

CHAPTER 4: HOUSEHOLD STRUCTURE

4.1 HOUSEHOLD SIZE

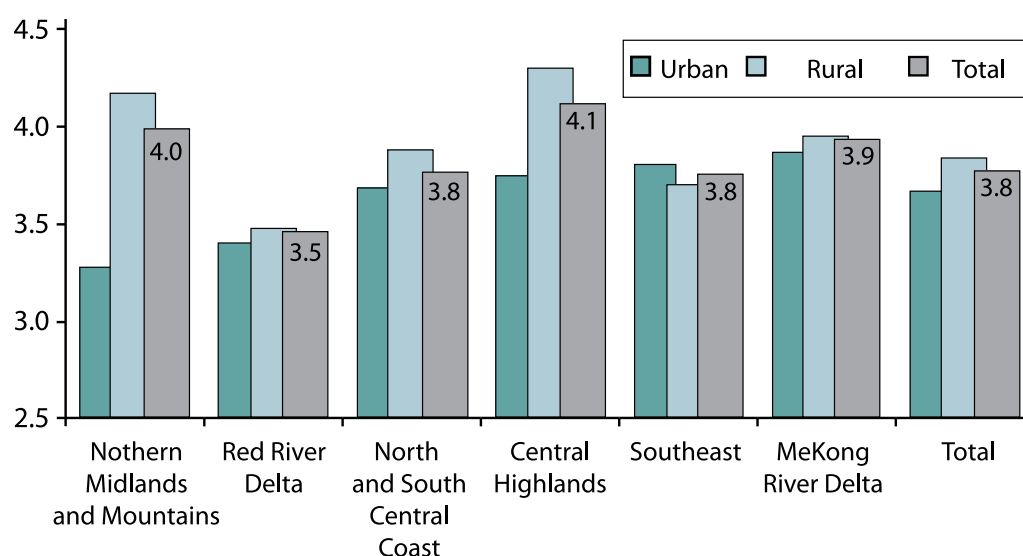
The population in developed countries usually has low fertility, a high proportion of unmarried persons and a preponderance of nuclear families. Therefore, household⁶ size tends to decrease together with the process of economic development.

Table 4.1: Mean household size in Viet Nam, 1989-2009

	Urban	Rural	Total
1989	4.80	4.83	4.82
1999	4.36	4.56	4.51
2009	3.66	3.84	3.78

In Viet Nam, the results from the three most recent Censuses reveal that⁷, average household size has dramatically declined, from 4.82 persons in 1989 to 4.51 in 1999 and 3.78 in 2009 (Table 4.1). In 1989, there was not much difference in household size between rural and urban areas. However, the rate of decline in urban areas has been more rapid, so by 2009, the average household size was 3.66 in urban areas and 3.84 in rural areas.

Figure 4.1: Household size by region in Viet Nam, 2009



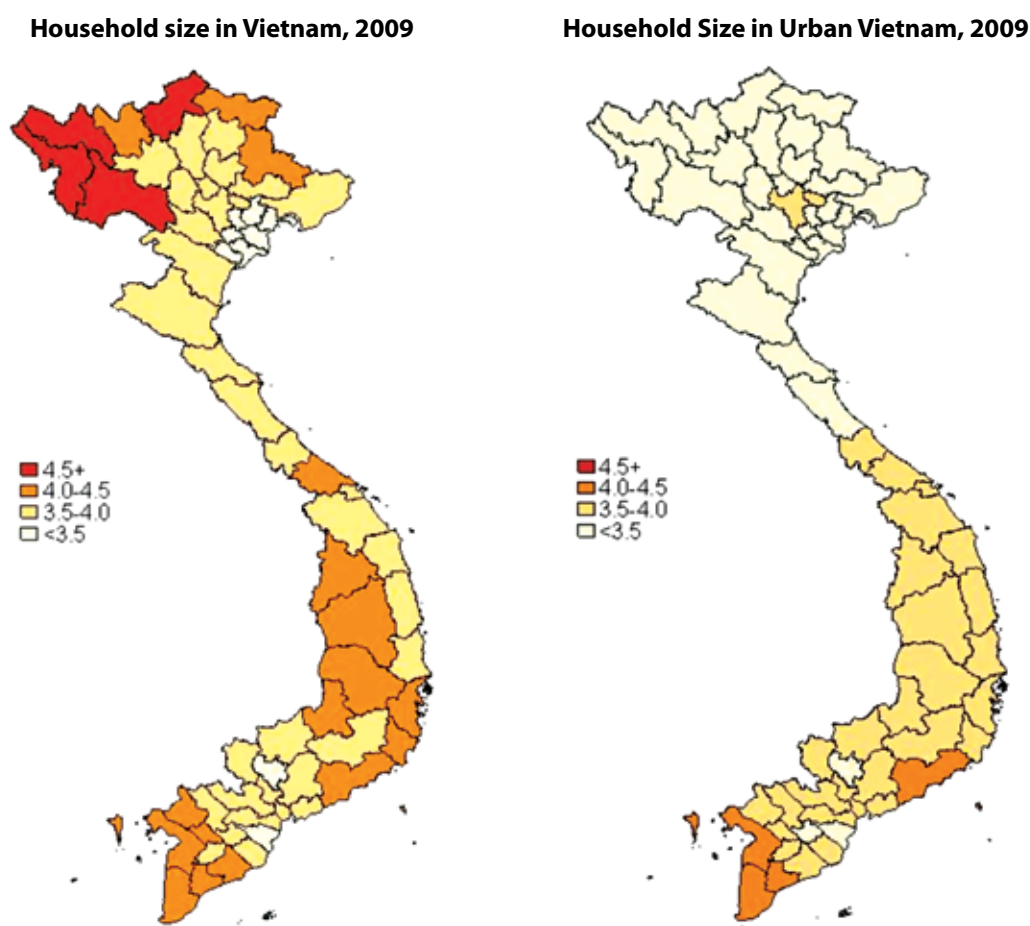
6 The concept of "Household", in the Population Census/ Survey, consists of a person or group of persons who eat and live together. This concept may not be identical with the concept of "family" in other research.

7 In this chapter, only results from 1989 do not include institutional households.

In regional comparisons, it can be seen that areas of lower economic development tend to have larger household size. In particular, in 2009, the average household size in the Northern Midlands and Mountains and the Central Highlands (two areas with the lowest living standards) were 4.0 and 4.1 respectively, as compared with the average of the whole country at 3.78 persons (Figure 4.1). However, the difference among the other regions does not strictly follow this rule, for example, the levels of economic development of the Southeast and the North and South Central Coastal differ yet they have the same average household size at 3.8 persons.

It is worth noting that the gap in average household size between the rural and urban areas of the Northern Midlands and Mountains and the Central Highlands is the largest, and considerably larger than in the four remaining regions. In particular, average household size in urban areas of the Northern Midlands and Mountains was only 3.3 persons, lower than in urban areas in all other regions. Only the Southeast region has higher average household size in urban than in rural areas, while the five remaining regions all have lower average household size in urban rather than in rural areas. This illustrates that the average household size does not only depend on economic development but also a great number of other elements, such as cultural factors, housing conditions, in-migration, or age-sex structure. It is likely that the high average household size of the Southeast is due to the fact that many people live in rental housing or boarding houses, while in the 2009 Census, all people living together in a boarding house room or apartment are identified as one household.

Figure 4.2: Map of household size by province in Viet Nam, 2009



Source: Vietnam Population & Housing Census, GSO, 2000

Source: Vietnam Population & Housing Census, GSO, 2000

According to the map in Figure 4.2 provinces with low population density and development tend to have larger household size (especially in the north-western provinces of the Northern Uplands region). The four provinces with the largest average household size in the map (over 4.5) include Ha Giang, Lai Chau, Dien Bien and Son La. Meanwhile, if we compare only urban areas, there is a difference between the northern provinces (from Quang Binh on north) and the southern provinces. Indeed, most of the urban areas of the northern provinces have an average household size under 3.5 persons, while most of the urban areas of the southern provinces have an average household size of 3.5 persons or higher. The urban areas in Ha Noi and Bac Ninh are the only two urban areas in the North with average household size of over 3.5. In contrast, urban areas in Binh Duong, Ben Tre and Vinh Long are the only three urban areas in the south with average household size under 3.5.

Table 4.2: Distribution of household size in Viet Nam, 2009

(%)	Northern Midlands and Mountains	Red River Delta	Central Coast	North and South Central Highlands	Southeast	Mekong River Delta	Overall
Urban							
1 person	9.9	8.6	8.0	7.7	7.6	7.6	8.1
2 persons	20.4	18.8	16.0	14.4	16.5	13.6	16.7
3 persons	27.3	24.9	22.5	22.0	22.9	23.4	23.7
4 persons	26.6	29.3	27.5	28.9	25.7	26.6	27.2
5+ persons	15.8	18.4	26.2	27.0	27.3	28.8	24.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Rural							
1 person	4.3	9.3	7.5	4.3	7.8	5.4	6.9
2 persons	10.6	17.8	13.6	9.7	16.4	11.1	13.8
3 persons	19.4	21.0	18.9	18.6	22.8	22.5	20.6
4 persons	30.5	30.2	27.3	27.6	26.5	29.8	28.9
5+ persons	35.2	21.7	32.7	39.8	26.5	31.2	29.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total							
1 person	5.4	9.1	7.6	5.3	7.7	5.9	7.3
2 persons	12.6	18.1	14.2	11.2	16.5	11.6	14.7
3 persons	20.9	22.1	19.8	19.7	22.9	22.7	21.6
4 persons	29.8	29.9	27.3	28.0	26.0	29.0	28.4
5+ persons	31.4	20.8	31.1	35.8	26.9	30.8	28.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 4.2 presents the distribution of household size by urban/rural residence and six regions in Viet Nam in 2009. In general, in all six regions, households with 1, 2 or 3 persons in urban areas account for a higher share than in rural areas. The only two exceptions are in the Red River Delta and the Southeast where one-person households in rural areas account for a higher share than in urban areas.

The figure also shows that in present day Viet Nam, 4-person households are the most common model in almost all groups of the population presented in Table 4.2, accounting for from 26.6% to 29.3% of the total in urban areas, and from 26.5% to 30.5% in rural areas. The exception is that, the most common household size in urban areas of the Northern Midlands and Mountains is 3 persons (27.3%), which is only slightly higher than the percentage of 4-person households (26.6%).

One-person households are a considerable concern in relation to developing social security policies, especially for those who are above working ages. In 2009, for both urban and rural areas, nationally one-member households accounted for 7.3% of all households, with the highest proportion in the Red River Delta (9.1%) and the lowest in the Central Highlands (5.3%) and the Northern Midlands and Mountains (5.4%). Table 4.3 shows that the proportion of one-member households in Viet Nam has decreased from 5% in 1989 to 4.4% in 1999, but then increased to 7.3% in 2009. In 1989, the proportion of one-person households in rural areas was higher than in urban areas. After that, the proportion of one-person households in urban areas increased more quickly and exceeded the proportion in rural areas in 2009 (8.1% in urban and 6.9% in rural areas). However, the proportion of one-member households in older ages (age 65 and older) in rural areas tends to be higher than in urban areas. From 1999 to 2009, the proportion of one-person households in older ages has increased 1.5 times: from 1.8% to 2.6%.

Table 4.3: Proportion of one-person households in Viet Nam, 1989- 2009

Year	1989	1999	2009
% of one-person households			
Urban	4.6	4.7	8.1
Rural	5.1	4.2	6.9
Total	5.0	4.4	7.3
% of one-person elderly households (65+)			
Urban	1.1	1.0	1.6
Rural	2.6	2.0	3.1
Total	2.3	1.8	2.6

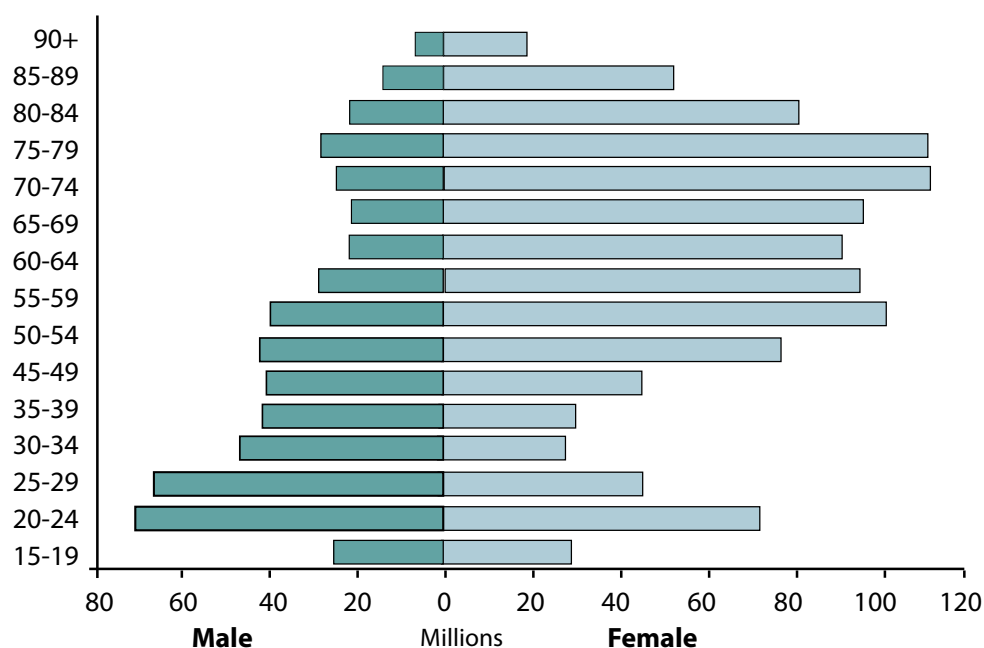
Table 4.4 indicates that most people living alone are females. Perhaps the main reason is that females have a higher proportion never married and a higher life expectancy than males. This proportion in urban areas is remarkably lower than in rural areas. However, among people living in one-person households, the proportion female has decreased from 72.9% in 1989 to 67% in 2009.

Table 4.4: Distribution of sex of one-person households in Viet Nam, 1989, 1999 and 2009

	1989			1999			2009		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Male	41.8	23.9	27.1	45.2	26.5	31.3	40.3	29.3	33.0
Female	58.2	76.1	72.9	54.8	73.5	68.7	59.7	70.8	67.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The population pyramid of people living in one-person households in 2009 is presented in Figure 4.3. At the ages under 25 years, the numbers of males and females are nearly equal. However, at the ages from 25 to under 40, the numbers of males and females living in one-person households declines (mainly due to marriage) but the number of females declines faster and becomes notably lower than the number of males. The main reason is that women usually get married earlier than males, and unmarried females are more likely to live with their parents or relatives than unmarried men. After that, the number of females living alone increases quickly and exceeds the numbers of males starting with the age group 40–44, with the bands for female one-member households becoming much larger than the bands for male one-member households in the older age groups. This situation can be attributed primarily to the following factors. First, the unmarried proportion of women in this age is higher than for men because of the low sex ratio; the death rate of men is higher than for women; and the probability of remarriage among females is lower than for males. Thus social problems resulting from middle-aged and aged people living alone in Viet Nam are much more likely to be related to females.

Figure 4.3: Population pyramid of people living in one-person households in Viet Nam in 2009



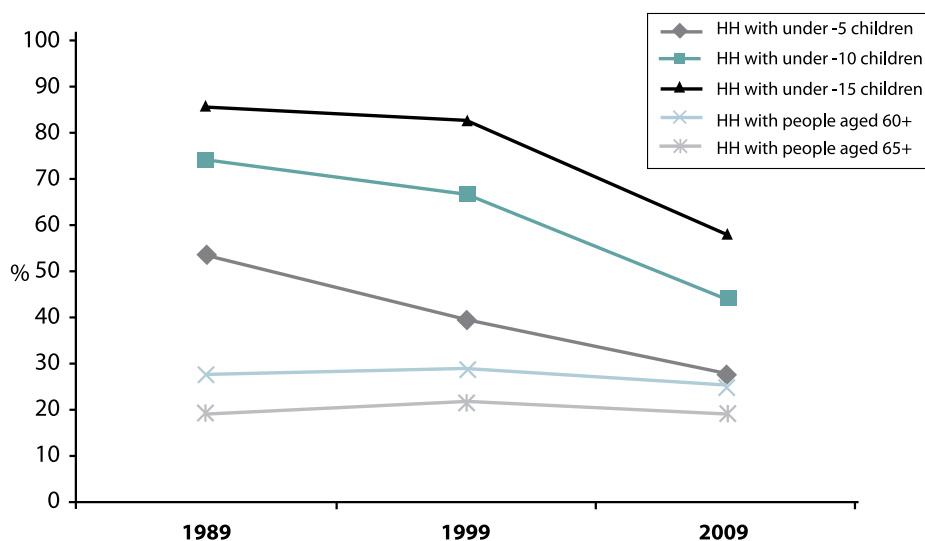
4.2 AGE STRUCTURE AND DEPENDENCY RATIO IN HOUSEHOLDS

The increase in the proportion of working-age people in households is advantageous for households to improve their economic situation and to increase average income per capita. In contrast, when the proportion of dependent people (outside of the working age groups) increases, the burden on households as well as on social security programs generally increases.

The analysis in Chapter 3 indicated that, in the last decade, the age structure of the Viet Nameese population has changed considerably towards a more advantageous situation for national economic development and it is expected that there will be similar changes in the age structure of households

According to the results presented in Figure 4.4, as fertility dropped in the last two decades, the proportion of households with children under age 15 fell dramatically from 53.9% in 1989 to 39.5% in 1999 and 27.5% in 2009. The proportion of households with children under 5 or 10 years of age has tended to face a similar decline. Meanwhile, there are only negligible changes in the proportion of households with people aged over 60 or over 65. This is not inconsistent with the aging of the Viet Nameese population because the proportion of both aged and working-age population have both increased over time. As a result, the proportion of households with aged people has not changed much, yet the proportion of households with dependent age members has declined rapidly but not as rapidly as the proportion of households with children.

Figure 4.4: Proportions of households with dependents in Viet Nam from 1989 to 2009



In the last two decades, the proportion of households without dependent age members (<15 and 65+) has strongly increased in both rural and urban areas (Table 4.5). In 1989, only 14.3% of households were without dependent age members but in 2009, this figure has more than doubled reaching 27.5%. In addition, the proportion of households with all members in dependent ages has also increased, to 3.2% in urban areas, 5.7% in rural areas and 4.9% for the whole country in 2009. This is of great importance in further development of social welfare policies and programs, especially in rural areas. In contrast, during the same period, the proportion of households with at least 50% of

members in dependent ages has remarkably decreased. In 1989, the proportion of households with 50% or more of its members in dependent ages was 53.8%, but by 2009, the proportion had fallen to 33.5%. The pace of decline is similar between rural and urban areas.

Table 4.5: Dependent age structure of household membership in Viet Nam, 1989, 1999 and 2009

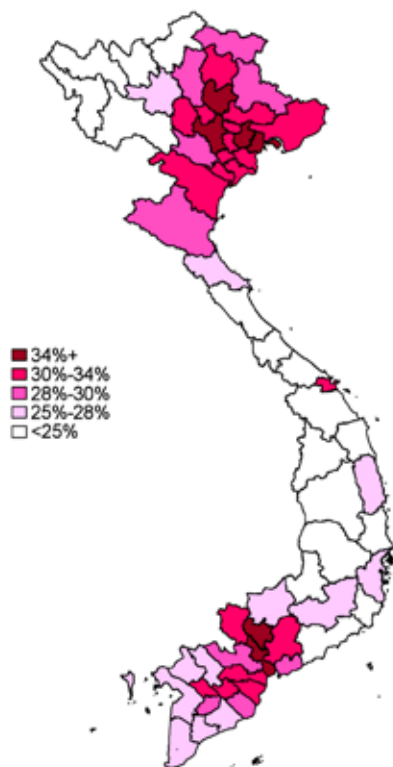
	1989	1999	2009
No dependent age members			
Urban	17.1	23.8	36.6
Rural	13.6	14.6	28.2
Total	14.3	16.8	30.8
100% in dependent ages			
Urban	2.3	2.2	3.2
Rural	4.2	3.9	5.7
Total	3.9	3.5	4.9
At least 50% in dependent ages			
Urban	44.1	34.7	27.2
Rural	56.2	48.7	36.3
Total	53.8	45.4	33.5

Regarding the distribution by provinces, the provinces in the Red River Delta, the Southeast, and several neighbouring provinces and Da Nang have high proportions (over 28%) of households with no dependent-age members, in other words with only working-age members. If having only working-age members is considered advantageous, this advantage is disproportionately prevalent in places that already have high levels of economic development, rather than places with lower level of economic developments such as the Northernains Midlands and Mount and Central Highlands. Six provinces with the highest proportion of households with only working-age members (over 34%) are Thai Nguyen, Hanoi, Hai Duong, Hai Phong, Binh Duong and Ho Chi Minh City.

Provinces with relatively high rates (over 5%) of household with only dependent age members (aged under 15 and over 64) are mainly concentrated in coastal areas from Quang Ninh to Phu Yen. Nine provinces, including Hai Duong, Hung Yen, Ha Nam, Thai Binh, Nam Dinh, Ninh Binh, Ha Tinh, Quang Nam and Quang Ngai, report the highest rates (over 8%) of households with only non-working-age members. There is only one province, Hai Duong, which has both a high proportion of households with no dependents and a high proportion with only dependent age members. Therefore, social security policies and programs in these provinces need to focus on the elderly and children, especially people in one-member households who have no one to take care of them.

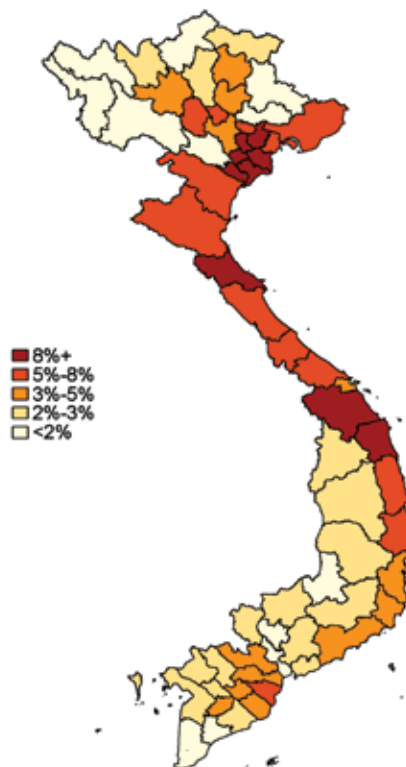
Figure 4.5: Proportions of households without dependent age members and without working-age members in Viet Nam in 2009

Households without dependent persons in Vietnam, 2009



Source: Vietnam Population & Housing Census, GSO, 2000

Households without 15-64 persons in Vietnam, 2009



Source: Vietnam Population & Housing Census, GSO, 2000

4.3 CHARACTERISTICS OF HOUSEHOLD HEADS

Examining the characteristics of household headship may help to evaluate the changing dynamic of family size and structure (United Nations, 1973). In this section, the analysis focuses on three characteristics, including sex, mean age, and marital status of household heads.

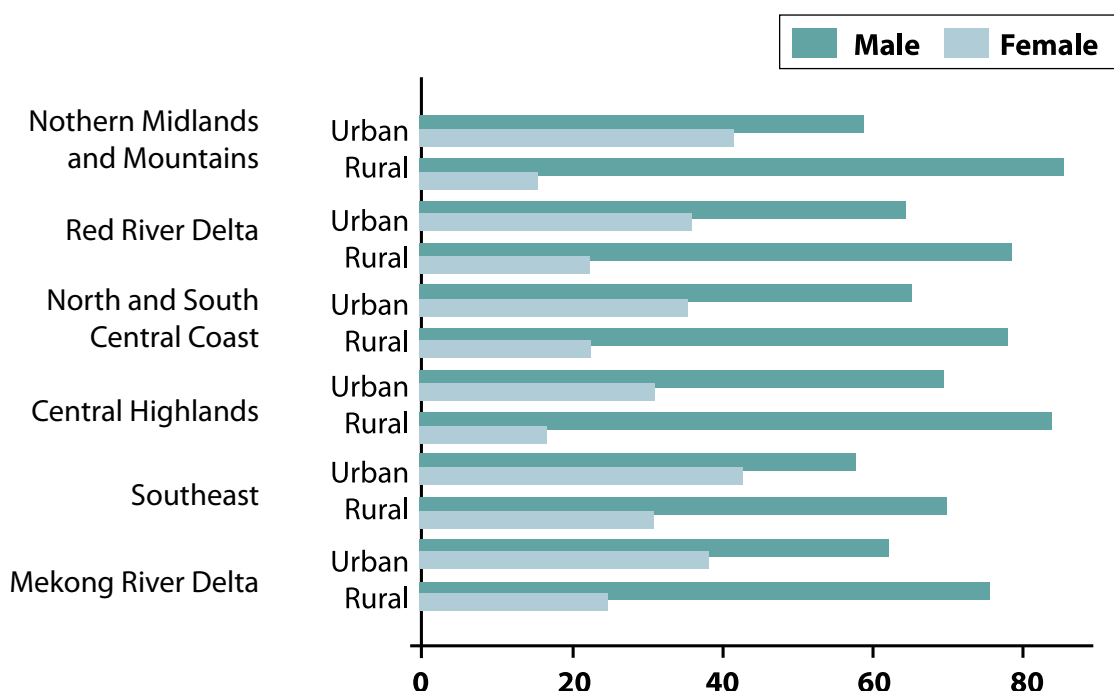
4.3.1 Sex of household head

The sex of household heads partly reflects gender status in family relations. Table 4.6 illustrates that in both rural and urban areas over the last two decades in Viet Nam, the majority of households are headed by males and this tendency appears to be increasing compared to 1989. In urban areas, there is slightly more balance in the sex of household head, but in rural areas male headed households predominate. This situation also exists in all six regions (Figure 4.6). For instance, in the Red River Delta, female household heads account only for 35.7% of all households in urban areas and 22.0% in rural areas.

