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A Demographic Perspective on Women in Development in Cambodia, Lao People's Democratic Republic, Myanmar and Viet Nam



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FOREWORD

The Programme of Action adopted by the International Conference on Population and Development at Cairo in 1994 states that "The empowerment and autonomy of women and the improvement of their political, social, economic and health status is a highly important end in itself. In addition, it is essential for the achievement of sustainable development." The Programme of Action further notes that "Education is one of the most important means of empowering women with the knowledge, skills and self-confidence necessary to participate fully in the development process."

This study has been conducted in order to assess the status of women in development in Cambodia, the Lao People's Democratic Republic, Myanmar and Viet Nam. By reviewing the situation in four countries that share borders, it is possible to highlight similarities and to note common patterns. The study is based on data available primarily from national population censuses and demographic surveys. Detailed data and analysis are provided for each country, and a comparative chapter, including policy implications of the findings, is presented.

It is my hope that the study will be of benefit to national and international agencies and organizations planning social development programmes in those countries.

The study was prepared by the ESCAP Population Division but many offices in the concerned countries provided data and information. I especially want to express my appreciation to the National Institute of Statistics in Cambodia, the National Statistical Centre and the State Planning Committee in the Lao People's Democratic Republic, the Ministry of Immigration and Population in Myanmar, and the General Statistical Office in Viet Nam for their cooperation with ESCAP staff and their assistance in preparing the study.

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Adrianus Mooy
Executive Secretary

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Explanatory notes

The following symbols have been used in the tables throughout this report:

Two dots (..) indicate that data are not available or are not separately reported.

An em dash (--) indicates that the amount is nil or negligible.

A hyphen (-) indicates that the item is not applicable.

A minus sign (-) before a figure indicates a decrease.

A point (.) is used to indicate decimals.

A slash (/) indicates a financial year, e.g., 1980/81.

Use of a hyphen (-) between dates representing years, e.g., 1980-1982, signifies the full period involved, including the beginning and end years.

Details and percentages in tables do not necessarily add to totals because of rounding.

I. WOMEN IN DEVELOPMENT

A. Rationale for the study

Gender issues in the context of national development are considerably broader than the concept of "women in development". The Programme of Action adopted by the International Conference on Population and Development at Cairo in 1994 refers to "gender equality, equity and empowerment of women". The first objective stated in the gender chapter of the Programme of Action is "To achieve equality and equity based on harmonious partnership between men and women and enable women to realize their full potential" (United Nations, 1995:17).

The role of women in development is central to achieving that objective. The Programme of Action further recommends that "Countries should act to empower women and should take steps to eliminate inequalities between men and women as soon as possible by: ... promoting the fulfilment of women's potential through education, skill development and employment, giving paramount importance to the elimination of poverty, illiteracy and ill health among women" (United Nations, 1995:18). The present study focuses on women in development rather than the broader goals of gender equality, equity and empowerment of women because census and survey data for the four countries concerned are readily available that essentially measure women's involvement in development rather than the more complex concepts of equality, equity and empowerment.

Women's contribution to national development and their benefit from it derive most directly from their participation in the labour force. Much of their migration is related to their own or a family member's employment. Educational level conditions type of employment and is also a significant factor in migration, fertility and mortality rates.

Women's role in the family is clearly crucial to the well-being of the family but is also an important determinant of such national social indicators as headship rates, average age at marriage, and fertility rates. Household structure, marriage patterns, fertility levels, educational attainment and labour force participation are all measured in population censuses and demographic surveys. Thus information on those indicators is available for most countries, and those indicators are convenient ways to assess the role of women in development.

A demographic approach, as distinct from an economic or sociological approach for example, is useful because the censuses and surveys from which most data are available were designed to be consistent with demographic concepts and methods of analysis. Demographic analysis permits adjustment of collected data for internal consistency, so that the number of children aged 0-4 years is consistent with the number of children born and deceased in the five years prior to a census or survey, for example.

Demographic analysis also permits the estimation of certain indicators from information in a different form. The singulate mean age at marriage is calculated from the proportion never married by age. The total

fertility rate may be estimated from data on the number of children ever born and children born in the previous 12 months. Infant and child mortality rates may be estimated from data on the number of children ever born and number of children surviving, by age of mother. The expectation of life may be estimated from information on the number of deaths, by age, in the household in the previous year.

The ways of viewing headship, educational attainment, employment and migration are largely based on demographic concepts. Because rather standard demographic concepts, definitions and methods of analysis are employed in most censuses and surveys, it is possible to make many generally valid comparisons among countries.

The selection of Cambodia, the Lao People's Democratic Republic, Myanmar and Viet Nam for inclusion in the study was based on a number of considerations. The ESCAP secretariat has undertaken the publication of country profiles of women in 16 other countries, namely Bangladesh, China, Fiji, India, Indonesia, Islamic Republic of Iran, Japan, Nepal, Pakistan, the Philippines, the Republic of Korea, Samoa, Solomon Islands, Sri Lanka, Thailand and Vanuatu. The four countries included in this study, while exhibiting significant social and cultural differences, are all located in South-East Asia; they are the four least developed countries in South-East Asia on most indicators; and their economies are in transition to more open, market-oriented economies.

In each of the four countries, women have traditionally played an important social role marked by considerable gender equity. Equal inheritance among children is possible, and often the norm. In the Lao People's Democratic Republic, for example, husbands traditionally move to the household of their wife and the youngest daughter inherits the family home. The proportion of households headed by women is substantial in all four countries, and quite high in Cambodia and Viet Nam. Female labour force participation rates exceed those of men in Cambodia and the Lao People's Democratic Republic, and the female labour force is larger than the male labour force in Viet Nam.

B. Comparative assessment

This section is by no means a complete summary of the detailed data and analysis presented in the individual country chapters, but it is useful to compare findings for the four countries on a number of key indicators of women's involvement in development, in order to note similarities and to consider the reasons for differences.

Each of the four countries remains at a low level of urbanization and the labour force is largely agricultural. The proportion of the population residing in urban areas equals 14 per cent in Cambodia, 17 per cent in the Lao People's Democratic Republic, 29 per cent in Myanmar and 19 per cent in Viet Nam.

Women constitute a clear majority of the population in each country (table 1). That is especially true in Cambodia, where the male population was disproportionately reduced by war and internal strife during the decade of the 1970s, and in Viet Nam, where the male population also suffered high mortality from wars between 1950 and 1975. In both cases the population under age 15 now has a normal sex ratio of somewhat more males than females, so the predominance of women among the adult population is pronounced. Among the population aged 15 years and above, there are only 82 men per 100 women in Cambodia and

Table 1. Sex ratio, selected countries and age groups

Age group	Cambodia 1996	Lao People's Democratic Republic 1995	Myanmar 1991	Viet Nam 1989
All ages	91.7	97.7	95.0	94.2
15 and above	82.3	93.3	91.4	87.9
65 and above	70.2	91.7	77.6	65.7

Source: Following chapters.
Note: The sex ratio is defined as the number of males per 100 females.

88 men per 100 women in Viet Nam. In each of the countries, the sex ratio declines with age because female mortality is lower than male mortality, so that the deficit of males is most pronounced among the elderly. The higher sex ratios in the Lao People's Democratic Republic may result from some underenumeration of women in the census or because there is less of a female mortality advantage in that country than in the others.

The low sex ratios are reflected in the proportion of households that are headed by women, which equalled 26 per cent in Cambodia, 11 per cent in the Lao People's Democratic Republic, 16 per cent in Myanmar (in 1983) and 32 per cent in Viet Nam. The proportion of women who are head of their household in Cambodia, by age group, is quite similar to the proportion who are widows. In Viet Nam, in contrast, headship rates are substantial but increase only slowly by age below age 60, whereas the proportion widowed increases rapidly with age. These different age patterns imply that female headship is not primarily determined by widowhood in that country.

The difference in mean age at marriage between women and men is not great in any of the four countries, ranging from 1.1 years in Cambodia to 2.6 years in the Lao People's Democratic Republic (table 2). A marriage squeeze exists in each country to some degree. Assuming that women would usually marry men an average of five years older than themselves, the number of men aged 25-29 years per 100 women aged 20-24 years is shown in table 2. The number is considerably below parity in every case. It is possible that because of the shortage of men five years older, women are more likely to marry men closer to their own age. This may be a common pattern in South-East Asia. In Thailand in 1980 the singulate mean age at marriage was 24.5 years for men and 22.4 years for women. There were 82.4 men aged 25-29 years per 100 women aged 20-24 years. As these figures are similar to those for the four countries shown in table 2, they imply that the low proportion of eligible males resulted primarily from high fertility rates in the past rather than from any particular deficit caused by war or civil strife. (During a period of high fertility and declining mortality, as much of Asia was experiencing during the

Table 2. Singulate mean age at marriage (SMAM) and number of males aged 25-29 years per 100 females aged 20-24 years, selected countries

Indicator	*Cambodia* 1996	*Lao People's Democratic Republic* 1995	*Myanmar* 1991	*Viet Nam* 1989-1994
SMAM, males	24.1	23.8	26.3	25.1
SMAM, females	23.0	21.2	24.5	22.7
Males 25-29 per 100 females 20-24	94.3	82.7	75.8	86.4

Source: Following chapters.

1950s and 1960s, each age cohort is larger than older cohorts. Thus it is normal that the number of women in any cohort born then will be larger than the number of men in an older cohort.) That the difference in average age at marriage between men and women is narrow implies that women in these countries have some autonomy in choice of their husband, that is, that their husbands are known to them before marriage rather than being chosen through arranged marriages.

Both fertility and mortality levels are high in Cambodia and the Lao People's Democratic Republic, while in Myanmar the fertility level is moderate but mortality remains high. In Viet Nam, both fertility and mortality levels are moderate (table 3). Women living in societies

Table 3. Total fertility rate (TFR), infant mortality rate (IMR) and expectation of life at birth, selected countries

Indicator	*Cambodia* 1996	*Lao People's Democratic Republic* 1995	*Myanmar* 1991	*Viet Nam* 1989
TFR	5.2	5.6	3.4	3.1*
IMR	90	104	107	44*
Exp. of life in years, males	50.3	50.0	50.2	63.0
Exp. of life in years, females	58.6	52.0	54.7	67.5

Source: Following chapters.

with high fertility and mortality face a harsh life. They may have, on average, several children, at least one of which will die before age 5, and the women themselves are likely to be widowed for much of their lifetime.

Because women have lower mortality rates than men in most countries, older women are much more likely than older men to be widowed. It may be seen from table 4 that in the four countries concerned the proportion of women aged 45-49 who are widows is several times greater than the proportion widowed among men in the same age group. The differences in proportions increase with age so that by ages 60-64, the proportion widowed among women is 20-40 percentage points greater than that among men.

The demographic measures cited above say much about the position of women in the four countries. Because the number of adult women considerably exceeds the number of adult men, because significant numbers of women are head of their household, and because large proportions of adult women are widows, it is clear that a sizeable percentage of women in the four countries are primarily responsible for the well-being of themselves and their households. A large number of women are not dependants of other household members.

While widowhood is the lot of a high proportion of elderly women, divorce and separation in the four countries under study is not common. The largest proportion divorced or separated by age group in Cambodia is 3.4 per cent among women aged 30-34 years; in the Lao People's Democratic Republic, 5.5 per cent among those aged 50-54 years; in Myanmar, 3.3 per cent among those 50-54; and in Viet Nam, 3.4 per cent among those aged 40-44 years in 1989.

Education of girls and women is virtually a prerequisite for national economic and social development, given the well-established links between women's education and fertility level and health of their children, as well as the importance of education for preparing women for productive employment. Therefore, the

Table 4. Percentage of the population widowed, by sex for selected countries and age groups

Indicator	*Cambodia* 1996	*Lao People's Democratic Republic* 1995	*Myanmar* 1991	*Viet Nam* 1989
Males				
45-49	1.7	2.4	4.0	1.8
60-64	7.5	8.8	15.9	7.6
Females				
45-49	22.6	11.5	12.8	16.6
60-64	47.1	38.4	38.8	34.8

Source: Following chapters.

proportion of girls (and boys) aged 10-14 years who are currently attending school is an important development indicator. These proportions are presented in table 5 for the four countries under review. The proportion of girls aged 10-14 years currently attending school is not high. While 70 or 80 per cent of boys ages 10-14 are in school, the proportion of girls in school is less than 70 per cent in three of the countries, and only 74 per cent in Viet Nam.

As would be expected, the proportion of urban children in school at ages 10-14 is markedly higher than that of rural children. In fact, the urban-rural disparity is school attendance is at least double the gender disparity in the three countries for which data are available. The school attendance rates in the urban areas in the three countries are more similar to each other than to the rural rates in the respective countries. It should also be noted that the gender disparity is much less in urban than in rural areas. In Cambodia and Viet Nam, the proportion of girls ages 10-14 attending school is nearly as high as the proportion of boys. In Myanmar, the proportion of girls in school is only 6 percentage points lower than that of boys.

Educational disparities among ethnic groups are also great. Thus, to involve women fully in development will require policies and

Table 5. Percentage of the population aged 10-14 years currently attending school, by sex and residence, for selected countries

Residence and sex	*Cambodia 1996*[a]	*Lao People's Democratic Republic 1995*	*Myanmar 1991*	*Viet Nam 1989*
Country				
Both sexes	69.9	74.5	65.9	76.7
Male	71.8	80.0	70.2	79.6
Female	67.9	68.8	61.4	73.7
Urban				
Both sexes	84.2	..	81.6	86.6
Male	85.2	..	84.5	87.4
Female	83.1	..	78.6	85.8
Rural				
Both sexes	67.9	..	60.7	74.5
Male	69.9	..	65.4	77.8
Female	65.7	..	55.7	70.9

Source: Following chapters.

[a] Refers to the age group 7-14 years.

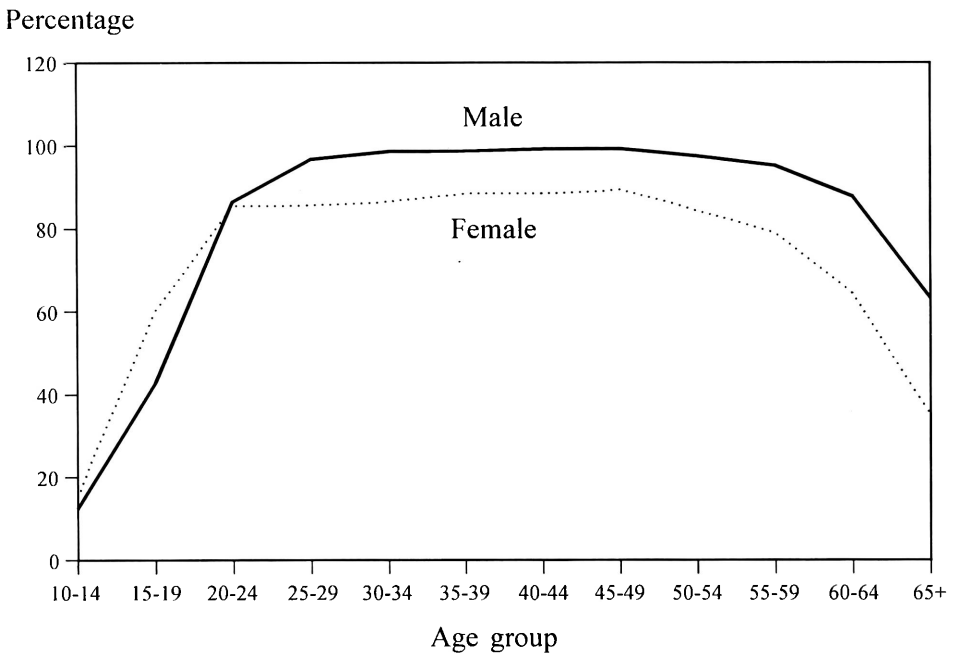
programmes that are not only gender-oriented but also those that emphasize reaching rural areas and minority groups.

Females in the labour force outnumber males in Cambodia, the Lao People's Democratic Republic and Viet Nam. Labour force participation rates of females are greater than those of males in Cambodia and the Lao People's Democratic Republic. While officially women constitute 30 of the employed population in Myanmar, it appears that their employment in agriculture is greatly under-reported, so that their actual share of the employed population would be considerably larger.

Age-specific economic activity rates in most countries in South-East Asia follow patterns similar to those shown in figures 1 and 2. In Cambodia, female activity rates exceed those of males up to age 20, are about 10 percentage points lower from age 20 to age 49, then decline more rapidly than male rates after age 50 (figure 1). The same generalization may be made for Viet Nam (figure 2). In the Lao People's Democratic Republic, female activity rates exceed those of males through the 20-24 age group, are only about 6 percentage points lower than male rates between ages 25 and 49, then decline more rapidly than male rates.

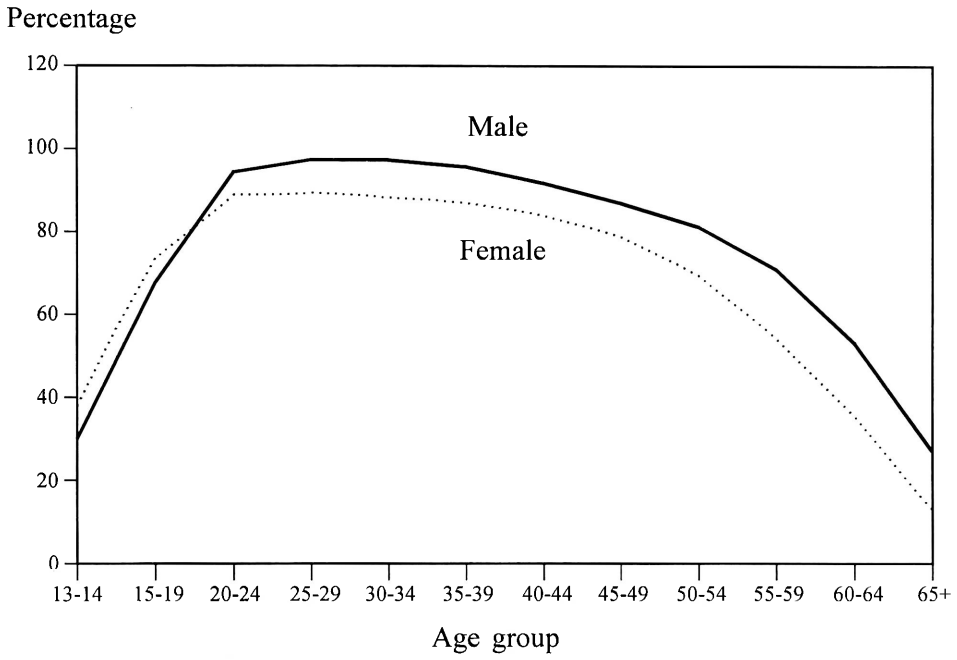
While females predominate in the labour force in Cambodia, the Lao People's Democratic Republic and Viet Nam, most of their employment is in low-status jobs, reflecting the low level of development of the national economies as well as labour force segmentation. In Cambodia, only 4.2 per cent of employed women are paid employees, while 36 per cent are own account workers and 59 per cent are unpaid family workers. In the Lao

Figure 1. Cambodia: percentage economically active by sex and age group, 1996



Source: Table 25.

Figure 2. Viet Nam: percentage economically active by sex and age group, 1989



Source: Table 113.

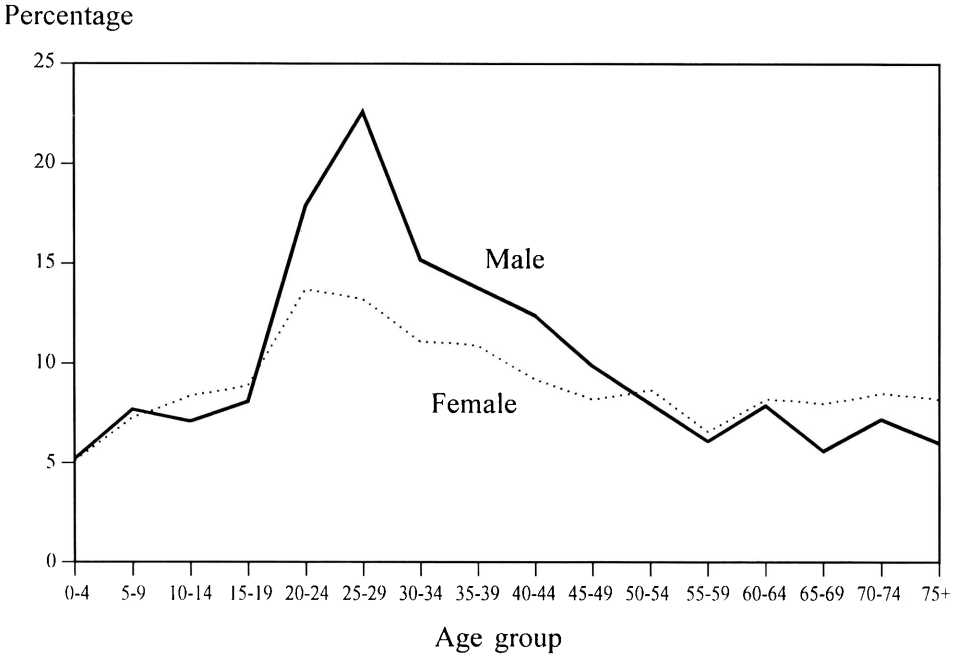
People's Democratic Republic, 5.3 per cent of employed women are paid employees, 57 per cent are own account workers and 38 per cent are unpaid family workers. The data available for Myanmar are not disaggregated by sex but show that 31 per cent of all workers are paid employees, 33 per cent are unpaid family workers and 35 per cent are own account workers.

This structure of employment status results from the fact that most workers in these four countries are employed as agricultural, forestry and fishery workers. The proportion of female workers in this occupational category equals 84.7 per cent in Cambodia, 85.5 per cent in the Lao People's Democratic Republic and 72.8 per cent in Viet Nam. The tabulation of the labour force by industry in Myanmar shows that 41.7 per cent of employed women work in agriculture, forestry and fishing, but this appears to under-represent the actual level because 62.9 per cent of the male labour force is in this category and in the other three countries studied a larger share of the female than of the male employed population worked in agriculture.

Because all of the four economies reviewed are still predominantly agricultural and none of the countries is highly urbanized, migration rates measured by censuses and surveys are low. Female migration rates are somewhat lower than male rates and the majority of female migrants move with their family. A common finding in South-East Asia is that female migration rates exceed male rates up to age 20 or 25 and again at older ages, from about age 50 or 60. This general pattern is observed for the countries in this study.

In the five years prior to the Demographic Survey of Cambodia in 1996,

Figure 3. Cambodia: percentage of the population migrating in the five-year period, 1991-1996, by sex and age group



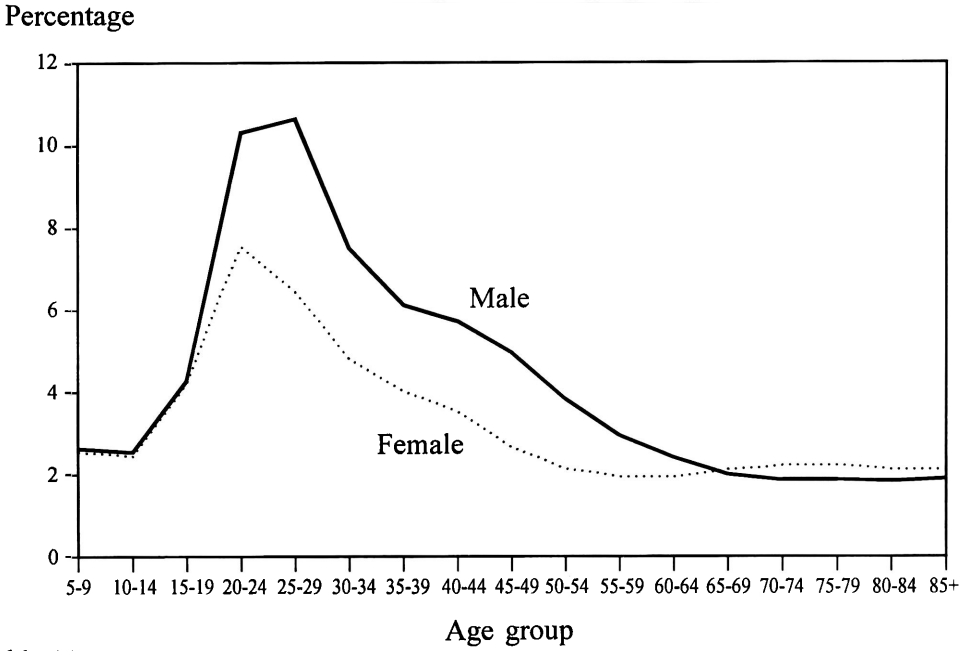
Source: Table 35.

10 per cent of the male population and 9 per cent of the female population had migrated. Female migration rates were slightly higher than male rates for the age groups 10-14 and 15-19, and again over age 50 (figure 3). Sixty-five per cent of the female migrants reported moving because their family had moved, another 10 per cent moved for marriage, and only 6 per cent had moved in search of employment.

The reported five-year migration rate, 1986-1991, in Myanmar was considerably lower because it referred only to moves between states or divisions. The rate equalled 1.7 per cent for both males and females. The female rate was marginally higher between the ages of 15 and 29, and again over age 65.

The 1989 census in Viet Nam reported that 5.2 per cent of males and 3.9 per cent of females at least five years old had migrated in the previous five years. Between the ages of 5 and 19 the male migration rates were marginally higher. Between the ages of 20 and 64 male rates exceeded female rates, but female rates were higher after age 65 (figure 4). While still nascent, there appears to be a shift in the reasons for female migration in Viet Nam away from familial reasons to reasons associated with employment. In a survey reported in chapter V, it was seen that among female migrants to Ho Chi Minh City during the period 1984-1989, 56 per cent had moved for family reasons whereas among female migrants during the period 1990-1994 only 34 per cent had reported family reasons as causing the move. On the other hand, the proportion of female migrants reporting that they had moved for employment reasons increased from 18 per cent to 29 per cent between the two periods.

Figure 4. Viet Nam: percentage of the population migrating in the five-year period, 1984-1989, by sex and age group



Source: Table 119.

As the economies of these four countries become more market-oriented and more open to foreign direct investment, it is likely that migration rates of both sexes will increase and that rural-to-urban migration will constitute a greater share of all migration. It may also be expected that employment will become a more important reason for female migration, and that female migration rates between the ages of 18 and 29 will increase the most as women respond to employment opportunities in light manufacturing and service industries. Thus the migration patterns of these four countries may come to more-closely resemble those of Indonesia, Malaysia, the Philippines and Thailand.

C. Policy implications

Many of the hardships that women in Cambodia, the Lao People's Democratic Republic, Myanmar and Viet Nam face stem from the low level of social and economic development in those countries rather than from gender issues or gender discrimination *per se*. The per capita income in each of these countries is low. Each has a low level of urbanization and most workers are employed in agriculture. Only small proportions of workers are paid employees; many are own account workers or unpaid family workers. Educational and health standards are also low. General economic and social development would benefit both women and men greatly.

None the less, there are a number of reasons for focusing on women in devising development policies and programmes. Women are the primary care-givers in the family. Thus efforts to lower mortality rates (especially infant, child and maternal mortality rates) depend to a large extent on the involvement of women. It is primarily mothers who oversee the vaccination of their children, the provision of safe drinking water and the diet of all family members. To be successful, health programmes must enlist the active participation of mothers. It was seen in the

country studies that sizeable numbers of households are headed by women. Thus, in many cases women are almost solely responsible for the health and well-being of their family members.

For women to be able to handle effectively the responsibilities for the well-being of their families, improved levels of female education are required in each of the four countries. At the primary school level, female enrolment rates are nearly equal male rates, but female enrolment begins to fall behind by secondary school. Each country should strive for gender equality in education while also aiming to increase the proportion of the population that completes secondary school. Where adult literacy rates are low, adult education should be promoted. Health and other development programmes will have a lower chance of success if most mothers in an area are illiterate.

Gender disparities in education are greater in rural than in urban areas and are often prominent among minority ethnic groups. Therefore, programmes to expand education to both girls and boys need to focus especially on rural areas and minority groups.

The same may be said for most development programmes. As each of the four countries studied is still largely rural, national social and economic development will be achieved only through rural development. This is not to say that urban development is not important. Urban areas may well be the engine of economic growth, providing higher education and attracting foreign investment. Urban areas may promote rural development by providing seasonal or off-farm employment opportunities for the rural population. Nevertheless, national educational and health programmes must expand their coverage in rural areas.

As the great majority of men and women workers are employed in agriculture, economic development will require increasing productivity in that sector. In doing so, governments should give attention to the productive role that most rural women currently play in agriculture. Rural development efforts should incorporate productive roles for women and not displace them through technological or organizational changes.

It should be recognized that problems of ageing populations are largely problems for women. Because of higher mortality rates among men, women greatly outnumber men at older ages and women are many times more likely than men to be widowed. The proportion of women aged 60-64 years in the four countries studied who are widows ranged from one third to one half. Programmes for the elderly population need to focus on women. Most elderly women in these four countries live in rural areas, many are widowed, and many are illiterate. Consequently, they would have few resources other than their family to provide for their care.

Governments could do much to improve the status of women through their own recruitment policies. Women constitute a clear minority in government service in each of the four countries. In Cambodia, fewer than 0.1 per cent of working women are senior officials and managers, compared with 0.9 per cent of employed men. Only 0.7 per cent of employed women work in public administration and defence, compared with 6.5 per cent of employed men.

In the Lao People's Democratic Republic, the proportion of the employed population who are senior officials and managers is 0.8 per cent among men but only 0.1 per cent among women. Women constitute only 27 per cent of

paid government employees. In Myanmar women equal 27 per cent of the number of senior officials and managers. In Viet Nam 0.6 per cent of employed women are government servants, compared with 1.7 per cent of employed men.

Government service obviously is an area in which the government may have an immediate and direct impact on the involvement of women in development. If larger numbers of women are recruited for government service, government development programmes may become better attuned to the needs of women and thus better able to promote the development of all persons in the country.

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United Nations, Department for Economic and Social Information and Policy Analysis (1995). *Population and Development. Programme of Action adopted at the International Conference on Population and Development, Cairo, 5-13 September 1994.* ST/ESA/SER.A/149. New York.

II. CAMBODIA

A. Demographic context

Between 1970 and 1980 the population of Cambodia was subjected to greater shocks than any other national population in the world, but since then has made a rapid recovery. Civil war flared up in 1970 and Desbarats (1995:92) notes a "generally accepted estimate of 600,000 war casualties" during the period from 1970 to April 1975, in a population of under eight million. The Khmer Rouge regime ruled during the period from April 1975 to January 1979. Estimates of excess mortality during that period range from a minimum of one million to over two million (Heuveline, 1996). The total population was reduced from about 7.9 million in 1974 to 6.7 million in 1979 because of excess mortality and emigration (Desbarats, 1995:107).

Population displacements have also occurred on a mass scale. Desbarats notes that some 200,000 ethnic Vietnamese were forcibly repatriated between 1970 and 1975. During the Khmer Rouge period perhaps 270,000 ethnic Khmers, Vietnamese and others fled across the Viet Nam border. As many as 500,000 persons may have moved from Viet Nam back to Cambodia after 1980 (Desbarats, 1995:97-101). The number of Khmers living in United Nations Border Relief Operation (UNBRO) camps in Thailand equalled 140,000 at the end of 1980 and 370,000 by early 1992. That entire population was repatriated during 1992 and 1993 leading up to elections conducted by the United Nations in May 1993 (UNBRO, 1994).

Internal displacements because of fighting and the prevalence of land mines is also significant. In 1991 the number of internally displaced persons was estimated to be 170,000, and the number has fluctuated at lower levels since then (Huguet, 1991).

The population of Cambodia surged after relative stability was restored in 1979 and 1980; it grew by over 3.0 per cent per annum from 1980 through 1995 from the effects of high birth rates, declining death rates and return migration. The crude birth rate exceeded 50 per 1,000 population between 1980 and 1985. It has since declined to a level somewhat under 40 per 1,000, but the "baby boom" has resulted in a high proportion of the population being under age 15.

Very little was known about the Cambodian population between 1962, when a census enumerated a population of 5.7 million, and the 1990s. In 1992 the United Nations Transitional Authority in Cambodia (UNTAC) registered a total of 4.3 million eligible voters aged 18 years and over. At the time, that total was assumed to equal nearly 97 per cent of the actual population aged 18 and over, while the population younger than age 18 was estimated to be as large as that over 18.

This report relies heavily on the Demographic Survey of Cambodia (DSC), conducted in March 1996 and covering 20,000 households (Cambodia, 1996). A KAP (knowledge, attitude and practice) Survey on Fertility and Contraception in Cambodia, covering 6,000 households, was carried out between December 1994 and March 1995 (CHHUN and others, 1995). The Socio-Economic Survey of Cambodia was conducted in four rounds from October 1993 to September 1994 with a total of 5,578 households (Cambodia, 1996). The KAP

Table 6. Population of Cambodia by sex and five-year age group, and sex ratios, March 1996

Age	*Both sexes*	*Males*	*Females*	*Sex ratio*
Total	10 702 329	5 119 587	5 582 742	91.7
0-4	1 430 926	729 448	701 478	104.0
5-9	1 649 210	846 549	802 661	105.5
10-14	1 620 123	833 597	786 526	106.0
15-19	1 109 595	548 267	561 328	97.7
20-24	757 354	344 607	412 747	83.5
25-29	834 733	389 421	445 312	87.4
30-34	690 639	313 483	377 156	83.1
35-39	632 138	283 569	348 569	81.4
40-44	456 805	180 819	275 986	65.5
45-49	407 722	177 113	230 609	76.8
50-54	293 796	126 948	166 848	76.1
55-59	248 397	106 265	142 132	74.8
60-64	197 201	85 428	111 773	76.4
65-69	161 253	66 623	94 630	70.4
70-74	110 135	45 672	64 463	70.8
75+	102 302	41 778	60 524	69.0

Source: Unpublished tables from the Demographic Survey of Cambodia - 1996, extrapolated figures.

Survey covered two thirds of the national population. Data from the other two surveys were extrapolated to represent the entire country, including the provinces and districts that were not covered for security reasons. The total population of 10.7 million estimated by the DSC is greater than that estimated by the other surveys, but the age structure and other demographic characteristics are very consistent among the three surveys. The total from the DSC is consistent with the number of voters registered in 1992 and with a population count carried out in 1980 if certain assumptions are made concerning international migration (Huguet, 1997).

