and Research Group.

This short book reports results of a study of women's work for pay in a rural village (population 700) 17 miles from Dacca. Of the 100 families in the

village, 95% had at least one woman working for pay. Twenty households from each of three religious groups (Muslim, Hindu, Christian) were selected; one working woman and one male adult from each household were interviewed.

The study provides a rich description of attitudes toward women's work, economic benefits, and status and decision-making power of working women. Most women work because of stringent economic need; about 40% of Muslim and Hindu women, and 60% of Christian women say they spend their earnings according to their own decisions. This varies by type of expenditure.

Both men and women agreed that women's income improved the household's well-being. Except for women employed as domestic servants, neither men nor women felt women's paid work reduced their status. Almost all men said they preferred their wives to work. Most women worked at home, however, in handicrafts and food processing; only 3% had salaried work outside. Most women said their daughters should work for pay before marriage.

Sexual division of labor is not very sharp in the village. About half the women said they get help in household work from the family; 60% of men reported they help with housework.

The chain of male authority is not visibly altered, however, and most widows and divorcees live with a brother or their parents rather than become a household head.

A B Alberti, Analia 1982

Some observations of the productive role of women and development efforts in the Andes. Paper prepared for WID workshop "Women, Work, and Public Policy," Center for International Studies, Massachusetts Institute of Technology, Cambridge, March.

This paper describes the sexual division of labor in a highland area of Ecuador, and suggests that development projects that fail to account for

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secondary impacts on labor demand will fail, because of constraints on participation. Several projects are analyzed in these terms.

The author reports that each individual in the household controls his or her own earnings. Adult children usually contribute a part of their incomes to the household but save the rest.

The importance of participant-observation as a preliminary to structured data collection is stressed.

E Basson, P. 1982

The domestic productivity in Mali, and female-headed households of rural Jordan. Ecology of Food and Nutrition 12:75-78.

This article reports results of a study of women's productivity in nine villages and a refugee camp in northwestern Jordan. Interviews were conducted with 350 randomly selected married women; in each location, three families were revisited over a 10-month period to provide observational checks on reported information. Productivity was defined as preservation of food for later use.

By this narrow definition, women living alone were more productive than those with families. The number of children under age six was negatively correlated with productivity; the number of children over six and other members was positively correlated. Wage laborers had slightly lower productivity than cottage laborers.

B C Batiwala, S. 1981

Rural energy scarcity and nutrition: a new perspective. Economic and Political Weekly 17:329-33.

This interesting article argues that an alternative approach to alleviating malnutrition is to address energy cost rather than to try to raise food consumption.

Data from a large-scale survey (3500 persons, 560 households) of rural technology were used to estimate caloric energy use of household members. Women contributed 53% of the energy, men 31%, and children 16%. Most energy was spent on survival task such as getting water and firewood; this exceeded energy use in agriculture.

Women reported that the distribution of sorghum (the staple) in the household was 2 to 1 to .5 for men, women, and children. The author suggests that the introduction of appropriate technology to reduce women's energy expenditure is more feasible than altering distribution patterns.

B E Berleant-Schiller, R. no date

Production and division of labor in a West-Indian peasant community. American Ethnologist 4:253-72.

This article describes household structure, labor allocation, and patterns of inheritance in one village in the Lesser Antilles Leeward Islands. Methods of data collection are not described.

The household is a group of individuals who pool and share their products. Residence, not kinship, defines the group.

Both men and women engage in subsistence production, but household work is exclusively women's. Children over age 6 contribute significant labor to the household; by age 11, boys cease to perform household tasks. Child fosterage is common; it is seen as a benefit to the receiving household.

Inheritance is generally based on past active participation in the household, not on sex or kinship lines.

B Billings, Martin, and Singh, Arjan 1970.

Mechanization and the wheat revolution: effects on female labour in the Punjab. Economic and Political Weekly 5:169-74.

This article describes the effects of the introduction of high-yielding varieties of wheat and of mechanical threshing and reaping on women's work. Results are from a survey, but the method is not described.

The study found that women's participation in farm work declined, and that opportunities for women's paid agricultural labor were reduced. Women were more able to shift to other kinds of employment if they were literate.

F Blood, R. O., and Hamblin, R. 1958

The effect of the wife's employment on family power structure. Social Forces 30:May, 347-52.

This much-cited article describes results of a study of the effects of the wife's labor force participation on her role in decision-making in households in the U.S. A sample of 50 couples was interviewed, each member separately about his or her expectations regarding authority, the number of suggestions each initiated which were implemented, and the share of housework each performed. The authors' hypothesis is that power is correlated with expectations of power.

The study found working wives and their husbands were more likely to have egalitarian expectations of power. Working wives had more of their suggestions implemented, but the difference was not significant. The husbands of working wives did more housework on average, but this was not true of all of them. In the sample, the wives had worked four years or less.

Boulding, Elise 1975

Women, bread and babies: directing aid to Fifth World farmers. International Women's Year Studies on Women, Paper #4. Institute of Behavior Science, University of Colorado, March.

This paper provides a quite general discussion of the importance of women's work in production in Africa and its tendency to be underestimated. Aggregated data indicating women's economic activity and status in 33 African countries are presented. A list of the program-related needs of women are presented.

B Brandtzaeg, Brita 1982

Women and post-harvest food conservation. Food and Nutrition Bulletin 4:33-40.

This article reviews several studies showing that women work more hours per day than men when home and market production are counted, and that labor-saving implements are often disproportionately available to men.

The author identifies food preparation and processing as an area of women's activity in which new technology could reduce their workload without displacing them.

E Brown, B., and Brookfield, H. C.

Chimbu settlement and residences: a study of patterns, trends and idiosyncrasy.

This article reports results of an eight-year study of changes in the residence pattern of family groups among the Naregu tribe of Chimbus, a subsistence agricultural group.

At the beginning of the study, men and women were living separately: men communally, and women each with their children. Boys at age 10 moved in with their fathers. The trend has been for men to live

with their wives and children. The authors suggest that economic progress has resulted in the requirement for more labor at home, because the number of pigs owned by households has increased.

B Brown, J. 1970

A note on the division of labor by sex. American Anthropologist 72:1073-78.

This article suggests that the division of labor by sex in subsistence economies is determined by the compatibility of a given activity with child care, and that women's maximum economic potential is reached when the criterion of compatibility is met. Features which make work compatible with child care are: close to home, not dangerous, easily interrupted and resumed, and requiring little concentration.

This hypothesis has been widely criticized both because these features are characteristic of low-paying, low-productivity work and because many traditional women's activities in agriculture and home production do not meet the criterion.

A B Burfisher, Mary, and Horenstein, Nadine 1982

Division of labor and income on the farm: a framework for analyzing differential impacts of development projects on [women and] men. Paper prepared for USDA/ERS/International Economics Division/Africa and Middle East Branch, January.

This paper describes the effects of a large-scale agricultural improvement program on sex-specific income, labor, and task-allocation. The project was undertaken among the Tiv of east-central Nigeria, a subsistence agricultural group. Within the household, goods and labor are exchanged or sold for cash, and loans are made with interest; resources are not pooled. Traditionally, the person with the greatest labor input controls disposition of the crop; different crops are associated with men and women.

The study found that technological change affected the demand for different kinds of labor differently. The authors suggest that an increased demand for one party's labor on a crop controlled by the other will jeopardize the acceptance of an innovation. In this case, women spent their time on the crops which they controlled.

Another issue is that increased profitability of crops may result in displacement of women by men. This occurred with rice in the 1970s, and is happening with cassava and watermelon now.

Projects must be analyzed in terms of sex-specific distribution of labor and income, and in terms of sex-specific barriers to and motivations for participation.

B Burton, M.; Brudner, L.; and White, D. 1977

A model of the sexual division of labor. American Ethnologist 4:227-51.

This article reviews previous attempts to explain division of labor by sex, and summarizes them in two principles: women's work occurs relatively closer to home and involves less dangerous tasks than men's. The authors add two other considerations: that the same sex will perform adjacent tasks in a given production sequence, and that men will be more engaged in raw material production because raw materials are found in nature, that is, distance from the household.

The authors test the model with data on 50 tasks from 185 societies in a standard cross-cultural sample. Their results do not contradict the predictions of the model. In addition, they report that women's participation in agriculture is facilitated by early supplementary feeding of infants, supporting the notion that child-bearing and nursing are major constraints on women's activities.

E Butz, William and Stan, P. J. E. 1982

Interhousehold transfers and household structure in Malaysia. Population and Development Review 8 (Suppl.), 92-115.

This article uses data from the Malaysian Family Life Survey to describe resource transfers (time, money and goods) between households. Detailed information on household composition makes it possible to identify age and sex groups receiving different kinds of transfers.

Transfers are a major source of income, especially in low-income households. Nuclear households are involved in more transfers than extended, presumably because incorporation in the household masks the transfers.

The study finds systematic differences in recipients of different types of transfers. Older household heads receive money and time (services) from their children; household heads transfer more to their parents than they receive from their children. Parents give time to children, but receive money from them. Chinese household heads receive more support from their children than Malays; Malays exchange money and goods more, while Chinese households exchange time.

E Buvinic, Mayra, and Youssef, Nadia 1978

Women-headed households: the ignored factor in development planning. Report submitted to USAID Office of Women in Development, Washington, D.C.

This lengthy report is a rich source of information on the causes and circumstances of female-headed households in developing countries. Numerous empirical studies are cited in detail, and census data from various countries are analyzed for indications of the prevalence of female headship. The authors explain the importance of this phenomenon for targeting development aid appropriately. They stress that the assumption that traditional societies

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automatically protect women is not supported empirically. Studies must recognize that ideal behavior often departs from what really happens.

The authors distinguish between de facto and legally recognized women-headed households. De facto female headship results from migration, desertion, and polygamy. Census data tend to understate the proportion of women-headed households, partly because of the cultural bias in reporting "head of household." The figure is now estimated to be between 25 and 33% of all households worldwide. This figure varies widely by country and region.

Various types of female-headed households in different regions are described, based on empirical studies, in terms of their age, composition, and strategies for survival. Women and children in female-headed households are more likely to work outside the home.

In Latin America and the Caribbean, consensual unions are common and less stable than legal marriage; in much of Asia, the large age difference between husbands and wives results in widespread early widowhood. Divorce is common in a number of societies in Africa, but men are more likely to remarry these women.

Problems of measuring the prevalence of female-headed households are discussed. A table divides countries into groups by proportion of probable female-headed households.

B C Cain, Mead; Khanam, S. R.; and Nahar, S. 1979

E

Class, patriarchy, and women's work in Bangladesh.
Population and Development Review 5 (September).

This lengthy article provides a detailed discussion of the patriarchal social structure in Bangladesh and its effects on women's home production, labor force participation and wages, economic security, and status. Males control productive resources, including women's labor. The results of a study of 14 households in Mymensingh district are also reported. Twenty-four hour time budgets were collected by retrospective interview for every

household member over age four every 15 days for a year. The authors argue that time allocation is the only way to study work roles of women because home production is non-monetized, and much labor is home- or family-based.

The study found women and men work about 8.3 hours per day, of which 85% is allocated to home production for women and 64% is allocated to wage and agricultural work for men. Poorer men do more wage work; men from landed households do agricultural work. In better-off households men work fewer total hours; there is no difference for women.

Sexual division of labor is rigid. Women's market work does not affect men's home production. There are fewer wage opportunities for women than men, and wages are lower. Child care, exclusively a woman's responsibility, reduces labor force participation. Women are thus dependent on men for support.

The authors report qualitative evidence that males, especially adult males, are favored in household food distribution, since men eat first. Women often forgo their inheritance rights to obtain favor from brothers in case of widowhood. Women's greatest security is to have sons.

Women's work time varies by status in the household: new daughters-in-law work 9.7 hours; wives with children, 8.3 hours; and mothers (of household head), 5.1 hours.

The authors report that nuclear families are becoming the norm in Bangladesh, and that traditional family support networks for women are breaking down.

C Carloni, Alice Stewart 1981

Sex disparities in the distribution of food within rural households. Food and Nutrition Bulletin 7:3-12.

This article reviews the evidence from several studies of food distribution within households, and discusses possible explanatory factors.

The author suggests that absolute security increases sex bias in food distribution. Some cases are cited.

Control over distribution of food may increase access. meal patterns are a factor. If men eat separately, they may not be aware of the deprivation of women and children. If members eat from a common pot, older children may compete with younger ones. Finally, a determinant of food distribution is the perception of the needs of household members and of their ultimate economic value.

B D Cernea, Michael 1978

Macrosocial change, feminization of agriculture, and peasant women's threefold economic role. Sociologia Ruralis 18:107-24. World Bank Reprint Series, #98.

This article discusses the effects of economic modernization on women's economic and social role in the Romanian peasant population.

Rapid industrialization has resulted in rural outmigration of men, so that women are now the main agricultural labor force, and older women are drawn back into economic activity.

Leisure has not increased. Women spend more time in child care and food preparation, as well as agricultural work. Women's decision-making power has increased because of the absence, for much of the time, of men.

A B Chambers, Robert, and Moris, Jon, eds. 1973

C D

Mwea: An Irrigated Rice Settlement in Central Kenya. Munich: Weltforumverlag Afrikastudien. 350 pp.

This book provides an in-depth analysis of a large-scale resettlement scheme which moved 2500 tenants onto 11,500 acres of newly irrigated riceland. The ecology of the area, history, and organization of the scheme are described. Detailed information was obtained by surveys about tenant performance, household budgets, and the different roles of women and men, and on food consumption (household-level), health and nutritional status.

The study found that although household income increased on the scheme, nutritional status declined.

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Protein and riboflavin deficiencies were observed. This was partly because tenants are paid seasonally rather than monthly, so that cash ran out before the next season, and because households accustomed to subsistence agriculture are reluctant to use cash for food. Households consumed little milk and meat, eggs, and vegetables.

Traditionally, there was a clear sexual division of labor and responsibility, by which women engaged in food production along with child care and household maintenance (water, firewood). Women worked on men's cash crops, whose revenues the husband controlled, but sold surplus from the food garden for cash which they controlled.

In the scheme, tenant households deal with the administration through the male "head," who is paid for the whole family's work. Women spend more time (unremunerated) on rice, less on their own food gardens. Further, firewood is less available, so women must purchase it, a further drain on their reduced budgets. Because of resettlement, traditional support of friends and relatives in child care and housework is no longer available.

This report demonstrates that an increase in household real income may not improve health and nutrition if income control is shifted and changes in household labor burdens are not acknowledged.

B E Chaney, E., and Lewis, M. 1980

Women, migration and the decline of smallholder agriculture. Paper presented for USAID, office of Women in Development, Washington, D.C.

This paper reviews in some detail a large number of studies from many countries of rural-to-urban migration, its effects on the distribution of labor in agriculture, and agriculture productivity under varying conditions. The authors describe a common situation in developing countries whereby a high percentage of adult males leaves the rural area, and women take over men's agricultural tasks in addition to their own. Possible consequences are reduced agricultural productivity, because of the greater burden and fewer resources (credit, modern inputs)

available to men; also, income and cash remittances may be more likely to be spent on food and consumption needs than agricultural investment in these de facto women-headed households. In some cases, land is not adequately maintained, so women's dependence on men increase; eventually women may also migrate, and agriculture declines.

The authors discuss the need for empirical data on women's agricultural roles in the absence of the men who have migrated, and the difficulty of collecting the information because women's agricultural work is often not recognized and not monetized. Several studies are cited showing the major productive role of women and the problem of measuring it because of inaccurate reporting even by the women themselves.

The authors recommend more agricultural assistance for rural women left behind by migration. Also, more information is needed on the reasons women stay behind when men migrate.

C Chaudury, Raiquul Huda 1983

Determinants of intrafamilial distribution of food and nutrient intake in a rural area of Bangladesh. Monograph (draft), Bangladesh Institute of Development Economics, Dacca, February.

This paper reports results of a 12-month survey of 108 households (572 individuals) in a village in Bangladesh. Data were obtained by observation, food weighing, and interview on food consumption, cost, source, and intrafamily allocation; on time use by all members over age 5. The latter was used to calculate caloric needs of household members adjusted for both body weight and actual activity level.