Table 4.6: Sex of household head in Viet Nam, 1989-2009

%	1989			1999			2009		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Male	51.8	72.1	68.1	60.8	79.2	74.8	61.9	77.7	72.9
Female	48.2	27.9	31.9	39.2	20.8	25.2	38.1	22.3	27.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Figure 4.6: Sex of household heads by geographical regions in Viet Nam, 2009



4.3.2 Age of household head

According to the projection in Table 4.7, from 1989 to 1999, the mean age of male household heads slightly decreased (from 43.7 to 43.3) and the mean age of female household heads increased by about 2.5 years (from 47.6 to 50.1). Because most household heads are males, the mean age of all household heads (both male and female) remains around 45.0. Between 1999 and 2009, the mean age of household heads increases by 1.6 years (from 45.0 to 46.6) due to the increase in mean age of male heads of household by about 2 years while the mean age of female heads of household was almost unchanged.

In all three Censuses, the difference between rural and urban areas in mean age of household head is mostly seen among female household heads. The mean age of female household heads in urban areas tends to be about 4 years lower than in rural areas. The reason may be that old and widowed women in urban areas are more likely than women in the rural areas to hand over the position of household head to their children. However, it is necessary to have more detailed data to prove this hypothesis.

Table 4.7: Mean age of household head in Viet Nam, 1989-2009

	1989			1999			2009		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Male	45.5	43.4	43.7	44.3	43.0	43.3	45.1	45.2	45.2
Female	45.1	48.7	47.6	47.3	51.7	50.1	47.3	52.6	50.3
Total	45.3	44.9	45.0	45.5	44.8	45.0	46.0	46.8	46.6

4.3.3 Marital status of household head

The second point to note is that the proportion of household heads who have never married has increased over the last two decades (from 2.6% in 1989 to 5.7% in 2009), especially in urban areas and among females. In particular, among female household heads, the proportion never married rose from 5% in 1989 to 7.3% in 1999 and to 12.2% in 2009. The corresponding proportions in urban areas are 5.2%, 8.4% and 15.5%. The main reason for this is that the proportion of women delaying marriage or never getting married has increased over time. In addition, the process of modernization and industrialization is likely to have helped women to become more independent and self-sufficient, allowing them to live away from their parents even when they are still unmarried. Migration and the participation of young women in non-agricultural labour may also contribute to the phenomena.

Table 4.8 compares the marital status of household heads in 1989, 1999 and 2009. It is worth noting that most male heads of household are married (from 88.6% to 96%) while the proportion of female heads of household who are married is significantly lower, especially in rural areas (41.9% in 1989, 31.9% in 1999 and 32.5% in 2009). The main reason is that the proportion widowed among females is always higher than among males (see Chapter 5). This is illustrated clearly through the fact that the proportion widowed among female household heads is clearly higher than among male household heads. In particular, the proportion widowed among female heads in rural areas is almost two times higher than in urban areas and this is the main reason explaining why mean age of female household heads in urban areas tends to be lower than in rural areas as presented in section 4.3.2

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and self-sufficient, allowing them to live away from their parents even when they are still unmarried. Migration and the participation of young women in non-agricultural labour may also contribute to the phenomena.

Table 4.8: Marital status of household heads in Viet Nam, 1989-2009

	1989			1999			2009		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Male									
Single	2.8	1.3	1.5	4.6	1.1	1.8	7.5	1.8	3.3
Married	92.4	94.9	94.5	91.4	95.9	95.0	88.6	95.0	93.3
Widowed	3.7	3.3	3.4	2.9	2.4	2.5	2.7	2.5	2.5
Separated/divorced	1.1	0.5	0.6	1.1	0.6	0.7	1.2	0.8	0.9
Female									
Single	5.2	4.9	5.0	8.4	6.7	7.3	15.5	9.7	12.2
Married	64.4	41.9	48.6	56.1	31.9	40.9	50.7	32.5	40.3
Widowed	25.7	47.3	40.9	29.5	53.4	44.5	27.5	50.5	40.6
Separated/divorced	4.7	5.9	5.5	6.0	8.0	7.3	6.4	7.4	7.0
Total									
Single	4.0	2.3	2.6	6.1	2.3	3.2	10.5	3.5	5.7
Married	78.9	80.1	79.9	77.6	82.6	81.4	74.2	81.1	79.0
Widowed	14.3	15.6	15.3	13.3	13.0	13.1	12.1	13.1	12.8
Separated/divorced	2.8	2.0	2.2	3.0	2.1	2.3	3.2	2.2	2.5

4.4 CRUDE HEADSHIP RATE AND RESULTS FROM DECOMPOSITION

The crude headship rate is the ratio of the total households to total population. It reflects the average size of the household as the larger the crude headship rate, the smaller the average size of the household, and vice versa. The question is why the average size of household changes over time and varies across population groups. Many studies have pointed out that, the decrease in household size accompanies the process of family nuclearization when the society is transformed from a traditional to a modern one. Decrease in household size clearly occurs as a result of declines in fertility, in the other words, couples have fewer children, so the proportion of children in the household as well as in the population decreases. Adult individuals tend to live separately from their parents, especially when they get married. The sooner and the more common this situation, the smaller the household size (see Bongaarts et al, 1987).

In order to compare the impacts of the above factors on household size, there are different methods of decomposition. In this section, a decomposition method modified from Dandekar and Unde (1967) is applied. In this method, the crude headship rate is decomposed into five components, including indices reflecting nuclear family share of households, interrupted share of female marriages, marriage ratio among adult women, adult sex ratio, and adult proportion of the total population.

$$\frac{H}{P} = \frac{H}{FE} \times \frac{FE}{FM} \times \frac{FM}{AF} \times \frac{AF}{A} \times \frac{A}{P}$$

Of which:

H total households

P total population

FE ever-married women aged 15+

FM married women aged 15+

AF women aged 15+

A population aged 15+

In this formula, *H/P* is the crude headship rate. *H/FE* reflects the extent of family nuclearization (the higher the proportion of nuclear families, the larger the value of *H/P*⁸). *FE/FM* reflects the extent to which marriage is interrupted due to widowhood, separation, or divorce. *FM/AF* is equivalent to the extent of marriage (if all women aged 15 or older are married, the ratio is equal to 1). *AF/A* reflects the sex ratio of population aged 15 or older (the ratio is equal to 0.5 if the numbers of males and females are equal). *A/P* reflects the age structure of population (the higher the proportion of children under age 15 in the population the smaller the ratio). Note that these indices only reflect these components, but they are not necessarily formal rates of these five components

Table 4.9 Decomposition of the crude headship rate, 1989-2009

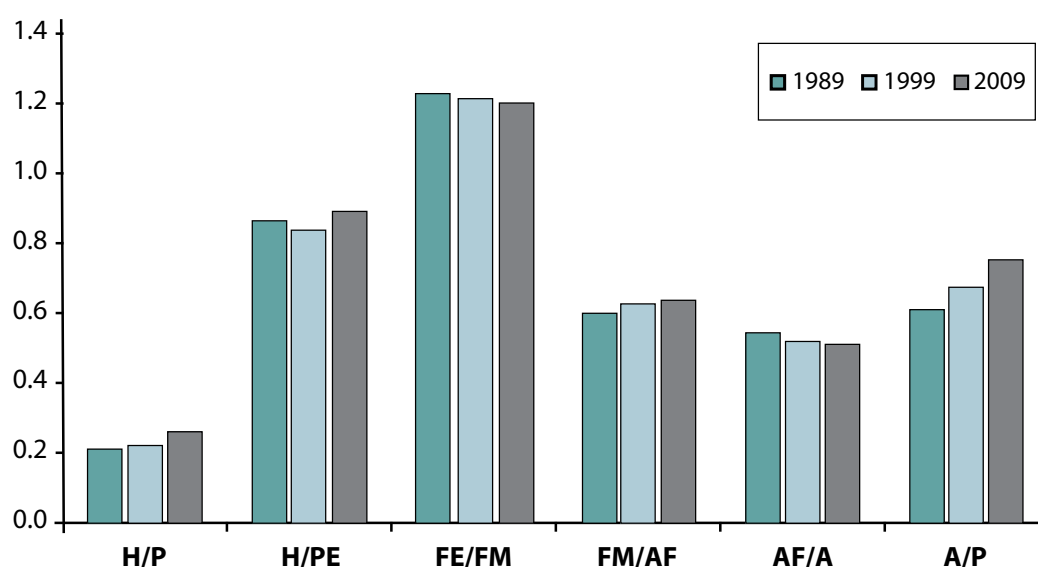
	H/P	H/FE	FE/FM	FM/AF	AF/A	A/P
1989						
Urban	0.20	0.84	1.21	0.56	0.54	0.67
Rural	0.21	0.86	1.23	0.61	0.54	0.59
Total	0.21	0.86	1.22	0.60	0.54	0.61
1999						
Urban	0.22	0.83	1.21	0.58	0.52	0.72
Rural	0.22	0.85	1.21	0.63	0.52	0.65
Total	0.22	0.84	1.21	0.62	0.52	0.67
2009						
Urban	0.27	0.93	1.20	0.60	0.52	0.78
Rural	0.26	0.88	1.20	0.66	0.51	0.74
Total	0.26	0.89	1.20	0.64	0.51	0.75

8 Each nuclear family has a maximum of one ever-married woman. If all households are nuclear families (full), the ratio *H/FE* equals 1 and if all families report two ever-married women, the ratio *H/FE* equal 0.5. The existence of extended families with 1 or zero ever-married women would bias the ratio. However, hypothetically, these cases are rare and error is small.

The crude headship rate in 1989, 1999 and 2009 in Viet Nam and results of the decomposition into five components are presented in Table 4.9. The table also includes separate estimates for rural and urban areas. From 1999 to 2009, the crude headship rate increased more quickly than in the period from 1989 to 1999. This is consistent with results in Table 4.1, which indicated that mean household size in Viet Nam declined slightly in the 1990s but more rapidly over the last decade.

The results show that the crude headship rate has increased in the last two decades from 0.21 to 0.26 mostly because of the decrease in proportion of children aged under 15 and a decline in fertility in Viet Nam. If one by one, we kept each of these indices at its 1989 level, the crude headship rate in 2009 would be in turn 0.25, 0.27, 0.25, 0.28 and 0.21 respectively. For the period from 1999 to 2009, the near universalization of the nuclear family also contributed to the increase in the crude headship rate, or in other words, the decrease in average household size (Table 4.9 and Figure 4.7).

Figure 4.7: Comparison of five components of the crude headship rate in Viet Nam, 1989-2009



Changes in the interrupted marriage index and the sex ratio contributed negatively while changes in the marriage ratio contributed positively to changes in the crude headship rate. However, the impacts of these three indices on reducing average household size in the last two decades in Viet Nam were small.

4.5 SUMMARY AND REMARKS

Similar to the population age and sex structure, household structure in Viet Nam has also changed significantly over the last three decades during the demographic transition. Average household size decreased quickly, from 4.82 persons in 1989 to 4.51 in 1999 and 3.78 in 2009. Regions and provinces with low population density and low economic development still tend to have larger household size. The average size of rural households is only slightly larger than the size of urban households (3.8 versus 3.7 respectively). Household size of four members is currently the most common type of household in Viet Nam (28.4% of the total). The analysis also indicates that, average household

size has decreased over the last two decades, mostly because of the substantial decrease in the proportion of children under age 15 in the total population.

The proportion of households with only one person in Viet Nam has increased from 4.4% in 1999 to 7.3% in 2009. Among these, the proportion of one-person aged households (age 65+) has increased 1.5 times: from 1.8% to 2.6%. In 2009, the proportion of one-person households varied from the highest in the Red River Delta to the lowest in the Central Highlands and Northern Mountains. The one-person household proportion in urban areas is significantly higher than in rural areas (8.1% versus 6.9%). Most people living in one-person households are females, mainly because starting with age 45, the number of female one-person households is substantially greater than the number of male one-person households. However, the proportion of one-person households headed by females has decreased from 72.9% in 1989 to 67% in 2009.

During the last two decades, because of the falling fertility rate, the proportion of households with children under age 15 has declined rapidly, from 85.9% in 1989 to 58.0% in 2009. Meanwhile, the proportion of households with aged people has not changed much. The proportion of households without dependent-age people has more than doubled, from 14.3% in 1989 to 30.8% in 2009. During the same time, the proportion of households with at least half the members in dependent ages has decreased dramatically from 53.8% to 33.5%.

In 2009, most household heads in Viet Nam are still male and this tendency seems to be increasing compared to the level in 1989 (from 68.1% to 72.9%). During this period, the mean age of male household heads increased about two years while the mean age of female household heads has remained almost unchanged. Most male household heads are married (93.3%) while the proportion of female household heads who are married is much lower (40.3%), especially in rural areas (32.5%). The proportion never married among all household heads has remarkably increased during the last two decades (from 2.6% to 5.7%), especially among female headed households in urban areas.

In short, the general trends of households in Viet Nam is towards decreasing size, an increase on one-person households, and a decline in the dependency ratio. These are typical characteristics of households in population completing the demographic transition. However, Viet Nameese households still retain the traditional characteristic of a high prevalence of male headship. These characteristics are not the uniform across regions due to different cultures and living standards.

CHAPTER 5: MARITAL STATUS

5.1 INTRODUCTION

Marriage is a type of union of the sexes, which is relatively stable and is recognized by social custom and/or by the law (Endruweit & Trommsdorff 2002). Marriage is very important as families, essential ethical and moral units of most societies, are almost all formed from marriage. The major types of marital status include never married (or single), cohabiting, married, widowed, separated and divorced.

Marriage is closely relevant to fertility, especially in a society like Viet Nam where births outside marriage are still uncommon. Early marriage for women leads to higher probability of motherhood and reduced interval between generations, thus leading to increased fertility. Therefore, analyses of marital status helps to provide more insights into the dynamics of fertility in the population. Beside early marriage, other uncommon cases of marital status, such as divorce, widowhood, delayed marriage or never marriage, are a concern of researchers, policy makers and implementers.

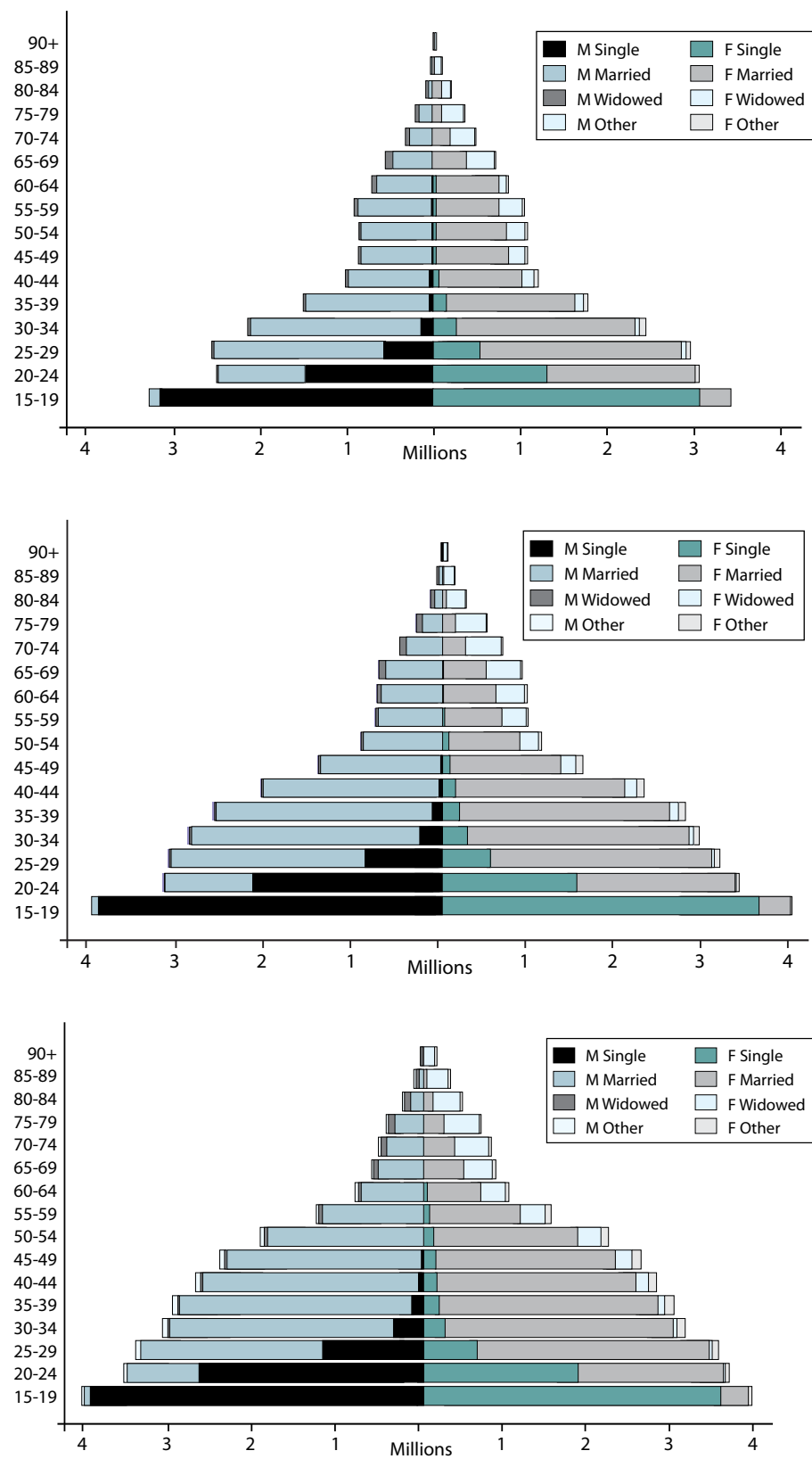
In Viet Nam, there are a number of studies on marriage, many of which indicate that marital status, and families in Viet Nam in general, have significantly changed along with the process of socioeconomic development. As a result, recent analyses of Viet Nameese marital status, especially analysis based on Census data, will provide up-to-date and useful information for researchers and policy makers.

Marriage is a very broad subject. However, in the scope of this monograph, the analysis only focuses on the structure of marital status using information available from the Census sample surveys in 1989, 1999 and especially in 2009. Marital status in this chapter is classified into four groups: single, married, widowed, and divorced/separated and focuses on the population aged 15 and older. As marital status is identified using information reported by interviewed household members, it is not necessarily the legal marital according to law. As there is no information on the timing of changes in marital status, this monograph examines only the distributions but not rates of for different marital statuses.

5.2 DISTRIBUTION OF MARITAL STATUS

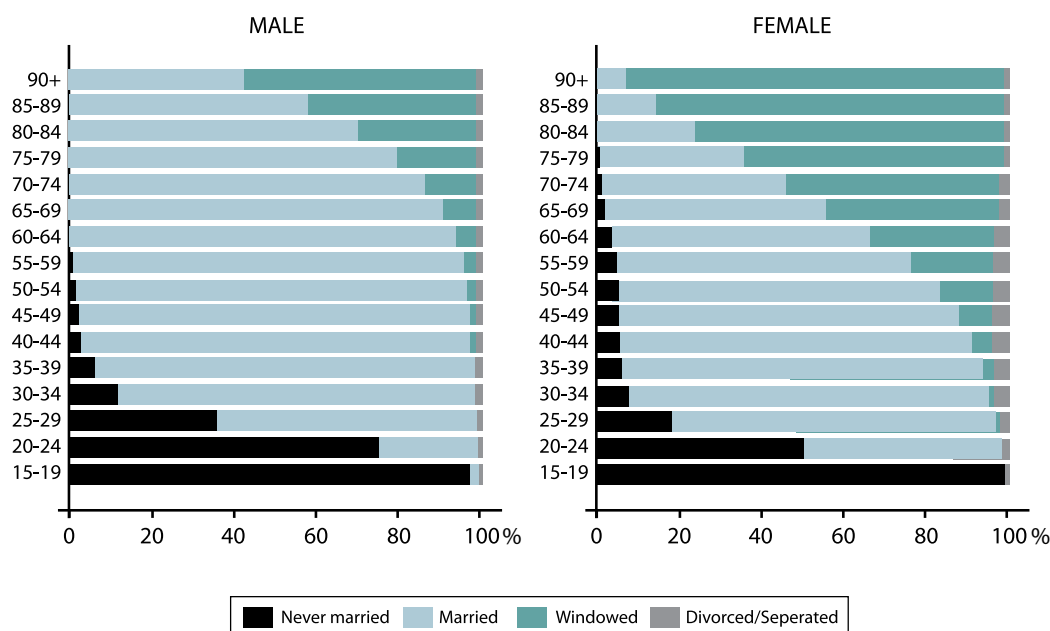
Figure 5.1 presents the age-sex pyramids of marital status in Viet Nam for 1989, 1999 and 2009. Basically, the three pyramids indicate the same pattern: females usually get married earlier than males. After the age of 50, most of the Viet Nameese population has ever been married, and the proportion of females being widowed, divorced or separated is higher than the proportion of males in almost all age groups.

Figure 5.1: Population pyramid by marital status in Viet Nam, 1989-2009



However, from 1989 to 1999 and 2009, the proportion never-married in the population aged 35–54 has increased considerably. This means that people are tending to delay marriage so and age at first marriage has increased over time. The proportion of never-married women aged 50 and older was small in 1989 but much higher in 2009. From analysis of these trends together with Figure 5.2, it can be seen that the widowed proportion of women increases rapidly with age, and increases somewhat across time (across the three Censuses). In 2009, more than 50% of Viet Nameese women aged over 60 lived outside of marriage, while among males this situation only occurs starting at age 85.

Figure 5.2 Distribution of marital status by age and sex in Viet Nam, 2009



The following analysis provide more details about the distribution of marital status by age group in Viet Nam in 2009.

• *The proportion of population never married, 2009*

In a comparison of the 6 regions in 2009, it can be seen that the proportion never married across the different age groups is highest in the Southeast and lowest in the Northern Uplands. The proportion never married in the Central Highlands is quite low, and only higher than in the Northern Uplands. All other three regions have similar proportions never married in the population. The most noticeable difference is in the Mekong River Delta where the proportion never married is lower than in the Red River Delta and in the North and South Central Coast for the age group 20–24 but higher starting at age 35 (for males) and 25 (for females). This means that in comparison with the Red River Delta and the North and South Central Coast, the young population in the Mekong River Delta has a higher probability of being married but when they become older and are still single, their probability of getting married is lower.

Figure 5.3 shows that, compared to females, the proportion of never-married males is always higher in groups under 35 years of age, but equal for the ages 35–39 years, and lower starting from age 50.

The pace of the decline in the proportion never married is fastest for females aged 15–29 and for males aged 20–34. Starting with age 40, the percentage of never-married women decreases much more slowly than the percentage of never-married men, suggesting that the likelihood of getting married after the age of 40 among single females in Viet Nam is quite low. For both females and males (starting at age 15), the proportion of never-married people in urban areas is always higher than in rural areas for the same age group.

