FACTORS RELATING TO FEMALE WORK FORCE PARTICIPATION

IN THREE CENTRAL JAVANESE COMMUNITIES

BY

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DECLARATION

Except where otherwise indicated,
this thesis is my own work.

March, 1984 LAILA NAGIB
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ABSTRACT

This study investigates the determinants of female work force participation according to selected demographic and socio-economic factors, and explores the relationship between these factors and female employment. The data are taken from the 1979 Indonesian Asian Marriage Survey which studied 1587 ever married women in three Javanese communities in Central Java. The methods of analysis used include the comparison of employment rates among sub-populations and the examination of the extent of differentials among the employed women.

Demographic factors studied include age, number of children ever born and number of young children (0-4 years) in the household. Other individual characteristics examined include current residence, years of schooling, past work experience and husband's education and primary occupation.

Although the study does not isolate the relative impact of each individual variable on the participation of women in the work force, several factors emerge as important influences. Age and geographical area are consistent factors in the explanation of different rates of current work participation. The participation of women in the work force seems to be influenced by the intensity of conflict between maternal and work force roles. The hypothesized associations of other factors such as education and husband's education and primary occupation (often associated with income) with the employment of women.
are not well explained by the analysis. Evidence shows that past work experience (based on retrospective questions) is an important factor associated with current work. Work status in one interval is a useful predictor of subsequent work participation.
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In the last decade, Indonesia has experienced fairly rapid economic growth as part of a general plan of national development. National statistics have documented the increasing involvement of women in the country's development efforts through their increased levels of education, as well as somewhat higher work force participation.

Interest in studying female labour force participation has grown in recent years in the disciplines of economics and sociology as well as demography. From the demographic perspective, female employment is important in labour force and development studies as well as in its role as a policy instrument to reduce fertility. Recently, both economic development and fertility reduction have been important issues of government policy in Indonesia. A study of female labour force participation is also intrinsically important as a contribution to a key area that requires further study in a wide variety of settings.

There are two points to note about Central Java as the location of the present study. First, Central Java, as recorded in aggregate data, is a region with moderately high female activity rates compared to other regions in Indonesia. Second, some scholars have suggested that
Javanese women by tradition are highly economically active (Geertz, 1961; Papanek et al, 1974; Hull, 1979).

1.1 Aim and Scope of the Study

Although there have been many studies concerning women and work in Indonesia, especially in Java (see Postma et al's 1980 and 1982 bibliographies), only recently has research focussed on the relationship between socio-economic factors and female work force participation (Schiller, 1975; Papanek, 1976; Stoler, 1976; Hull, 1977, 1979; Raharjo, 1978; Peluso, 1979). So far there has been only one study of the determinants of female labour force participation in Jakarta (Jones, 1977). Sutoro's (1982) and Wolf's (1982) studies were concerned only with female factory workers in selected rural areas of Java. Most of the existing studies on female labour force participation in Indonesia are case studies of particular areas. Given the heterogeneity of the Indonesian population and the variability in socio-economic conditions, it is clear that few of these studies can be generalized to the wider female population. In the absence of suitable larger data sets a broader understanding of the factors relating to female labour force participation in Indonesia must rely upon replication of such case studies to reveal both the common underlying factors and the distinct local and regional differences. This study of ever married women aged 15-45 years in three Central Javanese communities is a contribution to the small body of literature on female labour force participation in Java.
The primary concern of the current study is to identify some determinants of female work force participation among the surveyed women by examining variations in current economic activity according to selected demographic and socio-economic characteristics of the women and of their husbands. In addition, the study describes the nature of female employment, particularly occupation and work place differences among employed women. The data were obtained from the Indonesian Asian Marriage Survey (IAMS) conducted in 1979 (see Chapter II for details).

It has been hypothesized that certain factors such as fertility, the presence of young children in the household (an indicator of the family life cycle stage) and husband's socio-economic status are negatively associated with female economic activity. A positive relationship has been suggested between both female education and previous work experience and current work force participation.

Although the data available do not permit causal associations to be investigated, the present analysis explores the relationships between observed factors (children ever born, the number of children aged 0-4 in the household, respondents' education, husbands' education and occupation, and previous work experience) and female work force participation. An attempt is made to establish the extent to which the current study supports the kinds of hypotheses advanced by previous research. Although it may not lead directly to policy implications, it is hoped that
it will stimulate in-depth studies which are more specifically policy oriented. For this study, a subset of the original data was constructed using core variables relevant to the hypotheses being examined (see section 1.3).

1.2 Factors Related to Female Labour Force Participation:

A Review of Literature

Female economic activity rates, in contrast to male rates, manifest remarkably great variability and are highly dependent on factors that differ substantially between countries. It is generally perceived that females have greater responsibilities as wives, mothers and houseworkers than they have as workers. Hence, many factors have played important roles in determining whether or not a woman works. Berent (1970:180) concluded that the desire of women to take gainful employment is to a large extent "a function of demographic variables such as age, place of residence, marital status and number of children". Many other studies have pointed out that differences in female activity rates (hereafter abbreviated to FARs) between countries or within a given country result from different socio-economic as well as cultural factors (Boserup, 1970; Youssef, 1974; Jones, 1977; Standing, 1978a). Married women may enter the work force for more complex reasons which, according to Mahoney (1961:565), can be classified into three groups: economic considerations, the family as a social unit and personal considerations of the wife as an individual.
Previous studies have found that demographic factors including age, marital status, the number of children ever born, the presence or absence of young children, and migration status as well as residence differences all help to determine the likelihood that women will participate in the work force. Socio-economic factors such as female education, husband's income, level of economic development as well as social attitudes also influence women's decisions about whether to enter the work force. Recent studies have considered the importance of work during one stage of the life cycle in explaining whether a woman works during subsequent stages (Mott, 1972; Fong, 1974; Young, 1978).

The pattern of female activity rates (FARs) has changed dramatically during the last century, particularly in the developed countries. Changes in technology, both in the household and in factories, changes in women's education, economic pressures on the family (expansion of the cash economy), changes in social attitudes, smaller family sizes and the expansion of institutional childcare facilities have influenced the pattern of FARs in both developed and developing countries (Boserup, 1970; Oppenheimer, 1970; OECD, 1980; Oppenheimer, 1982; Jones, 1984).

Many studies of female work force participation in the literature deal with all women rather than with married women only. Although the work force participation pattern of married women must be distinguished from that of all women, some general determinants are obviously shared, such
as education, rural-urban residence and age. However, there are some specific factors influencing the participation of married women such as the socio-economic status of husbands, the husband's attitude and marital fertility. Although a few studies of work force participation of all women are reviewed, it must be remembered that the current study will be limited to ever-married women who, for the most part, were also currently married. The literature review will focus on variables which will be considered by the present study.

1.2.1 Demographic and Related Factors

It is well documented that the pattern of FARs according to the age of women varies between countries. However, as a variable by itself, age is of questionable influence in determining FARs due to the fact that age is also a reflection of the marital and family life cycle stages (Frejka, 1971:1563; Durand, 1975:37). Age in relation to physical capacity to work is usually only relevant to the very young and very old. The pattern of FARs between these two age groups has generally been affected by other factors that were summarized by Morgan et al (cited in Tanfer, 1975:6), such as marital status, family life cycle stage, education and husband's income. Age has also become correlated with education because of the spread of education over recent decades, resulting in a better educated younger generation.
Summarizing the age patterns of FARs in 84 countries, Durand (1975:43) identified four principal types: central peak or plateau, late peak, early peak and double peak. These implied a difference in the life cycle of marriage and the family in the respective societies. Durand (1975:37) described the economic activity of women in relation to their marital and family life cycle as follows:

"In some societies, it is almost exclusively the single and ex-married who work for income; marriage is the occasion for retirement from the labour force, and widowhood may be the occasion for re-entry. In other societies, women frequently continue working after marriage until they have children and they may return to the labour force when the children are old enough no longer to need the mother's constant care; while in still other societies, motherhood is frequently combined with work for income"  

In some African countries the "late peak" pattern was more pronounced, suggesting that early marriage and early motherhood discouraged young women from participating in the work force. Indonesia seems to conform to this pattern. National data show this pattern holds for almost all regions (Jones, 1977:75).

Age of women combined with family life cycle stage has largely determined the pattern of FARs in many developing countries (United Nations, 1979:23-37; Jones, 1982:13-26). According to Jones, different cultures and stages of development in the Southeast and East Asian regions have influenced the marital and family life cycle which in turn affects the age pattern of FARs. Many studies of female employment in fact use age as a control rather than as an
individual variable affecting FARs.

The relationship between fertility and female economic activity has been of special interest in recent years. Numerous studies have been carried out in both developed and developing countries (Kupinsky, 1977; review by Standing, 1978a: Chapter 7). FARs in developed countries are inversely related to fertility. However, there is no clear consensus on the direction of causation. A general tendency towards a negative relationship between FARs and fertility was found in urban areas of several developing countries (Jaffe and Azumi, 1960; Collver and Langlois, 1962; Collver, 1968; Bindary et al, 1973; Elizaga, 1974). As a result of this finding Collver and Langlois (1962:367) suggested high priority should be given to creating more job opportunities for women if this would change their reproductive behaviour. Other investigations in developing countries found an ambiguous relationship, no relationship or even a positive relationship between work and fertility (Stykos and Weller, 1967; Goldstein, 1972; Bindary et al, 1973; Concepcion, 1974). In Indonesia, census data reveal that the cumulative fertility of currently working women is lower than that of women who engage in housekeeping only, and this holds for all age groups (Central Bureau of Statistics, 1975, series D:145-156). Although Hull (1977:67) also found that working women in a rural area of Yogyakarta had lower fertility compared to non-working women, she doubted that their economic activity was the sole reason.
One of the major theoretical underpinnings of the negative relationship between work and fertility is the maternal role incompatibility hypothesis (Collver and Langlois, 1962; Stycos and Weller, 1967; Weller, 1968; Peek, 1975; Hull, 1977; Mason and Palan, 1981; Smith, 1981). This posits that an inverse relationship between work and fertility occurs only when the roles of worker and mother conflict, a factor which depends largely on variables such as organization of production and organization of childcare.

In many urban areas of developing countries women working in relatively modern sectors find the demand for childcare time a constraint on work participation. In more traditional settings, where family employment predominates, the roles of mother and worker can be readily combined so there is less constraint on FARs. Thus modern and traditional work differences, operating partly through differences in place and type of work, influence the degree of conflict between work and maternal roles. A study by Jaffe and Azumi (1960) of labour force participation in Japan and Puerto Rico found that women working in modern industries outside the home had considerably fewer births than non-workers or those in cottage industries. Similarly, the problems of role conflict are reduced where parental surrogates such as daycare centres, babysitters or other adults in the home are available (Sweet, 1970:203-204; Peek, 1975:215).
The quality of childcare required is also a potential influence on the strength of role conflict, particularly where maternal substitutes are seen as having possible negative influences on child development. Evidence from several studies in Indonesia indicates that this factor accentuates incompatibility of the maternal role and work among middle class women in urban areas such as Jakarta (Papanek et al, 1974) and Yogyakarta (Raharjo, 1977; Hull, 1977, 1979). Hull (1977:69) suggested that although role incompatibility also exists among lower class women, economic pressure forces them to work rather than stay at home.

With development, the greater importance of modern work settings such as factories has created a greater degree of role conflict than in the past. Increased conflict appears in more developed areas where time spent at work competes strongly with caring for children. Some researchers have emphasized that the presence of young children is one of the most important factors in determining the level of female labour force participation in a wide variety of settings (Bowen and Finegan, 1969:198-205; Sweet, 1970:202; Frejka, 1971:1567; Standing 1978b:6). Tanfer (1975:138) in his dissertation on female labour force participation in Turkey pointed out that the number of dependent children at home had a more consistent negative relationship with FARs than did cumulative fertility.
In cases where there is a positive relationship between fertility and female employment, as is evident in some rural areas of developing countries, it has been hypothesized that a heavier burden on the family increases the need for and propensity to work. Moreover, as the number of children increases, older children may take responsibility for caring for the younger ones (Sweet, 1970:198; Sinha, 1971:57; Goldstein, 1972:425; Peek, 1975:208). In some African countries, where a large proportion of the population is engaged in subsistence agricultural activities, high fertility may have less impact on the participation of women in the work force.

Fertility as a factor in determining female labour force participation thus depends largely on several related variables such as age of children, employment structure, social organization of childcare and parents' orientation to child raising.

Rural-urban residence is another factor explaining the work participation of women. Unlike for males, there can be no universal statement that rural women are more economically active than urban women (Durand, 1975:33). However, there is some evidence to suggest this pattern (Berent, 1970:182; Boserup, 1970:190-192; Frejka, 1971:1562; Sinha, 1971:57; Pong, 1974:63). According to Durand (1971:71), lower participation rates in urban compared to rural areas are typical of Asian and Far-East countries, whereas the opposite pattern has been found in
Western Europe and in Latin American countries. In another study of forty-one countries, both developed and less developed, Durand (1975:33) reported that more countries had higher FARs among the urban population than in rural areas, although he agreed that there may be considerable variation between rural levels. These studies were concerned with rural-urban differences in labour force participation for all women. Typically in Indonesia rural women are more economically active than urban women. Both in rural and in urban areas the majority of economically active women were ever married, with the proportion greater in rural areas (CBS, cited in Bakir, 1983:13). Thus urban or rural residence is also an important variable in the work force participation of married women.

The increasing debate on whether the economic activities of women in rural areas should be described as work is exacerbated by the fact that the structure of female employment in many rural areas of developing countries is different from the urban structure. Frejka (1971:1562) argued that "participation rates in urban and rural areas are actually not of a comparable nature". Perhaps the study of female employment should be viewed in terms of differences in either occupation or economic structure rather than specific differences in urban or rural residence.
The familiar U-shaped curve has been suggested as the pattern of FARs during the course of economic development; that is, FARs decline with initial economic development, and increase during later phases (Sinha, 1967:336-337; Durand, 1975:131-138). The downward trend that occurs during initial economic growth is thought to be due to the negative effect of technological change which tends to diminish job opportunities for many women, mainly in traditional employment (Boserup, 1970:53-56; Tinker, 1976:37; Schiller, 1982:4-5). This has also been reported for many women in Indonesia, mainly for those engaged in the agricultural sector and handicraft industries, many of whom are from rural areas (Stoler, 1974:8-10; Sutoro, 1982:63). In contrast, a more positive response of FARs to economic development has been reported for many urban areas of developing countries (Collver and Langlois, 1962; Elizaga, 1974; Jones, 1982). Since economic growth generally means gradual movement from the agricultural to the non-agricultural sector, many women have migrated to the cities for work (Boserup, 1970:187; Shaw, 1975:21; Standing, 1978a:210; Khoo, 1982:9; Suharso, 1983:6). In many countries of Southeast and East Asia, industrialization has been cited as one of the reasons for the rising proportions of women working in urban areas (Jamilah, 1980; Jones, 1982; Khoo, 1982).

Rural-urban differences in FARs in developing countries have been influenced by differences in economic development between rural and urban areas. Specific changes in
technology and general differences in the level of technology between rural and urban areas have affected employment opportunities for women.

1.2.2 Socio-Economic Factors

Various socio-economic factors have been advanced by researchers to explain variations in rates of female employment. Education of women is one of the key factors postulated as an explanation for these variations. It is generally believed that education equips women with the necessary knowledge for many modern roles, including modern economic activity. Sinha (1971:57) argued that "education is the most potent factor that alters not only social attitudes but also the employability of women".

A common assumption is that education has a positive impact on female participation in the work force. This relationship has been more commonly supported by evidence from developed countries (Bowen and Finegan, 1969; Oppenheimer, 1970; review by Standing, 1978a: Chapter 6; Oppenheimer, 1982). The strength of the relationship, however, depends largely on other factors such as marital status, number of dependent children and husband's income. In the more developed countries these factors no longer prevent many married women from working (OECD, 1983).

In developing countries, however, the relationship between education and FARs is more complex. A comprehensive review of empirical research in low income countries is
provided by Standing (1978a: 146-163). Although many studies have found that education tends to have a positive relationship with FARs, some evidence shows no relationship or even a negative relationship. Another type of relationship which is also quite familiar in many developing countries is the curvilinear, or more specifically the U-shaped relationship. This pattern indicates a high rate of participation in the work force among women who have a very low and also a relatively high level of education. However, participation of women with just some schooling is lower. In India a J-shaped pattern has been reported, with substantially lower participation rates among non-matriculated literate females compared to the participation rates of illiterate females and those with higher levels of education (Sinha, 1967:337; Visaria, 1971:45). This curvilinear pattern is also suggested by national statistics as a typical pattern of female employment in Indonesia (Raharjo and Hull, 1982:6).

It has been suggested that the low participation rates among women with some schooling reflects a "status frustration effect", where women prefer to stay at home and remain unemployed rather than accept low status or low paid jobs (Standing, 1978a:145; Jones, 1982:41). This status frustration effect is more pronounced in conditions where the growth of the labour market is slower than educational expansion or when education does not fit job requirements (Visaria, 1971:42). The observation that a significant proportion of middle-class women in a rural area of Java
prefer to stay at home because no "proper" jobs are available for them seems to conform to this hypothesis (Hull, 1977:71).

Although the tendency towards a generally positive relationship between higher education and female employment in both developed and developing countries has been supported by many studies in the past, the theoretical basis for this relationship is debatable. It has been asserted that women with relatively high education have more employment opportunities than those with less education. In addition, income aspiration, which generally has a positive association with education, encourages more educated women to participate in the work force (Cain, 1966; Bowen and Finegan, 1969:235; Oppenheimer, 1982:78). Using more recent American data, Oppenheimer (1982:273) noted that the net relationship of wives' labour force participation to their educational level was consistent with past findings and with economic theories regarding the wives' wage effect. In other cases, the likelihood of working may also encourage women to improve their educational levels, especially if it would increase their income and status (see also Jones, 1982:41).

In recent years education has become more readily available in both developed and developing countries and employment opportunities for educated women have expanded, particularly in urban areas. Both factors are probably important in accounting for higher FARs in urban areas in
several Southeast Asian countries in recent years (Jones, 1984; Smith et al, 1984).

Highly educated women generally have a better chance to participate in various modern occupations. This is often explained by the human capital approach, in which education may be regarded as human investment. People will decide to undertake this expenditure only if they can expect a higher probability of employment and better-paid employment in the future (see Corner, 1981:8-13).

Although education seems to be an important factor in explaining female employment, in some societies, mainly in developing countries, socio-cultural factors are a significant influence on both education and economic activity. Youssef (1974) found in some Middle-Eastern countries that levels of education and of female work participation were relatively low due to cultural barriers that excluded females from various activities. In investigations of labour force participation among educated women in Indonesia, Raharjo (1978:93) emphasized that socio-cultural factors rather than education are more important in understanding female employment in Indonesian society.

If the income aspirations of educated women may encourage women to work, husband's income has generally been found to have a negative impact on FARs. This inverse relationship between husband's income and the participation of wives in the labour force has been intensively studied in
developed countries, mainly in the United States (Mincer, 1962; Cain, 1966; Bowen and Finegan, 1969; Oppenheimer, 1970). A review of empirical studies in LDCs is provided by Standing (1978a:74-81). In recent years other factors studied include the increasing demand for female labour, reflected in changing job structures which facilitate female entry into the work force, rather than income levels themselves.

Many explanations of the labour force participation of married women are in terms of economic considerations. The need to increase family income is considered one of the major motivations for married women entering the work force. The need for additional income as a factor encouraging many wives to work is not only found in subsistence economies (Hull, 1977), but is also an important factor that is considered to have influenced the employment of many wives in developed countries (Mahoney, 1961:566; Sweet, 1970:195; Young, 1977:33). Although Javanese tradition is well known to be supportive of high levels of female economic activity, evidence suggests that the pressure of poverty has influenced this pattern. Elite women in urban areas and middle and upper income level women in rural areas are less likely to enter the work force, a fact that has no doubt been influenced by their families' higher socio-economic status (Papanek, 1976; Hull, 1979; White and Hastuti, 1980). Poverty has also been suggested as an important reason why many women in developing countries migrate to urban areas to become involved in the work force (Jamilah,
1984:216; Piampiti, 1984:232). In a Korean study, Cho (1982:26) clearly showed that poverty forced married women to break down the cultural stereotype of the ideal married women. Generally, the likelihood of married women working has been stimulated by the need to reduce the household economic burden. Therefore, it has been hypothesized that the likelihood of married women working will decrease as husbands' income rises.

Theoretically, income as an important motivation for work is based on the classical theory of labour supply behaviour (Long, 1958:34-41). This concept has been developed and modified using the family unit as the basis of analysis for the employment of married women, instead of the individual basis as in classical theory (Mincer, 1962:65-75). It has been hypothesized that a wife's labour supply decision depends on several of the household's characteristics such as husband's income and income aspirations of the wife. Using American data, Mincer (1962) and then Cain (1966) found that the participation of married women in the labour force had a positive relationship with their own wage but a negative relationship with the husband's or other family members' income. In some cases, the positive effect of the female wage tends to outweigh the negative impact of the husband's income. Recent evidence also suggests that the negative impact of husband's income on the participation of wives in the labour force is becoming less uniform (Standing, 1978a:79-80; Jones, 1982:28). The income aspirations or career orientation of
educated wives has played an important role in reducing the negative effect of the husband's income. Tanfer (1975:168) explained the different attitudes of husbands, which in some societies have been influenced by culture as well as education. He suggested that upper-class husbands in Turkey, who were also relatively highly educated, had more liberal attitudes to allowing their wives to work outside the home, despite their relatively high incomes. More recent studies stress the importance of relative socio-economic status of husband and wife as a causal factor in wives' labour force participation. According to Oppenheimer (1982:26-27) the assessment of relative economic status was not only based on husbands' income but also their occupational and age-related reference groups.

Another economic variable that has been observed as explaining differentials in the FARs of married women is previous work experience. Although little research has been carried out on this subject, the existing literature notes that previous labour force participation is an important factor in predicting current labour force status of married women (see review by Young, 1977:32-36). Using longitudinal data for a sample of American women, Mott (1972) established the importance of work prior to marriage and suggested that the participation of married women in the work force at any stage of the life cycle depended strongly on their participation at earlier stages (see also Young, 1978 for a study of Australian families in 1971). Evidence from West Malaysia seems to confirm this hypothesis (Fong, 1974:70).
Fong found that work before marriage, both at home and outside the home, was a significant factor in determining the current economic activity of married women, even after considering various other factors. However, other factors such as financial need and career orientation or seniority of work, which are generally associated with future income, have probably influenced the likelihood of married women continuing their jobs (Young, 1978:410).