The study found that caloric adequacy in these terms was not determined simply by sex, but also by age and position in the household. Women aged 15-30 are least likely to meet their caloric needs, possibly because they are new wives not yet established in the household, and possibly because many in the group are pregnant or lactating. Among older adults and children aged 1-3, females met their needs more than men.

In larger households, caloric adequacy is greater for all males under 30; over 30, it is greater for women. In the lean season, though, caloric adequacy is higher for males in almost all age groups. Among households that produce their own food, all members receive more food.

Household caloric adequacy does not predict caloric adequacy of individual members.

B Chen, Marty 1982

Interaction of sex and class in women's work participation. Paper prepared for WID workshop on Women, Work and Public Policy, Center for International Studies, Massachusetts Institute of Technology, March.

This paper describes the main income-generating activities on a Bangladesh farm and the role of women's work in each. The author states that much of women's work is not recognized. Men control sale of produce and purchasing for the household; women do small-scale tracking through their children.

The sexual division of labor is rigid across all classes, but in poorer households women work outside the home and even outside the village. Capital-intensive development has eliminated some women's work, such as rice milling.

Methods of data collection are not described.

C Chen, L.; Huq, E.; and D'Souza, S. 1981

Sex bias in the family allocation of food and health care in rural Bangladesh. Population and Development Review 7:55-70.

This article describes and reports results of a careful, detailed study to test the hypothesis that the higher mortality rate of girls than boys aged 1-4 in a rural village in Bangladesh is due to sex bias in allocation of food and health care.

The study used records of the International Centre for Diarrheal Disease Research on births, deaths, and diarrheal treatment of 882 households with children

under age 5. These households were surveyed to obtain baseline data on socioeconomic and anthropometric status of household members. A sample of 130 Muslim families was selected for in-depth one-year longitudinal study, including 24-hour individual and household food consumption, anthropometry, morbidity, and assets, income, and expenditure. Food consumption was measured by weighing raw food and by direct observation of the volume of food as served, the household's utensils having been measured previously.

The study found female mortality exceeded male mortality between ages 1 and 44, the difference declining with age. Male mortality was higher in infants and in adults aged 45-64. Severe and moderate malnutrition (weight- and height-for-age) were much higher among female children; male caloric and protein consumption was greater than female in all age groups. Rates of infection were (insignificantly) lower for girls. Incidence of diarrhea did not vary by sex, but males were treated 66% more often than females. This pattern persisted to age 14, after which females used health services more.

The authors suggest that sex bias in food and health care allocation is due to the expected economic contribution of sons. The study found women distribute family food, that men rarely made explicit requests for more food, and that typically families ate the evening meal together. Women denied that they allocated food differently based on sex, but said they would favor males in conditions of scarcity.

A C Ciparisse, Gerard 1978

E

An anthropological approach to socioeconomic factors of development: the case of Zaire. Current Anthropology 19:37-41.

This article describes the allocation of resources among household members in rural Zaire. The primary economic unit is the clan; nuclear units have little importance. Consumption goods are allocated based on age: elders receive most; women and children receive least.

Women work the land of their husband's clan, but give gifts and assistance to their own clan. Children are also given to their mother's clan. Women sell crafts for cash to support their own and their children's needs.

In this setting, benefits are distributed based on rank, not productivity, so, the author holds, there is no economic incentive for progress.

C Clark, Carol 1981

Demographic and socioeconomic correlates of infant growth in Guatemala. Santa Monica, Cal.: Rand Note N-1702-AID/RF, September.

This paper reports results of a regression analysis of survey data from four Guatemalan villages, to explore the factors determining that larger households are more likely to have malnourished children. The hypothesis is that child growth is affected by the mother's health (milk supply), time (influenced by other siblings), and resources.

The study found that male children had higher rates of growth than females. Length of breast-feeding positively related to growth. For children 6 to 12 months old, growth was negatively related to the number of children under six and the number over 15. For infants up to six months, number of children under six was negatively correlated, but over 15 was positively correlated with growth.

B C Clark, Carol 1979

Women's work and child nutrition. Paper presented at Latin American seminar on the Interrelation of Malnutrition, Population and Social and Economic Development, Guatemala, September.

This paper discusses the possible dynamics of the relationship between women's labor force participation and children's nutritional status, and reviews several studies which address the issue.

Both time and material resources are essential to child survival; to some extent, time and goods are

substitutable. The question is under what conditions the increased income of mothers makes up for the reduced time available. Some determinants of the tradeoff are the presence of other sources, income in the household (including other wage-earners), the productivity of women in paid work and in child care, compatibility of available paid work with child care, availability of other child caretakers in the household, norms of women's and children's behavior, and child health. Women's paid work may alter the composition of foods consumed (less labor-intensive, higher cost, higher quality), and the allocation of that food (e.g., the woman may receive more food herself or may be able to allocate the food to the children), as well as women's use of services such as health care.

Studies suggest that women reduce labor force participation where they have young children; those women who work for pay do so out of economic need. Thus the association of women's paid work with poor nutritional status of children is a poverty effect. Women with children are more likely to work for pay if other adult women are present in the household. In some cases, paid work time of women reduces leisure more than child care time.

Needs for further research are listed.

A B Cloud, Kathleen 1978
C D

Sex roles in food production and distribution systems in the Sahel. Paper published in International Conference on Women and Food at the University of Arizona, Tucson. Distributed by USAID and FDCA, Office of Women in Development, Washington, D.C., pp. A43-A70.

This paper describes the roles of women in food production and distribution to make the point that drought relief and development programs must recognize the labor burden on women, their critical role in the food system, and their need for cash income. Past projects are criticized in this regard: a program to replace cattle that died in the drought gave them only to male "household heads," though women have separate title to cattle from bridewealth, dowry, and gifts. Also, large irrigation and resettlement projects have failed to provide

subsistence farming plots, have channeled income only to the male, and have not provided help for the fuel- and water-getting activities of women.

The major production systems of the Sahel are described. Among both sedentary farmers and transhumant pastoralists, men and women have separate economic spheres. Women are responsible for growing or fathering most of the food, and for food storing, processing, preparation, and distribution. Men control use of cash crops and the income from them; women control use of surplus from subsistence activities, but few of their activities generate cash. Men's income is used for farm inputs, taxes, and modern goods such as radios, and not usually to increase food expenditure.

A B Cosminsky, Sheila, and Scrimshaw, Mary no date

Sex roles and subsistence: a comparative analysis of three Central American communities.

This chapter describes economic and social roles of women at different lifecycle stages in three communities: a coastal plantation and a highland Maya town in Guatemala and a Black Carib population in Belize.

The authors conclude that economic options for women vary with their lifecycle stage and that of their households. Among adults, there is a sexual division of labor, but mutual dependence. Women's wages are low, though, so they depend on men for support. Women's time constraints are more stringent in nuclear households. Children assist in child care and homework, until they are old enough (about 15) to work for wages. Older women gain respect in all groups, although earnings and autonomy increase only among plantation women.

A richly detailed description of each society is given.

15

B Deere, Carmen Diana 1982

The division of labor by sex in agriculture: a Peruvian case study. Economic Development and Cultural Change 30:795-812.

This article describes problems of estimating women's contribution to agricultural production in Cajamarca Province, Peru. Census data found a sharp decrease in women's agricultural participation from 1930 to 1970. The explanation was that early census surveys asked for descriptions of activities contributing to the household economy, while later surveys simply asked for principal occupation, so that, given cultural norms, women described themselves as housewives. Also, the period of reference was shorter in later surveys, so that unpaid family work that was reported was less likely to be counted in the later years, especially since the census occurs during the agricultural slack season.

The author discusses women's agricultural participation by economic class. Women do more such work, a higher proportion of the total, and a greater variety of tasks in poorer farm households that are more dependent on family labor.

A B Deere, Carmen Diana 1982

Household poverty and female subordination: the work-remuneration gap. Paper prepared for Rockefeller Foundation Conference on Women and Income Control in the Third World, Columbia University, New York, October.

The author suggests that income-earning is the determining factor in income control, and that women have decreasing control over spending because their incomes relative to men's are lower and declining. The author documents lower wages for women's tasks from 1918 to 1973. She argues that women's home production is accorded no social value in Peru, and that women's access to income-earning activities is declining.

B E de Garine, I. 1978

Population, production and culture in the plains societies of north Cameroon and Chad: the anthropologist in development projects. Current Anthropology 19:42-65.

This article describes household structure, marriage patterns, and their effect on work in five societies. Data were obtained during five years of participant-observation in Chad and Cameroon.

The basic economic unit consists of four to five members; 52% of households are polygamous. Each economically active person supports 1.16 dependents, and more in polygamous households. The area cultivated by each person increases with the dependency ratio in the household.

The major economic factor in the area is the very high brideprice that must be paid for a high-status wife. Girl children are a major source of wealth for father.

C E Desai, P., et al. 1970

Socioeconomic and cultural influences on child growth in rural Jamaica. Journal of Biosocial Science 2:133-43.

This article reports results of a three-year longitudinal study of child growth as a function of family structure, socioeconomic status, and economic support. Households were visited twice monthly for two years and monthly in the third year; children were included until they reached age 4. Data were analyzed by factor analysis.

The setting was rural Jamaica. Most households were engaged in subsistence farming; both men and women migrate to find work and leave children behind. Family composition was very varied and unstable; consensual unions and separated partners were common. Family size averaged 7.2, with a range from 3 to 17 members.

The study found that economic variables were the best predictors of child growth, despite household

instability. Children with neither parent were better off than those with the mother alone, because of economic disadvantages.

C E Dewalt, Kathleen, and Thompson, Karen 1982

Nutritional strategies in small farmer families in southern Honduras. Paper presented for American Anthropological Association Annual Meeting, Washington, D.C., December.

This paper reports preliminary results of a study of food consumption patterns. Data were collected by survey and ethnographic methods, on household characteristics, food beliefs, and food consumption using 24-hour dietary recall and one-week market basket recall.

The study found in all three villages more than 100% of caloric requirements and about 200% of protein requirements (WHO standards) were obtained by households. Seventy-five percent of the calories and 68% of the protein came from grain. Fulfillment of needs was positively associated with use of corn, and negatively with sorghum, which is bought more frequently by poorer households.

Women-headed households met only about 75% of caloric needs, and older women had greater access to protein and calories, because they had fewer dependents and more land.

C Dewey, K. G. 1980

The impact of agricultural development on child nutrition in Tabasco, Mexico. Medical Anthropology 4:21-54.

This article reports results of a study of the effects of Plan Chontlapa, an agricultural development scheme involving resettlement, collective farming of cash-crops, and cattle-raising. A sample of 149 families with children aged 2 to 4 was drawn from three groups: those participating in the plan, non-members working on the plan for wages, and non-participants. Information was collected by interview

including two 24-hour dietary recalls for each child and mother. Anthropometry, clinical evaluation, and blood and stool analysis were performed.

The study found no differences in nutritional status of children in the three groups. Plan members spent less time on subsistence food production, even though land was provided for the purpose. Deforestation and drainage reduced availability of wild foods and fish. Diets of plan members were less diverse and consisted of more purchased than home-produced food.

A B de Wilde, John 1967

Experiences with Agricultural Development in Tropical Africa. Vol. 1: The Synthesis. Baltimore: Johns Hopkins University Press (for the World Bank).

This volume summarizes findings from a larger study of agricultural development projects. While questions of intrahousehold allocation are not specifically addressed, the author makes a few relevant points. One is that the sexual division of labor interferes with the most efficient use of household resources. Generally, men control the disposition of cash crops and women subsistence crops. In West Africa, women are predominant in trading. Also, that increased income of the household head is often used for conspicuous consumption rather than the family's basic needs.

A B Dey, Jennie 1981

C

Gambian women: unequal partners in rice development projects? Journal of Development Studies, 109-22.

This article reports results of a study of changes in the household economy following an agricultural intervention. Data were collected by interview. A detailed description of method is not provided.

The setting was rural Gambia. In pre-colonial times, women cultivated rain-fed rice, men grew groundnuts and millet, and both sold the surplus from home consumption. In the colonial period, groundnut production for cash was promoted, so that men's revenue and control over household income increased.

As a result, studies have found women's caloric intake is 75 to 80% of WHO standards, while men meet their requirements.

The intervention under study was the development of irrigated land for double-cropped rice, and credit for modern inputs.

The study found that the project officers worked only with male household heads; women were excluded from ownership and credit under the scheme. They were thus forced to work on their husbands' rice land for wages. Women held back their labor under these conditions, and total rice production decreased.

A B Dixon, Ruth B. 1980

Assessing the impact of development projects on women. USAID, Bureau for Program and Policy Coordination, Program Evaluation Discussion Paper #8, May.

This paper reviews 32 AID-funded projects that include women as intended beneficiaries, and analyzes the factors that increase actual benefits to women. The author concludes that women need to be specifically targeted, and programs need to be administered at least in part by women; otherwise decision-making reflects male-dominated power structure. Women's time burdens must be accommodated. Projects must recognize existing sexual division of labor and build on women's activities so they can control their own earnings (though there have been instances of men taking over newly-profitable women's activities targeted in projects). Activities should accommodate prevailing norms of women's behavior to minimize resistance, promote participation, and act as a "wedge" with which to introduce further social change. The poorest women will require special targeting efforts. Concrete economic benefits will encourage women's participation. Legal and cultural constraints on women's autonomy must be understood and dealt with in project design.

The paper suggests a framework for assessing project impact that focuses on changes in sex-specific access to productive assets, division of labor and allocation of resources (food, schooling) within

households. Cases are cited in which failure to accommodate sexual division of labor reduced household food consumption and nutritional status in the face of increased income, and in which control over income was diverted to men even though total income increased.

The paper concludes with suggestions for evaluating projects in terms of their effects on women.

B Dixon, Ruth B. 1982

Mobilizing women for rural development in southern Asia: issues of class, caste and patronage. Economic Development and Cultural Change 30:2.

This article provides a general discussion of the sexual division of labor in south Asia as a basis for suggesting ways to develop income-generating employment for women.

The sexual differentiation of labor is more pronounced in relatively higher-class and caste households. Higher-caste women work only in extreme need, and seek traditional female employment (e.g., domestic work). Rural landless women are relatively free of cultural restrictions on their behavior.

In these societies, women are secluded and interact privately with other women.

The author suggests that these women's networks be used to develop cooperative economic activities for women.

E Dorjahn, Vernon 1977

Temne Household Size and Composition: Rural Changes Over Time and Rural Urban Differences. Ethnology 16:105-27.

The author describes standard international census and survey definitions of the household as they have been used in research and questions the applicability of these definitions in situations involving (a) informal or consensual marriages, (b) joint or extended family households, and (c) polygamous

marriages. The author describes the Temne (of central Sierra Leone) concept of the household which distinguishes between production and consumption units within a single household, and includes reference to single households consisting of two or more married males (extended families) and polygamously married males. For Temne the household is defined as a single production and income unit, with the head of household acting as administrator on the big farm on which most economically active household members work. Within the household there may be several separate consumption units, inhabiting detached house structures. In addition to work on the big farm, individual household members work on small plots, the proceeds of which go only to the consumption unit. The wife of the household head distributes proceeds of the big farm among consumption units. The tendency of productive adults to put more time into their own rather than the communal farm is leading to the breakdown of extended farming units. The author develops a descriptive typology of Temne households including monogamous, polygynous, extended, single-parent, and solitary or unrelated households.

The author describes changes in rural household composition between 1955 and 1963. Single-parent households appeared. Average household size did not change. The most significant rural-urban differences in household composition in 1963 were: larger average household size in rural areas, no extended households in urban areas, greater frequency of monogamous households in urban areas, and single-parent households more frequent in rural areas.

B C Engle, Patricia 1980

D

The intersecting needs of working women and their young children. Report to the Ford Foundation, New York City, August 28.

This is a comprehensive paper discussing evidence of the effect of women's labor force participation on child welfare, and the dynamics (motivations, constraints) of women's decision to work. Numerous studies are described.

The author describes alternative sources of child care, paid and unpaid, showing changes from rural to urban settings. She cites evidence that women want to work more than they are able, because of lack of jobs and child care. Desire to work is greatest in poorer households; presence of many children is positively associated with paid work of women, because of increased need and available home help.

Work which is compatible with child care tends to be low paid and low status. Traditional agricultural roles of women often are not compatible with child care.