The excess mortality that occurred during the 1970's because of political turbulence has two main impacts on the current population of Cambodia. There remains a deficit of adult males and the proportion of the population under age 15 is large because of the excess mortality among those who are now over age 15. The DSC - 1996 found that 43.9 per cent of the population was ages 0-14 years (tables 6-8). Huguet (1997) has estimated that the number in the age group 0-4 years was underestimated by about 17 per cent, however, and that the proportion under age 15 was 45.4 per cent. Because of the baby boom of the 1980s resulting from the return to stability, and

Table 7. Urban population of Cambodia by sex and five-year age group, and sex ratios, March 1996

Age	*Both sexes*	*Males*	*Females*	*Sex ratio*
Total	1 539 951	738 333	801 618	92.1
0-4	177 364	91 880	85484	107.5
5-9	210 772	109 711	101 061	108.6
10-14	234 896	120 503	114 393	105.3
15-19	163 383	80 627	82 756	97.4
20-24	114 368	52 006	62 362	83.4
25-29	127 459	61 345	66 114	92.8
30-34	104 521	46 301	58 220	79.5
35-39	101 570	47 973	53 597	89.5
40-44	79 787	33 650	46 137	72.9
45-49	67 624	306 293	6 995	82.8
50-54	44 935	20 605	24 330	84.7
55-59	35 603	14 236	21 367	66.6
60-64	28 349	11 364	16 985	66.9
65-69	21 712	74 881	4 224	52.6
70-74	13 711	4 974	8 737	56.9
75+	13 897	5 041	8 856	56.9

Source: Unpublished tables from the Demographic Survey of Cambodia - 1996, extrapolated figures.

because of the depleted adult cohorts, the proportion of the population under age 15 increased from 42.2 per cent in 1980 to 44.1 per cent in 1985 and 46.0 per cent in 1990. The surge in fertility beginning in 1980 is reflected by the fact that the age group 10-14 in 1996 is 46 per cent larger than that ages 15-19.

Excess mortality during the 1970s impacted the male population with greater force than the female population. The sex ratio of males per 100 females in 1996 equalled only 91.7, which was lower even than the ratio of 94.2 in the population of Viet Nam in 1989 (ch. V). There is little difference between the sex ratios in urban and rural areas. Among the population aged 15 years and over, the sex ratio was only 82.3 in Cambodia. From age 40 upward the sex ratio is well below 80 males per 100 females. The greatest deficit of males is in the age group 40-44, where the sex ratio is only 65.5 (table 6). That cohort was ages 19-23, prime ages for soldiers, in 1975 at the height of the civil war and the beginning of Khmer Rouge rule.

In fact, the sex ratio of 1996 reflects 16 years of demographic recovery. The United Nations (1996) estimates that the ratio equalled

Table 8. Rural population of Cambodia by sex and five-year age group, and sex ratios, March 1996

Age	*Both sexes*	*Males*	*Females*	*Sex ratio*
Total	9 162 375	4 381 256	4 781 119	91.6
0-4	1 253 563	637 568	615 995	103.5
5-9	1 438 438	736 838	701 600	105.0
10-14	1 385 225	713 092	672 133	106.1
15-19	946 211	467 640	478 571	97.7
20-24	642 985	292 601	350 384	83.5
25-29	707 274	328 077	379 197	86.5
30-34	586 118	267 182	318 936	83.8
35-39	530 569	235 597	294 972	79.9
40-44	377 018	147 169	229 849	64.0
45-49	340 097	146 484	193 613	75.7
50-54	248 861	106 345	142 516	74.6
55-59	212 793	92 029	120 764	76.2
60-64	168 852	74 064	94 788	78.1
65-69	139 540	59 135	80 405	73.5
70-74	96 425	40 698	55 727	73.0
75+	88 406	36 737	51 669	71.1

Source: Unpublished tables from the Demographic Survey of Cambodia - 1996, extrapolated figures.

only 86.1 for the total population in 1980, 88.5 in 1985 and 91.0 in 1990.

B. Family formation

Recent high rates of fertility have resulted in relatively large sizes of households (tables 9 and 10). Housing shortages cause the size of urban households to be greater than rural households. Average household size equals 5.3 persons in rural areas but 5.7 persons in urban areas. The DSC recorded that 25.8 per cent of households were headed by women. Female-headed households contained an average of 4.3 persons, compared with 5.7 persons in male-headed households. The lower average for females results from the greater proportion of very small households headed by women. Twenty-two per cent of female-headed households contained only one or two people (table 11). Forty-one per cent of them contained three or fewer persons, compared with only 18 per cent of male-headed households of that size.

The relative shortage of adult males in the Cambodian population is reflected in the marital status of the population by age group, shown in table 12. Between the ages of 30 and 64 years, over 90 per cent of males are married. In contrast, the proportion of females

Table 9. Average size of household, by gender of head and by area, March 1996

Gender of head	*Total*	*Urban*	*Rural*
All heads	5.3	5.7	5.3
Female heads	4.3	4.9	4.2
Male heads	5.7	6.0	5.6

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia - 1996, General Report* (Phnom Penh, 1996), p. *xvi*.

in that age range who are married remains below 80 per cent. By age 60, fewer than half of the women are currently married. At ages 35-39, 97 per cent of men but only 79 per cent of women are married. At ages 50-54, 96 per cent of men but only 64 per cent of women are married.

The lower proportions married among women are largely the result of their widowhood. By age 50, nearly one third of women are widows, whereas among men the proportion of widowers does not exceed 10 per cent until after age 65. While relatively few persons report themselves as divorced or separated, it is significant that among persons ages 30-39 years, about five times as many women as men do so, probably reflecting higher rates of remarriage or of finding new partners by divorced and separated men.

Table 10. Percentage distribution of households by size, for urban and rural areas, March 1996

Number of persons in household	*Area*		
	Total	*Urban*	*Rural*
All households	100.0	100.0	100.0
1	1.9	2.3	1.9
2	7.9	6.2	8.2
3	14.2	11.6	14.5
4	17.1	14.8	17.4
5	16.6	17.0	16.6
6	14.8	15.2	14.8
7	11.7	12.8	11.4
8	7.7	9.3	7.5
9	4.6	4.9	4.5
10 or more	3.5	5.9	3.2

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia - 1996, General Report* (Phnom Penh, 1996), p. 9.

Table 11. Percentage distribution of households by size, for gender of head and for urban and rural areas, March 1996

Number of persons in household	*Male-headed households*			*Female-headed households*		
	Total	*Urban*	*Rural*	*Total*	*Urban*	*Rural*
All households	100.0	100.0	100.0	100.0	100.0	100.0
1	0.5	1.0	0.4	5.9	5.4	6.1
2	5.0	3.7	5.1	16.4	11.9	17.4
3	12.5	9.8	13.0	18.8	15.9	19.3
4	16.4	13.5	16.8	19.1	17.9	19.2
5	17.1	18.2	16.9	15.3	14.3	15.4
6	16.3	16.5	16.3	10.6	12.0	10.3
7	13.4	14.6	13.2	6.5	8.8	6.1
8	9.2	10.8	9.0	3.7	5.7	3.3
9	5.4	5.3	5.4	2.1	3.8	1.8
10 or more	4.2	6.6	3.9	1.6	4.3	1.1

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia - 1996, General Report* (Phnom Penh, 1996), p. 10.

The shortage of males at younger ages has caused a "marriage squeeze", with too few men available for the number of women of usual marriage age. There are about 1.0 million men ages 20-34 years for 1.4 million women ages 15-29 years, or only 74 per cent as many men (table 6). The marriage squeeze has two observable results. One is that the proportions of women in the ages from 30 to 64 years who are never-married greatly exceed the proportions of never-married men in those ages. The other consequence is that women marry at a somewhat later age than they may wish. Among women 15-19 years of age, only 7.8 per cent are married. The singulate mean age at marriage for women is 23.0 years, not much lower than the 24.1 years for men (table 13).

The Demographic Survey of Cambodia - 1996 recorded that 25.8 per cent of households were headed by women. The proportions were 30.1 per cent in urban areas and 25.0 per cent in rural areas. The DSC was conducted on a *de facto* basis, counting only persons who were present on the reference night. This approach could have exaggerated the number of female heads of household. If a male head were away temporarily, as for work or business, his wife would usually have been reported as the head of the household. By way of comparison, the Socio-Economic Survey of Cambodia (SESC) of 1993/1994 was conducted on a *de jure* basis and found that 21.2 per cent of households were female-headed (Cambodia, 1995).

The DSC - 1996 found that 32 per cent of female heads of household were currently married, indicating that about 17 per cent of all households were headed by unmarried women (Rama Rao and Zaan, 1997). About 19 per cent of all women age 20 and over are the head

Table 12. Percentage distribution of the population aged 15 years and over by marital status, for sex and age groups, March 1996

Age group	*Total*	*Single*	*Married*	*Widowed*	*Divorced or separated*
Male					
15-19	100.0	98.1	1.8	0.0	0.0
20-24	100.0	58.9	40.0	0.7	0.4
25-29	100.0	19.4	79.0	0.8	0.8
30-34	100.0	5.2	92.8	1.2	0.8
35-39	100.0	1.9	97.0	0.7	0.4
40-44	100.0	1.1	97.1	1.2	0.6
45-49	100.0	0.5	97.4	1.7	0.5
50-54	100.0	0.5	96.1	2.7	0.7
55-59	100.0	0.1	94.9	4.7	0.3
60-64	100.0	0.5	91.3	7.5	0.7
65-69	100.0	1.0	86.8	11.8	0.3
70-74	100.0	1.3	79.7	18.3	0.8
75+	100.0	1.0	67.6	30.0	1.4
Female					
15-19	100.0	91.7	7.8	2.3	0.3
20-24	100.0	40.3	55.6	2.3	1.8
25-29	100.0	18.1	74.2	5.0	2.7
30-34	100.0	10.1	78.8	7.7	3.4
35-39	100.0	6.4	79.2	11.1	3.3
40-44	100.0	5.0	74.9	17.3	2.8
45-49	100.0	3.3	71.9	22.6	2.1
50-54	100.0	2.2	64.5	31.7	1.6
55-59	100.0	1.7	56.5	40.0	1.7
60-64	100.0	1.4	49.5	47.1	2.0
65-69	100.0	1.8	41.8	55.3	1.1
70-74	100.0	2.0	31.2	66.2	0.6
75+	100.0	1.9	21.3	75.9	0.9

Source: Unpublished tables from the Demographic Survey of Cambodia - 1996, extrapolated figures.
Note: Persons with unspecified marital status distributed proportionately.

Table 13. Singulate mean age at marriage by sex and area, 1996

Area	*Male*	*Female*
Total	24.1	23.0
Urban	26.2	23.9
Rural	23.8	22.9

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia -1996, General Report* (Phnom Penh, 1996), p.20.

of their household (table 14). The maximum headship rate among women occurs in the age group 60-64, when it is 36.4 per cent. The proportions of women who are heads of their household are determined to a large extent by widowhood. Although 36 per cent of women ages 60-64 are heads of household, among males in that age group 91 per cent are heads. Under age 60, the widowhood and headship rates of women are roughly similar. Over age 60, however, widows are more likely to rely on some other member of the household. More than half of the women over age 60 are

Table 14. Headship rate by sex, age and area, March 1996

Age group	*Cambodia*		*Urban*		*Rural*	
	Male	*Female*	*Male*	*Female*	*Male*	*Female*
Ages 20+	71.0	18.9	57.8	19.6	73.4	18.8
15-19	0.8	0.9	0.3	0.8	0.9	1.0
20-24	25.2	4.7	9.8	3.6	28.0	4.9
25-29	57.4	9.1	32.3	11.4	62.1	8.7
30-34	78.4	13.7	59.5	14.4	81.7	13.6
35-39	86.3	18.5	75.5	17.9	88.5	18.6
40-44	90.2	24.0	82.5	27.2	91.9	23.3
45-49	91.9	29.1	85.4	29.9	93.2	29.0
50-54	93.2	34.2	83.3	35.5	95.1	34.0
55-59	92.5	35.3	86.5	35.6	93.4	35.2
60-64	90.8	36.4	89.8	33.4	90.0	37.0
65-69	83.9	33.1	75.3	39.8	85.0	31.9
70-74	77.7	27.8	81.5	23.1	77.2	28.5
75+	52.8	15.2	43.2	11.5	54.1	15.9
ANYSHH	46.1	14.1	40.2	14.2	47.1	14.1

Source: Rajalakshmi Rama Rao and Binie Zaan, *An Analysis of Female-headed Households in Cambodia*, Demographic Survey of Cambodia - 1996, Research Report (Phnom Penh, National Institute of Statistics, 1997), table 2.

Note: ANYSHH stands for average number of years spent as head of a household. It is calculated by summing the age-specific headship rates (divided by 100) and multiplying by 5.

Table 15. Percentage distribution of female heads of household by marital status, for age groups, March 1996

Age group	*Total*	*Single*	*Married*	*Widowed*	*Divorced or separated*
All heads	100.0	5.3	31.8	56.8	6.1
10-14	100.0	100.0	-	-	-
15-19	100.0	65.8	31.4	2.8	-
20-24	100.0	14.2	73.0	9.7	3.1
25-29	100.0	7.4	65.9	19.1	7.6
30-34	100.0	7.3	50.7	30.9	11.0
35-39	100.0	7.9	39.5	42.1	10.6
40-44	100.0	4.4	28.3	57.7	9.6
45-49	100.0	3.7	27.3	62.8	6.2
50-54	100.0	1.7	24.4	70.7	3.2
55-59	100.0	2.3	13.3	81.5	2.9
60-64	100.0	0.8	17.3	78.7	3.3
65-69	100.0	1.0	11.2	85.8	2.0
70-74	100.0	1.5	12.1	86.4	-
75+	100.0	-	13.5	86.5	-

Source: Unpublished tables from the Demographic Survey of Cambodia -1996, extrapolated figures.

widows but only about one third of them are head of their household.

While not all widows are heads of household, four out of five female heads of household over age 60 are widows (table 15). The proportion of female heads of household who are widows rises steeply with age, reaching 57.7 per cent in the age group 40-44 and 81.5 per cent in the age group 55-59.

The level of fertility in Cambodia was high in the past and remains so in spite of apparent recent declines. Women ages 45-49 have borne an average of 5.4 children each. In rural areas that average is 5.6 children (table 16). Perhaps related to the marriage squeeze, fertility does not begin especially early. Women in the age group 20-24 years have had an average of only 0.75 children each. Fertility may well be declining, unless the women ages 30-34 have more than two additional children each to reach the level of those currently ages 45-49.

Levels of fertility are strongly related to the level of education of women. The KAP Survey on Fertility and Contraception in Cambodia found that the average number of children ever born among currently married women ages 40-44 equalled 6.1. Among those with no schooling the average was 6.8; among those who had not completed primary school, 6.0; among those who had completed only primary school, 5.6; and among those who had completed secondary school, 4.8 (CHHUN and others, 1995:26).

Table 16. Average number of children ever born by current age and residence of women, 1996

Age group	*Total*	*Urban*	*Rural*
15-19	0.03	0.03	0.03
20-24	0.75	0.61	0.77
25-29	1.81	1.44	1.87
30-34	3.16	2.75	3.23
35-39	4.33	3.68	4.45
40-44	5.10	4.42	5.24
45-49	5.44	4.87	5.59

Source: Unpublished tables from the Demographic Survey of Cambodia - 1996, extrapolated figures.

The Demographic Survey of Cambodia - 1996 asked all women aged 15 years and over how many children had been born alive to them and how many had been born in the previous 12 months. From this information it is possible to apply one of the P/F (parity/fertility) methods to adjust the reported pattern of age-specific fertility rates to an estimate of the current level. The rates shown in table 17 were calculated by a method proposed by Arriaga and others (1994). They indicate that women who followed those age-specific rates throughout their lifetime would bear an average of 5.2 children each. (Variants of the P/F method yield total fertility rates as high as 5.5 children, but those may be over-adjusting in a period of declining fertility.)

The pattern of age-specific fertility rates (ASFRs) indicates that fertility is low at the youngest ages, primarily because of the relatively late age of marriage (23.0 years on average). The pattern of ASFRs is fairly flat, with 22-25 per cent of women ages 20-34 bearing a child each year. Among women

Table 17. Age-specific fertility rates (ASFR) estimated by indirect technique, 1995/96

Age group	*ASFR*
15-19	0.0232
20-24	0.2206
25-29	0.2463
30-34	0.2359
35-39	0.1818
40-44	0.1025
45-49	0.0263
Total fertility rate	5.18

Source: Unpublished calculations from the Demographic Survey of Cambodia - 1996, extrapolated figures.

Table 18. Estimated total fertility rate, expectation of life at birth and infant mortality rate by quinquennial period from 1950-1955 to 1990-1995

Period	Total fertility rate	Expectation of life		Infant mortality rate
		Male	Female	
1950-1955	6.29	38.1	40.8	165
1955-1960	6.29	40.0	42.8	152
1960-1965	6.29	42.0	44.9	140
1965-1970	6.22	44.0	46.9	130
1970-1975	5.53	39.0	41.7	181
1975-1980	4.10	30.0	32.5	263
1980-1985	5.06	45.1	47.9	160
1985-1990	5.00	47.6	50.4	130
1990-1995	4.89	50.1	52.9	116

Source: United Nations, Population Division, *World Population Prospects: The 1996 Revision, Annex II and III: Demographic indicators by major area, region and country* (New York, United Nations, 24 October 1996), pp. 126-127 (pre-publication copy).

35-39, the fertility rate remains at 18 per cent. The flat pattern of ASFRs implies that few Cambodian couples employ contraception to limit fertility. The KAP Survey (CHHUN and others, 1995:32) found that only 13 per cent of currently married women were using contraception and only 7 per cent were using a modern method.

Table 18 presents the total fertility rate (TFR), expectation of life at birth, and infant mortality rate (IMR) for Cambodia by quinquennial period from 1950-1955 as estimated by the official United Nations (1996) population assessment. Those estimates imply a modest recent decline in fertility, but at levels somewhat below that estimated above.

C. Health

The expectation of life at birth has recovered rapidly since the late 1970s, although it remains at a low level. The infant mortality rate is estimated to equal 116 per 1,000 live births. Demographic estimates based on the number of deaths in the previous 12 months reported by the DSC yielded an expectation of life at birth of 50.3 years for males and 58.6 years for females, and an IMR of 90 per 1,000 live births. Those estimates also implied that death reporting was only 62 per cent complete, however, so one cannot be very confident of their reliability (Huguet, 1997). The actual level of mortality may well fall in between that estimated from DSC data and that used in the United Nations population assessment.

Estimated age-specific death rates (ASDRs) and other mortality indicators are presented by sex in table 19. The ASDRs are from model life tables that are the best approximation of mortality patterns from the DSC. The method of selection of life tables relied on reported deaths in the household only

Table 19. Estimated age-specific death rates by sex, 1995/96 [a]

Age	*Male*	*Female*
0	114.9	75.7
1-4	18.8	12.5
5-9	6.4	4.3
10-14	3.5	2.5
15-19	4.4	3.0
20-24	6.3	3.6
25-29	6.6	4.2
30-34	7.0	4.8
35-39	7.9	5.6
40-44	9.6	6.6
45-49	11.7	7.6
50-54	15.5	10.2
55-59	20.3	13.7
60-64	29.3	20.8
65-69	43.6	33.0
70-74	67.6	53.1
75-79	104.6	84.2
80+	188.5	164.6
Completeness (per cent) [b]	70.3	52.5
Crude death rate	13.55	9.86
Expectation of life at birth	50.34	58.62

Source: Jerrold W. Huguet, *The Population of Cambodia, 1980-1996, and Projected to 2020*, Demographic Survey of Cambodia - 1996, Research Report (Phnom Penh, National Institute of Statistics, 1997), tables 3-5.

[a] Number of deaths in one year per 1,000 population estimated by the Preston-Coale method fromthe number of deaths reported in households in the Demographic Survey of Cambodia.

[b] Estimated per cent completeness of death reporting in the Demographic Survey of Cambodia.

of persons aged 10 years and over; thus estimates of infant and child mortality are derived only from the model life tables and not from any direct measurement. Estimates of infant and child mortality based on the number of children ever born and number surviving by age of mother were much lower than those shown in table 14 and were deemed implausible. The method of estimation used implied that adult male deaths were only 70 per cent completely reported by the DSC and adult female deaths were only 52 per cent completely reported.

Because of the large adjustments made in order to estimate the level of mortality, those estimates must be treated with caution. The death rates presented in table 19 yield a probability of dying before age 5 of 170.7 per 1,000 live births for males and of 116.7 per 1,000 for females.

The gap between male and female levels of mortality is also reflected in the estimates of expectation of life at birth. The difference of 8.3 years between the expectation of life at birth for females and males is large, but not unprecedented. As the method of estimation employed assumes constant mortality, the estimated mortality for males may reflect higher levels in the recent past. Although the method of estimation is designed to correct for under-reporting of deaths, the estimates for females may still suffer from less complete reporting.

Maternal mortality in Cambodia is very high but it is not accurately measured and different techniques of estimating it yield widely different results. The World Health Organization and United Nations Children's Fund (1996) estimate the maternal mortality rate by applying a model that predicts the proportion maternal of all deaths of females of reproductive age. For Cambodia the model

yields an estimate of 900 maternal deaths per 100,000 live births in 1990. Sprechmann and others (1996) applied the sisterhood method with a survey in 1995 and estimated the maternal mortality rate to equal 473 per 100,000 live births, with a reference period between 1983 and 1985.

Sprechmann and others cite a study of hospital birth records of over 50,000 births that found a maternal death rate of 600 deaths per 100,000 live births in 1991. The main referral hospital for maternal and child health in Phnom Penh calculated a maternal mortality rate of 580 in 1992. The authors note, however, that only 13 per cent of deliveries take place in a health facility, so these estimates may not be representative. They also observe that neither estimate includes deaths from abortion, which is thought to be a significant cause of maternal death in Cambodia.

D. Education

Women in Cambodia suffer a large educational disadvantage relative to men. Among the population age 15 and over, 82 per cent of males but only 58 per cent of females are literate (table 20). Literacy rates are much higher in urban than rural areas, but the gender gap is only somewhat reduced in urban areas. In terms of literacy, the gender gap exceeds the urban-rural difference. The difference in literacy rates between males and females narrows at younger ages so that at ages 15-19 85 per cent of boys and 76 per cent of girls are literate. The data indicate that considerable

Table 20. Literacy rates by sex, age group and residence, 1996

Age group	*Cambodia*			*Urban*			*Rural*		
	Total	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*
15+	68.7	81.8	58.0	80.2	90.6	71.5	66.8	80.3	55.7
15-19	80.7	85.2	76.4	90.7	93.9	87.6	79.0	83.7	74.5
20-24	78.6	84.7	73.4	88.6	92.6	85.3	76.8	83.3	71.3
25-29	78.5	85.8	72.0	89.0	94.1	83.9	76.6	84.2	69.9
30-34	68.0	79.0	58.8	80.7	90.0	73.7	65.7	77.1	56.2
35-39	67.2	77.8	58.6	79.0	86.0	72.6	65.0	76.1	56.0
40-44	72.9	88.6	62.7	84.4	94.6	77.0	70.5	87.2	59.8
45-49	68.4	86.0	54.8	82.0	92.9	73.0	65.7	84.5	51.3
50-54	56.8	83.3	36.5	72.2	91.2	56.2	54.0	81.8	33.2
55-59	44.4	76.1	20.6	52.1	85.1	30.1	43.1	74.7	18.9
60-64	39.4	72.8	13.8	49.3	80.8	28.3	37.7	71.6	11.3
65-69	32.5	60.6	12.5	38.5	69.2	21.7	31.6	59.5	10.9
70-74	31.6	64.5	8.3	41.4	77.1	21.0	30.2	62.9	6.3
75+	28.3	55.9	9.2	35.5	61.0	21.0	27.1	55.2	7.2

Source: Unpublished tables from the Demographic Survey of Cambodia - 1996, extrapolated figures.

Table 21. Literacy rates of female heads of household by age group and residence, 1996

Age group	*Cambodia*	*Urban*	*Rural*
Ages 15+	42.7	59.6	39.5
15-19	58.7	87.9	54.7
20-24	71.7	77.8	70.9
25-29	66.4	76.0	64.3
30-34	55.3	72.8	51.9
35-39	56.6	75.9	53.2
40-44	58.0	77.5	53.4
45-49	51.2	67.7	47.9
50-54	36.0	57.5	32.2
55-59	17.7	25.8	16.3
60-64	14.4	30.6	11.8
65-69	11.2	27.1	7.7
70-74	5.8	13.4	4.8
75+	10.2	9.2	10.4

Source: Rajalakshmi Rama Rao and Binie Zaan, *An Analysis of Female-headed Households in Cambodia*, Demographic Survey of Cambodia - 1996, Research Report (Phnom Penh, National Institute of Statistics, 1997), table 7.

progress in female literacy has been achieved in the past 15 years.

At first glance it would appear that the literacy rate of female heads of household is much below that of all women, but the difference is largely attributable to the different age composition of the two populations, the heads of household being a much older population. Overall, only 43 per cent of female heads of household are literate (compared with 58 per cent of all women), but when the rates are compared with those for all women by five-year age group, the rates of the female heads are only a few percentage points lower (table 21). None the less, the lack of basic literacy must pose a severe handicap to the majority of female heads of household.

Female school enrolment rates are nearly as high as those of males at ages 7-14, but drop sharply after that to a level approximately two thirds that of males (table 22). Urban-rural differences in enrolment are large. In urban areas 84 per cent of children ages 7-14 (comprising essentially primary and lower secondary school ages) are enrolled in school, whereas in rural areas only 68 per cent of such children are enrolled.

The Demographic Survey of Cambodia - 1996 tabulated educational attainment only for the literate population, thus overall rates of literacy should be borne in mind when viewing those tables. Table 23 indicates that 60 per cent of the literate population have not completed primary school, 25 per cent have completed only primary school, and only 4 per cent have

Table 22. Percentage of the population currently attending school by sex, age group and residence, 1996

Residence and sex	*Age group*				
	Ages 7+	*7-14*	*15-19*	*20-24*	*25+*
Cambodia					
Both sexes	31.2	69.9	51.7	18.8	4.0
Male	36.3	71.8	63.0	24.2	5.0
Female	26.6	67.9	40.6	14.4	3.2
Urban					
Both sexes	37.1	84.2	66.7	27.2	4.8
Male	42.3	85.2	76.6	35.9	6.2
Female	32.8	83.1	57.0	20.0	3.7
Rural					
Both sexes	30.3	67.9	49.6	17.6	3.9
Male	35.4	69.9	61.2	22.3	4.8
Female	25.7	65.7	38.2	13.6	3.2

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia - 1996, General Report* (Phnom Penh, 1996), p. 24.

completed secondary school or more. Female educational attainment is less than the average, as 65 per cent of literate females have not completed primary school and only 2.4 per cent have completed secondary school or more. The actual differences are greater than they appear in table 23 because females are much less likely to be literate.

As expected, educational attainment is significantly higher in urban areas, where 18 per cent of literates have completed lower secondary school and another 10 per cent have completed secondary school or more. In rural areas 63 per cent of the literate population has not completed primary school, compared with 44 per cent in urban areas. In urban areas, close to 10 per cent have completed secondary school or higher, whereas in rural areas fewer than 3 per cent have done so. Rama Rao and Zaan (1997) show that somewhat higher proportions of literate female heads of household have completed lower secondary and upper secondary school than among all female literates, but when the lower literacy levels of the female heads is taken into account, that slight advantage would largely disappear.

Persons aged 25 years and above in Cambodia have completed an average of only 3.7 years of schooling (table 24). Males have completed nearly twice as much schooling as females, 5.0 compared with 2.6 years. The disparity between rural and urban areas is also large, with persons in urban areas having completed an average of 5.6 years and those in rural areas only 3.4 years. The higher enrolment ratios among younger children indicate that the average years of schooling completed will increase substantially in the near future and that the gender difference will narrow somewhat.

Table 23. Percentage distribution of the literate population by level of education completed, by sex and residence, 1996

Educational level	*Cambodia*			*Urban*			*Rural*		
	Total	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*
Literate	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
None	3.7	3.9	3.5	2.1	1.7	2.5	4.0	4.2	3.7
Primary not compl.	56.2	51.5	61.6	41.8	37.4	46.3	58.9	54.2	64.7
Primary	24.9	26.2	23.4	28.5	28.1	28.8	24.2	25.9	22.4
Lower secondary	11.3	13.3	9.1	17.8	19.4	16.2	10.1	12.2	7.7
Secondary	2.3	2.9	1.5	5.3	6.9	3.7	1.7	2.2	1.0
Beyond secondary	1.5	2.1	0.9	4.4	6.4	2.4	1.0	1.2	0.5
Others	0.1	0.1	-	0.1	0.1	0.1	0.1	0.1	-

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia - 1996, General Report* (Phnom Penh, 1996), p. 23.

Table 24. Mean number of years of schooling completed, by sex and residence, 1996

Residence	*Both sexes*	*Male*	*Female*
Cambodia	3.7	5.0	2.6
Urban	5.6	7.3	4.2
Rural	3.4	4.7	2.4

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia - 1996, General Report* (Phnom Penh, 1996), p. 24.

E. Employment

Women in Cambodia have high rates of labour force participation beginning from young ages, especially in rural areas. The Demographic Survey of Cambodia - 1996 recorded the employment status of all persons at least 7 years old, not because that is considered the normal labour force age but in an attempt to assess the extent of child labour. It was found that among children ages 7-14 years 5.3 per cent of those in urban areas and 10.6 per cent of those in rural areas were economically active, with only small differences by sex (table 25). By ages 15-19, however, 60 per cent of girls were economically active compared with 43 per cent of boys. At ages 20-24 years, male and female participation rates are essentially equal.

Table 25. Economic activity rates by sex, age group and residence, 1996

Age group	Cambodia			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Ages 7+	59.2	59.0	59.4	50.8	55.0	47.0	60.5	59.6	61.3
7-14	10.0	9.2	10.8	5.3	5.4	5.2	10.6	9.7	11.6
15-19	51.6	42.7	60.2	30.5	25.0	35.9	54.8	45.3	64.1
20-24	85.9	86.5	85.5	70.1	71.9	68.6	88.5	88.8	88.3
25-29	90.9	96.7	85.7	81.2	92.2	70.9	92.4	97.5	88.0
30-34	92.1	98.6	86.6	83.5	96.6	73.0	93.4	99.0	88.7
35-39	93.1	98.7	88.5	86.5	98.2	76.1	94.2	98.9	90.4
40-44	92.7	99.2	88.5	84.4	99.0	73.9	94.2	99.2	91.0
45-49	93.8	99.3	89.5	87.4	99.1	77.7	94.8	99.3	91.3
50-54	90.0	97.5	84.3	79.9	94.1	67.9	91.6	98.1	86.8
55-59	86.1	95.3	79.1	70.9	86.9	60.2	88.3	96.6	82.0
60-64	74.6	87.9	64.4	56.3	79.7	40.7	77.1	89.1	67.8
65+	46.8	63.3	35.2	33.8	52.1	23.7	48.2	64.4	36.3

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia - 1996, General Report* (Phnom Penh, 1996), p. 26.

Among all women age 20 and above, 81 per cent are economically active - 67 per cent of those in urban areas and 84 per cent of those in rural areas. The male labour force participation rate exceeds 95 per cent from age 25 to age 59. Among females in rural areas the the rate is 88 per cent or higher from age 20 to age 49. Among urban women, the rate is near 70 per cent from age 20 to age 54.

Female heads of household are more likely to be economically active than other women, especially at the youngest and oldest ages (compare tables 25 and 26). Above age 35, the activity rate of female heads by five-year age group exceeds that of all women by at least 5 percentage points. Female heads of household in rural areas are especially likely to be in the labour force. Their economic activity rate is 90 per cent or higher from age 20 to age 59. In the age group 60-64 years it equals 80 per cent, in the age group 65-69 it is 70 per cent, in the age group 70-74 it is 54 per cent, and even among rural female heads at least 75 years old it remains at 48 per cent.

Table 27 presents the distribution of employed persons by status of employment. It demonstrates the underdeveloped state of the economy, in that only 9 per cent of workers are paid employees while 48 per cent are own account workers and 43 per cent are unpaid family workers. The urban economy is more developed, with 28 per cent of the workers being paid employees.

A majority of women workers are unpaid family workers. Fourteen per cent of male

Table 26. Economic activity rates of female heads of household by age group and residence, 1996

Age group	*Cambodia*	*Urban*	*Rural*
Ages 7+	86.9	74.6	89.2
7-14	23.8	-	23.8
15-19	75.7	32.7	81.6
20-24	85.9	55.9	89.7
25-29	88.4	70.4	92.5
30-34	90.5	78.7	92.8
35-39	95.1	86.2	96.7
40-44	95.9	89.8	97.3
45-49	96.5	90.6	97.7
50-54	90.7	75.4	93.4
55-59	86.9	67.7	90.3
60-64	76.2	52.8	79.9
65-69	66.9	52.0	70.2
70-74	52.6	42.4	53.9
75+	45.2	25.2	47.7

Source: Rajalakshmi Rama Rao and Binie zaan, *An Analysis of Female-headed Households in Cambodia*, Demographic Survey of Cambodia - 1996, Research Report (Phnom Penh, National Institute of Statistics, 1997), table 9.

workers are paid workers, compared with 4 per cent of female workers. Males are also more likely to be own account workers, 61 per cent of them, compared with 36 per cent of female workers. Among female workers, 59 per cent are unpaid family workers, in contrast with 24 per cent of male workers. In rural areas, only 3 per cent of women workers are paid employees while 63 per cent of them are unpaid family workers.

Thus, Cambodian women make a significant contribution to the economy, but mostly on an unpaid basis. Women constitute 53 per cent of employed workers, but only 25 per cent of paid employees and 40 per cent of own account workers. They constitute 74 per cent of unpaid family workers, however (table 28). If a woman is head of her household, her employment status usually changes from unpaid family worker to own account worker; thus 88.5 per cent of female heads are own account workers (table 29).

The reason that most workers are own account or unpaid family workers is that the great majority work in agriculture. Table 30 indicates that 81 per cent of employed persons (85 per cent of employed women) are agricultural or fishing workers. The second largest occupational category, with 5 per cent of workers, is elementary occupations.