In reviews of factors related to female economic activity, it has been stressed repeatedly that cultural attitudes are important in explaining FARs. In some societies, religion or other cultural aspects are often suggested as influencing social attitudes towards working women, especially those working outside the home. It has been observed that less restrictive attitudes of parents or husbands towards their daughters or wives would encourage women to work (Youssef, 1974; Tanfer, 1975). Religion has been claimed to be a factor that influences the low economic participation rates of women in many Islamic countries (Boserup, 1970:182; Frejka, 1971:1561; Anker and Knowles, 1978:144; Singh, 1984:97). However, in Malaysia and Indonesia, where women have been traditionally active in the work force, Islam, the predominant religion, did not send women indoors to domesticity. In a comprehensive study comparing non-agricultural activities in certain Middle-Eastern and Latin American countries, Youssef (1974:122) reached the conclusion that cultural differences between the regions have influenced attitudes towards
working women, though the levels of economic development are roughly similar. The importance of cultural aspects as variables determining the economic activity of women has been indicated in several other studies of regional differentials between countries as well as within countries (Frejka, 1971:1560-61; Durand, 1975:53; Jones, 1977:74; 1982:14; Jones and Lucas, 1979). Some researchers have argued that changing social attitudes have been partly responsible for the substantial increase in the numbers of working women in developed countries during this century (Mahoney, 1961; Oppenheimer, 1970; Durand, 1975).

Some of the empirical research on several factors that are considered relevant to the present study have been outlined in this section. Many other factors have been observed elsewhere as helping to explain variations in female economic activity. Standing (1978b:6-7) has summarized some other factors such as husband's employment status, health, savings/wealth, migration status and race/tribe as determinants of female labour force participation in several case studies in low income countries. A more complete list of factors related to female employment has also been given by Ware (1981:218). Some of the variables that are beyond the scope of the present study include government policy, laws relating to women's work, job opportunities and the availability of childcare.
In conclusion, it seems that women enter or refrain from entering the work force because of the interaction of complex factors, demographic, socio-economic and cultural, that are difficult to treat in isolation.

1.3 Variables and Methods of Analysis

The variables used in this study will be organized into two broad groups: demographic and related factors and socio-economic factors. These variables will be examined in relation to current economic activities of ever married women aged 15-45 years abbreviated to EMW(15-45).

The data were not originally collected for the purpose of the present study, so the selection of variables was restricted to those available. Selection was further influenced by the identification of important variables in previous studies dealing with female economic activity. In the first group four variables were chosen: respondent's age, place of residence, number of children ever born and the number of children (0-4 years) in the household. Marital status is not of particular concern to the present study, because the samples were taken from ever married women. Although these included women who were not currently married, the number in this group was too small to be analysed separately. Furthermore, there were no data that could further identify widows, divorced or separated women. Socio-economic variables cover the respondents' education, husbands' socio-economic background (focusing on education...
and primary occupation), and continuity of work with regard to respondents' work before and after marriage.

Two variables, age and residence, will be used as control variables in most of the analysis in order to focus on the influence of other variables. Generally the data will be used without standardization. Since the number of cases was relatively small for each group and was reduced considerably for employed women, the use of unstandardized data should not greatly affect the results, especially as age and residence are considered in most of the analysis. However, in order to have sufficient numbers in each cell, the segmenting of variables into broad categories could not be avoided and this may to some extent influence the results. For example, in some analyses age groups have been classified into two broad groups (15-29 and 30-45), and the two urban areas (urban-middle and urban-low areas) are sometimes combined. To reduce the effect of differences in age composition, age standardization for variables such as children ever born (CEB) and the number of young children (0-4 years) in the household will be used, particularly in the analysis of mean differentials. The age composition of the three samples combined will be used as the population standard. In fact, the use of age standardization for these variables produced no significant differences in means or in trends.
Statistical tests of significance will not be used in the analysis. The area samples were not drawn at random from a representative population and female respondents were obtained on a quota basis. Statistical tests of significance are therefore inappropriate when sites are being compared (for details of sampling methodology see Chapter II, section 2.2). When sites are combined, there is no valid basis for statistical tests of significance (personal communication, Dr. P. McDonald, 1984).

Most tables are presented to demonstrate economic activity rates of EMW(15-45) according to observed variables. A few tables show the variations among employed women only in relation to the nature of their employment such as occupational and workplace differentials. Total numbers of respondents (N) are presented so that cell size is apparent for each part of the analysis.

1.4 Organization of the Study

Following the introduction to the general scope of the present study in Chapter I, a detailed discussion of the data set will be presented in Chapter II. This chapter mainly deals with data and methodology, devoting special attention to the problems and limitations of the data. The remaining sections provide background information on the study sites, in particular covering the general economic activities of the population. In the final section of this chapter, the sample characteristics for each study area will
be outlined, mainly focusing on the variables that will be examined subsequently. The differences between employed women and houseworkers will also be discussed briefly.

Chapters III and IV provide detailed discussions of the variations in the economic activity of EMW(15-45) in relation to various factors. While Chapter III deals with demographic and related factors, Chapter IV is devoted to some of the major socio-economic aspects. Occupational distributions and work place differentials for employed women will be discussed according to relevant characteristics in both chapters. In the final section of Chapter IV, retrospective work experiences such as work before and immediately after marriage will be discussed in relation to the current work experience of EMW(15-45). Finally, in Chapter V, a summary of the findings and some suggestions for possible future research will be presented.
2.1 Data and Survey Methodology

The major source of information used in this study is the Indonesian Asian Marriage Survey (IAMS). This was part of a series of cross-national comparative studies among four Asian countries: Indonesia, Pakistan, Philippines and Thailand, and was funded by the East West Population Institute, Hawaii in collaboration with research organizations and scholars in the respective countries. In Indonesia, the survey was carried out by the Population Studies Center (P.S.C), Yogyakarta and the University of Diponegoro, Semarang. The field work was conducted in April, 1979.

Although the study did not focus specifically on female economic activity, a considerable amount of data was collected on some major aspects of the respondents' lives: education, residence, occupation, marriage, fertility and family planning. This information would allow the researchers to understand any variations in marriage patterns in relation to variations in other variables (Smith and Chapon, 1978:3). Several questions related to occupation from this survey will be the focus of the present study.
Two main instruments were used in gathering the data: a life history matrix (abbreviated to LHM) and conventional questionnaires, which were meant to complement each other. Questionnaires were used for both females and males. For the present study, however, only data from the female samples will be used, although these included some characteristics of husbands such as age, education and primary occupation.

The LHM (see Appendix I) was used to link significant events in the respondents' lives to the ages at which they occurred. The purpose of recording data on the LHM was summarized in the survey manual as follows:

"The information recorded on the LHM will allow the researchers to determine the ages at which events occurred, the typical sequencing of events in relation to other events in the same behavioral category, and the typical sequencing of events in relation to events within other behavioral categories" (Smith and Chapon, 1978:3).

The recoding and processing of data from both the LHM and the questionnaires which was carried out in Hawaii resulted in a large number of variables. Each variable was identified according to whether it was computed or transferred, and information on the data source was also provided (Karim et al, 1981).

The historical work experience of women in this study was described for four stages in the life cycle: before marriage, immediately after marriage, the period surrounding the first birth and currently. Occupational differentials,
including housework activity, can be derived from the LHM only and cover three life cycle intervals: before marriage, immediately after marriage and currently. The variable "work experience" surrounding the first birth was derived only from the questionnaire, which did not clearly separate housework from other work activities. Therefore, for the present analysis, only three work experiences will be used.

The definition of work activity used in this study is different from the usual concept of work used in the labour force approach. The concept of activity used in the labour force approach stresses current activity, and includes those unemployed but actively seeking work during the specified time reference, (see United Nations definition below and ILO, 1976 cited in Dixon, 1982:544). In this study the respondent's own assessment was the criterion by which work activity was recorded. Work activity here was defined as:

"Any activity of the respondent which generates income or contributes to the support or maintenance of the family" (Smith and Chapon, 1983:12).

According to this definition, "housework" was considered as either a primary or a secondary work activity, as the respondent preferred. Secondary activity referred to the next most important activity if the respondent was engaged in two or more activities within the year. Although the definition did not mention a time reference period clearly, the recorded data in the LHM, which are linked to age or year indicate that within one year was the reference
period for measurement of current work activity. However, applying this definition and time reference period to other intervals of work experience can involve serious limitations, as will be discussed later. Definitions of other relevant variables used in the analysis will be presented in the appropriate sections.

Some secondary data, which were collected from government offices in each area, will also be used to help understand the background of the study sites. It is not the purpose of this study to compare the findings with data from other sources such as censuses or surveys, since they have different samples, approaches and methodologies. However, those sources of data together with other previous analyses on the same subject are often useful, either to provide hypotheses or to help in interpreting the survey results.

The succeeding sections on sampling design and the study area are based mainly on discussions with Dr. P. McDonald, principal investigator of the survey in Indonesia, and on his draft report prepared in 1983.

2.2 The Sampling Area

Semarang, the capital city of the Central Java region, was selected for the Indonesian segment of the Asian Marriage Survey. This city was selected primarily because it was considered the most culturally homogeneous large city in Indonesia. Since people of Javanese ethnic origin are concentrated in the most populated provinces (Central and
East Java), the Javanese constitute the largest group of the Indonesian population (see also Kodiran, 1979:322). The Javanese, therefore, were considered the most suitable ethnic group for the purpose of the study. Semarang was considered the best site for the survey since its population is dominated by Javanese. Groups culturally different from the Javanese (mainly Chinese and Arabs) were excluded from the study. They are relatively small in Semarang as well as in Central Java. Using life-time migration data, Central Java was categorized as a region where the proportion of out-migrants was much higher than that of in-migrants (8 and 1 percent respectively in 1971, see Nurdin, 1976:15-17).

Three community types were selected purposively; an urban-lower class area, an urban-middle class area (hereafter described as urban-low and urban-mid respectively) and a rural area. Both urban areas were located in the Semarang municipality (Kotamadya) but were from different subdistricts (Kecamatan), and the rural site was a village (Kelurahan) in Semarang regency (Kabupaten).

In the next stage, three study sites were purposively selected, one from each subdistrict. The quota for each urban study site was 500 females and 300 males and for the rural study site was 600 females and 300 males, making the total target sample 1600 females and 900 males. The women were selected on a quota basis, that is, interviewing of households in the selected sites continued until the quota figure was reached. In all three sites this procedure led
to almost all eligible women being interviewed so that the study could be termed a 'census' of each survey site (personal communication, Dr. P. McDonald, 1984). There was no statistical basis for the selection of the respondent women. The husbands, however, were selected from the husbands of all the wives interviewed by using simple random sampling. The female respondents actually interviewed in all area samples numbered 1587, comprising 601 in the rural area, 489 in the urban-low area and 497 in the urban-mid areas.

According to McDonald (1983:4) the selection of the three study sites was based mainly on three considerations: firstly, the study area should not include a concentration of ethnics other than Javanese. Secondly, there was a desire to select areas with a relative degree of heterogeneity with respect to occupation. Thirdly, there were considerable logistical advantages in selecting survey sites that corresponded to, or were located wholly within, the Kelurahan of the city of Semarang.

Although the focus of the study was the major ethnic group of the Indonesian population, the selectivity involved in choosing sampling areas emphasized the analysis of sub-groups and the contrasts between them. Generalizing about the national population is not warranted. Furthermore, considerable numbers of Javanese located in other regions, either as urban migrants or as rural migrants outside Java, may have different behaviour or attitudes relating to economic activity. It should be noted,
therefore, that the Javanese ethnic group in this study refers only to the Javanese of the selected areas, who do not necessarily represent either the Javanese population of Central Java or the Indonesian Javanese population as a whole.

2.3 Problems and Limitations of the Data

Before discussing data problems, it is worth looking briefly at general problems regarding concepts and measurement of female labour force participation. The applicability of the Western concept of labour force in less developed countries (LDCs) has been extensively questioned, especially for women in rural agrarian societies (Fong, 1976; Blacker, 1978; Standing, 1978a:25-35; Moir, 1980; Dixon, 1982; Khuda, 1982). The Asian Recommendations for the 1970s Asian Population Census (United Nations, 1967:9) defined the economically active population as follows:

"All the persons of either sex who furnish the supply of labour for the production of economic goods and services during the time reference period chosen for investigation".

Using such a definition, many female activities in LDCs were not considered to be work, although they were often activities that contributed to household wealth. The problem of recording data on women's work has arisen in many countries where there is cultural disapproval of working women (Boserup, 1970:70; Youssef, 1971: 431-432; Durand, 1975:45; Standing, 1978a:30). In rural agrarian societies
many activities of women on the family farm or in business are combined with household activities, and are not easily identified separately as economic activities. Using the United Nations approach, such women are usually regarded as economically inactive. Many studies in LDCs therefore have been considered to under estimate FARs. According to Moir (1980:10) the use of this concept in Indonesia's censuses and surveys caused under-reporting of FARs in all provinces of Java.

The time reference period used in measuring FARs is another important source of misreporting of female economic activities. Most women in LDCs engage in seasonal activities and are part-time family workers. Such women would not be regarded as economically active if the time reference period used was outside the period of their seasonal activities (see Boserup, 1970:29). Dixon (1982:561) noted that a lower minimum number of days or hours and a survey conducted during peak season could lead to a higher reporting of female economic activity.

Another important problem is classifying types of activity accurately. Khuda (1982:11) in his study of female activity in rural Bangladesh, criticised the Western concept of labour force, and suggested that a broader definition of work should be created to include productive work for cash earning, self employed enterprise and household maintenance activities.
The definition of female economic activity used in this study has a much broader scope than the United Nations definition. With no particular time reference specified, seasonal workers or part-time family workers were included in the work force if respondents chose. Under the definition used in the survey, anyone choosing to describe themselves as having an economic activity, either primary or secondary, was counted as a worker. However, several other problems and limitations emerge with the use of this concept.

The definition tends to use the gainful employment approach rather than the labour force approach so that all first time job seekers, who are usually considered as workers in the labour force approach, were effectively excluded. Moreover, the "own assessment approach" used in this survey probably also resulted in underestimation of the gainful employment of women. In a study of rural Java, Stoler (1974:7) noted that many women did not report temporary agricultural activities although they engaged in regular activities which clearly contributed to the household income. Women in this study who were involved in economic activity but did not think it appropriate to their social status probably preferred to report themselves as houseworkers rather than as workers.

Another problem is the inconsistency of data for determining female work force participation between the LHM and the questionnaire. This inconsistency persisted even
after houseworkers were excluded from the category of other work activities. Although ideally every question on work activity should always have been referred to in the recorded data on the LHM, in fact FARs based on the questionnaire were ten percent higher than FARs based on the LHM, the most substantial difference in FARs being for the urban-low area (Table 2.1).

Table 2.1
Percentage of Respondents Currently Working by Residence and Nature of Data Collected

<table>
<thead>
<tr>
<th>Residence</th>
<th>LHM</th>
<th>Questionnaire</th>
<th>N (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>68</td>
<td>73</td>
<td>601</td>
</tr>
<tr>
<td>Urban-low</td>
<td>17</td>
<td>24</td>
<td>489</td>
</tr>
<tr>
<td>Urban-mid</td>
<td>24</td>
<td>22</td>
<td>497</td>
</tr>
<tr>
<td>All Study Areas</td>
<td>38</td>
<td>42</td>
<td>1587</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of Indonesian Asian Marriage Survey (IAMAS)
Note: (*) N denotes total respondents in each group.

Perhaps the "own assessment approach" caused many houseworkers to be reported as having "one" or "more" jobs, whereas in the LHM housework was clearly separated from other activities. It is more likely that women who only occasionally worked would respond differently to the two approaches, even more so with the unclear time reference period. Much information on the nature of female employment such as type of work, work place, income and work hours (for urban respondents) could only be obtained from the questionnaire. The inconsistency of these data is a central problem in some analysis.
Another problem is the existence of a significant number of women who did not respond to the questions on the nature of employment and even more who did not respond to the income questions. For example, the "unknown" category comprised 20 percent of responses to work type and work place, and more than half did not respond to the income questions. The vast majority of women who did not respond to those questions were women with current rural residence. It is well known that these women have many difficulties in identifying themselves as workers or houseworkers, since many activities in rural society are typically performed simultaneously. For example, in between household chores they usually help their husbands as unpaid family workers. However, in this study the proportion of rural women who stated that they worked "for family" was substantially lower compared to both groups of urban women (see Appendix II). These data seem far removed from reality. Using aggregate data, Moir (1980:15-17) reported that in all rural areas of Java, the percentage of women working as unpaid family workers was very high, particularly at young ages (10-14 years), where figures ranged from "55 percent in West Java to 74 percent in Yogyakarta". The percentage of unpaid family workers among rural Central Javanese women aged 15-44 ranged from about 50 percent to 30 percent for ages 15-19 to 40-44 years respectively. In order to limit the problem of inconsistent data, most of the analysis of female employment will use data recorded on the LHM only.
The core of the data problem of this study is the lack of information on the derivation of variables on the data tape. For example, although the LHM obtained data on primary and secondary occupations, the data tape included only a single occupation variable, and did not specify whether this was primary or secondary occupation or some combination of both. Women recording housework as their primary occupation and some other activity as their secondary occupation may have been coded in terms of the latter, but this is not clear. The time reference period used for current activity and for the LHM occupation data were also not specified (Examples of the recorded data in the LHM are included in Appendices Ia-c).

In the questionnaire, the time reference period used for work before marriage was the interval between leaving school and the time of marriage, whereas for the other intervals, the time reference was not explicitly stated. The questions used for the three intervals of work experience (translated from the Indonesian questionnaire) were as follows:

"F1. According to what you told me earlier, during the time you left school and before you were married you had ........
(circle one)
1. No jobs.
2. Had one job only.
3. Had more than one job. (QF1: 19).

F8. According to my notes, immediately after you married you....... (circle one)
1. Stopped working.
2. Changed job.
3. Began work for the first time.
4. Continued in the same job.
5. Did not work. (QF8: 20)."
F21. You said earlier that you were (not working, working as..). (circle one).
1. Not working.
2. Working, the same as immediately after marriage.
3. Working, but not the same as immediately after marriage" (QP21: 22).

Respondents may have had different interpretations of the time interval in responding to the questions. "Immediately after marriage" and "current" period could be viewed in various ways and rural women may have had a different interpretation of these time periods from urban women. Since the questions were based on data recorded in the LHM which were always linked to the ages of respondents, "immediately after marriage" may have referred to within one year of marriage or to age at first marriage. Current work experience could be interpreted as work within one year of the date of interview or at the same age as at the time of the survey. With such a range of possible interpretations, it is not surprising that the data are inconsistent, although derived from approaches that ideally should complement each other. The period used for work before marriage cannot be interpreted as a one year period, since the period between leaving school and marriage could vary.

As noted earlier, the samples were restricted to EMW(15-45). The younger generation tends to have married latter than the older generation. It is possible therefore that many young women, particularly in urban areas, were not married at the time of the survey and so were excluded from the samples. The smaller number of married women in the younger age group in all study sites resulted in an uneven
age composition of samples which increased analysis problems due to small cell sizes in some age-controlled tabulations.

Finally, due to the sampling procedure in which the area samples were drawn purposively and each area was to have approximately the same number of respondents, representativeness of the samples was restricted to the three sample sites only and the results cannot be generalized to the wider population.

From the above discussion it is clear that the concepts and definition of work activity used in the survey on which this study is based do not identify clearly whether an activity of a woman, especially in the rural area, can be determined as work. Furthermore, the use of a combination of approaches in collecting data meant that the completeness and consistency of data planned for the survey were not achieved. This could only have been obtained with clear definitions and consistent time reference periods at each stage of the life cycle.

2.4 The Study Areas

2.4.1 Semarang City

Semarang, the selected study area, has a long history as one of several trading ports on the north coast of Java. Historically, Semarang was selected by the Dutch as the administrative capital of the Central Java region because of its location and supremacy over the neighbouring ports.
Semarang has good transport links with both the coastal and inland areas of Central Java.

As a port the city has declined considerably in more recent times, left behind by the two larger neighbouring ports of Jakarta and Surabaya. Semarang has now been replaced by Bandung in West Java as the third biggest city in Indonesia. However, the trading function of Semarang has remained because of its location at the junction of major roads running east and south. Furthermore, since Indonesian independence, Semarang has been the administrative capital of the populous province of Central Java. Government is therefore one of the city's major industries.

With the recent growth of manufacturing industry in Java, Semarang has not been able to compete with Surabaya and Jakarta. In terms of education Semarang lags behind its southern neighbour, the "student city" of Yogyakarta. According to Horstmann and Rutz (1980:83) the town of Semarang developed more as a capital of the Central Java province and as a harbour and trading place, than as a manufacturing centre. Although Semarang still continues to draw poorer people from the surrounding countryside, this movement has been limited to some extent by the decentralization of educational institutions and manufacturing industries in Central Java. Compared with the other large cities, Semarang is therefore less attractive to migrants from other areas.
2.4.2 Urban-Lower Class Area

As pointed out earlier, the two urban survey sites were located in different subdistricts of the Semarang municipality and in different socio-economic strata. The village of Kuningan, which is an urban-lower class area, is one of 36 villages in the West Semarang subdistrict, located near the sea in the north of Semarang (Figure 2.1). According to McDonald (1983:5), Kuningan was selected as almost the poorest village in Semarang. It was solidly Javanese with over 96 percent of households using the Javanese language in daily conversation at home (the remainder used Indonesian). Houses were extremely densely clustered, small, wooden and, in the main, rented. Many were on poles over the sea.

The majority of people in this village were engaged in relatively low status occupations such as unskilled labourer, factory worker, dock worker, becak (pedicab) driver and fisherman. Since most also had relatively low educational levels, it seems it was difficult for them to find other, better jobs. It is generally believed that such an area would be a source of many social problems, particularly youth crime which has been found in Semarang and other cities in Java (Tempo, 1983). The poverty of this village was more pronounced among people who lived along the coast. A comparison among the study areas from a socio-economic standpoint shows that the extent of poverty in this village was unmistakable (see Section 2.5).
2.4.3 Urban-Middle Class Area

Semarang is bounded to the south by steeply rising hills. The elite, wealthy class lives on the slopes of these hills overlooking the city and the sea. In between the sea and this upland area is the flat part of the city, which is more middle class. The area selected for the sample, the village of Pandansari, is one of 16 villages in the central Semarang subdistrict (Figure 2.2). This area is bounded by two city roads so that communication within Semarang city and/or with other cities is relatively easy, either by public transport or other vehicles.