Studies of changes in women's home production tasks with their paid work show women work more total hours than men; labor force participation affects their leisure first. In some studies, men's home production rise with women's paid work time; this varies by country.

Women who work enjoy increased status, income, and control over income; there is evidence that women direct their incomes to their children's needs. Stress and lack of time are costs of working.

Several studies are cited showing a negative relationship of child health to women's work. The dynamics of this pattern are discussed. Another negative effect may be that girl children do not attend school because they must care for siblings.

The author discusses policy and program alternatives for dealing with women's need to work for pay.

B Ernst, Elizabeth 1977

Food Consumption Among Rural Families in Upper Volta, West Africa, Peace Corps, Ouagadougou, Upper Volta.

This study of the use of wood and millet stalks for fuel in rural Upper Volta defined the household as those eating from a single pot. In one of the two villages studied, wood collection is entirely women's work and takes 4.5 hours including one hour walking each way. In the other village, men and boys assist in wood gathering. Wood is gathered daily or twice a

day for six months a year; after harvest, millet stalks are used. This takes less time, freeing women for income-earning activities.

B F Evenson, R. E. 1976

On the new household economics. Journal of Agricultural Economics and Development 6:1, January.

This paper discusses the relevance of the "new home economics" (see papers by Becker in Section I) to developing countries. The author suggests that the assumption of a single household utility function (i.e., set of consumption preferences) is especially applicable in developing countries where families are dominated by a male head. He argues that households probably do maximize income and are aware of the market value of goods and of their time. Problems with the model are that it assumes fixed family membership, which is often not the case, and that the household production functions for consumption items are probably not independent, so the functions will not be linear.

The author suggests the implications of the model for fertility, treating children as a consumption good whose consumption uses the mother's time intensively.

The study uses regression analysis of data from the 1961 Indian census to test the significance of the cost of women's time for fertility decisions of the household. It finds evidence consistent with the "new household economics" view that the household operates as a firm and that children may be seen as consumer goods to the parents. Measures of household wealth are associated with more children in the household while women's wages (the opportunity cost of raising--i.e., "consuming children") are negatively associated with the number of children. Regression analysis was also used to test the significance of children's economic contribution on their schooling. The results indicate that children's wages and the productivity of their family's land (which would increase children's output) are negatively associated with children's school enrollment and positively associated with their labor force participation. Family size is also

negatively associated with school enrollment, suggesting the substitution of child "quantity" for child "quality."

B Evenson, R. E., B. Popkin, and E. King-Quizon 1979

Nutrition, work, and demographic behavior in rural Philippine households, Economic Growth Center, Working Paper #308, Yale University, January.

This paper discusses the methods used to collect data for one round of a multipurpose study of households in Laguna, Philippines focusing on fertility, health, time allocation, and home and market production of various household members. Data were collected on 99 households using survey methods.

Income and expenditure data were collected by recall of seven days prior to interview, covering market work and home production. Six types of activities were specifically included, but the authors believe home produced and consumed goods were underreported.

Dietary data were obtained from a 24 hour recall and a food record which mothers were asked to keep. Food allocation to different members was measured at these times, two months apart, but the authors question the accuracy of the reports.

Time use data were collected by direct observation and recall. Observers stayed in households all day and recorded time spent on a list of 30 activities. Simultaneous activities were recorded separately. Recall was used to get information on activities away from home.

Health/nutrition status was measured by weight for height of children and recall of perceived health problems in the previous month.

Time budget results showed men who spent less time in market production spent more time on home production (child care, food preparation) and leisure. Women who spent more time in market production reduced leisure. Food preparation time was reduced only if market time exceeded six hours.

B Fagley, R. M. 1975

Rural women food producers: initial responses to a recent questionnaire. Commission of the Churches on International Affairs, New York, June.

This paper reviews some of the evidence on rural women's time use in Africa, Asia, and Latin America. The discussion is rather general.

In Africa, UNECA estimates women do 70% of the labor in food production, 50% of the animal husbandry, and 100% of food processing and child-rearing. In Zambia, during the planting season women work sixteen hours a day, of which ten is agricultural labor. In Zaire, women grow subsistence crops, carry water and firewood, transport and market food crops, working between 180 and 312 days a year in the field. A UNICEF study of several sub-Saharan countries found women do 50% of the work on family-owned land, in addition to household chores. An FAO study in Sierra Leone found substantial agricultural work of women from age 10 to over age 65. Generally, cash crops are under male management.

Asian studies from South India, Nepal, Sri Lanka, and Southeast Asia, found that from 65 to 80% of women's time is spent in agricultural work. These studies also show from 30 to 75% of farm-produced food is grown by women in India and Southeast Asia.

Latin American studies report that women work in the fields only at peak periods (planting and harvesting), but they care for small livestock. A Colombian study showed women spend much time preparing meals and bringing them to the fields. From 10 to 25% of food is produced by females.

The paper poses some questions about how to improve the condition of women.

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C Flores, Marina, et al. 1964

Annual patterns of family and children's diet in three Guatemalan Indian communities, British Journal of Nutrition 18:281-93.

This article reports the results of a dietary intake survey conducted three times a year for four years in three fairly homogeneous low-income Guatemalan highland Indian communities of semi-subsistence farmers.

Dietary data were collected by three-day recall and weighing, for the whole household and for preschool children (1 to 5 years). Nutritional adequacy for the household was calculated by comparing the US and INCAP RDAs based on the age/sex composition of the household and the weight and meal attendance of the members with total household consumption. For the preschooler, comparison of intake and need was made directly. This method tends to underestimate consumption, especially of preschoolers who cannot report their between-meal consumption reliably.

Results showed adequate family intake of calories, protein, and most nutrients (except vitamins A and C and riboflavin), while preschool children were deficient in all nutrients except iron. The children received disproportionate shares of luxury foods: milk, eggs, and fruit, but less than their share of animal protein and the basic staples.

A B Folbre, Nancy forthcoming 1983

C D

Household production in the Philippines: a non-neoclassical approach, Economic Development and Cultural Change, Bowdoin College, Economics Department, November 5, 1980, mimeo.

This article presents a theoretical discussion criticizing the validity of the neoclassical economic assumption of a household having a joint utility function, and uses regression analysis of data from the Laguna (Philippines) household study to test the theory. The results suggest that household utility function reflects relative bargaining power of members.

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The Laguna study collected data by interview and direct observation on income and expenditure food consumption, labor and time use, and interperson and interhousehold exchanges over several years. (See Evenson et al., 1979 for methods.)

Results of the analysis show an inequitable distribution of work and leisure. Women work more total hours than men, and women's wage labor does not reduce total work hours nor increase male hours of household work. Women's wages in the market were two-thirds of male wages, which might result in specialization in household work, but men's type of work or even unemployment was not related to the amount of male time in child care (about one hour per week). Among children, girls spent more hours than boys in work, and the girls' hours increased with age while boys' hours did not.

Consumption was also inequitably distributed. Adult males consumed more than 100% of the RDA for protein and calories, while women consumed 79% and 87%, respectively. General consumption expenditure for children was equal by sex under age nine, after which boys received more, including more direct child care time of mothers.

Intergenerational income transfer occurred in both directions. Children age 25-34 significantly increased parents income, even if they were not living at home. The effect was greater in higher income households.

A B Fordham, Miriam 1982

Women's economic strategies in southern Honduras. Paper presented at 81st annual meeting, American Anthropological Association, Washington, D.C., December 3-7.

This paper documents the significant economic contributions of women to their households, demonstrating that local statistics on economic activity underestimate women's productive work because it is often not in the market sector. Data were collected by interview from male and female

household heads (N = 52 couples plus 16 women) including 24 hour recall of activities, and information on household composition, task allocation, diet, and health practices.

Women generally do not do agricultural field work, but process and sell food, prepare meals for agricultural workers, and care for animals. Cash earnings can be significant. Some women were able to set up their own small shops with their earnings. Further, women are beginning to migrate to cities as domestic workers for cash.

E Foster, B. L. 1978

Socioeconomic consequences of stem family composition in a Thai village, Ethnology 17:139-56.

This descriptive study based on field research in a central Thailand rice-farming village describes the economic strategies of stem families, that is, two related nuclear families living together.

Two types were identified: those which shared a common residence but did not pool labor or consumption, and those which did share labor and consumption. This demonstrates that household composition does not necessarily determine economic organization.

The article discusses changes in the economic strategies of these households over time.

E Freed, S. A. and Freed, R.S. 1982

Changing family types in India, Ethnology 21:189-202.

This descriptive anthropological study looked at changes in family structure over a 19 year period in a rural Indian village. Three types of households are identified: nuclear, supplemented nuclear (includes unmarried family members other than children), joint. The hypothesis that nuclear family structure becomes more common with economic development is explored and rejected.

Joint households are the cultural ideal, in part because of mutual economic support and the increased labor for cultivation. Between 1958-59 and 1977-78, the proportion of joint households increased as the economy expanded with more advanced agriculture, more market involvement, and more salaried employment.

The authors find that families looked for economic opportunities to suit their preferred structures rather than the reverse. Nuclear households tended to result from personal conflict, not economic forces, they maintain.

A B Fuller-Alamgir, Susan 1977

D

Profile of Bangladeshi women: selected aspects of women's roles status in Bangladesh, USAID Mission to Bangladesh, Dacca, June.

This descriptive paper discusses the economic and social position of Bangladeshi women vis-à-vis men. Methods of data collection are not described.

Property and inheritance rights of women are described. Women's access to income-earning is very limited because of traditional cultural restrictions. Income is earned from sale of eggs and chickens, garden crops, and handicrafts, but usually the actual marketing is done by husbands or sons, so not all her earnings may reach the women. Women do have control over the income they earn themselves. Only the lowest-income women engage in agricultural wage labor; their wages are lower than men's.

Allocation of decision making power is described. Generally, women are held not to participate in household decisions, though they may have more influence than people acknowledge. Women have more influence over decisions relating to their economic activities (horticulture, food processing and sale, and other home production), and to the household than on decisions about farm inputs and cash crops. Decisions about investments in child schooling and investment rest with the person who pays, usually the man.

Women participate in decisions more in poor households. Decision-making in the women's sphere tends to be dominated by senior women in the extended-family household, so younger wives have little influence.

Women are responsible for specific household tasks of storing and processing rice. These tasks also provide acceptable employment for women. Rice mills displace women in these tasks.

B C Gillespie, H. H. 1979

Rural women's time use, Studies in Family Planning 10:383-84.

This empirical study used direct observation to obtain time budget information for women in rural Nicaragua. The article discusses the benefits of this research method.

Direct observation obtains data on the time it takes to do tasks and who does them; this information cannot be obtained by recall methods. In interviews, respondents tend to report cultural norms rather than actual behavior. Further, direct observation gives researchers a fuller understanding of the subjects; and may suggest new lines of research.

The study observed three types of women: housewives, potters, and factory workers. About half the factory workers lived with parents who performed the household maintenance work.

The study obtained food consumption data by observation. It found that husbands and children are served their meals before women, and that special foods (eggs, meat) are given to men or older male children.

D Goody, J., and Goody, E. 1967

The circulation of women and children in northern Ghana, Man 2:226-48.

This descriptive anthropological study compares residence patterns of wives and children in two rural villages in northern Ghana.

In one village, a high bride price is paid. This gives husbands considerable rights over their wives and the wives' children. There is little child fosterage, and marriages are stable, wives living with their husbands and staying in their husband's family (through leviratic marriage) if widowed.

In the other, low or no bride price is paid. Wives spend large amounts of time in their natal family, there is much child fosterage, and divorce is common. Rights to children are dispersed among kin, not centralized in the husband.

These differences are attributed to the difference in bride wealth paid.

C Graedon, Teresa 1980

Nutritional consequences of rural-urban migration. U. S. Agency for International Development, December.

This paper provides a general discussion of the possible effects of rural to urban migration on food consumption and nutrition. The author discusses patterns of migration and the possible effects on the migrants and their families and on those left behind. Some empirical studies are cited.

In the Philippines and Latin America, migrants tend to be women seeking domestic or low-paying factory work. The possible nutritional advantages of increased purchasing power may be partially offset by reduced time for food preparation for the household and breast-feeding of infants.

In Africa, migrants tend to be men who leave their families behind. In these cases migration may damage nutritional status because the loss of male labor may cause reduced food production.

The author suggests that in some cases remittances to the sending area may not balance the costs of sending. The availability of cash from remittances may result in the breakdown of traditional reciprocal exchanges of labor and goods.

C Grewal, T. et al. 1973

Etiology of malnutrition in rural Indian preschool children, Journal of Tropical Food and Environmental Child Health 19:265.

This article reports the results of a survey of children's (6 to 36 months) nutritional status in twelve rural villages in Madhya Pradesh, India.

Data were collected on height, weight, and arm circumference of children, economic status, dietary intake, and various child-rearing practices.

The study found that nutritional status of children was positively associated with measures of income and wealth, with joint family structure, and with mothers who did not participate in market work. Both joint family structure and non-working wives are associated with higher income.) Male children showed higher nutritional status than females, with other variables controlled.

C Gross, Daniel and Barbara Underwood 1973

Technical change and caloric costs: sisal agriculture in Brazil, American Anthropologist 73:725-40.

This widely quoted study examined the effects of an increase in the energy demands of wage earners on the nutritional status of their households.

The study measured households food consumption and expenditure and children's height and weight for a sample of 192 individuals in a region of Brazil where sisal had been introduced as a drought-resistant cash crop. Prior to sisal, most households had been self-sufficient subsistence farmers except in periods of drought.

The study analyzed caloric intake of other household members after subtracting the caloric needs of the male sisal worker. Sisal agriculture is extremely energy-intensive. The study assumed that sisal workers not losing weight were in caloric balance consuming their estimated caloric requirement, and consumption of other members was calculated as a residual.

The study found that agricultural labor in sisal is associated with low socioeconomic status. Analysis of food consumption found virtually all the household budget was spent on food and the wage earner (sisal worker) consumed a disproportionate amount--as much as five-sevenths of food by weight.

Data collection did not include food consumed outside the home. Data collection methods are not fully described.

C Gurney, J. M., and Omolalu, A. 1971

A nutritional survey in southwestern Nigeria: the anthropometric and clinical findings, Journal of Tropical Food and Environmental Child Health, June:50-61.

This article reports a dietary and anthropometric survey in two sites in southwest Nigeria, one village and one small town. A random sample of 118 households was drawn; all members had anthropometric measurements and a clinical exam. In 20 households, a seven day direct weighing food consumption survey was performed. The 20 households were each a subunit of a compound, consisting of one wife and her children. The survey was undertaken at the beginning of harvest, after three months of scarce food and high prices.

The survey found that all age/sex groups had inadequate mean protein and calorie intake except adult women. Inadequacy with respect to requirements was greatest for adolescents and for pregnant and lactating women. Dietary and anthropometric findings showed little correlation.

Since only one cooking unit was surveyed, consumption of men and of children, who may eat from several units, may be underestimated.

B Guyer, Jane 1978

Women's work in the food economy of the Cocoa Belt: a comparison, Boston University, African Studies Center, Working Paper #7.

This paper, based largely on secondary sources, compares the sexual allocation of tasks among the Yoruba (Nigeria) and the Beti (Cameroon). It finds that in both settings there is a strong sexual division of labor, but the specific tasks allocated to each sex are different.

Among the Yoruba, men work the subsistence farms and the cocoa plantations, and women process food, make textiles, and engage in trade. Among the Beti, men produce cocoa, but women do subsistence farming and trading. Both sexes in both settings assist in farm tasks at peak periods of labor demand.

In both settings, men can mobilize women's labor, but not usually the reverse. Women are paid in kind for their labor for their husbands or others. Yoruba female farmers can also hire labor, while Beti women rely on children and mutual aid.

Yoruba and Beti women spend 40% of their work time on domestic work; Yoruba women spend 50% on other economic activities, Beti women spend 50% on farming. Compatibility with child care does not seem to determine female tasks, since cooking and palm oil processing can be dangerous but are women's tasks.

A Guyer, Jane 1980

Household budgets and women's incomes, Boston University, African Studies Center, Working Paper #28.

This very useful paper discusses the inapplicability of household methods to budget analysis studies in Africa and reports on a study of women's cash budgets in Cameroon.