Table 27. Percentage distribution of employed persons by employment status, for sex and residence, 1996

Residence and sex	Employment status					
	Total employed	*Employer*	*Paid employee*	*Own account worker*	*Unpaid family worker*	*Other*
Cambodia						
Both sexes	100.0	0.3	9.0	47.6	42.8	0.3
Male	100.0	0.4	14.4	60.8	24.1	0.3
Female	100.0	0.2	4.2	36.0	59.4	0.2
Urban						
Both sexes	100.0	0.8	27.9	47.8	22.8	0.7
Male	100.0	0.9	39.6	46.2	12.5	0.8
Female	100.0	0.6	15.3	49.6	33.9	0.6
Rural						
Both sexes	100.0	0.2	6.5	47.4	45.7	0.2
Male	100.0	0.3	10.7	62.8	25.9	0.3
Female	100.0	0.2	2.9	34.1	62.7	0.1

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia - 1996, General Report* (Phnom Penh, 1996), p. 32.

Table 28. Percentage of females among total employed workers, by residence and employment status, 1996

Residence	Employment status			
	Total employed	*Paid employee*	*Own account worker*	*Unpaid family worker*
Cambodia	53.0	24.9	40.1	73.6
Urban	48.0	26.4	49.8	71.4
Rural	53.7	24.1	38.6	73.7

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia - 1996, General Report* (Phnom Penh, 1996), p. 33.

Table 29. Percentage distribution of employed female heads of household by employment status, for residence, 1996

Residence and sex	Employment status					
	Total employed	Employer	Paid employee	Own account worker	Unpaid family worker	Other
Cambodia	100.0	0.4	5.6	88.5	5.2	0.3
Urban	100.0	1.5	20.2	73.3	4.5	0.4
Rural	100.0	0.2	3.4	90.8	5.3	0.03

Source: Rajalakshmi Rama Rao and Binie Zaan, *An Analysis of Female-headed Households in Cambodia*, Demographic Survey of Cambodia - 1996, Research Report (Phnom Penh, 1997), table 10.

Table 30. Percentage distribution of employed persons by major occupational group, for sex and residence, 1996

Major occupational group	Cambodia			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total number (1,000)	4 939	2 320	2 619	598	311	287	4 341	2 009	2 332
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Senior officials and managers	0.4	0.9	-	1.0	1.8	0.2	0.4	0.8	-
Professionals	2.2	3.1	1.4	5.8	6.7	4.9	1.7	2.6	1.0
Technicians and associate professionals	0.9	1.3	0.6	4.4	5.4	3.2	0.4	0.7	0.2
Clerks	0.9	1.3	0.5	3.8	4.8	2.7	0.5	0.8	0.2
Service workers and shop and market sales workers	4.6	4.3	4.8	17.4	15.0	20.1	2.9	2.8	3.0
Skilled agricultural and fishery workers	80.8	76.5	84.7	36.3	32.1	40.8	86.8	83.1	89.9
Craft and related workers	2.8	3.3	2.3	8.8	10.8	6.5	2.0	2.2	1.8
Plant and machine operators/assemblers	1.3	2.6	0.1	4.8	8.8	0.5	0.8	1.6	0.1
Elementary occup's	5.1	4.7	5.5	15.3	10.2	20.8	3.8	3.8	3.7
Armed forces	1.0	2.0	0.1	2.4	4.4	0.3	0.7	1.6	-

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia - 1996, General Report* (Phnom Penh, 1996), p. 31.

In rural areas 90 per cent of employed females are in the agricultural sector. Even in urban areas, 41 per cent of employed women work in agriculture. In urban areas another 21 per cent of employed women are in elementary occupations and 20 per cent are service and sales workers. Although the proportions of the labour force are small, males greatly outnumber females among managers, professionals, technicians, clerks, craft workers and machine operators.

The distribution of the employed population by industry gives a similar impression (table 31). Eighty-two per cent of the workforce (85 per cent of women workers) are engaged in the primary sector. No other industry employs as much as 10 per cent of the labour force. The second largest industry is wholesale and retail trade, which employs 7 per cent of the workforce, 5 per cent of men and 9 per cent of women. Among men the

Table 31. Percentage distribution of employed persons by industry and sex, 1996

Industry	*Total*	*Male*	*Female*
Total number employed (1,000)	4 939	2 320	2 619
Total per cent	100.0	100.0	100.0
Agriculture, hunting & forestry	80.6	76.0	84.6
Fishing	1.0	1.4	0.6
Mining and quarrying	0.1	0.1	0.1
Manufacturing	2.2	2.5	1.8
Electricity, gas & water supply	-	0.1	-
Construction	0.5	1.0	0.1
Wholesale & retail trade, repair of vehicles and personal goods	7.1	4.7	9.2
Hotels and restaurants	0.2	0.3	0.2
Transport, storage & commun.	1.3	2.7	0.1
Financial intermediations	0.1	0.1	-
Real estate, renting & business	0.3	0.3	0.2
Public administration & defence	3.4	6.5	0.7
Education	1.7	2.4	1.1
Health and social work	0.4	0.5	0.4
Other community, social and personal service	0.7	0.9	0.5
Private household employment	0.3	0.3	0.3
Extraterritorial organizations	0.1	0.2	0.1

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia - 1996, General Report* (Phnom Penh, 1996), p. 30.

second largest industry category is public administration and defence, employing 6.5 per cent of male workers. Only 2.2 per cent of the labour force works in manufacturing.

F. Migration

1. International migration

The Cambodian population has been subject to large-scale migratory movements caused by the political and military situation over the past two decades. About a quarter of a million persons have migrated out of the country permanently during that period, while much larger numbers left but later returned. In addition there have been massive displacements of the population within the country.

From 1975 through 1979, 171,933 persons fled Cambodia to Thailand and were accepted as refugees there, and were eligible for resettlement in third countries. Between 1980 and 1984 another 47,984 persons were accepted as refugees in Thailand. The number then declined to 12,811 in the period 1985-1989 and to 4,669 from 1990 to 1992. The total number eligible for resettlement from 1975 to 1992 equalled 237,397, nearly all of whom have moved to third countries.

While the number of persons considered to be refugees declined rapidly after 1980, the number of displaced persons in Thailand continued to increase. The displaced persons were not considered to be political refugees by the Royal Government of Thailand or the United Nations High Commissioner for Refugees and were, therefore, not eligible to be resettled in third countries. They remained in camps along the Thailand-Cambodia border and were assisted by the United Nations Border Relief Operation (UNBRO). The number in such camps equalled 140,000 at the end of 1980, 226,000 in 1985, 300,00 in 1990 and about 370,000 in early 1992. All of those persons were repatriated to Cambodia between mid-1992 and mid-1993 (UNBRO, 1994).

During the period of Khmer Rouge rule, a large number of ethnic Khmer, ethnic Vietnamese and ethnic Chinese with nationality in both countries fled across the border from Cambodia to Viet Nam. These persons were not registered and estimates of the number involved are often exaggerated for political purposes. Desbarats (1995) suggests that between 80,000 and 150,000 persons escaped to Viet Nam during that period. After 1980, many of those returned and new migrants also arrived from Viet Nam. Desbarats estimates that about 500,000 persons may have moved from Viet Nam to Cambodia between 1980 and 1995.

These mass movements of migrants across the national borders may not have resulted in any permanent loss of population to the country. The displaced persons in Thailand were all repatriated and the number of migrants from Viet Nam after 1980 may well exceed the combined number of permanent refugees who have left the country and the number of temporary migrants to Viet Nam prior to 1980.

Most of the movements cited above were mass migrations, and thus probably contained roughly equal numbers of males and females. That may not be true for the more recent influx of migration from Viet Nam, which appears to be dominated by male workers.

2. Internal migration

Throughout this decade there have been large numbers of internally displaced persons

in Cambodia. They have been displaced by insecurity in some areas and by land mines remaining in fields near former areas of conflict. The number of internally displaced persons was estimated to equal 170,000 in September 1991 (Huguet, 1991:88). It has fluctuated since then but the problem has not been eradicated because sporadic conflict in the countryside continues.

For all respondents, the Demographic Survey of Cambodia - 1996 asked where the person had lived previously. If the person had always lived in the same village, he or she was defined to be a non-migrant. If the person had ever lived in another village, the duration of current residence and the reason for the most recent move was also asked. By these questions, 35 per cent of the Cambodian population was identified as migrants. Sixty per cent of urban residents and 30 per cent of rural residents were reported to be migrants (table 32).

Table 32. Percentage distribution of the population by migration status, for sex and residence, 1996

Residence and sex	*Population (1,000)*	*Total per cent*	*Non-migrant*	*Migrant within province*	*Migrant between provinces*	*Inter-national migrant*
Cambodia						
Total	10 702	100.0	65.4	20.9	11.2	2.5
Male	5 120	100.0	65.4	21.2	10.9	2.6
Female	5 583	100.0	65.4	20.6	11.4	2.5
Urban						
Total	1 540	100.0	40.3	33.3	23.5	2.8
Male	738	100.0	42.0	32.2	22.8	2.9
Female	802	100.0	38.7	34.3	24.1	2.7
Rural						
Total	9 162	100.0	69.6	18.8	9.1	2.5
Male	4 381	100.0	69.3	19.3	8.8	2.5
Female	4 781	100.0	69.9	18.3	9.3	2.4

Source: LONG Chintha, *Labour Force and Migration in Cambodia, 1996*, Demographic Survey of Cambodia - 1996, Research Report (Phnom Penh, National Institute of Statistics, 1997), table 9.

Note: Migration status refers to the type of the most recent move of lifetime migrants. Persons with status not reported were distributed proportionately.

Table 33. Percentage distribution of internal migrants by duration of residence in the place of enumeration, by area, 1996

Duration	*Cambodia*	*Urban*	*Rural*
Total number (1,000)	3 425	871	2 554
Total per cent	100.0	100.0	100.0
Less than one year	6.7	7.6	5.9
1-4 years	18.3	22.3	20.9
5-9 years	14.5	20.0	12.5
10-19 years	52.2	49.1	50.3
20 or more years	8.3	1.0	10.4

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia - 1996, General Report* (Phnom Penh, 1996), p. 37.

Migrants in urban areas may have moved from somewhat longer distances. Among them, 56 per cent had moved within their province, whereas among migrants in rural areas 62 per cent had moved within province. There were no significant differences by sex in these levels and patterns of migration.

Just over half of all internal migrants reported that their most recent move was 10-19 years prior to the survey, i.e. between 1976 and 1986, reflecting the degree of internal displacement during that period. Migrants in urban areas are more likely to have moved recently. Among all migrants, 25 per cent had

Table 34. Percentage distribution of internal migrants by migration stream and sex

Migration stream	*Both sexes*	*Male*	*Female*
Total	100.0	100.0	100.0
Rural-to-rural	66.3	67.1	65.7
Rural-to-urban	15.1	14.4	15.7
Urban-to-urban	10.3	10.2	10.4
Urban-to-rural	8.3	8.3	8.2

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia - 1996, General Report* (Phnom Penh, 1996), p. 37.

Note: Refers to most recent move of lifetime migrants.

moved in the previous five years but among migrants to urban areas 30 per cent had. Only 1 per cent of migrants in urban areas had moved 20 or more years ago, compared with 10 per cent among migrants in rural areas (table 33).

Two-thirds of migrants in Cambodia had moved within rural areas during their most recent migration. Only 15 per cent had moved from a rural to an urban area (table 34). The migration streams for males and females are

Table 35. Percentage of the population migrating in the five-year period, 1991-1996, by sex, age group and residence

Age group	*Cambodia*			*Urban*			*Rural*		
	Total	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*
All ages	9.5	10.1	9.0	17.7	18.1	17.3	8.2	8.7	7.6
0-4	5.2	5.2	5.1	8.4	8.5	8.4	4.7	4.7	4.6
5-9	7.5	7.7	7.3	14.2	15.2	13.1	6.5	6.5	6.4
10-14	7.7	7.1	8.4	15.3	13.7	16.9	6.5	6.0	6.9
15-19	8.5	8.1	8.9	18.3	16.7	19.9	6.8	6.6	7.0
20-24	15.6	17.9	13.7	25.5	25.2	25.8	13.8	16.6	11.5
25-29	17.6	22.6	13.2	30.8	37.0	25.0	15.2	20.0	11.2
30-34	13.0	15.2	11.1	21.4	23.4	20.0	11.4	13.9	9.4
35-39	12.2	13.8	10.9	20.5	22.0	19.1	10.6	12.2	9.4
40-44	10.4	12.4	9.2	19.3	23.2	16.5	8.6	9.9	7.7
45-49	8.9	9.9	8.2	17.1	17.5	16.7	7.3	8.4	6.5
50-54	8.4	8.0	8.7	17.4	19.0	16.0	6.8	5.9	7.5
55-59	6.4	6.1	6.6	12.6	13.7	11.9	5.3	5.0	5.6
60-64	8.1	7.9	8.2	12.4	11.5	12.9	7.3	7.3	7.3
65-69	7.0	5.6	8.0	15.3	11.8	17.2	5.7	4.8	6.4
70-74	7.9	7.2	8.5	11.6	10.9	12.0	7.4	6.7	7.9
75+	7.3	6.0	8.2	14.0	8.7	17.0	6.2	5.7	6.7

Source: LONG Chintha, *Labour Force and Migration in Cambodia, 1996*, Demographic Survey of Cambodia - 1996, Research Report (Phnom Penh, National Institute of Statistics, 1997), table 10.

very similar, although it appears that females are slightly more likely to move to urban areas.

In the Cambodian population, 9.5 per cent of all persons had moved in the five years prior to the DSC - 1996, 10 per cent of males and 9 per cent of females (table 35). Urban residents were about twice as likely as rural residents to have moved in the past five years.

Age-specific migration rates were somewhat higher for females than males in the age groups 10-14 and 15-19, and in the age group 20-24 in urban areas. These patterns are common in South-East Asia, and particularly in Cambodia result from girls leaving school earlier than boys. Recall that in the age group 15-19 years, 63 per cent of males but only 41 per cent of females were currently attending school (table 22). Female migration rates are also higher than those of males in every five-year age group over age 50. Well over 10 per cent of all urban residents aged 50 years or more had moved in the previous five years, with female rates exceeding those of males in each age group over 60 years.

Rama Rao and Zaan (1997:10) present age-specific migration rates for female heads of household (table not shown). Headship status among females had little impact upon their likelihood of moving, although female heads under age 35 were somewhat more likely than all females to have moved, whereas those over age 35 were slightly less likely to have moved.

Table 36. Percentage distribution of literate migrants by level of education completed, by sex and residence, 1996

Educational level	*Cambodia*			*Urban*			*Rural*		
	Total	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*
Literate	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
None	3.9	4.0	3.9	1.7	1.2	2.1	4.9	5.0	4.7
Primary not completed	44.5	38.8	51.8	33.8	28.6	39.3	48.9	42.4	57.6
Primary	27.8	29.1	26.0	29.8	28.6	30.9	26.9	29.3	23.8
Lower secondary	16.5	18.8	13.6	21.7	23.6	19.6	14.4	17.1	10.8
Secondary	4.1	5.0	2.8	6.9	9.0	4.8	2.9	3.6	1.9
Beyond secondary	2.9	4.0	1.7	5.8	8.7	3.1	1.7	2.3	1.0
Other	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.2

Source: LONG Chintha, *Labour Force and Migration in Cambodia, 1996*, Demographic Survey of Cambodia -1996, Research Report (Phnom Penh, National Institute of Statistics, 1997), table 13.

Note: For this table migrants are defined as persons who have ever lived any place other than at the place of enumeration.

Long (1997:12-13) has shown that the crude activity rate of male migrants age 7 and over (71 per cent) is considerably higher than among all males ages 7 and over (59 per cent), but that among females the rates are very similar, 57 per cent among migrants and 59 per cent among all women. He also noted that unemployment rates are particularly high among female migrants. The unemployment rate from the DSC - 1996 was 6.0 for female migrants and 2.8 for male migrants. These compare with 2.8 per cent for all economically active females and 2.2 per cent for such males. He argues that the fact that female migrants have lower activity rates and higher unemployment rates than other females may indicate that many women have moved as dependents and have been less successful than male migrants at finding employment. A later analysis of reasons for migration supports that hypothesis.

Long (1997:12) observes that literacy rates among migrants are essentially the same

Table 37. Percentage distribution of migrants in the past five years who are employed by employment status, for sex and residence, 1996

Residence and sex	*Total employed migrants (1,000)*	*Employment status*					
		Total per cent	*Employer*	*Paid employee*	*Own account worker*	*Unpaid family worker*	*Other*
Cambodia							
Total	546.0	100.0	0.7	20.0	50.4	28.3	0.5
Male	310.3	100.0	0.7	27.3	54.0	17.3	0.6
Female	235.7	100.0	0.7	10.2	45.7	42.7	0.6
Urban							
Total	118.0	100.0	1.8	37.1	49.3	10.4	1.4
Male	70.2	100.0	1.6	49.1	41.4	6.5	1.4
Female	47.7	100.0	2.0	19.4	61.1	16.1	1.3
Rural							
Total	428.0	100.0	0.4	15.2	50.7	33.2	0.4
Male	240.0	100.0	0.4	21.0	57.7	20.5	0.3
Female	188.0	100.0	0.4	7.9	41.8	49.4	0.5

Source: LONG Chintha, *Labour Force and Migration in Cambodia, 1996*, Demographic Survey of Cambodia - 1996, Research Report (Phnom Penh, National Institute of Statistics, 1997), table 16.

as among non-migrants for both males and females. A comparison of educational attainment between literate migrants and the entire literate population reveals that migrants have higher levels of education and that the advantage that migrants hold increases with level of education (compare tables 36 and 23). About 24 per cent of literate migrants have completed at least lower secondary school, compared with about 15 per cent of all literates. Nearly twice the percentage of migrants as of all persons had completed some schooling beyond the secondary level. Although female levels of educational attainment are lower than male levels among both migrants and non-migrants, female migrants also hold a considerable advantage over all females. About 18 per cent of literate female migrants had completed at least lower secondary school, compared with about 12 per cent of all female literates.

Long (1997:14) shows that 59 per cent of the employed population who had migrated in the past five years are employed in agriculture or fishing, compared with 81 per cent of all employed persons. This lower proportion of migrants in agriculture means that the proportion in each other main occupational group is about twice as great among migrants as among all employed persons. These findings are similar for both males and females.

The employment status of recent migrants may also be compared with that of all employed persons. The proportions of employers and of paid employees are twice as high among migrants as among all employed persons (compare table 37 with table 27). The proportions of own account workers are not greatly different, but there are fewer unpaid family workers among migrants than among all workers. There is a major difference between males and females in these patterns, however. Male migrants are less likely to be own account workers than are all male workers. In contrast, female migrants are more likely to be own account workers than are all female workers. This is true of female migrants in both urban and rural areas. This finding is consistent with those noted above that seem to indicate that it is more difficult for female migrants than male migrants to find suitable employment after moving.

Part of the reason for this is that females are much more likely than males to move along with their family, rather than for some other reason (table 38). Movement with the family or migration for marriage are the predominant reasons for the most recent move among all persons who have ever migrated. Reasons for migration differ between urban and rural areas. The migrants in urban areas are more likely to have moved with their family or for employment or further education. Those in rural areas are more likely to have moved for marriage, for security reasons or as a repatriation from a neighbouring country. These findings apply to both male and female migrants.

There are significant differences in reasons for migration between males and females, however. While females are more likely than males to migrate because their family moves, males are more likely than females to move for each of the other main reasons, including for marriage. Whereas 20 per cent of male migrants had moved for marriage, only 10 per cent of female migrants had done so.

Nearly two thirds of female migrants had moved because their family did, which is no doubt part of the explanation why female migrants have found it more difficult than male migrants to find suitable employment.

Table 38. Percentage distribution of migrants by main reason for most recent move, for sex and residence

Reason for most recent move	*Cambodia*			*Urban*			*Rural*		
	Total	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*
All reasons	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job transfer	1.6	2.5	0.8	2.5	3.8	1.4	1.4	2.0	0.6
In search of employment	9.8	13.6	6.3	13.9	20.0	8.5	8.6	11.5	5.6
Education	0.9	1.2	0.7	2.6	3.7	1.6	0.4	0.5	0.3
Marriage	14.5	19.9	9.5	5.7	8.3	3.5	17.6	23.7	11.5
Moved with family	53.5	40.9	65.0	61.1	48.3	72.1	50.3	38.5	62.6
Natural calamities/ insecurity	8.5	9.8	7.4	4.3	4.4	4.3	10.1	11.5	8.5
Repatriation	5.8	6.1	5.5	3.8	4.3	3.5	6.3	6.7	6.2
Others	5.4	6.0	4.8	6.1	7.2	5.1	5.3	5.6	4.7

Source: Cambodia, National Institute of Statistics, *Demographic Survey of Cambodia - 1996, General Report* (Phnom Penh, 1996), p.38.

Note: The table refers to most recent move among persons who have ever migrated.

G. Conclusion

Women in Cambodia confront three main types of disadvantage in their ability to participate in national development. The first is the demographic imbalance resulting from war and civil disturbances since 1970. The second is the underdeveloped state of the Cambodian economy and social system, and the third is a disadvantage that may be ascribed to gender *per se*, not permitting women equal opportunity in social and economic activities.

Cambodian women have had to shoulder a heavy burden in the family and in the economy because of the shortage of males resulting from civil war and disturbances, especially throughout the 1970s. There are only 91.7 males per 100 females in the Cambodian population in 1996. The deficit is greater among adults. Among the population age 15 and over, there are only 82.3 males per 100 females. This demographic imbalance leaves many women unmarried or widowed and a high percentage of them as head of their household.

In the ages from 30 to 60 years, no more than 80 per cent of women are currently married. By age 60, fewer than half of the women are married. By age 50, about one third of Cambodian women are widows. Related to the shortage of males, the DSC - 1996 found that about one quarter of households in

Cambodia were headed by a woman. In the age group 60-64, 36 per cent of women are head of their household. The high rates of headship among women are related to their widowhood, especially among older women. Four fifths of female heads of household over age 60 are widows.

Although current mortality rates are lower among women than men, mortality remains high in Cambodia. The infant mortality rate is estimated to be about 116 per 1,000 live births. Female expectation of life at birth is 58.6 years, compared with 50.3 years among males. There are a number of estimates of the maternal mortality rate but all indicate that it remains high. The estimates range from 473 per 100,000 live births derived from a survey employing the sisterhood method to 900 estimated by WHO and UNICEF.

The economic and social systems of Cambodia are underdeveloped, and within those systems the status of women remains substantially lower than that of men. The mean number of years of schooling completed by the adult population was only 3.7 in 1996, 5.0 years among males and only 2.6 years among females. Among persons aged 15 years and over, 82 per cent of men and 58 per cent of women are literate. Among those literate persons, about 55 per cent of men and 65 per cent of women had not completed primary school.

Largely because they are older on average than other women, only 40 per cent of female heads of household in rural areas are literate. Thus, many women with the primary responsibility for the well-being of their family lack the basic skills to promote that well-being.

An indication of the underdeveloped nature of the Cambodian economy is that only 9 per cent of employed persons are paid employees, while 48 per cent are own account workers and 43 per cent are unpaid family workers. Women are considerably disadvantaged within that economy. While 14 per cent of men are paid employees, only 4 per cent of women are. Among women workers, 59 per cent are unpaid family workers, compared with 24 per cent among male workers.

Eighty-one per cent of employed persons are agriculture or fishing workers. The second largest occupational group is labeled elementary occupations and employs 5 per cent of the labour force. Only about 4 per cent of the labour force are craft and related workers or plant and machine operators, i.e. skilled industrial workers. Female workers are in less skilled occupations than males. Eighty-five per cent of them are in agriculture or fishing and another 5.5 per cent are in elementary occupations. Nearly 5 per cent are sales workers, but only 2.4 per cent are industrial workers. Only 2 per cent of female workers are professional or technical workers.

While migration rates are nearly as high among women as men, and are higher in several age groups, 65 per cent of female migrants reported that they had moved because their family had. As such, migration did not appear to improve their chance of employment or the type of job found. While economic activity rates were much higher for male migrants than for all males, they were slightly lower among female migrants than among all females. The unemployment rate was much higher among female migrants than among either male migrants or female non-migrants.

Migration to an urban area apparently improves the nature of employment of men, but not necessarily among women. Among

employed recent male migrants in urban areas, 49 per cent were paid employees, compared with 40 per cent of all urban male workers. Only 19 per cent of employed female migrants to urban areas were paid employees, compared with 15 per cent of all urban female workers. Female migrants to urban areas were most likely to become own account workers, as 61 per cent of them were in that category.

Women contribute substantially to the national economy as more women than men are in the labour force and are migrants. Women's contribution is constrained, however, by the marginal nature of their employment. Only 4 per cent of working women are paid employees while 95 per cent are either own account workers or unpaid family workers. Cambodian women will require better educational opportunities and other skills development before they can make a greater contribution to national development and to the improvement of their own family circumstances.

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III. LAO PEOPLE'S DEMOCRATIC REPUBLIC

A. Demographic context

The role of women in development in the Lao Peoples' Democratic Republic is limited both by the low level of economic development in the country and by traditional concepts of the role of women in society. Discrimination against women is not strong, however, and certain customs favour women, such as husbands moving to live with or near their wife's family at the time of marriage, and the custom of equal inheritance of land among children irrespective of gender.

Lao women marry relatively early (about age 21) and fertility remains high, with a total fertility rate of 5.6, although the most recent census indicates that it is declining. Mortality is also high, particularly infant and maternal mortality rates.

Levels of school attendance are lower among girls than boys, especially after primary school. The gender gap in literacy has narrowed, but remains sizeable. Among persons ages 20-24 years, 78 per cent of men but only 63 per cent of women are literate.

While Lao women have high rates of labour force participation, nearly 95 per cent of working women are either own account workers (57 per cent) or unpaid family workers (38 per cent). Nearly 90 per cent of economically active women work in agriculture.

The population by sex and age group as enumerated by the 1995 population census is presented in table 39. The age group 0-4 years appears to have been underenumerated. A simple method of estimating the degree of underenumeration is to assume that in the population projection for the year 2000 produced by the National Statistical Centre (Lao People's Democratic Republic, 1997:84), the age group 5-9 years (which was ages 0-4 in 1995) is the average of the age groups 0-4 and 10-14. That method implies that the population ages 0-4 years in 1995 was only 91.9 per cent completely enumerated and that its actual size would have been 784,000.

The sex ratios shown in table 39 do not follow a regular pattern, so it is difficult to base much interpretation on them. The sex ratio at ages 20-24 is particularly low, no doubt reflecting a disproportionate underenumeration of males and perhaps some emigration of males for work as well. The sex ratios between the age groups 20-24 and 70-74 do not show any regular pattern of decline. This implies that female death rates are not appreciably lower than male rates in that age range. The sex ratio in the 1985 census was 96.1 (Lao People's Democratic Republic, 1986).

The population is still largely rural, with only 17.1 per cent living in urban areas (Lao People's Democratic Republic, 1997:19). The 1995 census found that 99.5 per cent of the population were citizens of the Lao People's Democratic Republic. About two thirds (65.4 per cent) were Buddhist, 33.1 per cent were animist and 1.3 per cent were Christian (Lao People's Democratic Republic, 1997:14). The animists are mostly ethnic minority groups, many of whom live in upland areas, in contrast to the ethnic Laos who live primarily in lowland areas.

Table 39. Population of Lao People's Democratic Republic by sex and five-year age group, 1 March 1995

Age group	*Both sexes*	*Males*	*Females*	*Sex ratio*
Total	4 574 848	2 260 986	2 313 862	97.7
0-4	720 178	363 223	356 955	101.8
5-9	697 253	355 119	342 134	103.8
10-14	605 913	311 086	294 827	105.5
15-19	454 940	223 222	231 718	96.3
20-24	364 893	169 953	194 940	87.2
25-29	341 125	161 255	179 870	89.7
30-34	281 597	137 349	144 248	95.2
35-39	266 046	133 900	132 146	101.3
40-44	181 923	90 730	91 193	99.5
45-49	156 890	76 417	80 473	95.0
50-54	133 143	60 530	72 613	83.4
55-59	109 641	53 069	56 572	93.8
60-64	89 981	43 216	46 765	92.4
65-69	68 006	34 129	33 877	100.7
70-74	46 042	21 862	24 180	90.4
75+	56 968	25 793	31 175	82.7
Not stated	309	133	176	75.6

Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane, April 1997), p. 10.

According to the 1995 census, 52.5 per cent of the population were ethnic Laos. Another 11.0 per cent were Khmu, 10.3 per cent were Phutai and 6.9 per cent were Hmong. No other ethnic group made up as much as 3.0 per cent of the population. The census report lists the population of another 39 ethnic groups and shows a population of 10,200 persons in an "others" category (Lao People's Democratic Republic, 1997:15).

B. Family formation

Household size is large in the Lao People's Democratic Republic, with little variation between urban and rural areas (table 40). The average size of household is 6.0 persons for the whole country, 5.9 persons in urban areas and 6.1 persons in rural areas. Women are the heads of 11.0 per cent of private households in the country (table 41).

Table 40. Percentage distribution of private households by size and area, 1995

Number of persons in household	*Total*	*Urban*	*Rural*
Number of households	748 529	128 519	620 010
Total	100.0	100.0	100.0
1	1.3	1.9	1.1
2	4.6	4.7	4.6
3	9.7	10.0	9.6
4	14.1	15.0	13.9
5	16.0	16.4	16.0
6	15.7	15.8	15.7
7	13.2	13.0	13.2
8	9.9	9.3	10.0
9	6.5	6.0	6.6
10	4.1	3.9	4.2
11+	4.8	4.1	4.9

Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), table 3.2.

Table 41. Per cent of private households headed by women, by size of household and area, 1995

Number of persons in household	*Total*	*Urban*	*Rural*
Total	11.0	14.6	10.3
1	64.6	57.0	67.2
2	31.8	37.6	30.5
3	18.2	21.3	17.6
4	12.6	14.6	12.2
5	10.1	12.5	9.5
6	8.3	11.2	7.6
7	6.9	9.9	6.3
8	6.1	9.9	5.4
9	5.3	8.9	4.6
10	5.2	10.0	4.3
11+	4.7	10.7	3.6

Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), table 3.2.

The proportion of households headed by women declines steadily by household size. Women comprise 65 per cent of one-person households and head 32 per cent of two-person households, but head much smaller proportions of larger households. Women head 14.6 per cent of urban and 10.3 per cent of rural households. In addition to the private households described in tables 2 and 3, the 1995 census recorded that 68,643 persons lived in collective households. Eighty-six per cent of these persons were male (Lao People's Democratic Republic, 1997:27).

Marriage occurs relatively early for both men and women in the Lao People's Democratic Republic. In 1995, by the age group 20-24 years, 43 per cent of men and 67 per cent of women had been married (tables 42 and 43). The singulate mean age at marriage for men was 23.85 years and for women was 21.16 years.

Men who are divorced or separated are more likely than women to remarry. Men are less likely than women to become widowed, and more likely to remarry if they are widowed. Overall, women are three times more likely than men to be divorced/separated or widowed without having remarried (tables 42 and 43). Between the ages of 40 and 69, women are four or five times more likely than men to be widowed and not remarried.

The report of the 1995 population census stated that techniques of indirect estimation yielded a crude birth rate of 41.3 per 1,000 population and a crude death rate of 15.1. The

Table 42. Percentage distribution of male population aged 10 years and over by marital status for five-year age groups, 1995

Age group	*Total*	*Never married*	*Married*	*Divorced or separated*	*Widowed*
10 and over	100.0	43.7	53.2	1.0	2.1
10-14	100.0	99.8	0.2	0.0	0.0
15-19	100.0	93.6	6.0	0.3	0.1
20-24	100.0	56.9	41.4	1.4	0.3
25-29	100.0	21.4	76.4	1.7	0.6
30-34	100.0	7.5	90.3	1.4	0.8
35-39	100.0	3.7	94.0	1.3	1.1
40-44	100.0	2.4	94.8	1.2	1.6
45-49	100.0	2.0	94.4	1.3	2.4
50-54	100.0	2.0	92.8	1.4	3.9
55-59	100.0	1.8	91.2	1.7	5.3
60-64	100.0	2.0	87.3	1.8	8.8
65-69	100.0	2.0	84.0	2.4	11.7
70-74	100.0	2.7	76.5	2.9	17.9
75+	100.0	3.4	66.3	2.7	27.6

Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), table 1.3.

Note: Figures may not add to 100.0 because of rounding.

Table 43. Percentage distribution of female population aged 10 years and over by marital status for five-year age groups, 1995

Age group	*Total*	*Never married*	*Married*	*Divorced or separated*	*Widowed*
10 and over	100.0	37.0	52.2	3.2	7.7
10-14	100.0	99.7	0.3	0.0	0.0
15-19	100.0	80.3	18.5	1.1	0.1
20-24	100.0	32.6	63.0	3.8	0.6
25-29	100.0	12.0	82.5	4.4	1.1
30-34	100.0	6.6	86.9	4.3	2.2
35-39	100.0	4.8	87.2	4.4	3.6
40-44	100.0	4.2	83.4	5.2	7.2
45-49	100.0	3.7	79.4	5.4	11.5
50-54	100.0	3.6	69.7	5.5	21.1
55-59	100.0	3.1	65.9	5.3	25.7
60-64	100.0	3.5	53.4	4.8	38.4
65-69	100.0	3.4	48.6	4.5	43.5
70-74	100.0	3.8	36.2	3.7	56.4
75+	100.0	4.4	26.2	3.0	66.5

Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), table 1.4.

Note: Figures may not add to 100.0 because of rounding.

rate of natural increase implied by these figures is 2.62 per cent per annum (Lao People's Democratic Republic, 1997:66). As the fertility rate has been declining rather rapidly, the rate of natural increase for the 10-year intercensal period would have been somewhat higher. The population growth rate implied by the total population enumerated in the 1985 and 1995 censuses was 2.44 per cent per annum. The difference between the rate of natural increase and the population growth rate, if both estimates are accurate, can be accounted for only by net emigration. The population census did not attempt to estimate international migration flows, but there may well be some migration among neighboring countries for employment purposes. Temporary moves may constitute much of such labour migration.

Table 44 gives age-specific and total fertility rates for 1985, 1988 and 1991. The total fertility rates (TFR) for 1988 and 1991 imply that fertility has been declining rapidly since 1988. The TFR estimated by indirect techniques from 1995 census data was 5.6 children per woman, implying a continuing rapid decline (Lao People's Democratic Republic, 1997:60).