Figure 5.3: Proportion never married by age group, sex and urban/rural residence in Viet Nam, 2009

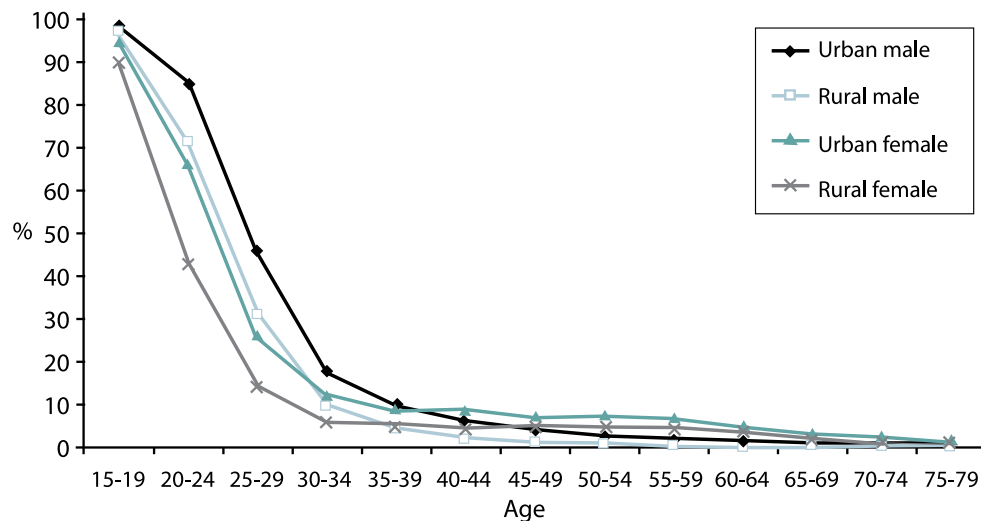


Figure 5.4: Proportion of males never married by age group and region in Viet Nam, 2009

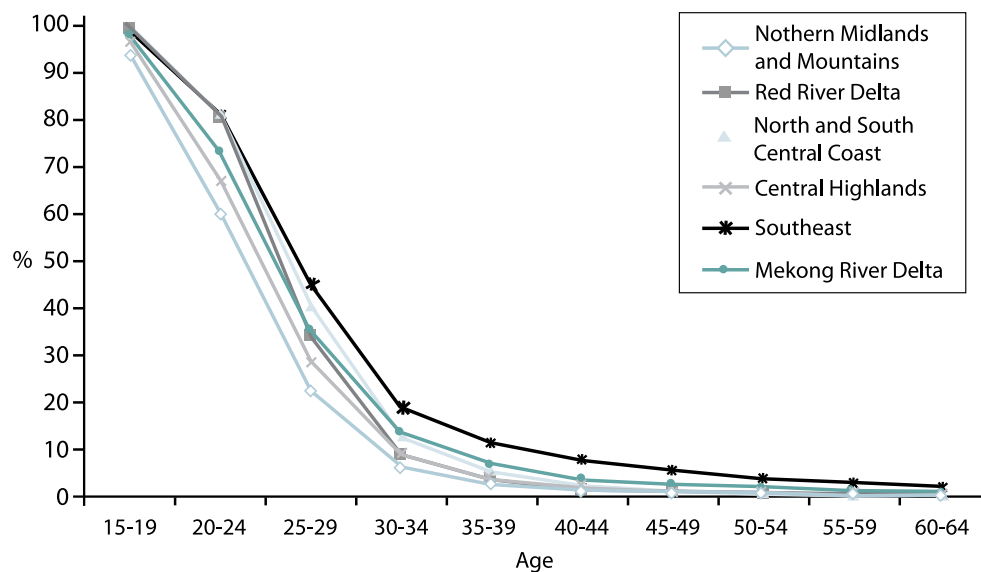


Figure 5.5: Proportion of females never married by age group and region in Viet Nam, 2009

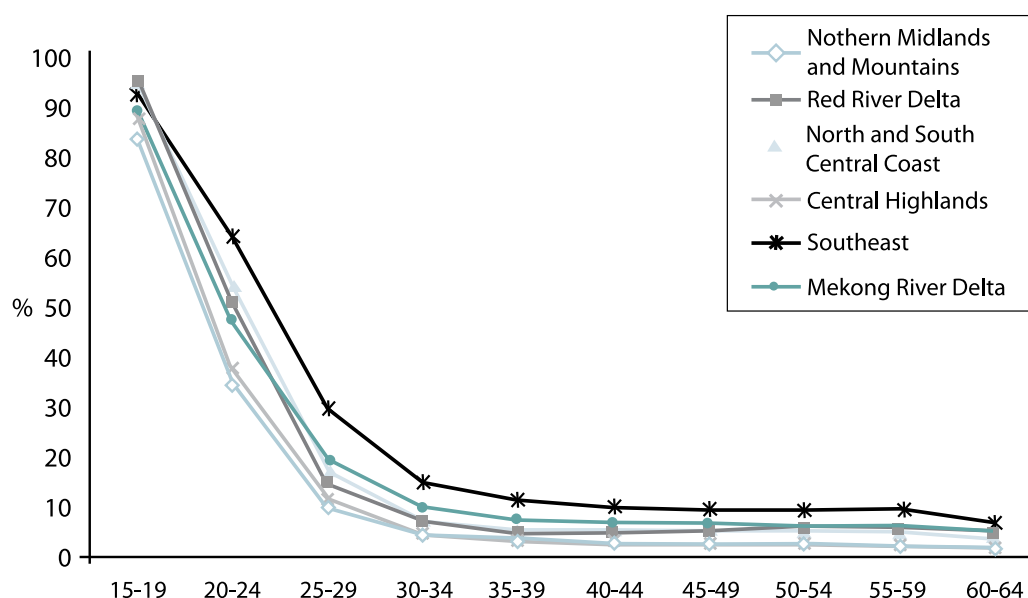
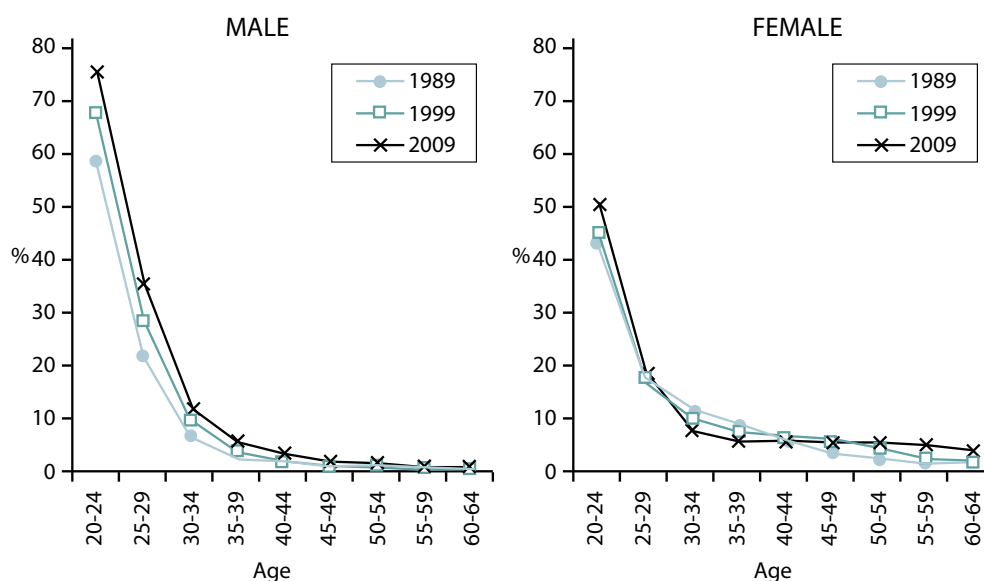


Figure 5.6: Proportion never married by age group, sex and region in Viet Nam, 1989-2009



The comparison of the proportion never married among males and females in each of three Censuses (Figure 5.6) can show more clearly the changing pattern over time as mentioned in the analysis in Figure 5.1. In order to be more focused, Figure 5.6 presents only data for the ages from 20–24 to 60–64, where significantly different proportions are exhibited between the three Censuses. In order of the 1989, 1999 and 2009 Censuses, the proportions of never-married males in all ages increased gradually, indicating an increase in the average age at first marriage among males. Regarding the female population, the change is not so simple. In the same period, the proportion of never-married

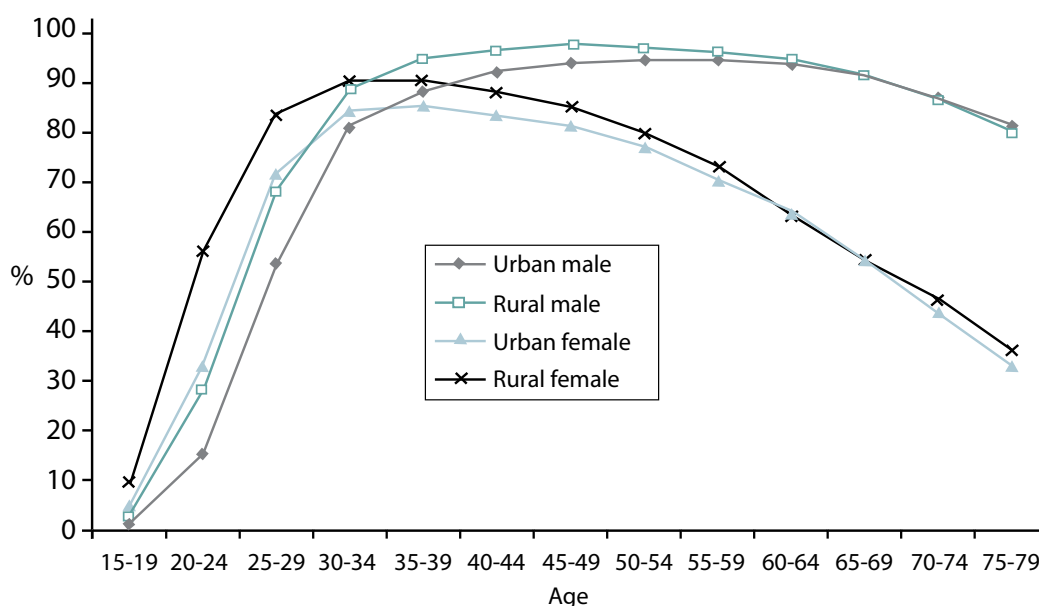
females increased clearly in the 20–24 group (from 43% up to more than 50%), but decreased in the 30–39 group, then increased considerably in the age groups of 50 and over. Thus, in comparison to women in 1999, currently women tend to get married later but have a higher possibility of being married before 40 years of age.

For women aged 50 years or older, it is hard to conclude from the figure if women at these ages have difficulty getting married compared to the past. However, it can be clearly seen that the higher proportion of never married females aged 50–59 in 2009 mainly reflects the high proportion never married for this cohort in 1989 when those women were 30–34 years old. They are women born in the 1950s and their marital status was significantly affected by the low sex ratio resulting from long periods of war.

• *The proportion of the population currently married, 2009*

Figure 5.7 presents the proportion currently married among the population by age, sex and urban/rural areas in Viet Nam in 2009. As the divorced and widowed rates for people under age 25 is relatively low, the proportion of people currently married in this age group is basically the remainder of the part never married in the population in Figure 5.3. For females in both rural and urban areas, the percentage currently married is highest from 35–39 and then quickly falls due to widowhood, divorce or separation. For males, the proportion currently married is high (above 90%) and stable in the age from 40 to 69 because the rate of widowhood of males in these ages is noticeably lower than for women.

Figure 5.7: Proportion married by age group, sex and urban/rural residence in Viet Nam, 2009



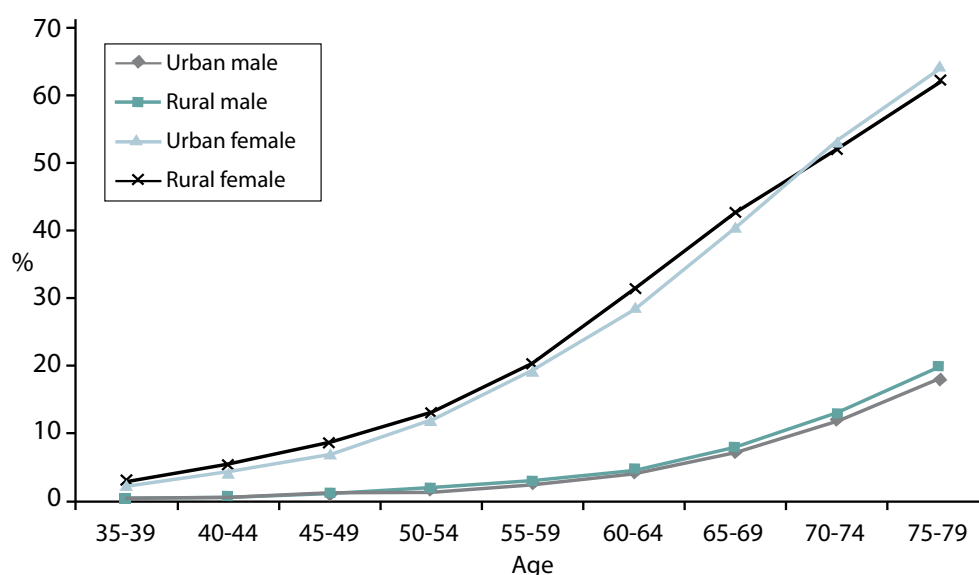
At the early ages of adulthood, the proportion married in rural areas is much higher than in urban areas. From the age of 60 and over, as the possibility of getting married and remarried in urban areas is higher than in rural areas, the difference is reduced gradually to a negligible amount. However, as these are the synthetic cohorts, not real cohorts, the difference among the age groups can be related to marital status in the past (which does not come out of the analysis relying on cross sectional data from only one Census).

• *The proportion widowed in the population, 2009*

As the proportion widowed in the ages below 35 are quite low, they are not presented in Figure 5.8, Figure 5.9 and Figure 5.10. Data in Figure 5.2 reveals that the proportion widowed among females is much higher than among males, and increases quickly with age, especially for females. If estimated separately for rural and urban areas as in Figure 5.8 the results show that in all age groups, there is no difference in the proportion widowed between urban and rural areas for males or for females.

However, the proportion widowed in the population clearly varies across regions (Figure 5.9 and Figure 5.10), especially between the Red River Delta – with the lowest proportion widowed among males and females – and the five other regions. The question is why the proportion widowed in the population of the Red River Delta is so much lower. Logically, it could be related to several different factors. Firstly, it is likely that the mortality rates among middle aged and aged people in the Red River Delta are lower than in other regions. However even if this factor strongly influences the proportion widowed in the population, it is certainly not the only cause since the proportion widowed in the Southeast is even higher than in the Red River Delta in spite of similar low mortality rates in both regions.

Figure 5.8: The proportion widowed by age, sex and urban/rural residence in Viet Nam, 2009



A second possible explanation is that the possibility of remarriage for widowed and divorced people in the Red River Delta is higher than in other regions. A third reason is that migration flows in the Red River Delta may “naturally select” people of certain marital status, which reduces the proportion of the widowed population in this region. However, more information is needed to test these hypotheses. The North and South Central Coast has a relatively low proportion of widowed males (only higher than in the Red River Delta), but the proportion of widowed females is at a medium level in comparison with other regions.

The highest proportion widowed is in the Mekong River Delta for males (except for the age group from 70–74) and in the Central Highlands for females. Perhaps one of the reasons is the gender

differences in mortality rates (from age 35 years and over), with the highest differential in the Central Highlands and lowest in the Mekong River Delta. In addition, these differentials may also be affected by remarriage or migration as mentioned above.

Figure 5.9: Proportion widowed among males by age group and region in Viet Nam, 2009

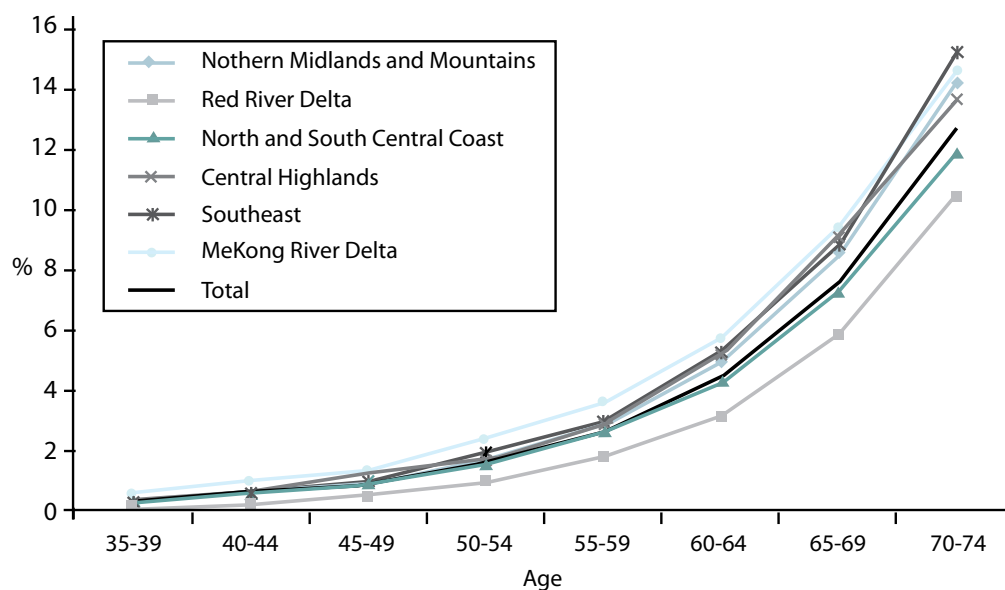
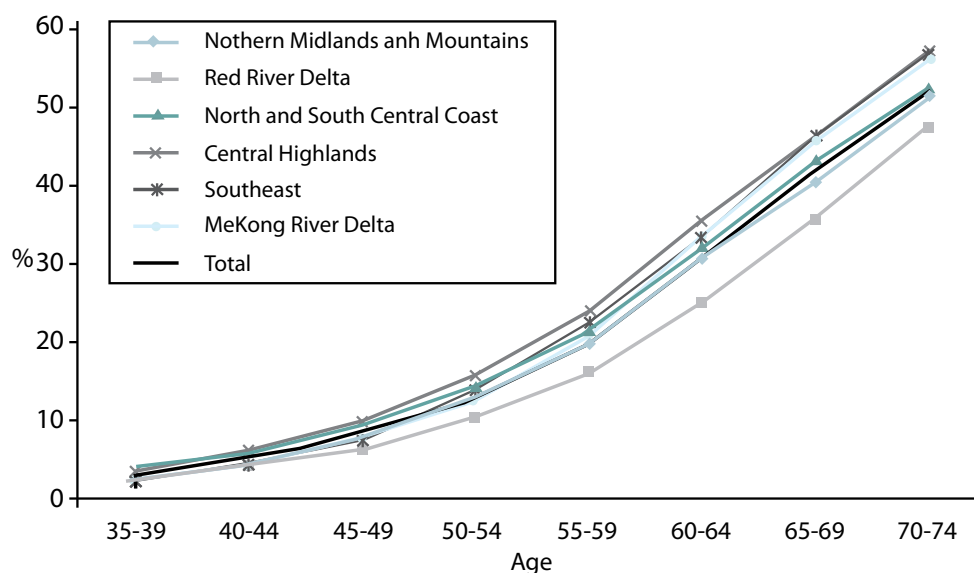


Figure 5.10: Proportion widowed among females by age group and region in Viet Nam, 2009



• Divorce/separation rates and ratios, 2009

Estimates from the 2009 Census sample presented in Table 5.1a show that, in Viet Nam, there are about 286 500 divorced/separated males and more than 658 000 divorced/separated females,

which account for 0.9% of the male population (0.6% divorced and 0.3% separated), and 2% of the female population (1.4% divorced and 0.6% separated) among people aged 15 and older. Thus, the proportion divorced or separated among females is noticeably higher than among males, in both absolute number and proportion of the population. When a couple is divorced or separated, both become divorced or separated individuals, so the numbers of divorced or separated males and females should be equal. However, as males have a higher possibility of remarriage and higher mortality rate, there exists significant differences in the absolute number and proportion divorced or separated between the two sexes.

Table 5.1a: Proportion divorce and separated by sex and age group in Viet Nam, 2009

Age	Male			Female		
	Divorced	Separated	Total	Divorced	Separated	Total
15–19	0.01	0.01	0.02	0.08	0.06	0.13
20–24	0.17	0.14	0.31	0.56	0.33	0.90
25–29	0.50	0.34	0.84	1.19	0.51	1.71
30–34	0.87	0.42	1.29	1.78	0.61	2.39
35–39	0.98	0.44	1.42	2.07	0.66	2.73
40–44	1.03	0.47	1.50	2.35	0.72	3.06
45–49	0.94	0.43	1.36	2.59	0.87	3.46
50–54	0.86	0.43	1.29	2.49	0.93	3.42
55–59	0.70	0.42	1.12	2.14	0.91	3.06
60–64	0.52	0.50	1.01	1.55	0.86	2.41
65–69	0.46	0.50	0.96	1.03	0.75	1.78
70–74	0.27	0.51	0.78	0.51	0.56	1.07
75+	0.18	0.41	0.59	0.21	0.28	0.49
Total	0.59	0.33	0.92	1.43	0.56	1.99
Estimated cases	183 539	102 972	286 512	471 899	186 167	658 066

In general, the age distribution of the proportion divorce and separated follows a bell shape, with low values in young ages (under 25) and among the elderly (age 70 and older) and high values for the ages in the middle of the distribution. However, when the proportion of the population that is married is rather low (for example, for ages under 25), the comparison of the proportion divorced/separated across groups is no longer meaningful because the denominator includes large proportion of never-married people. In this case, comparisons of the divorce/separation to marriage ratio (the number of divorced/separated people divided by the number of married people then multiplied by 100) in Table 5.1b is more suitable.

Table 5.1a and Table 5.1b show that, both the proportion divorced/separated and the ratio of divorce/separation to marriage among females are much higher than among males, not only in total but also in every age group from 15–19 to 74 and older. The age group with the highest divorce/separation to marriage ratio is 40–44 years for males (1.58 per 100 marriages) and 50–54 years for females (4.36 per 100 marriages).

Table 5.1b: Ratios of the number divorced and separated to the number currently married by sex and age group in Viet Nam, 2009

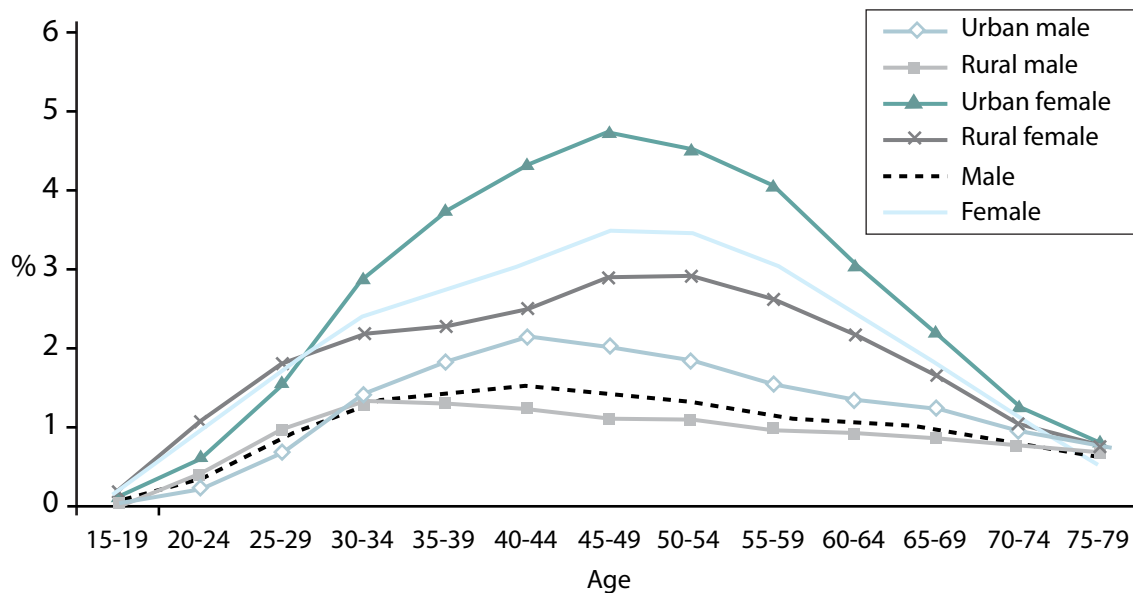
Unit: Percent

Age	Male			Female		
	Divorced	Separated	Total	Divorced	Separated	Total
15–19	0.54	0.50	1.04	0.95	0.66	1.61
20–24	0.72	0.57	1.29	1.17	0.70	1.87
25–29	0.80	0.54	1.33	1.51	0.65	2.16
30–34	1.01	0.48	1.49	2.03	0.69	2.72
35–39	1.06	0.48	1.54	2.35	0.75	3.10
40–44	1.08	0.50	1.58	2.72	0.83	3.55
45–49	0.98	0.44	1.42	3.12	1.04	4.16
50–54	0.90	0.45	1.35	3.18	1.18	4.36
55–59	0.74	0.44	1.18	2.98	1.27	4.26
60–64	0.55	0.53	1.08	2.46	1.36	3.82
65–69	0.50	0.55	1.06	1.92	1.39	3.31
70–74	0.32	0.59	0.90	1.14	1.23	2.37
75+	0.25	0.57	0.82	0.83	1.11	1.94
Total	0.88	0.49	1.37	2.23	0.88	3.12
Estimated cases	183 539	102 972	286 512	471 899	186 167	658 066

Note: The unit is the number of divorced or separated people per 100 married people

In the next set of analyses, to be more focused, divorce and separation are combined into one category “divorce/separation”. Many studies have pointed out that in modern societies, where dependence on community and clan decreases and individual freedom is given more respect, divorce/separation is more likely to happen than in traditional society (Bilton et al, 1993). It is, therefore, the basic reason for the fact that the proportion divorced/separated in the population is much higher in urban than in rural areas for every age group starting with 30–34 (Figure 5.11).

Figure 5.11 Proportion divorced/separated by age, sex and urban/rural residence in Viet Nam, 2009



Only the rural group aged less than 30 years has a slightly higher proportion divorced/separated than the urban group. This does not result from rural couples more easily divorcing or separating than urban couples but the inappropriate usage of the indicators as analyzed above (rate used instead of ratio). It can be seen in Figure 5.12 that, compared with rural areas, the divorce/separation to marriage ratio in urban areas is never lower but either equal (for age group 20–29 years) or higher (for age groups 15–19 years and over 29 years).