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The author holds that the concept of a household as an undifferentiated decision-making unit does not apply in Africa because of the extent of separation of male and female spheres of activity. She cites anthropological and economic studies demonstrating the relative independence of men's and women's incomes and spending decisions in several African settings, while recognizing that within households some resource transfers do take place. She suggests that African households can be viewed as "particularly dense centers in a field of exchange relationships rather than closed units." Household members are interdependent, having complementary functions; these can change over time.

The paper reports a study of the daily cash transactions of 23 women over two months, one during the groundnut harvest (women's crop), and one during the cocoa harvest. In this setting, men are largely responsible for cocoa production for export; women do subsistence cultivation and marketing of food crops. The study found 57% of women's cash is earned; the rest is transfers, mostly from their husbands. Husbands provide about one third of the cost of food and basic household needs. Unmarried women have lower incomes than married women, because they do not receive these transfers. Women spend 71-76% of their cash on household expenses in both seasons. In a 1964 survey, 31% of total household income (men's and women's) was spent on these items.

Women's incomes are highest during the harvest of men's crops, less because of transfers than because women can earn more from men's spending. Women's incomes have been increasing relative to men's since the 1950s because cocoa prices have declined while the demand for food in urban areas (sold by women) has increased.

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B Guyer, Jane 1981

The raw, the cooked, and the half-baked: a note on the division of labor by sex, Boston University, African Studies Center, Working Paper #48.

This brief, humorous paper criticizes the argument that the sexual division of labor is based on compatibility of work with child care and suggests that an equally plausible hypothesis is that women's work must be compatible with cooking.

A Handwerker, W. P. 1974

Changing household organization in the origins of market places in Liberia, Economic Development and Cultural Change 22, January:224-48.

This empirical study documents a change in the allocation of responsibility within households as a result of changing economic circumstances.

The study is based on data collected by participant observation, informal and formal interviews, and surveys. The sample covered 783 market sellers from three types of communities in Liberia: urban, plantation, and rural.

Household structure was traditionally a nuclear family with strong kinship ties. Men's tasks concerned the larger society (village affairs), hunting, house construction and land preparation; women's tasks concerned household chores and subsistence farming. Industrialization in the 1950s increased urban concentration, creating a market for food, and resulted in increased dependence on low-wage labor and a cash economy for food. Where men were unable to meet their households' needs, women extended their traditional responsibility for subsistence by engaging in market trading for cash. Many women who were market sellers reported having more control over household resources as a result of their cash earning.

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B Hart, Gillian 1982

Peasants and the state: livelihood strategies and structural changes in Java. Paper presented at Rockefeller Foundation Conference on Women and Income Control, Columbia University.

This paper discusses the relationship between state, interhousehold, and intrahousehold economic organization in lowland Java.

Three classes are identified: 20% of households have surplus rice production for sale; 35% can meet their own rice needs; 45% are landless. Economic organization is changing; the traditional responsibility of the elite group to provide employment to the landless in their communities is eroding. Women's access to income-earning is reduced by changes in harvest and preharvest activities.

Women's labor allocation varies by social class. In the elite group women spend increasing time on household work. In the subsistence farming class, women's labor is becoming subordinate to men's work; in the poorest group women are gaining increasing control over income. Given severe economic constraint, the household must coordinate its labor resources. Women are not subordinated because their economic contribution is critical. This group also has a high proportion of female-headed households.

A Haugerud, Angelique 1981a

Development and household economy in two eco-zones of Embu district, Working Paper #382, Institute for Development Studies, University of Nairobi, Kenya, July.

This is one of several papers reporting an economic anthropological study of households in a coffee and cotton growing zone of eastern Kenya. (See Haugerud, 1979, Section II, for method.)

The study found that coffee or cotton income, which is received in one lump sum, was spent on school fees and other large expenses; small regular sales of food crops were used to meet basic household consumption

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needs. If cash crop payments were late or low, some households sold livestock to meet cash needs, reducing household milk supply.

The current economic burden of school fees is great because fees are high and education reduces the household labor supply. Since cash crop prices have stagnated for several years, most households choose to invest in the future earning capacity of their children rather than in agriculture.

The dynamics of the decision making process are not addressed in this paper.

E Haugerud, Angelique 1981b

Economic differentiation among peasant households: a comparison of Embu coffee and cotton growing zones, Working Paper #383, Institute for Development Studies, University of Nairobi, Kenya, July.

This is one of several papers reporting an economic anthropological study of households in two zones, one coffee growing and one cotton growing, in eastern Kenya. (See Haugerud, 1979, Section II, for method.)

The study found a high level of instability in household composition. One fifth of the sample households were disrupted temporarily or permanently due to internal conflict. Members were lost and added, and new households formed.

The study found that secondary education of children was a high-priority consumption expenditure, because of parents' expectation of later support. School fees absorbed an average of 100% of coffee growing income. Lower income households, those in the cotton zone with below average coffee income, sold livestock (which reduced household milk supply) or performed agricultural wage labor (which reduced home food production) to meet these costs. The question of which member performed these tasks is not addressed.

E Haugerud, Angélique 1982

Conflict, Competition, and Cooperation: Political Economy of the Peasant Households in Embu, Kenya. Anthropological Association Meetings, Washington, D.C., December 3-7.

This paper reports an economic anthropological study of a coffee and a cotton-growing zone in eastern Kenya. (See Haugerud, 1979, Section II for method.)

The paper discusses problems in defining the household for research purposes, and holds that any definition is still subject to problems. One reason is that households are subject to change. In 2.5 years of field work, 20% of households were disrupted due to internal conflict. Conflicts within households resulted in some false reporting by respondents who ignored some other household members.

The paper criticizes the use of the household as the unit of analysis in research because (1) domestic organization is quite variable, so units may not be comparable; (2) the household model hides the processes of negotiation within the household, including determinants of strength and weakness of members; (3) considering the household as a homogeneous unit ignores the varying ways in which resources are acquired.

E Heaton, T., et al. no date

Migration and the transformation of employment and household structures, Singapore Journal of Tropical Geography.

This article reports a study of the effects of migration on household structure.

Data from Colombia and Thailand were collected in 1977 using survey questionnaires covering changes in residence, marital status, housing, and employment over the respondent's life since age 15.

The study found that rural-to-urban migration is associated with changes to a nuclear household structure and smaller household size. Migration to

rural areas was much less common and was associated with a slight shift to larger and more extended households.

C Heller, Peter S. and Drake, William 1976

Malnutrition, child morbidity, and the family decision process. Ann Arbor, Michigan: Center for Research on Economic Development, Discussion Paper No. 58. 43 pp.

This study analyzed data on household composition (number, age, and sex of children), food cost, other costs, shadow price of mother's time, birth order, birth interval, percent of child's life it was breast-fed, to see their effects on weight/height, height/age and weight/age of 1270 children in the health promotora program in Candelaria, Colombia. The research hypothesis was that child malnutrition results from a family decision process.

The study found that there was no difference in family food expenditure based on the sex of children; girls had lower weight/age than boys in the first year of life, but not later. Higher birth order children showed significantly lower growth after age six months, and shorter periods of nursing. Short birth intervals also resulted in slightly lower growth attainment. These effects were strongest among children below normal in growth. None of these variables affected the incidence of diarrhea.

Household income had a small positive effect on child growth, and breast-feeding into the second year was associated with lower growth attainment. The authors conclude that malnutrition is the result of household decisions.

E Hinderink, J. and Kiray, M. E. 1970

Social Stratification as an Obstacle to Development: A study of Four Turkish Villages, New York: Praeger.

This book reports a study of the relationship between levels of agricultural development and changing patterns of household structure. While much of the book describes the setting and the agricultural and

economic practices of households as a whole, there is a chapter devoted to family composition and its variations in the four villages studied.

Data were collected by means of formal surveys of household heads, unstructured interviews with informed village leaders, budget analysis of a subsample of households.

The study found that nuclear family patterns increase at higher levels of agrotechnological development. One reason is that patrilineal authority patterns break down with new technology, since elders cannot teach and advise younger farmers.

B Hogan, J., and Tienda, M. 1976

Zinacanteco Women: Prediction for Change in a Mexican Village. Madison, Wisconsin: Land Tenure Center.

This paper discusses in a general way the sexual division of labor and social roles in a highland Mexican Indian community.

Women are generally of lower social status than men and their work activities tend to be oriented toward the domestic sphere and not often to be for cash. Women keep sheep and chickens, make cloth and clothes, prepare and serve food, gather fuel wood, wild vegetables, and water. Women can earn some income from the sale of eggs and chickens.

Men's activities are oriented toward the community and include subsistence and commercial agriculture, marketing, tending large livestock, and hunting.

Increasing population pressure on the land has led to men's participation in the wage labor market. The authors suggest that the availability of wage employment will make it easier for men to pay bridewealth, resulting in earlier marriage (and consequently higher fertility), and may allow newly married couples to establish their own residences rather than live with the husbands' parents.

No empirical support for this prediction is given.

B Hopkins, Nicholas 1982

Social organization of agriculture in an Egyptian village. Paper presented at the American Anthropological Association Meetings, Washington, D.C., December 3-7.

This paper reports a study of the sexual division of labor in an Egyptian village and the effects of mechanization.

Agricultural labor in the fields is the work of men and children. Women are responsible for animal care and household maintenance work. Mechanization has decreased women's workload because animals are no longer used for traction, and mechanized grain milling is available.

C Horowitz, Grace 1980

Intrafamily distribution of food and other resources. Report to the Nutrition Economics Group, OICD, USDA, Washington, D.C. July.

This paper summarizes a large number of studies of intrafamily food distribution (IFFD) and discusses their methodological shortcomings. The author suggests these studies are important for designing and evaluating nutrition interventions. Three major hypotheses in the literature are (1) inequitable food distribution is a rational response to an absolute resource constraint; (2) it is due to maladaptive food taboos and beliefs; (3) it is a problem of behavior, separate from these, with causes to be determined.

Methods used to determine IFFD include dietary recall, records and diaries, food frequencies and other short-cut methods. Problems include accuracy of recall, validity of data on consumption, and sometimes lack of knowledge on the part of the respondent (for example, when people eat from a common pot or when a mother answers for a child whose consumption she cannot monitor). Consumption is not a direct measure of nutritional status.

The author discusses possible mechanisms influencing IFFD. Positive and negative evidence on the relationship between women's work for pay and child nutrition is presented. Seasonality is discussed. The author concludes that there is some information on IFFD, but little information on determinants of these patterns.

This paper provides a comprehensive summary of the available literature on intrafamily food allocation.

B Huggard, Marianne 1978

The rural woman as food producer: an assessment of the revolution on women and food. Paper presented at the World Food Conference, 1974, Women in Development, International Conference on Women and Food, at University of Arizona, Tucson, pp. A3-A12.

This paper discusses in quite general terms the heavy workload of rural women in LDCs. The author points out that projects for training and education of women cannot succeed because women have no flexibility in their time. This suggests that labor-saving appropriate technology can be important.

B IRRI (International Rice Research Institute) 1983

Women in rice farming systems: an IRRI conference, September, pp. 26-30.

This pamphlet discusses background information for a conference to be held at IRRI in September, 1983. It highlights the major labor input of women into rice cultivation, although the specific tasks women perform vary in different cultures. Women's labor input is increasing as men migrate to take on wage employment.

The point is made that new technology can benefit women by increasing the productivity of women's tasks, but women's access to the new technology must be specifically insured. The effects on women in land-owning households will differ from those landless women dependant on wage labor.

A B Janelid, Ingrid 1980

E

Rural development programmes and the farm household as a unit of observation and action, in Presvelou, C., and Spijkers-Zwart, S., eds., The Household, Women, and Agricultural Development. Wageningen, Netherlands: H. Veenman and B. V. Zonen.

This chapter discusses, in a general way, the problem of defining farm households, mentioning the increasing number of women-headed households as a result of widowhood, divorce, and male migration for wage employment.

The author cites estimates by ILO and UNECA that women provide 70% of the labor in traditional agriculture, but only 12% in modern agriculture, with consequent loss of income-earning opportunities.

E Jelin, Elizabeth 1982

Daily lives of urban women: needs, resources, and women's work, CEDES, Buenos Aires, Argentina.

This paper reports the results of a three year study of the social organization of urban working class households in Buenos Aires. Data were collected by means of participant observation and repeated interviews of all adolescents and adults in the sample households (sample size not given).

The paper presents an interesting discussion of the function of households in organizing reproduction and the maintenance of their members. The author suggests that households have an internal system of exchange, which entails both shared interests and internal conflicts.

The study found substantial variation in the composition of the households over time, both because of life-cycle changes and because of household response to economic pressure, resulting in kin joining the household to help, or children being sent away to reduce the burden.

Six types of household are identified. Four are variations on the nuclear household, including husband in wage work and wife at home, wife working

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and maintaining the household, with adult children also in market work, and with one parent failing to fulfill his/her responsibilities. The other two types are single-parent households and "composed" households, that is, diverse living arrangements of relatives and/or non-relatives with division of labor, but not necessarily corresponding to husband/wife roles.

Four case studies are presented. The author concludes that it is always the housewife who adapts to stress or compensates for it.

A B Jelin, Elizabeth no date

Daily lives of urban women: needs, resources, and women's work, CEDES.

This paper reports exploratory analysis of data from a two-year study of the social organization of women's household and market work in working class Buenos Aires. Data were collected by participant observation and repeated interviews of all adult household members.

The paper describes strategies by which households secure resources needed for survival: household work, wage employment, formal public transfers, informal transfers. How these resources are combined and spent depends on the internal organization of the household, and may be the subject of internal conflict about the definition of an acceptable standard of living and the priority assigned to the needs of various members.

The study found that women's time devoted to housework varied by their occupational status (33 hours per week for women with outside employment, 71 hours per week for full time housewives), by their husband's job, and their stage in the life-cycle, and by the structure of their incomes (amount and degree of predictability).

The paper discusses different strategies women use to ensure that domestic tasks are performed, including use of appliances, hired help or household members to

help; adapting her own job to domestic needs; altering the composition of the household by recruiting members or sending children away.

The author suggests that women more than men are subject to marital and life-cycle determinants of their work patterns.

Four women are described as case studies of different organizational strategies.

B Johnson, Alan 1975

Time allocation in a Machinguenga community, Ethnology 14:301.

This important and widely cited article details a method for collecting data on time use and reports results of this method used in a study of Peruvian Amazonian Indians.

Data were collected on a sample of 13 households containing 105 members from June 1972 through August 1973.

The method entailed spot checks of activities of all household members at various times throughout the day and on different days of the week. Predefined categories of activity were not used. Observers described whatever activities were taking place at the time of the visit before household members became aware of their presence. Activities of members not present were recorded based on interviews with those present. Activities were recorded in longhand and then coded on computer cards in the field. The households sampled, times, and days of the visits were randomly selected. Times of observation were limited to between 6 a.m. and 7 p.m.

The study found significant differences in types of productive work performed by men and women, but no significant difference in the amount of time spent in idle (vs. productive) activity.

A B Jones, Christine 1983

C

The impact of the Semry I irrigated rice project on the organization of production and consumption at the Intra-Household Level. Paper prepared for USAID.

This important paper reports one of the few existing studies which specifically addressed questions of intrahousehold distribution of work, income, and consumption. The study demonstrates that an internal economy can exist within the household in which individual interests conflict with the interest of the household as a unit.

The study consisted of two household surveys in the area of a rice irrigation project in northern Cameroon. A sample of 102 women randomly selected from compounds in a purposive sample of villages was questioned about their labor allocation to agricultural tasks. Interviews were conducted every two days throughout the growing season. In addition, food expenditures and income were measured for five two week periods throughout the year, also by means of interviews every other day.

The setting is a rural area of subsistence sorghum cultivation and irrigated rice cultivation for cash. Compounds consist of a husband and his wife or wives and their children. Each unit within the compound is separate; husbands do not always eat with their wives. Thus the western concept of a unitary household is not applicable here.

The study found that women face a direct tradeoff between time spent in rice cultivation on their husbands' fields and cultivation of sorghum at peak periods of the year. The returns of labor on sorghum at that time are lower than to rice cultivation. However, married women are usually paid by their husbands for work on rice at a lower rate than the market agricultural wage, so these women work fewer hours on rice, and more on sorghum, than single women.