As noted above, the crude birth rate (CBR) estimated by indirect techniques from 1995 census data was 41.3 per 1,000 population and the crude death rate (CDR) was

Table 44. Age-specific fertility rates and total fertility rate, 1985, 1988 and 1991

Age group	Age-specific fertility rates (per 1,000 women)		
	1985	1988	1991
15-19	50	67	60
20-24	248	284	245
25-29	335	316	294
30-34	280	275	264
35-39	256	245	214
40-44	127	128	134
45-49	52	44	45
TFR	6.74	6.80	6.28

Source: Lao People's Democratic Republic, Committee for Planning and Cooperation, *Report on Population and Development Planning* (Vientiane: August 1995), p. 7.

Note: The data for 1985 are from the 1986 Fertility and Mortality Survey and those for 1988 and 1991 are from the Multi-round Vital Statistics Survey of 1988-1991, as cited in the source named above.

Table 45. Mean number of children ever born per woman by age group and level of education completed, 1995

Age group	Total	No schooling and primary not completed	Primary completed	Secondary completed	Higher education
15-49	2.68	3.11	2.15	1.18	1.90
15-19	0.13	0.21	0.11	0.05	0.07
20-24	1.08	1.34	1.13	0.63	0.55
25-29	2.48	2.77	2.55	1.69	1.36
30-34	3.81	4.06	3.76	2.81	2.36
35-39	4.89	5.05	4.71	3.60	3.23
40-44	5.46	5.45	5.38	4.34	4.08
45-49	5.48	5.41	5.59	4.64	4.34

Source: Calculated from Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane. April 1997), table 6.1.

Note: Calculated by assuming that women with 9 or more children had an average of 10.0 children each.

15.1. The direct measure of fertility from the census, based on the number of children born in the 12 months prior to the census, yielded a CBR of 26.6, implying that recent births reported in the census were only 64 per cent completely reported. The CDR calculated from the number of deaths reported in the census for the 12 months prior to the enumeration was 10.6, implying that deaths were 70 per cent completely reported. For comparison purposes, it may be noted that the United Nations (1996) estimated that the CBR for the period 1990-1995 in the Lao People's Democratic Republic equalled 45.2 and the CBR equalled 15.2.

Education has a strong impact on fertility. Table 45 presents the mean number of children ever born per woman by age group and educational level in 1995. Women who have completed primary school, but not a higher level, had on average one child fewer than those who had not. Women who had completed secondary school had one child fewer than those who had completed only primary school. The average for all women ages 15-49 years appears to indicate that women who had completed higher education had more children than those who had completed only secondary school, but that is only because the average age of women with higher education was greater. Above the age of 20, women who had completed some higher education had fewer children than those who had completed only secondary school.

Fertility levels are lower and the first birth occurs later in urban than in rural areas. Among all women ages 15-49 years, 42.8 per cent of those in urban areas had not yet given birth in 1995, compared with 32.3 per cent in rural areas. Among women who had given birth by 1995, the median age at first birth was 21.9 years, compared with 21.0 years for rural women (Lao People's Democratic Republic, 1997:63).

C. Health

The level of mortality in the Lao People's Democratic Republic is one of the highest in Asia. Indirect estimates based on the number of deaths reported in households in the 12 months prior to the 1995 population census put the crude birth rate at 15.1 per 1,000 population and the infant mortality rate (IMR) at 104 per 1,000 live births. The Fertility and Birth Spacing Survey had estimated the IMR to equal 113 for the period 1989 to 1994 (Lao People's Democratic Republic, 1997:65). The lower IMR estimated from census data is not conclusive proof that infant mortality has declined, because of the different data sources and estimation techniques employed.

The approximate expectation of life corresponding to this level of infant mortality is 50 years for males and 52 years for females (Lao People's Democratic Republic, 1997:65). This rather small advantage for females is consistent with the slow decline in the sex ratio of the population with increasing age, noted in section A above.

There is considerable variation in mortality levels among provinces. While the IMR was 72 in Vientiane Municipality and 80 in Savannakhet Province (Savannakhet is one of the larger cities in the country), it exceeded 130 in three provinces (Borikhamxay, Luang Prabang and Xayaboury) and in Xaysomboon Special Region. Similarly, while the crude death rate was estimated to equal 10.9 in Vientiane Municipality, it exceeded 16 in Attapeu, Borikhamxay, and Xayaboury Provinces and in Xaysomboon Special Region (Lao People's Democratic Republic, 1997:66).

The 1995 census reported that there had been 900 deaths in connection with childbearing in the 12 months prior to the census. It also reported that there were 120,300 live births during that period. If the two figures

are of the same degree of completeness, they imply that the maternal mortality rate (MMR) is 749 maternal deaths per 100,000 live births, a figure somewhat higher than other estimates. The Committee for Planning and Cooperation (Lao People's Democratic Republic, 1995:20) cites a 1994 document of the Ministry of Health and Social Welfare that reported the MMR to be 656. That figure is essentially the same as the 650 estimated by the World Health Organization and the United Nations Children's Fund (1996).

D. Education

Among the population aged 15 years and above, only three fourths of males and less than half of females are literate. Literacy rates are much higher in urban (85 per cent) than in rural (55 per cent) areas. Only 41 per cent of rural women are literate (table 46).

Literacy rates by sex have narrowed over time, so that differences are much less among younger cohorts than older persons (table 47). Above age 55, males are about five times more likely than females to be literate. More than half of the females are literate in each age group under age 40. It is between the ages of 30 and 55 that female literacy rates change the most rapidly. This implies that female enrolment in primary school improved rapidly between 1940 and 1965.

In the age group 20-24 years, 78 per cent of males and 63 per cent of females are literate. Male literacy rates are essentially stagnant under age 40, while female literacy rates show only modest gains from the age group 30-34 to younger age groups. The educational system has not been able to break through the barriers of 80 per cent literacy among males and two thirds literacy among females, although those levels were approached nearly 40 years ago for men and 30 years ago for women (table 47).

These barriers are partially explained by the fact that ethnic minorities constitute about 47 per cent of the national population. Many of these live in remote mountainous areas and practice shifting cultivation, so do not have a fixed residential location. Thus, it is difficult to provide educational facilities to all of the population. Literacy rates are much higher among the ethnic Lao population than among other ethnic groups (table 48). While 86 per cent of Lao males are literate, in only three other ethnic groups (Phutai, Leu and Nhuan) does the male literacy rate exceed 70 per cent.

Sixty-five per cent of Lao females aged 15 years and over are literate and 50 per cent of Phutai females are, but in no other ethnic group are half of the women literate. In most of the other ethnic groups listed in table 10, fewer than one quarter of the women are literate. In order for male and female literacy

Table 46. Literacy rate of the population aged 15 years and above by sex and area, 1995

Sex	*Total*	*Urban*	*Rural*
Both sexes	60.2	85.2	54.5
Male	73.5	92.4	69.0
Female	47.9	78.1	41.2

Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), table 4.7.

Table 47. Per cent literate of the population aged 15 years and above by sex and age group, 1995

Age group	*Both sexes*	*Male*	*Female*
15 and over	60.2	73.5	47.9
15-19	72.3	79.7	65.1
20-24	69.7	77.6	62.8
25-29	67.7	76.2	60.1
30-34	68.7	78.8	59.2
35-39	65.7	79.7	51.4
40-44	59.2	77.5	40.9
45-49	51.4	72.5	31.4
50-54	41.1	66.1	20.3
55-59	38.6	62.7	16.0
60-64	31.4	53.8	10.7
65-69	29.4	49.7	9.0
70-74	22.1	40.1	5.8
75+	18.8	35.6	4.8

Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), table 4.8.

rates to be increased, it will be necessary to expand educational opportunities to rural areas and especially to minority ethnic groups.

Educational attainment remains at low levels. Among the population aged 6 years and above, 42 per cent have no education and another 31 per cent have not completed primary school. Among males these figures are 33 and 35 per cent, respectively, while among females they are 52 and 27 per cent (tables 49, 50 and 51). The literacy rates presented in table 47 may exaggerate the level of functional literacy if it is assumed that it requires at least the completion of primary school. Thus, while 68 per cent of males aged 15 years and above were considered literate, about half had not completed primary school. While 63 per cent of females were reported to be literate, about two thirds had not completed primary school.

Observing the educational attainment of all persons aged 6 years and over may be misleading because that group includes children under age 10, who can not be expected to have completed primary school, and elderly persons who would have been educated many years in the past. A better gauge of current educational attainment would be to focus on the age group 20-24 years, most of whom would have recently completed their highest level of education. In this age group, 30 per cent had no education and another 21 per cent had not completed primary school. Among males ages 20-24, 22 per cent had no education and 22 per cent had not completed primary school. Among females 20-24, 37 per cent had no education and another 20 per cent had not completed primary school (tables 49, 50 and 51). Thus, even in this young age

Table 48. Per cent literate of the population aged 15 years and above by sex and ethnic group, 1995

Ethnic group	*Both sexes*	*Male*	*Female*
Total	60.2	73.5	47.9
Lao	75.2	86.0	65.1
Phutai	63.0	77.2	50.1
Khmu	40.9	60.8	22.7
Hmong	26.5	45.7	8.1
Leu	59.7	73.9	46.6
Katang	30.3	49.3	12.8
Makong	25.0	39.1	12.3
Kor	3.8	7.0	0.7
Xouay	36.8	55.7	20.5
Nhuan	59.4	71.2	48.7
Taoey	36.6	54.8	20.3
Talieng	40.4	58.4	25.0
Phounoi	46.8	58.8	36.2
Lavae	34.4	52.2	18.7
Katu	26.2	43.0	10.6
Lamed	28.0	49.0	10.2
Thin	29.6	40.6	20.0
Alack	37.1	54.6	21.3
Oey	50.2	69.4	34.2
Ngae	33.5	52.3	15.6
Musir	1.6	2.9	0.4
Jeng	36.8	56.9	19.9
Yae	30.8	45.9	17.9
Other groups	46.8	60.8	32.9

Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), table 4.9.

group, about 44 per cent of males and 57 per cent of females may be considered not to have achieved functional literacy.

Among the population aged 20-24 years, 25.5 per cent had completed at least lower secondary school and 11.4 per cent had completed at least upper secondary school. Male educational levels are significantly better than female levels. In the same age group, 30.3 per cent of males and 21.4 per cent of females had completed at least lower secondary school, and 13.8 per cent of males and 9.4 per cent of females had completed at least upper secondary school (tables 49, 50 and 51).

Table 49. Percentage distribution of the population of both sexes aged six years and over by highest level of education completed, by age group, 1995

Age group	Total	None	Primary		Lower secondary		Upper secondary		Higher educa.
			Not com	Compl.	Not com	Compl.	Not com	Compl.	
Ages 6+	100.0	42.5	31.0	10.9	5.1	4.4	1.4	2.4	2.3
6-9	100.0	70.7	29.1	0.1	0.0	0.0	0.0	0.0	0.0
10-14	100.0	28.6	59.7	6.9	4.2	0.4	0.1	0.0	0.0
15-19	100.0	26.9	28.0	15.0	15.3	7.1	5.5	1.8	0.3
20-24	100.0	29.9	20.9	14.2	9.4	10.2	3.9	8.2	3.2
25-29	100.0	32.0	21.9	15.2	6.8	9.6	1.7	6.8	5.9
30-34	100.0	31.2	26.3	16.8	5.4	8.3	0.9	4.5	6.5
35-39	100.0	34.4	29.6	18.0	3.4	5.7	0.5	2.7	5.5
40-44	100.0	41.1	28.8	17.1	2.4	4.1	0.3	1.8	4.5
45-49	100.0	49.0	27.3	14.3	1.7	3.1	0.2	1.1	3.2
50-54	100.0	59.6	22.9	11.1	1.2	2.2	0.1	0.7	2.0
55-59	100.0	62.4	22.6	9.9	1.1	1.8	0.1	0.5	1.5
60-64	100.0	69.7	19.5	7.6	0.6	1.2	0.1	0.3	0.9
65-69	100.0	71.9	19.0	6.9	0.5	0.8	0.1	0.2	0.5
70-74	100.0	79.4	14.5	4.8	0.3	0.5	0.0	0.1	0.3
75+	100.0	83.0	11.9	4.0	0.3	0.3	0.0	0.1	0.2

Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), table 4.6.

Notes: "Not com" indicates level begun but not completed.
"Compl." indicates level completed.
Figures may not sum to 100.0 because of rounding.

Rates of current school attendance by sex and age are shown in table 52. Among children ages 6-16 years, 66 per cent of males and 56 per cent of females were attending school in March 1995. Although the nominal age of entry to school is 6 years, it is clear that most children do not enter at that age. Apparently among those who do enter, not all remain in school continuously until they complete their highest level. Thus current attendance rates rise with age until age 11 years, at which 84 per cent of boys and 77 per cent of girls are in school. While girls ages 6 and 7 are as likely as boys to begin school, they suffer disproportionately from the sporadic nature of school attendance. By age 12, the female attendance rate is 10 percentage points lower than the male rate.

Table 50. Percentage distribution of the male population aged six years and over by highest level of eduacation completed, by age group, 1995

Age group	Total	None	Primary		Lower secondary		Upper secondary		Higher educa.
			Not com	Compl.	Not com	Compl.	Not com	Compl.	
Ages 6+	100.0	33.1	34.7	12.6	6.1	5.4	1.8	3.1	3.1
6-9	100.0	70.4	29.4	0.1	0.0	0.0	0.0	0.0	0.0
10-14	100.0	24.8	63.9	6.7	4.0	0.4	0.1	0.0	0.0
15-19	100.0	19.4	31.2	15.3	18.2	7.4	6.4	1.7	0.3
20-24	100.0	22.1	22.3	14.3	10.8	11.0	5.5	10.2	3.6
25-29	100.0	23.7	22.7	15.3	8.2	11.7	2.4	8.9	7.0
30-34	100.0	21.3	26.2	18.1	7.0	11.0	1.3	6.5	8.4
35-39	100.0	20.6	30.6	21.5	5.2	8.6	0.9	4.5	8.1
40-44	100.0	23.0	32.2	23.2	4.0	6.7	0.6	3.1	7.2
45-49	100.0	28.3	34.3	21.0	3.0	5.3	0.4	2.1	5.5
50-54	100.0	35.1	33.7	19.0	2.4	4.2	0.3	1.4	3.9
55-59	100.0	38.8	34.4	17.1	2.2	3.4	0.3	1.0	2.7
60-64	100.0	47.9	32.2	13.8	1.3	2.3	0.2	0.6	1.7
65-69	100.0	52.4	31.3	12.4	0.9	1.5	0.1	0.3	1.0
70-74	100.0	62.2	26.3	9.1	0.6	0.9	0.1	0.2	0.6
75+	100.0	67.1	22.8	7.9	0.6	0.7	0.1	0.3	0.5

Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), table 4.6.

Notes: "Not com" indicates level begun but not completed.
"Compl." indicates level completed.
Figures may not sum to 100.0 because of rounding.

The intermittent nature of school attendance may be observed by comparing school enrolment rates with school attendance rates. The school year begins in September and ends in May. As the 1995 census was conducted in March, many students who had enrolled six months earlier were no longer attending school. Enrolment rates by sex and age were estimated by the Committee for Planning and Cooperation (Lao People's Democratic Republic, 1995:13-14) for the 1994/1995 school year, based on trends from the 1992/1993 and 1993/1994 enrolment rates. While about 50 per cent of children age 6 years were enrolled in school, only 26 per cent were attending at the time of the 1995 census (table 52). The gap narrows with age, so that at age 8, for example, 76 per cent were enrolled and

Table 51. Percentage distribution of the female population aged six years and over by highest level of education completed, by age group, 1995

Age group	Total	None	Primary		Lower secondary		Upper secondary		Higher educa.
			Not com	Compl.	Not com	Compl.	Not com	Compl.	
Ages 6+	100.0	51.6	27.3	9.3	4.1	3.4	1.0	1.7	1.5
6-9	100.0	71.1	28.7	0.1	0.0	0.0	0.0	0.0	0.0
10-14	100.0	32.5	55.2	7.1	4.5	0.5	0.1	0.0	0.0
15-19	100.0	34.2	24.9	14.7	12.5	6.9	4.7	1.8	0.4
20-24	100.0	36.7	19.7	14.0	8.1	9.5	2.5	6.5	2.9
25-29	100.0	39.4	21.2	15.1	5.5	7.8	1.1	4.9	4.9
30-34	100.0	40.7	26.4	15.5	3.9	5.7	0.5	2.6	4.7
35-39	100.0	48.4	28.7	14.4	1.6	2.8	0.2	1.0	2.9
40-44	100.0	59.0	25.3	11.0	0.8	1.5	0.1	0.4	1.8
45-49	100.0	68.7	20.7	7.9	0.4	0.9	0.1	0.2	1.1
50-54	100.0	80.0	14.0	4.5	0.3	0.5	0.0	0.1	0.5
55-59	100.0	84.5	11.5	3.1	0.1	0.3	0.0	0.1	0.3
60-64	100.0	89.8	7.9	1.9	0.1	0.1	0.0	0.0	0.1
65-69	100.0	91.6	6.6	1.4	0.0	0.1	0.0	0.0	0.1
70-74	100.0	94.9	3.9	0.8	0.0	0.1	0.0	0.0	0.1
75+	100.0	96.1	2.9	0.7	0.1	0.0	0.0	0.0	0.0

Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), table 4.6.

Notes: "Not com" indicates level begun but not completed.
"Compl." indicates level completed.
Figures may not sum to 100.0 because of rounding.

60 per cent were attending. By age 11, the figures for enrolment and attendance are similar. Over age 11, school attendance rates are higher than school enrolment rates. This anomaly may occur because during school enrolment children who have not progressed continuously through the school system are reported to be younger than their actual age in order to attain a closer correspondence between age and grade of school. This downward shift in reported age would lower school enrolment rates for older age groups.

The low level of education will pose an obstacle to economic growth. Many segments of the population are not receiving sufficient education to be considered functionally literate. Women's educational levels are lower

Table 52. Per cent of the population aged 6-25 years currently attending school, by sex and single year of age, 1995

Age	*Both sexes*	*Male*	*Female*
6-25	44.6	50.8	38.6
6-16	61.2	66.0	56.2
6	25.7	25.7	25.7
7	48.4	49.4	47.4
8	59.7	62.0	57.5
9	70.6	72.9	68.2
10	73.9	77.4	70.4
11	80.4	84.1	76.6
12	76.8	81.7	71.5
13	73.5	80.3	66.3
14	67.3	76.4	57.8
15	54.7	66.3	42.7
16	46.1	58.5	33.6
17	36.2	48.5	24.1
18	24.2	35.1	14.7
19	19.3	28.6	10.9
20	10.7	17.1	5.2
21	8.7	14.0	4.0
22	5.4	8.8	2.4
23	3.6	5.9	1.6
24	2.6	4.6	1.0
25	1.5	2.6	0.6

Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), table 4.4.

than men's, but the educational disparities are greater between rural and urban areas and between the majority Lao population and other ethnic groups.

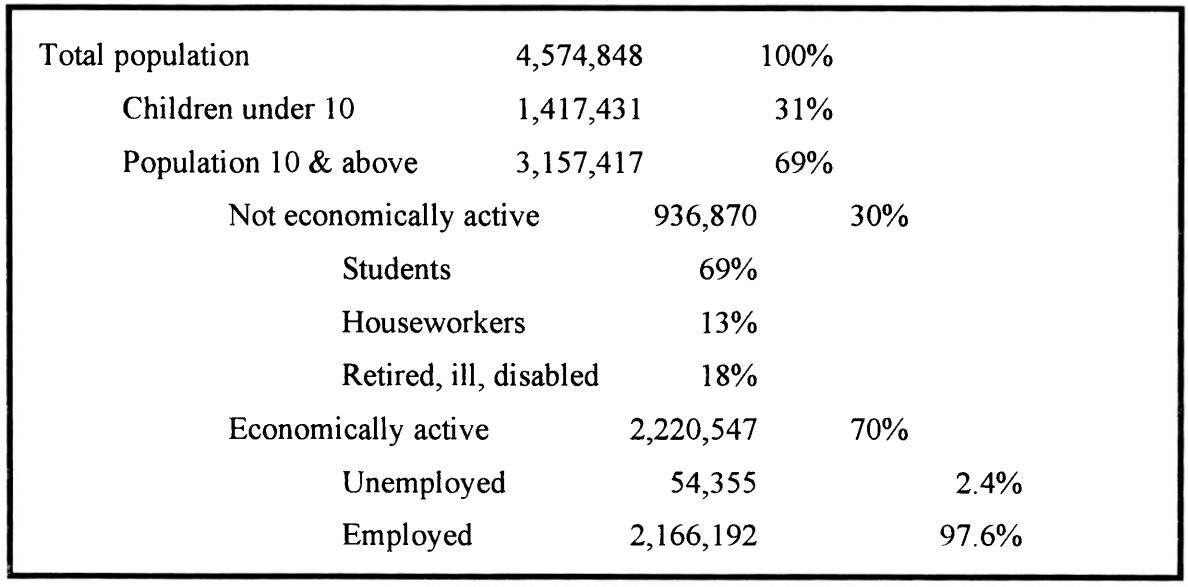
E. Employment

Figure 5 shows the distribution of the population by economic activity. Seventy per cent of the population aged 10 years and above are economically active. The recorded unemployment rate is only 2.4 per cent.

The number of economically active females is 1,150,000, and that of males is 1,044,000. Thus the number of females in the labour force is about 10 per cent greater than the number of males.

Between the ages of 20 and 49, over 90 per cent of the population are economically

Figure 5. Distribution of the population by main economic activity, 1995



Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), p. 43.

Table 53. Age-specific economic activity rates of the population ages 10 years and over by sex and area, 1995

Age group	*Whole country*			*Urban*			*Rural*		
	Total	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*
10+	70.3	69.4	71.2	56.8	60.4	53.3	73.4	71.5	75.1
10-14	24.3	22.8	29.7	5.5	4.2	6.9	28.0	21.6	34.7
15-19	60.6	50.7	72.1	37.2	27.6	46.8	66.4	53.7	78.6
20-24	89.7	87.2	92.0	73.6	70.3	76.6	94.2	91.9	96.1
25-29	94.8	96.9	92.8	83.8	91.4	76.8	97.5	98.3	96.7
30-34	95.5	98.3	92.7	85.8	95.8	76.0	97.8	98.9	96.7
35-39	95.9	98.5	93.2	86.7	96.5	76.1	97.9	98.9	96.9
40-44	95.4	98.4	92.3	85.7	96.6	73.5	97.4	98.7	96.2
45-49	94.3	97.8	91.1	83.5	95.2	70.6	96.4	98.2	94.7
50-54	84.8	93.6	77.2	73.9	89.5	58.3	86.6	94.1	80.6
55-59	76.3	87.8	65.3	62.9	79.6	46.1	78.8	88.9	69.4
60-64	58.1	73.9	43.8	45.2	61.7	29.4	60.4	75.1	47.0
65-69	47.1	62.5	32.1	33.2	47.8	18.8	49.8	63.8	35.6
70+	22.0	35.0	12.9	12.5	20.3	6.2	24.0	34.4	14.8

Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), table 5.1.

Table 54. Employed population by status of employment, by sex, 1995

Status	Number		
	Both sexes	*Male*	*Female*
Total employed	2 166 200	1 045 100	1 121 100
Paid employee-Government	130 500	95 300	35 200
Paid employee-Parastatal	19 000	14 800	4 200
Paid employee-Private	8 000	5 600	2 400
Paid employee-State enterpr.	51 700	33 600	18 100
Employer	5 400	4 000	1 400
Own account worker	1 226 500	587 700	638 800
Unpaid family worker	725 100	304 100	421 000

Status	Percentage distribution			*Per cent female in category*
	Both sexes	*Male*	*Female*	
Total employed	100.0	100.0	100.0	52
Paid employee-Government	6.0	9.1	3.1	27
Paid employee-Parastatal	0.9	1.4	0.4	22
Paid employee-Private	0.4	0.5	0.2	30
Paid employee-State enterpr.	2.4	3.2	1.6	35
Employer	0.2	0.4	0.1	26
Own account worker	56.6	56.2	57.0	52
Unpaid family worker	33.5	29.1	37.6	58

Source: Calculated from Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), p. 43.

active (table 53). The overall economic activity rate of females is greater than that of males. Female labour force participation is greater than that of males at younger ages. In the age group 10-14 years, 30 per cent of females are considered economically active, and 72 per cent of those 15-19 years old are active. The high rates of economic activity at young ages, especially of females, are primarily related to their work in rural areas. In the age group 10-14, for example, 35 per cent of rural girls are in the labour force, compared with only 7 per cent of urban girls.

Over age 50, female labour force participation rates decline much more rapidly

with age than do male rates. Age- and sex-specific economic activity rates in urban and rural areas follow patterns similar to that for the total population, although the rates in urban areas are considerably lower than in rural areas. The differences between male and female participation rates are generally greater in urban than in rural areas (table 53).

The employment status of workers reflects the underdeveloped nature of the economy. Only 14.2 per cent of working males and 5.3 per cent of working females are paid employees, while about 57 per cent of all workers are own account workers and 34 per cent are unpaid family workers (table 54). Females make up a small share of paid employees but are over-represented among own account workers and unpaid family workers. Women constitute about 30 per cent of all paid employees, but their representation among government and parastatal employees is especially low. On the other hand, women constitute 52 per cent of own account workers and 58 per cent of unpaid family workers.

These patterns are largely explained by the occupational structure of the labour force, in which 85.5 per cent of workers are agricultural and fishery workers (table 55). Four per cent of the labour force are service workers. No other occupational category

Table 55. Percentage distribution of employed population by occupational category, by sex, 1995

Occupational category	*Total*	*Male*	*Female*	*Per cent female in category*
Total number	2 166 192	1 045 137	1 121 055	51.8
Total per cent	100.0	100.0	100.0	
Legislators, senior officials, managers	0.4	0.8	0.1	6.1
Professionals	1.2	1.7	0.8	33.4
Technicians & associate professionals	2.9	3.7	2.1	38.4
Clerks	0.2	0.2	0.3	54.7
Service workers	4.0	3.5	4.4	57.0
Agricultural and fishery workers	85.5	81.2	89.5	54.2
Crafts and related trades workers	2.6	3.2	2.0	40.8
Operators and assemblers	1.0	2.0	0.1	3.6
Elementary occupations	1.2	1.8	0.6	27.5
Other occupations	1.0	1.9	0.1	7.5

Source: Calculated from Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), p. 57.

Table 56. Percentage of total population born in same district as enumerated in 1995 and percentage of population aged 10 years and over living in same district in 1985 as enumerated in 1995, by province

Province	*Total population*		*Population aged 10 and over*	
	Number	*Per cent born in same district*	*Number*	*Per cent living in same district in 1985*
Lao People's Democratic Republic	4 574 848	81.0	3 157 417	86.1
Vientiane Municipality	524 107	55.8	393 977	70.3
Phongsaly	152 848	86.5	104 657	86.9
Luangnamtha	114 741	78.5	80 408	83.2
Oudomxay	210 207	86.4	140 728	87.9
Bokeo	113 612	72.7	79 031	84.5
Luangprabang	364 840	85.2	242 194	89.8
Huaphanh	244 651	92.2	161 327	95.2
Xayaboury	291 764	86.6	200 643	89.4
Xiengkhuang	200 619	76.8	126 638	83.7
Vientiane Province	286 564	71.5	202 669	82.4
Borikhamxay	163 589	77.3	110 876	84.2
Khammuane	272 463	87.6	188 274	91.8
Savannakhet	671 758	89.1	464 334	93.5
Saravane	256 231	89.8	171 397	92.7
Sekong	64 170	80.5	44 086	85.8
Champasack	501 387	85.5	351 196	91.2
Attapeu	87 229	86.4	60 349	82.3
Xaysomboon Spec. Reg.	54 068	56.3	34 633	72.5

Source: Lao People's Democratic Republic, State Planning Committee, National Statistical Centre, *Results from the Population Census 1995* (Vientiane: April 1997), pp. 21-22.

constitutes as much as 3.0 of the labour force. About 3.6 per cent of workers may be considered industrial workers if the two categories of "crafts and related trades workers" and "operators and assemblers" are combined. Women are disproportionately concentrated in lower-skilled occupations. They constitute more than half of the employed clerks, service workers, and agricultural and fishery workers. On the other hand, they equal only 6.1 per cent of the category of legislators, senior officials and managers, and only 3.6 per cent of the skilled occupations of operators and assemblers.

F. Migration

The 1995 census asked where each person had been born and where each person aged 10 years and over had been living exactly 10 years earlier, in 1985. It published the results as percentages by province of the population that were born in the same district in which they were enumerated in 1995, and that were living in the same district in both 1985 and 1995. Those figures are shown in table 56. They imply that the population is not particularly mobile. (Short-term, short-distance and seasonal migration rates may be higher, but these non-permanent forms of migration are not captured by the census.) Nineteen per cent of the total population were living in districts other than where they were born, and 14 per cent of persons aged 10 years and over lived in different districts in 1985 and 1995.

The largest migration flows appear to be toward the region of the capital. Forty-four per cent of the population of Vientiane Municipality are lifetime migrants, as are 44 per cent of the population of Xaysomboon Special Region (contiguous to Vientiane Municipality) and 28 per cent of that of Vientiane Province (which is adjacent to but does not include Vientiane Municipality).

Thirty per cent of the population of Vientiane Municipality in 1995 had lived in a different district in 1985, as had 28 per cent of the population of Xaysomboon Special Region and 18 per cent of the population of Vientiane Province.

The sex ratios of the provincial populations imply that males dominate in internal migration flows, as the provinces with the most in-migrants have the highest sex ratios (Lao People's Democratic Republic, 1997:18). The highest sex ratios, in descending order, are 102.3 males per 100 females in Vientiane Province, 101.5 in Xaysomboon Special Region and 100.4 in Vientiane Municipality (table not shown).

G. Social customs

Lao peasants typically live in multi-household compounds, although most families are nuclear (Evans, 1995:124-131). Residence is considered matrilocal for daughters, that is, when daughters marry, their husband moves to live with the parents of the daughter. The young couple work the land of the wife's parents. When a younger daughter marries, her husband also moves to the parents' household. Then the elder daughter and her husband are likely to establish their own household. Thus the multi-household compound consists of the household of a couple, including unmarried children and often a married daughter with her husband, plus the households of other married daughters and their husbands. The youngest daughter usually inherits the family home, partially in compensation for caring for her parents when they are elderly.

This system is not matrilineal because an in-marrying male becomes head of the household, but has been described as female-centered (Evans, 1995:125). Inheritance of land is bilateral; children have rights to equal shares of their parents' land, irrespective of gender. As men move to their wife's household upon marriage, they may sell the right to their own land to a sister who will remain in her household.

These are general patterns of residence and household formation and, of course, exceptions exist. The exceptions may be caused by illness or death of some siblings. The pattern would also be disrupted if a couple had only male children. Economic development may also cause changes. If a husband's family is considerably wealthier or has access to more land than the wife's family, the couple may reside with the husband's family. Proximity to Vientiane may also be a factor. If persons or couples have better earning potential through migration, they may pursue that option while selling or renting their land in the village.

It should also be noted that the female-centered residence structure, matrilocal residence of daughters, and bilateral inheritance patterns do not apply to the half of the population of the country that are ethnic minorities.

Because of the female-centred system of residence and household formation, women in the Lao People's Democratic Republic have relatively more power in their family than do women in most other countries in Asia, including other countries in South-east Asia. Because a couple usually gains access to farm land through the wife's family, if a wife seeks a divorce she may threaten to dispossess her husband of land. Arranged marriages are rare, although parents would exert considerable informal influence over the choice of partners for their children.

Ironically, some government practices may weaken the power of women in their family. For example, it has been noted that when land in a village was registered, local officials registered it in the name of the male head of household, although the land was derived from the wife's family (Evans, 1995:246). Thus official practices may be inconsistent with cultural practices, with the potential to cause conflict within families and to weaken the influence of women in their family. Registering land in the wife's name, if the land derived from her family, would be a cost-free government policy that could do much to promote women's equality and empowerment.

H. Conclusion

The statistics presented in this chapter make it clear that the life of a typical woman in the Lao People's Democratic Republic is not an easy one, more because of economic underdevelopment than because of gender bias, although the latter is significant.

The traditional patterns of matrilocal residence of daughters and bilateral inheritance imply more gender equity than in many other societies, but other statistics temper that conclusion. For example, only 11 per cent of households are headed by women.

Women tend to marry young, at about 21 years of age. The total fertility rate was estimated in 1995 to equal 5.6 children per woman, although it was declining. The maternal mortality rate is estimated to be 650

maternal deaths per 100,000 live births, or higher. The female advantage in expectation of life at birth is only two years, the smallest in South-east Asia.

Fewer than half of all women aged 15 years and above are literate. Only 41 per cent of rural women are literate. The gender gap in education has narrowed over time, but it is still significant. Up to age 10, the percentage of girls going to school is about the same as that for boys, but it then declines more rapidly, so that at age 15 only 43 per cent of girls are currently attending school, compared with 66 per cent of boys.

The level of education of women is important for their status and for their ability to contribute to national development, partially because of the sizeable impact that female education has on fertility. By age 30, women who have completed secondary school have an average of one child fewer than women who have completed primary school or less.

Women in the Lao People's Democratic Republic have high labour force participation rates but 57 per cent of working women are own account workers and 38 per cent of them are unpaid family workers. Ninety per cent of working women are in agriculture.

Gender disparities on many socio-economic indicators are great, but urban-rural or ethnic group disparities are often greater. Rural women, or ethnic minority women, are often doubly disadvantage.

There is a potential to learn much more about socio-economic conditions of the population of the Lao People's Democratic Republic if further analysis of unpublished census data will be possible. In addition to the many tables published in the main report of the population census (Lao People's Democratic Republic, 1997), it would be possible from the data collected by the census to produce many more tables disaggregated by urban and rural residence. These would include tabulations of the population by sex and age group, school enrolment, educational attainment by age group, headship rates by sex and age group, and age-specific fertility rates.

Other valuable tabulations that could be produced include age-specific migration rates by sex and urban/rural residence, interprovincial migration streams, and employed population by industry. Completeness of reporting of births and deaths in the census could also be estimated.