Figure 5.12: Ratios of divorce/separation to marriage by age group, sex and urban/rural residence in Viet Nam, 2009

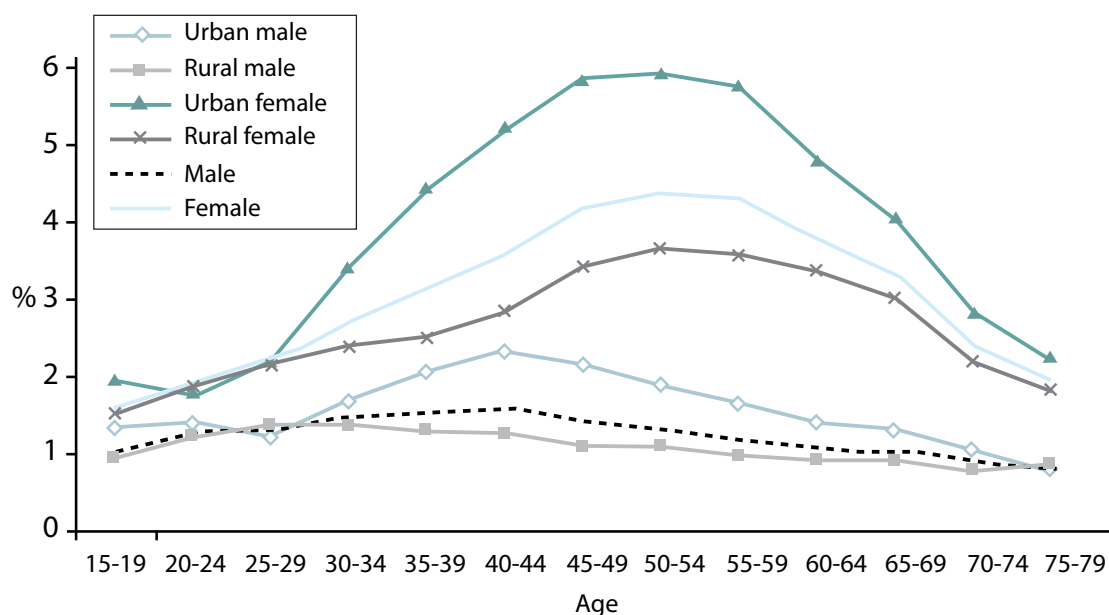


Figure 5.13 and Figure 5.14 present the ratios of divorce/separation to marriage among males and females for six regions. It can be clearly seen that the male divorce/separation to marriage ratios in the Southeast and in the Mekong River Delta are much higher than in the other four regions. Beside the effect of migration, other socio-cultural factors affect divorce and separation. The most noticeable difference between the two regions is that, compared to the Southeast, male in the Mekong River Delta have higher divorce/separation to marriage ratios at younger age (under 40) and older ages (70 and up) but lower ratios between 40 and 70. As a result, the highest divorce/separation to marriage ratio among males in the Mekong River Delta is at the age group 20–24 years, while in the Southeast it is at the age group 45–49.

The divorce/separation to marriage ratio among males by age in the other four regions fluctuates closely around 1.0, except for the low ratio among the aged (from 60 years of age and older) in the North and South Central Coast and the unusually high ratio among the 15–19 group in the Red River Delta. One possible reason for the second exception may be related to sampling error as the number of married men aged 15–19 in the Red River Delta is small.

For females aged 30 to 70, the divorce/separation to marriage ratio in the Southeast is much higher than in other regions. Compared to other regions, the divorce/separation to marriage rate of females in the Mekong River Delta, though higher in the ages under 30, is nevertheless approximately equal to the ratio for all females in the ages from 35–39 through 70–74. In addition, the divorce/separation to marriage ratio among females in the North and South Central Coast is usually lower than in the five remaining regions, especially in the ages starting from 45 on up.

Figure 5.13: Male ratios of divorce/separation to marriage by age group and region in Viet Nam, 2009

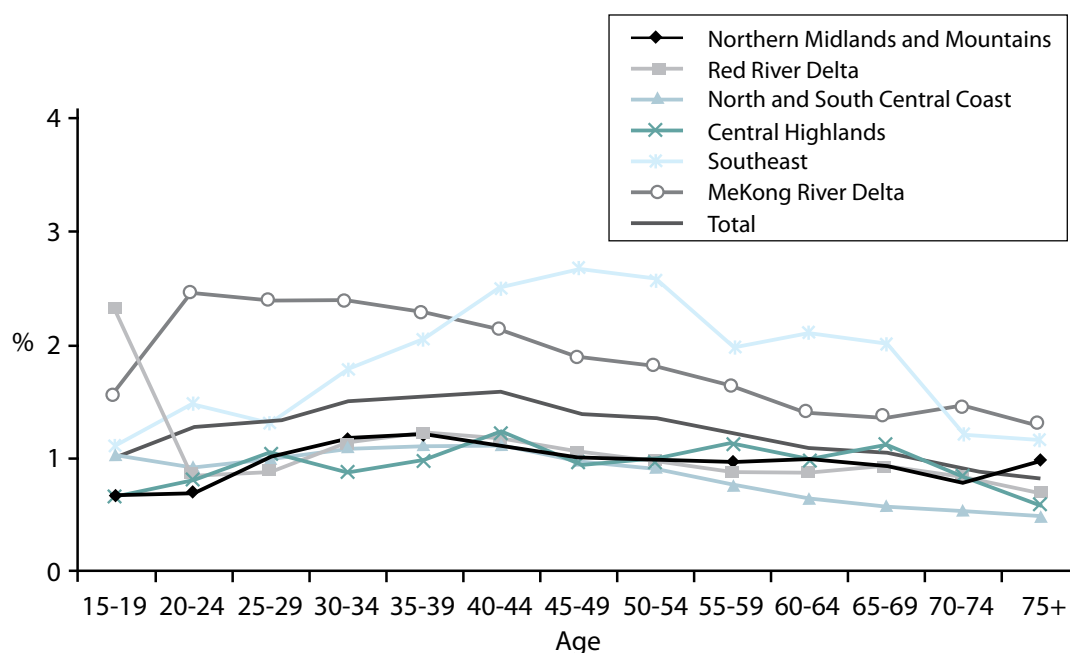


Figure 5.14: Female ratios of divorce/separation to marriage by age group and region in Viet Nam, 2009

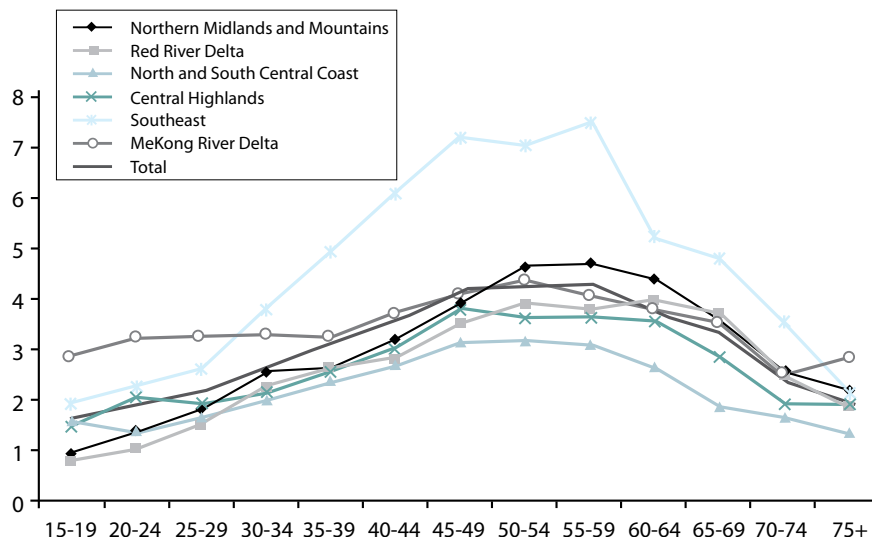
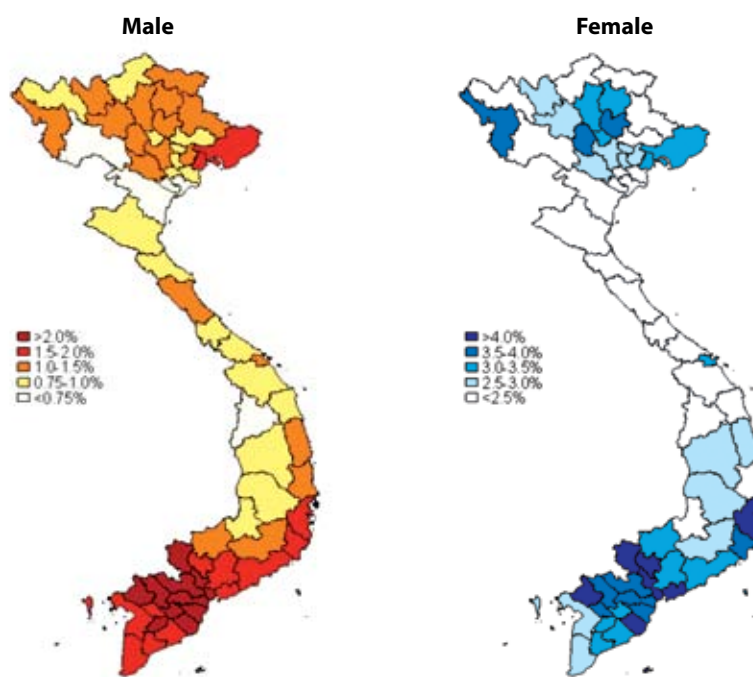


Figure 5.15 presents maps of provincial divorce/separation to marriage ratios for males and females aged 15–64 in Viet Nam in 2009. For males, most provinces with divorce/separation ratios at the two highest levels in the map (from 1.5% and up) are in the south of Viet Nam (starting at Khanh Hoa province). Only two provinces in the north, Quang Ninh and Hai Phong, have males divorce/separation to marriage ratios of more than 1.5%. An important point to note is that all 10 provinces with the highest ratios (>2%) are geographically clustered (Ho Chi Minh City, Tay Ninh, Long An, Dong Thap, An Giang, Tien Giang, Vinh Long, Ben Tre, Hau Giang and Tra Vinh).

Figure 5.15: Maps of provincial ratios of divorce/separation to marriage among males and females aged 15–64 years in Viet Nam, 2009



Source: Vietnam Population & Housing Census, GSO, 2000

Source: Vietnam Population & Housing Census, GSO, 2000

Compared with male divorce/separation to marriage ratios, the ratios among females are always notably higher, although the geographic distribution is similar. North of Khanh Hoa province, only three provinces (Dien Bien, Phu Tho and Thai Nguyen) have female divorce/separation to marriage ratios higher than 3.5%. Meanwhile, all 7 provinces with the highest level of female divorce/separation to marriage ratios in the map (>4%) are in the region starting with Khanh Hoa and moving south (Khanh Hoa, Ho Chi Minh City, Tay Ninh, Binh Duong, An Giang, Tra Vinh, Ba Ria – Vung Tau). Thus the map indicates clearly that, Ho Chi Minh City, Tay Ninh, An Giang and Tra Vinh are the provinces with the highest divorce/separation to marriage ratios for both males and females.

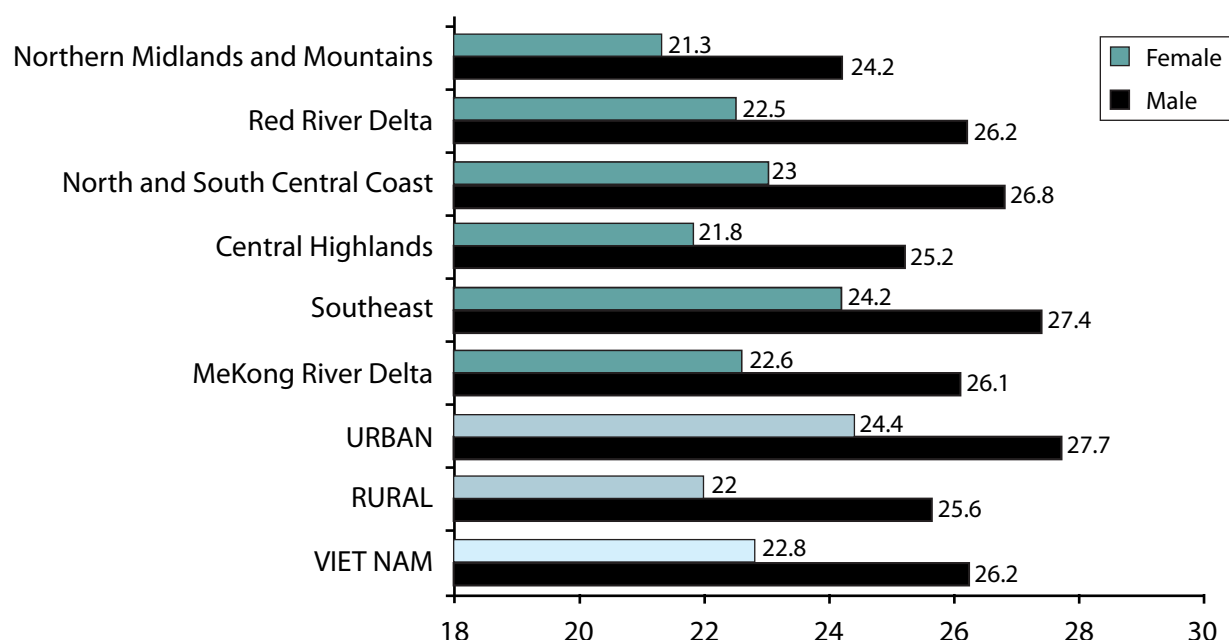
In general, the distribution of divorce/separation to marriage ratios by age is quite varied between rural and urban areas, regions and provinces. We will analyze more about the relationship between divorce and separation by region and other social demographic factors using regression models.

5.3 SINGULATE MEAN AGE AT MARRIAGE

Viet Nam Population Census Sample survey data do not allow for direct estimates of mean age at first marriage because information about time or age at marriage is unavailable. In this analysis, mean age at first marriage is estimated indirectly from proportions of never-married cohorts aged from 15–19 to 45–49 (or 50–54). The result of such an indirect estimation is called singulate mean age at marriage (SMAM). In other words, SMAM is the average person-years lived unmarried among the population that marries before age 50.

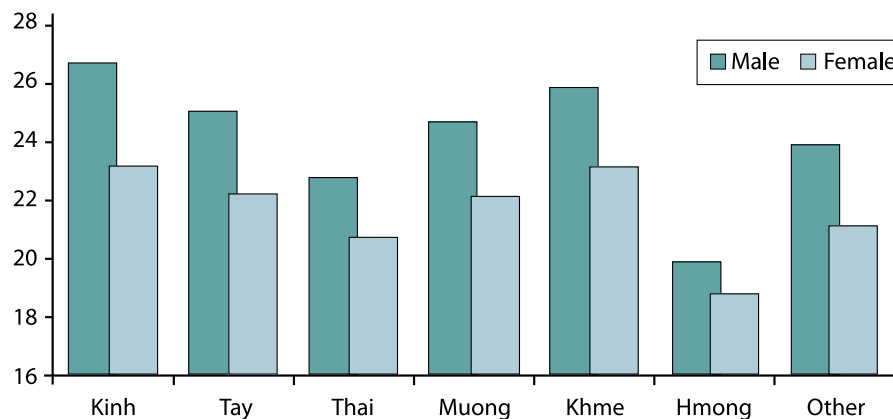
According to the estimates presented in Figure 5.16 SMAM of males is 26.2 years, about 3.4 years higher than SMAM of females (22.8 years). It is hard to conclude whether such figures are high or low as they are similar to SMAM in Indonesia. It is hard to conclude that such figures are high as they are similar to SMAM in Indonesia but lower than SMAM in Thailand and Malaysia in 2000. Compared to those in 1999, male SMAM increased about 0.6 years but female SMAM remained almost unchanged.

Figure 5.16: SMAM by sex and region in Viet Nam, 2009



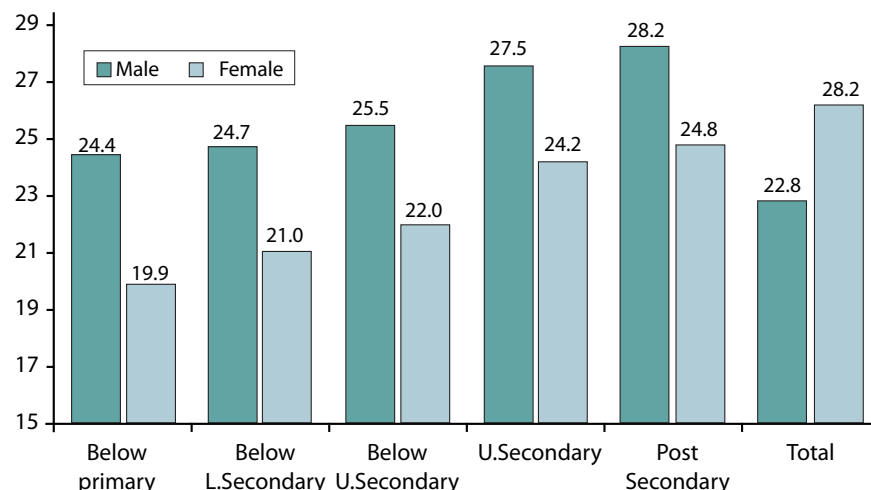
SMAM for males and females in urban areas (27.7 and 26.6) are higher than in rural areas (25.6 and 22.0). By region, male and female SMAM are highest in the Southeast (27.4 and 24.2), and lowest in the Northern Midlands and Mountains (24.2 and 21.3) and Central Highlands (25.7 and 21.8). This ranking seems to match the regional ranking of economic development. However, in the Red River Delta, where living standards rank second, SMAM is smaller than in the North and South Central Coast and equivalent to SMAM in the Mekong River Delta. Thus, the correlation between age at first marriage and economic development is obvious only when the difference in economic development is large enough. In addition, the socio-cultural characteristics of individuals and communities may have a greater direct influence on age at marriage.

Figure 5.17 SMAM among major ethnic groups in Viet Nam, 2009



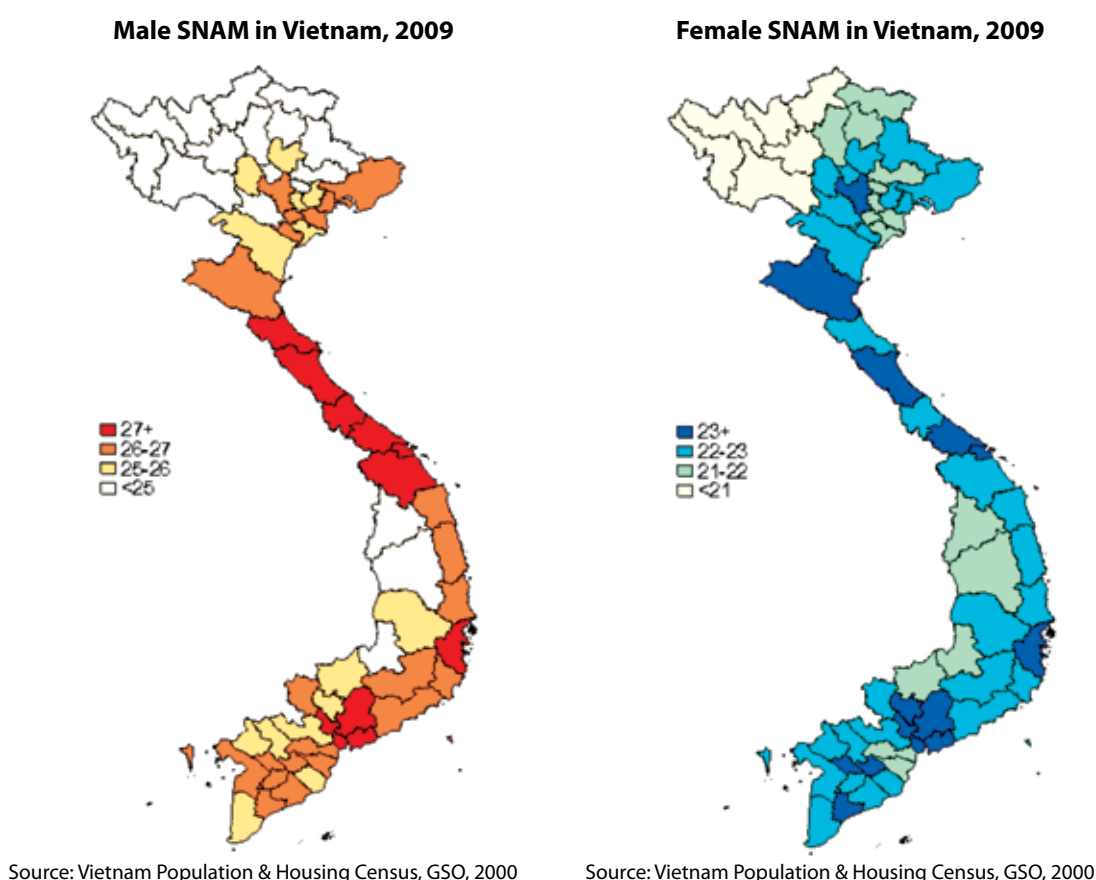
Since each ethnic group is characterized by their own culture including marriage customs, SMAM may vary greatly across ethnic groups. The estimates of SMAM for major ethnic groups in Viet Nam clearly reflect this diversity (Figure 5.17). In particular, the SMAM of the Kinh majority is highest (26.6 for male and 23.1 for female), and slightly higher than the national level because the Kinh account for more than 85% of the population in Viet Nam. Compared to that of the Kinh, the SMAM of the Khmer is slightly lower for males (25.8) but similar for females. SMAM is lower for the Tay, Muong, Thai, and lowest among the Hmong (19.9 for male and 18.8 for female). This finding supports the fact that child marriage is still common among the Hmong people. SMAM for all other ethnic groups is 23.9 for males and 21.1 for females, about in the middle of the SMAM of the Tay and Thai groups.

Figure 5.18: SMAM by educational attainment in Viet Nam, 2009



Educational attainment is the indicator perhaps most strongly related to SMAM. People dropping out of school early are more likely to get married early, and individuals who marry early usually leave school or miss opportunities and lack conditions for higher educational attainment. In Viet Nam at present, these relationships are clearly reflected in the estimates in Figure 5.18. SMAM increased steadily with level of educational attainment, from 24.3 for males and 19.9 for females in the group with less than primary education to 28.2 for males and 24.8 for females in the post-secondary education group. It is likely that the difference in educational attainment can explain most of the differentials in SMAM among ethnic groups presented in Figure 5.17. Therefore, improvements in educational attainment or, at least, the universalization of primary education are essential to reducing child marriage and early marriage in groups with low SMAM like the Hmong.

Figure 5.19: Map of SMAM by province in Viet Nam, 2009



The maps in Figure 5.19 show that SMAM of males is lowest in the provinces of the Northern Uplands and some provinces of the Central Highlands (Kon Tum, Gia Lai, and Dak Nong). Male SMAM at highest level (27+ years) are found in some provinces in the central region (from Ha Tinh to Quang Nam), and in Khanh Hoa, Dong Nai, Ba Ria-Vung Tau, and Ho Chi Minh City. Provinces with the lowest female SMAM (under 21) are concentrated in the western provinces of the Northern Midlands and Mountains (Lai Chau, Dien Bien, Ha Giang, Lao Cai, Ha Giang, Son La, Yen Bai provinces). On the other hand, the provinces with the highest female SMAM (23+) are dispersed widely throughout the

country (Hanoi, five provinces in the North and South Central Coast, five provinces in the Southeast, and three provinces in the Mekong River Delta).

5.4 ANALYSIS OF EARLY AND DELAYED MARRIAGE, DIVORCE, AND SEPARATION AND RELEVANT SOCIO-DEMOGRAPHIC FACTORS

Child marriage, early marriage, delayed marriage or never marriage, divorce and separation are marital phenomena that may occur in any society. However, if they become prevalent, these phenomena become social problems. Therefore, it is expected that, the estimation of magnitude, characteristics, and correlation between these unusual marital statuses and other socio-demographic factors may provide useful information for researchers and people involved in management of related issues in Viet Nam.

5.4.1 Child marriage and early marriage

Viet Nameese Law on Marriage and Family sets the legal minimum marriage age at 20 for males and 18 for females. Marriage before these legal ages is considered as child marriage. There is no official definition of the notion of early marriage but the population and family planning programs in Viet Nam encourages men not to marry before the age of 22 and women not to marry before the age of 20. Thus we may consider a case as early marriage if men and women marry before these recommended ages. For the convenience of comparison, the analyses in this section examines marriage by the age of 18 and 20 for females and by the age of 20 for males.

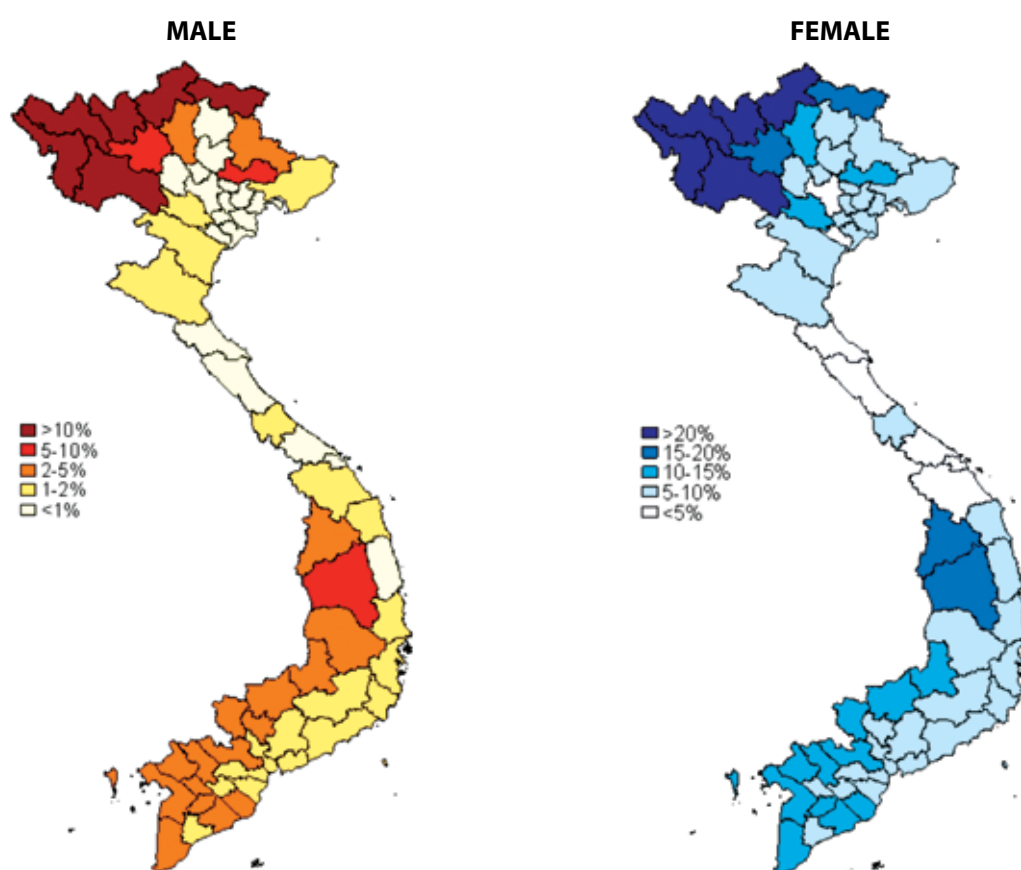
Table 5.2 presents the proportion ever-married among males in the age group 15–19 and the proportions ever-married among females for the age groups 15–17 and 15–19. It should be noted that data in the table do not fully reflected the situation of child marriage or early marriage because they do not include married children under age 15 nor the situation of people aged 20 and older who were married before legal or recommended minimum marital ages. Maps of proportion ever-married among males and females in the age group 15–19 by province are presented in Figure 5.20.