This decision reduces total income of the compound as a whole. Single women control their own product and thus work on the higher wage crop. In a few cases, married women were paid the higher wage; these women worked on rice in preference to sorghum.

B Joplin, C. F. 1974

Women's work: a Mexican case study of low status as a technical advantage, Ethnology 13:187.

This article describes the economic characteristics of two industries in a town in Yalalag, Mexico. Shirt making is done by women; huarache (sandal) making is men's work. Both industries can provide full or part-time employment and can be done at home or in a factory. The author found that women were able to organize their occupation for maximum profit because their work is free of social pressure, since women's status is obtained from their husbands, not their work. Men have not organized in this way because their work is more visible and subject to social convention.

A Joseph, Suad 1982

Expenditures among the Lebanese urban working class. Paper prepared for the Rockefeller Foundation Conference on Women and Income Control, Columbia University, October.

This paper describes a contains detailed study of the household budgets of three working-class women in Beirut. The focus of the paper is on religious and political affiliations of women, but detailed information on budgets is presented.

The author reports that women generally spend less than men on personal items; women feel they have less control over household finances than men (though one of the three households studied was headed by a woman). The food budgets of all three households were approximately equal, though the households were of different size.

B D Kandiyoti, Deniz 1977

Sex roles and social change: a comparative appraisal of Turkey's women, Signs 3:57-73.

This article reviews literature on the social and economic status of women in three types of communities in Turkey: nomadic tribes, rural villages, and towns.

In the nomadic tribes, women act as shepherds, milk and shear sheep, and deal with merchants for the sale of goods. These are considered shameful tasks for men. Women have no control over the products of their labor; they have no inheritance rights, and their children belong to their husbands' lineage. Women's influence in the tribe is obtained through marriage unions and personal alliances.

In the villages, segregation of sexes is strong. The author holds that women's work is not socially recognized regardless of economic contribution. Men will not admit that their wives work. Mechanization of agriculture has reduced women's work load.

In the towns, women work in gardening, housework, and laundering. These are not considered "work" by men even if performed for wages.

The author notes that family structure has changed in response to changing economic circumstances in Turkey, resulting in an increase in nuclear households. She notes that the same superficial structure may serve different underlying functions in different settings.

A Karanja, Wambui 1982

Market women (Nigeria). Paper prepared for Rockefeller Foundation Conference on Women and Income Control, Columbia University, October.

This paper describes the activities of market women in Lagos, Nigeria. Marketing is a women's activity, compatible with female sex roles, and making use of children for assistance. Women sometimes get money

from their husbands to start them in trading, but prefer not to because they do not want to answer to men or report their incomes.

It is expected that women will earn money to pay for food for themselves and their children. Savings of women are largely spent on children's education. Clothes and jewelry and ceremonies are other major categories of women's expenditures.

Data collection methods are not described.

C Katona-Apte, Judit 1977

The socio-cultural aspects of food avoidance in a low-income population in Tamilnad, South India, Journal of Tropical Food and Environmental Child Health, April, pp. 83-90.

This article reports the results of a study of food taboos. Data were collected by in-depth interview of 62 women from two districts in Tamilnad. Women were from varied ethnic backgrounds.

The author notes that many food restrictions apply to lactating women. She hypothesizes that this may be because a lactating woman is not considered to be contributing her labor to the community, and so "working" household members receive the preferred food. This hypothesis is not tested empirically.

B King-Quizon, Elizabeth 1978

Time allocation and home production in rural Philippine households, The Philippine Economic Journal 17:36:185-202.

This article reports a study of time use in Laguna, Philippines rural households. Data collection methods are described and results presented.

Data on time use were collected from adults in the sample households by recall over the past week for nonseasonal activities and for a longer period for seasonal activities. Estimates were given of hours per week spent. Leisure time was calculated as the residual after market and home production were

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accounted. In addition, direct observation of households was conducted in three 24 hour visits over 8 months. It was assumed that the direct observation method was more accurate. Comparison of the two methods found observation measured more than three times as much market production time of children as recall, because parents view children's work as leisure or training.

The study found that fathers who work fewer hours in the market devote more time to home production, including child care and food preparation, and to leisure. The same pattern was observed for mothers. Presence of an infant increased women's home work time by three hours per day, but a large number of children increased parents' leisure (perhaps because older children could take on some work).

Time allocation is affected by market wages (which alter the opportunity cost of home production); education; age (market and home production increase with age until children become productive, then they decrease); seasonal change.

The data indicate that home production is economically more important than market production.

B Koenig, Dolores 1982

Social stratification and women's work in the rural Malian household. Paper presented at the 81st American Anthropological Association Meetings, Washington, D.C., December.

This paper reports a ten month field study of 30 households in three villages in the Kita region of Mali, in which peanut production had been promoted as a cash crop in an integrated rural development scheme.

Data were collected by means of interviews twice a week with a 3-4 day recall period, covering work performed, resources used, and revenue received.

The study found that household members (defined as all those eating from one pot) contributed labor to

fields owned by other members as well as to communal fields. Men work on women's fields (both cash and food crops) and women work on men's fields.

B Konter, J. H. 1980

The deteriorating position of African women in the development from a subsistence economy toward a market economy, in Presvelou, C., and Spijkers-zwart, S., eds., The Household, Women, and Agricultural Development, Wageningen, Netherlands: H. Veenman and B. V. Zonen.

This paper suggests that the shift in Africa from subsistence to market production has been detrimental to women because it has broken down the traditional division of labor between women and men in the household. Monetization of exchange has resulted in increased control over resources by men. Increasing scarcity of land has created competition and reduced the level of cooperation within the extended household.

Specific data are not cited.

C E Korte, R. 1969

The nutritional and health status of the people living on the Mwea-Tebere irrigation settlement, in Kraut and Cremer, eds., Investigations into Health in East Africa. Munich: Weltforumverlag.

This article reports results of a long-term study of the effects of a large-scale resettlement program on irrigated rice land in Kenya. Data were gathered by survey from a sample of 124 families in the project and 87 families in the surrounding non-project area. Food consumption data were collected for seven days in 30 households (defined as separate cooking units, so that 30 households represent 23 families). Detailed information on household budgets is presented, but not separated by earner.

The study finds income much higher in the project (2400 shillings/year, compared with 440 shillings off the project), but malnutrition (by anthropometry) higher in the project. In both groups, most households (71-75 percent) report children get the

first choice of food at meal times; 16-23 percent report the father does, and 2-6 percent the mother. Household size is larger in the project area, because the labor-intensiveness of rice cultivation is an incentive for large families. The study found no difference between the two groups in child feeding or weaning practices.

A B Kumar, Shubh 1978

C

Role of the household economy in child nutrition at low incomes: a case study in Kerala. Ithaca: Cornell University, Department of Agricultural Economics, Occasional Paper #95, December.

This very useful paper reports a study of 48 low income (below median) households with a child aged 6-36 months. Data were collected over nine months, covering harvest, post-harvest, and pre-harvest seasons, on income, including cash and in kind, separately by earner; employment; food consumption and expenditure, including dietary intake of the weanling child; morbidity and nutritional status measured by weight for age. The study was performed in a rural semi-subsistence agricultural area of Kerala, India. Regression analysis was performed.

The study focused on the relationship between child's nutritional status and real income. The study found that household income is a weak predictor, but per capita income is a strong predictor of nutritional status. Source of income and type of employment had significant effects.

In households with a wage earning mother, children had lower nutritional status than where the mother did not work for wages, but mother's wages had a positive effect on child nutrition which was significantly greater than that of the father's wages. Women were more likely to be in the labor force, the smaller the household's land holding, and farm production was positively associated with child nutrition. In the peak agricultural season, parents' income and maternal employment were positively associated with child nutrition, but there was a negative, though weak, association with duration of mother's employment.

Households with wage-earning mothers had fewer children (2.7, compared with 4.1) and more adults (3.7, compared with 2.6) than households where mothers did not work.

This is one of very few studies which report on use of income of different earners separately.

E Kunstadter, Peter 1982

Household economics and household composition: comparing data from northern Thailand. Paper presented at the 81st American Anthropological Association Meetings, Washington, D.C., December.

This anthropological study disputes the theory that nuclear households emerge with economic modernization. The study focused on an ethnic minority in northwest Thailand. Households were urban and rural, farmers and wage-earners. Nuclear households were the most common form regardless of economic setting. Widows and elderly couples tended to be absorbed into an extended household structure in cities and rural areas. Farm households had more children under age 10, and urban households had more of other kinds of dependents (due to illness, for example), but otherwise the proportion of different household types was the same in both settings.

A Kusnic, Michael, and DaVanzo, Julie 1982

Who are the poor in Malaysia?: the sensitivity of poverty profiles to the definition of income. Population and Development Review 8 (Suppl.), 17-34.

This article uses data from the Malaysian Family Life Survey to explore the effect of different definitions of income on income distribution. The question is raised how to adjust household income for variation in size and composition. Income distribution is analyzed using cash, all real income, and income including time spent in home-related services. Including other uses of time as income reduces inequality among households; in female-headed

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households, this reduced measures of poverty, because female household heads worked fewer hours in the market sector.

D Laird, Judith Fincher 1979

Rural women in Paraguay: the socio-economic dimension. Report prepared for USAID, Office of Women in Development, December.

A section of this report (p. 56 ff.) reports results of a study of decision making responsibilities in rural Paraguayan households. Data were collected by survey of the whole country, covering 2352 households. However, only women (one woman per household) were interviewed; results should be interpreted with this in mind.

Of the sample of women, two-thirds were wives, 14% were consensual partners, and 15% were female heads of household.

In female headed households, 84% of women reported managing daily expenses. In 13%, a male shared or had sole responsibility for this. In male headed households, 50% of women reported managing household expenses, and 73% said they had some participation in these decisions.

Women's decision-making power was greater in consensual unions than in marriages; among married couples it was positively associated with women's decision-making power.

In male headed-households, 79 to 90% of agricultural decisions are made by men (e.g. purchase of tools, crop management, participation in cooperatives). Joint decision making is most common in decisions about education of children (39% joint), and animal purchase and sale.

A D Lessinger, Johanna 1982

On the periphery of trade: male-female competition in a south India marketplace. Paper prepared for the Rockefeller Foundation Conference on Women and Income Control, Columbia University, October.

This paper reports on a study of women's work as market traders in Madras. Data were collected by repeated interviews with the same women in the market and in their homes.

The study found severe competition between men and women for credit, customers, goods, and location in the market. Women tend to be discriminated against in credit matters. The most successful women work in partnership with men, particularly sons or husbands, but this results in loss of control over their income. When income increases sufficiently, the women drop out of market trade because of the social stigma on working women.

B D Levine, Robert 1965

Sex roles and economic change in Africa. Ethnology 5, Appendix 66, 186-93.

This article presents an anecdotal discussion of the differences between Kenya and South Africa on one hand and Nigeria on the other hand respect to the effect economic development on sex roles.

In the former areas, male labor migration is an important economic factor. Men leave their rural families for periods of many years; women have taken over traditional male agricultural tasks, though men maintained their rights to land and livestock as well as control over their cash income.

In Nigeria, increased urbanization resulted in improved market opportunities for both men and women. Women's increased economic role resulted in greater independence from men.

Specific data are not cited in support of these conclusions.

C Lipton, Michael 1983

Poverty, undernutrition, and hunger. World Bank Staff Paper, Washington, D.C., forthcoming.

This paper contains a useful discussion (Part II, Subsection (j)) of intrahousehold food distribution among the "ultra poor." The author suggests that discrimination against women and children in food allocation is overstated in aggregate data because women and children tend to be overrepresented in the poorest households, so more women and children than men have low levels of consumption. He further suggests that children show more evidence of malnutrition than adults because the most malnourished children die and thus do not form part of the adult sample.

The paper offers a wealth of references to studies demonstrating that food allocation does not discriminate against children (Bogota, Calcutta), or against girls as opposed to boys (several African studies), except in parts of Asia (India, Bangladesh, Philippines), where girl children appear to receive less food in relation to their needs than boys.

The author reports his personal observation that women in South Asia control the household's grain stores and feed themselves and their children while their husbands are out of the house.

A B Little, Peter D. 1982

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Women as Ol Payian (Elder): the socioeconomic status of widows among the semi-pastoral Il Chamus (Njemps) of Kenya. Institute for Development Anthropology, Binghamton, N.Y. (mimeo).

This paper reports results of a participant-observation study over eight months. The author discusses the roles of women at different lifecycle stages.

Women among the Il Chamus do not remarry, and there are many widows since second wives are usually much younger than their husbands. Only widows are female

household heads. Women obtain support from their fathers, their husband, and their sons. Husbands may sell their wives' herds for cash, but sons may complain and prevent this. Brothers also give their married sisters cattle and prevent their sale by the husband.

Women manage their own budgets and control the milk from their cattle. Food purchased with the wife's earned income is kept by her for her own children, but food produced by the whole household is shared.

Women's cash economy is separate from men, and their tasks (sale of millet, milk, beer, and contract agricultural labor) are different, but widows are less bound by the sexual division of labor. Widows have more time for work, and they are more likely to send their sons to school since they are free of the husband's demand on the sons' labor for herding. Since women marry locally, upon widowhood they still have access to support of their natal household.

B Longhurst, Richard 1980

Rural development planning and the sexual division of labor: a case study of a Moslem Hausa village in northern Nigeria. World Employment Programme Research Working papers, Rural Employment Policy Research Programme, Geneva, International Labor Organization.

This is a case study of the sexual division of labor and of economic obligations in Moslem households in a northern Nigerian village. Data were collected by participant observation in a random sample of compounds, and by systematic interviews with women, covering work, income-earning, and marriage.

The study found a strong differentiation between husbands and wives, with clearly defined responsibilities. The conjugal household was not a joint unit of production and consumption: exchanges of goods and services were often for cash. Women seek economic independence in marriage because divorce is so easy, but they are secluded during their childbearing years, so opportunities are limited. Non-kin networks of credit and gift giving are important to both women and men.

Women's labor is paid at about one-quarter of the male wage rate, but women are socially constrained from performing men's tasks. Women may inherit land from their parents, but information on women's landholding is very hard to get. Women also receive gifts upon marriage (e.g., livestock) which they keep in case of divorce. Women's access to education is limited because of early marriage and seclusion; access to credit is also limited except from husband or informal women's saving societies.

Men perform mainly agricultural work; women's agricultural work is quite limited. Labor on their husband's farms is paid in cash. Most of the income earned by women is from the sale of processed food, using children as intermediaries.

The author suggests that development programs must accommodate the separation of men's and women's spheres to achieve desired outcomes.

B Loose, Edna 1980

Women's time budgeting in rural Senegal. Paper presented for the workshop on Sahelian agriculture, Department of Agricultural Economics, Purdue University, May.

This paper presents results of a 15 month study of women's time use in a sample of seven compounds in rural Senegal. Data were obtained by direct observation of women's activities between 6 am and 10 pm, recorded every 15 minutes.

The area is one of semi-subsistence agriculture. Men generally control millet production; women grow other crops for cash and home use, and are responsible for food preparation, child care, and water carrying. Households are large; an average of 13.9 members in an extended family structure.

The study found women spent 50% of their time in personal maintenance and leisure. Household tasks were shared. One woman would cook, another carry water, freeing others for field work. Water carrying, the most time consuming of women's activities, took two hours per day. The author

reports women controlled the income they earned from sale of their produce, which was used for food, clothing, and jewelry.

A B Loufti, Martha 1980

Rural Women: Unequal Partners in Development, A World Employment Study. Geneva: International Labour Organization.

This paper provides an extensive general discussion of the problems women face within households and the extent to which their needs are often not addressed in development programs. The author cites the frequent underestimation of women's work because of its fragmented and non-monetized nature. She points out that households are variable; individuals belong to many households over time; and that households do not function as homogeneous units but have internal systems of exchange. Therefore programs must target individuals, not the household as a whole. Examples are given of barriers to women's economic participation and of programs which inadvertently reduced women's income-earning opportunities. The problem of conflicting program objectives is discussed: promoting education of children can reduce labor available to their mothers; modernizing agriculture can reduce women's employment; reducing the burden of water and fuel collection may reduce opportunities for women to meet and interact.

A Mbilinyi, Marjorie 1974

Barriers to the full participation of women in the socialist transformation of Tanzania. Paper presented to ADC Conference on Role of Rural Women in Development, Princeton.