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IV. MYANMAR

A. Demographic context

The population of Myanmar reached 45.1 million in 1995 according to United Nations (1996:300) estimates. During the period 1990-1995 it expanded at an average annual rate of 1.7 per cent, with a crude birth rate of 28.8 per 1,000 population and a crude death rate of 10.9

The population shown in tables 1-3 is the household population estimated by the Myanmar Population Changes and Fertility Survey 1991 (PCFS) carried out by the Immigration and Population Department (1995). It is lower than the complete population because the Survey's sample design covered only 88.4 per cent of households owing to concerns for the security of field

Table 57. Household population of Myanmar by sex and five-year age group, and sex ratios, 1991

Age	*Both sexes*	*Males*	*Females*	*Sex ratio*
Total	35 571 911	17 332 274	18 239 637	95.0
0	752 243	378 587	373 656	101.3
1-4	3 268 431	1 669 696	1 598 735	104.4
5-9	4 341 567	2 207 565	2 134 002	103.4
10-14	4 083 490	2 035 678	2 047 812	99.4
15-19	3 809 203	1 902 947	1 906 256	99.8
20-24	3 566 455	1 721 954	1 844 501	93.4
25-29	2 957 410	1 397 741	1 559 669	89.6
30-34	2 588 458	1 237 553	1 350 905	91.6
35-39	2 203 149	1 073 251	1 129 898	95.0
40-44	1 723 354	822 594	900 760	91.3
45-49	1 249 468	606 839	642 629	94.4
50-54	1 334 863	616 055	718 808	85.7
55-59	1 153 343	527 379	625 964	84.3
60-64	948 383	438 548	509 835	86.0
65-69	662 266	297 953	364 313	81.8
70-74	459 559	202 104	257 455	78.5
75+	470 269	195 830	274 439	71.4

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), p. 25.

Table 58. Urban household population of Myanmar by sex and five-year age group, and sex ratios, 1991

Age	*Both sexes*	*Males*	*Females*	*Sex ratio*
Total	10 370 375	4 972 210	5 398 165	92.1
0	169 637	90 134	79 503	113.4
1-4	782 729	400 514	382 215	104.8
5-9	1 106 273	558 944	547 329	102.1
10-14	1 103 731	544 963	558 768	97.5
15-19	1 158 697	565 444	593 253	95.3
20-24	1 127 482	533 243	594 239	89.7
25-29	951 229	450 162	501 067	89.8
30-34	831 226	388 507	442 719	87.8
35-39	687 814	325 352	362 462	89.8
40-44	553 200	262 421	290 779	90.2
45-49	398 604	194 560	204 044	95.4
50-54	392 728	180 146	212 582	84.7
55-59	337 482	152 099	185 383	82.0
60-64	279 305	121 428	157 877	76.9
65-69	204 653	91 614	113 039	81.0
70-74	135 826	57 650	78 176	73.7
75+	149 759	55 029	94 730	58.1

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), p. 25.

workers in some areas and because it excludes persons living in institutional households, such as hospitals, military installations, monasteries and prisons. The population of Myanmar (formerly called Burma) estimated by the United Nations for January 1991, the month the PCFS was conducted, equalled 41,426,000, or 16.5 per cent greater than the total shown in table 57.

The PCFS appears to have somewhat undercounted the population ages 0-4. The proportion ages 0-4 in table 1 equals 11.3 per cent, compared with the United Nations estimate of 13.4 per cent in 1990. The proportion ages 0-4 is declining because of declining fertility.

The age structure of the Myanmar population remains relatively young, however. The proportion ages 0-14 equalled 35.0 per cent in 1991 (table 57), that ages 15-64 was 60.5 per cent and that aged 65 and over was only 4.5 per cent. The dependency ratio equalled 65.2 persons ages under 15 and 65 or over per 100 persons ages 15-64.

The sex ratio of 95 males per 100 females shown in table 57 is somewhat lower than that for the entire population, as the PCFS did not

Table 59. Rural household population of Myanmar by sex and five-year age group, and sex ratios, 1991

Age	*Both sexes*	*Males*	*Females*	*Sex ratio*
Total	25 201 536	12 360 064	12 841 472	96.3
0	582 606	288 453	294 153	98.1
1-4	2 485 702	1 269 182	1 216 520	104.3
5-9	3 235 294	1 648 621	1 586 673	103.9
10-14	2 979 759	1 490 715	1 489 044	100.1
15-19	2 650 506	1 337 503	1 313 003	101.9
20-24	2 438 973	1 188 711	1 250 262	95.1
25-29	2 006 181	947 579	1 058 602	89.5
30-34	1 757 232	849 046	908 186	93.5
35-39	1 515 335	747 899	767 436	97.5
40-44	1 170 154	560 173	609 981	91.8
45-49	850 864	412 279	438 585	94.0
50-54	942 135	435 909	506 226	86.1
55-59	815 861	375 280	440 581	85.2
60-64	669 078	317 120	351 958	90.1
65-69	457 613	206 339	251 274	82.1
70-74	323 733	144 454	179 279	80.6
75+	320 510	140 801	179 709	78.3

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), p. 26.

cover the institutional population, most of which would consist of males. The United Nations (1996) estimated the overall sex ratio to equal 99 males per 100 females in 1990.

The sex ratios shown in tables 57-59 decline approximately as would be expected as age advances, although the average of those for the three age groups from age 35 to age 49 is higher than for the younger three age groups. The relatively low sex ratios recorded for the ages 20-34 may result primarily from the exclusion of the institutional population from the Survey.

According to the PCFS, 29.2 per cent of the population lives in urban areas. The sex ratio recorded for urban areas equalled only 92.1. The urban sex ratio is notably lower than the overall sex ratio in the 15-19 and 20-24 year age groups, perhaps reflecting slightly more employment opportunities for young women than for young men in urban areas, and thus a majority of women in rural-to-urban migration at those ages.

Table 60. Percentage distribution of households by size for urban and rural areas, 1983 and 1990

Number of persons in household	*1983*			*1990*		
	Total	*Urban*	*Rural*	*Total*	*Urban*	*Rural*
All households	100	100	100	100	100	100
1	4	6	4	4	4	3
2	9	10	9	9	11	9
3	14	13	14	13	15	13
4	16	15	16	18	18	18
5	16	15	16	17	16	18
6	14	13	14	15	11	16
7	11	10	11	10	10	9
8	7	7	7	6	6	6
9	4	5	4	4	5	4
10 or more	5	6	5	4	4	4
Mean household size	5.16	5.15	5.16	5.08	5.00	5.13

Source: Myanmar, Ministry of Labour, United Nations Population Fund and International Labour Organisation, *Report on Myanmar Labour Force Survey, 1990* (Yangon, Department of Labour, March 1993), p.27.

B. Family formation

Table 60 indicates that mean household size declined marginally between 1983 and 1990, with a greater decline in urban than in rural areas.

The average age at marriage in Myanmar is high for both males and females, and an unusually high proportion of people never marry. In 1991, at ages 50-54 years, 3.6 per cent of males and 6.5 per cent of females had never married (table 61). While the proportion of males currently married reaches 90 per cent in the age group 45-49, the proportion of females currently married by age group never reaches 80 per cent, with a maximum of 78.5 per cent at ages 35-39. The proportion of women currently married remains low because some never marry and because of widowhood and divorce. For example, at ages 45-49 the proportions of women who have never married and who are divorced are about double the male proportions, while the per cent widowed is triple the male proportion. By the age group 65-69, nearly half of all women are widowed, compared with only 19 per cent of men.

Table 62 shows that the mean age at marriage has been increasing over the past two decades. The mean age at marriage for both males and females increased by approximately one year between 1973 and 1983, and by another two years between 1983 and 1991. According to the PCFS, the mean age at marriage in urban areas is about 2.5 years

Table 61. Percentage distribution of the population aged 10 years and over by marital status, for sex and five-year age groups, 1991

Age group	*Total*	*Never married*	*Currently married*	*Widowed*	*Divorced*
Male					
10-14	100.00	99.99	0.01	0.00	0.00
15-19	100.00	96.70	3.20	0.00	0.10
20-24	100.00	69.89	29.02	0.19	0.90
25-29	100.00	37.57	60.35	0.67	1.41
30-34	100.00	19.56	78.03	0.94	1.47
35-39	100.00	11.40	85.29	1.43	1.88
40-44	100.00	6.21	89.23	2.82	1.74
45-49	100.00	4.32	90.22	3.98	1.48
50-54	100.00	3.57	88.96	5.88	1.59
55-59	100.00	3.95	86.10	9.05	0.90
60-64	100.00	2.90	80.18	15.88	1.04
65-69	100.00	3.15	76.00	19.15	1.70
70-74	100.00	2.42	70.28	26.30	1.00
75+	100.00	1.17	53.12	44.27	1.44
Female					
10-14	100.00	99.91	0.09	0.00	0.00
15-19	100.00	89.27	10.19	0.09	0.45
20-24	100.00	56.04	41.25	0.57	2.14
25-29	100.00	32.39	63.51	1.55	2.55
30-34	100.00	19.57	74.10	3.20	3.13
35-39	100.00	13.81	78.51	4.86	2.82
40-44	100.00	10.43	78.17	8.29	3.11
45-49	100.00	9.11	74.92	12.85	3.12
50-54	100.00	6.53	69.06	21.10	3.31
55-59	100.00	6.32	63.90	27.10	2.68
60-64	100.00	7.19	51.37	38.75	2.69
65-69	100.00	6.62	43.10	49.06	1.22
70-74	100.00	6.10	31.68	59.79	2.43
75+	100.00	6.10	17.78	75.29	0.83

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), p. 19.

Table 62. Singulate mean age at marriage and proportion of persons aged 45-49 years never married from the 1973 and 1983 censuses and the 1991 Population Changes and Fertility Survey

Residence	Females			Males		
	1973 census	*1983 census*	*1991 PCFS*	*1973 census*	*1983 census*	*1991 PCFS*
Singulate mean age at marriage						
Total	21.2	22.4	24.5	23.8	24.5	26.3
Urban	21.9	23.3	26.3	24.9	25.7	28.1
Rural	21.0	22.1	23.7	23.4	24.1	25.6
Per cent of persons ages 45-49 who have never married						
Total	5.86	5.93	9.11	3.51	3.77	4.32
Urban	7.60	7.88	11.13	4.52	4.70	5.57
Rural	5.30	5.27	8.17	3.19	3.45	3.74

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), p. 36.

Table 63. Percentage distribution of population and of households by size of household, by area, 1983

Number of persons in household	*Population*			*Households*		
	Total	*Urban*	*Rural*	*Total*	*Urban*	*Rural*
Number	33 714 816	8 274 965	25 439 85	16 497 632	1 601 354	4 896 278
Total	100.0	100.0	100.0	100.0	100.0	100.0
1	0.8	1.1	0.7	4.1	5.6	3.6
2	3.5	3.8	3.4	9.1	9.8	8.9
3	7.9	7.8	8.0	13.7	13.4	13.8
4	12.3	11.8	12.5	16.0	15.2	16.3
5	15.3	14.5	15.5	15.8	15.0	16.1
6	15.9	15.1	16.1	13.7	13.0	13.9
7	14.3	13.8	14.4	10.61	0.2	10.7
8	11.2	11.0	11.2	7.3	7.1	7.3
9	7.8	7.9	7.7	4.5	4.6	4.5
10 or more	11.0	13.1	10.4	5.2	6.0	4.9

Source: Calculated from Burma, Immigration and Manpower Department, *Burma 1983 Population Census* (Rangoon, June 1986), p. 275.

Table 64. Headship rates by sex and age group, 1983

Age group	*Male*	*Female*
Ages 15+	53.1	9.7
15-19	1.2	0.2
20-24	17.6	0.9
25-29	46.0	2.2
30-34	67.2	4.3
35-39	79.2	7.3
40-44	86.2	11.4
45-49	90.4	15.5
50-54	91.9	21.4
55-59	92.5	26.8
60-64	90.3	32.6
65+	80.9	36.6

Source: Calculated from Burma, Immigration and Manpower Department, *Burma 1983 Population Census* (Rangoon, June 1986), pp. 2-29 and 2-77.

higher than in rural areas, for both men and women. In urban areas it has reached 26.3 years among women and 28.1 years among men. The proportion of males remaining single at ages 45-49 increased gradually from 1973 to 1991, but the proportion of women in that age group remaining single increased dramatically between 1983 and 1991.

While average household size in 1983 equalled 5.16 persons, it may be seen from table 63 that the average person lived in a household of 5.6 persons (the median of the distribution of population by household size). There was little difference in household size between urban and rural areas.

At the time of the 1983 census, 16.0 per cent of households were headed by women (Immigration and Manpower Department, 1986). In 1983, 9.7 per cent of women aged 15 years and over were heads of their household. The proportion of women who are head of household by age closely parallels the

Table 65. United Nations estimates of total fertility rate and expectation of life at birth by quinquennial age group from 1950-1955 to 1990-1995

Period	*Total fertility rate*	*Expectation of life at birth*	
		Male	*Female*
1950-1955	6.00	35.6	38.2
1955-1960	6.00	41.1	44.0
1960-1965	6.00	43.6	46.5
1965-1970	6.00	45.9	49.0
1970-1975	5.75	48.3	51.4
1975-1980	5.30	49.7	52.9
1980-1985	4.90	51.1	54.3
1985-1990	4.25	53.5	56.8
1990-1995	3.60	56.0	59.3

Source: United Nations, *World Population Prospects: The 1996 Revision*. Annex I: *Demographic indicators* (New York: United Nations, 24 October 1996), (pre-publication copy).

Table 66. Mean number of children ever born to women ages 15-49 years by age group, 1983 and 1991

Age group	*1983*	*1991 total*	*1991 urban*	*1991 rural*
Ages 15-49	2.32	1.99	1.63	2.17
15-19	0.09	0.05	0.04	0.06
20-24	0.80	0.54	0.39	0.61
25-29	1.98	1.49	1.12	1.67
30-34	3.30	2.67	2.13	2.93
35-39	4.44	3.70	2.90	4.07
40-44	5.22	4.62	3.87	4.98
45-49	5.38	5.06	4.58	5.28

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), pp. 34-35.

Table 67. Estimated age-specific fertility rates and total fertility rate by residence, 1983 and 1986-1990

	1983			*1986-1990*		
Age group	*Total*	*Urban*	*Rural*	*Total*	*Urban*	*Rural*
15-19	0.0610	0.0505	0.0648	0.040	0.028	0.046
20-24	0.1897	0.1470	0.2050	0.136	0.100	0.154
25-29	0.2257	0.1696	0.2456	0.172	0.137	0.189
30-34	0.2063	0.1465	0.2275	0.157	0.117	0.177
35-39	0.1629	0.1063	0.1831	0.114	0.075	0.132
40-44	0.0811	0.0502	0.0917	0.055	0.032	0.066
45-49	0.0187	0.0112	0.0212	0.011	0.007	0.012
Total fertility rate	4.7270	3.4070	5.1950	3.42	2.48	3.88

Sources: 1983: M. Ismael Khin Maung, *Estimates of Burma's Mortality, Age Structure, and Fertility, 1973-83*, Papers of the East-West Population Institute, No. 116 (Honolulu, East-West Center, June 1990), p. 54.
1986-1990: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), pp. 41-42.

Note: The rates for 1983 were estimated from 1983 census data by the P/F method and would refer to a period approximately 2.5 years prior to the census. The rates for 1986-1990 were estimated by the own-children method.

Table 68. Total fertility rates for calendar year periods and mean number of children ever born to women aged 40-49 years, by residence and education, 1991

Characteristic	*Calendar year period*			*Mean children ever born to women ages 40-49*
	1988-1990	*1986-1990*	*1985-1987*	
Total	**3.32**	**3.52**	**4.05**	**4.83**
Residence				
Urban	2.29	2.49	2.94	4.15
Rural	3.79	3.98	4.55	5.15
Education				
No Std complete	4.30	4.64	5.45	5.39
Std 4 complete	3.59	3.74	4.24	4.83
Std 8 complete	2.49	2.46	2.60	4.09
Std 10 complete	1.81	2.00	2.34	3.24
Entered university	1.22	1.24	1.28	1.84

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), p. 48.

proportion who are widows up to age 60, after which the proportion of widows considerably exceeds that of heads of household (compare table 61 and 64).

According to United Nations estimates, fertility began to decline gradually after 1970 and the decline accelerated in the 1980s (table 65). The total fertility rate remained at about 6.0 until 1970, but had declined to 5.0 in the early 1980s and to below 4.0 by 1990.

Table 66 shows that the number of children ever born per woman declined markedly between 1983 and 1991 for each five-year age group of women. Urban women under age 40 had borne only about two thirds as many children as their rural counterparts, by age group.

The estimated age-specific fertility rates presented in table 67 confirm that the decline in fertility between 1983 and 1991 occurred across all age groups. The decline across all age groups implies that increased use of contraception was not the only cause of lower fertility. Had increased contraception been the major cause of the decline in fertility, relatively greater declines among older women would have been expected, as women who had reached their desired number of children began to use contraception. Instead, roughly equal declines in age-specific fertility rates occurred for each age group between ages 20 and 40. The Population Changes and Fertility Survey found that the contraceptive prevalence rate was only 16.8 per cent of currently married women in 1991 (Immigration and Population Department, 1995:52). No decomposition of the decline in fertility by cause has been

carried out, but apparently such factors as the rising age at marriage and increasing level of education of women have caused some of the decline, along with the use of contraception.

The fertility level varies strongly by residence and by educational level of women. The estimated total fertility rate (TFR) for the period 1986-1990 was 1.5 children per woman lower in urban than in rural areas (table 68). Many educational differentials were greater. The TFR for the period 1986-1990 among women who had not completed any standard at school was 4.6. However, it was 2.5 among those who had completed standard 8, 2.0 among those who had completed standard 10, and 1.2 among those who had at least entered university. The mean number of children ever born to women ages 40-49 years in 1991 exhibited similar differentials by residence and education.

C. Health

United Nations estimates of the expectation of life at birth presented in table 65 imply that mortality levels have been declining steadily since 1950 although the expectation of life at birth remains at a moderate level in the period 1990-1995.

Other estimates of the level of mortality are not as encouraging, however. Estimates of the expectation of life at birth based on the number of deaths reported in the PCFS equalled 50.2 years for males and 54.7 years for females (table 69). These are lower than the estimates of 52.9 years for males and 56.2 years for females calculated by Maung (1990:25) for the 1973-1983 intercensal period. The report of the PCFS calculated the expectation of life at birth for the 1973-1983 period and obtained a figure of 52 years for both sexes combined, essentially the same as estimated for 1990 (Immigration and Population Department, 1995:90). These estimates imply that the level of mortality in Myanmar has not improved for the past approximately 15 years.

The PCFS estimated that the infant mortality rate equalled 107 per 1,000 live births in 1990 and that the probability of dying before age 5 was 153 per 1,000 (table 69).

Table 69. Mortality indicators by sex estimated from reported numbers of deaths in the Population Changes and Fertility Survey 1991

Indicator	*Both sexes*	*Male*	*Female*
Expectation of life at birth	52.3	50.2	54.7
Infant mortality rate	106.6	112.6	100.6
Probability of dying before age 5 (x1000)	152.9	161.1	144.5
Completeness of death reporting above age 5 (per cent)	57.9	60.1	55.5

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), pp. 87-88.

Table 70. Estimated infant and child mortality indicators by age of woman, sex of child and reference period, 1991

Age of woman	*Age of child (x)*	*q(x)*	*IMR*	*q(5)*	*Year*
		Children of both sexes			
15-19	1	0.154	0.154	0.230	1990.1
20-24	2	0.137	0.111	0.161	1989.1
25-29	3	0.128	0.097	0.139	1987.5
30-34	5	0.132	0.092	0.132	1985.5
35-39	10	0.151	0.096	0.138	1983.2
40-44	15	0.162	0.098	0.140	1980.7
45-49	20	0.180	0.099	0.143	1977.7
		Female children			
15-19	1	0.143	0.143	0.221	1990.1
20-24	2	0.126	0.101	0.151	1989.0
25-29	3	0.119	0.089	0.131	1987.5
30-34	5	0.125	0.085	0.125	1985.6
35-39	10	0.138	0.086	0.126	1983.4
40-44	15	0.149	0.086	0.127	1980.9
45-49	20	0.165	0.088	0.129	1977.9
		Male children			
15-19	1	0.165	0.165	0.241	1990.2
20-24	2	0.146	0.120	0.171	1989.1
25-29	3	0.136	0.105	0.147	1987.5
30-34	5	0.138	0.099	0.138	1985.4
35-39	10	0.162	0.107	0.149	1983.1
40-44	15	0.175	0.109	0.153	1980.5
45-49	20	0.193	0.111	0.156	1977.5

Source: *Myanmar, Immigration and Population Department, Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), p. 81.

Note: q(*x*) is the proportion of children dying before exact age x. IMR is the infant mortality rate. q(5) is the proportion of children dying before exact age 5. The year indicates the time to which the estimates refer.

Table 71. Infant mortality rate (IMR) and probability of dying before age 5 ($_5q_0$) by selected background characteristics, period 1976-1990

Characteristic	*IMR*	$_5q_0$
Total	**100.1**	**138.2**
Residence		
Urban	72.5	99.8
Rural	108.3	149.8
Mother's education		
No standard completed	112.0	155.0
Standard 4 completed	101.4	142.1
Standard 8 completed	75.1	97.5
Standard 10 completed	65.7	78.6
Entered university	39.3	39.3
Mother's age at birth		
Under 20	114.0	156.0
20-29	95.6	132.9
30-39	99.6	138.1
40-49	147.8	195.5
Birth order		
1	92.4	116.5
2-3	87.1	127.4
4-6	108.4	151.9
7+	138.3	186.2
Interval since previous birth		
Less than 2 years	141.9	197.9
2-3 years	72.5	111.0
4 or more years	58.6	80.5

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), p. 91.

Note: Based on the birth histories of ever-married women.

Female mortality rates were slightly below male mortality rates.

Estimates of mortality from the PCFS differ according to the survey population used and the method of estimation employed. The indicators of infant and child mortality presented in table 70 were obtained from the household population of the PCFS and are based on the reported numbers of children ever born and children surviving by age of woman. They are about 7.5 per cent lower than similar estimates obtained only from ever-married women. They yield an infant mortality rate of close to 100 and an under-five mortality rate of nearly 140. It is notable in table 70 that the estimated levels of infant and child mortality are essentially the same for women from ages 25-29 to those ages 45-49. They are somewhat higher for younger women because of the greater proportion of first births among their children. These estimates also imply that there has been no discernible improvement in infant and child mortality rates over roughly a 15-year period.

Average mortality levels conceal large differentials by residence, mother's education and age, birth order and birth interval (table 71). Levels of infant and child mortality were estimated for the period 1976-1990. The infant mortality rate (IMR) equalled 72 per 1,000 live births in urban areas but 108 in rural areas. The IMR among children of women who had completed 10 years of schooling was only two thirds as high as for children of women who had completed only 4 years. Infant and child mortality was considerably higher among women who were under age 20 or over age 40 at the time of delivery.

Infant and child mortality was higher among children of higher birth orders. The infant mortality rate was only half as high among children born two or three years after the previous birth as among children born after a birth interval of less than two years (table 71).

There are two widely differing estimates of the maternal mortality rate (MMR) in Myanmar. The World Health Organization and United Nations Children's Fund (1996) estimated the MMR to equal 580 maternal deaths per 100,000 live births in 1990 by employing a model based on the general fertility rate and the proportion of live births attended by a trained birth attendant. The Myanmar Maternal and Child Welfare Association (no date) conducted a maternal mortality survey in 1994 that covered 85,500 households. That survey yielded an estimate of the MMR of 232.

No information on abortions in Myanmar is currently available. Indirect evidence suggests that abortion may play some role in lowering the level of fertility in the absence of widespread use of contraception. The total fertility rate (TFR) in Malaysia is 3.3 while the contraceptive prevalence rate (CPR) is 31 per cent of currently married women. In contrast, in Myanmar the TFR is similar at 3.4 but the CPR is only half as high, at about 17 per cent.

In Myanmar 4.0 per cent of currently married women were using an oral contraceptive in 1991, 3.7 per cent had been sterilized, and 3.1 per cent were using an injectable contraceptive. The CPR equalled 34 per cent in urban areas but only 10 per cent in rural areas. The use of contraception was strongly associated with the educational level of women. The proportion of currently married women using a contraceptive was only 7.6 per cent among those who had not completed any standard of schooling, but was 15 per cent of those who had completed standard 4 only, 28 per cent of those who had completed standard 8 only, and nearly 40 per cent of those who

had completed at least standard 10 (Immigration and Population Department, 1995:52-54).

Maternal and child health care also vary with the educational level of women. For example, for children under age five in January 1991, the proportion of their mothers who had received antenatal care from a doctor during pregnancy increased from 3 per cent among women with no standard of schooling completed to 76 per cent among women who had at least entered university. Thirty-nine per cent of mothers in urban areas but only 4 per cent of those in rural areas had received antenatal care from a doctor. The proportion of mothers who had received tetanus toxoid vaccinations during pregnancy did not vary greatly either by age of mother or age of child, but residence and education differentials were significant. Eighty-seven per cent of urban mothers but only 52 per cent of rural mothers had received those vaccinations. The proportion receiving the injection rose from 43 per cent among women who had not completed any standard of schooling to 99 per cent of those who had entered university (Immigration and Population Department, 1995:61-63).

Table 72 presents the percentage distribution of births in the previous five years (before January 1991) by type of assistance at the time of delivery. The distributions are similar for older and younger women and for different age groups of children, implying very little change in the previous five years. As for other health indicators, there were major differences by residence and by educational level of the mother. Thirty per cent of the mothers in urban areas had been assisted by a doctor during delivery, compared with only 2.5 per cent of mothers in rural areas. The proportion of mothers assisted by a birth attendant declined sharply, and the proportion assisted by a doctor increased sharply, as level of education rose. About 38 per cent of mothers had been assisted by a nurse or midwife during delivery. The proportion was less than that only for mothers who had not completed any standard of schooling.

The Population Changes and Fertility Survey 1991 found that breastfeeding in Myanmar was widespread and prolonged. Among children under two months of age, 87.5 per cent were being breastfed. Among those ages 24-25 months 53.5 per cent were being breastfed. The mean number of months of breastfeeding was 26.9 for all mothers. The mean duration was somewhat less in urban areas (24.2 months) than in rural areas (27.7 months). The duration also declined with level of education of the mother. Those who had completed standard 4 or less had breastfed for an average of 28 months, but the mean duration equalled 24 months for those who had completed standards 5-8, 21 months for those who had completed standards 9-10, and 20 months for those who had entered university (Immigration and Population Department, 1995:65-67).

In 1991 about two thirds of children were receiving the basic vaccinations recommended by the World Health Organization. The proportions of children receiving four basic types of vaccination did not vary greatly by type, implying that most children received either all or none of the vaccinations (table 73). The percentages shown for all children under age 5 in table 73 understate the actual level because of the inclusion of many very young children who would not yet have received vaccinations. Thus the percentages for ages 12-23 months would be more accurate. The proportion of males receiving the basic vaccinations was about 5 per cent greater than that for females. Differences by residence and education of mother were greater, however.

Table 72. Percentage distribution of births in the previous five years by type of assistance at delivery, according to selected background characteristics, 1991

Characteristic	*No. of women*	*No one*	*Birth attendant*	*Nurse/ midwife*	*Doctor*	*Relative*	*Other*	*Missing*
Total	**10 408**	**1.24**	**5.83**	**7.8**	**8.5**	**2.5**	**1.4**	**2.9**
Residence								
Urban	2 234	0.2	16.4	50.0	30.2	0.5	0.3	2.2
Rural	8 174	1.4	53.9	34.5	2.5	3.0	1.7	3.1
Education								
No std compl.	3 702	2.5	62.9	23.7	2.1	3.2	2.2	3.5
Std 4 compl.	4 893	0.5	44.7	42.8	5.5	2.6	1.1	2.8
Std 8 compl.	1 115	0.3	21.0	56.1	20.1	0.4	0.2	1.9
Std 10 compl.	474	0.0	4.4	51.8	38.0	1.8	1.2	2.8
Entered univ.	222	0.0	0.6	41.1	58.2	0.0	0.0	0.0
Age of mother								
Less than 30	4 934	0.8	48.3	37.8	7.7	2.3	0.9	2.2
More than 30	5 474	1.6	43.6	37.8	9.2	2.6	1.8	3.5
Age of child								
0-11 months	1 970	1.5	45.8	39.3	7.5	3.1	1.9	0.9
12-23 months	1 936	1.3	46.3	37.3	9.5	2.8	0.9	1.7
24-35 months	2 232	1.0	48.8	35.8	8.2	2.3	1.3	2.6
36-59 months	4 270	1.0	44.1	38.4	8.6	2.0	1.4	4.5

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), p. 64.

While more than 80 per cent of young children in urban areas had received the four types of vaccination, only about 60 per cent of rural children had received them. Similarly, only about 50 per cent of the children of mothers who had not completed any standard of schooling had received the basic vaccinations, compared with 90 per cent of the children of mothers who had entered university. The proportions of mothers who were able to present the vaccination card to the survey enumerator (implying a greater direct involvement in the health of their child) varied greatly by residence and by educational level of the mother, but not by sex of the child.

The United Nations Children's Fund (1995:37) has noted that the immunization coverage rate was considerably increased in Myanmar during 1993 and 1994 through

Table 73. Percentage of children under age 5 and aged 12-23 months who had been vaccinated by the time of the survey, by type of vaccine and selected background characteristics, 1991

Characteristic	Number of children	Percentage vaccinated				Per cent showing card
		BCG	DPT	Polio	Measles	
Total under age 5	**9 187**	**58.8**	**54.0**	**51.4**	**51.0**	**13.9**
Total aged 12-23 months	**1 714**	**68.8**	**65.0**	**64.5**	**62.1**	**21.2**
Male children	874	71.1	67.4	66.5	64.9	21.9
Female children	840	66.5	62.5	62.3	59.2	20.4
Residence						
Urban	394	86.6	84.5	83.7	81.4	48.4
Rural	1 320	63.6	59.2	58.7	56.3	13.0
Educ. of mother						
No std compl.	569	57.1	50.6	51.3	49.9	14.2
Std 4 complete	822	69.9	66.7	65.6	62.9	18.6
Std 8 complete	193	84.9	83.2	82.4	80.0	39.1
Std 10 compl.	74	89.2	89.2	86.8	84.8	35.4
Entered univ.	56	91.1	91.1	91.1	82.5	48.4

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), p. 68.

Note: BCG protects against tuberculosis and DPT protects against diphtheria, pertussis and tetanus.

implementation of the universal child immunization programme. As a result, the incidence of each measles, polio, diphtheria and whooping cough was greatly reduced between 1990 and 1994.

The Population Changes and Fertility Survey 1991 found that 12.3 per cent of the children under age 5 had had diarrhoea in the two weeks prior to the Survey. The rate was essentially the same for boys and girls but was somewhat lower in urban than in rural areas and was lower for children whose mothers had more education (Immigration and Population Department, 1995:70).

Among the children who had diarrhoea in the two weeks prior to the Survey, boys (68 per cent) were more likely than girls (62 per cent) to have received some treatment (table 74). Boys were also more likely to have received ORS oral rehydration. While the gender differential is significant, as with other health indicators differences by urban/rural residence and by the educational level of mother are greater.

According to National Nutrition Surveys of 1990 and 1991, the prevalence of malnutrition among children is cause for concern. Table 75 indicates that in 1990 about one third of children under age 3 years could be classified as having moderate to severe malnutrition, defined as a weight, controlled for age, lower than two standard deviations below the mean. Another 9 per cent of children had severe malnutrition. There were only small differences in malnutrition by gender of the child. The 1991 National Nutrition Survey

Table 74. Among children who had diarrhoea in the past two weeks, the percentage receiving various kinds of treatment or no treatment, as reported by the mother, according to selected background characteristics, 1991

Characteristic	*Number of children*	*Taken to a health facility or provider*	*Oral rehydration*				*No treatment*
			ORS	*Home solution*	*Other*	*None*	
Total	**1 132**	**37.7**	**23.7**	**4.0**	**58.8**	**35.2**	**35.0**
Age of child							
Under 6 mo.	121	19.9	7.2	1.1	45.9	52.6	52.6
6-11 months	174	38.9	20.1	2.8	56.8	37.6	36.5
12-17 months	185	36.0	28.5	3.8	61.2	31.8	31.8
18-23 months	142	38.1	27.2	4.3	55.5	36.5	36.5
24-35 months	245	45.4	25.8	7.2	61.5	33.2	33.2
36-59 months	265	38.8	26.3	3.2	63.4	29.1	29.1
Sex of child							
Male	586	38.7	27.6	4.6	60.8	32.1	31.8
Female	546	36.6	19.5	3.4	56.6	38.5	38.5
Residence							
Urban	208	43.8	33.6	4.7	66.5	26.0	26.0
Rural	924	36.3	21.5	3.9	57.0	37.2	37.0
Educ. mother							
No std compl.	439	33.6	21.4	3.0	55.3	41.3	41.3
Std 4 compl.	535	38.7	22.6	3.9	59.0	33.3	32.9
Std 8 compl.	105	35.8	26.4	6.4	62.0	29.4	29.4
Std 10 compl.	38	50.0	35.8	12.7	70.3	21.0	21.0
Entered univ.	15	100.0	80.0	0.0	100.0	0.0	0.0

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), p. 74.

Table 75. Prevalence of malnutrition among children under three years of age by sex and age group, 1990

Age in months	Per cent with weight/age -2SD (Moderate and severe)			Per cent with weight/age -3SD (Severe)		
	Total	Male	Female	Total	Male	Female
Total	32.4	33.7	31.0	9.2	9.2	9.2
0-5	6.0	6.7	5.4	1.6	1.4	1.8
6-11	22.2	23.1	21.0	6.1	6.6	5.5
12-23	44.5	48.3	40.5	12.8	13.7	11.9
24-35	44.5	44.5	44.9	12.8	11.4	14.0

Source: United Nations Children's Fund, *Children and Women in Myanmar: A Situation Analysis* (Yangon, UNICEF, 1995), p.46.

Note: Moderate and severe malnutrition is defined as a weight, controlled for age, lower than two standard deviations below the mean weight. Severe malnutrition is defined as a weight lower than three standard deviations below the mean.

found a similar level of malnutrition based on weight for age, and found that 44.6 per cent of children under age 3 years had a height for age lower than two standard deviations below the mean (United Nations Children's Fund, 1995:47).