Table 5.2: Proportion ever married among young adults in 63 provinces in Viet Nam, 2009

Province	Male 15–19	Female 15–19	Female 15–17	Province	Male 15–19	Female 15–19	Female 15–17
Ha Noi	0.65	4.83	1.20	Quang Nam	1.33	4.37	1.74
Ha Giang	17.25	25.52	14.31	Quang Ngai	1.50	5.80	2.25
Cao Bang	10.70	16.73	8.64	Binh Dinh	0.60	5.13	1.26
Bac Kan	5.49	13.08	5.86	Phu Yen	1.18	7.07	2.27
Tuyen Quang	3.28	14.08	5.07	Khanh Hoa	1.14	6.06	2.12
Lao Cai	11.37	23.16	11.83	Ninh Thuan	1.74	8.71	3.56
Dien Bien	14.40	27.60	17.53	Binh Thuan	1.30	7.88	2.57
Lai Chau	18.65	33.83	21.20	Kon Tum	4.69	15.75	7.85
Son La	14.03	29.08	17.14	Gia Lai	5.46	17.26	7.83
Yen Bai	5.16	16.11	6.15	Dak Lak	2.32	9.02	3.53
Hoa Binh	1.83	10.61	2.98	Dak Nong	3.38	14.07	5.25
Thai Nguyen	0.85	8.53	2.47	Lam Dong	1.86	9.36	3.31
Lang Son	3.47	9.58	3.08	Binh Phuoc	2.29	12.47	4.69
Quang Ninh	1.17	7.29	1.55	Tay Ninh	2.63	12.92	5.23
Bac Giang	0.97	8.49	1.72	Binh Duong	2.53	8.90	3.50
Phu Tho	0.74	7.15	1.60	Dong Nai	1.22	5.23	1.66
Vinh Phuc	0.69	9.11	2.00	Ba Ria-Vung Tau	1.06	5.92	1.96
Bac Ninh	0.71	7.57	1.25	Ho Chi Minh City	1.38	5.29	1.96
Hai Duong	0.61	6.00	1.06	Long An	2.18	10.38	3.69
Hai Phong	0.87	6.02	1.52	Tien Giang	1.94	9.68	2.52
Hung Yen	0.97	6.32	1.44	Ben Tre	1.38	8.70	2.40
Thai Binh	0.37	5.04	1.06	Tra Vinh	2.19	10.54	4.29
Ha Nam	0.75	5.40	0.95	Vinh Long	1.43	8.03	2.56
Nam Dinh	0.44	7.58	1.30	Dong Thap	2.41	11.04	3.77
Ninh Binh	0.33	4.96	0.76	An Giang	3.40	13.85	5.56
Thanh Hoa	1.15	5.61	1.62	Kien Giang	2.46	11.12	4.36
Nghe An	1.50	5.40	2.09	Can Tho	2.19	9.85	3.69
Ha Tinh	0.21	2.51	0.43	Hau Giang	2.54	12.42	4.27
Quang Binh	0.65	4.13	1.25	Soc Trang	2.37	10.09	3.76
Quang Tri	1.37	5.46	1.80	Bac Lieu	1.70	8.85	2.60
Thua Thien Hue	0.67	3.09	1.04	Ca Mau	2.83	11.46	4.03
Da Nang	0.39	2.57	0.86	Whole country	2.19	8.51	3.12

It is not surprising that child marriage and early marriage in this age group is more prevalent in the north-western provinces of the Northern Midlands and Mountains than in other regions. It is surprising that some provinces have a very high proportion of child and early marriages. For instance in Lai Chau, 18.7% of males aged 15–19, 33.8% of females aged 15–19 and 21.2% of females aged 15–17 have ever been married. This means that approximately one fifth of the male population and one third of the female population aged 15–19 of this province have ever been married. These proportions in Dien Bien are also relatively high, respectively 14.4%, 27.6% and 17.5%. Some provinces in the Central Highlands and Mekong River Delta also experience a high proportion married among females aged 15–19 (higher than 10%), but among them, only Gia Lai province has more than 5% of men aged 15–19 males who have ever been married.

Figure 5.20: Maps of the proportion ever married among people aged 15–19 years by province in Viet Nam, 2009



Source: Vietnam Population & Housing Census, GSO, 2000

Source: Vietnam Population & Housing Census, GSO, 2000

Thus, though the legal age of marriage has been set out in law for quite a long time, child marriage is still quite common in Viet Nam. In total, 9 provinces report more than 5% of the male population aged 15–19 ever married and 14 provinces have more than 5% of the female population aged 15–17 ever married. The situation of early marriage among females is similar: one third of provinces (23 out of 63) report more than 10% of the female population aged 15–19 being ever married. The question is what socio-demographic factors are related to the early marriage in Viet Nam and how do they influence early marriage?

In order to respond to this question, two logistic regressions for males and females have been estimated and presented in Figure 5.21. The sample is the population aged 15–19. The dependent variable is ever-married status of (never married=0, ever married=1). The independent variables include region (reference group: Northern Midlands and Mountains), place of residence (rural and urban), age (reference group is 15 years of age), in-migration status, ethnic minority, religious adherence, educational attainment (reference group is less than lower secondary school), and working status.

It should be noted that because there is no information about starting time of marital status, these regression models (and also other models in this chapter) reflect only the correlations, not necessarily causal relationships between variables, although we still apply the terms independent and dependent variables. The following analysis evaluates the relationship of each independent variable with early marriage status, assuming that other variables are held constant. The more negative (or positive) the regression coefficient is, the smaller (or larger) the probability of ever having been married, holding all other independent variables constant in the model. More precisely, the regression coefficients indicate liner correlations between independent variables and the logarithm of the odds ratio of the probability of being ever-married. Since the probability of being ever-married, and logarithm of its odds ratio, are always monotonic, we use the term “probability of being ever-married” for simplification. The figure also presents the 95%-confidence intervals of the regression coefficients. If a 95%-confidence interval cuts the vertical axis, the corresponding regression coefficient will not be statistically significant at the 0.05 level.

Regression results show that compared with the Northern Midlands and Mountains, the probability of being ever-married among both males and females aged 15–19 in the other five regions, especially in the Red River Delta and North and South Central Coast, is significantly lower. But for females (1519), the probability of being ever-married does not vary between those living in the Northern Midlands and Mountains and in the Central Highlands or the Mekong River Delta. The coefficients also indicate that, holding all other independent variables constant, the probability of early marriage among females in rural areas is significantly lower than in rural areas. For males, however, there is no significant difference between urban and rural areas. This suggests that rural women in the Central Highlands and the Mekong River Delta, and rural males and females in the Northern Midlands and Mountains should be the main target groups for policies discouraging child and early marriage in Viet Nam

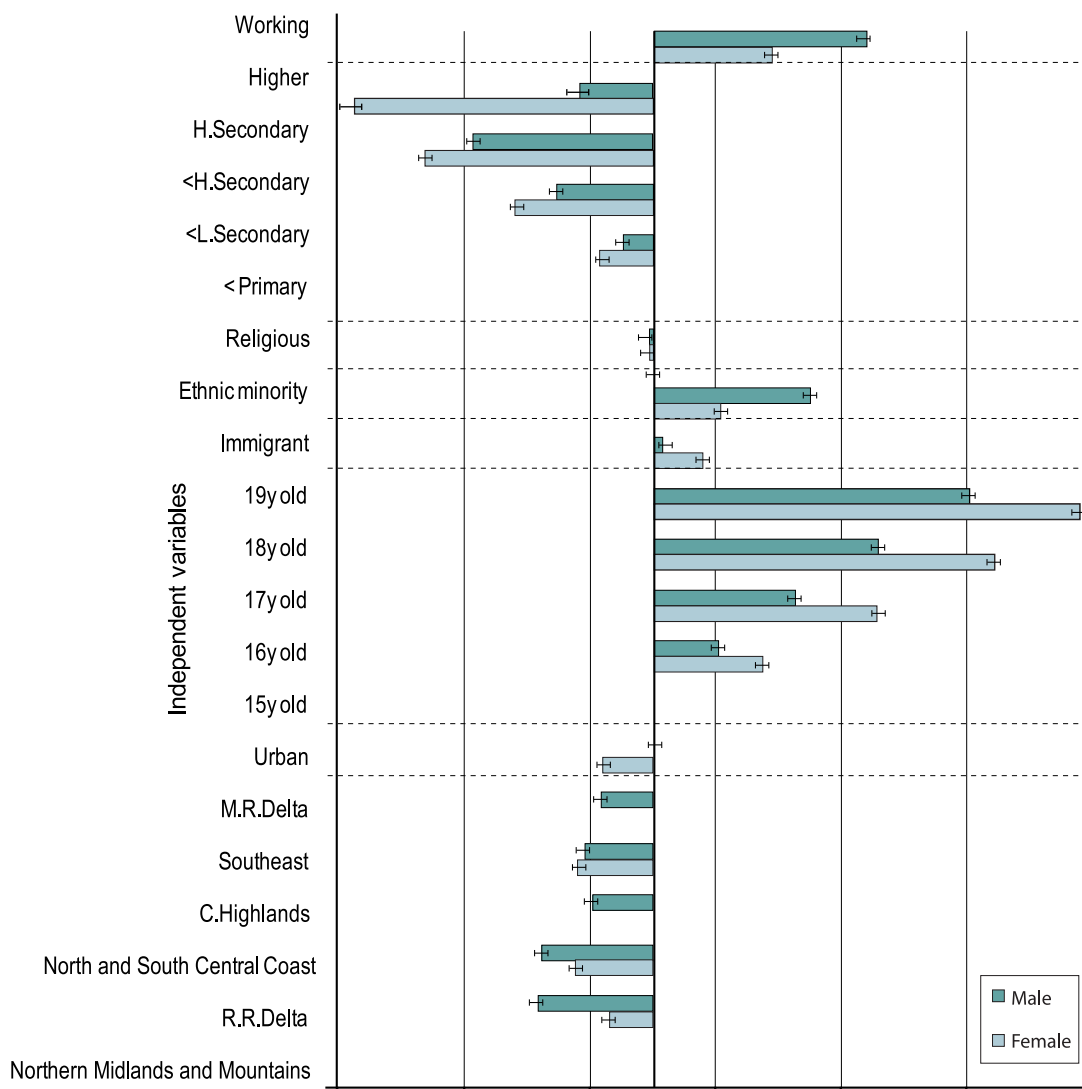
We would expect that the probability of marriage increases with age (from 15 to 19 years), especially for females. In-migration corresponds to higher probability of ever-marriage for females, but is not statistically significant for males. Perhaps the main reason is that most young women migrate as a result of marriage (move to the spouse’s residence), but among men this probability is much lower.

Ethnic-minority groups are more likely to experience child and early marriage than the Kinh majority and the effects of ethnicity seem to be stronger for males than for females. In other words, keeping other variables constant, ethnic minorities report higher probability of child and early marriages than the Kinh, and the difference is significantly larger for males than for females. In addition, religion is not significantly related to early marriage of either males or females.

The results also show that, educational attainment is significantly related to early marriage, especially for females. The higher the educational attainment, the lower the probability of early marriage

and vice versa. For males, the regression coefficient for the educational level of post-secondary is negative, but the absolute value is smaller than the coefficient of the educational level at completed upper secondary. The 95%-confidence interval of this coefficient is large and the reason is probably that only a few males under age 20 have attained post-secondary education in the sample. More information may be needed to explain this unusual phenomenon more fully.

Figure 5.21: Coefficients of the logistic regression model on probability of ever being married among the age group 15–19 in Viet Nam, 2009



The last indicator examined is working status. According to the regression model, working people are more likely to get married earlier than non-working people and the difference is greater among males than among females. The regression coefficient for working status is even larger than the coefficient for ethnic minority. This may be a reciprocal relationship. Many young people get married then have to work to feed their family, while many other people may get married early because they are unemployed. Since young women usually stay home to take care of children, the probability that males work after marriage is much higher than for females. It is necessary to conduct a more comprehensive study to examine this.

In summary, the above analysis shows a clear pattern that: early school leaving, early marriage, and early employment are three different issues but they are tightly correlated and are a common situation of many young people and adolescents in Viet Nam, especially among ethnic minorities and certain regions as mentioned above.

5.4.2 Delayed marriage

In this analysis, based on social norms and distribution of marital status by age in Viet Nam, delayed marriage is defined as the situation of individuals who delay marrying till after the age of 40. The term delayed marriage is used for convenience, but in fact, includes also people who will never marry. In addition, it should be noted that delaying marriage, as defined in this monograph, does not necessarily correspond to the level of SMAM in the population.

According to estimates from the Census sample survey data, by the time of the 1999 Census in Viet Nam, there were more than 84 000 males and 371 000 females aged 40 and older who had never been married, accounting for 1.1% and 3.8% of males and females respectively in this age cohort (Table 5.3). Ten years later, by the time of the 2009 Census, the corresponding numbers had increased to 210 000 males and 635 000 with the proportions at 1.7% and 4.4%, respectively. The absolute size of the never-married population increased greatly over the past ten years not only because of the increases in the size of the total population but also because of increases in the proportion never-married in the population. Particularly, from 1999 to 2009, the proportions never-married among males aged 40–49 and of both sexes aged 50–59 and 60–69 had all increased. Only the proportion never-married among females aged 40–49 had decreased (from 6.2% to 5.7%), most likely because of the recent decline in the population sex ratio. However, in general, the number and the proportion delaying marriage among females are much higher than among males, reflecting the situation of low sex ratio of the population in Viet Nam in the last several decades (see Chapter 3)

Table 5.3: Proportion and number never married among the population aged 40 and older by sex and age group in Viet Nam, 1999 and 2009

	Age group				Total
	40-49	50-59	60-70	70+	
Proportion (%):					
Male 1999	1.6	0.8	0.4	0.5	1.1
Male 2009	2.7	1.2	0.6	0.3	1.7
Female 1999	6.2	3.6	1.5	0.9	3.8
Female 2009	5.7	5.3	3.2	1.0	4.4
Number:					
Male 1999	58 196	14 766	6345	5071	84 378
Male 2009	153 643	41 778	9686	5316	210 423
Female 1999	248 910	78 661	28 126	15 818	371 515
Female 2009	330 164	215 609	64 160	25 186	635 118

From the birth cohort perspective, the size of the never-married population has decreased during the period 1999-2009. In 1999, about 58 000 males aged 40–49 were never-married, accounting for 1.6% of the cohort. In 2009, this cohort now aged 50–59 years had only 42 000 never married males, accounting for 1.2% of this birth cohort. The numbers declined not only because of marriage, but also because of mortality and international emigration. However, if mortality and international migration rates are not much different by marital status, the decline of about one third (from 1.6% to 1.2%) would be close to the proportion getting married in this cohort over the 10 years between the Censuses. For other cohorts in Table 5.3 (except the cohort 70+ because of the strong effects of mortality), the probabilities of getting married in the ages 40 and older for males (about 25% after 10 years) are higher than for females (less than 15% after 10 years).

Table 5.4: Proportion never married among males and females aged 40 and older by age group and region in Viet Nam, 2009

	Age group				Total
	40–49	50–59	60–70	70+	
Male (%):					
Urban	5.0	2.2	1.0	0.5	3.1
Rural	1.7	0.7	0.5	0.3	1.1
Total	2.7	1.2	0.6	0.3	1.7
Female (%):					
Urban	7.9	7.1	4.3	1.8	6.3
Rural	4.6	4.5	2.7	0.7	3.6
Total	5.7	5.3	3.2	1.0	4.4

Table 5.4 compares the status of never-marriage after age 40 of males and female in urban and rural areas in 2009. The results show that, delayed marriage is more frequent in urban areas than in rural areas in all four age groups of both sexes. The proportion never-married among males in the age group 40–49 in urban areas is about three times higher than in rural areas (5% versus 1.7%), and the proportion never-married among females in urban areas is about 1.7 times higher than in rural areas (7.9% versus 4.6%). This corresponds to the general pattern that delayed marriage or never marriage is becoming more common in regions with higher levels of economic development and industrialization.

Figure 5.22 presents the maps for the proportion never married for both sexes among people age 40 and older in all provinces in Viet Nam in 2009. It is likely that the pattern of “delayed marriage becoming more common in areas with higher levels of economic development and industrialization” is more consistent with the situation in provinces from Da Nang and further south. The proportion never married among the population aged 40 and older is highest in more industrialized provinces such as Da Nang, Ho Chi Minh City, and Binh Duong. In the North, the situation is different when the highest proportions delaying marriage are not found in Hanoi or Hai Phong, but in Ha Giang (for males) and Thai Binh, Ha Nam, Nam Dinh, and Ninh Binh (for females). Thus, it can be concluded that delayed marriage in Viet Nam is not only related to the level of industrialization but also depends on other socio-cultural factors.

Figure 5.22: Maps of the proportion never married among the population aged 40 and older by province in Viet Nam, 2009

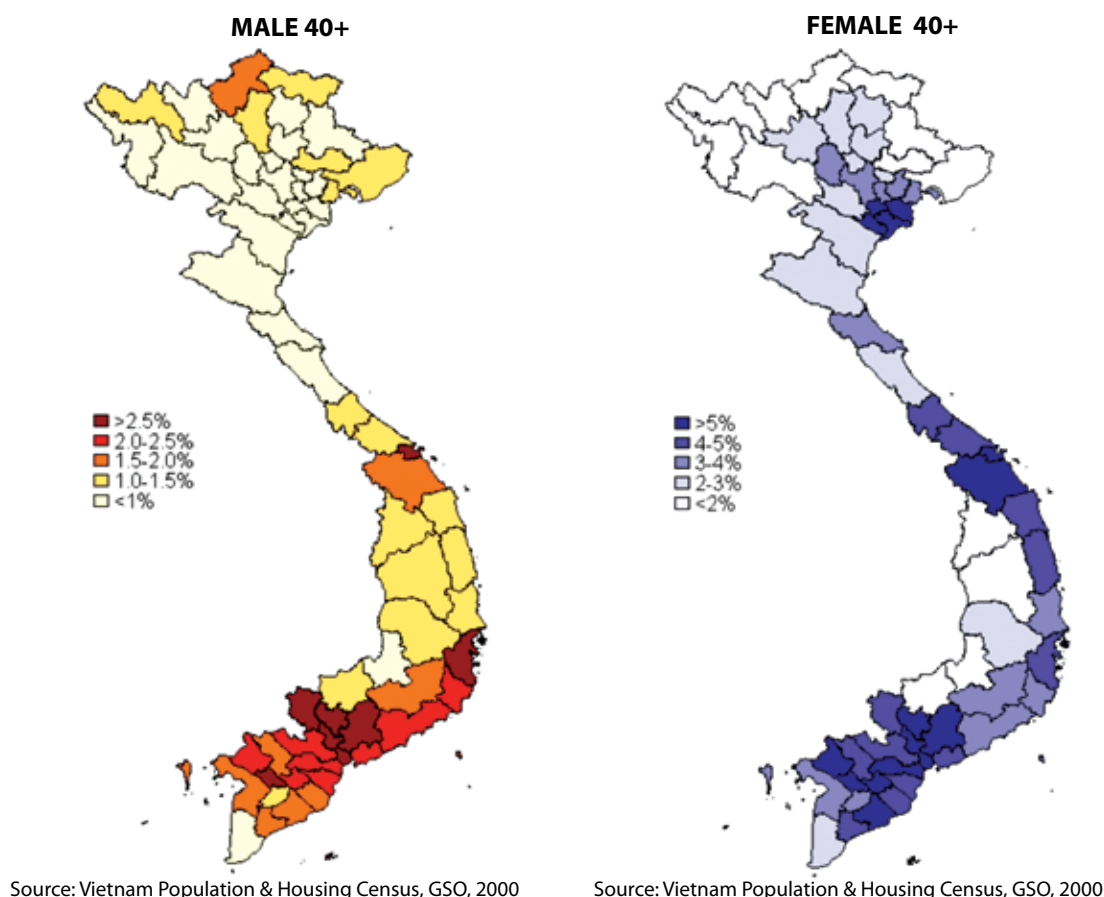
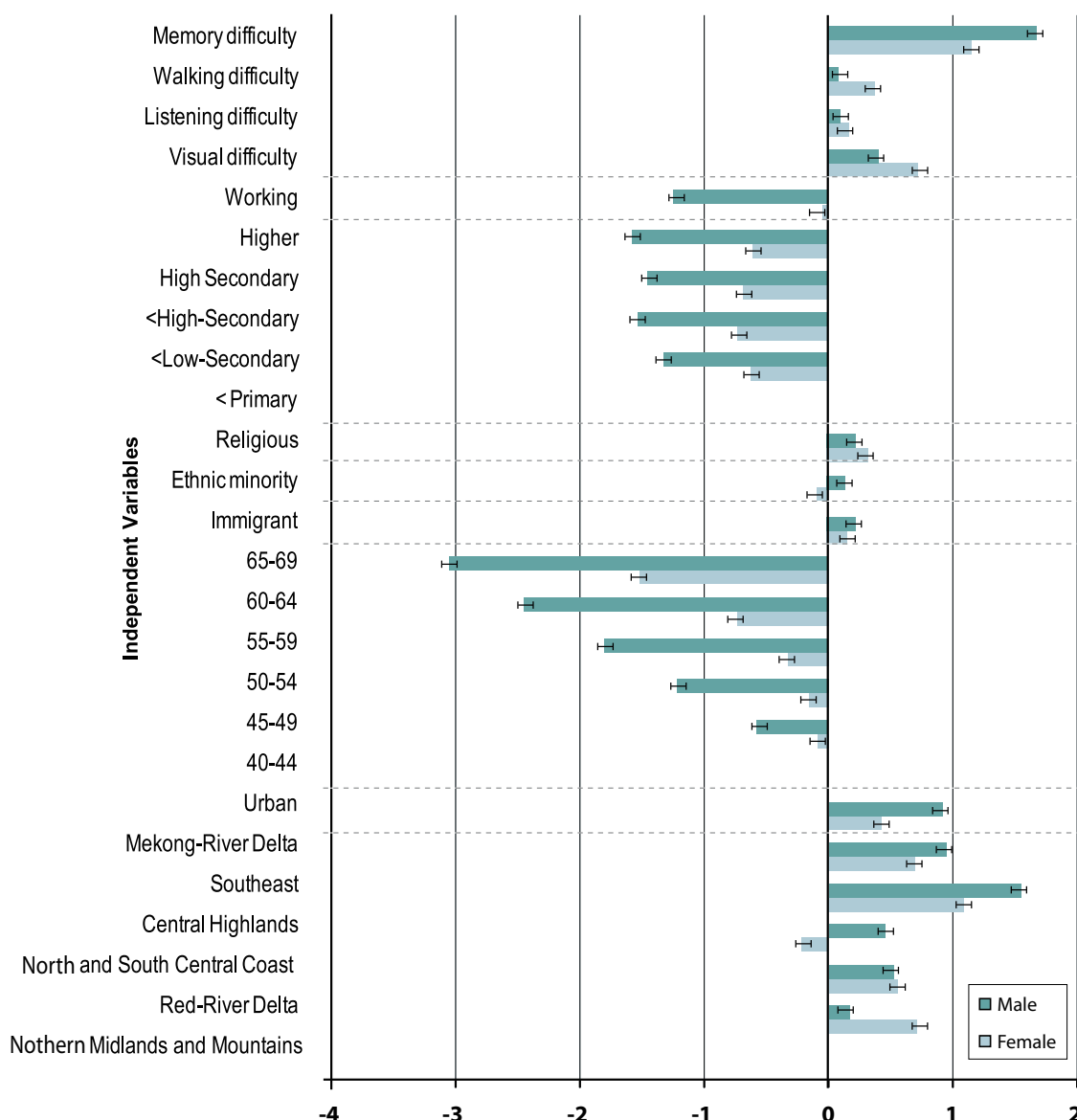


Figure 5.23 presents the regression model of probability of never-marriage among the population aged 40–69 in Viet Nam in 2009. The age group 70+ is excluded from the model because of the small proportions never married and strong influence of mortality. The dependent variable is delayed marriage status of individuals (never-married =1, ever-married=0). The independent variables are the same as in the model in Figure 5.21 but include also four types of disability status: vision, hearing, walking, and memory. Other technical specifications and interpretations are similar to the previous regression model. In general, the results indicate that, in comparison to the previous model on early marriage, the independents variables in this regression model explain smaller part of the variation of the dependent variable, especially in female group. The reason is that delayed marriage may be more strongly related to other omitted variables. Below can be found the analysis of the relationship between each independent variable and the probability of never-marriage among the population aged 40–69.