In general, the socio-economic condition of this area was better than in the urban-low area. However, the middle class residents of this survey site were mainly representative of the lower middle class (McDonald, 1983:25). This impression was also supported by household status levels based on either household ownership or husband's income (see Section 2.5).
Figure 2.1
Map of West Semarang Subdistrict Showing the Research Area

1. Kuningan
2. Misydorat
3. Darotlassim
4. Panggung
5. Purwasari
6. Dodapari
7. Benjarsan
8. Celangan
9. Pendrikon Baru
10. Pelomback
11. Pendrikon lor
12. Pendrikon kidul
13. Bulu lor
14. Bulusetelan
15. Lemangempat
16. Berusari
17. Bojongsalamon
18. Bangsari
19. Ngemplak
20. Kembangoram
21. Mangilan
22. Krobokan
23. Demongan
24. Salammanlayo
25. Cabeon
26. Karangayu
27. Gisik
28. Kalibanteng kidul
29. Kalibanteng kulon
30. Krapyok
31. Tombahkanjo
32. Towangseari
33. Towangrejokwesi
34. Towangrejorari
35. Towangoglikkidul
36. Towangogliklor
Figure 2.2
Map of Central Semarang Subdistrict Showing the Research Area

- Research Area
- Subdistrik Boundary
- Village Boundary
- Road
The majority of men in this area were engaged in the public service or armed forces, followed in frequency by small scale traders and estate labourers. Although most of them worked in "white collar" jobs, they were lower level white collar workers who had relatively secure jobs, but who were not really well paid.

Many government offices were located in this village and other areas of central Semarang. Not surprisingly, the public service was the main industry in this area. The criterion of heterogeneity of occupations was very important in the selection of this particular site (McDonald, 1983:6).

2.4.4 Rural Area

The rural survey site, the village of Pringapus located in Klepu subdistrict of Semarang Regency, is a hill village situated about 30 kilometres south of Semarang city near the main road town of Ungaran (see Figure 2.3). This road connects Semarang with the southern cities of Surakarta and Yogyakarta. The village is about five kilometres from the road and transport to the road and other parts of Semarang is easily obtainable, either by Opelet or Colt (small vans) or by motorcycle. At the intersection of the main road and the road to the village there was a large joint venture textile factory and a new carpentry industry where many men worked as labourers, although most of the factory labourers were apparently not from the rural research site. It was reported that several single girls from the village were
employed in this factory, but very few married women from the village worked there.

Although the majority of people in this village worked as agricultural labourers, the existence of a number of shops in the centre of the village indicated that trading activities were an important industry, especially for married women. Most of the farmers were rice farmers, including those who owned their own land, those who share cropped and agricultural labourers. Some of the men, however, worked on mixed crop estates and several people were engaged in "white collar" occupations as teachers, government officials or in the health services (see also Appendix III).
Figure 2.3
Map of Klepu Subdistrict Showing the Research Area

SCALE 1:100,000.
Unlike many other villages in Java, this village provided a somewhat unusual variety of occupations, particularly if contrasted with wet-rice villages on the coastal plain. According to McDonald (1983:8), the relative prosperity of the village was also indicated by its shops, its large brick mosque and the frequency of the commercial transport to the main road. The size of the mosque and the adherence of most people to their religious obligations also indicated the great strength of Islam in the village.

Like most other villages, however, this village had relatively poor educational facilities. The highest school level available was junior high school (SMP). The majority of the people (more than 70 percent) had not even finished primary school. By contrast, in the urban study sites, particularly the urban-mid area, educational facilities were much better (Pandansari Village Office, cited in Dwidjanto, 1981:20).

2.5 Sample Characteristics

This section deals mainly with certain characteristics of the EMW(15-45) in the different study sites, although husbands' characteristics derived from the female samples will also be presented. The selected characteristics of female respondents and their husbands are presented in Tables 2.2 and 2.3.
As can be seen in Table 2.2, the median age of respondents differed little between the study areas, although it was slightly older for respondents in the urban-mid area. The largest differences between respondents in the urban-mid and other study areas were the smaller proportion who were relatively young (below 25 years old) and the higher proportion who were in the oldest group (35-45). In the urban-mid area, nearly half of the respondents were 35 years and over, whereas in the other survey sites the proportions were much lower. The proportion of women aged 15-24 was the lowest in all study areas. The small proportion of women in the youngest group was more pronounced in the urban-mid sample, probably because many young women in this group were still at school and possibly belonged to the higher income group who are more likely to marry at later ages. Aggregate data in Indonesia show that the proportion of the female population
### Table 2.2
Percentage Distribution of EMW(15-45) by Selected Characteristics and Residence

<table>
<thead>
<tr>
<th>Respondent's Characteristics</th>
<th>Residence</th>
<th>Rural</th>
<th>Urban-Low</th>
<th>Urban-Mid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent's Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 24</td>
<td></td>
<td>24</td>
<td>25</td>
<td>18</td>
</tr>
<tr>
<td>25 - 34</td>
<td></td>
<td>36</td>
<td>39</td>
<td>33</td>
</tr>
<tr>
<td>35 - 45</td>
<td></td>
<td>40</td>
<td>36</td>
<td>49</td>
</tr>
<tr>
<td>Mean Age</td>
<td></td>
<td>31.1</td>
<td>30.5</td>
<td>32.9</td>
</tr>
<tr>
<td>Age at First Marriage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>less than 20</td>
<td></td>
<td>91</td>
<td>32</td>
<td>68</td>
</tr>
<tr>
<td>20 - 24</td>
<td></td>
<td>8</td>
<td>15</td>
<td>28</td>
</tr>
<tr>
<td>25 - 29</td>
<td></td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>30 or more</td>
<td>(a)</td>
<td></td>
<td>(a)</td>
<td>(a)</td>
</tr>
<tr>
<td>Mean Age - First Marriage</td>
<td></td>
<td>16.3</td>
<td>17.2</td>
<td>18.4</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No School</td>
<td></td>
<td>24</td>
<td>33</td>
<td>16</td>
</tr>
<tr>
<td>1 - 3 years</td>
<td></td>
<td>25</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>4 - 6 years</td>
<td></td>
<td>38</td>
<td>31</td>
<td>32</td>
</tr>
<tr>
<td>7 - 9 years</td>
<td></td>
<td>9</td>
<td>15</td>
<td>32</td>
</tr>
<tr>
<td>10 years or more</td>
<td></td>
<td>5</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Mean years schooling</td>
<td></td>
<td>3.7</td>
<td>4.2</td>
<td>5.9</td>
</tr>
<tr>
<td>Children Ever Born</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Childless</td>
<td></td>
<td>6</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>1 - 2</td>
<td></td>
<td>33</td>
<td>33</td>
<td>32</td>
</tr>
<tr>
<td>3 - 5</td>
<td></td>
<td>40</td>
<td>41</td>
<td>38</td>
</tr>
<tr>
<td>6 or more</td>
<td></td>
<td>22</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>Mean CEB - Aged &lt; 30</td>
<td></td>
<td>2.1</td>
<td>2.2</td>
<td>2.0</td>
</tr>
<tr>
<td>Mean CEB - Aged 30-45</td>
<td></td>
<td>4.8</td>
<td>4.1</td>
<td>4.2</td>
</tr>
<tr>
<td>Place of Birth</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td></td>
<td>88</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Urban</td>
<td></td>
<td>12</td>
<td>100</td>
<td>96</td>
</tr>
<tr>
<td>Total (*)</td>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>601</td>
<td>489</td>
<td>497</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS

Note: (*) Total may not add to 100 due to rounding errors.

(a) Denotes less than 0.5 percent.
never married at ages 15–19 has tended to increase in recent years, particularly in urban Java (Cho et al, 1980:41-42; Hull and Mantra, 1981:274). This suggests that age at marriage is increasing, a trend also associated with the expansion of education (see also Central Bureau of Statistics (CBS) and World Fertility Survey (WFS), 1978:31).

Age at first marriage differentials in Table 2.2 seem to support this supposition. Fewer than ten percent of women in the rural area married at ages 20 years and above, whereas in the urban-mid area the proportion was much higher. The pattern of age at first marriage of the urban-low women lies between those of the other areas. The median age at first marriage among rural women was 1.5 years younger than for the urban-mid women, and less than one year younger than for the urban-low area. By age 30 years and over almost all surveyed women were married. The higher age at first marriage in the urban-mid area was particularly significant because a larger proportion of women in this area were in the older generations who were more likely to have married at younger ages compared to younger generations. The higher average age at first marriage in urban than rural areas was also a typical pattern in all regions of Indonesia (CBS and WFS, 1978:30; Cho et al, 1980:41; Adioetomo, 1982:27).

These differentials in age at first marriage between rural and urban areas may have been partly due to differences in the period spent attending school. In urban
areas women stay in school longer than do their rural counterparts (Table 2.2). Although this would be unlikely to conflict directly with marriage, it may have affected attitudes and the expectations of parents in relation to age at first marriage. The urban lifestyle itself may have had a similar effect.

Among the urban-low women the mean years of schooling was slightly higher than among the rural women but almost 2 years shorter than among their urban-mid counterparts. Differences in the level of development between study sites, which affect educational facilities, perhaps influenced the pattern of educational differences. It is also of note that the proportion of women with no schooling in the urban-low area was twice as high as that in the urban-mid area. Surprisingly, it was also higher than the proportion of women with no schooling in the rural area, despite the fact that the median age of the urban-low women was marginally lower than in the other areas. From a comparison of literacy between the young and older groups in the three study sites (McDonald, 1983:Table 2.8) it is evident that the vast majority of women under 30 had received some schooling, whereas a relatively high proportion of women aged 30-45 had never attended school. In the urban-low area, however, the proportion of literate women for both age groups was the lowest and this was particularly striking among the older age groups (30 years and over). It is possible that parents had a lack of interest in educating their daughters, particularly when school places are
limited. In addition, the relative poverty of the average population in this area probably hampered many parents from sending their daughters to school. Also in the rural santri village (a village in which many people are devout in following Islamic principles), perhaps more women with informal religious educations were reported as having gone to school.

The standardized average number of children ever born to rural women was higher than that of urban women. The urban-mid women, as expected, had the lowest mean parity, although the difference between the two urban areas was marginal. This may have been partly due to differences in educational level or to differences in age at first marriage. Several studies on fertility differentials in Indonesia have noted that the tendency of rural women to have a higher average number of children than urban women has diminished in recent years (McDonald, Yasin and Jones, 1976:6; Hatmadji and Suradji, 1979:32; Adioetomo, 1981:47).

Respondent's birthplace in the different study sites can be used to identify life-time migration. Rural-urban differentials in birthplace show a somewhat unusual pattern of movement. Table 2.2 shows that relatively few respondents stated that they were born in a type of area (rural or urban) different from their current residence. It is unusual that the proportion of rural women who were born in an urban area was higher than the proportion of urban
women who were rural born, and that none of the urban-low women cited a rural area as their birthplace. The proportion of rural women who had some urban experience was higher again (18 percent), including those women who had previously lived in urban areas although born in rural areas (see Table 2.2).

This pattern is in contrast with the conventional view that the rural to urban migration stream is the dominant stream in developing countries. Other sources show that quite a number of migrants in Semarang came from the same region (Central Java), most likely from the surrounding countryside of this region (Suharso et al, 1976:14-18; Suhartadji, 1977:18; Horstmann and Rutz, 1980:25). There may have been misinterpretations in identifying or in recoding the rural-urban categories of birthplace. People often tend to state the city nearest their birthplace, rather than an unfamiliar place in rural areas. It is also possible that the rural-urban classification referred to the category at the time of the survey rather than at the time of the respondent's birth. This is particularly likely because the respondent's birthplace was derived from the respondent's residential history (from LHM) and there was no specific question to identify that place as rural or urban (see Appendix I-b). This supposition becomes stronger when it is noted that many urban women in this study came from a farming background (McDonald, 1983:21). This particular problem in recoding rural-urban categories was also experienced in LEKNAS's recent study of migration in several
areas of Indonesia (Tirtosudarmo, 1984).

The relatively large proportion of rural women who had urban experience is difficult to explain, since there were only limited data on migration in this study. One possible explanation is that this village, as noted earlier, provided an unusual variety of occupations which may have attracted people from the city to work. It is also possible that these women may have moved with husbands who were government officials or other workers who were transferred.

The information on husbands' ages and education, which was obtained from currently married women only, can be seen in Table 2.3. Although there was no variable indicating respondents' current marital statuses, only about four percent of respondents stated that they had "no spouse" at the time of survey. There were no data that could further identify widows, divorced or separated women.
Table 2.3
Percentage Distribution of EMW (15-45) by Husband's Age, Education and Respondent's Residence

<table>
<thead>
<tr>
<th>Husband's Age and Education</th>
<th>Residence</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
<td>Urban-Low</td>
<td>Urban-Mid</td>
</tr>
<tr>
<td><strong>AGE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 - 29</td>
<td>26</td>
<td>26</td>
<td>20</td>
</tr>
<tr>
<td>30 - 39</td>
<td>28</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>40 - 49</td>
<td>35</td>
<td>34</td>
<td>33</td>
</tr>
<tr>
<td>50 - 59</td>
<td>10</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>60 or more</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>N (*)</td>
<td>569</td>
<td>477</td>
<td>481</td>
</tr>
<tr>
<td>Mean Age</td>
<td>31.1</td>
<td>30.5</td>
<td>32.9</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 years or less</td>
<td>28</td>
<td>22</td>
<td>9</td>
</tr>
<tr>
<td>4 - 6 years</td>
<td>47</td>
<td>40</td>
<td>27</td>
</tr>
<tr>
<td>7 - 9 years</td>
<td>12</td>
<td>21</td>
<td>30</td>
</tr>
<tr>
<td>10 - 12 years</td>
<td>10</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>13 years or more</td>
<td>4</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>N (**)</td>
<td>556</td>
<td>469</td>
<td>468</td>
</tr>
<tr>
<td>Mean years of schooling</td>
<td>5.7</td>
<td>6.4</td>
<td>8.6</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS.

Note: (*) Excludes 56 respondents who were not currently married and 4 respondents with "unknown" category.

(**) Excludes 56 respondents were not currently married and 48 respondents with "unknown" category.
The median ages of husbands differed little between the study areas (37 to 38 years old). The differences in median ages between husbands and wives ranged from 4 to 6 years, with the smallest difference in the urban-mid area. Again, on average, the urban-mid husbands had the highest educational levels while the rural husbands had the lowest. In the urban-low area, where the level of development presumably lay between the levels of the other areas, the average duration of husbands' education was slightly higher than that for rural husbands, but two years lower than that for their urban-mid counterparts. On average, husbands' educational levels were higher than wives', as is typical of Indonesia and many other LDCs (Boserup, 1970: 119-122; see also Jones, 1976:51).

The economic differentials between the study sites were also reflected in household economic status, based on either husband's income or on household ownership (Table 2.4). Based on ownership of 13 household items (see footnote to Table 2.4 for the items), it is clear that the standard of living of the urban-mid area was higher than that of the other study sites. The proportion of households with "high" economic status in the urban-mid area was almost three times as high as in the other areas, and the proportion of households categorized as "low" economic status was also least in this area (see footnote to Table 2.4 for the classification into low, medium and high categories). By contrast, a high proportion of households in the rural area and a majority of households in the urban-low area were
Different figures emerged when husband's income was used as the indicator of household economic status. A great proportion of households in the urban-mid area (and a majority of households in the other areas) fell into the "low" economic status category. The poverty of the urban-low group was marked by a very low proportion of households with "high" economic status compared to the other areas. The data also tended to confirm the field impression that the urban-mid area was a low middle-class area because there was fairly substantial overlapping of economic status levels with the poor area (see McDonald, 1983:26). In part of the analysis of work activity both urban areas have been combined, either to obtain a sufficient number of cases or because it was considered that there were no
### Table 2.4

Economic Status of Household (Measured in Two Ways) by Place of Residence (Percentage)

<table>
<thead>
<tr>
<th>Residence/Economic Status</th>
<th>Measures of Economic Status</th>
<th>!</th>
<th>!</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Based on Household Ownership Items (1)</td>
<td>!</td>
<td>!</td>
</tr>
<tr>
<td></td>
<td>Based on Monthly Husband's Income (2)</td>
<td>!</td>
<td>!</td>
</tr>
<tr>
<td>Rural</td>
<td>!</td>
<td>!</td>
<td></td>
</tr>
<tr>
<td>- Low</td>
<td>!</td>
<td>47</td>
<td>!</td>
</tr>
<tr>
<td>- Medium</td>
<td>!</td>
<td>39</td>
<td>!</td>
</tr>
<tr>
<td>- High</td>
<td>!</td>
<td>14</td>
<td>!</td>
</tr>
<tr>
<td>Total</td>
<td>!</td>
<td>100</td>
<td>!</td>
</tr>
<tr>
<td>N</td>
<td>!</td>
<td>601</td>
<td>!</td>
</tr>
<tr>
<td>Urban-Low</td>
<td>!</td>
<td>!</td>
<td>!</td>
</tr>
<tr>
<td>- Low</td>
<td>!</td>
<td>58</td>
<td>!</td>
</tr>
<tr>
<td>- Medium</td>
<td>!</td>
<td>27</td>
<td>!</td>
</tr>
<tr>
<td>- High</td>
<td>!</td>
<td>15</td>
<td>!</td>
</tr>
<tr>
<td>Total</td>
<td>!</td>
<td>100</td>
<td>!</td>
</tr>
<tr>
<td>N</td>
<td>!</td>
<td>485</td>
<td>!</td>
</tr>
<tr>
<td>Urban-Mid</td>
<td>!</td>
<td>!</td>
<td>!</td>
</tr>
<tr>
<td>- Low</td>
<td>!</td>
<td>24</td>
<td>!</td>
</tr>
<tr>
<td>- Medium</td>
<td>!</td>
<td>36</td>
<td>!</td>
</tr>
<tr>
<td>- High</td>
<td>!</td>
<td>40</td>
<td>!</td>
</tr>
<tr>
<td>TOTAL</td>
<td>!</td>
<td>100</td>
<td>!</td>
</tr>
<tr>
<td>N</td>
<td>!</td>
<td>495</td>
<td>!</td>
</tr>
<tr>
<td>All Respondents</td>
<td>!</td>
<td>1581 (*)</td>
<td>!</td>
</tr>
</tbody>
</table>

**Source:** (1) 1979, original tape of IAMS (female respondents)  
(2) 1979, original tape of IAMS (male respondents)

**Note:** (1) Household possessions here consist of 13 household items: electricity, radio, television, bicycle, car, sewing machine, motor-bike, clock/watch, refrigerator, water pump, kerosene lamp, table/chairs and mattress. They have been weighted and used to construct an index of wealth for each household. The classification into low, medium and high was on the basis of natural cutting points in the distribution (McDonald, 1983:24).

(2) Low (0 - 20,000 rupiah)  
Medium (20,100 - 40,000)  
High (40,100 and more)

(*) Excludes 6 cases of "unknown" category.  
(**) Excludes 146 cases of "unknown" category.
exclusive differences between the two groups in respect of the variable being studied.

The two measures of household economic status were based on different samples, and hence some differences in results could be expected. Data on husband's income were only available for husbands who were selected to be interviewed. As explained earlier, male respondents were not part of this study.

The general characteristics of houseworkers and workers according to various independent variables can be seen in Table 2.5. Ignoring for the moment possible intercorrelation between the independent variables there are several important points to be noted. Houseworkers tended to be younger and to have younger husbands. Therefore, houseworkers had consistently higher educational levels than working women but this may have been related to the higher education of the husbands, implying also higher income.

The association between work status on the one hand and age at first marriage and fertility on the other is interesting. Age at first marriage tended to be higher among working women than among houseworkers in all study sites, despite the fact that on average working women belonged to the older group of women. Similarly, the age standardized average number of children ever born of working women was lower than that of houseworkers in the urban areas. Further examination of work status in association with fertility would tell whether age itself was a dominant
factor or, as was hypothesized, maternal roles had deterred them from working (Chapter III). The different characteristics of houseworkers and working women provides a useful background to investigating the work force participation of women in this study. This will be discussed in the following chapters.
<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>RESIDENCE AND WORK STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td>Work</td>
</tr>
<tr>
<td>1. Female's Age</td>
<td></td>
</tr>
<tr>
<td>1.1 At the time of survey</td>
<td>32.6</td>
</tr>
<tr>
<td>1.2 At first marriage</td>
<td>16.8</td>
</tr>
<tr>
<td>1.3 At birth of first child (1)</td>
<td>19.1</td>
</tr>
<tr>
<td>12. Husband's Age</td>
<td>38.1</td>
</tr>
<tr>
<td>13. Number of Years of Schooling</td>
<td>3.4</td>
</tr>
<tr>
<td>3.1 Female</td>
<td>5.2</td>
</tr>
<tr>
<td>3.2 Husband (2)</td>
<td>3.9</td>
</tr>
<tr>
<td>14. Children Ever Born (3)</td>
<td>0.8</td>
</tr>
<tr>
<td>15. Number of children (0-4 years)</td>
<td></td>
</tr>
<tr>
<td>in the household</td>
<td></td>
</tr>
<tr>
<td>Total Respondents (N)</td>
<td>407</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS

Note: (*) Current work status has been used for all characteristics, except number 1.2 which was derived from work before marriage and number 1.3 which was derived from work immediately after marriage.

(1) Excludes 138 cases of childless women.
(2) Excludes 94 cases with "unknown" category and respondents with "no spouse".
(3) Standardized by age.
Previous studies have shown that female labour force participation varies in accordance with demographic and related factors. This chapter deals mainly with variations of FARs with respect to four variables: age, residence, children ever born and number of children (0-4 years) in the household.

Age and residence as predictor variables of female economic activity will be discussed briefly in one section of this chapter to show the general patterns of the associations. Most of the remaining analysis will also use age and residence as control variables in order to further explain variations in FARs, and to reduce the possible influence of these variables on other relationships.

3.1 Age and Residence Differentials

The selection of the sample areas, as noted earlier, was based on significant characteristics of the respondents' current places of residence. The classification into rural and urban was generally in accordance with definitions used in the 1971 census, but the distinction between low and middle-class urban areas was based on perceived differences
in the socio-economic backgrounds of urban areas (see Chapter II).

The variations in economic activity of EMW(15-45) according to both age and residence can be seen in Table 3.1. The data strongly suggest that the rural women were more involved in work than their urban counterparts, and the urban-low women emerged as the group least likely to be in the work force. This pattern held for all but the youngest age group, where the small number of respondents may have influenced the results. The pattern of female work force participation according to residence differentials suggests a U-shaped pattern or, more precisely, a reverse J-shaped pattern for all but the youngest age groups.