Stunting continues at older ages. The proportion of children at the age of school entry with height for age lower than two standard deviations below the mean equalled 29 per cent in 1990 and 40 per cent in 1991 (United Nations Children's Fund, 1995:54).

D. Education

Educational levels of the adult population are low among both men and women. One third of the population aged 10 years and over had not completed any standard of schooling in 1991 (table 76). Another 39 per cent had completed only up to standard 4. Only 7 per cent had completed standards 9 or 10. Levels of educational attainment were significantly lower for women than for men. Only about two thirds as many women as men had completed standards 5-8. Three fourths as many women as men had completed standards 9 or 10.

As educational attainment of older adults reflects the coverage of the educational system many years in the past, to assess current coverage it is more useful to examine the attainment of a young cohort. If educational attainment of persons aged 15-19 years in 1991 is examined, it may be seen that current educational levels are much higher than in the past. In 1991, only 16 per cent of persons ages 15-19 had not completed any standard. The proportion who had completed standards 5-8 equalled 32 per cent, nearly double that for the entire population age 10 and over (table 77). Gender differences were small when viewing the younger cohort. In fact, more females than males had completed standards 9 or 10.

The Population Changes and Fertility Survey 1991 did not report on current school attendance. Those figures are available from

Table 76. Percentage distribution of household population aged 10 years and over by level of education, by sex, 1991

Level	*Both sexes*	*Male*	*Female*
Total	100.0	100.0	100.0
No standard completed	33.4	31.1	35.5
Standard 1-4 completed	39.1	36.6	41.5
Standard 5-8 completed	17.3	20.8	14.0
Standard 9-10 completed	7.2	8.4	6.1
Entered university	3.0	3.1	2.9

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), p. 22.

the 1983 population census, as shown in table 78. In 1983 considerably fewer females than males were attending school, especially in the 10-14 and 15-19 age groups. At ages 5-9 there was hardly any difference between boys and girls in school attendance, but 47 per cent of urban children were in school, compared with only 31 per cent of rural children. While gender differences in school attendance became more pronounced after age 10, they were still smaller than rural/urban differences. The disadvantage in school attendance of girls relative to boys was more pronounced in rural areas. Among children ages 15-19, for example, urban boys were about one sixth more likely than urban girls to be in school. In rural areas, however, boys were 75 per cent more likely than girls to be in school. Thus, rural girls clearly suffered from the double impact of residence and gender in their ability to attend school.

The United Nations Children's Fund (1995:59) notes that non-enrolment, repetition of grades and drop-out rates remain substantial problems in Myanmar. About 750,000 children

Table 77. Percentage distribution of household population aged 15-19 years by level of education, by sex, 1991

Level	*Both sexes*	*Male*	*Female*
Total	100.0	100.0	100.0
No standard completed	15.6	15.9	15.3
Standard 1-4 completed	44.3	42.4	46.2
Standard 5-8 completed	31.7	34.1	29.4
Standard 9-10 completed	8.3	7.5	9.1
Entered university	0.1	0.1	0.1

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), p. 22.

Table 78. Per cent of population aged 5-29 years currently attending school, by sex, age group and residence, 1983

Residence and sex	*Age group*					
	5-29	*5-9*	*10-14*	*15-19*	*20-24*	*25-29*
Total						
Both sexes	35.3	61.7	65.9	20.5	5.9	1.1
Male	37.7	62.1	70.2	24.0	6.5	1.3
Female	33.0	61.4	61.4	17.2	5.3	1.0
Urban						
Both sexes	46.8	72.3	81.6	44.1	15.6	3.3
Male	48.7	72.7	84.5	47.4	15.9	3.4
Female	45.0	71.8	78.6	40.8	15.4	3.2
Rural						
Both sexes	31.4	58.7	60.7	11.9	2.3	0.3
Male	33.9	59.0	65.4	15.3	2.9	0.4
Female	28.9	58.3	55.7	8.7	1.6	0.2

Source: Calculated from Burma, Immigration and Manpower Department, *Burma 1983 Population Census* (Rangoon, June 1986), pp. 2-59 to 2-64.

drop out of school every year. Only one in ten children who begin school complete the primary grades with no repetition. Drop-out rates are twice as high in rural as in urban areas.

The proportion of girls among primary school students equalled 48.4 per cent in 1993, and did not vary by grade. Girls constituted 48 per cent of primary school students in both urban and rural areas, despite higher enrolment rates in urban areas. Net primary school enrolment rates in 1993 were slightly lower for girls, 70.6 per cent, than for boys, 73.4 per cent (United Nations Children's Fund, 1995:59).

E. Employment

The proportion of the population aged 10 years and over that is economically active as shown in table 79 is 61 per cent. This figure is relatively low, but is misleading for two main reasons. First, it includes the population ages 10-14, of whom under 20 per cent are economically active. Secondly, it appears that female labour force participation, especially in agriculture, was undercounted in both population censuses and labour force surveys. This point is discussed in more detail below.

The apparent increase in the economic activity rate from 1983 to 1990 mostly resulted from the different timing of the data sources. The population census of 1973 was conducted with a reference date of 31 March and that of 1983 with a reference date of 1 April. They were conducted during the slack agricultural season in order to maximize the probability that persons would be at home during the enumeration. The Labour Force Survey (LFS) of 1990, on the other hand, was conducted from 9 to 22 November. This period is during the peak agricultural season and was chosen in order to maximize reporting of current economic activity. The 1983 census used a

Table 79. Per cent of the population aged 10 years and over that is economically active, by sex and residence, 1973, 1983 and 1990

Residence and sex	*1973 Census*	*1983 Census*	*1990 LFS*
Total			
Both sexes	47.76	48.35	60.57
Male	65.34	62.66	76.54
Female	30.93	34.40	46.01
Urban			
Both sexes	45.00	44.90	51.76
Male	62.78	60.55	69.60
Female	27.84	29.56	36.38
Rural			
Both sexes	48.62	49.55	63.69
Male	66.15	63.40	78.90
Female	31.92	36.07	49.54

Source: Myanmar, Ministry of Labour, United Nations Population Fund and International Labour Organisation, *Report on Myanmar Labour Force Survey, 1990* (Yangon, Department of Labour, March 1993), p. 32.

reference period of the two weeks prior to the census to define labour force participation and the LFS 1990 used a period of one week.

Because the Labour Force Survey of 1990 was conducted during the peak agricultural season, economic activity rates are considerably higher than had been reported in the 1983 census, especially for rural areas. In both data sources (censuses and LFS) economic activity rates are higher in rural than in urban areas and are greater for males than females.

Apparently nearly all males go to work as soon as they leave school and their labour force participation rates (LFPR) remain high for much of their life. In 1990, 68 per cent of males ages 15-19 were in the labour force (table 80). It was seen in table 78 that 24 per cent of males ages 15-19 in 1983 were attending school, and that percentage had probably risen by 1990. Thus nearly all males ages 15-19 are either in school or in the labour force. Between the ages of 20 and 44 years, over 98 per cent of males are economically active. The LFPR remains at 72 per cent at ages 60-64 and 35 per cent for males age 65 and older.

As reported in the LFS, females are much less likely to be economically active, but this finding is no doubt misleading. At ages 15-19 years, 58 per cent of females were reported to be in the labour force in 1990, and 17 per cent had been attending school in 1983. According to the LFS 1990, the female LFPR exceeds 50 per cent from age 20 to age 49, reaching a maximum of 63 per cent at ages 25-29. By ages 60-64 about one quarter of females were reported to be in the labour force and by age 65 and over the rate equalled 15 per cent (table 80).

As in many other developing countries in Asia, child labour is an issue of concern in

Table 80. Labour force participation rates by sex and age, 1990
(in per cent)

Age group	*Male*	*Female*
10 and over	76.54	46.01
10-14	19.51	18.86
15-19	68.10	57.80
20-24	98.07	60.06
25-29	98.74	63.22
30-34	99.13	51.90
35-39	98.22	58.96
40-44	98.40	51.01
45-49	91.82	51.37
50-54	92.67	46.22
55-59	88.11	33.96
60-64	71.51	24.24
65+	35.06	14.63

Source: Myanmar, Ministry of Labour, United Nations Population Fund and International Labour Organisation, *Report on Myanmar Labour Force Survey, 1990* (Yangon, Department of Labour, March 1993), p. 36.

Myanmar. The United Nations Children's Fund (1995:62-63) reported on a survey of child workers, 95 per cent of whom worked in the informal sector. It found that they had entered the labour force at a mean age of 11.7 years. Almost 30 per cent of them had dropped out of school and another 8.5 per cent had never enrolled in school. Nearly 58 per cent of the children worked seven days a week and 63 per cent worked more than eight hours a day. Their daily earnings averaged US$0.40. Seventy-one per cent of them gave at least half of their earnings to their parents, contributing 20 to 30 per cent of the family income. Apparently the results of that survey were not tabulated by gender.

The employment status of the labour force reflects the underdeveloped nature of the economy. In 1990 about one third of employed persons were own account workers (a category that normally includes many persons working in the informal sector), one third were unpaid family workers and one third were employees or employers (table 81). Between 1983 and 1990 there was a small shift in employment status away from the own account worker category to employees in the private sector. Had the census and LFS fully counted women working in agriculture, the proportion of the labour force who were unpaid family workers would have been greater.

By occupation about one third of employed persons in 1990 were considered skilled agricultural, forestry or fishery workers (table 82). Another one third were classified as having elementary occupations, many of which were also in the agricultural sector. Only about 15 per cent could be considered industrial workers, by combining craft and related workers with machine operators and assemblers. Women workers constitute the majority of some occupations, *i.e.* 57 per cent

Table 81. Percentage distribution of employed population by employment status, 1983 and 1990

Employment status	*1983 Census*	*1990 LFS*
Total	100.00	100.00
Employer	1.58	1.45
Own account worker	39.75	35.29
Employee	28.42	30.56
Private	*18.08*	*22.73*
Cooperative	*1.00*	*0.32*
Government	*9.34*	*7.51*
Unpaid family worker	30.17	32.64
Other	0.08	0.06

Source: Myanmar, Ministry of Labour, United Nations Population Fund and International Labour Organisation, *Report on Myanmar Labour Force Survey, 1990* (Yangon, Department of Labour, March 1993), p. 40.

of professionals (because of their large majority among nurses, midwives and teachers) and 52 per cent of services and sales workers. They also constitute 35 per cent of clerks.

According to the LFS of 1990, only 10 per cent of employed women are skilled agricultural or fishery workers, while 48 per cent are in elementary occupations. Even if most women working in agriculture were classified in the latter category, the number of women working in agriculture seems to be undercounted. This impression is reinforced by the data in table 83, which indicate that women constituted only 22 per cent of workers in agriculture (by industry). By way of comparison, it may be noted that in the other three countries covered by this report women constitute sizeable majorities of the agricultural workers. The mode of agricultural production in Myanmar is probably not greatly different from that in the other three countries. Thus, it seems clear that the low proportion of women reported to be working in agriculture in Myanmar resulted from the way the LFS questionnaire was administered in the field. Many women in rural areas, particularly those in subsistence agriculture or unpaid family workers, were probably classified as not economically active although they should have been considered to be performing a gainful activity by the definitions used in the Survey.

Although table 83 indicates that 42 per cent of employed women were working in agriculture (by industry), a more complete reporting of female labour force activity probably would have indicated that about 60 per cent of women worked in that sector, as 63 per cent of the male labour force was in agriculture. By industry, 16 per cent of employed persons worked in trade, restaurants or hotels and 11 per cent in manufacturing. These industries had the highest shares of female employees. In trade, restaurants and hotels 58 per cent of employees were women, and in manufacturing 42 per cent were women. Women also constituted 38 per cent of

Table 82. Percentage distribution of employed persons by occupation, by sex, and female share in each occupation, 1990

Occupational group	*Both sexes*	*Male*	*Female*	*Female share in occupation (%)*
Total	100.00	100.00	100.00	30.27
Senior officials and managers	0.37	0.38	0.33	27.04
Professionals	2.76	1.72	5.16	56.61
Technical and associate prof.	1.98	2.36	1.10	16.87
Clerks	2.08	1.92	2.43	35.49
Services and sales workers	10.11	6.99	17.30	51.80
Skilled agri. & fishery workers	32.84	42.78	9.95	9.17
Craft and related workers	11.58	10.25	14.65	38.30
Machine operators, assemblers	3.44	4.29	1.48	13.02
Elementary occupations	34.84	29.31	47.60	41.35

Source: Myanmar, Ministry of Labour, United Nations Population Fund and International Labour Organisation, *Report on Myanmar Labour Force Survey, 1990* (Yangon, Department of Labour, March 1993), pp. 48-50.

Note: Excludes unpaid family workers.

community, social and personal service workers.

F. Migration

The Population Changes and Fertility Survey 1991 collected information on the household questionnaire on place of birth, duration of residence, and residence five years prior to the Survey. Lifetime migrants were defined as persons whose duration of current residence was less than their age. The proportion of the population that had moved between states or divisions in their lifetime equalled 10.5 per cent, with slightly more female than male migrants. About one fifth of lifetime migrants had moved in the previous five years (table 84). Close to 40 per cent had last moved more than 20 years earlier. This distribution of migrants by duration of current residence was essentially the same for males and females.

Only 1.7 per cent of the population aged 5 years and over had moved between states or divisions in the five-year period prior to the PCFS (table 85). The pattern of age-specific migration rates is as would be expected. The percentage of the population migrating in a five-year period increases with age up to the age group 25-29, then decreases more or less regularly to ages 70-74. The migration rate of persons aged 75 years and over is greater than that for persons ages 70-74, presumably because some of the elderly have moved to live with relatives who can assist them.

The overall migration rates of males and females are virtually the same. Female migration rates are slightly higher between the ages of 15 and 29, a pattern which is common

Table 83. Percentage distribution of employed persons by industry, by sex, and female share in each industry, 1990

Industry	*Both sexes*	*Male*	*Female*	*Female share in industry (%)*
Total	100.00	100.00	100.00	30.27
Agriculture, forestry, fishing	56.47	62.89	41.67	22.34
Mining and quarrying	0.95	1.21	0.37	11.76
Manufacturing	11.36	9.52	15.61	41.61
Electricity, gas and water	0.18	0.26	-	-
Construction	2.64	3.67	0.26	2.59
Trade, restaurants & hotels	15.81	9.58	30.16	57.74
Transport, storage & comm.	3.78	4.83	1.35	10.67
Financial institutions	0.27	0.28	0.23	25.96
Community, social and personal services	7.73	6.87	9.71	37.59
Activities not adequately defined	0.81	0.89	0.64	23.26

Source: Myanmar, Ministry of Labour, United Nations Population Fund and International Labour Organisation, *Report on Myanmar Labour Force Survey, 1990* (Yangon, Department of Labour, March 1993), pp. 48-51.

Note: Excludes unpaid family workers.

in South-East Asia. That pattern apparently results from girls leaving school and seeking employment at younger ages than boys. Certain types of employment favour young women, such as light manufacturing and many service occupations. Male migration related to military service is also likely to be under-reported in a household survey that excludes "institutional households", as did the PCFS.

Female age-specific migration rates also exceed male rates above age 65, probably because elderly females are more likely than elderly males to be dependants of other family members, as much greater proportions of women are widowed.

The number of recent migrants is not tabulated by residence, educational attainment or employment in the PCFS so little is known about the role of migration in economic development or its influence on the status of women. Gender differences in migration streams are generally small but females constituted over 55 per cent of in-migrants to Yangon in the five years prior to the PCFS, and 70 per cent of net migration to Yangon during that period (Immigration and Population Department, 1995:107).

G. Conclusion

Women in Myanmar make a considerable contribution to development but confront some amount of discrimination in access to education and employment. Women and men face the obstacle of an underdeveloped economy, which limits their economic contribution and places a restraint on

Table 84. Percentage distribution of lifetime migrants by duration of current residence, by sex, 1991

Duration of residence in years	*Both sexes*	*Male*	*Female*
Total number	3 731 331	1 825 037	1 906 294
Total per cent	100.0	100.0	100.0
0-4	21.9	21.8	22.0
5-9	14.2	14.2	14.3
10-14	14.5	15.2	14.0
15-19	10.1	10.0	10.1
20-24	10.1	10.3	9.8
25-29	7.1	6.9	7.3
30+	22.1	21.6	22.5

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), pp. 103-105.

improvements in their health and that of their family.

Women in Myanmar marry at a late age and a high percentage never marry. The singulate mean age at marriage in 1991 equalled 24.5 years for women and 26.3 year for men. Fewer than 80 per cent of the women in any five-year age group were married in 1991, owing to late marriage, non-marriage, widowhood and divorce. Among women aged 45-49 years 9 per cent had never been married. By ages 65-69 nearly half of the women were widowed.

Up to age 60, headship rates among females closely parallel the percentage widowed. At ages 55-59 about one fourth of women are head of their household. Among women over age 60, more than one third are head of household and about half are widowed.

It appears that progress has been made in narrowing the gender gap in educational attainment. Among persons ages 15-19 in 1991, as many girls as boys had completed standards 9 or 10, but fewer girls than boys had completed standards 5-8.

Fertility rates have declined steadily during the past two decades. The total fertility rate (TFR) was estimated to equal 4.7 in the early 1980s and 3.4 during the period 1986-1990. The relatively low proportions of women married by age group would act to reduce fertility levels. The fact that the contraceptive prevalence rate equalled only 17 per cent in 1991 implies that there exists considerable unmet need for family planning services.

Fertility levels are strongly affected by the socio-economic level of women. The TFR for the period 1986-1990 equalled only 2.5 children per woman in urban areas but 4.0 in rural areas. Similarly, the TFR was 3.7 among women who had completed only standard 4 of schooling but was only 2.0 among those who had completed standard 10.

Mortality in Myanmar remains high and had shown little improvement in the 15 years

Table 85. Per cent of population aged five years and over who migrated between states or divisions in the five years prior to the survey, by sex and age group, and sex ratios by age group, 1991

Age group	Migration rate			Sex ratio of migrants
	Both sexes	Male	Female	
Ages 5+ (No.)	536 653	258 885	277 768	93.2
Ages 5+ (rate)	1.70	1.69	1.71	93.2
5-9	1.35	1.38	1.31	108.3
10-14	1.33	1.41	1.24	113.0
15-19	2.00	1.84	2.15	85.1
20-24	2.36	2.13	2.58	77.0
25-29	2.53	2.47	2.58	85.8
30-34	2.18	2.26	2.11	98.2
35-39	1.79	2.10	1.49	133.4
40-44	1.55	1.70	1.41	109.8
45-49	1.41	1.38	1.44	90.5
50-54	0.97	1.11	0.86	110.6
55-59	0.70	0.73	0.67	92.3
60-64	1.03	1.06	1.00	90.9
65-69	0.92	0.85	0.98	70.7
70-74	0.69	0.44	0.88	39.8
75+	1.84	1.01	2.43	29.6

Source: Myanmar, Immigration and Population Department, *Myanmar Population Changes and Fertility Survey 1991* (Yangon, September 1995), p. 108.

Note: Migrants are defined as those persons reporting a state or division of residence five years prior to the survey different from their current state or division of residence. The sex ratio is the number of male migrants per 100 female migrants in the specified age group.

prior to 1991. Gender differences are not large and may favour females, but socio-economic differentials are substantial. The expectation of life at birth in 1991 was estimated to equal 50.2 years for males and 54.7 years for females. The infant mortality rate was 107 per 1,000 live births. The infant mortality rate calculated from birth histories of ever-married women equalled 100, but was 72 in urban areas and 108 in rural areas. The infant mortality rate equalled 101 among women who had completed only standard 4 of schooling but 66 among those who had completed standard 10. Similar differences by urban/rural residence and by educational level of the mother were found for the proportion of births attended by a doctor, the proportion of children receiving the recommended vaccinations and the proportion of children with diarrhoea who received ORS oral rehydration therapy.

The contribution of men and women to development is limited by the underdeveloped nature of the economy. About one third of the number of employed persons are employees, one third are own account workers and one third are unpaid family workers. The involvement of women in the labour force appears to be underestimated, primarily because their role in agriculture is not fully accounted for. Only 22 per cent of workers in the agricultural sector were women according to the 1990 Labour Force Survey. By comparison, in the other three countries covered by this report women constitute a majority of the agricultural workforce.

Women constitute 57 per cent of professionals, largely because of their high proportions among teachers and nurses. Women also constitute 58 per cent of workers in the trade, restaurants and hotel sector and 38 per cent of those in the community, social and personal services sector.

Age-specific migration rates as recorded by the Population Changes and Fertility Survey 1991 are not high. Female rates are higher than male rates between the ages of 15 and 29, and over age 65. Females constituted 55 per cent of in-migrants to Yangon in the five years prior to January 1991, and 70 per cent of net migration to Yangon during that period.

The large differences in fertility and health indicators between urban and rural areas and by the socio-economic status of women, particularly their education, imply that a much more equitable distribution of economic and social opportunities is required if women are to make their full contribution to the development of the country.

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V. VIET NAM

A. Demographic context

Women in Viet Nam have made a major contribution to nationhood and development, especially during the past half century of that nation's turbulent history.

Viet Nam was occupied during the Second World War. The First Indo-China War was fought from 1945 to 1954 and culminated in independence for the country. The Second Indo-China War increased in severity in the early 1960s and raged at a high intensity from the late 1960s until 1975, when unification was achieved.

With millions of men mobilized, women shouldered unprecedented responsibility for

Table 86. Population of Viet Nam by sex and five-year age group, 1989
(In thousands, including special enumeration groups)

Age group	*Total*	*Male*	*Female*	*Sex ratio*
Total	64 376	31 231	33 145	94.2
0-4	9 086	4 666	4 420	105.6
5-9	8 609	4 394	4 215	104.2
10-14	7 534	3 858	3 676	105.0
15-19	6 806	3 358	3 448	97.4
20-24	6 044	2 896	3 148	92.0
25-29	5 708	2 721	2 987	91.1
30-34	4 702	2 245	2 456	91.4
35-39	3 287	1 535	1 752	87.6
40-44	2 201	1 021	1 180	86.5
45-49	1 940	871	1 069	81.5
50-54	1 913	853	1 060	80.5
55-59	1 945	898	1 047	85.8
60-64	1 566	710	857	82.8
65-69	1 232	524	708	74.0
70-74	801	325	476	68.3
75-79	562	212	350	60.6
80+	440	142	297	47.8

Source: Viet Nam, Central Census Steering Committee, *Completed Census Results*, vol. 1 (Hanoi, 1991), p. 16.

Note: Numbers may not add to total because of rounding.

Table 87. Urban population of Viet Nam by sex and five-year age group, 1989
(In thousands, excluding special enumeration groups)

Age group	*Total*	*Male*	*Female*	*Sex ratio*
Total	12 261	5 901	6 360	92.8
0-4	1 348	696	652	106.8
5-9	1 434	737	697	105.7
10-14	1 329	682	647	105.3
15-19	1 367	672	694	96.9
20-24	1 196	548	648	84.6
25-29	1 223	570	653	87.3
30-34	1 095	515	580	88.7
35-39	759	350	409	85.4
40-44	514	236	278	84.8
45-49	433	203	229	88.5
50-54	392	181	211	85.8
55-59	366	176	190	92.7
60-64	285	134	151	88.4
65-69	210	91	119	75.9
70-74	139	55	84	64.8
75-79	95	34	61	55.3
80+	76	22	54	41.8

Source: Viet Nam, Central Census Steering Committee, *Completed Census Results*, vol. 1 (Hanoi, 1991), p. 17.
Note: Numbers may not add to total because of rounding.

maintaining agricultural and industrial production, as well as in the education, health and other government sectors. Large numbers of women also participated directly in the war effort.

The loss of life from 1945 to 1975 continues to have a significant impact on the economy and family structure of Viet Nam. The most obvious indication of this is in the sex ratio of the population. At the time of the 1989 census there were only 94.2 males per 100 females in the country (table 86), one of the lowest sex ratios in the world.

The sex ratio at birth is usually close to 105 or 106 boys per 100 girls. Because of higher male mortality, the sex ratio declines with age. Thus, the sex ratios in Viet Nam up to the age group 15-19 years are about what would be expected. The sex ratio between the ages of 20 and 34 years was 91.5 in 1989. Those persons ages 20-29 in 1989 had been born during the 1960's, so few of them should have been directly involved in the Second Indo-China War. The low sex ratio at those ages reported in the census probably reflects greater under-reporting of males owing to their mobility and types of employment.

Table 88. Rural population of Viet Nam by sex and five-year age group, 1989
(In thousands, including special enumeration groups)

Age group	*Total*	*Male*	*Female*	*Sex ratio*
Total	51 070	24 441	26 629	91.8
0-4	7 738	3 969	3 769	105.4
5-9	7 173	3 656	3 517	103.9
10-14	6 202	3 175	3 027	104.9
15-19	5 318	2 581	2 736	94.3
20-24	4 437	1 984	2 453	80.9
25-29	4 292	1 994	2 297	86.8
30-34	3 449	1 601	1 848	86.7
35-39	2 447	1 119	1 328	84.3
40-44	1 649	755	894	84.4
45-49	1 489	652	837	78.0
50-54	1 511	663	848	78.2
55-59	1 572	716	857	83.6
60-64	1 279	573	705	81.3
65-69	1 021	432	588	73.5
70-74	662	270	392	69.0
75-79	467	178	289	61.8
80+	364	120	244	49.1

Source: Viet Nam, Central Census Steering Committee, *Completed Census Results*, vol. 1 (Hanoi, 1991), p. 18.

Note: Numbers may not add to total because of rounding.

Between the ages of 35 and 64 years the sex ratio equals 84.5. Hence, women compose 54 per cent of the population of the core labour force ages. At ages 65 and above, there are only about two thirds as many men as women. Women in Viet Nam clearly hold greater economic and family responsibilities because of these deficits of males.

In urban areas sex ratios are slightly higher than those in rural areas up to age 44 (compare tables 87 and 88). The urban-rural differential is greater at ages 45 and over. The higher urban sex ratios probably result from a combination of higher rural-urban migration rates among males and lower mortality among urban males, but no attempt has been made to disaggregate these influences.

The sex ratio equalled 98.0 in 1931, then declined gradually to 94.2 in 1979 and 1989 (table 89). As younger cohorts with higher sex ratios enter the population, the over-all sex ratio has begun to increase, and reached 94.6 in 1994.

Table 89. Sex ratio of the population of Viet Nam, 1931-1994

Year	*Sex ratio*
1931	98.0
1939	97.2
1943	96.5
1951	96.1
1960	95.9
1970	94.7
1979	94.2
1989	94.2
1994	94.6

Sources: 1931-1979: Viet Nam, General Statistical Office, *Viet Nam Population Census, 1989, Detailed Analysis of Sample Results* (Hanoi, 1991), p. 14.
1989: Viet Nam, Central Census Steering Committee, *Completed Census Results*, vol. 1 (Hanoi, 1991), p. 16.
1994: Viet Nam, General Statistical Office, *Women and Men in Vietnam* (Hanoi, 1995), p. 2.

B. Family formation

As fertility has declined, the average size of households has also declined. In 1979 the average household contained 5.2 persons, but in 1989 the average was 4.8 persons (table 90). In 1989 there was a lower proportion of both smaller and larger households than in 1979, with a greater concentration of households with 3-6 persons. Between 1979 and 1989 the population of the country increased by 24 per cent while the number of households increased by 34 per cent.

Although table 90 indicates that the average size of urban households was slightly greater than of rural households, that was largely because there were more collective households in urban areas. Among private households, the average size in urban areas was 4.79 persons, and that in rural areas was 4.83 persons.

The Viet Nam Inter-Censal Demographic Survey (ICDS) of 1994 found the same household size as in 1989, but with a greater concentration of households of 4 to 7 persons and fewer smaller or larger households (table 91). The ICDS 1994 also found a greater difference between rural and urban household size, possibly because of sampling variation. In urban areas the higher cost of housing no doubt acts to increase household size.

As would be expected in a population with a deficit of males, women face a "marriage squeeze", i.e. a shortage of men of similar age. As a consequence, while over 90 per cent of men in each age group from 30-34 years up to 60-64 years are currently married, among women in 1989 the maximum proportion married was 84 per cent at ages 30-34.

After ages 30-34 the proportion of women who were currently married declined steadily with age, mainly as a result of increasing widowhood (table 92). Largely because of the greater likelihood of widowhood among women, 96 per cent of men ages 45-49 are married, but only 80 per cent of women ages 40-44 are. This discrepancy widens with age.

Table 90. Percentage distribution of households by number of persons in household, 1979 and 1989, and by residence, 1989
(Excluding special enumeration groups)

Number of persons in household	*1979*	*1989*		
	Total	*Total*	*Urban*	*Rural*
Total	100.0	100.0	100.0	100.0
1	6.9	5.0	4.6	5.1
2	10.4	9.7	9.8	9.7
3	13.5	15.0	17.0	14.5
4	15.0	18.9	20.6	18.5
5	14.4	17.2	16.3	17.4
6	12.5	13.4	11.7	13.8
7	10.1	8.9	7.5	9.3
8	7.3	5.6	4.9	5.8
9	4.6	2.9	2.9	2.9
10 or more	5.3	3.4	4.7	3.0
No. of households	9 665 866	12 958 041	2 556 430	10 401 611
Household population	50 463 918	62 656 941	12 402 342	50 254 599
Average households size	5.22	4.84	4.85	4.83

Source: Viet Nam, General Statistical Office, *Viet Nam Population Census, 1989, Detailed Analysis of Sample Results* (Hanoi, 1991), pp. 21-22.

At ages 60-64 in 1989, 7.6 per cent of men were widowed but 34.8 per cent of women were. By age 70 a majority of Vietnamese women are widows (table 92).

Divorce remains rare in Viet Nam, but it appears that men are much more likely to remarry after a divorce than are women. Between the ages of 30 and 49 about 1.0 per cent of men are divorced whereas about 3.0 per cent of women are.

Data from the ICDS 1994 indicate that among both males and females under the age of 30 the proportion married had declined somewhat since 1989 (table 92).

In the absence of complete data on marriage registration, the mean age at marriage may be estimated by calculating the singulate mean age at marriage (SMAM) from the percentage single by age group from census or survey data. The SMAM is an estimate of the mean number of years lived by a cohort of women or men before their first marriage.

The SMAM for Viet Nam by sex and residence in 1989 and 1994 is shown in tables 93 and 94, respectively. If the two sets of estimates are accurate, they imply that the mean age of marriage for men increased by about half a year between 1989 and 1994 while that for women decreased by half a year during

Table 91. Percentage distribution of households by number of persons in household, by residence, 1994

Number of persons in household	*Total*	*Urban*	*Rural*
Total	100.0	100.0	100.0
1	3.8	2.9	4.0
2	8.0	7.3	8.1
3	14.9	7.2	14.3
4	21.0	26.9	19.5
5	18.8	18.2	19.0
6	14.2	11.4	14.8
7	9.1	7.2	9.6
8	4.9	3.6	5.2
9	2.6	1.9	2.8
10 or more	2.7	3.3	2.5
Average household size	4.84	4.70	4.87

Source: Viet Nam, General Statistical Office, *Inter-Censal Demographic Survey 1994, Population Structure and Household Composition* (Hanoi, Statistical Publishing House, 1997), pp. 35, 38.

the same period. The actual trend for women may require observation over a longer period, however, as in table 92 it had been seen that the proportion single among women in most age groups from 15-19 to 45-49 was higher in 1994 than it had been in 1989, which would imply that the average age at marriage was increasing.

Data in tables 93 and 94 imply that the difference in age at first marriage between men and women has increased between 1989 and 1994 from 1.3 years to 2.4 years. If women traditionally marry men a few years older than themselves but there is a shortage of such men, they may try to solve the marriage squeeze by marrying men closer to their own age. This may explain the narrow range between male and female ages at marriage up to 1989. The marriage squeeze had been mitigated to some extent by 1994, when the sex ratio at ages 20-24 was about 97 males per hundred females, possibly allowing women to marry somewhat older men than before 1989. This speculation would require further observations to be verified, however.

According to the 1989 population census, nearly one third of households in Viet Nam are headed by women (table 95). In urban areas close to half of all households are headed by women, but only 28 per cent of rural households are.

The proportion of households headed by women increases only gradually by age, implying that widowhood is not the only determinant of the trend. The proportion of women who are widows does not reach 10 per cent until after age 40, after which it increases rapidly to 61 per cent at ages 70-74 (table 92). Apparently many widows at older ages are

Table 92. Percentage distribution of the population aged 15 years and over by marital status, for sex and age groups, 1989, and per cent single by sex and age group, 1994

	1989				1994
Age group	*Single*	*Married*	*Widowed*	*Divorced or separated*	*Single*
Male					
15-19	95.7	4.2	0.0	0.0	96.9
20-24	62.7	36.8	0.0	0.5	67.5
25-29	23.6	75.3	0.2	0.9	26.3
30-34	7.8	91.0	0.3	0.9	6.6
35-39	3.6	95.1	0.5	0.9	3.0
40-44	2.1	96.0	0.9	1.0	1.3
45-49	1.5	95.8	1.8	0.9	0.5
50-54	1.1	94.9	2.9	1.0	1.6
55-59	0.9	94.0	4.6	0.8	0.4
60-64	0.9	90.7	7.6	0.7	0.9
65-69	0.9	86.5	11.9	0.7	(65+) 0.5
70-74	0.8	81.5	17.7	0.5	
75+	1.1	66.8	31.3	0.8	
Female					
15-19	89.1	10.7	0.1	0.2	91.0
20-24	43.1	55.2	0.5	1.2	45.5
25-29	18.0	78.7	1.1	2.1	20.0
30-34	11.2	83.7	2.3	2.8	10.6
35-39	8.9	82.5	5.4	3.2	9.0
40-44	6.0	80.2	10.4	3.4	7.0
45-49	3.5	77.0	16.6	2.9	6.1
50-54	2.3	74.4	21.2	2.2	3.0
55-59	1.8	70.8	25.5	2.0	0.9
60-64	1.6	62.1	34.8	1.5	2.2
65-69	1.3	51.4	46.1	1.2	(65+) 0.9
70-74	1.5	37.0	60.6	0.9	
75+	1.4	20.8	77.2	0.6	

Sources: Viet Nam, General Statistical Office, *Viet Nam Population Census, 1989, Detailed Analysis of Sample Results* (Hanoi, 1991), p. 78; and Viet Nam, General Statistical Office, *Inter-Censal Demographic Survey 1994, Population Structure and Household Composition* (Hanoi, Statistical Publishing House, 1997), p. 26.