The results show that among males and females aged 40–69, the probability of never-marriage is higher than the Northern Midlands and Mountains for all five remaining regions, especially for the Southeast and Mekong River Delta. Only the regression coefficient for females in the Central Highlands is negative. Thus, holding constant the other independent variables in the model, females

in the Central Highlands and males in the Northern Midlands and Mountains are most likely to be married by age 40 in comparison with other regions. On the other hand, for both males and females, the probability of delayed marriage in the Southeast was significantly higher than in other regions.

Figure 5.23: Coefficients of the logistic regression on the probability of never marriage among the population aged 40–69 in Viet Nam, 2009



Regarding urban and rural areas, the regression model once again confirms the results analyzed in Table 5.4. Population aged 40–69 in urban area is more likely to be never-married than in rural areas, and the difference is clearer for males than for females.

Third, regarding age, the probability of being never-married decreases quickly as age increases, especially for males. That means as age increases, the proportion delaying marriage decreases because many individuals get married after they turn 40 (not because old people can get married more easily than the young). Only for females, the difference between the age group 40–44 and 45–49 is not statistically significant.

Forth, regarding migration status, the results show that for males and females aged 40–69, in-migrants have a higher probability of delaying marriage than non-migrants. Combined with the results in the regression model in Figure 5.21, it can be concluded that migration is relevant to both early and delayed marriage of females in contemporary Viet Nam.

Fifth, regarding ethnicity, it is interesting that, the probability of delayed marriage among ethnic minority males is higher than among Kinh males. In contrast, the probability of delaying marriage among ethnic minority females is lower than for Kinh females, holding other variables constant. The difference is small but it is statistically significant. One of the possible reasons is that the sex ratio among the young and middle-aged people in the ethnic minorities is lower (more balance) than in the Kinh population.

Sixth, concerning religion, the probability of being unmarried among both males and females who are religious adherents is higher than in the non-religious groups. This seems reasonable as some people do not marry because they are religious adherents, while some people become religious because they are unable to get married.

Regarding educational attainment, people with higher educational levels are less likely to delay marriage compared to those with less than primary education, and the difference is stronger for males than for females. Thus, low educational levels may be the direct or indirect cause of delaying marriage for people aged 40–69, especially for males. However, the regression coefficients do not vary much between the level at “less than lower secondary school” and the higher levels, especially for females. This shows that the probability of delaying marriage among people aged 40–69 is not significantly related to educational achievement, except for the group “less than primary school” that are more likely to be married at the age 40–69. If high educational attainments leads to later marriage, it must be very high educational achievement such as post-university, not the educational levels considered in the regression.

The results on working status show that there is a significant difference between males and females. The probability of delaying marriage among working males is significantly lower than for non-working males. However, the working status of females aged 40–69 is not significantly related to their probability of being unmarried. This result corresponds with the general view that working males can more easily get married than unemployed males and vice versa, married males are more responsible than unmarried males so they find jobs in order to be the breadwinners for their families.

And last but not least are the results on disability status. As predicted, people with disabilities have a higher probability of delaying marriage than people without disabilities. The highest probability of delaying marriage is for people with memory disability (difficulty with memory and concentration), followed by people with vision disability (difficulty in seeing even with glasses). Males with walking disabilities (difficulty in moving around) and hearing disabilities (hard of hearing) are more likely to delay marriage than people without disabilities, but the differences are small. Compared to the female model, the male model reports a higher coefficient for memory disability, lower coefficients for vision and walking disabilities, and a similar coefficient for hearing disability.

In short, delayed marriage (defined as being unmarried among the age group age 40 to 69) is most correlated to low educational attainment, disability (especially memory and vision disability), religious adherence, in-migration status, and residence in the Southeast and the Mekong River Delta.

5.4.3 Divorce and separation

As divorce and separation have already been presented in detail in section 4.2, this section includes only the analysis of the regression model in Figure 5.24. The data are taken from the 2009 Census sample survey, and include people aged 15–69 who are married, divorced or separated. People aged 70 and older are excluded from the sample used for analysis since this cohort tends to have high mortality rates which may strongly influence the general results.

The dependent variable is divorce/separation status of individuals (divorced or separated=1; married=0). Independent variables are the same as the regression model in Figure 5.23, but the model for females also includes the variable ever given birth. The dependent variable estimated from the regression model is called the probability of separation/divorce for simplicity, but it is actually the probability of having separated/divorced status (not the probability of becoming divorced or separated). Other technical specifications and explanations are similar to those in the two previous regression models.

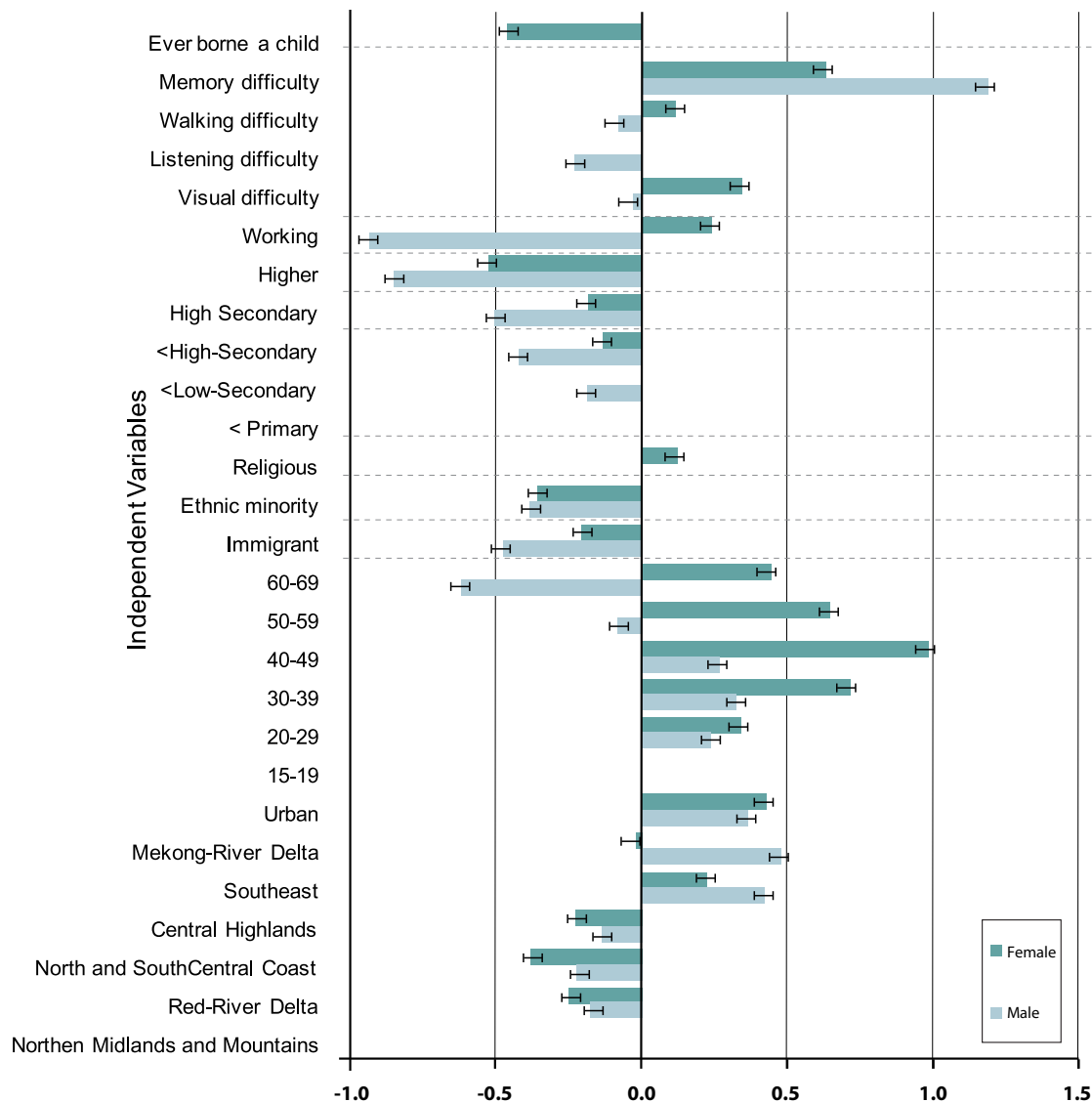
The results show that, unlike in the previous regression model on early marriage, the independent variables in this regression model explain just a small part of the probability of being divorced/separated. The reason is that divorce and separation often depend more strongly on other omitted factors. Following is the analysis of the relationship of each independent variable with the probability of being divorced/separated among the ever-married and not widowed population aged 15–69.

In analysis by region, holding all other variables constant, the probability of being divorced/separated among ever-married people in the Northern Uplands is higher than in the Red River Delta, the North and South Central Coast, and the Central Highlands, but is lower than in the Southeast. Males in the Mekong River Delta have much higher probability of being divorced or separated than males in the Northern Midlands and Mountains, but there is no significant difference in this probability for females between these two regions.

Second, results related to rural and urban residence. Males and females in urban areas are more likely to be divorced or separated than in rural areas. This corresponds to theory and to many previous studies on marriage and divorce.

The third finding relates to age, for ever-married women, the probability of being divorced or separated is lowest among the ages 15–19, and increases gradually, peaking at the age group 40–49, and then declining in the two subsequent age groups. For ever-married men, however, the probability of being divorced or separated increases gradually among the first three age groups (15–19, 20–24, and 25–29), and then decreases to a very low level at the age group 60–69, even lower than in the age group 15–19. Thus, the correlation between the probability of being divorced or separated and age follow a bell shape with the peak at the age group 30–39 for males and 40–49 for females. It should be noted that this reflects the divorced/separated status by age at the time of Census, not the age of separation or divorce.

Figure 5.24: Coefficients of the logistic regression on probability of separation or divorce among the population aged 15–69 in Viet Nam, 2009



The fourth variable is in-migrant status. The probability of being divorced or separated among in-migrants is significantly lower than among the non-migrants. Maybe the reason is that most migrants tend to move from places with lower levels of modernization to more modern ones but they are still influenced by traditional living styles, culture and social values of the places of origin. The coefficients on the relationship between in-migration and divorced/separated status is larger among males than females.

The fifth variable is ethnic minority status. The probability of being divorced or separated among ethnic minorities is significantly lower than among the Kinh majority and the regression coefficients are not much different between the male and female models. This corresponds to the theory on impacts of modernization on marriage as most ethnic minority groups in Viet Nam have more traditional and less modernized societies than the Kinh people.

The sixth variable analyzed is religion. It is slightly surprising that the probability of being divorced or separated among women religious adherents is significantly higher than among those who don't follow a religion. The regression results show no such difference among males. However, we cannot conclude that religion leads to divorce or separation, in particular for women, because religious belief generally tends to reduce the possibility of being divorced or separated, but on the other hand, separation or divorce may lead someone to become more religious,. however, only the combined impact of the two influences is expressed in the regression model.

The seventh variable assessed is educational attainment. For both males and females, the higher the educational attainment, the lower the probability of being divorced or separated and the difference is greater for males than female. This matches results from the Survey on the Family in Viet Nameese in 2006. Normally, societies with higher levels of modernization and industrialization tend to experience higher levels of educational attainments and divorce/separation than traditional ones. However, results from the regression model present the opposite result that higher educational attainment does not lead to higher probability of divorce. In addition, a notable point is that there is no difference in probability of being divorced/separated among women with less than primary schooling and women with less than lower secondary schooling.

The eighth variable examined is working status. It is notable that the relationship between the probability of being divorced/separated and working status is in different directions for males and females. Working males have significantly lower probability of being divorced/separated than non-working males, but working females have a higher probability of divorce/separation than non-working females. This may be because the pattern of "the husband working and the wife doing housework" remains common and if such families experience divorce or separation, women end up having to work. Another reason is that it is usually women who initiate divorce/separation in Viet Nam (UNICEF, 2008) when their status in the family is not lower than men. Thus, if women work or/and men do not work, women's status increases and the probability of being divorced or separated also increases.

It has long been argued that increased labour-force participation of women was a major factor in the rise in divorce rates. The causal mechanism cited for this relationship is typically that the increase in labour-force participation increased women's income, and thus their ability to participate in society outside the family, and in part increases their contacts with people of the opposite sex in the workplace. Another opinion is that divorce and separation increased because traditional roles of Viet Nameese women became a burden for them when the participate in the labour force.

The ninth variable studied is disability status. It is obvious that people with memory disabilities are much more likely to divorce or separate than people without disabilities, and the difference is larger for males than for females. The probability of being divorced or separated among women with walking disabilities or vision disabilities is significantly higher than women without disability. There is no significant difference in the probability of divorce or separation between males with vision disability and those without, maybe because severely short-sighted people are also considered as having a vision disability (they tend to have average or higher educational levels). It is surprising that males with hearing and walking disabilities have a lower probability of being divorced than males without disabilities. These disabilities are clearly not as unacceptable to women as memory disability. According to the Survey on the Family in Viet Nam in 2006 ((UNICEF, 2008), among divorce cases, nearly 28% of divorce was due to lifestyle conflicts, 26% due to adultery and only 2.2% due

to health problems. Thus, health may not be the main problem for family happiness for males with hearing and walking disabilities. If the two main reasons for divorce mentioned above rarely happen to this male group, their family sustainability is understandable. However, this is only a hypothesis that needs to be tested.

The final variable identifies women who have ever given birth. After marriage, women with children may be less likely to be divorced or separated than women without children. It is clear that in Viet Namese society, children strongly secure the family relationship. Many couples divorce because of childlessness, and many others have serious spousal conflicts but cannot divorce because of children.

In short, divorce and separation in Viet Nam are associated mainly with low educational levels, middle aged women, childless women, non-working males, memory disabilities, the Kinh majority, urban residence, living in the Southeast, and males living in the Mekong River Delta.

CHAPTER 6: CONCLUSIONS AND POLICY RECOMMENDATIONS

6.1 CONCLUSIONS

6.1.1 Age-sex structure

Age structure of the population in Viet Nam in 2009 is typical of a population in the latest stage of demographic transition with the changes in fertility and mortality from high to low levels. The population pyramid has a more narrowed base because of fertility decline, and a more gradually narrowed top because of the increase in life expectancy.

There is a clear difference in population structure between rural and urban areas. In rural areas, the group aged 15–19 accounts for the highest proportion of the population and is substantially higher than the adjacent younger and older age groups. In urban areas, the age group 20–24 has the highest proportion of the population and again the proportion in this group is much higher than in adjacent age groups. The age pyramid of the urban population is also strongly influenced by in-migration, contributing to a high proportion of people in working ages.

The age-sex structure of population in different regions and provinces is shaped not only by fertility and mortality but also by migration. The age pyramids of the Northern Midlands and Mountains and Central Highlands are typical of populations with relatively high fertility and mortality rates. However, the population pyramid in the Northern Midlands and Mountains has a narrower base as the mortality rate in this region has decreased more rapidly than in the Central Highlands. The age pyramid of population in the Central Highlands is also notably influenced by in-migration.

The populations of the Red-River Delta and Mekong-River Delta have characteristics of those with low fertility and mortality rates, which lead to population pyramids with relatively narrower bases and wider tops than in the other regions. Since the Red-River Delta has negative net migration rate and major part of migrants are at the working ages, the base of its population pyramid is considerably narrowed.

The populations of the North and South Central Coast and the Southeast are typical of those affected by large migration flows in opposite directions. As the North and South Central Coast has a high proportion of out-migration, concentrated in younger ages, their population pyramids narrow abruptly in the age groups 20–24 and 30–34 for both males and females. In contrast, as the Southeast received a high proportion of in-migrants concentrated in young ages, its population pyramid has a wider body. This is the only one of Viet Nam's six regions in Viet Nam that has the highest proportion of the population in the age group 20–24 (other regions have the highest proportion in the age group 15–19).

From 1999 to 2009, the proportion of the population under 20 years of age declined while the population aged 20–59 increased considerably. The change in shape of the age pyramids from 1979

to 2009 has clearly illustrated the aging process of the population in Viet Nam, corresponding with the gradual increase in the aging index from 16.6 in 1979 to 24.3 in 1999 and 35.5 in 2009.

The total dependency ratio of Viet Nam has declined dramatically since 1979. If one considers independent ages as the age group 15–64, the total dependency ratio of Viet Nam has reached a “golden population structure” (total dependency ratio of 50 or lower) since about the end of 2007, and this has continued to fall to 44.7 by April 2009. The decline in the total dependency ratio in Viet Nam was primarily caused by a drop in fertility. The decline in mortality led to a slight increase in the old-age dependency ratio.

Among the six regions, the Southeast, Mekong River Delta, Red River Delta, and Northern Midlands and Mountains have been experiencing a period of “golden population structure”. The North and South Central Coast has not yet reached the “golden population structure”, but is expected to enter this period next year since its total dependency ratio is already at 50.4.

In 2009, 43 out of 63 provinces in Viet Nam had the total dependency ratio under 50, or in other words, they are experiencing a period of “golden population structure”. The provinces with low total dependency ratios often have low total fertility rates but high net in-migration among the working-age group. The province with the lowest total dependency ratio is Binh Duong (28). Among the remaining 20 provinces, 9 have total dependency ratios under 55 and will enter the period of “golden population structure” in the next five years. The total dependency ratios of all other 11 provinces are not very high. The province with the highest total dependency ratio is Lai Chau (71). Among ten major ethnic groups, 6 groups have entered a period of “golden population structure”. The ethnic groups with the highest total dependency ratio are the Gia Rai (72.9) and the Hmong (95.0).

As a direct consequence of its demographic transition, the population in Viet Nam is aging very rapidly with the aging index (60+) increasing from 18.3 in 1989 to 24.3 in 1999, 35.5 in 2009 and the expectation that it will continue increase more rapidly. In 2009, the number of aged people (60+) was one third of the number of children under age 15. According to the population projection in this monograph, by 2030, the numbers of the aged and children will be equal. The ratio of aged people to children will continue to increase. Compared to the child population, the aged population will be 1.5 times higher in 2047, and two times higher by 2060.

From 1999 to 2009, the population of Viet Nam has undergone substantial aging but with different levels across provinces. In 1999, only seven provinces in the Red River Delta and Ho Chi Minh City had aging indices higher than 30. In 2009 however, not only the Red River Delta but also almost all provinces in the north-western provinces of the Northern Midlands and Mountains, the North and South Central Coast and the Southeast and some neighbouring provinces are experiencing this level of the aging index. The aging indices in most provinces in the north-western provinces of the Northern Midlands and Mountains and Central Highlands remain quite low (under 20).

The sex ratio of the population in Viet Nam has gradually decreased over the 60 years from the 1930s to the 1990s, mostly because of the consequences of war. The peaceful period over the last 30 years and the increasing sex ratio at birth have led to a recovery of the sex ratio in the population, which has now reached to 97.6 males for every 100 females in 2009. Combining all age groups, the sex ratio remain relatively low (under 95) in three provinces, including Thai Binh, Binh Duong, and Ho Chi Minh City. The sex ratios among population in working ages (15–59) are similar across provinces. However, the sex ratios of children (under 15) and the aged (aged 60 and above) vary

quite substantially. The sex ratios of children under age 15 are relatively high, 106.9 at the national level and more than 105 in 54 of 63 provinces. Even if child sex selection is totally eliminated as of today, Viet Nam will still have to face a considerable level of male surplus and female shortage in marital ages in the future because the male surplus among the population aged under 20 in 2009 is nearly 900 000. In contrast, the sex ratio among the aged population is relatively low, only 67.8. As many as 56 out of 63 provinces have an aged sex ratio lower than 75, and for 14 provinces, the ratio is lower than 65. Among the ten largest ethnic groups, the sex ratios are lowest for the Kinh group (94.7) and highest for the Hoa group (105.2).

The number of women aged 15–49 will continue to increase until 2028 (an increase of about 75,000 women per year) and decline afterward. However, the proportion of women aged 15–49 has peaked in 2009. Thus, even if the TFR remains at the present level (TFR=2.03), the number of births will continue to increase over the next ten years, but the crude birth rate of the population in Viet Nam will gradually decrease.

In general, in comparison with previous generations, young people have higher levels of educational attainment and there is a smaller educational disparity between males and females. However, the fact that the unemployment rate of young population remains high may be related to limited practical skills. In addition, existing social factors may not allow for fair competition between the young and the old in the labour market.

6.1.2 Household structure

Similar to the age and sex structures of the population, household structure in Viet Nam has changed remarkably in the last three decades of the demographic transition. Mean household size decreased quickly, from 4.8 people in 1989 to 4.5 in 1999 and 3.8 in 2009. The regions and provinces with low population density and low economic development tend to have larger household size. Mean household size in rural areas is larger than in urban areas but the difference is small (3.7 versus 3.8). Four-member households have become the most common in Viet Nam (28.4%). Mean household size has decreased in the last two decades mostly because the proportion of children under age 15 in the total population has decreased considerably.

The proportion of one-person households out of all households in Viet Nam has seen a notable increase from 4.4% in 1999 to 7.3% in 2009. Meanwhile, the proportion of one-person households consisting of an aged person out of all households has increased 1.5 times, from 1.8% to 2.6%. In 2009, the proportion of one-person households out of all households varied from the highest level in the Red River Delta to the lowest level in the Central Highlands and Northern Midlands and Mountains. The one-person household proportion in urban areas is significantly higher than in rural areas (8.1% and 6.9%). Most people living alone are females, especially for age groups starting at 45. However, among people living in one-person households, the proportion female has decreased from 72.9% in 1989 to 67% in 2009.

During the last two decades, because of the falling fertility rate, the proportion of households with children under age 15 has declined rapidly, from 85.9% in 1989 to 58.0% in 2009. Meanwhile, the proportion of households with aged people has not changed much. The proportion of households without dependent-age members has more than doubled, from 14.3% in 1989 to 30.8% in 2009. At the same time, the proportion of households with at least half the members in dependent ages has dropped rapidly from 53.8% to 33.5%.

Up till 2009, most household heads in Viet Nam are still male and this tendency actually appears to be increasing compared to the level in 1989 (from 68.1% to 72.9%). During this period, the mean age of male household heads has increased about two years while the mean age of female household heads has almost not changed. Most male household heads are married (93.3%) while the proportion married among female household heads is much lower (40.3%), especially in rural areas (32.5%). The proportion of never-married people among all household heads has remarkably increased during the last two decades (from 2.6% to 5.7%), especially among female heads in urban areas.

In short, the general trend in Vietnamese households is towards decreasing size, increase in the prevalence of one-person households, and declines in the dependency ratio. These are typical characteristics of households in a population completing the demographic transition. However, Viet Nameese households still report the traditional high prevalence of male headship. These characteristics are not uniform across regions due to different cultures and living standards.

6.1.3 Marital status

In the last two decades, the situation of marital status in Viet Nam indicates that females usually get married earlier than males; by the age 50, almost all people in Viet Nam have ever been married; in most age groups, the proportion separated or divorced among females is higher than among males. In 2009, the proportion of married people among those aged 35–39 years was nearly 90% and the proportion was even higher for males and for people in rural areas.

However, there is a clear tendency towards increasing mean age at first marriage in Viet Nam. In 1989, only a small proportion of women had not been married by the age of 50 but by 2009, this figure had clearly increased. By 2009, more than 50% of females aged 60 and over were living outside of marriage, a situation only seen among men for the ages 85 and older. Compared to two decades ago, nowadays women are likely to get married later but their possibility of being married by the age 40 is higher.

In 2009, the proportion widowed among females is always higher than among males (about 8–10 times higher for age groups under 60 and from 3 to 6 times higher among age groups 60 and older), but not much different between rural and urban areas. The proportion widowed in the population is lowest in the Red River Delta and highest in the Mekong River Delta for men and in the Central Highlands for women.

The level of divorce and separation among females tends to be much higher than among males, both in absolute number and proportion. For the population aged 15 and older, the proportion divorced is 0.9% for males and 2% for females, corresponding to about 287 000 and 658 000 males and females respectively. The most probably explanations for this are related to the higher probability of remarriage and mortality among males than females. The highest ratios of divorce/separation to marriage are found in the group 40–44 for males (1.6%) and 50–54 for females (4.4%). The proportion divorced or separated is significantly higher in urban areas than in rural areas for all groups aged 30–34 and older. The ratio of divorce/separation to marriage in the Southeast and the Mekong River Delta is much higher than in the other four regions. For females, the ratio of divorce/separation to marriage in the Southeast in the ages between 30 and 70 is notably higher than in the other regions.