This brief paper describes the male-dominated pattern of resource control in Tanzanian households. Women have rights to land only through their husbands or their fathers and brothers. Men commonly migrate to cities leaving one wife to be farm manager in the village, but they retain the right to dispose of the wife's cash earnings.

C McFie, John 1967

Nutrient Intakes of Urban Dwellers in Lagos, Nigeria:
British Journal of Nutrition 21:257-68.

This article reports the results of a cross-sectional food consumption survey of low-income households in Lagos who had immigrated from rural areas of the country. Data were collected on clinical signs of malnutrition and body weight, and by weighing seven consecutive days of individual food servings consumed at home. Most of the households were nuclear families, some headed by women, and some with both male and female heads.

The survey found that children had lower intakes of all nutrients, in relation to requirements, than adults, with the exception of one group of preschool children who consumed significant amounts of milk. The diets of 4 to 6 year old children were more nearly adequate than those of 10- to 12-year-olds. These results are similar to those of Nicol (1959) for rural Nigerians.

B McSwaney, B. G. 1979

Collection and analysis of data on rural women's time use, Studies in Family Planning 10(11/12):379-83.

This article describes in detail the methods used for a study of rural women's, men's, and children's time use in Upper Volta and reports results on the sexual division of labor in minutes per task. The study was to be used in planning an education project for women.

Data were collected by interview of a random sample of 30 women on resources, time allocation, the effects of technological change on time use. Data on time use were collected at three different times of year by direct observation of the sample women for the first 14 hours of the day. Activities were recorded in minutes. Similar data were collected for five men in each village, and single observations on five girls and five boys of different ages.

A comparison of observation and recall data found that recall failed to capture 44% of women's work.

The study found that women spend more hours working than men and that this pattern begins at age 7. Age of adult women did not affect their time use. However, women with co-wives worked fewer hours and spent more time in leisure (3 hours, compared with 1.75) than monogamous wives. There was a significant sexual division of labor, with women responsible for food processing, household work and child care, and many agricultural tasks, and men responsible for craft work, community obligations, and some agricultural work, particularly harvesting crops.

A Mencher, Joan 1982

Women's work and poverty: their contribution to household maintenance in two southern India regions. Paper prepared for the Rockefeller Foundation Conference on Women and Income Control, Columbia University, October.

This paper reports a study of income use by men and women in several villages in two regions of southern India. Data were collected daily for a year on earnings and contribution to the household.

The study found that women contribute a high percentage of their earnings to the household, regardless of income level. Men contribute more in absolute quantity, but a smaller proportion of their incomes.

Women reported that the more days they worked during the year the greater control they had over household expenditure. Generally, women handle household finances, but they cannot refuse if husbands ask for money for personal use.

Children gave most of their earnings to their mothers.

B Mies, Maria 1982

The dynamics of the sexual division of labor and integration of rural women into the world market, in L. Benefa, ed., Women and Development. New York: Praeger.

This article discusses the effect of women's work as lacemakers on the division of labor and responsibility in households in a region of India.

Lacemaking is performed by women at home; marketing of the lace is mostly handled by men. Women spend 6-8 hours per day at lacemaking, which is perceived as non-work by their husbands. This work is done by higher caste women. Untouchable women do agricultural work, which is seen as work, and is more profitable than lacemaking.

Women performed all household tasks (cooking and serving food, washing, etc.) even in cases where husbands did not work and all household income was provided by lacemaking.

The author reports that women refuse to permit husbands to control their (women's) income, which is spent entirely on household needs.

D Moore, M. P. 1974

Some economic aspects of women's work and status in the rural areas of Africa and Asia. IDS Discussion Paper Number 43, March.

This paper discusses the causes of the low status and power of women in many societies and the reasons for high levels of women's status in some cultures.

The author cites evidence from industrialized nations and from anthropological studies of LDCs that women's status and decision-making power (defined as control over her own life decisions, the use of her time, and access to resources which enter the household) result from her economic contribution, either through wage earning or subsistence production. Household work, though not unproductive, is not given the same respect. Anecdotal evidence shows that in LDCs women from lower economic classes are more likely to work

outside the household, and have more say in family matters. Cultures which rely on women's labors for subsistence farming and for rice monoculture (which requires huge labor input) accord higher status to women within the household.

The author suggests that providing income-earning opportunities for women is the best way to improve their power within the household, but acknowledges the problem of competing household tasks which are time consuming and labor intensive.

D Moses, Yolanda 1977

Female status, the family, and male dominance in a West Indian community, Signs 2:1, 142-53.

This descriptive article is based on review of secondary data (surveys, government records, and interviews with government specialists) and on an intensive participant-observation and interview study of a small number (not given) of women in Montserrat, B.W.I. The study looked at decision-making power and perceived status of women in working- and middle-class households.

The author holds that economic contributions by women do not necessarily enhance their status in households with a man present. In female-headed households, authority is determined by age. In male-headed households, middle class women defer to men more than unskilled women. Unskilled women also provide more than 50% of household income.

Skilled married women report decision-making power over routine household purchases; men decide on larger purchases such as radios and cars. Unskilled women make fewer decisions because the range of choice is more constrained. Single women take the role of decision-maker by necessity, not choice. Single women establish support networks with other women kin. Women living in their father's households report no decision-making power, irrespective of economic contribution.

- B Murdock, G. P., and Provost, C. 1973

Factors in the division of labor by sex: a cross-sectional analysis, Ethnology 12:203-25.

This paper presents a factor analysis of data from 185 societies on the sexual allocation of particular tasks and attempts to explain why certain tasks are assigned to one sex or the other.

Some of the factors identified are compatibility with child care (female); degree of complexity or specialization (higher degree means task is male); qualities of materials used (hard materials result in male tasks).

This typology is of limited predictive value.

- A Murray, Colin 1975

Marital strategy in Lesotho: the redistribution of migrant earnings, African Studies 35:2.

This article reports results of a two year field study of a village in northern Lesotho. Twenty families were questioned about marriage payments they had made. The questions covered marriages between 1914 and 1973.

Traditionally, bridewealth was paid in cattle; subsistence was derived from agricultural and cash earnings. Now cash from migrant labor is used. Because of its liquidity, this form of bridewealth is used for immediate consumption needs, while cattle was a form of saving.

- B Nao, M.; White, B; and Peet, R. C. 1976

An anthropological approach to the study of the economic value of children in Java and Nepal, Current Anthropology 19:293-306.

This article reports the results of two studies of the economic contributions of children. In Java, data on 478 households were collected by household survey. Work input, time allocation, income and expenditure, and food consumption data were collected by recall every six days for one year on 20 middle-

to low-income households containing a child 6 to 19 years old. In Nepal household surveys of 674 households were combined with work input data obtained for all members of a subsample of households. Work input data were collected by one-day direct observation monthly for 7 to 10 months. Because of inaccuracy of recall and difference in method, comparability of data is subject to question.

The study found in both countries girls aged 15 to 19 spend more time in work than boys (7.9 versus 10.2 in Java; 9.5 versus 11.3 in Nepal). Girls did more household work and only girls did child care. Livestock tending was children's work in both countries.

In households with more children work input per child was higher, and incomes were higher.

Elderly parents lived with their children in 72% of cases in both countries; dependence on sons was more common than on daughters.

B Navera, Emeline Realubit 1978

The allocation of household time associated with children in rural households in Laguna, Philippines, The Philippine Economic Journal 17(32):203-23.

This study uses multiple regression analysis of data from The Agricultural Development Council multipurpose household survey in Laguna, Philippines to examine the determinants of the labor time costs and benefits of children to their households. Data were collected by recall and by direct observation (See Evenson et al., Section II, for method.)

The hypothesis of the study was that the time cost of children will be highest, and economic contributions lowest, in the early years, and that the situation will reverse with age.

The time variables used were: child care, other home production, market production, and leisure, all measured in minutes per day.

The study found time cost of children averages 5 hrs/day under age 2, about 2.4 hrs/day at age 3-4, and about 1.3 hrs/day for children 12 and over. Economic time contributions of children start at age 3-5 in very small amounts. By age 10-11, the net contribution of time is positive.

Children's contribution of market time is inversely related to household income; in wealthier households children contribute to home rather than market production. Children from larger households contribute more economic time. Education increases home production time of children; it increases the market time of low- and middle-income children and reduces it for high-income children. Education reduces children's leisure at low incomes and increases it at high incomes.

A Nelson, Nici 1979

Production and income-generating activities for Third World women. UNICEF Knowledge Network on Women, Paper Number 5, September.

This paper contains a brief section which discusses the differential uses of women's income versus men's. Several studies are cited which show that women are more likely to spend their incomes on household needs (including food). The case is made that women's income from outside the home increases their status in the home and influence over spending decisions, again citing studies. Examples are given of men's resistance to increased income-earning opportunities for women (Niger, Sri Lanka), and of women's reluctance to ask men for income in the absence of such opportunities (Mexico, Kenya).

The argument is made that income-earning opportunities for women will contribute to household welfare.

B C Nerlove, Sara 1974

Women's workload and infant feeding practices: a relationship with demographic implications, Ethnology 13:207-14.

This study reviews evidence from 83 societies to test the hypothesis that a high degree of participation by women in subsistence activities is associated with early (before one month) supplementary feeding of infants.

An index of women's participation was developed by multiplying a measure of the degree of dependence on a given subsistence activity in a society by the degree to which the task was performed by women.

The hypothesis was substantiated statistically: women who start supplementation early contribute, on average, 38% of subsistence activity, while others contribute 27%. Given the reliance on secondary data with variable reliability and the indirect nature of the women's participation variable, this study has questionable predictive usefulness.

C Nicol, B. M. 1959a

The calorie requirements of Nigerian peasant farmers, British Journal of Nutrition 13:293-306.

This article reports results of a food consumption survey in seven rural areas of Nigeria. Data were collected on clinical signs of malnutrition and health status at the beginning and end of the one year study period. Food consumption was measured for each member of the sample households over age 4, for ten consecutive days in three different seasons. Food consumed between meals and away from home was measured by recall; food eaten in the home by direct observation. Intake was adjusted for FAO standards for age, sex, weight, climate, and pregnancy/lactation.

The study found caloric intakes showed preferential treatment of adults. Males and females over age 12 almost always met caloric requirements, including

pregnant and lactating women. This finding was confirmed by data on weight, and was true irrespective of overall food supply.

Children aged 4-12 seldom obtained food to meet their caloric requirements, even when adult diets were sufficient. Sex breakdown was not obtained.

The author notes that children spend much time away from home hunting and fishing, so their food consumption may have been underestimated.

C Nicol, B. M. 1959b

The protein requirements of Nigerian peasant farmers, British Journal of Nutrition 13:307-20.

The article reports results of the survey described in Nicol, 1959a.

The study found that protein intake as measured by dietary intake was, on average, adequate for all age and sex groups. However, by clinical measures there was an incidence of protein malnutrition between 2.2% and 5.3% in the age ranges under 9 years.

E Nieves, Isabel 1979

Household arrangements and multiple jobs in San Salvador, SIGNS 5:134-42.

This article provides a very interesting discussion of variations in household structure in the slums of San Salvador and how they relate to household well-being, based on empirical research.

Socioeconomic data were collected by standardized questionnaire from 197 households in 35 economically marginal communities. The household was defined as the co-residential unit, distinguished from the family (since kin do not always reside together) and from the mutual economic support group, since it is common for economic contributions to be made from non-household members.

Almost 80% of the households were based on conjugal or affinal couples. The remaining 20% were based on consanguineal ties. Most of the consanguineal households contained either no male or an economically inactive one. Women are economically more secure than men, because their wages are lower and so they are more likely to be employed. Men often contribute to consanguineal households (often to more than one) without being members of the residential group.

The author found that consanguineal households were more adaptive than conjugal ones because their boundaries were more flexible; members could join or leave easily.

The larger size of these households permitted delegation of responsibilities: household and wage-earning tasks could be shared. The author also found that households in the slums establish fictive kinship networks based on reciprocity as a substitute for the extended family support network of rural areas.

B E Nieves, Isabel 1981

A balancing act: strategies to cope with work and motherhood in developing countries. Paper prepared for International Center for Research on Women, Policy Roundtable, the Interface Between Poor Women's Nurturing Roles and Productive Responsibilities, Washington, D.C., March.

This paper argues that conventional measures of work and labor force participation in developing countries fail to account for women's roles as both mothers and providers. In order to give women the social support they need to be active participants in economic development, it is necessary to examine the ability of poor women in developing countries to cope with their dual roles of mother and provider. Poor women do work. When poverty and struggle for economic survival are a constant condition of people's lives, then the traditional sex role expectation and sex-based division of labor break down and women assume the responsibility for family survival by default. For instance, low male wages force women to contribute to family income through a combination of

home production and work outside the house. When home production, child care and work outside the house are considered, females work longer hours than males. In order to manage their multiple roles, working women appear to meet the heavy demands upon their labor in many ways which maximize the well-being of their family while also imposing heavy costs upon themselves. Coping strategies include: delegating the responsibility of certain tasks to other household members, changing the size and composition of the group that lives together, maintaining physical mobility, obtaining transfers of income goods services from others and learning to obtain support from public agencies.

B Nieves, Isabel 1982

The interface between poor women's nurturing roles and productive responsibilities. Paper prepared for the Second Annual Women, Work, and Public Power Workshop, Women in Development, Harvard Institute of International Development, April, pp. 16-17.

This paper discusses, in a general way, the strategies which women use to cope with the combined demands of economic production (home and market) and child care. The author disputes the commonly held assumptions that the biological mother is always the primary infant caretaker; that nurturing of children is not transferable; that informal-sector agricultural work is most compatible with child care.

Evidence is cited from one study showing that women employed in the formal sector breast-fed longer and more frequently than those in the informal sector. Another study is quoted, showing women's market work is traded against leisure time, not child care or home production.

Some of the strategies women use are choosing work with flexible hours or bringing children to the work place, changing household composition (e.g., recruiting members to help), and delegating some tasks.

C Nutrition Economics Group (USDA) 1982

Intra-family food distribution: review of the literature and policy implications, Office of International Cooperation and Development, Technical Assistance Division, March.

This is a very useful paper which presents an analysis of the possible factors influencing intrafamily food distribution and then reviews in some depth the results of several food consumption surveys. Results are summarized and methodological problems are discussed.

The paper concludes with a list of information needs missing from available surveys and needed to understand intrafamily food distribution. This includes: complete information on food consumed by all members, including that eaten away from home; income related patterns, particularly attitudes toward the productivity of different household members and toward their roles, and beliefs about different kinds of foods.

A B Pala Achola 1978

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Women's access to land and their role in agriculture and decision-making on the farm: experiences of the Joluo of Kenya. Institute of Development Studies, University of Nairobi, Discussion paper #263. April.

This paper describes the results of a study of land ownership and agricultural decision-making. Data were collected over 15 months by questionnaire, informal interview, and participant and non-participant observation.

The author describes traditional patterns, by which women had inalienable rights of usufruct but not disposal of land from their fathers and then from their husbands. Women may exchange use rights, but not ownership of land. Recent land reform has resulted in individualized registration of land ownership, generally by men. More than 90 percent of women interviewed depend on land owned by a male relative who now has the legal right to alienate the land.

Women interviewed said they mainly farm subsistence crops. Ploughing is held to be a male task: 52 percent of respondents hired male labor; 32 percent said their husbands ploughed for them. Planting, weeding, harvesting, and transport and storage are women's tasks. Most women reported that many men's tasks are now also done by women: land clearing, ploughing, construction of granaries. But when labor is hired, sexual allocation of tasks is observed.

Decisions about land sale are generally made by men, except in the case of widows or women whose husbands have emigrated; but decisions about land use are made by women. Decisions regarding sale of cattle are "male-typed." Decisions on children's education were made jointly in 41 percent, and by the father in 36-39 percent of respondent households. Data were obtained by direct question with probes.

A B Pala Okeyo, Achola 1979

Women in the household economy: managing multiple roles. Studies in Family Planning 10:11/12, Nov.-Dec.

This is a descriptive article about market women among the Luo in Kenya. The author says that, with the rise of formal education, disproportionately given to boys as a qualification for formal sector work, women find work in the informal sector as sellers in rural markets.