<table>
<thead>
<tr>
<th>Age</th>
<th>Rural</th>
<th>Urban-low</th>
<th>Urban-mid</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>46</td>
<td>26</td>
<td>28</td>
<td>8</td>
</tr>
<tr>
<td>20-24</td>
<td>48</td>
<td>118</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>25-29</td>
<td>61</td>
<td>124</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>30-34</td>
<td>78</td>
<td>95</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>35-39</td>
<td>76</td>
<td>105</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>40-45</td>
<td>82</td>
<td>133</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>All Ages</td>
<td>68</td>
<td>601</td>
<td>17</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS
The pattern of age differentials shown in Table 3.1 suggests that the older a woman, the more likely she was to work, and this relatively consistent pattern was more pronounced for rural women. This "late peak" pattern which is often postulated as a typical pattern of female employment in Indonesia (see Jones, 1981:232) as well as in some other Asian and African countries, is the result of early marriage and early motherhood which deter many young women from working (Durand, 1975:42). Several community surveys have found that many women in Indonesia tend to have a baby a short time after marriage, and were considered unfortunate if they were not pregnant during the first two years of marriage (Ihromi et al, 1973:127-139; Papanek, 1976:134).

The restricted sample of only EMW(15-45) undoubtedly influences the pattern, because it is well documented that single women, who are generally in the young age groups, are the most committed to the work force (United Nations, 1962:36; Berent, 1970:182; Frejka, 1971:1564; United Nations, 1979:48). Using adjusted labour force participation rates from the 1971 census, Jones (1974:Table 6) demonstrated a "double peak" pattern at ages 15-19 and 40-45 in Central Java, but with much lower rates for the younger age group. A study by LEKNAS (The National Institute of Economic and Social Research) in some areas of Java also noted that the participation of never married women was lower compared to their married counterparts (Redmana et al, 1977:Table 4.7). The participation of
single women in the work force for this study can be seen through data on retrospective work experiences before marriage, and will be discussed in Chapter IV.

As suggested in the existing literature, different levels of socio-economic development in the sample areas could play a part. In the rural area, the majority of working women were involved in the more traditional sectors such as agriculture and petty trade (Table 3.2). In the urban areas, many women, particularly the young, were more involved in the less traditional sectors such as non-farm labour and production labour. The participation of rural women in the work force may have been relatively high because it was easier for rural women to combine their maternal and work force roles. Additionally, the relatively low participation of women in the urban settings may have been influenced by the fact that most available types of employment, such as factory labour, have low social status and may not have been considered respectable for married women. Lean's study (1984:138) found that the urban community in Peninsular Malaysia tended to look down at factory workers in urban areas because of their lower socio-economic background. The fact that urban childcare facilities are generally not available may also have reduced the participation of urban married women in the work force (see also Wolf, 1984:222).
Looking at the broad occupational groups of the employed women as presented by Table 3.2, it is clear that the patterns differed according to age as well as residence. The limited samples only permitted the broad categories as shown in this table. However, subdivision by age into the two categories shown identified women of two generations, divided by the period of important socio-political change in the late 1940's that culminated in Indonesian independence. These two generations also experienced very different access to education, another factor related to occupational differences. Both urban areas were combined here because they were considered similar in general employment characteristics and opportunities, since both were situated in the Semarang Kotamadya (municipality). Even with these broad categories, the sample size of younger employed women in the urban area was too small (59 cases) to permit further subdivision. Occupational differences for these groups of women, therefore, should be interpreted carefully.
Table 3.2

Percentage of Employed Women by Occupation, Residence and Age

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>15 - 29</th>
<th>30 - 45</th>
<th>Total</th>
<th>15 - 29</th>
<th>30 - 45</th>
<th>Total</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>Urban</td>
<td>Total</td>
<td>Rural</td>
<td>Urban</td>
<td>Total</td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>1. Professional, clerical and related (teacher, typist, public servant, health workers).</td>
<td>5</td>
<td>12</td>
<td>7</td>
<td>3</td>
<td>14</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>2. Trading - Food</td>
<td>29</td>
<td>15</td>
<td>44</td>
<td>32</td>
<td>41</td>
<td>73</td>
<td>32</td>
</tr>
<tr>
<td>- Others</td>
<td>12</td>
<td>12</td>
<td>24</td>
<td>13</td>
<td>11</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>3. Service</td>
<td>-</td>
<td>7</td>
<td>7</td>
<td>(a)</td>
<td>10</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>4. Non-farm labour (factory, cigarette, textile and engineering)</td>
<td>10</td>
<td>29</td>
<td>39</td>
<td>3</td>
<td>13</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>5. Skilled or Production:</td>
<td>2</td>
<td>9</td>
<td>11</td>
<td>(a)</td>
<td>5</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>- In factory and shop</td>
<td>3</td>
<td>17</td>
<td>20</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>- At home</td>
<td>34</td>
<td>-</td>
<td>34</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>6. Agricultural Sector</td>
<td>100</td>
<td>100</td>
<td>200</td>
<td>100</td>
<td>100</td>
<td>200</td>
<td>100</td>
</tr>
<tr>
<td>N</td>
<td>144</td>
<td>59</td>
<td>203</td>
<td>263</td>
<td>140</td>
<td>403</td>
<td>606</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS

Note: (*) Total may not add to 100 due to rounding errors
(a) Denotes less than 0.5 percent.
As can be seen, trading - mainly food selling - was the most common occupation of urban and young rural employed women in this study, and this was more pronounced for older urban women. In the rural area, particularly among the older group (30-45), agriculture was still the most important sector, absorbing almost all the remaining employed women. That trading is a "favourite" occupation for working women is understandable, since this sector is considered flexible and is thus relatively easy to combine with family responsibilities. Moreover, since petty traders require little skill or education, trade may be considered appropriate for most women. Of note is the much larger proportion of older urban women who were involved in food selling compared to other occupations. This type of occupation is varied in terms of the scale of its capital and skill requirements. Since there is no further information regarding this occupation, it is difficult to know whether older women are usually more experienced in food selling and perhaps have more capital than younger women. The intensive time inputs required by this type of occupation may also have caused it to attract more older women. However, this pattern corresponds well with other African and Asian experience which, according to Boserup (1970:95), indicates a more traditional market economy in which high rates of illiteracy and high average age prevail. Young women, who were usually more educated, tended to be involved in the modern trading sectors as, for example, shop assistants in supermarkets. Another study in East Java
found that petty trade usually requires little special skill and little capital (Dewey, 1962:163). This subject requires further study, since trading is a typical activity for urban employed women in Indonesia.

Also of note was the participation of women in skilled or production occupations. Although the proportion of younger women in these occupations was twice as high as that of older women, the majority of production workers (about 70 percent) were involved in occupations that were performed at home, mainly dressmaking. This occupation would have been more compatible with the maternal role than working in a factory or shop. To what extent occupational groups of employed women differed in terms of rural-urban differentials will be examined in the following paragraphs.

As expected, the occupational groups that are generally described as having "high" status, such as professional, clerical and related occupations, employed only a minority of women. The percentage employed in these occupations was higher in urban areas than in the rural area, but was still relatively low.

Large proportions of the younger age group, especially in the urban areas, worked as non-farm labourers. Although the growth of industrialization has been relatively slow in Indonesia compared to other neighbouring countries (McCawley, 1981:67; Jones, 1982:8; Wolf, 1982:6) many factories, such as cigarette, textile and food factories as
well as estates, have been promoted by the government. As employers of unskilled or semi-skilled labour, these sectors require little training or formal education. This probably attracted significant numbers of young women in urban areas, particularly from urban-low areas. Lack of skill or education, which was more pronounced in the urban-low group, may have limited these women's ability to obtain other urban jobs. In addition, economic pressure may have led to factory employment outside the home being more socially acceptable. Employment opportunities in rural and urban areas also differ because of differing economic structures. In rural areas agriculture and traditional home industries offer more socially acceptable work considered compatible with home duties and requiring little or no education. However, in urban areas this type of employment is scarce and women have been forced to accept factory work outside the home despite its lower status.

In general, the pattern of occupational differences between the two broad age groups indicates that the younger generation (less than 30 years old) were more likely to have been engaged in occupations which needed some qualifications, whereas the older group were more involved in relatively traditional sectors. Although unskilled non-farm labour may require few qualifications, the fact that on average the younger generation had higher education than the older group (see McDonald, 1983:Table 2.8), may also have influenced the employers to employ younger women. Wolf's (1982:11) study in a village of Central Java noted
that a desire for better qualified workers than in the past was shown by some factories in recent years. Occupational differences for employed women between rural and urban areas also emphasized the different socio-economic structures in these areas, the variations in the non-agricultural sectors being more pronounced in urban areas. However, the largest proportion of employed women in all study sites were involved in more flexible occupations, suggesting that those occupations were considered socially more appropriate and that they were more compatible with household responsibilities. The analysis of educational differences in the following chapter will more fully explain the occupation differentials.

3.2 Children Ever Born

The association between fertility and female economic activity in less developed countries is complex. However, there is increasing evidence to suggest that incompatibility between the role of mother and worker is an important factor in explaining female employment, although there is debate in the relevant literature on the measurement of the degree of role conflict.

In this section, fertility is measured in terms of the number of children ever born. Table 3.3 presents FARs according to children ever born (CEB) controlling for both residence and respondent's age. In the rural area, the tendency towards a positive relationship between fertility
and FARs is shown in the unstandardized figure for all ages. The FAR for women of relatively high parity (three or more children) is especially high. This pattern, however, seems to be influenced by the group of women aged 35-45, for whom participation of those with high parity is higher. The difference may not be significant because of the small number of women with low parity. Women in the 35-45 age group were more likely to have completed their childbearing, and would also have been likely to have older children who cared for the younger children while their mother worked. In addition, the majority of this group of women in the rural area worked in more traditional sectors which are commonly thought to be compatible with the maternal role.

When both urban areas are combined the pattern for all ages seems to be influenced by the urban-mid pattern. That is, the women with one to two children were least likely to work. Additional children after this tended to increase the likelihood of women participating in the work force. This pattern was true for all age groups in the urban-mid area sample, but did not occur in both urban samples combined. In the urban-low area, the tendency towards a negative relationship between fertility and FARs was more pronounced, and it held for all but women in age group 25-34.
Table 3.3
Percentage of EMW(15-45) Currently Working
By CEB, Age and Residence

<table>
<thead>
<tr>
<th>Residence/ Age</th>
<th>Children Ever Born (CEB)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Childless</td>
<td>1 - 2</td>
<td>3 or more</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% N</td>
<td>% N</td>
<td>% N</td>
<td>% N</td>
<td>% N</td>
</tr>
<tr>
<td>Rural</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 24</td>
<td>(50) 22</td>
<td>48 108</td>
<td>(43) 14</td>
<td>48 144</td>
<td></td>
</tr>
<tr>
<td>25 - 34</td>
<td>50 (*) 6</td>
<td>69 62</td>
<td>68 151</td>
<td>68 219</td>
<td></td>
</tr>
<tr>
<td>35 - 45</td>
<td>100 (*) 5</td>
<td>(77) 26</td>
<td>79 207</td>
<td>80 238</td>
<td></td>
</tr>
<tr>
<td>All Ages</td>
<td>58 33</td>
<td>59 196</td>
<td>73 372</td>
<td>68 601</td>
<td></td>
</tr>
<tr>
<td>Urban-Low</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 24</td>
<td>27 30</td>
<td>10 69</td>
<td>(4) 24</td>
<td>13 123</td>
<td></td>
</tr>
<tr>
<td>25 - 34</td>
<td>(33) 12</td>
<td>12 42</td>
<td>14 137</td>
<td>15 191</td>
<td></td>
</tr>
<tr>
<td>35 - 45</td>
<td>- 6</td>
<td>31 48</td>
<td>19 121</td>
<td>22 175</td>
<td></td>
</tr>
<tr>
<td>All Ages</td>
<td>25 48</td>
<td>17 159</td>
<td>15 282</td>
<td>17 489</td>
<td></td>
</tr>
<tr>
<td>Urban-Mid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 24</td>
<td>(20) 20</td>
<td>11 57</td>
<td>(14) 14</td>
<td>13 91</td>
<td></td>
</tr>
<tr>
<td>25 - 34</td>
<td>(46) 11</td>
<td>21 53</td>
<td>22 93</td>
<td>24 162</td>
<td></td>
</tr>
<tr>
<td>35 - 45</td>
<td>(50) 24</td>
<td>22 49</td>
<td>26 171</td>
<td>28 244</td>
<td></td>
</tr>
<tr>
<td>All Ages</td>
<td>38 55</td>
<td>18 159</td>
<td>24 283</td>
<td>24 497</td>
<td></td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS
Note: ( ) denotes N less than 30 cases.
(*) denotes N less than 10 cases.
Childless women were a minority in all area samples, but there were significantly more childless among the oldest group of women in the urban-mid area. Forty-four percent of all childless women in the urban-mid area were in this oldest group, compared to less than 15 percent in both other areas. In both urban areas combined, as expected, women with no children were those most likely to work. This group of women obviously had no childcare problems and were consistently the group most committed to the work force. The pattern could be influenced by the nature of employment in urban areas, where children and work may be alternatives. However, no definitive explanation is possible given the small cell sizes.

Generally Table 3.3 shows that the percentage of women currently working consistently increased with age, regardless of residence and parity. That is, the older a woman, the more likely she worked. Although parity generally increased with age, there is no consistent trend of work force participation by parity. For example, for rural and urban-low women aged 15-24 the percentage working falls with rising parity, whereas the reverse is true for rural women aged 25-34.
The tendency towards greater work participation among women with higher parity in the rural and urban-mid area samples is largely a function of age. Higher parity women, being generally older, are more likely to have completed their childbearing and/or to have older children who need less care themselves and who can care for younger ones. It is also possible the increasing financial burden of larger families may have been a factor encouraging these women to work. The tendency towards a negative relationship between work force participation and fertility in urban settings and a positive relationship in rural areas was also found in other studies in developing countries (Goldstein, 1972; Bindary et al, 1973; see also Standing, 1978a).

The subsequent analysis will examine fertility differentials in terms of the average number of CEB among working women and houseworkers (Table 3.4). The standardized mean CEB for all ages of working women in the rural area was higher than that for houseworkers, whereas the opposite pattern was evident for the urban women.
Table 3.4
Mean Number of CEB by Work Status, Residence and Age.

<table>
<thead>
<tr>
<th>Residence/ Work Status</th>
<th>RURAL</th>
<th></th>
<th>URBAN</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Working</td>
<td>Housework</td>
<td>Working</td>
<td>Housework</td>
</tr>
<tr>
<td>AGE</td>
<td>Mean N</td>
<td>Mean N</td>
<td>Mean N</td>
<td>Mean N</td>
</tr>
<tr>
<td>15 - 24</td>
<td>1.4</td>
<td>69</td>
<td>1.5</td>
<td>75</td>
</tr>
<tr>
<td>25 - 29</td>
<td>2.6</td>
<td>75</td>
<td>3.0</td>
<td>49</td>
</tr>
<tr>
<td>30 - 34</td>
<td>3.8</td>
<td>74</td>
<td>3.7</td>
<td>21</td>
</tr>
<tr>
<td>35 - 45</td>
<td>5.2</td>
<td>189</td>
<td>5.6</td>
<td>49</td>
</tr>
<tr>
<td>All ages (*)</td>
<td>3.9</td>
<td>407</td>
<td>3.6</td>
<td>194</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS
Note: (*) Mean CEB standardized by age.

When age was considered, this pattern was even more marked in the urban area, particularly among the older groups. In the rural area sample almost none of the age groups reflected the pattern of the standardized figures for mean CEB. Instead, as among the urban respondents, houseworkers tended to have a higher parity than working women, although the differences were very marginal, particularly in view of the sample sizes. The overrepresentation of the older group (35-45) among rural working women has markedly influenced the standardized mean CEB for all ages.

It is hard to decide whether the generally lower number of children among the working women was due to their economic activity, or whether, on the contrary, large families restricted married women from working, since complex factors undoubtedly influenced both the
employment of women and their fertility behaviour. Hull's (1977:73) study in a rural Yogyakarta found that subfecundity among working women (who were also a lower income group) was one contributory factor. The extent to which the number of children acted as a constraint on the work activity of EMW(15-45), and occupational and work place disparities is investigated in Tables 3.5 and 3.6. In these tables all three samples were combined to give a sufficient sample size in all cells. Furthermore, some occupations such as professional, clerical and related jobs, and production workers were also combined in "other" occupations. However, the disaggregated data into rural and urban samples combined for both tables are presented in Appendices V-VIII.

As can be seen in Table 3.5, a high proportion of non-farm labouring jobs were held by women with fewer children (0-1), whereas the majority of women who were involved in more traditional sectors (farming or the trade sector) had 2 children or more. Traditional sectors are commonly thought to provide more flexible jobs and usually work is relatively close to the home. Thus, work in these occupations is considered to be more compatible with the maternal role.
Table 3.5
Percentage of Employed women by CEB, Occupation and Age

<table>
<thead>
<tr>
<th>Age/CEB</th>
<th>Occupation</th>
<th>Farm</th>
<th>Trading</th>
<th>Non-Farm</th>
<th>Others</th>
<th>House-Workers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3 or more</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 29</td>
<td></td>
<td>8</td>
<td>25</td>
<td>37</td>
<td>31</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>9</td>
<td>24</td>
<td>24</td>
<td>43</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>26</td>
<td>26</td>
<td>29</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>23</td>
<td>23</td>
<td>29</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
<td>23</td>
<td>27</td>
<td>38</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
<td>24</td>
<td>28</td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>2.0</td>
<td>2.3</td>
<td>1.5</td>
<td>1.7</td>
<td></td>
<td>2.2</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>49</td>
<td>75</td>
<td>31</td>
<td>48</td>
<td></td>
<td>690</td>
</tr>
<tr>
<td>30 - 45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>37</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7</td>
<td>5</td>
<td>11</td>
<td>78</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>19</td>
<td>18</td>
<td>4</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>11</td>
<td>12</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>8</td>
<td>13</td>
<td>75</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>7</td>
<td>11</td>
<td>77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
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<td>100</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>4.6</td>
<td>4.5</td>
<td>3.3</td>
<td>4.3</td>
<td></td>
<td>4.4</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>120</td>
<td>190</td>
<td>27</td>
<td>66</td>
<td></td>
<td>897</td>
</tr>
</tbody>
</table>

Source: 1979, Original tape of IAMS.
Note: (*) Total may not add to 100 due to rounding errors
      ( ) Denotes N less than 30 cases.
Women who worked in more traditional sectors (farm and trade) had relatively high average parities and the figures were similar to those of houseworkers. It was also found that the standardized mean CEB of women who worked as non-farm labourers was the lowest and this finding was more pronounced for the older group in the urban areas combined (Appendix VI).

Women who worked in "other" occupations had a higher average parity than women who worked in non-farm labour, and it was more pronounced for the older group. As noted earlier, "other" occupations also includes production workers, most of whom worked at home (see page 49). Thus, role conflict for women who worked in "other" occupations was probably less than for non-farm workers.

These findings are well reflected in work place differentials (Table 3.6). The lowest standardized mean CEB was recorded for those who worked outside the home but in non-traditional sectors, and this held for both age groups (see 'Others' category in Table 3.6). Among the younger age group, the highest mean parity was that of women who worked at home, with the mean parities of farmers and traders lying between those who worked at home and "others" outside the home. A slightly different pattern was shown by the older group, where the highest mean parities belonged to field workers and traders. The majority of women in
these occupation groups were relatively older (35-45) and more likely to have married earlier than the younger generation. It is clear that the relatively high parities for these occupations have been greatly influenced by age and duration of marriage. Additionally, as was explained earlier, mothering substitutes were easier to obtain in the form of older children.

For the older group, the relatively low mean parity of women who worked at home was not expected (Table 3.6). This was affected by the pattern in urban areas combined, where women working at home had the lowest parity (see Appendix VIII). There is no explanation of this unusual pattern in terms of the role conflict hypothesis. Other factors (e.g., education) may have influenced their fertility behaviour as well as their decisions about work.
Table 3.6.
Percentage of Employed Women by CEB, Work Place and Age

<table>
<thead>
<tr>
<th>Age/C E B</th>
<th>Work Place</th>
<th>Outside the Home</th>
<th>Field</th>
<th>Market</th>
<th>Others</th>
<th>At Home</th>
<th>Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 - 29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>3</td>
<td>21</td>
<td>32</td>
<td>7</td>
<td>8</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>24</td>
<td>15</td>
<td>23</td>
<td>18</td>
<td>31</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>38</td>
<td>31</td>
<td>23</td>
<td>25</td>
<td>23</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 or more</td>
<td>30</td>
<td>33</td>
<td>21</td>
<td>50</td>
<td>38</td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (*)</td>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Mean</td>
<td>2.0</td>
<td>2.1</td>
<td>1.5</td>
<td>2.3</td>
<td>2.0</td>
<td>2.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>37</td>
<td>48</td>
<td>43</td>
<td>60</td>
<td>48</td>
<td>236</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 - 45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>2</td>
<td>5</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>7</td>
<td>10</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>13</td>
<td>12</td>
<td>12</td>
<td>10</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 or more</td>
<td>88</td>
<td>74</td>
<td>70</td>
<td>74</td>
<td>84</td>
<td>79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (*)</td>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Mean</td>
<td>4.7</td>
<td>4.4</td>
<td>3.8</td>
<td>4.1</td>
<td>4.9</td>
<td>4.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>95</td>
<td>97</td>
<td>67</td>
<td>81</td>
<td>84</td>
<td>424</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: 1979, Original tape of IAMS.
Note: (*) Total may not add to 100 due to rounding errors.
The markedly lower fertility among women engaged in non-traditional occupations that involve work outside the home can also be explained by the better chances of childless and low parity women being employed in these jobs. A study in Latin America by Gendell et al (1970:281) strongly suggested that low fertility among domestic servant women was due to the high preference of employers for childless and single servants. Collver (1968:56) also suggested that the lower level of fertility in some urban areas of Latin America was influenced by the significant numbers of single women who worked in those areas.

Work place information was unknown for a relatively high proportion of respondents. This was noted earlier as one of the data limitations of the IAMS study (see Chapter 2.3). As can be seen in Table 3.6, the standardized mean parity of the "unknown" group of women was relatively high, and was the highest among the older group. Since almost all of these women were rural women, it is likely that most were in fact working in the sense of helping the family, probably as unpaid family workers. As indicated, the proportion with this kind of work status is generally high in rural areas of Java (see Moir, 1980:15).