The ten provinces with the highest levels of male divorce/separation to marriage ratios are concentrated in a cluster bounded by Ho Chi Minh City and, Tay Ninh on south to Hau Giang and Tra Vinh. The seven provinces with the highest level of female divorce/separation to marriage ratios on the map are found in the region from Khanh Hoa on south (Khanh Hoa, Ho Chi Minh City, Tay Ninh, Binh Duong, An Giang, Tra Vinh, Ba Ria – Vung Tau). The four provinces of Ho Chi Minh City, Tay Ninh, An Giang and Tra Vinh have the highest divorce/separation to marriage ratios for both males and females. In general, the distribution of divorce/separation to marriage ratios by age varies across urban and rural areas, regions and provinces. In short, divorce and separation in Viet Nam are associated with low educational levels, middle aged women, childless women, non-working males, people with memory disability, the Kinh majority, urban residence, living in the Southeast, and males in the Mekong River Delta.

In 2009, the SMAM was 26.2 years for males and 22.8 years for females. Both female and male SMAM in urban areas was higher than in rural areas. The SMAM was lowest in the Northern Midlands and Mountains, following by the Central Highlands, and highest in the Southeast. The SMAM was highest in the Kinh group, followed by the Khmer, Tay, Muong, and lowest among the Hmong group. Educational attainment is one of the factors most strongly associated with age at first marriage. People dropping out of school early are more likely to get married early and people who marry early often have to leave school, and miss opportunities due to lack of conditions to study for higher educational attainment. Child marriage and early marriage in the north-western provinces of the Northern Midlands and Mountains are relatively common. For instance, in Lai Chau, about 18.7% of males aged 15–19, 33.8% of females aged 15–19, and 21.2% of females aged 15–17 are ever married. This means about one fifth of the male population and one third of the female population aged 15–19 in this province have ever been married. In total, there are 6 provinces with more than 10% ever married among males aged 15–19, and 10 provinces with more than 5% ever married among females aged 15–17.

Rural females in the Central Highlands and the Mekong River Delta, both males and females in the rural north-western provinces of the Northern Midlands and Mountains, especially the ethnic minority groups, and people with low education levels, should be the key target groups of policies discouraging child and early marriages in Viet Nam. Early school leaving, early marriage and early labour force participation are three strongly related issues.

The situation of delayed marriage is tending to increase. In 1999, More than 84,000 males and 371,000 females among the population aged 40 or older had never married, accounting for respectively 1.1% and 3.8% of these groups. Ten years later, in 2009, the corresponding numbers increased to more than 210,000 males (1.7%) and 635,000 females (4.4%). The situation of delayed marriage is more prevalent in urban areas, in the Southeast and the Mekong River Delta, in the group with low educational attainment, especially people with vision or memory disabilities. In general, the socio-demographical factors considered in this analysis are related to child and early marriage more than to delaying married or divorce and reparation.

6.2 POLICY RECOMMENDATIONS

Even with the total fertility rate in Viet Nam below replacement level, and continuing to fall to 1.8 children by 2024 and remaining unchanged afterward, the population of Viet Nam will continue to increase to 95.5 million in 2019, 102.6 million in 2029, 107 million in 2039, and to a maximum of

108 million in 2046 before starting to fall. That is, within the next ten years, Viet Nam's population will increase by more than 9 million people. Therefore, it is necessary for Viet Nam to have suitable economic development policies so that this substantial increase will not be a barrier for progress in economic development, poverty reduction, and living standard improvement, but instead will provide conditions amenable for the implementation of these strategies.

It is estimated that the number of women aged 15–49 will continue to increase until 2028 but that the rate of increase will decline considerably in comparison to the previous decade. Namely, in the next ten years, the female population in reproductive ages (15–49) will increase by 75,000 people annually, instead of 369,000 people per year in the 1999–2009 period. Thus, the demands on reproductive health and family planning services will continue to increase in the near future. However, because the size of increase will be smaller, the government will be able to focus more on improving quality of reproductive health service systems and family planning programs instead of expanding them.

It is likely that the number of children (aged 0–14) will continue to increase in the next decade and decline afterward (from nearly 21 million in 2009 to 21.8 million in 2019 and only 18.4 million in 2039). This is a good condition to raise government investment per capita in order to improve the quality of education and health services for youth, and thus to improve the quality of the labour force in the future.

The total fertility rate of Viet Nam has already fallen below replacement level. Experience from many countries shows that, once the fertility rate has declined to a too-low level (TFR under 1.5), it would be difficult to increase it again and as a result, the population structure would become too old, the population would decline rapidly, and a large shortage of labour force would result. Some western countries with very low fertility rates have to rely on immigrants to meet demand in the labour market. Therefore, it is necessary for Viet Nam to prepare a strategy to maintain the total fertility rate at a level higher than 1.8, or even better, at the replacement level (2.1). This will help to avoid the situation of a population structure that is too old and labour shortages in the future.

Viet Nam has reached the period of “golden population structure”, which may continue over the next 30 years. This is a “window of opportunity” with the most advantageous population features for completing the transformation towards industrialization and modernization in Viet Nam. In order to take full advantages of the “golden population structure” to develop the economy, it is necessary to reduce the unemployment rate, to increase the number of jobs requiring skilled and highly productive workers to increase labour productivity. At the same time, it is necessary to set up investment policies for development, especially investments for improving the quality of human resource among the young via health, education, and modern technical training.

Population aging is not an urgent issue in the current period but it needs to be taken into account soon as the proportion of aged people in the population is increasing quickly. The fact is that most aged people in Viet Nam are economically dependent on others, and they tend to often suffer from chronic and acute conditions. Thus, if there are inadequate social welfare support policies, they would face many hardships in their lives. Social insurance policies, health insurance, and retirement policies need to respond to the aging population, decreasing family size, and increasing proportions of one-person households and widowed people, especially females. It is necessary to have policies for a modern social insurance system that has wide coverage and is sustainable in the market economy.

Concretely, contributions to the social insurance fund of people in working ages should be in line with the basic costs of living of people when they leave working ages in the future, especially for current workers who are benefitting from the golden population structure. However, in the labour code as well as in the law on the elderly, this policy is not yet clear. In addition, there is a need for policies aimed at strengthening the self-sufficiency of aged people and at the same of encouraging families and the community to take responsibility for care of the aged.

As the population is aging fast, current relatively low age at retirement in Viet Nam, especially for female (55 years), will become unsuitable. Thus, a plan for extending the retirement age should be prepared soon because it requires a particular process.

It is necessary to carry out more stringent policies to prevent the increasing sex ratio at birth. However, Viet Nam needs not only to prevent but also to cope up with the situation of surplus male population in the near future. Perhaps it is necessary to examine the experience of Korea, Taiwan, and China to help in setting up appropriate policies.

The government needs to continue communication programs and apply more effective methods to reduce the relatively high rates of child and early marriages in some provinces, especially in the Northern Midlands and Mountains among many ethnic groups. In addition, it is essential to have more studies to examine in more details the increasing prevalence of divorce and separation in some urban areas such as the Southeast and Mekong River Delta to establish suitable policies. More effective investment in education is a basic and long term solution for both early marriages and divorce and separation.

In general, Viet Nam's population has been experiencing great changes in size, quality, and structure, and has gradually moved to a period of post demographic transition. Nevertheless, these changes vary significantly across population groups as well as regions. policies on population, marriage, family, and development should be flexibly established and deployed to correspond to the diversified demographic features in Viet Nam, depending on region, ethnicity, and other factors. For instance, the government should continue the policies for population in the midst of demographic transition in the Central Highlands, Northern Midlands and Mountains, disadvantaged provinces, and ethnic-minority groups. On the other hand, effective policies dealing with emerging issues in post demographic transition are also necessary, especially in the Red River Delta, the Southeast, as well as in provinces with advanced economic development.

Clearly development and implementation of diverse policies is not simple, especially when relevant information is inadequate. Therefore it is recommended to implement more comprehensive studies on persistent issue of population and family such as child marriage, gender inequality, or emerging issues such as population aging, divorce/separation, delayed marriage, and one-person households. It is necessary to examine the correlations among economic, cultural, and social determinants and these population issues for design of appropriate policies. In addition, it is crucial to implement more detailed population projections at both national and provincial levels to provide necessary information for mid and long-term planning and policy making, in order to maximize mobilization of population potential for socio- economic development in Viet Nam.

REFERENCES

- Bongaarts, J., T. Burch, K. Wachter (ed.), 1987. *Family Demography: Methods and their Applications*, International Studies in Demography, Clarendon Press, Oxford.
- CPHCSC, 1989. *Population and Housing Census 1989: Major Findings*, Hanoi.
- CPHCSC, 2009. *The 2009 Viet Nam Population and Housing Census: Expanded Sample Results*, Hanoi.
- CPHCSC, 2010. *Population and Housing Census 2009: Major Findings*, Hanoi.
- Dunekar, K. and D. Unde, 1967. Inter-state and intra-state differentials in household formation rates, in A. Bose (ed.), *Patterns of Population Change in India, 1951-1961*, Allied Publishers, Bombay.
- Endruweit & Trommsdorff, 2002. *Từ điển Xã hội học*, World Publishing House, Hanoi.
- GSO, 2002. *Chuyên khảo về hôn nhân, sinh đẻ và tử vong ở Việt nam: mức độ, xu hướng và những khác biệt*. Statistical Publishing House, Hanoi.
- GSO, 2007. *Điều tra chọn mẫu biến động dân số, nguồn lao động và kế hoạch hoá gia đình 2006*, Statistical Publishing House, Hanoi, 6-2007, p 68.
- Hinde, A., 1998. *Demographic Methods*, Arnold, London.
- Hosmer, David W.; Stanley Lemeshow (2000). *Applied Logistic Regression*, 2nd ed. New York; Chichester, Wiley
- Jones, Gavin, 1997. *Modernization and divorce: contrasting trends in Islamic Southeast Asia and the West*, *Population and Development Review*.
- Seligman, E. and A. Johnson, 1931. *Encyclopedia of the Social Sciences*, New York.
- UNFPA, 2009. *Recent Changes in the Sex Ratio at Birth in Viet Nam: A Review of Evidence*, Hanoi.
- UNFPA. 2009. *Population & Development in Viet Nam: Towards A New Population/ Reproductive Health Strategy, 2011-2020*, Hanoi.
- UNICEF, Ministry of Culture, Tourism and Sports, 2008. *Results from Viet Nam Family Survey 2006: Brief Reports*
- United Nations, 1973. *The determinants and Consequences of Population Trends*, United Nations, New York.
- United Nations, 1983. *Indirect Techniques for Demographic Estimation. Manual X, Population Studies 81*. New York.

United Nations, 1993. Readings in Population Research Methodology, Volume 1: Basic tools, Social Development Center, Chicago.

United Nations, 2009. World Population Prospects: The 2008 Revision, Population Division, Population Database, Medium Variant.

APPENDIX

Table A1. Total dependency ratio by province in Viet Nam, 1999 and 2009 (calculated using the age groups 0–14, 15–64, and 64+)

No.	Province	1999			2009		
		Child dependency ratio	Aged dependency ratio	Total dependency ratio	Child dependency ratio	Aged dependency ratio	Total dependency ratio
1	Ha Noi	42.0	9.9	51.9	33.0	10.7	43.7
2	Ha Giang	73.7	6.9	80.6	53.1	7.1	60.3
3	Cao Bang	63.0	9.7	72.7	39.5	10.5	50.1
4	Bac Kan	61.1	8.0	69.1	35.2	8.7	44.0
5	Tuyen Quang	61.8	7.9	69.7	37.0	8.3	45.4
6	Lao Cai	76.5	6.5	83.0	51.0	6.7	57.8
7	Dien Bien	83.3	7.5	90.8	60.2	7.2	67.8
8	Lai Chau	79.8	6.2	86.0	65.2	5.9	71.1
9	Son La	75.3	7.9	83.2	50.3	7.4	57.7
10	Yen Bai	64.0	8.1	72.1	42.1	8.9	51.0
11	Hoa Binh	56.8	7.4	64.2	34.0	8.1	42.1
12	Thai Nguyen	49.9	7.7	57.6	32.8	9.4	42.2
13	Lang Son	61.4	8.2	69.6	35.7	8.7	44.4
14	Quang Ninh	49.7	7.6	57.3	35.9	9.6	45.5
15	Bac Giang	57.8	8.5	66.4	36.5	10.0	46.5
16	Phu Tho	54.9	11.2	66.1	34.4	12.1	46.4
17	Vinh Phuc	56.6	10.7	67.3	36.2	11.1	47.3
18	Bac Ninh	55.7	9.9	65.6	38.0	11.2	49.2
19	Hai Duong	50.1	12.5	62.6	32.3	13.6	45.9
20	Hai Phong	46.3	11.0	57.3	30.3	11.3	41.6
21	Hung Yen	52.8	12.8	65.6	34.6	13.6	48.2
22	Thai Binh	44.5	14.0	58.6	33.0	15.6	48.7
23	Ha Nam	53.0	13.5	66.4	34.8	14.9	49.7
24	Nam Dinh	52.7	12.3	65.1	35.8	13.6	49.4
25	Ninh Binh	57.1	12.6	69.7	33.5	12.7	46.2
26	Thanh Hoa	61.5	11.9	73.4	34.3	12.1	46.3
27	Nghe An	66.7	11.2	77.9	39.0	11.2	50.2

No.	Province	1999			2009		
		Child dependency ratio	Aged dependency ratio	Total dependency ratio	Child dependency ratio	Aged dependency ratio	Total dependency ratio
28	Ha Tinh	67.1	14.3	81.4	41.5	15.8	57.3
29	Quang Binh	67.7	11.2	78.9	42.5	11.6	54.1
30	Quang Tri	66.7	11.8	78.5	49.6	14.2	63.8
31	Thua Thien Hue	62.7	11.6	74.3	44.7	12.8	57.5
32	Da Nang	46.2	9.1	55.3	34.6	9.2	43.9
33	Quang Nam	59.3	12.9	72.2	40.4	14.2	54.5
34	Quang Ngai	59.7	12.3	72.0	39.8	14.1	53.9
35	Binh Dinh	57.5	11.9	69.4	41.5	13.2	54.6
36	Phu Yen	60.9	9.8	70.8	41.4	10.7	52.1
37	Khanh Hoa	55.2	8.4	63.6	39.5	9.3	48.8
38	Ninh Thuan	71.2	7.7	78.9	47.9	8.2	56.1
39	Binh Thuan	67.6	8.2	75.8	43.8	8.4	52.2
40	Kon Tum	77.0	6.3	83.3	59.5	6.1	65.6
41	Gia Lai	73.7	6.3	79.9	57.7	6.4	64.2
42	Dak Lak	76.7	6.2	82.8	49.3	6.4	55.6
43	Dak Nong	75.0	5.1	80.1	54.6	4.3	58.9
44	Lam Dong	63.4	6.4	69.9	45.2	6.7	51.9
45	Binh Phuoc	63.9	5.2	69.1	45.1	5.7	50.8
46	Tay Ninh	52.6	7.6	60.2	33.8	8.2	42.1
47	Binh Duong	43.1	7.6	50.7	24.0	4.2	28.2
48	Dong Nai	54.8	7.2	62.0	36.9	6.9	43.9
49	Ba Ria-Vung Tau	54.9	7.0	62.0	38.0	7.3	45.3
50	Ho Chi Minh City	33.7	7.4	41.1	26.4	6.6	32.9
51	Long An	48.9	8.6	57.5	35.4	9.4	44.7
52	Tien Giang	46.6	9.1	55.7	34.9	10.2	45.2
53	Ben Tre	45.9	9.6	55.5	32.8	11.9	44.7
54	Tra Vinh	52.2	8.1	60.3	34.1	8.5	42.7
55	Vinh Long	45.0	9.0	54.0	30.7	9.6	40.3
56	Dong Thap	50.9	8.6	59.5	35.6	9.0	44.6
57	An Giang	51.0	8.5	59.5	35.9	8.7	44.5
58	Kien Giang	59.7	7.1	66.7	38.3	7.1	45.4
59	Can Tho	44.9	8.0	52.9	31.3	8.2	39.6
60	Hau Giang	51.7	8.0	59.6	35.2	8.5	43.7
61	Soc Trang	53.7	8.0	61.8	36.1	7.9	44.1
62	Bac Lieu	53.2	7.5	60.7	35.4	7.2	42.6
63	Ca Mau	59.2	6.4	65.5	37.1	7.0	44.1

Table A2. Total dependency ratio by province in Viet Nam, 1999 and 2009 (calculated using the age groups 0–14, 15–59, and 60+)

No.	Province	1999			2009		
		Child dependency ratio	Aged dependency ratio	Total dependency ratio	Child dependency ratio	Aged dependency ratio	Total dependency ratio
1	Ha Noi	43.8	14.6	58.4	34.4	15.5	50.0
2	Ha Giang	76.4	10.9	87.3	54.9	10.8	65.8
3	Cao Bang	66.2	15.4	81.6	41.1	14.9	56.0
4	Bac Kan	63.5	12.3	75.8	36.3	12.1	48.5
5	Tuyen Quang	63.9	11.7	75.6	38.3	12.0	50.3
6	Lao Cai	79.1	10.2	89.3	52.5	9.7	62.2
7	Dien Bien	85.9	10.9	96.8	62.1	9.8	71.9
8	Lai Chau	82.3	9.5	91.8	66.8	8.4	75.2
9	Son La	77.9	11.5	89.4	51.5	9.9	61.3
10	Yen Bai	66.4	12.2	78.6	43.6	12.8	56.4
11	Hoa Binh	58.9	11.2	70.1	35.2	11.7	46.9
12	Thai Nguyen	51.6	11.4	62.9	34.0	13.4	47.4
13	Lang Son	63.9	12.5	76.4	36.9	12.3	49.2
14	Quang Ninh	51.6	11.8	63.4	37.2	13.8	51.0
15	Bac Giang	60.1	12.7	72.8	37.8	13.8	51.6
16	Phu Tho	57.1	15.6	72.6	35.7	16.4	52.1
17	Vinh Phuc	58.9	15.3	74.2	37.6	15.4	53.0
18	Bac Ninh	58.1	14.6	72.8	39.6	15.6	55.2
19	Hai Duong	52.6	18.1	70.7	33.6	18.2	51.8
20	Hai Phong	48.3	16.0	64.3	31.4	15.6	47.0
21	Hung Yen	55.6	18.7	74.2	36.0	18.3	54.2
22	Thai Binh	46.8	19.8	66.5	34.9	22.2	57.1
23	Ha Nam	55.6	19.1	74.7	36.4	20.3	56.7
24	Nam Dinh	55.0	17.2	72.2	37.6	19.4	57.0
25	Ninh Binh	59.4	17.2	76.6	35.1	18.1	53.2
26	Thanh Hoa	64.1	16.6	80.7	35.8	17.0	52.8
27	Nghe An	69.6	16.1	85.7	40.7	15.8	56.5
28	Ha Tinh	70.7	20.5	91.2	43.7	22.0	65.7
29	Quang Binh	71.0	16.6	87.6	44.0	15.5	59.5
30	Quang Tri	70.0	17.4	87.4	51.7	18.9	70.6

No.	Province	1999			2009		
		Child dependency ratio	Aged dependency ratio	Total dependency ratio	Child dependency ratio	Aged dependency ratio	Total dependency ratio
31	Thua Thien Hue	65.5	16.6	82.1	46.4	17.1	63.6
32	Da Nang	48.0	13.4	61.5	35.5	12.1	47.6
33	Quang Nam	62.3	18.6	80.9	41.8	18.1	59.9
34	Quang Ngai	62.7	18.0	80.7	41.5	19.0	60.5
35	Binh Dinh	60.1	17.0	77.2	43.2	17.7	60.8
36	Phu Yen	63.5	14.4	77.9	42.8	14.6	57.4
37	Khanh Hoa	57.2	12.3	69.5	40.8	12.9	53.6
38	Ninh Thuan	73.7	11.4	85.0	49.4	11.5	60.9
39	Binh Thuan	69.9	11.9	81.8	45.2	11.8	57.1
40	Kon Tum	79.3	9.4	88.7	61.1	9.0	70.1
41	Gia Lai	76.0	9.6	85.6	59.3	9.4	68.7
42	Dak Lak	78.9	9.3	88.2	50.6	9.2	59.8
43	Dak Nong	76.8	7.8	84.6	55.8	6.5	62.3
44	Lam Dong	65.3	9.6	75.0	46.4	9.6	56.0
45	Binh Phuoc	65.8	8.3	74.1	46.3	8.5	54.9
46	Tay Ninh	54.6	11.6	66.1	34.8	11.4	46.2
47	Binh Duong	44.6	11.3	55.9	24.4	5.8	30.2
48	Dong Nai	56.7	10.7	67.4	37.9	9.7	47.6
49	Ba Ria-Vung Tau	56.7	10.5	67.2	39.1	10.4	49.5
50	Ho Chi Minh City	34.8	10.9	45.7	27.0	9.2	36.2
51	Long An	50.6	12.4	62.9	36.6	13.1	49.7
52	Tien Giang	48.2	12.9	61.1	36.2	14.4	50.6
53	Ben Tre	47.6	13.6	61.3	34.1	16.4	50.5
54	Tra Vinh	54.0	11.6	65.6	35.2	12.0	47.2
55	Vinh Long	46.5	12.6	59.1	31.7	13.2	44.9
56	Dong Thap	52.7	12.5	65.2	36.8	12.7	49.5
57	An Giang	52.9	12.4	65.3	37.2	12.6	49.7
58	Kien Giang	61.6	10.5	72.1	39.5	10.3	49.8
59	Can Tho	46.3	11.5	57.8	32.3	11.5	43.8
60	Hau Giang	53.3	11.4	64.7	36.4	12.1	48.5
61	Soc Trang	55.5	11.5	67.0	37.2	11.2	48.4
62	Bac Lieu	54.9	10.9	65.7	36.4	10.3	46.7
63	Ca Mau	60.9	9.6	70.5	38.2	10.3	48.5

Table A3. Aging index by province in Viet Nam, 2009

No.	Province	Calculated using the age groups 0–14 and 64+		Calculated using the age groups 0–14 and 60+	
		1999	2009	1999	2009
1	Ha Noi	23.6	32.5	33.3	45.1
2	Ha Giang	9.4	13.4	14.3	19.7
3	Cao Bang	15.4	26.6	23.3	36.3
4	Bac Kan	13.1	24.8	19.4	33.3
5	Tuyen Quang	12.8	22.4	18.3	31.3
6	Lao Cai	8.5	13.2	12.9	18.5
7	Dien Bien	9.0	11.8	12.7	15.8
8	Lai Chau	7.8	9.0	11.5	12.6
9	Son La	10.5	14.7	14.8	19.2
10	Yen Bai	12.7	21.2	18.4	29.4
11	Hoa Binh	13.0	23.8	19.0	33.2
12	Thai Nguyen	15.4	28.7	22.1	39.4
13	Lang Son	13.4	24.3	19.6	33.3
14	Quang Ninh	15.3	26.9	22.9	37.1
15	Bac Giang	14.7	27.3	21.1	36.5
16	Phu Tho	20.4	35.1	27.3	45.9
17	Vinh Phuc	18.9	30.6	26.0	41.0
18	Bac Ninh	17.8	29.4	25.1	39.4
19	Hai Duong	25.0	42.0	34.4	54.2
20	Hai Phong	23.8	37.4	33.1	49.7
21	Hung Yen	24.2	39.5	33.6	50.8
22	Thai Binh	31.5	47.4	42.3	63.6
23	Ha Nam	25.5	42.9	34.4	55.8
24	Nam Dinh	23.3	38.0	31.3	51.6
25	Ninh Binh	22.1	38.1	29.0	51.6
26	Thanh Hoa	19.3	35.2	25.9	47.5
27	Nghe An	16.8	28.6	23.1	38.8
28	Ha Tinh	21.3	38.2	29.0	50.3
29	Quang Binh	16.5	27.2	23.4	35.2
30	Quang Tri	17.7	28.6	24.9	36.6
31	Thua Thien Hue	18.5	28.6	25.3	36.9

No.	Province	Calculated using the age groups 0–14 and 64+		Calculated using the age groups 0–14 and 60+	
		1999	2009	1999	2009
32	Da Nang	19.7	26.6	27.9	34.1
33	Quang Nam	21.8	35.1	29.9	43.3
34	Quang Ngai	20.6	35.4	28.7	45.8
35	Binh Dinh	20.7	31.7	28.3	41.0
36	Phu Yen	16.1	26.0	22.7	34.1
37	Khanh Hoa	15.2	23.5	21.5	31.6
38	Ninh Thuan	10.8	17.1	15.5	23.3
39	Binh Thuan	12.1	19.1	17.0	26.1
40	Kon Tum	8.2	10.2	11.9	14.7
41	Gia Lai	8.5	11.2	12.6	15.9
42	Dak Lak	8.1	12.9	11.8	18.2
43	Dak Nong	6.8	7.9	10.2	11.6
44	Lam Dong	10.1	14.9	14.7	20.7
45	Binh Phuoc	8.1	12.6	12.6	18.4
46	Tay Ninh	14.4	24.3	21.2	32.8
47	Binh Duong	17.6	17.5	25.3	23.8
48	Dong Nai	13.1	18.8	18.9	25.6
49	Ba Ria-Vung Tau	12.8	19.3	18.5	26.6
50	Ho Chi Minh City	22.0	24.9	31.3	34.1
51	Long An	17.6	26.5	24.5	35.8
52	Tien Giang	19.5	29.3	26.8	39.8
53	Ben Tre	20.9	36.4	28.6	48.1
54	Tra Vinh	15.5	25.0	21.5	34.1
55	Vinh Long	20.0	31.4	27.1	41.6
56	Dong Thap	16.9	25.3	23.7	34.5
57	An Giang	16.7	24.1	23.4	33.9
58	Kien Giang	11.9	18.5	17.0	26.1
59	Can Tho	17.8	26.2	24.8	35.6
60	Hau Giang	15.5	24.1	21.4	33.2
61	Soc Trang	14.9	22.0	20.7	30.1
62	Bac Lieu	14.1	20.4	19.9	28.3
63	Ca Mau	10.8	18.9	15.8	27.0