Women report that they work for household expense money and school fees, and to obtain financial independence from relatives. Capital to start trading is usually obtained from relatives. Market women form labor exchange relationships with other women to perform agricultural and marketing tasks. Generally, market women delegate household tasks to older children and other relatives rather than to husbands or co-wives. But women in agricultural trade often cannot do agricultural tasks and must buy food. They report spending most of their earnings on food, clothing, household necessities, and health.

A D Palmer, Ingrid 1977

Rural women and the basic needs approach to development.
International Labor Review 115:1.

This article gives a general discussion of the effects of economic changes on women's work. The author suggests that modernization in Third World countries, which results in specialization of jobs and commercialization of agriculture, decreases women's ability to secure an equitable share of family real income. Women tend to remain in untechnologized, low-productivity tasks. This reduces women's authority, because economic power shifts to men.

The author holds that development projects must address exchange relations in the household and ensure that women have some authority over family earnings, so that projects will benefit family members.

A B Palmer, Ingrid 1979

The Nemow case: case studies of the impact of large scale development projects on women. Population Council, New York, Working Paper #7. September. 92 pp.

This paper is the result of empirical study of two actual development projects, written up as a single fictitious case. Field study was based on open-ended interviews with women (six from each of six villages) and with project managers and community leaders.

The project described was a large scale resettlement onto newly irrigated rice land. Credit and inputs for rice production were provided and social services were planned. The project results in fewer wage jobs available for women, but women worked in unpaid family labor (on the rice crop) more days than before. Household income increased, but women's access to income and resources declined, resulting in lower fulfillment of household basic needs. The increased workload of women reduced the amount of breast-feeding. Women's ability to hire labor and their legal right to land were weakened by the project, because the project focused on rice production for cash, which was a man's

responsibility. Men were the lessees of the irrigated land and full owners of the crop. Further, resettlement weakened traditional kinship networks of support for women.

The author concludes that this kind of project should provide for separate men's and women's ownership of rice land and equal legal status in Farmer's Associations for men and women.

A B Papanek, Hannah 1979

D

Implications of development for women in Indonesia: selected research and policy issues. Center for Asian Studies, Boston University, Discussion Paper #8.

This paper suggests that all social, economic, and political programs of development must incorporate concern for the roles of women in the household and the society. Specific woman-focused projects, isolated from the mainstream, are not sufficient.

The author holds that women are not a single, homogeneous group, and that women do not always live in intact households in which the husband is the primary or the sole earner. Poor households are more likely to depend on the earnings of women and children for survival, so policies should not be adopted which reduce paid work opportunities for women. Women's work includes work for pay, work at household production, and the maintenance of family social status ("family status production") which has an economic benefit in terms of marriage and employment opportunities for other household members. Women, in deciding whether to participate in paid labor, face tradeoffs among these three kinds of activities.

A B Papanek, Hannah 1982

D

The education-employment linkage: comparative studies of women, income and work. Paper prepared for Rockefeller Foundation Conference on Women and Income Control, Columbia University, New York. October.

This paper suggests that family economic strategies may not always be jointly arrived at. The author discusses the economic value of women's roles as producers and maintainers of household social status, suggesting that this is the reason for strict control of women's behavior in West and South Asia. Data on women's labor force participation in Egypt are presented to demonstrate that circumstances are changing so that status is now derived more from income, resulting in increased mobility and labor force participation of the more educated woman.

B D Pines, James 1983

The nutritional consequences of agricultural projects: evidence and response. Paper prepared for UNACC Subcommittee on Nutrition. Mimeo. January.

The paper discusses the ways in which agricultural projects can have different effects on nutritional status depending in part on the type of household and the role of the individual. Projects may change the allocation of labor burdens within the household by inducing migration or increasing time constraints on some members. An increase in women's labor burden may result in reduced attention to subsistence farming, food preparation, and child care and feeding.

Projects may reduce women's income control by eliminating or mechanizing tasks formerly performed by women for wages. There is some evidence that women's income is more directly related to nutritional status in the household than other income.

The author suggests that each agricultural project should be analyzed in terms of its social impact.

B D Pollock, N. J. 1970

Breadfruit and breadwinning on Namu Atoll, Marshall Islands. Unpublished Ph.D. dissertation, University of Hawaii. 332 pp.

This dissertation is the result of a participant observation study of methods of food procurement. The author notes that household composition is constantly changing as nuclear families move in and out of joint family settings. Households are defined in terms of residence location; however, mutual economic support obligations are not confined to this group, but extend along kinship lines. By tradition, the household head must be male; if no man is present, a woman may share the role with an absent male family member. The author discusses the sexual allocation of tasks, indicating a strong sexual differentiation of acceptable work. Responsibility for decision-making is also allocated by sex. Only men may trade with the ships which buy copra, so men decide what to purchase with the cash income.

B C Popkin, Barry 1980

Time allocation of the mother and child nutrition. Ecology of Food and Nutrition 9:1.

This article reports results of a survey of 573 households in Laguna, Philippines. Data on household dietary intake, economic and demographic variables were obtained in five rounds over two months. For a subsample of 99 households, two-day dietary intake for children and data on child care time by mothers were collected.

The author reports that young preschool children whose mothers engaged in market work had lower nutritional status than those with non-working mothers, and that child care time of working mothers was also lower. Older siblings provided more child care time in these households.

The types of market work which women performed were handicrafts, salaried employment in town, and small business, as well as subsistence farming.

A B Popkin, Barry M., and Solon, Florentino S. 1976

Income, time, the working mother, and child nutrition.
Environmental and Child Health 22:156-

This article reports results of a survey of households in Cebu, Philippines. Urban and rural households were included. Data collection on income, food consumption, and women's time use was by questionnaire and direct observation, including 24-hour dietary recall for children's food intake.

The study found that 26 percent of urban and 31 percent of rural women engaged in market work. Children of low-income women who worked for pay had higher calorie and protein consumption but lower vitamin A intake than those with non-working mothers. There were no clinical signs of vitamin A deficiency, however. Working mothers breast-fed less, and 15-36 percent of the income of these women was spent on baby food. The authors suggest that time constraints on working mothers cause a reduction in breast-feeding in favor of bottle feeding, and reduce time available to cook fresh vegetables.

B Presvelou, Clio, and Spijkers-Zwart, S. 1980

The Household, Women, and Agricultural Development.
Wageningen, Netherlands: H. Veenman and B. V. Zonen.

This book contains the proceedings of a conference with the same title, focusing on the African case. Most of the chapters describe the sexual allocation of tasks and how this has changed over time. The question whether modernization has hurt or helped women is argued. The papers are largely descriptive in nature; specific quantitative studies are not described, but a lot of general information is provided on various cultural systems.

C E Rawson, Ian and Berggren, Gretchen 1973

Family structure, child location and nutritional disease in rural Haiti. Journal of Tropical Pediatrics and Environmental Child Health 19:188-98.

This article reports results of a study of a small (pop. 427) rural community in Haiti. Data were collected in daily visits over two months, by means of direct observation and interview. The focus of the study was the association between the nutritional status of children aged 0-6 and their relationship to the household in which they lived.

In this setting, the household ("l'acour") usually consists of an extended family: three generations, including siblings and their spouses and children. Households range in size from 2-20 persons. Most conjugal unions are consensual, not formal, and are unstable. Household disruption and reconstitution with other members is common. Child relocation occurs when a conjugal union is broken and when a couple has more than four living children, since this is viewed as an excessive burden on household resources. The household is a unit of production and consumption. The household eats together; adult men receive preferential treatment, and children may share one plate among themselves or with an older relative.

The study found an association of nutritional deficiency with household disruption and relocation. Children with no nutritional deficiency most commonly were living with both parents, or within a small household including one parent and the parent's closest relatives. Of children living with both parents, those who were deficient came from large (5-6) sibling groups. Of 21 deficient children, 15 did not live with both parents. Physical proximity to the parents' household did not affect the incidence of deficiency if children did not live in the household.

A B Reynold, D. R. no date

D

Appraisal of rural women in Tanzania. Washington, D.C.: USAID/REDSO. Mimeo, 44 pp.

This useful paper discusses the situation of women in post-independence Tanzania and its implications for agricultural program planning.

The author reports there is a strong sexual division of labor. Women do home and child care and subsistence farming. Men are shifting to cash-cropping and non-agricultural employment. Since work for cash is more prestigious, women's work is culturally less valued. Modern technology is generally appropriated by men, increasing the productivity gap between men and women, and increasing women's workload (e.g., more weeding is required when tractors are introduced). Demands on women's time are increasing also because there are fewer polygamous households and higher school attendance, reducing available help. As men leave agriculture for wage employment, women take over male tasks, but men do not take over women's work. This is the case in Ujamaa villages as well as elsewhere.

Decision-making is held to be joint, but women have more responsibility for decisions about farming (what to plant and when); men for decisions about land and livestock purchase and sale, and relocation. Other determinants of women's decision-making power are location (proximity to kin increases bargaining power), age, presence or absence of husband, and access to her own source of cash income. Women control income which they earn from crafts or sale of their produce, but men control income from cash crop sales even if women work on the crop.

Obstacles to women's employment are lack of education and other household responsibilities. Families hesitate to educate women because benefits will accrue to her future husband's family. Women generally do not have access to agricultural extension because agents are usually male and their methods include large group meetings and programs at raining centers or demonstration plots; women usually cannot leave home to attend.

A B Reynolds, D. 1982

D

The household divided: competition for cash between husbands and wives in West Pokot, Kenya. Paper presented at 81st American Anthropological Association meeting, Washington, D.C., December 3-7.

This interesting paper describes economic relations between husbands and wives as they have changed since precolonial times. Data collection methods are not described.

Historically, male and female spheres were separate and autonomous: men traveled with cattle; women stayed with their crops and controlled production and distribution of crops and small animals. In the colonial period, land was registered in the male's name, and men were encouraged into cash-cropping, which diverted agricultural resources from women.

Now, women are still responsible for providing household subsistence needs (food, clothing, fuel), but women's property is considered part of the household, while men's property (e.g., cattle, land in cash crops) is their own. Women's strategies for preserving their control over their cash income include investing it (e.g., buying a sewing machine), removing it from the household (e.g., placing it with her parents), and concealing it from their husbands. Women also bargain for their share of returns to jointly produced crops.

The author points out that this analysis demonstrates the inappropriateness of considering the household as a single economic unit.

B Robertson, Claire 1982

Ga women and change in marketing conditions in the Accra area. Paper presented for the Rockefeller Foundation Conference on Women and Income Control, Columbia University, October.

This paper discusses the effect of technological change on the role of market women in Ghana. Before paved roads and mechanized transport, women engaged in production of food which they sold in local markets. After modernization, small local markets

declined; and fewer women were involved in marketing, because larger quantities could be handled at one time. The author suggests that modernization has reduced opportunities for women's economic participation.

D E Robertson, Claire 1982

The peril and profit of autonomy: a comparison of women's income in Accra (Ghana) and Juchitan (Mexico). Paper presented at Rockefeller Foundation Conference on Women and Income Control, Columbia University, New York, October.

This paper discusses how cultural and historical variables in disparate settings differentially affect women's control over income.

In Accra, colonialism resulted in landownership by men, and great concentration of land in a few hands. There is a high divorce rate and high rate of separation among wives of a single husband. Thus women don't know what their husbands earn and cannot control it; men give only token amounts for children's education and clothing. Women have autonomy over their own incomes, but these are lower than men's.

In Juchitan, there is sexual division of labor, but it is cooperative. Spouses live together and divorce is rare, so that men contribute more to household maintenance. Women have little access to wage employment, but they are considered legitimate managers of their husbands' incomes.

A D Roldan, Martha 1982

Intrahousehold patterns of money allocation and women's subordination. Paper prepared for Rockefeller Foundation Conference on Women and Income Control, Columbia University, New York, October.

This paper reports results of an ongoing study of women outworkers (who do piecework at home for a factory) in Mexico City. Data were collected by formal and informal repeated interviews of the women over a two-year period. The author describes the

ways in which households allocate control over income, and the effect which women's earnings have on conjugal interaction.

Of the women studied, 75 percent were married; 22 percent were single parents. Forty-five percent were 21-35 years old; most had children under age 7. Two patterns of money management were identified: pooling, in which both spouses' incomes are combined, and non-pooling, in which the husband gives the wife an allowance, and she pays for household expenses above those covered by an allowance.

In pooling households, 45 percent did not know the amount of their husband's earnings. In 70 percent of these households, the husband (according to the wife) had final say on expenditures, especially for his personal consumption. The wives are nominal money managers but have little scope to exercise autonomy.

In non-pooling households, husbands tended to have higher wages. Fifty-five percent of their wives did not know the husband's income. Women get an allowance, but there is disagreement on what this should cover.

In both groups, the author votes that women's access to their own income improves women's decision-making power in the household and their own self-esteem, no matter how the money is used. The greater percentage contribution of the wives' income, the greater her perceived role in decision-making and defining the relationship.

The author states that men resist having their wives work because they fear loss of respect from the wives and loss of control over them.

F Rosenzweig, Mark 1982

Wage structure and sex-based inequality: the family as intermediary. Population and Development Review 8 (Supplement), 192-206.

This article suggests a simplified economic model of investment in children, based on differential sex-based wage rates and three age categories: child, parent, and elderly parent. The model suggests that

inequality of income may be exacerbated if households invest more in the productivity (e.g., education) of children to whom returns will be highest (i.e., males). The model can be used to predict effects of changed wage rates on schooling decisions.

Another contributor to this decision is the relative substitutability of girls' and boys' time for mother's time. In India, when women's wages rose, girls' school enrollment fell, presumably because girls were replacing their mothers at home.

C Rosenzweig, Mark, and Schultz, T. Paul 1981

Market opportunities, genetic endowments, and the intrafamily distribution of resources: child survival in rural India. Yale University Economic Growth Center. Mimeo.

This paper reports a secondary analysis of Indian census data to look at sex-specific survival rates of children in rural areas in relation to employment opportunities for women. Survival is assumed to reflect investment of household resources in these children.

Results show that relative survival rates of girls (compared with boys) in various regions is positively related to women's labor force participation in those areas. The relationship is stronger in lower-income households, suggesting that at higher incomes, investment in all children is increased. Religion and caste do not show a significant influence on child survival once labor force participation is controlled, but such participation is lower among Moslem and low-caste women.

A B Saffiios-Rothschild, Constantina 1980

C E

The role of the family: a neglected aspect of poverty, in Implementing Programs of Human Development, Washington, D.C.: World Bank Staff Paper #403, July, pp. 313-372.

This paper discusses in a general way how family structure affects household resource availability and use. The author distinguishes between family and

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household, stressing that co-residence does not define kin groups, and that division of labor may not be analyzed within a single household, if labor is shared among kin. Further, families and households are not static, but change composition.

Food and other resources are usually distributed unequally within households, based on age and/or sex. Determinants of food distribution are whose income is used for its purchase, who stores and cooks it, and beliefs about appropriate roles. The author holds that distribution often disfavors women and children.

Strategies to cope with poverty include multiple earners, including children and women. This may increase women's decision-making power. Another strategy is to modify household organization, including migration of some members to find work. Weakening of kinship ties with modernization means that women's support systems are lost in case of widowhood, divorce, or separation.

The author cites empirical studies which show some of the ways in which economic modernization has resulted in a more dependent role for women. She suggests that development projects must consider family structure and family dynamics.

D Safilios-Rothschild, Constantina no date

Female power, autonomy and domestic decision-making as it relates to the division of labor. University of California, Santa Barbara. Mimeo.

This paper is a discussion of women's power within the household. Power is defined as self-determination and access to the same life options as men. Power may be derived from men, but this continues dependency; it may be derived from women's collective activity or through individual achievement. Women's power decreases men's power. In some--e.g., Caribbean and Latin American--settings, when women's power increases, men withdraw from family responsibilities, but in other cases, women's power results in more equitable division of labor and decision-making.

The author suggests that study of female power should be by observation and interview rather than by formal survey; that men and women must be interviewed separately; and that studies should be longitudinal to capture the dynamics of change.

C Sarma, M. T. R. 1976

Effects of household structure, size and household income on expenditure patterns. Geneva: International Labour Organization. Population and Employment Working Paper #31, February, 53 pp.