Table 93. Singulate mean age at marriage by sex and residence, 1989

Residence	*Male*	*Female*
All	24.5	23.2
Urban	26.5	24.7
Rural	23.4	22.7

Source: Viet Nam, General Statistical Office, Viet Nam Population Census, 1989, Detailed Analysis of Sample Results (Hanoi, 1991), p. 80.

absorbed into other households rather than becoming heads themselves.

Another perspective on who are household heads may be gained by considering headship rates, or the proportion of a given population who are the heads of households. Among males ages 40 to 75 years, somewhat over 80 per cent are heads of households (table 96). In comparison with other countries, this is a relatively low percentage. In contrast, about one third of all women ages 45 to 75 years are heads of their household. The proportion of women who are widows does not reach one third until about age 60, thus many women between the ages of 30 and 60 who are currently married (and not divorced or separated) are household heads. The published census tabulations are not detailed enough to indicate in what proportion of cases the husband is present in a household headed by a married woman. This issue merits further social research.

The authors of the report of the ICDS 1994 cited in table 96 note that female headship rates declined between 1989 and 1994. They speculate that the decline was partially caused by the transition to a market economy, during which women may have been adversely affected, making them less able to function as the head of their household. There is little evidence that women have been more adversely affected by the economic transition and none to indicate how this has affected their family relations.

It is just as likely that female headship rates have declined because women are remaining single longer (as indicated in table

Table 94. Singulate mean age at first marriage for synthetic marriage cohort, by sex and residence, 1989-1994

Residence	*Male*	*Female*
All	25.1	22.7
Urban	27.1	24.5
Rural	24.6	22.0

Source: Viet Nam, General Statistical Office, *Inter-Censal Demographic Survey 1994, Population Structure and Household Composition* (Hanoi, Statistical Publishing House, 1997), p. 21.

Table 95. Percentage of households with a female head, by age group and residence of head, 1989

Age group of head	*Viet Nam*	*Urban*	*Rural*
All ages	31.9	48.2	27.9
Under 20	37.2	52.2	32.3
20-24	23.3	53.8	19.4
25-29	24.3	50.0	19.2
30-34	27.2	44.6	21.9
35-39	30.3	47.5	25.3
40-44	34.1	52.6	28.6
45-49	35.6	50.8	31.8
50-54	34.6	47.5	31.6
55-59	31.2	41.8	28.5
60-64	34.1	42.9	32.1
65-69	38.1	48.1	35.6
70-74	43.5	54.8	40.7
75+	48.7	57.6	47.7

Source: Viet Nam, General Statistical Office, *Viet Nam Population Census, 1989, Detailed Analysis of Sample Results* (Hanoi, 1991), p. 26.

92) and because husbands are surviving much longer now than in the recent past (as will be seen in table 98). It is also possible that much of the apparent decline in female headship is spurious because the sources of data are different. Although the 1989 census and the 1994 ICDS were both conducted by the General Statistical Office, their field operations may have varied somewhat. The high levels of female headship in the 1989 census may have resulted from a greater tendency to accept a respondent at home as the head of the household.

Until recently fertility had remained high in Viet Nam. Women 45-49 years of age in 1989 had borne an average of nearly five children each (table 97). The average was 5.1 children for rural women but only 4.3 among urban women. Childbearing does not begin early in Viet Nam, as women ages 20-24 years had borne an average of only 0.65 children. Rural women not only bear on average about one child more than urban women, but begin childbearing earlier, so that the one-child difference is established by age 30.

It was mentioned earlier that household size may have declined as a result of reductions in fertility. An indication that younger cohorts will have fewer children may be seen in table 97. For example, it is unlikely that women ages 30-34 will have two more children to reach the level of completed fertility of five that the women 45-49 had.

Direct data on the recent decline in fertility are presented in tables 98 and 99. According to United Nations estimates, the total fertility rate did not decline appreciably until after 1975 and did not go below five children per woman until after 1980, but then

Table 96. Headship rate by sex and age group, 1994

Age group	*Male*	*Female*
15-19	0.6	0.2
20-24	12.6	2.3
25-29	45.1	7.4
30-34	67.7	13.4
35-39	75.4	19.1
40-44	81.3	23.1
45-49	82.9	32.0
50-54	80.9	34.8
55-59	85.0	35.3
60-64	83.3	34.2
65-69	82.3	35.2
70-74	80.0	35.6
75-79	74.9	40.2
80-84	71.1	29.8
85+	49.4	26.2
ANYSHH	48.6	18.5

Source: Viet Nam, General Statistical Office, *Inter-Censal Demographic Survey 1994, Population Structure and Household Composition* (Hanoi, Statistical Publishing House, 1997), p.40.

Note: ANYSHH stands for average number of years spent as head of a household. It is calculated by summing the age-specific headship rates (divided by 100) and multiplying by 5.

fell to 4.2 children by the period 1985-1990. That the decline in fertility began after 1975, which is the year the war came to an end and the country was reunified, may not be a coincidence. Reunification brought stable government that could then focus on health programmes, such as for maternal and child health, to a greater extent than had been possible during the war.

Fertility has continued to fall rapidly, with the TFR estimated at 3.8 children in the year preceding the 1989 census and at 3.2 children for the period 1989-1993 (table 99). A number of factors related to the status of women have been responsible for this decline in fertility. Government health services improved after the war. Levels of female education have continued to improve, as will be seen in section D. With the transition to a market economy, women are gradually moving from agricultural employment (where fertility rates are higher) to trade and services occupations. One may also argue that lower

Table 97. Average number of children ever born, by age group and residence of women, 1989

Age group	*Viet Nam*	*Urban*	*Rural*
15-19	0.045	0.023	0.051
20-24	0.653	0.396	0.723
25-29	1.173	1.168	1.901
30-34	2.765	1.985	3.021
35-39	3.639	2.738	3.933
40-44	4.359	3.529	4.633
45-49	4.937	4.337	5.107

Source: Viet Nam, General Statistical Office, *Viet Nam, Population Census, 1989, Detailed Analysis of Sample Results* (Hanoi, 1991), p. 86.

fertility improves women's status by allowing them more time for productive employment or for activities related to their own development and interests. Further research on the determinants of fertility decline in Viet Nam would be valuable. It should investigate the impact of such factors as the Government family planning programme, personal characteristics of women (especially their education) and economic transition.

C. Health

There are many indications that health care improved rapidly in Viet Nam after reunification in 1975, although deficiencies exist. The expectation of life at birth increased steadily prior to 1975, but at a low level (table 98). After 1975, however, increases have been large. According to United Nations estimates, the expectation of life at birth for males

Table 98. United Nations estimates of total fertility rate and expectation of life in Viet Nam, by quinquennial period from 1950-1955 to 1985-1990

Period	*Total fertility rate*	*Expectation of life*	
		Male	*Female*
1950-1955	6.05	39.1	41.8
1955-1960	6.05	41.3	44.6
1960-1965	6.05	43.5	47.4
1965-1970	5.94	45.7	50.2
1970-1975	5.85	47.7	53.1
1975-1980	5.59	53.7	58.1
1980-1985	4.69	56.7	61.1
1985-1990	4.22	60.6	64.8

Source: United Nations, *World Population Prospects: The 1994 Revision*, Sales No. E.95.XIII.16, 1995, p. 872.

Table 99. Age-specific fertility rates and total fertility rates by residence, 1988-1989, and for whole country, 1989-1993 and 1993

Age group	1988-1989 (from census)			Inter-Censal Demographic Survey	
	Viet Nam	Urban	Rural	1989-1993	1993
Age-specific fertility rates					
15-19	0.035	0.019	0.038	0.038	0.041
20-24	0.197	0.126	0.217	0.196	0.187
25-29	0.209	0.147	0.229	0.189	0.187
30-34	0.155	0.099	0.173	0.124	0.109
35-39	0.100	0.050	0.117	0.069	0.060
40-44	0.049	0.019	0.059	0.031	0.033
45-49	0.014	0.004	0.017	0.002	0.002
Total fertility rates					
15-49	3.800	2.320	4.250	3.245	3.095

Sources: For 1988-1989: Viet Nam, General Statistical Office, *Viet Nam Population Census, 1989, Detailed Analysis of Sample Results* (Hanoi, 1991), p. 90; and for 1989-1993 and 1993: Viet Nam, General Statistical Office, *Inter-Censal Demographic Survey 1994, Preliminary Report* (Hanoi, Statistical Publishing House, 1995), p. 22.

increased by six years between the periods 1970-1975 and 1975-1980, and that for females increased by five years during the same period. The expectation of life increased by another seven years for both males and females in the decade after 1975-1980.

Viet Nam has raised the level of life expectancy to that comparable to much wealthier countries. The expectation of life for males in 1990-1995 is estimated by the United Nations to have equalled 62.9 years in Viet Nam and 64.5 years in the Philippines. For females the estimates are 67.3 years in Viet Nam and 68.2 years in the Philippines. These levels are close in spite of the fact that the per capita gross national product in the Philippines (US$960 in 1994) was five times greater than that in Viet Nam (US$190 in 1994).

Analysis carried out on the 1989 census results by the General Statistical Office (GSO) put the expectation of life at birth somewhat higher than United Nations estimates. According to GSO, life expectancy equalled 63.0 years for males and 67.5 years for females in 1988-1989 (table 100). These are indirect estimates that imply that the number of deaths reported in households in the 1989 census were only 55 per cent completely reported for men and 45 per cent completely reported for women.

The same analysis indicated that death rates for females were greater than those for males up to age 15, after which male death rates were substantially higher.

The ICDS 1994 confirmed the estimate from the 1989 census that the infant mortality

Table 100. Age-specific death rates by sex, 1988-1989 [a]

Age	*Male*	*Female*
0	46.3	45.5
1	7.3	8.9
2	5.7	7.5
3	5.0	4.1
4	3.6	5.8
5-9	2.2	2.7
10-14	1.6	1.7
15-19	1.9	1.4
20-24	2.6	1.9
25-29	2.3	1.5
30-34	2.7	1.9
35-39	3.9	2.2
40-44	5.6	3.6
45-49	9.0	4.6
50-54	10.9	7.5
55-59	15.4	10.8
60-64	26.9	15.3
65-69	37.9	22.9
70-74	65.9	41.6
75-79	104.3	62.7
80-84	136.1	109.2
85+	214.4	193.2
Completeness (per cent) [b]	55	45
No. of deaths	256 491	245 588
Crude death rate	8.5	7.6
Expectation of life at birth (years)	63.0	67.5

Source: Viet Nam, General Statistical Office, *Viet Nam Population Census, 1989, Detailed Analysis of Sample Results* (Hanoi, 1991), p. 105.

[a] number of deaths in one year per 1,000 population estimated by the Preston-Coale method from the number of deaths reported in households by the 1989 population census.

[b] Estimated per cent completeness of reporting of deaths by the 1989 population census.

Table 101. Infant, child and under-five mortality rates, 1979-1983, 1984-1989 and 1989-1993

Five-year period	*Infant mortality rate* ($_1q_0$)	*Child mortality rate* ($_4q_1$)	*Under-five mortality rate* ($_5q_0$)
1979-1983	54.79	28.76	82.12
1984-1989	46.04	24.85	68.69
1989-1993	44.18	10.84 [a]	55.41 [a]

Source: Viet Nam, General Statistical Office, *Inter-Censal Demographic Survey 1994, Preliminary Report* (Hanoi, Statistical Publishing House, 1995), p. 43.

[a] Based on truncated cohort of birth.

rate equalled 46 per 1,000 live births in 1989 (table 101). (In both cases the measure employed is the probability of dying before age 1). The analysis of 1989 census data estimated that the infant mortality rate was 32 in urban areas and 46 in rural areas.

While there appears to have been little improvement in the infant mortality rate during the period 1989-1993, initial indications are that child mortality (defined as the probability of dying between exact age 1 and exact age 5) declined substantially. The combination of these trends has resulted in a continuing decline in under-five mortality (the probability of dying between birth and age 5) from the period 1979-1983 to the period 1989-1993.

Although some observers have been concerned that the transition from a centrally planned economy to an economy with a market mechanism could have an adverse impact upon the delivery of health care, the estimates of infant and child mortality from the ICDS 1994 do not provide any evidence of such an impact. Nevertheless, the estimate of the infant mortality rate remains a cause of concern because it indicates little improvement despite rapid economic development.

The level of maternal mortality in Viet Nam is not known with any degree of certainty. A UNICEF (1994) report on the situation of women and children cited two sources from the Ministry of Health. One put the maternal mortality rate (MMR) at 110 per 100,000 live births in 1990 while the other source reported it to equal 220 per 100,000, also in 1990. The WHO/UNICEF (1996) study on maternal mortality estimated the rate to be 160 per 100,000 in 1990. This rate compares with an MMR of 650 in Indonesia, 280 in the Philippines and 200 in Thailand, although the WHO/UNICEF study notes that no direct or indirect data on maternal mortality exist in Indonesia, Thailand and Viet Nam.

The trend in the abortion rate is a cause for concern. The ICDS 1994 found that close to 20 per cent of women between the ages of 30 and 49 years reported having had an abortion (table 102). This percentage was similar for each of those age groups, although older women were probably more likely to have had more than one abortion.

Table 102 also presents data on abortions during the three-year period 1991-1994 from the ICDS 1994. About 6 per cent of

Table 102. Percentage of ever-married women reporting having had an abortion or menstrual regulation, by age group, 1994

Age group	*Ever had an abortion*	*Had an abortion since 1991*
All ages 15-49	16.3	6.4
15-19	1.7	1.1
20-24	5.5	4.2
25-29	12.5	7.4
30-34	19.0	8.9
35-39	23.5	3.1
40-44	19.5	4.4
45-49	17.7	2.3

Source: Viet Nam, General Statistical Office, *Inter-Censal Demographic Survey 1994, Abortion, Menstrual Regulation and Unwanted/Mistimed Pregnancies* (Hanoi, Statistical Publishing House, 1995), p.19.

Table 103. Number of induced abortions by area, 1976-1987, and for whole country, 1988-1993

Year	*Total*	*Urban*	*Rural*
1976	70 281	21 084	49 197
1980	166 716	63 352	103 364
1984	361 918	130 290	231 628
1987	811 176	373 141	438 035
1988	805 000	..	..
1989	760 000	..	..
1990	1 023 000	..	..
1991	1 130 000	..	..
1992	1 340 000	..	..
1993	1 370 000	..	..

Source: 1976-1987:United Nations Children's Fund (UNICEF), *Situation Analysis of Women and Children in Viet Nam* (Hanoi, 1994), p. 54; 1988-1993: Viet Nam, General Statistical Office, *Inter-Censal Demographic Survey 1994, Abortion, Menstrual Regulation and Unwanted/Mistimed Pregnancies* (Hanoi: Statistical Publishing House, 1996), p. 2.

Table 104. Percentage distribution of births recorded by the Inter-Censal Demographic Survey by type of assistance during delivery, by age of mother at time of delivery, 1984-1994

Person assisting	*Age of mother at time of delivery*			
	All ages 15-49	*15-29*	*30-39*	*40-49*
Doctor	12.69	13.27	11.36	10.26
Doctor's assistant	27.59	28.83	24.87	20.72
Midwife	18.51	18.33	19.06	17.77
Nurse	14.48	14.48	14.49	14.46
Traditional birth attendant	14.97	13.51	18.40	20.53
Other	9.40	9.68	8.55	10.66
No one	2.35	1.89	3.28	5.61
Total	100.00	100.00	100.00	100.00
Number of births	15 230	10 810	4 090	330

Source: Viet Nam, General Statistical Office, *Inter-Censal Demographic Survey 1994, Preliminary Report* (Hanoi, Statistical Publishing House, 1995), p. 46.

ever-married women reported having an abortion during that three-year period, and 1.6 per cent had had two or more abortions during that period (not shown in table). If the abortion rates for the period 1991-1994 prevail into the future, from one third to one half of all women may have an abortion before completing their childbearing years, or many women will have more than one abortion.

The ICDS 1994 reported that there were 164 abortions per 1,000 live births during the period 1991-1994, but it also noted that the annual number of abortions for ever-married women estimated by the Survey was only 18 per cent of the number reported by the Ministry of Health.

The data in table 103 show that the number of recorded abortions had been doubling every 3-4 years between 1976 and 1987. Thus the trend toward increasing abortion rates began well before the initiation of economic reform at the end of 1986. The abortion rate is much higher in urban than in rural areas. The annual number of abortions had reached 1.37 million by 1993.

The figures from both the ICDS 1994 and the Ministry of Health cover abortions and menstrual regulation. The latter procedure is often performed without a pregnancy test so many of the women undergoing it may not be pregnant. The high annual number of abortions and menstrual regulation procedures (table 103) may indicate that the latter is performed rather routinely in many clinics and is used by many women as a partial substitute for contraception.

The ICDS 1994 obtained information on who provided assistance during the delivery of all births between 1984 and 1994. A doctor, doctor's assistant, midwife or nurse provided

Table 105. Percentage of children born in the ten years preceding the Inter-Censal Demographic Survey who had received any vaccination by 1994, by birth order and by age of mother at time of the birth

Birth order	*Age of mother at time of the birth*			
	All ages 15-49	*15-29*	*30-39*	*40-49*
All birth orders	74.58	75.28	72.69	74.69
1	80.70	80.47	85.69	85.76
2	75.91	74.55	85.55	67.63
3	72.11	70.94	75.51	75.97
4	72.13	70.68	73.21	91.36
5	70.17	64.45	72.49	79.15
6 and higher	65.06	61.50	64.30	71.59
Number of births	15 230	10 810	4 090	330

Source: Viet Nam, General Statistical Office, *Inter-Censal Demographic Survey 1994, Preliminary Report* (Hanoi, Statistical Publishing House, 1995), p. 48.

assistance during 73 per cent of the births (table 104). This proportion is somewhat higher for younger mothers, equalling 75 per cent for mothers who were aged 15-29 years at the time of delivery.

Another indicator of national health care is the proportion of children who are vaccinated against childhood diseases. The ICDS 1994 obtained information on child vaccination by birth order of the child and by age of mother at the time of birth. Nearly 75 per cent of the children born in the 10 years preceding the Survey had received some kind of vaccination (table 105). Children of lower birth order were more likely to have been vaccinated. There was no consistent trend by age of mother, however. In fact, many older mothers were more likely to have had their children vaccinated; this was especially true for children of higher birth orders. These results may imply that older women with more children have benefitted from their additional experience and knowledge concerning child rearing.

Despite the success in reducing infant and child mortality in Viet Nam, UNICEF (1994) reports that a high prevalence of protein-energy malnutrition persists. Recent data indicated that the prevalence of underweight-for-age children under five was 42 per cent, of underheight-for-age was 49 per cent and underweight-for-height was 12 per cent. The data also suggest that malnutrition begins in the first year of life and increases through the second and third years. Boys are more frequently underweight than girls.

D. Education

Over 90 per cent of the population between the ages of 10 and 44 have attended school at some time (table 106). While this is a noteworthy achievement, it must also be observed that the percentages are nearly the

Table 106. Percentage of population that has ever attended school, by sex, age group and residence, 1989

Age group	Whole country			Urban	Rural
	Total	Male	Female		
All ages 5+	83.6	87.3	80.3	91.0	81.7
10-14	92.7	93.2	92.2	97.1	91.7
15-19	92.9	92.9	92.9	96.8	91.9
20-24	93.4	93.8	93.1	97.3	92.3
25-29	94.0	95.1	93.0	98.1	92.8
30-34	93.8	95.5	92.3	98.0	92.5
35-39	92.4	95.2	90.1	97.4	90.8
40-44	90.6	95.1	86.8	96.6	88.6
45-49	86.3	93.7	80.5	94.2	83.9
50-54	81.4	92.3	72.8	88.5	79.1
55-59	74.7	88.9	62.4	85.0	72.2
60-64	64.6	83.7	48.8	77.9	61.4
65+	43.5	67.9	27.4	57.2	40.4

Source: Viet Nam, General Statistical Office, *Viet Nam Population Census, 1989, Detailed Analysis of Sample Results* (Hanoi, 1991), p. 50.

same for all age groups 35-39 and younger, indicating that little additional progress has been made in this regard since about 1970.

There is little difference between males and females below the age group 35-39 years on this measure, implying that boys and girls now have essentially equal status in terms of the goal of universal education. The proportion of rural residents who have attended school is lower than that of urban residents, but over 90 per cent of rural residents between the ages of 10 and 39 have attended school (table 106).

The statistics on current school attendance are less encouraging. In 1989 about 77 per cent of children ages 10-14 years, and only 24 per cent of those ages 15-19 years, were attending school (table 107). At ages 5-9 about equal proportions of boys and girls were in school, but at older ages female attendance was significantly lower.

Urban-rural differences in school attendance are much greater than male-female differences (table 107). For example, at ages 10-14 nearly 87 per cent of urban children, but only 74 per cent of rural children, were attending school. In urban areas there is little difference in the proportion of boys and girls who are attending school. The national differences between boys and girls in school attendance after age 10 result almost entirely from differences in rural areas.

Data on educational attainment are even more discouraging than those on current school attendance. In 1989 over 50 per cent of

Table 107. Percentage distribution of persons aged 5-19 years by school attendance, sex, and residence, 1989

Sex and age group	*Total*	*Currently attending*	*Attended in past*	*Never attended*	*Not stated*
		Whole country			
Both sexes					
5-9	100.0	63.5	1.0	34.5	1.0
10-14	100.0	76.7	16.0	7.0	0.2
15-19	100.0	24.5	68.4	6.8	0.2
Male					
5-9	100.0	63.8	1.0	34.2	1.0
10-14	100.0	79.6	13.6	6.6	0.2
15-19	100.0	29.1	63.9	6.8	0.2
Female					
5-9	100.0	63.2	1.0	34.7	1.0
10-14	100.0	73.7	18.6	7.5	0.2
15-19	100.0	20.1	72.8	6.9	0.2
		Urban			
Both sexes					
5-9	100.0	73.2	0.8	25.0	1.0
10-14	100.0	86.6	10.5	2.7	0.2
15-19	100.0	35.8	61.0	3.1	0.2
Male					
5-9	100.0	73.1	0.8	25.2	1.0
10-14	100.0	87.4	9.8	2.6	0.2
15-19	100.0	37.7	58.8	3.4	0.2
Female					
5-9	100.0	73.3	0.9	24.8	0.9
10-14	100.0	85.8	11.2	2.8	0.2
15-19	100.0	34.0	63.1	2.8	0.2
		Rural			
Both sexes					
5-9	100.0	61.4	1.0	36.5	1.1
10-14	100.0	74.5	17.3	8.0	0.3
15-19	100.0	21.4	70.4	7.9	0.3
Male					
5-9	100.0	61.8	1.0	36.2	1.0
10-14	100.0	77.8	14.5	7.5	0.3
15-19	100.0	26.7	65.3	7.7	0.3
Female					
5-9	100.0	61.1	1.1	36.8	1.1
10-14	100.0	70.9	20.3	8.5	0.3
15-19	100.0	16.4	75.3	8.0	0.3

Source: Viet Nam, General Statistical Office, *Viet Nam Population Census, 1989, Detailed Analysis of Sample Results* (Hanoi, 1991), p. 57.

Table 108. Percentage distribution of population aged 10 years and over by educational level, sex and residence, 1989

Educational level	*Whole country*			*Urban*			*Rural*		
	Total	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Never attended	12.3	7.5	16.6	6.3	3.3	9.0	14.3	9.1	18.8
Did not complete primary s.	52.8	52.7	52.8	46.4	44.6	48.0	56.1	57.0	55.4
Completed primary s.	24.0	26.8	21.4	24.8	27.5	22.4	23.3	25.8	21.0
Completed secondary	6.9	8.3	5.2	12.6	14.1	11.8	4.2	5.2	3.3
Vocational secondary	2.7	2.5	2.9	5.4	4.5	6.2	1.4	2.0	0.9
College or university	1.6	2.1	1.1	4.5	5.6	3.1	0.7	1.0	0.5

Source: Viet Nam, General Statistical Office, *Viet Nam Population Census, 1989, Detailed Analysis of Sample Results* (Hanoi, 1991), p. 55.

the population age 10 and over had attended but not completed primary school (table 108). This table should properly have excluded children age 12 and below, who could not be expected to have finished primary school, but the results would not be greatly different. Among males age 10 and over, 7.5 per cent had never attended school. Among females the proportion was 16.6 per cent. Among the younger population this differential has disappeared, however, as was seen from table 106.

Only 13 per cent of males and 9 per cent of females 10 years old or over had completed secondary school. Again, urban-rural differentials in educational attainment are much greater than male-female differentials. Among the urban population 24 per cent of males and 21 per cent of females had completed at least secondary school. In rural areas, however, only 8 per cent of males and 5 per cent of females had done so (table 108). These tables probably exaggerate rural-urban differences because of internal migration. A rural child who has completed secondary school would be more likely to move and reside in an urban area.

The Inter-Censal Demographic Survey (ICDS) of 1994 also collected information about past and current school attendance, and educational attainment. The proportion of children who had ever attended school increased between 1989 and 1994, especially for those ages 8-14. The proportion of children ages 10-14 years who were currently attending school also rose between 1989 and 1994,

Table 109. Percentage of population who ever attended school and percentage currently attending school, by age, 1989 and 1994

Age	*Per cent ever attended school*		*Per cent currently attending school*	
	Census 1989	*VNICDS 1994*	*Census 1989*	*VNICDS 1994*
6	56.1	50.1	55.6	..
7	78.1	78.7	77.4	..
8	85.4	88.4	84.3	..
9	88.9	92.5	86.6	..
10	91.1	94.2	87.3	92.4
11	91.9	95.1	85.4	91.2
12	92.7	4.5	80.7	83.4
13	92.5	93.7	70.0	72.6
14	92.7	94.4	56.7	57.7
15	92.7	93.5	42.6	42.0
16	92.9	93.3	32.3	31.3
17	92.9	92.8	21.1	23.4
18	92.3	92.9	11.9	14.8
19	92.0	92.3	5.5	9.2

Source: Viet Nam, General Statistical Office, *Viet Nam Inter-Censal Demographic Survey, 1994, Education in Viet Nam: Trends and Differentials* (Hanoi, Statistical Publishing House, 1996), p. 25.

especially for those ages 10 and 11 (table 109). These trends imply that a somewhat greater proportion of children are entering and completing primary school than was the case in 1989.

Table 110 presents data on educational attainment from the ICDS 1994. Clearly the concept of primary school was not the same between the 1989 census analysis (table 108) and the ICDS. Although the minimum age is different, the census data in table 108 imply that 40 per cent of males and 30 per cent of females had completed at least primary education. In contrast, the ICDS data in table 110 indicate that 76 per cent of males and 60 per cent of females had finished primary school. When the different minimum ages are taken into account, the two sources are consistent with regard to the proportion of the population which has completed at least upper secondary school, however. The 1989 census recorded the highest grade completed, and this was converted to level of education during data processing. The school system in Viet Nam has undergone a number of changes in the past and has often not been the same in all regions of the country. Thus converting a grade into a level may have caused problems in the census tabulations).

The ICDS 1994 data in table 110 show significant differences between males and females over age 25 in the proportion who have completed primary school and in the proportion who have attended secondary school. The sex differentials are minor below age 25, however. The proportions of men and

Table 110. Percentage of population attaining selected educational levels, by sex and current age, 1994

Current age	Per cent with any schooling		Per cent finished primary		Per cent with any secondary		Per cent finished upper secondary	
	Male	Female	Male	Female	Male	Female	Male	Female
Ages 15+	92.2	81.4	76.5	60.2	63.8	49.0	15.0	10.1
15-19	93.9	92.1	76.5	75.2	65.2	63.2	6.7	6.4
20-24	93.4	92.3	80.5	80.2	72.0	71.2	16.8	19.2
25-29	94.6	93.8	83.7	78.6	74.2	68.4	20.5	16.0
30-34	95.7	93.4	84.7	77.2	75.7	65.8	16.9	14.8
35-39	96.0	90.5	82.4	69.7	71.9	57.1	21.3	13.3
40-44	95.8	90.2	81.3	64.2	68.6	48.0	22.0	10.9
45-49	94.8	87.3	81.1	55.4	67.7	41.5	19.6	8.2
50-59	91.3	71.3	69.2	33.3	52.6	17.6	14.7	2.4
60-69	84.0	47.5	51.7	13.8	33.5	6.1	7.7	0.7
70-79	69.7	24.4	35.0	5.5	19.5	1.8	2.6	0.2
80+	50.0	11.6	19.8	3.4	10.3	1.6	1.5	0.1

Source: Viet Nam, General Statistical Office, *Viet Nam Inter-Censal Demographic Survey, 1994, Education in Viet Nam: Trends and Differentials* (Hanoi, Statistical Publishing House, 1996), p. 21.

women who have completed upper secondary school are similar up to age 35, after which the differences are great.

The ICDS 1994 examined children's educational attendance and attainment in relation to their parents' educational attainment, as shown in table 111. The educational attainment of the parents, especially of the mother, clearly has a strong impact on the attainment of children. For example, only 10 per cent of children ages 19-24 whose mother had attended but not completed primary school had themselves completed upper secondary school, whereas 82 per cent of children ages 19-24 whose mother had completed upper secondary school had done so themselves. The father's education was also a strong determinant of children's educational attainment, but somewhat weaker than the mother's. When each parent's educational attainment is controlled for that of the other, each one's remains statistically significant.

The number of children in a family also influences the educational attainment of the children, with a negative relationship. Fifty per cent of persons ages 19-24 years who came from one- and two-child families had

Table 111. Educational attainment of children, by education of parents; unadjusted results and results adjusted for the other parent's education, 1994

Parents' education	Children's educational attainment: Per cent currently in school, by child's age 10-14	15-19	20-24	Per cent finished primary level 15-24	Per cent with any secondary school 16-24	Per cent finished upper secondary level 19-24
Unadjusted results						
Mother's educ.						
None	58	13	0	41	29	2
Some primary	72	16	1	70	57	10
Finished primary	80	20	2	83	73	16
Any lower secondary	89	31	3	93	87	32
Any upper secondary	94	50	11	96	92	52
Finished upper secondary	97	69	29	99	98	82
Father's educ.						
None	51	12	1	30	20	0
Some primary	65	14	1	56	43	5
Finished primary	75	16	2	77	61	10
Any lower secondary	86	25	2	87	79	23
Any upper secondary	88	36	6	93	87	28
Finished upper secondary	95	55	12	97	94	58
Adjusted results						
Mother's educ. adjusted for father's						
None	66	19	1	54	43	9
Some primary	75	20	1	74	63	15
Finished primary	80	21	2	82	72	17
Any lower secondary	86	29	3	88	80	28
Any upper secondary	90	41	9	88	81	39
Finished upper secondary	91	56	27	89	85	66
Eta statistic	0.18	0.21	0.32	0.26	0.27	0.32
Father's educ. adjusted for mother's						
None	61	18	3	46	38	11
Some primary	71	19	3	63	51	12
Finished primary	78	20	4	80	66	16
Any lower secondary	84	25	3	84	76	22
Any upper secondary	84	32	6	88	82	25
Finished upper secondary	89	45	6	90	84	43
Eta statistic	0.18	0.19	0.07	0.29	0.29	0.24

Source: Viet Nam, General Statistical Office, *Viet Nam Inter-Censal Demographic Survey, 1994, Education in Viet Nam: Trends and Differentials* (Hanoi, Statistical Publishing House, 1996), p. 41.

Note: Adjusted results are statistically adjusted by multiple classification analysis.

Table 112. Educational attainment of children, by number of children in the family, unadjusted and adjusted for background characteristics, 1994

Adjustment and number of children in family	*Per cent currently in school, by child's age*			*Per cent finished primary level*	*Per cent with any secondary school*	*Per cent finished upper secondary level*
	10-14	*15-19*	*20-24*	*15-24*	*16-24*	*19-24*
Unadjusted results						
Number of children						
1-2	95.5	52.1	18.7	90.9	85.8	50.3
3	88.4	40.8	12.6	91.2	86.5	48.7
4	83.2	30.4	3.3	87.0	81.7	32.9
5	76.3	22.6	2.4	81.9	74.0	23.8
6	68.4	18.4	1.2	71.7	61.3	15.9
7+	66.5	11.4	1.2	60.7	47.4	6.6
Average	81.3	27.1	3.9	78.9	70.1	23.8
Adjusted results						
Number of children						
1-2	85.5	37.6	2.3	84.0	77.0	30.1
3	84.8	33.2	7.9	84.0	77.2	31.8
4	82.5	27.6	1.4	81.9	74.9	25.3
5	79.5	25.0	2.8	80.9	72.7	25.5
6	75.0	24.5	3.1	76.7	67.0	22.9
7+	75.5	20.8	3.7	70.4	59.3	17.6
Average	81.3	27.1	3.9	78.9	70.1	23.8
Eta statistic	0.10	0.11	0.13	0.12	0.15	0.11

Source: Viet Nam, General Statistical Office, *Viet Nam Inter-Censal Demographic Survey, 1994, Education in Viet Nam: Trends and Differentials* (Hanoi, Statistical Publishing House, 1996), p. 44, from birth history data.

Note: Adjusted results are statistically adjusted by multiple classification analysis for region of residence, household wealth score, mother's and father's education, urban/rural residence and age of child.

completed upper secondary school, whereas only 16 per cent of those from six-child families had done so (table 112). Children from families with five or more children were much less likely to be attending school, to have completed primary school, or to have entered secondary school. Children from families with four or more children were much less likely to have completed upper secondary school than those from smaller families. It should be noted that educational attainment is greater for children from smaller families even after controlling for household wealth, parents' education, region of residence and urban/rural residence, as shown in table 112.