To sum up, the patterns described above tend to suggest that occupation and work place were important factors influencing the strength of role conflict. To
what extent conflict between maternal and work roles explains work patterns will be further discussed in the following section, by referring to the presence of young children in the household. Many factors could influence both employment and fertility behaviour, and the data used here are not sufficient to establish the precise association between the two. Further research must be designed to provide evidence of causality through analysis of variables related to both fertility and female employment. The mechanisms underlying significant associations must be identified through more detailed and more carefully constructed field studies.

3.3 Number of Children Aged 0-4 Years in the Household

The existence of dependent children is considered the most important life cycle stage influencing work force participation of the mother. In this study, the number of persons aged 0-4 years old in the household is used to explore the variations in work force participation of ever married women. It should be noted that the number of persons aged 0-4 years old in the household has been derived from variables related to household composition. It is therefore possible that those children included other couples' children who lived in the respondent's household. A large proportion of households (about 90 percent) could be categorized as extended family households and one-third
of these included "other married persons" (see Appendix IX). It is quite likely that the impact of the existence of young children in the household on the participation of respondents in the work force would be different if the children were not the respondents' own children. However, since these are the only data available on the existence of dependent children in the household, this information will be used to analyse variations in the work force participation of respondents in relation to family life cycle stage.

Variations in the economic activity of EMW(15-45) according to the number of children aged 0-4 years in the household are presented in Table 3.7. As expected, the Table shows that the more young children there were in the household the less likely the woman was to work. This held almost consistently regardless of place of residence and individual age groups, with the pattern more pronounced in urban areas. The slightly different patterns were among EMW(35-45) in the rural area and among the youngest age group (15-24) in the urban-mid area, where women with more young children in the household seemed to be more likely to be in the work force.

There are a number of factors that may account for the exceptional pattern in the rural area. Firstly, older women generally already have other older children with whom the childcare may be shared. Hull's
(1975:127) study in a rural area of Yogyakarta showed that the services of older siblings could usually be obtained, since the school enrolment ratio and school attendance rates were relatively low, particularly among the poor. Furthermore, rural children may not have as many other activities as urban children, and may more readily assist their mothers in caring for younger children or in other household activities. Secondly, since a greater proportion of women in the older age group was engaged in the more traditional sectors, it was most likely they could combine mothering and working roles. Another possibility is that as members of extended families, these women lived together with other married women who had young children in the household. The young children of other women would not act as a constraint in the same way as respondents' own children.
Table 3.7

Percentage of EMW(15-45) Currently Working by Number of Children (0-4 years) in the Household, Age and Residence

<table>
<thead>
<tr>
<th>Residence/Age</th>
<th>None</th>
<th>One</th>
<th>2 or more</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Rural</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 24</td>
<td>27</td>
<td>47</td>
<td>70</td>
<td>45</td>
</tr>
<tr>
<td>25 - 34</td>
<td>63</td>
<td>69</td>
<td>96</td>
<td>60</td>
</tr>
<tr>
<td>35 - 45</td>
<td>144</td>
<td>80</td>
<td>71</td>
<td>(83)</td>
</tr>
<tr>
<td>All Ages</td>
<td>234</td>
<td>66</td>
<td>237</td>
<td>59</td>
</tr>
<tr>
<td>Urban-Low</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 24</td>
<td>33</td>
<td>11</td>
<td>47</td>
<td>7</td>
</tr>
<tr>
<td>25 - 34</td>
<td>41</td>
<td>17</td>
<td>70</td>
<td>8</td>
</tr>
<tr>
<td>35 - 45</td>
<td>115</td>
<td>14</td>
<td>37</td>
<td>(9)</td>
</tr>
<tr>
<td>All Ages</td>
<td>159</td>
<td>14</td>
<td>154</td>
<td>8</td>
</tr>
<tr>
<td>Urban-Mid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 24</td>
<td>25</td>
<td>9</td>
<td>33</td>
<td>12</td>
</tr>
<tr>
<td>25 - 34</td>
<td>45</td>
<td>28</td>
<td>54</td>
<td>16</td>
</tr>
<tr>
<td>35 - 45</td>
<td>178</td>
<td>24</td>
<td>51</td>
<td>(7)</td>
</tr>
<tr>
<td>All Ages</td>
<td>248</td>
<td>22</td>
<td>138</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS
Note: ( ) denotes N less than 30 cases.
The supposition that the presence of young children acts as a constraint on their mothers' joining the work force is supported by Table 3.8 which shows that urban working women tended to have, on average, fewer small children in the household compared with houseworkers. This held consistently for all age groups. In the rural area the pattern held only for relatively young women (15-29) while for the older group, the unstandardized average numbers of young children in the household were similar for both houseworkers and working women.

Table 3.8
Mean Number of Children (0-4 years) in The Household by Work status, Age and Residence

<table>
<thead>
<tr>
<th>Residence/ Work status</th>
<th>RURAL</th>
<th>URBAN COMBINED</th>
</tr>
</thead>
<tbody>
<tr>
<td>! Working Housework !</td>
<td></td>
<td></td>
</tr>
<tr>
<td>! Mean N</td>
<td>Mean N</td>
<td>Mean N</td>
</tr>
<tr>
<td>Age</td>
<td>! Mean N</td>
<td>Mean N</td>
</tr>
<tr>
<td>15 - 24</td>
<td>! 1.1 79</td>
<td>1.2 75</td>
</tr>
<tr>
<td>25 - 29</td>
<td>! 1.0 75</td>
<td>1.2 49</td>
</tr>
<tr>
<td>30 - 34</td>
<td>! 0.8 74</td>
<td>0.8 21</td>
</tr>
<tr>
<td>35 - 45</td>
<td>! 0.5 189</td>
<td>0.5 49</td>
</tr>
<tr>
<td>All ages</td>
<td>! 0.8 407</td>
<td>1.0 194</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS.

Although in urban areas it is quite common for the middle-class and upper-class to employ housemaids or babysitters, many working women in this study were involved in relatively low status jobs which were probably not sufficiently well paid for them to be able to afford paid childcare. In responding to two questions on the
availability of childcare substitutes after their first child's birth, only three percent of 1587 members of the three samples stated that they had a housemaid during that time. Moreover, of those respondents who had housemaids after their first birth, only 30 percent were working women. Thus, the availability of maids in the household did not necessarily encourage women to work. In a village study, Hull (1979:22-23) noted that middle-class women did not want to leave their children in the care of housemaids from the lower classes, who might negatively affect their child's development.

Motherhood may be a more important career than participation in the work force, except in cases where economic pressure forces women to work. A similar phenomenon was found among Malay women in West Malaysia, where, according to Mason and Palan (1981:549), women placed a higher value on caring for babies than on contributing to family income. In societies with such values, many women, particularly in urban areas, tend to be economically inactive when more time is needed for caring for their children.

In the rural area, young houseworkers had a slightly higher average number of young children than their working counterparts, which may reflect a recognition of the practical difficulties of combining the two roles. It is also possible that this pattern had been influenced by tradition or culture which made it not socially acceptable
for women with young children to work, particularly outside the home. These theories are supported by the evidence that "the problem of caring for children" followed by "husband is opposed" were almost the only reasons given for not working outside the home by those who were not working and those who worked at home (data not shown).

Several community studies have also noted that husbands disapproved of their wives working outside the home, particularly when it was in conflict with domestic duties (Raharjo, 1978:60; Hull, 1979:23). Social pressure seems to be an important factor in lowering FARs, not only in developing countries (Youssef, 1975), but also among Australian mothers of pre-school age children (Ware, 1976:416).

Variations in the number of young children (0-4 years) in the household in relation to work place can be seen in Table 3.9. Among the younger group, women who worked outside the home but not in in traditional sectors (market and field) had the lowest standardized average number of young children in the household. This held in both rural and urban areas combined (Appendices X and XI). Among the older groups, those who worked in more traditional sectors tended to have relatively high mean numbers of young children in the household. As suggested earlier, work in these places was more compatible with the maternal role. Moreover, as already mentioned, care of the younger children can be shared with the older siblings.
Table 3.9

Percentage of Employed women by Number of Children (0-4 years) in the Household, Work Place and Age

<table>
<thead>
<tr>
<th>Age/Number of Children (0-4 years)</th>
<th>WORK PLACE</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>!Outside the Home</td>
<td>!At Home</td>
<td>!Unknown</td>
<td>!Total</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>24</td>
<td>25</td>
<td>40</td>
<td>18</td>
</tr>
<tr>
<td>1</td>
<td>57</td>
<td>42</td>
<td>42</td>
<td>38</td>
</tr>
<tr>
<td>2 or more</td>
<td>19</td>
<td>33</td>
<td>19</td>
<td>43</td>
</tr>
<tr>
<td>Total (*)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Mean (1)</td>
<td>0.9</td>
<td>1.1</td>
<td>0.8</td>
<td>1.3</td>
</tr>
<tr>
<td>N</td>
<td>37</td>
<td>48</td>
<td>43</td>
<td>60</td>
</tr>
<tr>
<td>30 - 45</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 or more</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (*)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Mean (1)</td>
<td>0.6</td>
<td>0.6</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>N</td>
<td>95</td>
<td>97</td>
<td>67</td>
<td>81</td>
</tr>
</tbody>
</table>

Source: 1979, Original tape of IAMS.
Note: (*) Total may not add to 100 due to rounding errors
(1) Standardized by age.
To sum up, the existence of young children in the household, in particular for the younger women, was an important life cycle stage which partly explained the role conflict between maternity and the work force. Some occupations which are commonly thought of as modern occupations need time outside the home, which competes strongly with caring for young children. The findings also imply that many women, including those who worked in more traditional sectors, placed a higher value on children than on careers or contributing to family income.
CHAPTER IV

SOCIO-ECONOMIC CORRELATES OF FEMALE WORK FORCE PARTICIPATION

This chapter investigates the socio-economic factors: female education, husband's education, and primary occupation, and retrospective work experience in relation to the current economic activity of EMW(15-45).

4.1 Female Education

Employing a framework similar to that of the previous chapter, this section looks at the variations in economic activity of EMW(15-45) according to their educational attainment. There are two aspects of education available from this study, formal education and vocational schooling, which were defined in the survey manual as follows:

"Formal schooling refers to education obtained in general academic school as primary or secondary school, colleges etc., whereas vocational schooling refers to education the individual obtained through informal teaching or training" (Smith and Chapon, 1978:9).

Using this definition, 12 percent of respondents had attended vocational school and more than 75 percent had received formal schooling. In addition, the level of formal education tended to have a positive association with vocational school attendance: that is, the proportion of women with vocational schooling increased as the level of
formal education increased. In this study, about 27 percent of more educated women (7 years or more of schooling) also spent some time in vocational school. By contrast, none of those without formal schooling had ever been in a vocational school (see Appendix XII-A). Therefore, for the present study, only formal education, which was measured as years of education completed, will be used as a predictor of the economic activity of EMW(15-45). As in the previous chapter, age and residence will be considered in most of the analysis.

The classification of educational level into 3 years of schooling or less, 4-6 years and 7 years or more, was mainly made to allow sufficient cases in the different cells in the analysis. In addition, up to 3 years of schooling in childhood may have had little or no effect on occupational level. In Indonesia, formal education of 7 years or more is equivalent to passing primary school level. This higher level of education may have had an impact on life-style through occupational change.

Table 4.1 presents the variations in FARs according to respondents' years of school completed, controlling for residence and age. In the rural and urban-low areas a tendency towards a curvilinear relationship between FARs and educational attainment is clearly shown by the standardized figure for all ages. Women with middle level education (4-6 years) were the least likely to work. This held for both broad age groups. The pattern can be interpreted as an
indication of a greater need to work among unskilled women, as well as the fact that more jobs are available to them compared to women with a middle level of education. Among more educated women (7 years or more) there was possibly higher incentive to work for better salary or occupational status. Additionally, the possibility of better educated women having preferential access to some jobs is greater than for less educated women.

In the urban-mid area, however, education seems to have had a negative relationship with economic activity. That is, the more educated a woman, the less likely it was that she was working. The pattern was more pronounced for the older group. This unusual result was unexpected, as this area was more developed than the other areas. In this area, as noted earlier, more skilled jobs were available and a greater proportion of educated people could work in relatively high status jobs. Several possible explanations can be offered. One possibility is that married women may have found it hard to obtain a "good" job because they had to compete either with men or with single young women who were even better educated and more suitable from an employer's point of view. The fact that the vast majority of more educated urban-mid women (7 years or more) had no more than junior secondary school education (7-9 years) strengthens this supposition.
Table 4.1
Percentage of EMW(15-45) Currently Working by Education, Age and Residence

<table>
<thead>
<tr>
<th>Residence/ Age</th>
<th>EDUCATION (*)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 yrs or less</td>
<td>4 - 6 yrs</td>
<td>7 yrs or more</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Rural</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 29</td>
<td>61</td>
<td>82</td>
<td>49</td>
<td>136</td>
<td>54</td>
</tr>
<tr>
<td>30 - 45</td>
<td>85</td>
<td>211</td>
<td>65</td>
<td>92</td>
<td>77</td>
</tr>
<tr>
<td>All Ages</td>
<td>79</td>
<td>293</td>
<td>56</td>
<td>228</td>
<td>63</td>
</tr>
<tr>
<td>Urban-Low</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 29</td>
<td>11</td>
<td>73</td>
<td>10</td>
<td>109</td>
<td>14</td>
</tr>
<tr>
<td>30 - 45</td>
<td>22</td>
<td>157</td>
<td>14</td>
<td>42</td>
<td>26</td>
</tr>
<tr>
<td>All Ages</td>
<td>19</td>
<td>230</td>
<td>11</td>
<td>151</td>
<td>20</td>
</tr>
<tr>
<td>Urban-Mid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 29</td>
<td>(15)</td>
<td>20</td>
<td>24</td>
<td>75</td>
<td>13</td>
</tr>
<tr>
<td>30 - 45</td>
<td>41</td>
<td>97</td>
<td>26</td>
<td>86</td>
<td>18</td>
</tr>
<tr>
<td>All Ages</td>
<td>37</td>
<td>117</td>
<td>25</td>
<td>161</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS
Note: ( ) Denotes N less than 30 cases.
(*) Education refers to the number of years of schooling
Another possibility is that women at this level of education tended to have married better educated husbands who were likely to have higher economic status. If this was the case, many women in this group may have preferred to remain unemployed rather than accept lower job status. In the urban-mid area, where a greater proportion of men worked as government officials, this seems likely because a position in government is considered to yield the highest social status in Javanese society (Geertz, 1960:361; Hull, 1975:69; Papanek, 1976:64). A "status frustration effect" may be one of the reasons why these women were less involved in the work force, such an effect having often been found among educated women in LDCs (Turnham, 1971:50-51; Jones, 1982:41). The difference between the rural and urban-low pattern and the urban-mid pattern may be due to different perceptions of "appropriate" jobs for each level of education. For example, primary school teaching might be considered an appropriate job for educated rural women, whereas educated urban women may required needed a higher occupational status to match their social status.

Again, age differentials consistently showed that older women were more involved in the work force than younger women, and this held for all levels of education. This pattern might be explained by either a greater need to work because of the increasing family burden or older women having fewer constraints because they had older children who required less constant care, or both.
The curvilinear pattern of female work force participation in relation to educational level has been suggested as typical for Indonesian women. In this study, this pattern was not supported by the data for the urban-mid area, for which a pronounced negative relationship was found. An inverse relationship between education and FARs has also been found in some rural areas of Java (Hull, 1977:71; Redmana et al, 1977:83) and among migrants in Jakarta who came from Central and East Java (Jones, 1977:Table 6).

With regard to previous studies of the Indonesian labour force, it seems that the typical curvilinear pattern is generally found in aggregate data (Central Bureau of Statistics, 1978:Tables 02.5 and 03.5; Moir, 1980:13; Raharjo and Hull, 1982:6) and is usually more pronounced in urban areas (see also Redmana et al, 1977:83). A linear relation is more usual where there are few women at the upper end of the education scale. In the present study, the restriction of the sample to EMW(15-45) leads to many young women with higher education being excluded.

The occupational distribution of employed women according to educational levels and current residence can be seen in Table 4.2 (see also Table 4.3 for age differentials). These tables show, as expected, that a greater proportion of more educated women (7 years or more) were concentrated in jobs with higher status, whereas a substantial proportion of those at the lowest educational
level (3 years or less) were engaged in the agricultural sector and/or in trading activities. This pattern applied to both areas and both age groups (see also Appendices XIII and XIV for disaggregation into rural and urban combined areas). Consequently, the mean years of schooling differed noticeably between occupational groups, implying also a difference in social status. The involvement of women in traditional or lower occupational status jobs decreased with increasing educational level.

There were differences in the labour market and in job opportunities in the three study areas. Trading activities were important in absorbing a considerable number of employed women at all educational levels in all areas. In the urban areas, a greater proportion of women with the lowest educational level were involved in this sector, and this proportion markedly decreased as the educational level rose. In the rural area, on the other hand, the majority of women with relatively low education engaged in the agricultural sector, and the trade sector became the most important source of employment for rural women with middle levels of education (4-6 years). It is quite possible that this was considered the only "appropriate" job for this group of women. The involvement of more educated women in this sector also indicates that opportunities to work in other non-farm sectors were limited. Traditionally, Indonesian women have been involved in trading activity (see Papanek et al, 1974:17; Raharjo, 1978:34).
Table 4.2

Percentage of Employed Women by Occupation, Education and Residence

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>Residence and Education (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RURAL</td>
</tr>
<tr>
<td></td>
<td>3 yrs or less</td>
</tr>
<tr>
<td>1. Professional, clerical and related</td>
<td>-</td>
</tr>
<tr>
<td>(teacher, typist, public servant, health workers)</td>
<td>39</td>
</tr>
<tr>
<td>2. Trading</td>
<td>(a)</td>
</tr>
<tr>
<td>3. Service</td>
<td>4</td>
</tr>
<tr>
<td>4. Non-farm labour (factory, cigarettes, textiles and engineering)</td>
<td>4</td>
</tr>
<tr>
<td>5. Skilled or Production labour</td>
<td>53</td>
</tr>
<tr>
<td>6. Agricultural Sector</td>
<td></td>
</tr>
<tr>
<td>Total (2)</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS

Note: (1) Education refers to the number of years of schooling.
(2) Total may not add to 100 due to rounding errors.
( ) Denotes N less than 30 cases
(*) Denotes N less than 10 cases
(a) Denotes less than 0.5 percent.
Table 4.3
Percentage of Employed Women by Education (*)
Work Place and Age

<table>
<thead>
<tr>
<th>AGE / Education</th>
<th>WORK PLACE</th>
<th>Out Side the Home</th>
<th>At Home</th>
<th>Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Field</td>
<td>Market</td>
<td>Others</td>
<td></td>
</tr>
<tr>
<td>15 - 29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No school</td>
<td>11</td>
<td>2</td>
<td>9</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>1-3 years</td>
<td>46</td>
<td>25</td>
<td>19</td>
<td>13</td>
<td>21</td>
</tr>
<tr>
<td>4-6 years</td>
<td>35</td>
<td>54</td>
<td>35</td>
<td>40</td>
<td>63</td>
</tr>
<tr>
<td>7 or more</td>
<td>8</td>
<td>54</td>
<td>37</td>
<td>40</td>
<td>13</td>
</tr>
<tr>
<td>Total (**)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Mean</td>
<td>3.2</td>
<td>4.9</td>
<td>5.3</td>
<td>5.9</td>
<td>4.8</td>
</tr>
<tr>
<td>N</td>
<td>37</td>
<td>48</td>
<td>43</td>
<td>60</td>
<td>48</td>
</tr>
<tr>
<td>30 - 45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No school</td>
<td>56</td>
<td>43</td>
<td>30</td>
<td>36</td>
<td>34</td>
</tr>
<tr>
<td>1-3 years</td>
<td>27</td>
<td>20</td>
<td>13</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td>4-6 years</td>
<td>15</td>
<td>26</td>
<td>22</td>
<td>27</td>
<td>31</td>
</tr>
<tr>
<td>7 or more</td>
<td>2</td>
<td>11</td>
<td>34</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td>Total (**)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Mean</td>
<td>1.7</td>
<td>3.1</td>
<td>4.7</td>
<td>4.3</td>
<td>3.2</td>
</tr>
<tr>
<td>N</td>
<td>95</td>
<td>97</td>
<td>67</td>
<td>81</td>
<td>84</td>
</tr>
</tbody>
</table>

Source: 1979, Original tape of IAMS.
Note: (*) Education refers to the number of years of schooling.
      (**) Total may not add to 100 due to rounding errors
Table 4.4
Percentage Educational Distribution (*) of Employed women, Work Place and Age

<table>
<thead>
<tr>
<th>AGE/Education</th>
<th>WORK PLACE</th>
<th>Inside the Home</th>
<th>Field</th>
<th>Market</th>
<th>Others</th>
<th>At Home</th>
<th>Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Outside the Home</td>
<td></td>
<td></td>
<td></td>
<td>At Home</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>15 - 29</td>
<td></td>
<td>No school</td>
<td>11</td>
<td>2</td>
<td>9</td>
<td>7</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1-3 years</td>
<td>46</td>
<td>25</td>
<td>19</td>
<td>13</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4-6 years</td>
<td>35</td>
<td>54</td>
<td>35</td>
<td>40</td>
<td>63</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7 or more</td>
<td>8</td>
<td>19</td>
<td>37</td>
<td>40</td>
<td>13</td>
<td>25</td>
</tr>
<tr>
<td>Total (**)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Mean (1)</td>
<td>3.2</td>
<td>4.9</td>
<td>5.3</td>
<td>5.9</td>
<td>4.8</td>
<td>5.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>37</td>
<td>48</td>
<td>43</td>
<td>60</td>
<td>48</td>
<td>236</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 - 45</td>
<td></td>
<td>No school</td>
<td>56</td>
<td>43</td>
<td>30</td>
<td>36</td>
<td>34</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1-3 years</td>
<td>27</td>
<td>20</td>
<td>13</td>
<td>11</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4-6 years</td>
<td>15</td>
<td>26</td>
<td>22</td>
<td>27</td>
<td>31</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7 or more</td>
<td>2</td>
<td>11</td>
<td>34</td>
<td>26</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Total (**)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Mean (1)</td>
<td>1.7</td>
<td>3.1</td>
<td>4.7</td>
<td>4.3</td>
<td>3.2</td>
<td>3.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>95</td>
<td>97</td>
<td>67</td>
<td>81</td>
<td>84</td>
<td>424</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: 1979, Original tape of IAMS.