This study used data from the NCAER Additional Rural Income Study in India, a survey covering 4118 rural households, each interviewed once, over a one-year period. The purpose of the analysis was to derive adult-equivalent units of consumption based on expenditures, analogous to the adult-equivalent scales based on caloric requirements used in nutrition surveys. Households were classified by the ratio of females to males and of children under 14 to males.

Results showed that different members differentially account for household expenditure. Female-equivalents were higher than males for clothing; both females and children were higher for sugar consumption. Income affects the weight given to different household members. For example, children under ten have a higher weight for cereal consumption in higher income households. That is, in better-off households, more expenditure is allocated to children's consumption.

Income elasticity of demand for milk is higher in houses with more children; elasticities for fruits and vegetables were above 1.00 in households with more than two children. Additional children raise the income elasticity of demand for cereal, milk, sugar, fruits and vegetables, meat, fish, and eggs. This indicates that households with children demonstrate a greater demand for these food products as income rises than those without children.

B Savané, M. A. 1981

Implications for women and their work of introducing nutritional considerations into agricultural and rural development projects. Food and Nutrition Bulletin 3:3, July, pp. 1-5.

This paper suggests that development programs must consider the role of women as food producers, child caretakers and feeders, and economic participants. Nutrition programs have failed because they are superimposed on women whose time is already overburdened. Division of labor must be considered in agricultural projects: the introduction of cash-cropping and agricultural mechanization has in some case reduced women's access to resources and increased their labor burden. An example from Ghana is cited, where the introduction of cocoa resulted in women being given responsibility for yams, but shifting to cassava production because it was less time-consuming though less nutritious.

B C Schofield, Sue 1974/75

Seasonal factors affecting nutrition in different age groups and especially preschool children. Journal of Development Studies 11:22-44.

This article discusses various aspects of the seasonality of malnutrition: seasonal food shortages, peak demand for labor with its attendant time constraints and increased caloric need, and changes in disease incidence with climate. The author cites several African and Latin American studies showing that preschool children fulfill less of their caloric and other nutrient needs than other household members. She suggests that seasonal constraints will disproportionately affect women and children where they are already discriminated against in intrafamily distribution. Women's work is also often more calorie-intensive than men's. There are no data to demonstrate whether food is allocated seasonally to those members engaged in the most arduous labor. Because of the sexual division of labor, women's home tasks (cooking, child feeding, food gathering) will suffer when their labor is in peak demand.

The author suggests the importance of programs to deal with seasonal constraints on time, energy, and food.

A B Sen, Gita 1982

Women agricultural laborers in India: interregional variations. Paper presented for the Rockefeller Foundation Conference on Women and Income Control, Columbia University, October.

This paper uses Indian census data to examine the role of women in agricultural labor in different regions. The author discusses the dynamics of women's control over income in Indian households, though the analysis does not address this issue.

Income is controlled by two mechanisms--redistribution of income after it enters the household, and control based on who generates the income. In South Asia, there is a difference in pattern of sexual control over income depending on social class. At lower income levels, women have greater control. This may in part be due to the association of low income with male migration out of the household.

C Shah, C. H. 1978

Food preference costs, poverty, and nutrition gap. Paper prepared for Nutrition Economics Group, OICD, USDA, Washington, D.C. (mimeo).

This paper reports results of a survey of the income and individual food consumption (one-day recall) of 1376 rural and suburban households in Kerala, India. Data were analyzed for dietary adequacy of protein, calories, and 10 micronutrients by age/sex and income class.

The author finds that preschool (age 1-5) children had the largest gap between consumption and need; then adult males. School-aged girls and lactating

women were deficient in calories but otherwise adult women came closest to meeting their nutritional needs.

These results were not correlated with any measure of nutritional status.

C Sharman, Anne 1981

Distribution, sharing and independence in domestic food consumption. Paper presented at American Anthropological Association 80th Annual Meeting, December.

This paper reports a study of 23 urban Black low-income households in the U.S., all containing a child under age 5. Methods of study included formal and informal interview, direct observation, record books, medical records, and participant observation.

The study found that household composition was not a good predictor of dietary quality of the members; within households, children had different nutritional status. Reasons are not given.

Most of these households experienced considerable change in the composition during the study.

A B Singh, Andrea Menefee 1977
D G

Women and the family: coping with poverty in the Bastis of Delhi. Social Action 27:3 (July-September).

This paper discusses the effects of rural-to-urban migration on role allocation and decision-making within the family, and on the economics of the household. It reports results of a survey of 161 adult women in four urban slums of Delhi.

Most of the women left the village for economic reasons and came to Delhi because of kin ties. Household structure generally (90 percent) was nuclear due to space constraints, but there was significant variation by region of origin as well.

Domestic tasks exclusively done by women are cooking, cleaning, and washing. Between 35 and 48 percent of women said their husbands did shopping and home repairs. Forty percent of women and 48 percent of men were employed for pay. Women's work force participation varied by caste and region.

Women reported they decide whether to work or not (57 percent), and they plan daily menus (78 percent). All other decisions are reported as joint. Women report that they spend their incomes on basic needs; 70 percent reported most of their income went for food. Twenty-two percent of women said their income was pooled and spending decisions were made jointly.

A Singh, Andrea Menefee 1980

The impact of migration on women and the family: research, policy and programme issues in developing countries. Social Action 30:April-June.

This paper discusses the implications of the fact that there is significant labor migration of women independent of male migration. Studies are cited showing that in India and Latin America, volume of female migration is greater than male, and that women who migrate tend to be single, low-income, and have greater control over their incomes. The author stresses the need for more information on this phenomenon, and holds that, though women earn less than men, they spend a higher proportion of their incomes on family basic needs.

B Spencer, Dunstan 1976

African women in agricultural development: a case study in Sierra Leone. American Council on Education, Overseas Liaison Committee, Paper #9, June. 20 pp.

This paper reports results of a study of the effects of an agricultural project developing inland swamps for rice cultivation. A random sample of 143 households (participants and non-participants) was selected, of which 23 were intensively interviewed over 13 months. Data were obtained on income by member, hours worked in each activity by member daily (by record), all output, all real income and

expenditure. The hypothesis to be tested is whether agricultural projects increase women's workload and reduce that of men.

The study found that effects on labor depended on the length of time households had been in the project. During land development, men put in 55 percent of labor, while women do 38 percent. After development, men do 42 percent, women 46 percent, and children the rest of the work on swamp rice. Men do the landclearing, women the weeding and harvesting. The greatest increase in workload in the first year of program participation (130 percent) is among male children, who contribute 44 percent of total man-hour equivalents in land preparation and planting. Women's workload is increased, but that of men is increased more. The author points out that in this project, women as well as men took advantage of modern agricultural technology.

A B Spring, Anita and Hansen, Art 1979

Women's agricultural work in rural Zambia: from valuation to subordination. Paper presented at the African Studies Association Meeting, Los Angeles, California, October 31, 25 pp.

This paper discusses changes in the relative economic roles of women and men in Zambia since the 1930s. The authors briefly review the literature which suggests that modernization causes the marginalization of women and shows that the colonial bias toward treating men as landowners and economic producers reduced women's access to resources.

These hypotheses are discussed in the context of the Luvala of Zambezi district. In the past, women had rights to cultivate their husband's land. Each sex had different agricultural tasks (men cleaning, women planting and harvesting), but both had rights to the crop. In 1959, women's incomes and men's were equal, though from different sources. Now women's income has dropped relative to men's because government agricultural policy favors commercial, not subsistence, crops and thus favors men.

Methods of data collection are not described.

B Standt, Kathleen 1978

Agricultural productivity gaps: a case study of male preference in government policy implementation. Economic Development and Cultural Change 9:3 July, pp. 439-457.

This paper discusses the effects of a general tendency on the part of government agricultural extension services to be given to men rather than women, thus reducing women's productivity relative to men. The author reports a cross-sectional study of female-managed and jointly-managed farms in two sublocations in Kenya. Historically, women have been active participants in agricultural work and decision-making. Recently, male migration has involved the proportion of female-headed households (40 percent in the sample).

The study found that extension staff directed more services to farms with men present, irrespective of economic classification, innovativeness, experience of farmer. While females and males start out equally productive, the author argues that over time differential treatment by government policy results in relative reduction in women's productivity.

Stineer, W. F. 1977

Urbanization and household structure in the Philippines. Journal of Marriage and the Family 39:May, 377-85.

This article uses data from the 1970 Philippine census of population and housing to examine correlations of urbanization with household size and composition.

Urban households in Manila are slightly larger (6.15, compared with 5.84 in rural areas), but a greater difference is that rural households have more children and Manila households have more adult relatives and non-relatives. In Muslim provinces, however, urban households had more children than rural households. Possible explanations are not given.

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A B Stoler, Ann 1982

The subterranean sector: women's unrecorded incomes in Indonesia. Paper presented at the Rockefeller Foundation Conference on Women and Income Control, Columbia University, October.

This paper discusses some aspects of control over income in Java. Within households, individuals do not reveal their incomes; only if labor is pooled, so are resources. Informal sector income of women is often missed in surveys, but can be 20 percent of total income. Different earning patterns of men and women are described.

Women who work on distant estates do not perform household tasks; these are done by older daughters. The society is in a period of rapid social change.

A Tolley, Dayna M. 1978

Cultural aspects of regional development among Nigerian women. Paper prepared for Society for Applied Anthropology Annual Meeting, Merida, April.

This paper reviews cultural differences in the economic roles of women from different ethnic groups in Nigeria, while making the point that development projects must be designed differently for the different groups.

In the Muslim North, women are secluded, while in other groups (Ibo, Yoruba) women have more freedom and autonomy. However, Muslim women also have independent earnings through the sale of prepared food and crafts. Women from all groups have independent responsibilities for certain categories of household expenditure, and also want to provide special benefits to their children to ensure their later support. Women therefore want to earn an independent cash income.

A B Tully, Dennis 1982

The decision to migrate: conflicts between the individual and the household in Dar Masalit, Sudan. Paper presented at the 81st Annual Meeting, American Anthropological Association, Washington, D.C., December.

This paper makes the point, reinforced with examples from Dar Masalit, Sudan, that decisions of household members (such as that to migrate) are based on individual preferences; the household is not the appropriate unit of analysis.

Households represent a set of reciprocal rights and duties; but the role of household welfare as a determinant of individual behavior depends on whether these can be enforced. Husbands are responsible for providing housing, clothing, and other cash needs; women provide household services and child care. However, men's commitments are not fully met, due to polygamy, divorce, widowhood, and male migration.

Men and women maintain separate fields, and do not provide labor to each other; children provide labor to their mothers.

As men migrate, women and children are taking over agricultural production.

B D UNECA (United Nations Economic Commission for Africa) 1975

Africa's food producers: the impact of change on rural women. Ekistics 236:48-51.

This article provides a very general discussion of the effects of modernization on women's roles in agriculture. Specific research is not cited.

The article suggests that modernization has reduced women's importance but increased their workload because new technology is available mainly to men, yet women still assist in labor-intensive tasks on the men's cash crop. Male migration has increased women's workload, as does the woman's desire to educate her children (which costs her their school fees and their labor). Changes in land tenure patterns have also tended to reduce women's access to land.

A B UNFAO (U.N. Food and Agriculture Organization) 1979
C D

Women in food production, food handling and nutrition.
Rome: U.N. Protein Advisory Group Report, June.

This is an extensive report that critically reviews research on women's economic and social roles and determinants of food consumption and nutrition in Africa. It draws on literature from the field of nutrition and diet, anthropology, sociology, and program-related research, with numerous detailed discussions of specific studies. One point is made that the household should not be the unit of analysis for program planning, since many functions relating to food production, preparation, and distribution are the responsibility of specific individuals within the household. New methods of data collection are needed to measure food consumption and nutrition; time allocation studies should be used both to identify productive activities and to calculate energy expenditure. Nutrition and social science techniques need to be combined.

The report criticizes many widely held myths and holds that empirical data are needed to confirm or contradict them. These myths include the detrimental effect of feeding patterns whereby men eat first, the detrimental effect of food taboos, the assumption that farmers are usually men, and the assumption that all household income is equally distributed among household needs.

Conceptual analysis of determinants of nutritional status is presented, and recommendations for program planning are made.

B UNWFP (United Nations World Food Program) 1979

Women in food-for-work: a Bangladesh experience. Rome: Food and Agriculture Organization.

This report describes the women who participated in a food-for-work (FFW) project in Bangladesh. A sample of 303 women were interviewed.

Women in FFW projects are from very poor households whose kinship support systems have broken down. A third of the participants were wives of unemployed

men or laborers; one-third were widowed; and the rest unmarried or divorced. About one-half were chief income-earners for their families.

There is social pressure against women doing this kind of work, but male members are migrating out to seek work and not returning, so women are responsible for family support. Women cannot work as many hours as men on these FFW projects because of their household responsibilities. This explains, in fact, women's lower productivity and lower daily wage.

USAID (United States Agency for International Development)
1972

A study of food habits in Calcutta. Calcutta, India:
Hindustan Thompson Associates.

This report presents detailed results of a survey of household food consumption and expenditure and individual dietary intake. Data were obtained on a random sample of 2,386 households in Calcutta, excluding pavement dwellers. A subsample of 280 households was interviewed three more times to obtain seasonal data. Dietary intake was measured by 24-hour recall including food consumed at home and away.

The study found that men consumed more of all items, in relation to the RDA than any other household member, except milk was consumed mainly by children under age 10. Calories, deficient for all groups, were most deficient among preschool children. One-third of children under four received only half or less of their caloric requirement. Infants under six months are reported to receive an average of 27% of their calorie needs, which suggests problems of data accuracy. No sex breakdown is presented for children under age 12.

C Valenzuela, Rosario 1978

A study on nutrient distribution within the family and factors affecting nutrient intake. Philippine Economic Journal 36:17:1/2.

This article reports results of a dietary intake survey in Laguna, Philippines. Individual intake of 547 members of 97 households was measured during three cycles, the first consisting of two-day food weighing, and the next two consisting of one-day observation. (No significant differences were observed between the two days of the first cycle.) Food away from home was measured by recall. Data from other parts of the Laguna survey were income by member, food expenditure, and time use by member. Nutrient content was calculated using Philippine food composition tables, and compared with Philippine nutrient RDAs for each age/sex category.

On average, no household member fulfilled 100% of the RDA of all nutrients measured. Mean calorie intake was 76% of the RDA, and, of protein, 80% of the RDA. Children had significantly poorer diets than parents. Adolescents had the poorest diets. Fathers had slightly better diets than mothers, and boys had better diets than girls at all ages, the biggest difference being among preschoolers.

A regression analysis of individual intake (percentage of RDA) of calories, protein, vitamins A and C to identify determinants of intake level. Food expenditure was positively associated with calorie and protein, but not vitamin intake. Labor force participation of the mother was positive with nutrient intake, as was her education (in most cases), and cooking time. Nutrient intake by individuals showed a weak relationship with that person's income contribution. Food expenditure had a higher association with nutrient intake in larger households, while household size was negative with intake.

No direct measures of nutritional status were used.

D Westwood, Sallie 1982

Indian women in the workplace. Paper presented for Rockefeller Foundation Conference on Women and Income Control, Columbia University, October.

This paper reports results of a study of Asian women from East Africa recently immigrated to England and working in a factory. Methods are not described.

The women studied would not have worked outside the home before coming to Britain, where the women found work more readily than men. Younger women reported an increased sense of personal power with their factory work: they said they could choose their husbands and create nuclear households. Traditional pooling of income under control of the oldest male is breaking down since the younger adult members have adapted more to the new way of life. Younger men are more likely to control pooled income in England, but household spending decisions are reportedly jointly made.

C Ybáñez-Gonzalo, Susan, and Evenson, R. E. 1978

The production and consumption of nutrients in Laguna households: an exploratory analysis. Philippine Economic Journal 17:36:1/2, 136-53.

This article reports results of an analysis of individual food consumption data for 97 households as part of the Laguna survey (see Valenzuela, 1978). Data were obtained by 24-hour recall plus 24-hour record. The dependent variable was an aggregate of nutrients (calories, protein, vitamin A) consumed. The study found that calorie consumption was higher for higher-income households with the mother in the paid labor force, but in low-income houses the relationship was negative. Vitamin A consumption was lower for working-mother households in both income groups. No measure of nutritional outcome was used.