Table 113. Economic activity rates of the population aged 13 years and over by sex, age group and residence, 1989

Age group	Whole country			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
13+	74.2	77.5	71.3	66.4	73.3	60.4	76.4	78.7	74.4
13-14	33.9	30.1	38.0	17.8	17.7	18.0	37.6	33.0	42.5
15-19	70.6	67.7	73.5	53.4	53.5	53.0	75.3	71.4	78.9
20-24	91.3	94.4	88.8	82.5	88.1	77.9	93.7	96.2	91.7
25-29	93.1	97.4	89.3	87.8	95.6	81.2	94.6	98.0	91.7
30-34	92.4	97.3	88.1	87.6	96.5	79.8	94.0	97.5	90.9
35-39	90.9	95.7	86.9	85.5	95.1	77.5	92.8	95.9	90.0
40-44	87.6	91.8	83.9	80.2	91.3	72.6	89.7	92.0	87.7
45-49	82.3	86.9	78.7	71.8	85.2	60.1	85.6	87.5	84.0
50-54	74.7	81.2	69.4	61.1	76.0	48.2	78.3	82.8	74.9
55-59	62.0	70.9	54.2	46.8	60.5	33.8	65.8	73.6	59.1
60-64	43.5	53.1	35.6	30.0	38.5	22.5	46.7	56.8	38.6
65+	18.8	27.2	13.2	12.2	17.6	8.6	20.2	29.3	14.2

Source: Viet Nam, General Statistical Office, *Viet Nam Population Census, 1989, Detailed Analysis of Sample Results* (Hanoi, 1991), p. 143.

E. Employment and income

Women make a large contribution to development in Viet Nam through their high rates of labour force participation. They dominate several broad sections of the labour force. Among women ages 13 years and over, 71 per cent are economically active, compared with about 77 per cent of males of the same ages (table 113). Rural rates of labour force participation are higher than urban rates, especially for women.

Women enter the labour force at an early age in Viet Nam. Female economic activity rates exceed those of males up to age 20 (table 113), as is common in South-East Asia. At the ages of 13 and 14 years, 38 per cent of girls and 30 per cent of boys are economically active. At the ages of 15-19 years, the rates are 74 and 68 per cent for women and men, respectively. This national pattern exists because of female employment in rural areas; there is no gender differential in employment below age 20 in urban areas.

Table 114. Percentage distribution of employed persons aged 13 years and over by occupation and sex, 1989

Occupation	*Both sexes*	*Males*	*Females*
Total - number	28 745 188	13 815 802	14 929 386
Total - per cent	100.00	100.00	100.00
Profession, technical & related workers	6.27	5.62	6.87
Managers	0.86	1.45	0.31
Secretaries & clerks	0.64	0.70	0.57
Energy, mining and metallurgy workers	0.43	0.68	0.20
Electricity and machinery worker	1.91	3.41	0.53
Industrial workers	6.72	5.64	7.73
Construction workers	1.36	2.16	0.62
Agriculture, forestry and fishery workers	71.91	70.97	72.78
Transport and communications workers	1.88	3.55	0.34
Dockers and porters	0.28	0.44	0.13
Sales workers	5.46	2.41	8.28
Public servants	1.10	1.67	0.57
Others	0.93	1.05	0.82
Not stated	0.25	0.24	0.25

Source: Viet Nam, General Statistical Office, *Viet Nam Population Census, 1989, Detailed Analysis of Sample Results* (Hanoi, 1991), p. 146.

Note: Excluding special enumeration groups.

In rural areas, 42 per cent of girls ages 13 and 14 are economically active, as are 79 per cent of those ages 15-19. Table 22 had shown that 16 per cent of rural women ages 15-19 were currently attending school. These statistics indicate that nearly all girls in rural areas enter the labour force as soon as they complete or discontinue their education. In contrast, among women ages 15-19 years in urban areas, 53 per cent were in the labour force and 27 per cent were currently attending school, leaving 20 per cent in neither category.

In Viet Nam, over 90 per cent of males and 80 per cent of females ages 20-44 are economically active (table 113). The rates are higher in rural areas, where 90 per cent of women ages 20-39 and about 86 per cent of those ages 40-49 are economically active.

Rates of economic activity increase with educational attainment. The 1989 census found that 71.4 per cent of women and 75.5 per cent of men who had not finished primary school were economically active. In contrast, among persons who had completed primary school, 82.4 per cent of women and 80.0 per cent of men were economically active. Among persons who had completed secondary school, 86.0 per cent of women and 83.5 per cent of

Table 115. Percentage distribution of employed persons aged 13 years and over by industry and sex, 1979 and 1989

Industry	*1979*			*1989*		
	Total	*Males*	*Females*	*Total*	*Males*	*Females*
Total - number	Total	20 785 967		Total	28 667 136	
	Males	9 182 477		Males	13 778 796	
	Females	11 603 490		Females	14 888 340	
Total-per cent	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Subtotal -material production sector	**93.6**	**92.5**	**94.3**	**93.8**	**94.1**	**93.6**
Manufacturing	11.1	12.5	10.0	11.7	13.9	9.8
Construction	3.1	4.8	1.7	2.0	3.1	1.0
Agriculture	72.8	68.8	76.0	71.1	69.1	72.9
Forestry and lumber	0.6	0.7	0.5	0.3	0.4	0.3
Transport	1.8	3.1	0.7	1.9	3.3	0.6
Communications	0.2	0.2	0.1	0.1	0.1	0.1
Trade	3.9	2.5	5.1	6.6	4.0	8.9
Other production	0.1	0.1	0.1	0.1	0.1	0.1
Subtotal - non-material production sector	**6.4**	**7.5**	**5.7**	**6.2**	**5.9**	**6.4**
Tourism services	0.7	1.2	0.4	0.7	0.7	0.6
Science	0.3	0.5	0.2	0.1	0.2	0.1
Education	2.6	2.3	2.9	2.6	1.8	3.3
Art & culture	0.2	0.3	0.1	0.2	0.3	0.1
Social services and sports	0.9	0.7	1.1	0.9	0.7	1.1
Finance and insurance	0.2	0.2	0.2	0.3	0.3	0.3
Government	1.2	1.9	0.7	1.1	1.6	0.6
Non-production	0.3	0.4	0.2	0.3	0.4	0.3

Source: Viet Nam, General Statistical Office, *Viet Nam Population Census, 1989. Detailed Analysis of Sample Results* (Hanoi, 1991), p. 149.

Note: Excluding special enumeration groups.

men were economically active (General Statistical Office, 1995a, p.51). To a large extent, this is an age structure effect, as persons with greater educational attainment are younger.

Table 114 indicates that there were about 1.1 million more employed women than employed men in Viet Nam in 1989 but this figure is misleading because it excludes special enumeration groups (those counted separately from the main enumeration in the 1989 census). The special enumeration groups equalled about 890,000 men and 155,000 women. It can be assumed that most of these would have been employed. If so, the number of employed women in the country still exceeded the number of employed men by about 380,000.

Table 116. Percentage of employed persons aged 16 years and over holding educational qualifications, by sex, 1989

Type of qualification	*Both sexes*	*Males*	*Females*
All types	10.2	12.5	8.0
Technical workers with certificate	2.5	4.1	0.9
Technical workers without certificate	2.0	2.6	1.4
Vocational education	3.6	3.1	4.1
College or university degree	2.1	2.6	1.6

Source: Viet Nam, Central Census Steering Committee, *Completed Census Results*, vol. 3, table 5.1 and vol. 6, table 6.4 (Hanoi, 1991).
Note: Excluding special enumeration groups.

The number of women exceeds the number of men among professional, technical and related workers; industrial workers; agricultural workers and sales workers (table 114). The predominance of women among professional workers is primarily accounted for by their large numbers in the education and health fields. The proportion of women working in sales is more than triple that of men.

There is initial evidence that the proportion of women working in agriculture has declined since the 1989 census. The ICDS 1994 found that among employed ever-married women ages 15-49, 67.5 per cent were working in agriculture (General Statistical Office, 1995b), whereas in the 1989 census, among all employed women ages 15-49, 73.7 per cent were working in agriculture (General Statistical Office, 1991).

Table 115 indicates that the number of employed women exceeded the number of employed men by 2.4 million in 1979. Those figures also exclude special enumeration groups, which may have been larger in 1979 than 1989. None the less, there were probably many more women workers than male workers in the country in 1979 also.

The proportion of the labour force working in agriculture declined only marginally between 1979 and 1989, although the proportion of women workers in agriculture declined from 76 to 73 per cent. There was a shift among women workers to jobs in trade, from 5 per cent to 9 per cent. When the labour force is viewed from the perspective of industry (as opposed to occupation of the workers), women also dominate in the trade, education and social services categories. The latter includes health workers.

By occupation, there were more female than male industrial workers (table 114) but by industry there were considerably more males than females in manufacturing (table 115). This is because the manufacturing industry would include many males whose occupations were machine workers, managers and others.

Male workers are much more likely to hold some official qualification than female workers, although females are more likely to

Table 117. Percentage distribution of professional workers by field of study and sex, 1992/1993

Field of study	*Males*	*Females*
Total	100.0	100.0
Natural sciences	5.2	7.4
Social sciences	8.9	17.6
Economics	13.0	15.5
Technology & industry	47.2	19.9
Agriculture, forestry and fisheries	7.8	5.9
Medicine & pharmacy	6.9	13.8
Culture & sports	2.0	0.6
Literature & languages	5.3	14.8
Others	3.7	4.5

Source: Viet Nam, General Statistical Office, *Women and Men in Viet Nam* (Hanoi, 1995), p. 42.

have completed vocational education, as distinct from technical training (table 116).

Among professional workers, males are much more likely than females to have studied a technical or industrial subject and somewhat more likely to have studied agriculture or forestry (table 117). Conversely, women were more likely than men to have studied literature and languages, medicine and pharmacy, social sciences, natural sciences and economics.

In summary, women comprise more than half the labour force and predominate in several broad sectors of the economy. While about 73 per cent of employed women were working in agriculture in 1989 (compared with 69 per cent of employed men), they exceeded the number of men working as professional and technical workers and as sales workers. They are predominant in the education and social services sectors. They are less likely than men to have official qualifications, but their educational backgrounds are more diverse than men's and they are much more likely to have studied medicine, foreign languages or the social sciences.

While wages of women workers are less than those of men, table 118 indicates that the average per capita income of households with females heads is greater than that of male-headed households. Several points should be borne in mind when interpreting this finding. To a large extent, the finding results from the higher household incomes in urban areas, as the proportion of female-headed households is much greater in urban than rural areas (table 95). As over 70 per cent of the labour force is employed in agriculture, the majority of workers in Viet Nam are not wage workers. The table presents per capita income of the household; if female-headed households were smaller than male-headed households, the average household income for the whole household would also be smaller in female-headed households.

Table 118. Percentage distribution of heads of households by per capita income of household and sex, 1992/1993

Monthly per capita income of household	*Sex of household head*	
	Male	*Female*
All levels	100.0	100.0
Below VND 500 thousand	29.2	25.6
VND 500-750 thousand	20.2	17.8
VND 750,000 - 1 million	15.5	14.5
VND 1 - 1.5 million	16.7	16.2
VND 1.5 - 2 million	7.7	10.2
VND 2 - 3 million	5.8	8.6
VND 3 - 5 million	3.5	4.8
Over VND 5 million	1.4	2.3

Source: Viet Nam, General Statistical Office, *Women and Men in Vietnam* (Hanoi, Statistical Publishing House, 1995), p. 26.

Note: At the time of the survey US$ 1 equalled about VND 10,500.

Table 95 indicated that, as the age of the head of household increased, the likelihood that the head was a woman also increased. Table 96 indicated that a third of women over age 50 were heads of their household. It was also seen in table 92 that the proportion of women who are widows rises rapidly after age 50. Thus, a fairly large percentage of female heads of household are likely to be elderly widows, who may well have working children living with them. Even with these qualifications, it remains true that nearly one third of households in Viet Nam are headed by women and that there is no discernible income disadvantage for those households.

F. Migration

An examination of migration patterns and trends and of the characteristics of migrants reveals much of interest about social and economic change in a country. Table 119 indicates that migration rates were relatively low in Viet Nam between 1984 and 1989. Only 5.2 per cent of males and 3.9 per cent of females over age 5 in 1989 had moved at least between villages in the five years prior to the census. Female migration rates were higher than male rates over age 65, perhaps reflecting the movement of widows to other households. Migration was more likely to be interprovincial, rather than within a province.

The VIth Party Congress meeting in December 1986 adopted a number of measures to shift the economy of Viet Nam from one that was centrally planned to one with a market mechanism but State control. Collectively the measures were meant to promote *doi moi*, or "renovation" of the economy. Several of the measures have had indirect or direct impacts

Table 119. Percentage of population migrating in five-year period, 1984-1989, by sex, age and type of move

Age group	All moves			Intraprovincial		Interprovincial	
	Total	Male	Female	Male	Female	Male	Female
Ages 5+	4.53	5.20	3.93	1.84	1.75	3.19	2.14
5-9	2.59	2.64	2.54	0.98	0.96	1.65	1.57
10-14	2.49	2.55	2.44	0.92	0.91	1.62	1.52
15-19	4.25	4.30	4.21	1.65	1.92	2.64	2.28
20-24	8.80	10.32	7.56	3.37	3.71	6.59	3.79
25-29	8.40	10.64	6.45	3.13	3.04	6.75	3.25
30-34	6.07	7.51	4.82	2.77	2.26	4.28	2.52
35-39	5.00	6.13	4.03	2.41	1.84	3.49	2.17
40-44	4.54	5.73	3.53	2.30	1.61	3.29	1.90
45-49	3.69	4.97	2.66	2.05	1.13	2.84	1.52
50-54	2.89	3.84	2.14	1.60	0.87	2.19	1.26
55-59	2.41	2.96	1.94	1.20	0.75	1.73	1.19
60-64	2.16	2.42	1.94	0.95	0.73	1.45	1.20
65-69	2.07	2.01	2.12	0.73	0.79	1.26	1.31
70-74	2.08	1.87	2.22	0.68	0.85	1.17	1.36
75-79	2.09	1.88	2.22	0.72	0.88	1.15	1.33
80-84	2.02	1.84	2.12	0.72	0.90	1.10	1.21
85+	2.06	1.91	2.12	0.74	0.88	1.16	1.23

Source: Viet Nam, Central Census Steering Committee, *Completed Census Results*, vol. 1 (Hanoi, 1991), pp. 145-146.

Note: "All moves" includes those from abroad.

on migration. Private businesses and private employment were permitted by *doi moi*, thus opening a number of employment possibilities for migrants. The encouragement of direct foreign investment in the country meant that the private sector and number of joint economic ventures expanded rapidly, with consequences for employment generation. At the same time, restrictions on movement and residence were eased, so it became possible for persons to live and work in cities without obtaining permanent residential permits.

Table 120. Percentage distribution of migrants to Ho Chi Minh City by age group at the time of moving

Age group	*Period of arrival*	
	1984-1989	*1990 or later*
0-14	32.1	19.7
15-29	41.0	52.0
30-49	19.4	19.8
50-64	5.8	5.6
65+	1.6	2.8
Total	100.0	100.0
Number	1 132	1 030

Source: Truong Si Anh, Patrick Gubry, Vu Thi Hong and Jerrold W. Huguet, "Migration and employment in Ho Chi Minh City", *Asia-Pacific Population Journal*, vol. 11, No. 2 (June 1996).

Prior to the introduction of the renovation policies, most migration in Viet Nam was organized or controlled by the State. Migration usually occurred as the allocation of labour to areas where it was needed. Persons moving as part of this organized migration were often Government or state enterprise employees. They often had relatively high educational qualifications and moved with their families.

After 1986 spontaneous migration developed, that is migration that was not organized or sponsored by the State. Spontaneous migrants were more likely to move without their families and to take jobs as labourers or in the informal sector. They were generally less educated than earlier migrants and earned lower wages. Certain sales and service occupations opened new opportunities for female spontaneous migrants.

For analytical purposes, it is assumed that migration occurring before 1990 was primarily organized migration, whereas that occurring later had a large component of spontaneous migrants. A survey of migrants to Ho Chi Minh City in 1994 found that among migrants prior to 1990, 32 per cent had been under age 15 at the time of moving, whereas among later migrants only 20 per cent had been under age 15 (table 120). This change reflects the shift away from family migration to more individual migration.

Table 121 shows that migrants to Ho Chi Minh City have more education than non-migrants, but that is true largely because the migrants are concentrated in the young adult ages (table 120). An analysis by age group would no doubt reveal that non-migrants have more education than migrants and that the earlier migrants have more education than the recent migrants. In each migration category, males had about one year more of schooling than females.

The proportion of migrants to Ho Chi Minh City who are single at the time of moving has increased (table 122). Among those moving between 1984 and 1989 about half were single. Among migrants in 1990 and

Table 121. Average number of years of general education of the household population aged five years and over in Ho Chi Minh City, by sex and migration status, 1994

Migration status	Males Ave. number of years	Number of respondents	Females Ave. number of years	Number of respondents
All respondents	8.0	2 556	7.2	2 809
Non-migrants	7.4	1 577	6.9	1 656
Migrants 1984-1989	8.6	534	7.5	598
Migrants 1990+	9.0	445	8.0	555

Source: Truong Si Anh, Patrick Gubry, Vu Thi Hong and Jerrold W. Huguet, "Migration and employment in Ho Chi Minh City", *Asia-Pacific Population Journal*, vol. 11, No. 2 (June 1996).

later, 59 per cent were single. This trend has been stronger for females, among whom the proportion single increased from 42 to 54 per cent between the two periods. Apparently the shift from organized to spontaneous migration has had a greater social impact on women than on men.

This impression is reinforced when the reason for migrating is observed. Among male migrants to Ho Chi Minh City, there has been essentially no change over time in the proportions who move for economic and who move for non-economic reasons (table 123). Among female migrants, however, the proportion moving for economic reasons increased from 25 per cent among earlier migrants to 37 per cent among migrants in 1990 or later. The apparent increase in the proportion of migrants who have moved for

Table 122. Distribution of individual migrants to Ho Chi Minh City aged 13 years and above at the time of move by marital status at time of move, for period of arrival and sex

Marital status	Period of arrival: 1984-1989 Male	1984-1989 Female	1984-1989 Total	1990-1994 Male	1990-1994 Female	1990-1994 Total
Single	60.2	42.2	49.5	68.0	53.8	59.2
Married	36.8	49.0	44.0	30.5	39.5	36.1
Widowed	0.8	5.7	3.7	--	3.3	2.1
Divorced or separated	2.3	3.1	2.8	1.6	3.3	2.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	133	192	325	128	210	338

Source: Truong Si Anh, Patrick Gubry, Vu Thi Hong and Jerrold W. Huguet, "Migration and employment in Ho Chi Minh City", *Asia-Pacific Population Journal*, vol. 11, No. 2 (June 1996).

Table 123. Percentage distribution of migrants to Ho Chi Minh City, by main reason for migration, for period of arrival and sex

Reason for migration	Period of arrival			
	1984-1989		1990-1994	
	Male	Female	Male	Female
Non-economic reasons	**44.6**	**71.9**	**43.9**	**57.2**
Familial	29.7	56.0	18.5	33.5
Marriage	3.9	11.1	3.1	7.6
Education	10.3	4.8	22.3	16.0
Others	0.7	--	--	--
Economic reasons	**54.1**	**24.6**	**53.1**	**36.7**
Living conditions	11.6	6.3	8.5	8.0
Employment and income	42.5	18.3	44.6	28.7
Other reasons	**1.3**	**3.5**	**3.0**	**6.1**
Total	100.0	100.0	100.0	100.0
Number	155	207	130	212

Source: Truong Si Anh, Patrick Gubry, Vu Thi Hong and Jerrold W. Huguet, "Migration and employment in Ho Chi Minh City", *Asia-Pacific Population Journal*, vol. 11, No. 2 (June 1996).

educational reasons, among both males and females, may be largely spurious. Many of the earlier migrants who came to the city for their education would have returned after completing it, and thus would not be included in the survey.

The recent shift in the nature of migration to Ho Chi Minh City is further illustrated in table 124. Non-migrants predominate in administrative occupations. The earlier migrants are as likely to have professional occupations, or those in transport and communications, as are non-migrants, reflecting the importance of State-organized job transfers. Recent migrants are less likely to be in those occupations but are much more likely to be construction or manufacturing workers than are either non-migrants or the earlier migrants.

The earlier migrants are more likely to be working in trade and sales occupations than are the recent migrants, perhaps because those occupations require more experience in the city or more savings (in the case of vendors) in order to enter. There is little difference among the migration status categories in the likelihood of working in service occupations, but there has been an upsurge in the proportion of migrants who find employment as family servants. This is true especially for women. Among the earlier migrants about 5 per cent of the women are working as family servants, whereas over 14 per cent of the more recent female migrants are.

It appears that most female migrants to Ho Chi Minh City enter occupations at the bottom of the scale in terms of qualifications required and income earned. Seventy-five per cent of the employed recent female migrants

Table 124. Percentage distribution of employed respondents in Ho Chi Minh City, by main occupation, migration status and sex, 1994

Main occupation	Non-migrants			Migrants					
				1984-1989			1990-1994		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Administrative, clerical and related	2.0	4.7	3.2	4.1	1.6	2.8	1.2	1.7	1.5
Prof. & related	12.2	11.6	12.0	12.4	12.7	12.6	8.2	9.3	8.9
Construction & manufacturing	31.6	20.9	26.6	32.2	22.2	26.5	38.7	28.0	32.5
Agriculture	10.2	8.1	9.2	3.3	2.4	2.8	4.7	1.7	3.0
Transport, post, communications	11.2	--	4.3	9.1	--	4.5	7.1	0.9	3.5
Trade & sales	14.3	33.7	23.4	18.2	38.9	28.8	9.4	33.0	23.2
Restaurants & hotels	--	--	--	1.7	--	1.0	3.5	0.9	2.0
Services	11.2	9.3	10.9	7.4	13.5	10.5	12.8	7.6	9.9
Family servant	2.0	8.1	4.9	1.7	4.8	3.2	5.9	14.4	10.8
Others	7.1	3.5	5.4	9.9	4.0	6.9	8.2	2.5	4.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	98	86	184	122	126	248	85	118	203

Source: Truong Si Anh, Patrick Gubry, Vu Thi Hong and Jerrold W. Huguet, "Migration and employment in Ho Chi Minh City", *Asia-Pacific Population Journal*, vol. 11, No. 2 (June 1996).

worked in manufacturing, as sales workers or as family servants.

Table 125 shows that female hourly wages are substantially less than those of males for each migration status category. Male migrants to Ho Chi Minh City between 1984 and 1989 reported earning more than non-migrants, perhaps because a greater proportion of them worked in administrative or trade and sales occupations. Among males, the more-recent migrants also reported earning more than non-migrants, but that was not the case among recent female migrants, many of whom work in manufacturing or as family servants.

Two technical notes concerning the survey of migration to Ho Chi Minh City should be made. In tables 123-125, because there are more respondents who migrated before 1990 than later, it may appear that the rate of migration has declined. In fact, the length of the latter period is shorter than the earlier so that the data do not indicate any reduction in the rate of migration to Ho Chi Minh City. It should also be noted that the data in these tables were obtained from a

Table 125.Average wage per hour worked for employed respondents in Ho Chi Minh City, by migration status and sex, 1994

Migration status	*Average hourly wage in Vietnamese dong*			
	Males	*Number*	*Females*	*Number*
Average/total	2 900	289	2 300	312
Non-migrants	2 400	83	2 300	71
Migrants 1984-89	3 300	122	2 700	124
Migrants 1990-94	2 500	84	2 100	117

Source: Truong Si Anh, Patrick Gubry, Vu Thi Hong and Jerrold W. Huguet, "Migration and employment in Ho Chi Minh City", *Asia-Pacific Population Journal*, vol. 11, No. 2 (June 1996).

Note: For employers and self-employed workers the values are net income per hour worked. At the time of the survey, US$ 1 = VND 10,500.

Table 126. Percentage distribution of workers in Vung Tau and Dong Nai by economic sector, migration status and sex, 1994

Area and sector	*Migrants*			*Non-migrant*		
	Total	*Male*	*Female*	*Total*	*Male*	*Female*
Vung Tau (Urban)						
Household economy	20.5	14.2	27.2	28.0	13.6	41.5
Private sector	54.3	58.4	49.9	41.7	49.3	34.6
State/cooperative	12.6	15.0	10.2	20.0	24.2	16.0
Others	12.6	12.3	12.8	10.3	12.9	7.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	726	373	353	592	286	306
Dong Nai (Rural)						
Household economy	98.0	97.7	98.2	96.7	95.5	97.8
Private sector	1.0	1.2	0.9	1.1	1.8	0.4
State/cooperative	0.6	0.9	0.2	1.5	2.3	0.9
Others	0.4	0.2	0.7	0.7	0.4	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	888	434	454	452	220	232

Source: Doan Mau Diep and Trinh Khac Tham, *Survey of Spontaneous Migration to a Rural and an Urban Area in Viet Nam*, Asian Population Studies Series No. 142 (New York, United Nations, 1996), p. 22.

Table 127. Average number of children ever born, children alive and additional number of children expected per currently married woman in Vung Tau and Dong Nai, by age group and migration status, 1994

Age group	Migrants			Non-migrants		
	Number of children ever born	*Number of children alive*	*Number of additional children expected*	*Number of children ever born*	*Number of children alive*	*Number of additional children expected*
Vung Tau (Urban)						
15-19	0.00	0.00	1.00	0.00	0.00	2.00
20-24	0.65	0.62	1.04	0.73	0.73	1.36
25-29	1.32	1.24	0.83	1.36	1.33	0.86
30-34	2.25	2.23	0.36	2.03	1.85	0.57
35-39	2.79	2.57	0.18	2.34	2.27	0.29
40-44	3.63	3.26	0.17	3.36	3.12	0.04
45-49	4.58	4.25	0.15	4.41	4.18	0.00
15-49	2.24	2.11	0.47	2.16	2.06	0.54
Dong Nai (Rural)						
15-19	0.50	0.50	1.25	1.00	1.00	1.50
20-24	1.18	1.12	0.97	1.40	1.40	0.90
25-29	2.23	2.19	0.64	1.86	1.86	0.93
30-34	3.36	3.17	0.30	3.24	3.13	0.43
35-39	4.20	3.98	0.25	4.81	4.72	0.00
40-44	4.39	4.10	0.17	5.11	4.94	0.00
45-49	4.02	3.79	0.05	4.79	4.36	0.00
15-49	3.19	3.02	0.42	2.94	2.88	0.56

Source: Doan Mau Diep and Trinh Khac Tham, *Survey of Spontaneous Migration to a Rural and an Urban Area in Viet Nam*, Asian Population Studies Series No. 142 (New York, United Nations, 1996), p. 25.

household-based survey. The survey probably excluded a number of more-recent migrants who are not living in places defined as households, such as some construction sites, factory dormitories, boarding houses, etc. Had these persons been covered by the survey, the data would probably have indicated an increase in the rate of migration to the city and rather different characteristics of the recent migrants. A more-recent survey in Ho Chi Minh City conducted by the same institute has found a significant number of migrants living in places not defined as households but the results have not yet been published.

Data concerning internal migration are also available from a survey conducted in the city of Vung Tau and a rural area of Dong Nai

Table 128. Percentage distribution of migrants to Vung Tau and Dong Nai by persons accompanying the move, main decision-maker for the move, location and sex

Persons involved in move	*Migrants to Vung Tau*			*Migrants to Dong Nai*		
	Both sexes	*Males*	*Females*	*Both sexes*	*Males*	*Females*
Persons accompanying the move						
Moved alone	15.8	19.0	12.3	7.8	12.2	3.5
With family member	77.3	72.3	82.5	90.5	85.9	94.9
Moved with others	7.9	8.7	5.2	1.7	1.9	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	717	368	349	888	434	454
Main decision-maker for move						
Self	27.9	35.6	19.8	16.6	23.3	10.1
Spouse/children	46.6	34.8	59.0	55.3	49.1	61.2
Parent	18.8	20.9	16.6	27.3	26.3	28.2
Others	6.7	8.7	4.6	0.9	1.4	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	717	368	349	888	434	454

Source: Doan Mau Diep and Trinh Khac Tham, *Survey of Spontaneous Migration to a Rural and an Urban Area in Viet Nam*, Asian Population Studies Series No. 142 (New York, United Nations, 1996), p. 31.

province. In those surveys migrants were defined as persons who had moved after 1986, in order to cover mainly spontaneous migration. In fact, in both surveys a large majority of the migrants were defined as spontaneous migrants, i.e., they had moved without Government planning or support.

The survey in Vung Tau found that 54 per cent of employed migrants worked in the private sector, compared with 42 per cent of non-migrants (table 126). The difference was greater among women. Fifty per cent of female migrants worked in the private sector, compared with 35 per cent of non-migrants. Nearly all respondents in Dong Nai, migrants and non-migrants alike, were farmers who worked in the household economy sector.

The survey found that female migrants to the city of Vung Tau had somewhat more children than non-migrants, no doubt reflecting the rural origins of most of the migrants (table 127). While the average number of children among women ages 15-49 who had migrated to the rural area of Dong Nai was greater than for non-migrants, the reverse was true in the age ranges from 15 to 24 years and from 35 to

Table 129. Percentage distribution of migrants to Vung Tau and Dong Nai who looked for a job, by duration of time to find first job after moving, by location and sex

Location and duration	*Both sexes*	*Males*	*Females*
Vung Tau (Urban)			
Less than 1 month	50.5	50.3	50.8
1-2 months	42.4	43.3	41.2
3-5 months	5.4	5.1	5.7
More than 6 months	1.7	1.3	2.3
Total	100.0	100.0	100.0
Number	576	314	262
Dong Nai (Rural)			
Less than 1 month	78.1	80.8	75.4
1-2 months	17.9	14.1	21.6
3-5 months	2.6	3.6	1.7
More than 6 months	1.4	1.5	1.2
Total	100.0	100.0	100.0
Number	709	355	354

Source: Doan Mau Diep and Trinh Khac Tham, *Survey of Spontaneous Migration to a Rural and an Urban Area in Viet Nam*, Asian Population Studies Series No. 142 (New York, United Nations, 1996), p. 34.

49 years. The lower fertility among those migrants could have resulted from some disruption of family formation because of migration, or could also indicate that it is easier for smaller families to migrate.

Seventy-seven per cent of the migrants to Vung Tau and 90 per cent of those to Dong Nai had moved along with family members, but the proportions were significantly higher for women than for men (table 128). It was also seen that women were less likely to have decided by themselves to move. Among the migrants to the city of Vung Tau, 36 per cent of men and 20 per cent of women had decided themselves to move. Among those to Dong Nai, 23 per cent of men and 10 per cent of women had decided themselves to move. The survey area in Dong Nai was settled largely by farmers with small farms, thus they were operated by families. The decision to move and the actual migration was much more likely to occur in a family context than does migration to an urban area.

The survey of migrants to Vung Tau found that about 50 per cent of both male and female migrants found their first job after moving within one month. Another 40 per cent found a job in less than three months. As most of the migrants to the rural area of Dong Nai were developing new land, the great majority had work upon arrival. Eighty-one per cent of the males and 75 per cent of the females found work in less than a month (table 129).

G. Conclusion

This review of the role of women in development in Viet Nam, based on available demographic sources, has revealed very small gender differences on a number of indicators and suggests that women have a strong position in education, health, employment and migration. Nevertheless, several areas requiring improvement have been identified.

Because of excess male mortality related to a series of wars from 1941 to 1975, the ratio of males to females in the adult population is unusually low. This has created a marriage squeeze, so that no more than 84 per cent of any age group of women are married. One result is that nearly one third of households are headed by women. This may not have had an adverse impact on the per capita income of those households, however, which slightly exceeds that of male-headed households, at least in the aggregate. The marriage squeeze is expected to come to an end soon because the sex ratio is over 100 in each of the five-year age groups below age 20 in 1994.

The evidence suggests that gender differences in educational attainment have been greatly reduced. In 1989 the proportion of girls ages 10-19 years attending school was still substantially below that of boys, but the difference was quite small in urban areas. Data from the ICDS 1994 indicate that educational attainment up to secondary school among persons under 25 years of age was nearly the same for girls as for boys.

Fertility has fallen rapidly in the recent past. The total fertility rate was 4.7 children per woman in the period 1980-1985, but dropped to 3.8 in 1988-1989 and to 3.1 in 1993. The number of abortions appears to be increasing, however. This increase indicates that there is an unmet need for wider coverage and improved quality of reproductive health/family planning services (GSO, 1996).

Another indicator of a deficiency in health care is that female mortality rates exceed those of males between the ages of 1 and 14 years. Normally male mortality rates are higher at all ages. Further investigation is required to determine if those estimates of mortality below age 15 are accurate and, if they are, to determine their causes and to suggest appropriate interventions.

Economic reforms implemented since 1986 have aimed to shift the economy from central planning to a greater reliance on market mechanisms. This renovation has permitted a rapid expansion of the private sector, which has generated increased employment opportunities for both men and women. Many observers have feared that this economic transition would have an adverse impact on the educational and health sectors, which are still almost exclusively under the domain of the Government. None of the education and health indicators measured by the ICDS 1994 indicated a deterioration in these areas, but the Government will need to continue monitoring these trends carefully and be prepared to formulate policies to mitigate any such negative impacts of economic reform.

There are more women than men in the labour force of Viet Nam. Although over 70 per cent of both men and women workers in 1989 were in agriculture, women work in a wide range of occupations and predominate in professional and sales occupations, as well as in agriculture. Women are under-represented in managerial occupations, however. Among all workers, 2.6 per cent of men but only 1.6 per cent of women have college or university degrees. Among professional workers, a greater proportion of women than men studied literature and languages, medicine and pharmacy, natural sciences, social sciences and

economics. Women are greatly under-represented in technical and engineering studies, however.

The economic transition has encouraged and permitted higher levels of internal migration, and women as well as men have responded. Migration prior to 1986 was mostly organized by the State and took place in the context of labour allocation. Since 1986 it has been largely "spontaneous", or not organized or supported by the Government. Recent migrants, including women, are more likely to be single, to move for economic rather than family reasons, and to work in the private sector.

Female migrants to Ho Chi Minh City appear to enter occupations low on the scale of qualifications required and of remuneration. Seventy-five per cent of the recent female migrants are sales or manufacturing workers or family servants. The hourly wages of women in Ho Chi Minh City are considerably less than those of men, irrespective of their migration status.

In summary, women are strongly involved in national development in Viet Nam. Their status is approximately equal to that of men on many indicators of educational attainment, health and employment.

In the health sector, however, the high rate of abortion and of female mortality between the ages of 1 and 14 years remain problems.

Women work in a wide range of occupations, but there exists considerable concentration in teaching, nursing, sales and manufacturing occupations. Women should be encouraged and given greater opportunities to study in technical and engineering fields. With the economic transition that is taking place, there will be a great demand for well-trained managerial workers. Women should be encouraged to study management sciences in order to take advantage of their predominant position in such fields as health and education and to qualify them for greater involvement in business and industry.

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