Note: (*) Education refers to the number of years of schooling.
      (**) Total may not add to 100 due to rounding errors
      (1) Unstandardized mean years of schooling.
According to Boserup (1970:91) this is a basic pattern in Southeast Asian countries.

Table 4.4 presents the different educational compositions of women employed in various work places for all areas combined (subdivision of this table into rural and urban combined areas can be seen in Appendices XV and XVI). Women who worked at home and in "other" places outside the home, such as offices, factories and employers' houses, emerged as having, on average, a higher educational level than those who worked in the traditional sectors (field and market). Different patterns prevailed in the two broad age groups for those who worked at home or in "other" places outside the home. For the younger group, the highest mean years of schooling was that of those who worked at home, whereas for the older groups those who worked at home had a slightly lower educational level than those who worked at "other" places outside the home. As noted earlier, the majority of women who worked as skilled workers, mainly dressmakers, worked at home rather than in a factory or a shop. In fact, the proportion of women who stated that they had ever learned dress making increased with educational level. As can be seen in Appendix XII-B, the proportion of women who had learned dressmaking comprised around 8 percent of those without schooling but around 66 percent of more highly educated women (7 years or more). The tendency to work at home among young educated women may be influenced by a higher orientation towards raising children than among those with a lower educational level. These women may have
selected jobs that could be performed in the home, thus minimizing role conflict. Such a choice may not have been available to women with low education, since to work at home usually requires initial capital. However, again this study provides only limited data to support this hypothesis.

To sum up, the data tend to suggest that education is an important factor that should be taken into account in explaining female work force participation, occupation and work place. Among the employed women, the level of occupation is influenced by educational level. A curvilinear pattern of FARs is shown by data in the rural and urban-low areas, but a negative relationship was found in the urban-mid area. However, it is difficult to draw any conclusion about whether a high educational level would promote or deter women working, given the limited data and number of cases available. A larger sample of more educated women and more in-depth questioning are needed for further analysis, before definitive conclusions can be drawn.

4.2 Husband's Socio-Economic Characteristics

The existing literature suggests that family economic pressure is an important factor in encouraging married women into the work force, both in developed and developing countries. The earlier chapters also implied that economic necessity was more significant than a career orientation in influencing decisions to work.
Husband's income, as the principal source of family income, played a potentially important role in influencing wives to take part in gainful employment. Unfortunately the degree of family economic pressure, which is usually indexed by the husband's income, was not directly available from the samples of women. This information was collected in the husbands' sample, which was not available for this study (see Chapter 2.2). However, education and primary occupation of husband were recorded on the wife's questionnaire, and were available for this analysis. Some scholars have used husband's occupation and education as indices of the relative socio-economic status of the family (Tanfer, 1975; Oppenheimer, 1982). In Indonesia, educational level is an important proxy for occupational prestige.

Household economic status, which is based on a household possessions index (see footnote to Table 2.4), has been suggested as a more useful indicator of relative economic status of the household than husband's income (McDonald, 1983:26). However, for the purpose of the present study it would be incorrect to use household economic status to represent the economic pressure on the family, because the wife's contribution to household goods ownership was included. Moreover, the reliability of the index depends to a large extent upon accuracy in weighting the items, which generally ignores the quality of the items and does not consider the nature of the ownership (for example, whether an item was inherited).
In this section, therefore, the possible influence of family economic pressure on the wife's working will be investigated indirectly through the education and primary occupation of the husband. This approach naturally will require caution in interpretation.

4.2.1 Husband's Education

Higher education is generally associated with higher income and social status. People with high levels of education may have a better chance of obtaining preferred occupations. Thus, many studies of migration show that better educated people tend to be more migratory (Shaw, 1975; Connell et al., 1976; Standing, 1978a:210). This is often explained in terms of their higher probability of employment and higher wage rates in the place of destination (see Standing, 1978a:208; Corner, 1981:13). Using more recent American data, Oppenheimer (1982:79) clearly showed that within major occupational groups, husbands' educational attainment tended to be directly related to their peak median earnings level.

If education is a good indicator of income levels, the hypothesis introduced earlier would suggest that work force participation of wives should decrease as educational level of their husbands rises. As with wife's education, husband's educational attainment refers to the number of years of completed formal schooling. The variations in levels of economic activity among currently married women
according to husband's education can be seen in Tables 4.5 and 4.6.

Table 4.5 shows that the hypothesis suggested above was supported by the standardized FARs for all ages both in rural and urban combined areas. That is, work force participation declined steadily as husband's educational level increased. When age was considered, the pattern was not as clear, but in all cases except for older urban-low women, the participation rate declined for the highest education group. The deviations from a gradual decline with increasing husband's education may be related to small cell sizes and also to the fact that the given categories of education, particularly under 10 years of schooling, may not differentiate income capacity sharply enough. This may be particularly true for the younger group, where husbands were junior in work experience. Analysing data for approximately 4000 families in Central Chile, Peek (1975:211) found substantially lower incomes among the younger (20-29 years) group of husbands. It was also reported that a relatively poor economic position (implied by low earnings) was characteristic of most young American men (18-24 years) regardless of their occupational group (Oppenheimer, 1982:71-73).
Table 4.5

Percentage of EMW(15-45)(1) Currently Working by Husband's Education, Respondent's Residence and Education

<table>
<thead>
<tr>
<th>Respondent's Residence/Education (2)</th>
<th>HUSBAND'S EDUCATION (2)</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 or less</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>4 - 6 yrs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 yrs or less</td>
<td>82</td>
<td>119</td>
<td>75</td>
<td>127</td>
<td>(62)</td>
<td>21</td>
<td>(95)</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>4 - 6 years</td>
<td>63</td>
<td>30</td>
<td>57</td>
<td>117</td>
<td>47</td>
<td>68</td>
<td>86(*)</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>7 yrs or more</td>
<td>75(*)</td>
<td>4</td>
<td>(81)</td>
<td>16</td>
<td>56</td>
<td>54</td>
<td>60(*)</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>All Levels</td>
<td>78</td>
<td>153</td>
<td>67</td>
<td>260</td>
<td>52</td>
<td>148</td>
<td>87</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>4 - 6 yrs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 yrs or less</td>
<td>24</td>
<td>112</td>
<td>25</td>
<td>139</td>
<td>17</td>
<td>70</td>
<td>(69)</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>4 - 6 years</td>
<td>(26)</td>
<td>19</td>
<td>17</td>
<td>129</td>
<td>17</td>
<td>156</td>
<td>60(*)</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>7 yrs or more</td>
<td>(13)</td>
<td>16</td>
<td>24</td>
<td>46</td>
<td>16</td>
<td>250</td>
<td>-</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>All Levels</td>
<td>23</td>
<td>147</td>
<td>22</td>
<td>314</td>
<td>17</td>
<td>476</td>
<td>(48)</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS
Note: (1) Excludes 38 cases where there was "no information" on husband's education.
(2) Education Refers to the number of years of schooling.
(*) Denotes N less than 30 cases.
(  ) Denotes N less than 10 cases.
Although husband's and wife's education are closely related (see Appendix XVII) it is interesting to consider the impact of husband's schooling at various levels of wife's education. In Table 4.6 the pattern noted above is still evident in nearly all cases where cell size is sufficiently large. This pattern again suggests that more economic pressure (implied by lower husband's education) might play a part in pushing married women to work. The general proposition is also supported by the very high participation of not currently married women in the work force for all area samples (Table 4.6). Although this group of women were a minority (56 cases), their work participation was much higher than the average for currently married women, suggesting that they were more economically pressed to work. Moreover, the majority of the women involved were in the older age group, and probably had more dependent children.

4.2.2 Husband's Primary Occupation

High occupational status generally requires skilled or educated people. Within the Indonesian socio-economic context, occupations such as professional, technical, managerial and related occupations and clerical occupations, which are generally known as the "white collar" group, have higher socio-economic status in the community. Past studies have suggested that the participation of married women in the work force has to some extent been influenced by their husbands' occupations, which also imply a certain level of
Table 4.6

Percentage of EMJ(15-45) (1) Currently Working by Husband's Education and Respondent's Residence and Education

<table>
<thead>
<tr>
<th>Residence/ Education (2)</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 yrs or less! 82</td>
<td>119</td>
<td>75</td>
<td>127</td>
<td>62</td>
<td>21</td>
<td>95</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>4 - 6 years ! 63</td>
<td>30</td>
<td>57</td>
<td>117</td>
<td>47</td>
<td>68</td>
<td>86</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>7 yrs or more! 75</td>
<td>4</td>
<td>81</td>
<td>16</td>
<td>56</td>
<td>54</td>
<td>60</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>All Levels (*)! 78</td>
<td>153</td>
<td>68</td>
<td>260</td>
<td>54</td>
<td>148</td>
<td>86</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Urban-Low</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 yrs or less! 18</td>
<td>82</td>
<td>20</td>
<td>89</td>
<td>9</td>
<td>45</td>
<td>80</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>4 - 6 years ! 18</td>
<td>11</td>
<td>9</td>
<td>71</td>
<td>12</td>
<td>67</td>
<td>50</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>7 yrs or more! 17</td>
<td>12</td>
<td>30</td>
<td>27</td>
<td>19</td>
<td>65</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>All Levels (*)! 18</td>
<td>105</td>
<td>18</td>
<td>187</td>
<td>14</td>
<td>177</td>
<td>45</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Urban-Mid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 yrs or more! 40</td>
<td>30</td>
<td>34</td>
<td>50</td>
<td>32</td>
<td>25</td>
<td>63</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>4 - 6 years ! 38</td>
<td>8</td>
<td>28</td>
<td>58</td>
<td>21</td>
<td>89</td>
<td>67</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>7 yrs or more! 0</td>
<td>4</td>
<td>16</td>
<td>19</td>
<td>16</td>
<td>185</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>All Levels (*)! 35</td>
<td>42</td>
<td>28</td>
<td>127</td>
<td>18</td>
<td>299</td>
<td>50</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Urban Combined!</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 yrs or less! 24</td>
<td>112</td>
<td>25</td>
<td>139</td>
<td>17</td>
<td>70</td>
<td>69</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>4 - 6 years ! 26</td>
<td>19</td>
<td>17</td>
<td>129</td>
<td>17</td>
<td>156</td>
<td>60</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>7 yrs or more! 13</td>
<td>16</td>
<td>24</td>
<td>46</td>
<td>16</td>
<td>250</td>
<td>-</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>All Levels (*)! 23</td>
<td>147</td>
<td>21</td>
<td>314</td>
<td>16</td>
<td>476</td>
<td>48</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS

Note: (1) Excludes 38 cases where there was "no information" on husband's education.
(2) Education Refers to the number of years of schooling.
(*) Standardized by age.
Husband's occupation is also a common characteristic which is used by families to compare their economic positions or their economic well-being (see Oppenheimer, 1982:14).

In this study the variations in work force participation of currently married women according to husband's occupation can be seen in Table 4.7. It should be noted that cross-classification of these variables by age and residence leads to small numbers of cases in some subgroups. Therefore, some higher status occupational groups have been combined as "white collar" occupations and, for the rural area, transport and communication, trading and services were combined as "other non-farm occupations". This combination was necessary, although it may lead to some difficulties in interpreting levels of socio-economic status.

Table 4.7 confirms the high FARs among the wives of farmers, but it is difficult to relate this mainly to income, since often it implies that the wife, too, is involved in the agricultural sector, in conditions relatively compatible with childcare. The table contains several findings which are difficult to interpret in the context of husband's occupation as a proxy for income, such as the urban pattern in which wives of "white collar"
workers themselves had relatively high levels of work force participation. Other factors, in this case including an ability to find appropriate higher status jobs, may be more important determinants.

In general, regardless of husband's occupation, the younger wives were consistently less committed to the work force than the older group which can be explained partly by the role conflict hypothesis. The variations in wives' work force participation in relation to husbands' occupations are difficult to explain in terms of income or relative economic status differentials, especially in the urban combined areas. The availability of suitable jobs of appropriate social status seemed to explain the variations more adequately. Finally, the classification of occupation was too general to adequately approximate family economic status and it did not consider work status in each industry. Husband's primary occupation may be an inadequate proxy for husband's income, especially in the urban combined areas, since other sources of income were possible. The extent to which husband's occupations created pressures on family income is difficult to assess from this limited study.
Table 4.7
Percentage of EMW(15-45)(1) Currently Working by Husband’s Occupation, Respondent’s age and Residence

<table>
<thead>
<tr>
<th>Husband’s Occupation</th>
<th>RURAL</th>
<th>URBAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 - 29</td>
<td>30 - 45</td>
<td>All Ages</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>1. White collar group occupation (2)</td>
<td>38</td>
<td>65</td>
</tr>
<tr>
<td>2. Production or skilled workers</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>3. Non-farm Labour (52)</td>
<td>(85)</td>
<td>71</td>
</tr>
<tr>
<td>4. Other non-farm occupation (a) Transport</td>
<td>(34)</td>
<td>63</td>
</tr>
<tr>
<td>(b) Trading</td>
<td>7</td>
<td>31</td>
</tr>
<tr>
<td>(c) Service</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5. Agricultural Sector</td>
<td>66</td>
<td>85</td>
</tr>
<tr>
<td>6. No information</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>All Currently Married Women</td>
<td>54</td>
<td>78</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of INMS

Note: (1) Excludes 56 cases of not currently married women.
(2) Includes professional, managerial, technical and related occupations as well as clerical and public servant.
( ) Denotes N less than 30 cases
(*) Denotes N less than 10 cases
4.3 Retrospective Work Experience and Current Work Participation

The importance of marriage and the family life cycle in explaining female economic activity is well documented. Using cross-sectional data, the previous chapters suggested that the number of children, and particularly the presence of young children in the household, were important factors in explaining the economic activity of married women in this study.

As noted earlier (Chapter 2.3), retrospective questions on work force participation provided some historical data on work experiences during the main childbearing period (15-45), including the period before and immediately after marriage. These data suffer from limitations in survey methodology, definition and unclear time references. They may also be affected by memory biases.

However, the data do show the overall picture of work force participation in relation to marital transition. An important purpose of this section is to identify whether the current work force participation of EMW(15-45) can be explained by their work experiences at earlier stages of the life cycle. In a broad sense, it is also possible to look at variations in work status movement between life cycle intervals according to occupational groups.
Although work history over different parities is important for these purposes, data on work experience surrounding the first birth were of limited use to the present analysis. Work status was unclear. Data on this work experience were only recorded from the questionnaire, which did not clearly separate housework from other activities (for a detailed discussion see Chapter 2.3). However, responses to the question on work during this period were useful to support some of the analysis.

The available information on retrospective work experiences provides no strict definitions or time reference. However, both retrospective work intervals (work experiences before and immediately after marriage) tended to focus on the marriage transition that separates them, and is normally the lead up to first child bearing. Work experience during the "current" period, which referred to the time of the survey, would have been useful to relate to the work pattern after a certain duration of marriage, particularly after the birth of one or more children.

The overall picture of work patterns in these different intervals can be seen in Table 4.8. As was seen from age pattern differentials in the cross-sectional analysis, historical data on work experiences show different work patterns for rural and urban areas.

In the rural area, marriage and household responsibilities did not seem to hamper women from engaging in economic activity. Instead, work force participation
steadily increased during the earlier stage of marriage and was much higher currently than before marriage. This pattern held for all age groups and all levels of education, although it was less pronounced for the youngest generation (15-24 years). For rural women, the consistently higher work force participation throughout married life may be influenced by Javanese tradition which, according to Koentjaraningrat (1967:260), implies that married couples should work together to meet the household's economic requirements. As with the earlier findings, this pattern also suggests that increasing family burdens may have encouraged married rural women to work. The probability of their working was higher because the majority worked in more flexible occupations, suggesting that they could work without neglecting household responsibilities. Also, the consistently higher FARs' for rural women reflect the fact that they often do work which can be combined with maternal roles.

In the urban areas, as expected, work force participation after marriage dropped dramatically for all age and educational subgroups. The data imply that role conflict was more pronounced in urban areas. The proportion currently participating in the work force increased slightly compared to the earlier interval. This was possibly influenced by financial need which may generally have increased with additional children. It is also possible that urban women entered or reentered the work force after the childbearing period, thus minimizing role conflict.
Table 4.8

Work-Force Participation of EMW(15-45) in Various Intervals by Age, Education and Current Residence (Percentage)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Work-Force Participation</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before Marriage</td>
<td>Immediately After Marriage</td>
<td>Current</td>
<td>N</td>
</tr>
<tr>
<td>1. RURAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 24</td>
<td>46</td>
<td>46</td>
<td>48</td>
<td>144</td>
</tr>
<tr>
<td>25 - 34</td>
<td>54</td>
<td>61</td>
<td>68</td>
<td>219</td>
</tr>
<tr>
<td>35 - 45</td>
<td>59</td>
<td>66</td>
<td>79</td>
<td>238</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No School</td>
<td>72</td>
<td>80</td>
<td>83</td>
<td>143</td>
</tr>
<tr>
<td>1 - 3 years</td>
<td>53</td>
<td>62</td>
<td>74</td>
<td>150</td>
</tr>
<tr>
<td>4 - 6 years</td>
<td>46</td>
<td>47</td>
<td>56</td>
<td>228</td>
</tr>
<tr>
<td>7 yrs or more</td>
<td>49</td>
<td>53</td>
<td>63</td>
<td>80</td>
</tr>
<tr>
<td>All Respondents</td>
<td>54</td>
<td>59</td>
<td>68</td>
<td>601</td>
</tr>
<tr>
<td>2. URBAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 24</td>
<td>40</td>
<td>12</td>
<td>13</td>
<td>214</td>
</tr>
<tr>
<td>25 - 34</td>
<td>32</td>
<td>15</td>
<td>19</td>
<td>353</td>
</tr>
<tr>
<td>35 - 45</td>
<td>37</td>
<td>17</td>
<td>25</td>
<td>419</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No School</td>
<td>41</td>
<td>19</td>
<td>30</td>
<td>238</td>
</tr>
<tr>
<td>1 - 3 years</td>
<td>38</td>
<td>17</td>
<td>14</td>
<td>109</td>
</tr>
<tr>
<td>4 - 6 years</td>
<td>33</td>
<td>11</td>
<td>18</td>
<td>312</td>
</tr>
<tr>
<td>7 yrs or more</td>
<td>35</td>
<td>15</td>
<td>17</td>
<td>327</td>
</tr>
<tr>
<td>All Ages</td>
<td>36</td>
<td>15</td>
<td>20</td>
<td>986</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS
The fact that the largest proportion of urban women at the time of the survey were in older age groups (35 years and over) strengthens the supposition. Moreover, as suggested earlier, older women may have had older children to assist with child care.

The youngest (15-24 years) urban generation was slightly more likely to have worked during the period between school leaving and first marriage than the older groups. The most striking difference between the proportions working before marriage and currently participating in the work force was shown by these women. Two possible explanations can be offered for the lower current work force participation compared to work before marriage. Firstly, the development of job opportunities in recent years was more concentrated in factories, estates and similar areas which provide a better chance for younger and also probably more educated people. A number of young married urban women were involved in these occupations, but probably many more young single women were also involved, as suggested by Wolf (1982:11) in a village study in Central Java. After these women married, as suggested earlier, higher socio-economic status husbands were the least likely to allow their wives to work (see Section 4.2). Also, these young women were most likely to have young children, with fewer older children to assist with caring for the younger ones. Lack of childcare facilities may have reduced the work participation of these young, married urban women.
This may also be why young rural women were less likely to be involved in the work force after their marriage compared to the older generations. However, relatively low participation rates of young rural women before marriage were unexpected. It might be supposed that the younger generation spent more time in schooling, and since they were married at relatively young ages on average (see Chapter 2.5), it is possible that they had a relatively short time left in which to work during this period. Young rural women, especially those with some education, might also find it hard to participate in rural occupations, particularly if they were supported by higher family incomes, because most rural work is considered inappropriate for educated women.

Table 4.9 examines whether current work force participation was related to work status in the earlier intervals (see also Appendix XVIII for probabilities of continuing work between the three intervals). These figures strongly suggest that the likelihood of being currently employed was higher if the women worked before marriage, and much
Table 4.9

Work Force Participation of BMW(15-45) in Various Life Cycle Intervals by Age, Education and Current Residence (Percentage)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Work Force Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before Marriage</td>
</tr>
<tr>
<td>1. RURAL</td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td></td>
</tr>
<tr>
<td>15 - 24</td>
<td>46</td>
</tr>
<tr>
<td>25 - 34</td>
<td>54</td>
</tr>
<tr>
<td>35 - 45</td>
<td>59</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>No School</td>
<td>72</td>
</tr>
<tr>
<td>1 - 3 years</td>
<td>53</td>
</tr>
<tr>
<td>4 - 6 years</td>
<td>46</td>
</tr>
<tr>
<td>7 yrs or more</td>
<td>49</td>
</tr>
<tr>
<td>All Respondents</td>
<td>54</td>
</tr>
<tr>
<td>2. URBAN</td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td></td>
</tr>
<tr>
<td>15 - 24</td>
<td>40</td>
</tr>
<tr>
<td>25 - 34</td>
<td>32</td>
</tr>
<tr>
<td>35 - 45</td>
<td>37</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>No School</td>
<td>41</td>
</tr>
<tr>
<td>1 - 3 years</td>
<td>38</td>
</tr>
<tr>
<td>4 - 6 years</td>
<td>33</td>
</tr>
<tr>
<td>7 yrs or more</td>
<td>35</td>
</tr>
<tr>
<td>All Ages</td>
<td>36</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS
higher if they worked during the period "immediately after marriage" than if they did not. This pattern held for all age and residential subgroups, but was more marked for urban women and the younger generation. The fact of already having a defined job or career may have influenced these women to continue their work participation.

In the rural area, the contribution of women who did not work before and immediately after marriage to current work force participation was much higher than that of their urban counterparts, particularly among the older groups. This suggests that they might have entered or re-entered the work force when financial need forced them to work. It may also be influenced by the nature of employment in the rural area, where it was easier to combine work with household responsibilities. This hypothesis is strengthened by evidence that the majority of new entrants to the work force after marriage were those working in more traditional sectors. There were fewer traditional occupations available in urban areas (see Appendix XIX).

In the urban combined areas, a large proportion of women ceased working immediately after marriage, and only a small proportion of those who were houseworkers before marriage entered the work force (Appendix XVIII). This may have been influenced by the Indonesian tradition of having children soon after marriage. Again, women may have regarded caring for children as more important than helping family income or career continuation. In responding to a
question on whether they worked after the birth of their first child, only a few women (ten percent) stated that they worked. Another possibility is that urban husbands may disapprove of their wives working after marriage, particularly higher socio-economic status husbands. However, the consistently high contribution of women who did work immediately after marriage to current work force participation was particularly evident for urban women. This was probably because women who already had jobs at marriage were career oriented.

It is clear that the typical current pattern for Australian women and women from other developed countries of continued work force participation until the first birth (see Ruzicka, 1976:538; Young, 1978:401-411) was not typical of women in this study. However, the importance of work status during certain stages of the life cycle in explaining work force participation in subsequent stages is congruent with several studies in both developed and developing countries. Somewhat similar results appear from Young's (1978:404) analysis of women in Melbourne, which found a "much greater probability of working during a given stage if the woman had worked during the previous stage". It also accords with Fong's (1974:70) study of women in West Malaysia and Mott's (1972:173) observation of women in the United States, which noted that labour force participation "in one life cycle is a useful predictor of subsequent participation".
Work status movement from occupational groups before marriage to those held at subsequent intervals can be seen in Tables 4.10 and 4.11 (see also Appendix XIX). Three categories of work status movement, no change, change of occupation and ceased working, indicate whether during the period "immediately after marriage" or the "current" period, the women worked in the same occupational group as "before marriage", or changed to another occupational group, or stopped working to do housework only. Since the sizes of samples only permitted broad occupational groups to be used, this work status movement does not include the possibility of job movement within occupational groups. Furthermore, respondents had varying periods between "immediately after marriage" and the present, and it is possible that some younger women in particular may still change work status in future.

Table 4.10 shows occupations during the period "immediately after marriage" in relation to occupational groups before marriage. The overall pattern in the rural area indicates that the majority of rural women were in the same activity or occupational group as before marriage, either as houseworkers or paid workers. Apart from agricultural workers, high occupational status (professional, clerical and related) workers emerged as the group most likely to continue in the work force.
<table>
<thead>
<tr>
<th>Occupation Before Marriage</th>
<th>Residence and Work Status Immediately After Marriage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural (N)</td>
</tr>
<tr>
<td></td>
<td>Urban (N)</td>
</tr>
<tr>
<td>No Change</td>
<td>Change Occup.</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------</td>
</tr>
<tr>
<td>1. Professional, clerical and related (teacher, typist, public servant, health workers)</td>
<td>(80)</td>
</tr>
<tr>
<td>2. Trading</td>
<td>78</td>
</tr>
<tr>
<td>3. Service</td>
<td>-</td>
</tr>
<tr>
<td>4. Non-farm labour (factory, cigarettes, textiles and engineering)</td>
<td>(54)</td>
</tr>
<tr>
<td>5. Skilled or Production labour</td>
<td>(69)</td>
</tr>
<tr>
<td>6. Agricultural Sector</td>
<td>83</td>
</tr>
<tr>
<td>7. Not Stated</td>
<td>-</td>
</tr>
<tr>
<td>All Employed Women</td>
<td>71</td>
</tr>
<tr>
<td>8. Housework</td>
<td>66</td>
</tr>
<tr>
<td>All Respondents</td>
<td>68</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS
Note: (1) Total may not add to 100 due to rounding errors
( ) Denotes N less than 30 cases
(*) Denotes N less than 10 cases
The relatively high continuity of work force participation amongst these groups has probably been influenced by career orientation or income aspiration, since these occupations were monopolized by more highly educated women. Only a small proportion of agricultural workers (7 percent) changed to other occupational groups, probably because their lack of education and skill reduced their chances of entering other occupations. Additionally, farm workers were generally less mobile compared to other occupational groups because they were tied to their own land. Another possibility is that lack of other job opportunities which suited their qualifications reduced their chances of changing to other jobs. The proportions of non-farm workers and skilled or production workers who ceased working soon after marriage were relatively high. Career satisfaction as a motivation for continuing work was probably less important in these occupations. Moreover, these occupations are relatively inflexible and difficult to combine with household responsibilities. Workers in most occupational groups left rather than entered the work force after marriage, except in the more traditional trading and agricultural occupations (Appendix XIX). The majority of women in this study, who were of a relatively low educational level, probably considered it appropriate to work in these occupations and also found them relatively easy to enter and compatible with domestic roles. Another occupational group that had more workers enter after marriage than leave was skilled or production labour. Many jobs in these occupations can be
Current occupations of respondents in relation to pre-marriage occupations are presented in Table 4.11. A comparison of Tables 4.10 and 4.11 shows that in both rural and urban combined areas, the proportions of pre-marriage houseworkers who worked at the time of the survey (Table 4.11) were higher than the proportions who had worked just after marriage (Table 4.10). Similar patterns occurred for the percentages of all premaritally employed women who had changed to other occupational groups. The fact that more houseworkers had entered or reentered the work force was perhaps partly due to increasing family economic burden. It is also possible that some of these women worked at the time of the survey because their children had grown up, thus minimizing role conflict. A comparison of rural and urban combined areas (Tables 4.10 and 4.11) also suggests that the possibility of pre-marriage houseworkers entering or reentering the work force and of employed women changing to other jobs was greater for rural women than for their urban counterparts. This was not surprising since occupations categorized as traditional were more available in the rural area. In fact these occupational groups (farm and trade) absorbed most of these women (data not shown). As suggested earlier, these groups of occupations were more compatible with household duties and probably were more suited to the qualifications of the average rural woman.
### Table 4.11

Current Work Status by Occupation Before Marriage and Current Residence

<table>
<thead>
<tr>
<th>Occupation Before Marriage</th>
<th>Residence and Current Work Status</th>
<th>Rural</th>
<th>Urban</th>
<th>Total (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No Change</td>
<td>Change Occup.</td>
<td>Stop Working</td>
</tr>
<tr>
<td>1. Professional, clerical and related (Teacher, typist, public servant, health workers).</td>
<td>(67)</td>
<td>(27)</td>
<td>(7)</td>
<td>100</td>
</tr>
<tr>
<td>2. Trading</td>
<td>62</td>
<td>17</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td>3. Service</td>
<td>-</td>
<td>50 (*)</td>
<td>50 (*)</td>
<td>100</td>
</tr>
<tr>
<td>4. Non-farm labour (factory, cigarettes, textiles and engineering)</td>
<td>(19)</td>
<td>35</td>
<td>46</td>
<td>100</td>
</tr>
<tr>
<td>5. Skilled or Production labour</td>
<td>(62)</td>
<td>8</td>
<td>31</td>
<td>100</td>
</tr>
<tr>
<td>6. Agricultural Sector</td>
<td>73</td>
<td>14</td>
<td>14</td>
<td>100</td>
</tr>
<tr>
<td>7. Not Stated</td>
<td>-</td>
<td>(54)</td>
<td>(46)</td>
<td>100</td>
</tr>
<tr>
<td>All Employed Women</td>
<td>58</td>
<td>20</td>
<td>22</td>
<td>100</td>
</tr>
<tr>
<td>8. Housework</td>
<td>45</td>
<td>55</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>All Respondents</td>
<td>52</td>
<td>36</td>
<td>12</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS

Note: (1) Total may not add to 100 due to rounding errors
( ) Denotes N less than 30 cases
(*) Denotes N less than 10 cases
A contrasting pattern appeared in the urban combined areas, where after marriage there was a more pronounced discontinuity of work. This suggests that occupational movement in urban areas was not as easy as in rural areas. Married women in the urban combined areas probably had difficulty in finding jobs compatible with the maternal role. This is probably part of the reason why traders (the most flexible occupation group in urban areas) emerged as the group most likely to continue their work after marriage (Tables 4.10 and 4.11).

A larger proportion of agricultural labourers ceased work in urban areas, probably because they moved from rural areas immediately after their marriages but could not easily change to an urban occupation due to lack of skill. Although only a small group, service workers always showed a consistent pattern: that is, the majority of them stopped working immediately after marriage and few changed to other occupational groups. Some were housemaids who usually have long hours of work and who were probably staying in their employers' houses. Consequently many may not have been able to continue their jobs when their own household responsibilities needed their time. Since they were on average less educated women, it would not be easy for them to find other urban jobs, even though they may have needed additional income to support their families. This occupation group, however, contained small numbers of respondents. Further investigation based on a larger sample and greater detail on the various aspects of respondents'
employability might establish whether these patterns applied more generally.

Women who worked in professional occupations before marriage were the second most likely group of workers to still be working in the same occupational category during the "current" period (Table 4.11). However, the majority of urban women in this group had stopped working and become houseworkers. Few of them had changed to other occupational groups (Table 4.11) and had done so immediately after marriage (Table 4.10). A similar pattern was evident for most non-agricultural sector jobs in the urban areas. This pattern can be explained partly by the inflexibility of these occupations which are not easy to combine with household responsibilities. Another possibility is that women who worked in relatively high status occupations were most likely to have husbands with better socio-economic positions, so that additional income may have been less needed, particularly during the period before starting a family. For some women, a change to another occupation took place, and this may have been to a more flexible job which allowed for childcare. This is strengthened by the evidence (Table 4.11) that during the "current" period, by which time most already had children (about 90 percent of urban women had at least one child), some of them changed to other, perhaps more flexible, occupations. As in the rural area, only the trading sector had more workers who had entered than had dropped out between the pre-marital period and the time of the survey (Appendix XIX). However, the proportion
of urban women who either changed to other occupational groups or entered the work force after marriage was substantially lower than for their rural counterparts (Tables 4.10 and 4.11).

Overall, it seems clear that marriage and family life cycle were important factors in explaining the work force participation of women in this study. One important finding from this study, and one supported by the existing literature, was that retrospective work force experiences were important predictors of variations in current work force participation. The data also suggested that continuity after marriage of occupational status before marriage was partially a result of factors such as financial need, the capacity of married women to combine work and household responsibilities and job opportunities which were considered appropriate in the respective study areas. The contrasting pattern of work continuity between urban and rural women emphasizes that marriage and the family life cycle tend to have a markedly greater negative impact on the labour force participation of urban women.

These findings also imply that the flexibility of occupations were an important consideration for female work force participation after marriage, emphasizing that married working women, in fact, are involved in two activities, one of them being domestic tasks. This preliminary study, however, needs support from other in depth studies which collect work histories and parity data to investigate these propositions.
CHAPTER V

CONCLUSION

5.1 Discussion of the Main Findings

Development and the reduction of fertility are the most important issues of recent government policy in Indonesia. The existing literature suggests that both issues are often related to female employment (Boserup, 1970; Durand, 1975; Standing, 1978a).

Although it has been suggested that Javanese women have high levels of participation in the work force, there have been few studies concerning determinants of female employment in Java, and almost none for other Indonesian women. The Indonesian Asian Marriage Survey (IAMS) provides important information on women's lives, including their employment.

Various socio-economic, cultural and demographic factors have been widely studied in relation to female activity rates in both developed and developing countries. The existing literature suggests that women may enter or refrain from participating in the labour force because of the interaction of complex factors. The complexity of these factors is more pronounced for less developed countries, and there is no single variable that explains the variations in female activity rates.
Two primary objectives guided this study. The first aim was to identify some socio-economic, demographic and related determinants of the economic activity of ever married women aged 15-45. The second objective was to explore the association between observed factors and work force participation and the extent to which the hypothesized relationships could be elucidated by the data available. It should be noted, however, that these data do not permit causal associations to be determined, but at best permit only speculation as to the causal mechanisms operating.

Although information on various aspects of female employment could be obtained from the data set, this study, as discussed in Chapter 2.3, suffers from serious methodological limitations such as unclear definitions and inconsistency of data. The ideal of using complementary data from a life history matrix and from a conventional questionnaire could not be achieved because of several limitations which prevented both instruments from being used simultaneously. At the core of this problem was an unclear definition of work and different time references used in determining employment status in the two survey instruments. Furthermore, since the area samples were drawn on a purposive basis, the results cannot be generalized beyond the three study sites. Finally, the restriction of the sample to ever married women aged 15-45 leads to a biased age composition that increases problems of analysis (see page 27). In theory this study could have included a wide range of working women, since it did not exclude part-time
or seasonal workers and had no strict time reference period. In practice, particularly in the rural area, the imprecise definition of work only made it difficult for the women themselves to identify what constituted 'work'.

The differences in socio-economic background between study sites suggested that the urban-mid area was a more developed area compared to the rural and urban-low areas. However, overlap with the low economic status area on several indicators strengthened the field impression that the urban-mid area was actually a low middle-class area.

Female respondents generally tended to be concentrated in the older age groups, had married at young ages and were of a low educational level. In the more developed urban-mid area, age at first marriage and the periods spent at school for both female respondents and their husbands tended to be higher, which is at least part of the reason for the low proportion of young women among the ever married respondents in that area. A tendency for urban women to have married later than rural women seems congruent with aggregate Indonesian data (see CBS and WFS, 1978; Choo et al, 1980; Hull and Mantra, 1981).

The fact that workers tended to be older, less educated and also had less educated husbands (Table 2.5), suggested that economic motivations may have influenced the pattern of work force participation. Detailed analysis also suggests that they were less constrained from working because they had fewer young children in the household. Moreover, older
women were the most likely to have older children with whom household duties, including childcare, could be shared.

With regard to birthplace and urban life experience differentials, the conventional stream of rural-urban migration was not shown in this study. Instead it was found that more women with urban experience currently lived in the rural area than vice-versa. Although misrecording of data could be a reason, it was not impossible that urban residents might have moved to the rural area for work because of the unusual variety of occupations apparently available in this area (McDonald, 1983). If this was the case, an in depth study of this special pattern would be useful for policy formulation in relation to the distribution of labour.

The demographic and related factors of age, residence, children ever born and the number of children (0-4 years) in the household were examined to explain variations in female activity rates (Chapter III). Age differentials tended to support the typical Indonesian pattern: that is, the older the woman, the more likely she was to work, implying that marriage and motherhood begin at relatively young ages (Durand, 1975). Both characteristics were evident in this study. It has been suggested that the age pattern of female activity rates is a reflection mainly of marital and family life cycle factors. In this study, older women, mainly in the rural area, consistently showed higher involvement in the work force, regardless of marital status or number of
children. The only exception was in the urban-mid area, where retrospective questioning showed that female activity rates were highest among young women prior to marriage. This was perhaps related to increased job opportunities resulting from economic growth. Occupational differences between young and older groups reflect educational differentials, so that older women were more likely to be involved in the more traditional sectors, whereas the younger group were more engaged in occupations needing some educational qualification or skill.

Rural-urban differentials strongly supported the expectation that rural women were more likely to participate in the work force, regardless of age, education and other controls. Although the spurious effect of the definition of economic activity used in this study may have had more impact on rural women, the higher commitment of rural women to the work force is in fact a typical pattern for Indonesia and other developing countries (Durand, 1971; Jones, 1981:Figure 8.1). The structure of employment opportunities, which differed markedly between areas, may have determined this pattern. Almost all employed women in the rural area were involved in the agricultural or trading sectors, whereas urban women had more varieties of occupation, although trade was still the main occupation. The fact that many women in both areas had low educational levels also influenced them to select certain occupations. The relatively low participation of urban women in the work force was probably influenced by a lack of job opportunities
considered "appropriate" for married urban women in this study. The role conflict hypothesis was probably an important factor in explaining the variations in economic activity, particularly for urban women. The importance of the compatibility of work and maternal roles was underlined by the substantial numbers of urban employed women who were engaged in more flexible jobs (trading) and in particular the younger group who were involved in production or skilled jobs performed at home (Table 3.2).

An inverse relationship between fertility and female activity rates has been postulated for many developed countries, but has not been well researched in less developed countries. The presence of young children at home has also been considered as a constraint on the work force activity of married women. In this study, the inverse relation between fertility and work force participation was not supported. Instead, as was also found in many other less developed countries, an additional number of children tended to be associated with higher activity rates, particularly among rural women, suggesting that the increasing family economic burden was one factor encouraging them to work. The fact that among working women in the rural area older women (35-45 years) were overrepresented also suggests that the overall tendency was largely a function of age. Older women who generally had higher parity may have experienced fewer constraints because they tended to have fewer young children needing constant care. Furthermore, many older women in the rural area were involved
in more flexible occupations, thus reducing role conflict. Another factor which may have influenced the pattern is that they may have had other older children who could help in caring for the young children. The pattern whereby working women have fewer children than houseworkers was more pronounced for urban women, suggesting that role conflict between mothering and working did exist in that context, although many other factors may have been involved.

The existence of young children (0-4 years) in the household as an indicator of life-cycle stage was an important factor in explaining the extent of role conflict between mothering and working. The younger group who were most likely to have more young children at home were consistently the group who were less likely to work. This pattern was also true for rural women where the nature of most work was more compatible with the maternal role. The data consistently showed that the more young children in the household, the less likely a woman was to work. There is little doubt that maternal role incompatibility played a part in explaining this consistent pattern.

Among the employed women, the strength of role conflict was shown by the different average number of young children in the household according to occupation and work place differentials. The data showed that women who worked in occupations or at places which were less compatible with the maternal role had fewer young children in the household, whereas those (often older) women who worked at home or in
more flexible occupations such as in the agricultural and trading sectors consistently had more young children. It seems that the domestic role was a central activity of women in this study. Consequently many urban women tended to be economically inactive, particularly when they had young children in the household. This is reinforced by the high social value and status attached to being a housewife in Javanese society (Hull, 1975).

It has been suggested that education has a positive relationship with female activity rates. This is because highly educated people generally have better employment opportunities and their expected incomes are higher than are those for the less well educated. However, this hypothesis was not supported by the data in this study. Instead, in the urban-mid area where the proportion of educated women was the highest, an inverse relationship prevailed. The most important suggestion is that more educated women tended to marry better educated husbands, who were most likely to be engaged in higher income, higher status occupations. Wives in this position generally are more likely to be housewives or to work at home rather than accept a lower paid or lower status occupation. Since the majority of highly educated women in this study had only 7-9 years of schooling, they may have found it hard to obtain employment in the higher status occupations.
In the rural and urban-low study areas, a curvilinear pattern of female activity rates in relation to educational level was evident, with women of middle level education the least likely to work. This pattern was particularly marked in the rural area, where job opportunities were available for the less educated women, but where development tends to create more formal sector employment requiring some educational qualification. The educational system tends to prepare individuals to work in "white collar" occupations. This tends to create more unemployment because not enough such jobs are available. Furthermore, the social attitude that places a high value on being a housewife may encourage educated women to be economically inactive or may inhibit many women from achieving a higher educational level (see also Raharjo, 1978). This vicious circle may lead to a pattern of educational differentials in relation to work force participation that does not conform to conventional theory.

Economic motivation is often proposed as an important factor encouraging married women to work. It has been hypothesized that husband's income has an inverse relationship with the participation of wives in the work force. The available data on husbands' educational levels assuming them to be associated with husbands' incomes tended to support the hypothesis. Wives of better educated husbands generally were less likely to work, although the pattern was less pronounced for the urban-low area. Women who were not currently married consistently had the highest
proportions in the work force, presumably because they often were not supported by another source of income.

It can be concluded tentatively that the negative impact of husbands' incomes on the working of wives was stronger than the positive impact of wives' education. The higher income aspiration associated with high education is generally thought to have a positive impact on female activity rates, but this was not clearly shown in this study, perhaps because there was only a very small proportion of very highly educated women from whom higher incomes could be expected.

The impact of marriage and the family life cycle on female activity rates differed greatly between rural and urban areas (Section 4.3). The participation of rural women in the work force increased during the intervals of married life defined by the study, but the reverse was true for urban women. Although economic necessity might play a part in encouraging married rural women to work they were also more involved in jobs which were more compatible with household duties. Occupational differences before and after marriage clearly showed that household responsibilities were an important consideration for many women in deciding to enter, re-enter or continue in the work force. Even in the rural area, where the proportion of working women was higher after than before marriage, additional workers were concentrated in the more flexible occupations. In the urban areas, where jobs in the traditional sectors were less
available, many women ceased work after marriage. The attitudes of husbands may also have played a part. Another finding from the work history was that past work experience was an important predictor of current economic activity, particularly in urban areas. The continuity of work was higher if women worked immediately after marriage. Some may have ceased work during childbearing, but this could not be determined from the limited data.

It seems that the participation of married women in the work force has been affected by various interacting factors. These include the availability of job opportunities considered appropriate and compatible with household responsibility, the extent to which additional income was needed to support the family, and work experiences in the earlier stages of the life cycle. The attitude of the husband may be an important factor affecting female activity rates, but further empirical data are needed to confirm this suggestion. Although this preliminary study cannot be generalized to all women, the way that some factors appear to affect work force participation of women forms a useful background for understanding women's work in other settings. Some patterns observed can perhaps provide useful guidelines for further research in other regions to better understand the general issues affecting female employment.
5.2 Suggestions for Further Research

Research on female labour force participation, particularly in an agrarian society like Indonesia, has been considered crucial in order to elucidate the types and patterns of female activities, many of which are not defined as work according to commonly used classifications. The fact that many women are involved in both household and economic activities needs further consideration to devise a concept of economic activity that would include all economic activities of women. This is a difficult task, requiring careful planning in the design of field research.

The relationship between fertility and female activity rates has been an issue which has received special attention in recent years. In this study, the varying strength of role conflict was shown particularly by differences in the number of young children in the household. An important aspect which may influence the relationship is the availability of maternal substitutes such as other adults in the household, housemaids and other possible childcare organizations. However, mothering substitution was not covered by this study. Specific research on this issue is needed to clarify the relationship, providing useful information for the formulation of policies.

It was implied that different social values may influence the contrasting pattern of female activity rates between rural and urban areas. A study of the relationship between this factor and female employment would help to
explain the decisions concerning employment made by women in
different socio-economic status groups.

Although education and occupation are associated with
income, other factors may be involved in determining
individual income. The indication that a wife's
participation in the work force also depends to some extent
on the husband's income was shown by this study using data
on the husband's educational attainment. The crucial need
to investigate levels of income, particularly in less
developed countries, is well recognized. However, the real
impact of the husband's income or family economic status on
the wife's participation in the work force can only be
demonstrated if better information on the level of husband's
income is available, and if this factor can be separated
from other related factors such as the husband's attitude
toward the wife's employment.

In studying the female life cycle in relation to female
activity rates, parity history is one of the most important
aspects because the maternal incompatibility role hypothesis
would be better tested by data on the work status of women
at each stage of the childbearing period. Research on this
subject which included work histories would also help in
understanding the continuity of work after marriage.

To sum up, a study specifically of female employment
and related factors should be undertaken in this region and
others in order to give a better understanding of female
employment patterns in Indonesia and to provide a clearer
picture of their underlying determinants.
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CHOO, H.

COLLVER, A.

COLLVER, A. and E. LANGLOIS

CONCEPCION, M.B.

CONNELL, J., B. DASGUPTA, R. LAISHLEY and M. LIPTON

CORNER, L.
DEWEY, A.G.  

DIXON, R.B.  

DURAND, J.D.  

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DWIDJANTO, T.  

ELIZAGA, J.C.  

FONG, M.  

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1967

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1971

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1981

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APPENDIX I
The LIFE HISTORY MATRIX (Excerpts from the interviewers' manual)

The life history matrix (LHM) collects chronological data on past events in the respondent's life, from birth to the time of interview. The interview takes a column such as education as its initial focus and fills in each event (change) in the order in which it occurred for that column, then links changes in one column to those in other columns. On the form, all events are related to the year in which they took place.

The interview begins by asking the month and year of birth, and place of birth, which is written in the residence column. Then the education column becomes the focus, and this information is then related in turn to changes of residence. When this stage is completed, attention is shifted to "work" or "marriage" as a focus, and this information is related to other columns. By shifting back and forth among columns, previously omitted events may be discovered, and inconsistencies reconciled.

The specific method and order of questioning will vary from respondent to respondent. The column of initial focus of a 30-year old university graduate, for example, might be different from that of a woman of the same age who only had four years of schooling but experienced many changes of residence. The focus will also be different for respondents who can remember accurately changes in family history, compared to those who are better at remembering work and residence histories.

The attached examples shows a filled-in LHM for a woman who experienced several changes in primary work (Appendix I-a), in residence (Appendix I-b) and an example of multiple events (education, work, residence and marriage, fertility and family planning) that a woman experienced during her life (Appendix I-c).
Appendix I-a

Example LHM Record of 'Work (Primary)' Events

<table>
<thead>
<tr>
<th>AGE</th>
<th>WORK (PRIMARY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/7/43</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Housework</td>
</tr>
<tr>
<td>11</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Help family harvest rice crop</td>
</tr>
<tr>
<td>15</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Stopped / Food stall on market</td>
</tr>
<tr>
<td>18</td>
<td>Stopped</td>
</tr>
<tr>
<td>19</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Shop assistant</td>
</tr>
<tr>
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### Example LHM Record of 'Residence'

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</tr>
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### Appendix I-c

**Example of LHM Record of Multiple Events**

<table>
<thead>
<tr>
<th>AGE</th>
<th>EDUCATION (1)</th>
<th>WORK (PRIMARY) (2)</th>
<th>WORK (SECONDARY) (3)</th>
<th>RESIDENCE (4)</th>
<th>MARRIAGE / FERTILITY / FAMILY PLANNING (5)</th>
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<tbody>
<tr>
<td>12/1/35</td>
<td></td>
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<td>Sanpoon Village</td>
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</tr>
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</tr>
<tr>
<td>16</td>
<td>High/High school</td>
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<td></td>
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</tr>
<tr>
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<td></td>
<td></td>
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</tr>
<tr>
<td>19</td>
<td>High/High school</td>
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<tr>
<td>20</td>
<td></td>
<td></td>
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<td></td>
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### Percentage of Employed Women by Work Characteristics and Residence

<table>
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<tr>
<th>Work Characteristics</th>
<th>RESIDENCE</th>
<th>Rural</th>
<th>Urban-Low</th>
<th>Urban-Mid</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1. Type of work(*)</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Money</td>
<td></td>
<td>70</td>
<td>76</td>
<td>92</td>
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<td>Family</td>
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<td>20</td>
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<td><strong>2. Work Place</strong></td>
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<tr>
<td>Non-field</td>
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<td>64</td>
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<td>20</td>
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<tr>
<td>Home</td>
<td></td>
<td>13</td>
<td>38</td>
<td>36</td>
<td>21</td>
</tr>
<tr>
<td>No Information</td>
<td></td>
<td>30</td>
<td>2</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td><strong>3. Income (Rupiah)</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (5000 or less)</td>
<td></td>
<td>11</td>
<td>26</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>Medium (5100 - 10000)</td>
<td></td>
<td>11</td>
<td>24</td>
<td>30</td>
<td>16</td>
</tr>
<tr>
<td>High (&gt; 10000)</td>
<td></td>
<td>10</td>
<td>17</td>
<td>35</td>
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</tr>
<tr>
<td>No Information</td>
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<td>68</td>
<td>33</td>
<td>19</td>
<td>54</td>
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<td><strong>TOTAL (2)</strong></td>
<td></td>
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<td>100</td>
<td>100</td>
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<tr>
<td><strong>N</strong></td>
<td></td>
<td>438</td>
<td>115</td>
<td>107</td>
<td>660</td>
</tr>
</tbody>
</table>

**Source:** 1979, original tape of IAMS

**Note:**
1. Rupiah (Rp) is the Indonesian currency. RP 1000,- was approximately equal to $A 1.40 in 1979.
2. Total may not add to 100 due to rounding errors.
3. This information is response to question: "In this job, do you work for an employer for money or for the family enterprise" (QF22: 21)
   Work "for money" presumably means paid workers and "for family" could be unpaid family workers.
APPENDIX III

Percentage Distribution of EMW(15-45) by Husband's Occupation and Respondent's Residence

<table>
<thead>
<tr>
<th>Husband's Occupation</th>
<th>R I S E D I N C E</th>
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<tbody>
<tr>
<td></td>
<td>Rural</td>
</tr>
<tr>
<td>1. Professional, technical</td>
<td>8</td>
</tr>
<tr>
<td>2. Administrative, managerial and clerical</td>
<td>7</td>
</tr>
<tr>
<td>3. Transport</td>
<td></td>
</tr>
<tr>
<td>- Becak driver</td>
<td>-</td>
</tr>
<tr>
<td>- Others</td>
<td>5</td>
</tr>
<tr>
<td>4. Trading</td>
<td></td>
</tr>
<tr>
<td>- Large trader</td>
<td>1</td>
</tr>
<tr>
<td>- Small trader</td>
<td>5</td>
</tr>
<tr>
<td>5. Service</td>
<td>1</td>
</tr>
<tr>
<td>6. Factory labourer</td>
<td>(a)</td>
</tr>
<tr>
<td>7. Other non-farm labour</td>
<td>8</td>
</tr>
<tr>
<td>8. Production worker</td>
<td>12</td>
</tr>
<tr>
<td>9. Agricultural sector</td>
<td></td>
</tr>
<tr>
<td>- Owner</td>
<td>27</td>
</tr>
<tr>
<td>- Labourer or share cropper</td>
<td>21</td>
</tr>
<tr>
<td>10. No Information</td>
<td>(a)</td>
</tr>
<tr>
<td>11. No spouse</td>
<td>5</td>
</tr>
<tr>
<td><strong>TOTAL (</strong></td>
<td>100</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>601</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS
Note: (*) Total may not add to 100 due to rounding errors.
(a) Denotes less than 0.5 percent.
APPENDIX IV

Percentage of EMW(15-45) Currently Working According to Birthplace, Urban Experience(*) and Current Residence

<table>
<thead>
<tr>
<th>Birthplace/Urban Experience</th>
<th>CURRENT RESIDENCE</th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RURAL</td>
<td>URBAN-LOW</td>
<td>Urban-Mid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Birthplace</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Rural</td>
<td>69</td>
<td></td>
<td>(39)</td>
<td>18</td>
</tr>
<tr>
<td>2. Urban</td>
<td>52</td>
<td>17</td>
<td>23</td>
<td>479</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>17</td>
<td>24</td>
<td>497</td>
</tr>
<tr>
<td>Urban Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Yes</td>
<td>55</td>
<td>17</td>
<td>24</td>
<td>497</td>
</tr>
<tr>
<td>2. No</td>
<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>17</td>
<td>24</td>
<td>497</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS
Note: ( ) Denotes N less than 30 cases.

(*) Residential change was recorded in LHM only when the respondents lived or intended to live at the new residence for period of at least six months. Thus, respondents were categorized as having urban experience if they lived or intended to live in urban areas for at least six months.
APPENDIX V

Economic Status of Household (in Two Ways Measured)  
by Place of Residence (Percentage)

<table>
<thead>
<tr>
<th>Residence/Economic Status</th>
<th>Measures of Economic Status</th>
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<tbody>
<tr>
<td></td>
<td>Based on Household Ownership Items (1)</td>
</tr>
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<td>Rural</td>
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</tr>
<tr>
<td>- Low</td>
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<td>- Medium</td>
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<td>- High</td>
<td>14</td>
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<tr>
<td>Total</td>
<td>100</td>
</tr>
<tr>
<td>N</td>
<td>601</td>
</tr>
<tr>
<td>Urban-Low</td>
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</tr>
<tr>
<td>- Low</td>
<td>58</td>
</tr>
<tr>
<td>- Medium</td>
<td>27</td>
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<tr>
<td>- High</td>
<td>15</td>
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<tr>
<td>Total</td>
<td>100</td>
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<tr>
<td>N</td>
<td>495</td>
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<tr>
<td>Urban-Mid</td>
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<tr>
<td>- Low</td>
<td>24</td>
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<tr>
<td>- Medium</td>
<td>36</td>
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<td>- High</td>
<td>40</td>
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<tr>
<td>TOTAL</td>
<td>100</td>
</tr>
<tr>
<td>N</td>
<td>495</td>
</tr>
<tr>
<td>All Respondents</td>
<td>1581 (*)</td>
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</table>

Source: (1) 1979, original tape of IAMS (female respondents)  
(2) 1979, original tape of IAMS (male respondents)

Note:  
(1) Household's possession here consist of 13 items of household consumption, such as electricity, radio, television, bicycle, car, sewing machine etc. They have been weighted and used to construct an index of wealth for each household. The classification into low, medium and high was on the basis of natural cutting points in the distribution.

(2) Low - (0 - 20,000 rupiah)  
Medium (20,100 - 40,000)  
High (40,100 and more)

(*) Excludes 6 cases of "unknown" category.  
(**) Excludes 146 cases of "unknown" category.
### APPENDIX VI

Mean Values of Various Characteristics by Work Status and Residence (*)

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>Rural Work</th>
<th>Rural Housework</th>
<th>Urban-Low Work</th>
<th>Urban-Low Housework</th>
<th>Urban-mid Work</th>
<th>Urban-mid Housework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female's Age</td>
<td>32.6</td>
<td>28.1</td>
<td>32.1</td>
<td>30.2</td>
<td>34.6</td>
<td>32.3</td>
</tr>
<tr>
<td>1. At the time of survey</td>
<td>32.6</td>
<td>28.1</td>
<td>32.1</td>
<td>30.2</td>
<td>34.6</td>
<td>32.3</td>
</tr>
<tr>
<td>2. At first marriage</td>
<td>16.8</td>
<td>15.7</td>
<td>17.8</td>
<td>16.7</td>
<td>19.5</td>
<td>17.8</td>
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<tr>
<td>3. At birth of first child (1)</td>
<td>19.1</td>
<td>18.6</td>
<td>20.6</td>
<td>19.4</td>
<td>21.4</td>
<td>20.3</td>
</tr>
<tr>
<td>4. Husband's Age</td>
<td>38.1</td>
<td>33.8</td>
<td>38.5</td>
<td>35.8</td>
<td>39.8</td>
<td>37.3</td>
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<tr>
<td>Number of Years of Schooling</td>
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<td></td>
</tr>
<tr>
<td>5. Female</td>
<td>3.4</td>
<td>4.4</td>
<td>4.4</td>
<td>4.2</td>
<td>4.4</td>
<td>6.3</td>
</tr>
<tr>
<td>6. Husband (2)</td>
<td>5.2</td>
<td>6.8</td>
<td>5.8</td>
<td>6.5</td>
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<td>8.9</td>
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<td>7. Children Ever Born</td>
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<td>3.1</td>
<td>2.9</td>
<td>3.3</td>
<td>3.3</td>
<td>3.4</td>
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<tr>
<td>8. Number of children (0-4) years in the household</td>
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<td>1.0</td>
<td>0.6</td>
<td>1.1</td>
<td>0.6</td>
<td>0.8</td>
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<tr>
<td>Total Respondents (N)</td>
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<td>194</td>
<td>82</td>
<td>407</td>
<td>117</td>
<td>380</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS

Note: (*) Current work status has been used for all characteristics, except number 2 which was derived from work before marriage and number 3 which was derived from work immediately after marriage.

(1) Excludes 138 cases of childless women.

(2) Excludes 94 cases with "unknown" category and respondents with "no spouse".
Appendix VII

Percentage Distribution of EMW(15-45)  
By Family Type and Residence

<table>
<thead>
<tr>
<th>Family Type (*)</th>
<th>Residence</th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
<td>Urban-low</td>
<td>Urban-mid</td>
<td></td>
</tr>
<tr>
<td>Nuclear family</td>
<td>9</td>
<td>12</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Extended family</td>
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</tr>
<tr>
<td>- other married</td>
<td>31</td>
<td>26</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>- others</td>
<td>60</td>
<td>63</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Total (**)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>601</td>
<td>489</td>
<td>497</td>
<td></td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS.
Note: (*) Family type was derived from household composition.  
       Nuclear family consists of husband, wife and children.  
       Extended family means nuclear family and other persons,  
       whether relatives or not.  

(**) Total may not add to 100 due to rounding errors.
## Appendix VIII.

Mean Number of CEB by Age, Education (1) and Work Status

<table>
<thead>
<tr>
<th>Education/Work status</th>
<th>15 - 25</th>
<th>25 - 29</th>
<th>30 - 34</th>
<th>35 - 45</th>
<th>All ages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean N</td>
<td>Mean N</td>
<td>Mean N</td>
<td>Mean N</td>
<td>Mean N</td>
</tr>
<tr>
<td>No School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>0.6(*) 5</td>
<td>(2.8) 12</td>
<td>(3.6) 22</td>
<td>4.6 151</td>
<td>4.3 190</td>
</tr>
<tr>
<td>House work</td>
<td>(1.6) 17</td>
<td>(2.6) 18</td>
<td>(3.4) 25</td>
<td>4.4 131</td>
<td>3.8 191</td>
</tr>
<tr>
<td>1 - 5 Years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>1.4 76</td>
<td>2.7 64</td>
<td>3.6 65</td>
<td>4.9 105</td>
<td>3.3 310</td>
</tr>
<tr>
<td>House work</td>
<td>1.5 184</td>
<td>3.0 119</td>
<td>4.3 62</td>
<td>4.9 124</td>
<td>3.1 486</td>
</tr>
<tr>
<td>7 or more</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>(1.2) 16</td>
<td>2.2 30</td>
<td>3.6 22</td>
<td>4.4 38</td>
<td>3.2 106</td>
</tr>
<tr>
<td>House work</td>
<td>1.3 60</td>
<td>2.8 89</td>
<td>3.8 44</td>
<td>4.7 108</td>
<td>3.3 301</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS.

Note: ( ) Denotes N less than 30 cases.
(*) Denotes N less than 10 cases.
(1) Education refers to the number of years schooling.
Appendix IX

Percentage of Employed women by Number of Children (0-4 years) in the Household, Work Place and Age

<table>
<thead>
<tr>
<th>Age/Number of Children (0-4 years)</th>
<th>WORK PLACE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Outside the Home</td>
</tr>
<tr>
<td>15 - 29</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>1</td>
<td>57</td>
</tr>
<tr>
<td>2 or more</td>
<td>19</td>
</tr>
<tr>
<td>Total (*)</td>
<td>100</td>
</tr>
<tr>
<td>Mean</td>
<td>2.0</td>
</tr>
<tr>
<td>N</td>
<td>37</td>
</tr>
<tr>
<td>30 - 45</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>54</td>
</tr>
<tr>
<td>1</td>
<td>36</td>
</tr>
<tr>
<td>2 or more</td>
<td>11</td>
</tr>
<tr>
<td>Total (*)</td>
<td>100</td>
</tr>
<tr>
<td>Mean</td>
<td>4.7</td>
</tr>
<tr>
<td>N</td>
<td>95</td>
</tr>
</tbody>
</table>

Source: 1979, Original tape of IAMS.
Note: (*) Total may not add to 100 due to rounding errors
Appendix X

Percentage Distribution of EMW(15-45) By Vocational School, Sewing Skill and Formal Education (*)

<table>
<thead>
<tr>
<th>Formal Education</th>
<th>Vocational School</th>
<th>Sewing Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>No school</td>
<td>0</td>
<td>381</td>
</tr>
<tr>
<td>1 - 6 years</td>
<td>10</td>
<td>799</td>
</tr>
<tr>
<td>7 - 9 years</td>
<td>26</td>
<td>286</td>
</tr>
<tr>
<td>10 years or more</td>
<td>30</td>
<td>121</td>
</tr>
<tr>
<td>All levels</td>
<td>12</td>
<td>1587</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS
Note: (*) Formal education Refers to the number of years schooling.
Appendix XI

Percentage of Employed Women by Occupation, Education (1) and Age

<table>
<thead>
<tr>
<th>OCCUPATIONS</th>
<th>AGE AND EDUCATION</th>
<th>15 - 29</th>
<th>30 - 45</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 years or less</td>
<td>4 - 6</td>
<td>7 years or more</td>
</tr>
<tr>
<td>1. Professional, clerical and related occupation</td>
<td>-</td>
<td>1</td>
<td>28</td>
</tr>
<tr>
<td>2. Trading</td>
<td>31</td>
<td>45</td>
<td>28</td>
</tr>
<tr>
<td>3. Service</td>
<td>5</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>4. Non-farm labour</td>
<td>12</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>5. Skill/ Production Labour</td>
<td>5</td>
<td>16</td>
<td>26</td>
</tr>
<tr>
<td>6. Agricultural-sector</td>
<td>48</td>
<td>18</td>
<td>7</td>
</tr>
<tr>
<td>All Employed Women (2)</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>N</td>
<td>61</td>
<td>96</td>
<td>46</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS

Note: ( ) Denotes N less than 30 cases
(*) Denotes N less than 10 cases
(1) Education refers to the number of years schooling.
(2) Total may not add to 100 due to rounding errors.
Appendix XII

Mean Years of Respondent's Education and Residence by Husband's Education

<table>
<thead>
<tr>
<th>Husband's Education(1)</th>
<th>Rural</th>
<th>Urban-low</th>
<th>Urban-mid</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>N</td>
<td>Mean</td>
<td>N</td>
</tr>
<tr>
<td>No school</td>
<td>1.6</td>
<td>53</td>
<td>2.4</td>
<td>55</td>
</tr>
<tr>
<td>1-3 years</td>
<td>2.0</td>
<td>100</td>
<td>2.2</td>
<td>50</td>
</tr>
<tr>
<td>4-6 years</td>
<td>3.6</td>
<td>260</td>
<td>4.1</td>
<td>187</td>
</tr>
<tr>
<td>7-9 years</td>
<td>5.6</td>
<td>68</td>
<td>4.9</td>
<td>96</td>
</tr>
<tr>
<td>10-12 years</td>
<td>6.0</td>
<td>55</td>
<td>6.0</td>
<td>64</td>
</tr>
<tr>
<td>13+ years</td>
<td>(7.2)</td>
<td>20</td>
<td>(6.4)</td>
<td>17</td>
</tr>
<tr>
<td>N.I. (2)</td>
<td>(3.6)</td>
<td>14</td>
<td>0.3(*)</td>
<td>9</td>
</tr>
<tr>
<td>No spouse</td>
<td>3.5</td>
<td>31</td>
<td>(7.5)</td>
<td>11</td>
</tr>
<tr>
<td>All Levels</td>
<td>3.7</td>
<td>601</td>
<td>4.2</td>
<td>489</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS.

Note: ( ) Denotes N less than 30 cases.
     (*) Denotes N less than 10 cases.

(1) Education refers to the number of years of schooling.
(2) N.I. denotes respondents with no information about their husband's education.
Appendix XIII

Working Probabilities by Working Status in Earlier Intervals and Residence

<table>
<thead>
<tr>
<th>Residence</th>
<th>Probability of Working in Work Intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>! Before Marriage ! Immediately After Marriage ! Current Period</td>
</tr>
<tr>
<td></td>
<td>Work ! Not Work ! Work ! Not Work ! Work ! Not Work ! Work ! Not Work</td>
</tr>
</tbody>
</table>

1. RURAL

| ! Before Marriage | ! Immediately After Marriage | ! Current Period |
| Work | .541 (601) | Work | .306 (325) | Work | .896 (357) |
| Not Work | .306 (325) | Not Work | .344 (276) | Not Work | .357 (244) |
| Work | .782 (325) | Work | .360 (356) | Work | .758 (149) |
| Not Work | .554 (276) | Not Work | .033 (630) | Not Work | .103 (837) |
| Work | .360 (356) | Work | .758 (149) | Work | .331 (356) |
| Not Work | .033 (630) | Not Work | .103 (837) | Not Work | .129 (630) |

2. URBAN

| ! Before Marriage | ! Immediately After Marriage | ! Current Period |
| Not Work | .360 (356) | Not Work | .033 (630) | Not Work | .103 (837) |
| Not Work | .129 (630) | Not Work | .129 (630) | Not Work | .129 (630) |

Source: 1979, original tape of IAMS
Note: ( ) Number in brackets are total respondents on which probabilities are based.
### Appendix XIV

Percentage Distribution of EMW(15-45) by Occupational Groups, Work Intervals and Residence

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>WORK INTERVALS</th>
<th>RURAL</th>
<th>URBAN</th>
<th>RURAL</th>
<th>URBAN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before Marriage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Professional, clerical and related (teacher, typist, public servant, health workers).</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2. Trading</td>
<td>20</td>
<td>24</td>
<td>29</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>3. Service</td>
<td>1</td>
<td>(a)</td>
<td>(a)</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4. Non-farm labour (factory, cigarettes, textiles and engineering)</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>5. Skilled or Production labour</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>6. Agricultural Sector</td>
<td>21</td>
<td>27</td>
<td>28</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. Not Stated</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>All Employed</td>
<td>54</td>
<td>59</td>
<td>68</td>
<td>36</td>
<td>15</td>
</tr>
<tr>
<td>Housework</td>
<td>46</td>
<td>41</td>
<td>32</td>
<td>64</td>
<td>85</td>
</tr>
<tr>
<td>All Respondents</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>N</td>
<td>601</td>
<td>601</td>
<td>501</td>
<td>986</td>
<td>986</td>
</tr>
</tbody>
</table>

Source: 1979, original tape of IAMS

Note: (a) denotes less than 0.5 percent.