Table A4. Sex ratio by age group and by province in Viet Nam, 2009

No.	Province	0–14	15–59	60+	Total
1	Ha Noi	108.6	96.9	72.4	96.6
2	Ha Giang	103.0	103.0	68.0	100.3
3	Cao Bang	101.8	103.4	63.6	98.5
4	Bac Kan	104.5	105.2	69.7	101.7
5	Tuyen Quang	105.0	103.5	66.6	100.4
6	Lao Cai	104.9	103.0	68.3	101.2
7	Dien Bien	105.7	99.1	78.6	100.1
8	Lai Chau	105.4	106.2	69.2	103.9
9	Son La	105.3	101.7	76.6	101.1
10	Yen Bai	104.7	102.0	68.7	99.6
11	Hoa Binh	105.1	100.7	66.0	98.5
12	Thai Nguyen	105.6	99.3	70.4	97.8
13	Lang Son	104.6	101.9	66.1	99.0
14	Quang Ninh	107.9	106.9	78.2	104.3
15	Bac Giang	107.6	99.9	67.2	98.3
16	Phu Tho	106.9	99.0	66.0	96.7
17	Vinh Phuc	107.8	100.5	62.3	97.6
18	Bac Ninh	110.1	97.3	64.0	96.4
19	Hai Duong	109.3	97.7	66.7	95.9
20	Hai Phong	106.9	100.4	71.2	98.2
21	Hung Yen	110.1	98.3	63.9	96.1
22	Thai Binh	107.1	95.4	67.2	93.3
23	Ha Nam	105.9	98.6	66.0	95.4
24	Nam Dinh	107.4	97.6	68.8	95.8
25	Ninh Binh	105.9	102.3	69.1	98.7
26	Thanh Hoa	107.0	100.8	65.4	97.6
27	Nghe An	105.9	100.4	72.1	98.6
28	Ha Tinh	106.5	99.9	73.6	97.8
29	Quang Binh	105.2	101.6	79.5	100.2
30	Quang Tri	105.8	100.3	65.9	97.4
31	Thua Thien Hue	107.3	100.0	65.3	97.7
32	Da Nang	108.1	96.5	62.1	95.8

No.	Province	0-14	15-59	60+	Total
33	Quang Nam	107.1	99.0	57.1	95.2
34	Quang Ngai	107.8	100.4	64.5	97.2
35	Binh Dinh	107.6	97.3	61.3	95.1
36	Phu Yen	107.2	102.7	68.2	100.2
37	Khanh Hoa	107.4	98.2	67.9	97.6
38	Ninh Thuan	107.1	100.1	66.3	99.4
39	Binh Thuan	106.8	102.0	67.5	100.3
40	Kon Tum	104.1	104.5	74.6	102.6
41	Gia Lai	105.0	101.5	73.1	100.8
42	Dak Lak	105.9	103.4	71.1	102.0
43	Dak Nong	107.1	111.5	74.5	108.2
44	Lam Dong	105.7	101.0	71.2	100.2
45	Binh Phuoc	106.6	103.8	73.2	102.6
46	Tay Ninh	107.6	100.7	65.7	99.0
47	Binh Duong	107.3	91.0	61.5	92.0
48	Dong Nai	107.8	98.3	67.5	98.1
49	Ba Ria-Vung Tau	108.2	100.8	67.6	99.9
50	Ho Chi Minh City	108.4	91.4	62.9	92.2
51	Long An	107.6	100.5	63.0	98.1
52	Tien Giang	106.2	99.1	60.7	96.3
53	Ben Tre	105.3	101.3	57.1	96.3
54	Tra Vinh	106.7	99.7	58.6	97.1
55	Vinh Long	105.9	99.3	65.1	96.9
56	Dong Thap	107.0	100.3	74.0	99.4
57	An Giang	106.6	98.8	78.1	98.7
58	Kien Giang	106.7	101.6	76.5	101.0
59	Can Tho	106.4	99.2	73.8	98.5
60	Hau Giang	106.9	103.4	69.8	101.0
61	Soc Trang	106.8	99.9	69.4	98.8
62	Bac Lieu	107.0	99.3	72.1	98.9
63	Ca Mau	106.1	102.0	76.5	101.0

Table A5. Family size by urban/rural residence and province in Viet Nam, 2009

No.	Province	Urban	Rural	Total
1	Ha Noi	3.4	3.4	3.4
2	Ha Giang	3.5	3.5	3.5
3	Cao Bang	3.3	3.4	3.4
4	Bac Kan	3.3	3.3	3.3
5	Tuyen Quang	3.1	3.3	3.2
6	Lao Cai	3.2	3.2	3.2
7	Dien Bien	3.4	4.8	4.6
8	Lai Chau	3.4	4.7	4.3
9	Son La	3.4	3.8	3.8
10	Yen Bai	3.5	4.3	4.1
11	Hoa Binh	3.2	4.0	3.9
12	Thai Nguyen	3.2	4.2	4.0
13	Lang Son	3.2	3.6	3.6
14	Quang Ninh	3.2	4.2	4.0
15	Bac Giang	3.3	3.9	3.6
16	Phu Tho	3.5	5.2	4.9
17	Vinh Phuc	3.3	5.1	4.7
18	Bac Ninh	3.3	4.8	4.5
19	Hai Duong	3.3	3.8	3.8
20	Hai Phong	3.3	3.9	3.8
21	Hung Yen	3.4	3.6	3.5
22	Thai Binh	3.5	4.1	4.0
23	Ha Nam	3.8	4.1	4.0
24	Nam Dinh	3.9	4.1	4.0
25	Ninh Binh	3.9	3.8	3.9
26	Thanh Hoa	3.7	3.7	3.7
27	Nghe An	3.5	3.7	3.7
28	Ha Tinh	3.6	3.7	3.7
29	Quang Binh	3.6	3.8	3.8
30	Quang Tri	3.9	4.1	4.0
31	Thua Thien Hue	3.9	4.5	4.3
32	Da Nang	3.8	4.2	4.1

No.	Province	Urban	Rural	Total
33	Quang Nam	3.5	4.1	3.8
34	Quang Ngai	3.9	3.8	3.9
35	Binh Dinh	3.8	4.2	4.1
36	Phu Yen	3.6	4.0	3.9
37	Khanh Hoa	3.7	3.8	3.7
38	Ninh Thuan	3.2	3.1	3.1
39	Binh Thuan	4.0	4.1	4.1
40	Kon Tum	3.7	3.8	3.8
41	Gia Lai	3.7	4.0	3.9
42	Dak Lak	3.9	4.1	4.0
43	Dak Nong	3.6	3.7	3.7
44	Lam Dong	3.5	3.7	3.7
45	Binh Phuoc	3.3	3.4	3.4
46	Tay Ninh	4.2	4.2	4.2
47	Binh Duong	3.9	4.2	4.0
48	Dong Nai	3.8	4.0	4.0
49	Ba Ria-Vung Tau	3.8	4.0	4.0
50	Ho Chi Minh City	3.9	4.2	4.1
51	Long An	4.2	4.4	4.3
52	Tien Giang	4.0	4.2	4.2
53	Ben Tre	3.3	4.3	4.1
54	Tra Vinh	3.1	3.7	3.5
55	Vinh Long	3.3	3.8	3.7
56	Dong Thap	3.5	3.7	3.6
57	An Giang	3.2	3.3	3.3
58	Kien Giang	3.2	3.5	3.4
59	Can Tho	3.2	4.2	4.0
60	Hau Giang	3.8	4.4	4.2
61	Soc Trang	3.8	4.3	4.2
62	Bac Lieu	3.7	3.9	3.9
63	Ca Mau	3.7	4.0	3.9

Table A6. Proportion of households without members in dependent ages and without working age members by province in Viet Nam, 2009

No.	Province	% households with no members in dependent ages (below 15, over 64)	% households without working age (15-64) members
1	Ha Noi	34.98	7.49
2	Ha Giang	31.87	7.20
3	Cao Bang	32.66	10.40
4	Bac Kan	32.61	12.54
5	Tuyen Quang	33.58	11.50
6	Lao Cai	32.73	11.89
7	Dien Bien	20.50	1.16
8	Lai Chau	22.54	2.19
9	Son La	30.12	4.84
10	Yen Bai	28.62	1.97
11	Hoa Binh	28.95	2.64
12	Thai Nguyen	26.65	3.29
13	Lang Son	31.95	6.32
14	Quang Ninh	30.32	1.68
15	Bac Giang	31.37	5.13
16	Phu Tho	17.48	1.28
17	Vinh Phuc	18.60	1.94
18	Bac Ninh	20.46	1.76
19	Hai Duong	30.04	6.49
20	Hai Phong	29.07	6.25
21	Hung Yen	27.56	11.52
22	Thai Binh	24.11	7.10
23	Ha Nam	22.45	6.12
24	Nam Dinh	23.68	7.99
25	Ninh Binh	30.79	4.08
26	Thanh Hoa	24.75	9.08
27	Nghe An	24.24	9.11
28	Ha Tinh	25.15	7.69
29	Quang Binh	24.96	6.86
30	Quang Tri	26.70	3.36

No.	Province	% households with no members in dependent ages (below 15, over 64)	% households without working age (15-64) members
31	Thua Thien Hue	18.90	2.25
32	Da Nang	24.00	1.62
33	Quang Nam	27.97	2.90
34	Quang Ngai	41.05	1.56
35	Binh Dinh	22.07	4.27
36	Phu Yen	26.26	2.26
37	Khanh Hoa	31.63	2.85
38	Ninh Thuan	53.78	1.51
39	Binh Thuan	23.40	3.86
40	Kon Tum	29.37	3.33
41	Gia Lai	27.95	2.74
42	Dak Lak	26.98	2.60
43	Dak Nong	30.12	3.51
44	Lam Dong	33.61	3.20
45	Binh Phuoc	31.87	5.32
46	Tay Ninh	25.58	2.13
47	Binh Duong	31.68	2.30
48	Dong Nai	28.26	3.12
49	Ba Ria-Vung Tau	28.23	3.02
50	Ho Chi Minh City	27.30	2.49
51	Long An	26.80	1.94
52	Tien Giang	27.66	1.46
53	Ben Tre	28.59	2.76
54	Tra Vinh	34.83	3.80
55	Vinh Long	31.76	5.44
56	Dong Thap	34.31	4.97
57	An Giang	34.97	10.43
58	Kien Giang	32.91	10.57
59	Can Tho	29.10	1.98
60	Hau Giang	20.84	2.61
61	Soc Trang	22.58	2.17
62	Bac Lieu	32.71	2.65
63	Ca Mau	29.91	2.70

Table A7. Proportion single by age, sex and urban/rural residence in Viet Nam, 2009

Age group	Male		Female		Male	Female
	Urban	Rural	Urban	Rural		
15–19	98.89	97.42	95.10	90.10	97.81	91.49
20–24	84.84	71.49	66.40	42.80	75.61	50.80
25–29	46.08	31.16	26.50	14.00	35.82	18.24
30–34	17.91	9.56	12.00	6.10	12.12	8.01
35–39	9.89	4.16	9.20	4.70	5.93	6.13
40–44	6.03	2.13	8.44	4.51	3.29	5.72
45–49	3.85	1.25	7.37	4.76	2.07	5.59
50–54	2.42	0.79	7.21	4.68	1.32	5.49
55–59	1.76	0.58	6.84	4.33	0.95	5.13
60–64	1.11	0.49	4.99	3.51	0.68	3.97
65–69	0.79	0.40	3.38	1.86	0.52	2.30
70–74	0.64	0.29	2.30	0.95	0.39	1.31
75+	0.47	0.25	1.52	0.63	0.31	0.85

Table A8. Proportion widowed by age, sex and urban/rural residence in Viet Nam, 2009

Age group	Male		Female		Male	Female
	Urban	Rural	Urban	Rural		
15–19	0.00	0.01	0.02	0.05	0.01	0.04
20–24	0.01	0.04	0.16	0.37	0.03	0.30
25–29	0.05	0.11	0.54	0.96	0.09	0.82
30–34	0.13	0.24	1.24	1.86	0.21	1.66
35–39	0.26	0.38	2.32	3.12	0.35	2.87
40–44	0.48	0.64	4.15	5.30	0.59	4.94
45–49	0.77	0.99	6.98	8.28	0.92	7.86
50–54	1.49	1.71	11.81	13.05	1.64	12.66
55–59	2.62	2.76	19.20	20.42	2.72	20.03
60–64	4.21	4.59	28.80	31.34	4.47	30.55
65–69	7.25	7.81	40.66	42.60	7.64	42.04
70–74	12.17	12.82	53.20	52.15	12.64	52.43
75+	25.65	27.96	73.93	72.99	27.36	73.22

Table A9. Proportion divorced or separated by age, sex and urban/rural residence in Viet Nam, 2009

Age group	Male		Female		Male	Female
	Urban	Rural	Urban	Rural		
15–19	0.01	0.03	0.09	0.15	0.02	0.13
20–24	0.21	0.36	0.60	1.05	0.31	0.90
25–29	0.67	0.92	1.55	1.79	0.84	1.71
30–34	1.37	1.25	2.87	2.17	1.29	2.39
35–39	1.80	1.25	3.75	2.26	1.42	2.73
40–44	2.12	1.23	4.33	2.50	1.50	3.06
45–49	2.00	1.07	4.73	2.87	1.36	3.46
50–54	1.80	1.05	4.51	2.91	1.29	3.42
55–59	1.53	0.93	4.03	2.60	1.12	3.06
60–64	1.33	0.88	3.02	2.13	1.01	2.41
65–69	1.21	0.85	2.18	1.62	0.96	1.78
70–74	0.92	0.73	1.22	1.02	0.78	1.07
75+	0.59	0.59	0.54	0.48	0.59	0.49

Table A10. Proportion married by age, sex and urban/rural residence in Viet Nam, 2009

Age group	Male		Female		Male	Female
	Urban	Rural	Urban	Rural		
15–19	1.09	2.55	4.81	9.72	2.16	8.34
20–24	14.94	28.11	32.89	55.79	24.05	48.00
25–29	53.20	67.81	71.41	83.24	63.24	79.23
30–34	80.58	88.95	83.92	89.83	86.38	87.93
35–39	88.04	94.20	84.78	89.91	92.30	88.28
40–44	91.37	96.00	83.08	87.70	94.62	86.28
45–49	93.37	96.70	80.93	84.09	95.65	83.09
50–54	94.28	96.45	76.46	79.36	95.75	78.43
55–59	94.08	95.72	69.93	72.65	95.21	71.79
60–64	93.35	94.04	63.19	63.02	93.83	63.07
65–69	90.75	90.93	53.79	53.92	90.88	53.88
70–74	86.28	86.16	43.28	45.89	86.19	45.19
75+	73.30	71.19	24.02	25.90	71.74	25.44

Table A11. Proportion single by age, sex and region in Viet Nam, 2009

	Northern Midlands and Mountains	Red River Delta	North and South Central Coast	Central Highlands	Southeast	Mekong River Delta	Total
Male							
15–19	93.57	99.33	98.91	96.75	98.39	97.67	97.81
20–24	59.78	80.02	81.07	67.15	80.94	72.99	75.61
25–29	22.49	33.91	40.49	28.55	45.18	34.94	35.82
30–34	6.22	8.97	12.55	9.24	18.95	13.14	12.12
35–39	2.81	3.66	5.20	4.11	11.34	6.60	5.93
40–44	1.41	1.55	2.46	2.62	7.67	3.68	3.29
45–49	0.85	0.98	1.46	1.34	5.53	2.47	2.07
50–54	0.64	0.66	0.84	1.03	3.70	1.46	1.32
55–59	0.49	0.46	0.55	0.79	2.86	1.03	0.95
60–64	0.53	0.34	0.50	0.46	1.96	0.78	0.68
65–69	0.45	0.28	0.37	0.37	1.44	0.57	0.52
70–74	0.36	0.16	0.26	0.38	1.17	0.46	0.39
75+	0.35	0.13	0.27	0.31	0.82	0.30	0.31
Female							
15–19	84.13	94.05	94.78	87.93	93.19	89.30	91.49
20–24	34.21	50.98	53.90	37.89	64.05	46.97	50.80
25–29	10.26	14.48	16.77	11.43	29.68	18.68	18.24
30–34	4.13	5.81	6.46	4.40	14.73	9.07	8.01
35–39	3.00	4.45	5.12	3.33	11.35	6.99	6.13
40–44	2.87	4.50	5.24	3.19	10.09	6.33	5.72
45–49	2.73	5.26	5.07	2.75	9.37	6.14	5.59
50–54	2.80	5.45	4.83	2.84	9.08	5.63	5.49
55–59	2.48	5.13	4.26	2.31	8.80	5.41	5.13
60–64	2.01	4.48	3.20	1.66	6.75	4.06	3.97
65–69	0.97	2.28	1.86	0.91	4.32	2.52	2.30
70–74	0.59	0.93	1.05	0.89	3.14	1.49	1.31
75+	0.38	0.64	0.67	0.53	2.19	1.06	0.85

Table A12. Proportion married by age, sex and region in Viet Nam, 2009

	Northern Midlands and Mountains	Red River Delta	North and South Central Coast	Central Highlands	Southeast	Mekong River Delta	Total
Male							
15–19	6.37	0.65	1.08	3.23	1.59	2.29	2.16
20–24	39.88	19.79	18.73	32.57	18.76	26.31	24.05
25–29	76.63	65.46	58.81	70.58	54.07	63.39	63.24
30–34	92.48	89.92	86.28	89.71	79.49	84.51	86.38
35–39	95.69	95.00	93.38	94.61	86.61	90.82	92.30
40–44	96.86	97.05	95.90	95.55	89.51	93.41	94.62
45–49	97.22	97.46	96.68	96.53	91.05	94.45	95.65
50–54	96.83	97.36	96.68	96.35	91.97	94.46	95.75
55–59	95.78	96.94	96.02	95.20	92.31	93.80	95.21
60–64	93.58	95.68	94.53	93.46	90.82	92.21	93.83
65–69	90.12	93.05	91.87	89.52	87.96	88.88	90.88
70–74	84.79	88.65	87.35	85.27	82.63	83.79	86.19
75+	70.87	72.48	72.62	74.35	71.64	69.49	71.74
Female							
15–19	15.67	5.89	5.09	11.81	6.66	10.36	8.34
20–24	64.52	48.32	45.03	60.34	34.97	51.10	48.00
25–29	87.04	83.44	80.87	85.71	68.04	78.11	79.23
30–34	91.30	90.56	89.54	91.62	81.09	86.80	87.93
35–39	91.24	90.28	89.11	90.93	82.43	87.91	88.28
40–44	89.11	88.56	86.16	87.98	80.65	86.41	86.28
45–49	85.73	85.14	82.78	84.14	77.54	83.18	83.09
50–54	80.61	81.01	78.45	78.63	71.98	78.62	78.43
55–59	73.92	75.63	72.19	70.98	63.86	71.08	71.79
60–64	64.25	67.93	63.01	60.60	56.87	60.22	63.07
65–69	56.35	59.67	54.00	51.33	47.08	50.01	53.88
70–74	46.57	50.49	45.67	41.23	38.69	41.35	45.19
75+	25.88	26.78	25.68	23.20	22.83	24.34	25.44

Table A13. Proportion widowed by age, sex, and region in Viet Nam, 2009

	Northern Midlands and Mountains	Red River Delta	North and South Central Coast	Central Highlands	Southeast	Mekong River Delta	Total
Male							
15–19	0.01	0.01	0.00	0.00	0.00	0.01	0.01
20–24	0.05	0.02	0.03	0.03	0.02	0.05	0.03
25–29	0.12	0.05	0.11	0.14	0.04	0.14	0.09
30–34	0.22	0.11	0.22	0.26	0.15	0.33	0.21
35–39	0.35	0.19	0.38	0.34	0.28	0.52	0.35
40–44	0.56	0.27	0.58	0.67	0.57	0.92	0.59
45–49	0.95	0.54	0.92	1.21	0.98	1.30	0.92
50–54	1.60	1.02	1.59	1.68	1.96	2.37	1.64
55–59	2.81	1.76	2.70	2.93	2.99	3.64	2.72
60–64	4.96	3.13	4.37	5.15	5.30	5.71	4.47
65–69	8.59	5.83	7.23	9.12	8.84	9.33	7.64
70–74	14.17	10.43	11.91	13.64	15.20	14.56	12.64
75+	28.08	26.88	26.76	24.89	26.72	29.31	27.36
Female							
15–19	0.05	0.01	0.05	0.09	0.03	0.04	0.04
20–24	0.38	0.20	0.45	0.53	0.18	0.30	0.30
25–29	1.12	0.82	1.02	1.21	0.50	0.67	0.82
30–34	2.22	1.61	2.18	2.00	1.09	1.29	1.66
35–39	3.34	2.87	3.64	3.43	2.14	2.25	2.87
40–44	5.17	4.45	6.27	6.18	4.35	4.08	4.94
45–49	8.16	6.60	9.55	9.89	7.50	7.29	7.86
50–54	12.87	10.39	14.23	15.68	13.86	12.32	12.66
55–59	20.12	16.38	21.33	24.12	22.55	20.63	20.03
60–64	30.90	24.89	32.12	35.56	33.39	33.42	30.55
65–69	40.67	35.84	43.14	46.29	46.32	45.71	42.04
70–74	51.64	47.34	52.52	57.09	56.80	56.14	52.43
75+	73.18	72.09	73.30	75.82	74.49	73.90	73.22

Table A14. Proportion divorced or separated by age, sex and region in Viet Nam, 2009

	Northern Midlands and	Red River Delta	North and South Central Coast	Central Highlands	Southeast	Mekong River Delta	Total
Male							
15–19	0.04	0.01	0.01	0.02	0.02	0.04	0.02
20–24	0.28	0.17	0.17	0.26	0.28	0.65	0.31
25–29	0.76	0.58	0.59	0.74	0.71	1.52	0.84
30–34	1.08	1.01	0.95	0.79	1.41	2.02	1.29
35–39	1.15	1.16	1.04	0.94	1.78	2.07	1.42
40–44	1.17	1.13	1.06	1.17	2.24	1.99	1.50
45–49	0.98	1.02	0.94	0.92	2.45	1.78	1.36
50–54	0.93	0.96	0.89	0.93	2.37	1.71	1.29
55–59	0.92	0.84	0.72	1.08	1.83	1.53	1.12
60–64	0.93	0.84	0.61	0.92	1.91	1.29	1.01
65–69	0.85	0.85	0.53	1.00	1.77	1.22	0.96
70–74	0.68	0.76	0.47	0.72	1.00	1.20	0.78
75+	0.70	0.50	0.35	0.45	0.83	0.90	0.59
Female							
15–19	0.15	0.05	0.08	0.17	0.13	0.30	0.13
20–24	0.89	0.50	0.62	1.24	0.79	1.64	0.90
25–29	1.58	1.26	1.34	1.65	1.79	2.54	1.71
30–34	2.35	2.02	1.82	1.98	3.08	2.84	2.39
35–39	2.42	2.40	2.12	2.31	4.08	2.86	2.73
40–44	2.86	2.49	2.33	2.65	4.91	3.18	3.06
45–49	3.38	3.00	2.60	3.21	5.59	3.39	3.46
50–54	3.73	3.15	2.49	2.84	5.08	3.44	3.42
55–59	3.48	2.86	2.22	2.59	4.80	2.88	3.06
60–64	2.83	2.70	1.67	2.18	2.98	2.30	2.41
65–69	2.00	2.21	1.00	1.47	2.28	1.76	1.78
70–74	1.20	1.23	0.76	0.79	1.38	1.02	1.07
75+	0.56	0.50	0.35	0.45	0.48	0.69	0.49

Table A15. Proportion single by age and sex in Viet Nam, 1989- 2009

Age group	Male			Female		
	1989	1999	2009	1989	1999	2009
15–19	95.87	97.74	97.81	89.61	90.76	91.49
20–24	59.34	67.75	75.61	43.13	45.32	50.80
25–29	22.14	28.31	35.82	17.99	17.26	18.24
30–34	6.98	9.31	12.12	11.07	9.73	8.01
35–39	3.20	3.77	5.93	8.85	7.28	6.13
40–44	1.96	1.93	3.29	6.08	6.52	5.72
45–49	1.54	1.14	2.07	3.52	5.79	5.59
50–54	1.12	0.89	1.32	2.30	4.62	5.49
55–59	0.92	0.78	0.95	1.79	2.44	5.13
60–64	0.92	0.39	0.68	1.59	1.56	3.97
65–69	0.88	0.44	0.52	1.32	1.37	2.30
70–74	0.78	0.45	0.39	1.50	0.88	1.31
75–79	1.07	0.52	0.31	1.36	0.96	0.85

Table A16. Distribution of marital status (%) of population aged 15–19 by province in Viet Nam, 2009

No.	Provinces/Cities	Single	Married	Widowed	Divorced/ separated
1	Ha Noi	97.27	2.72	0.00	0.01
2	Ha Giang	78.77	21.11	0.04	0.08
3	Cao Bang	86.39	13.41	0.02	0.18
4	Bac Kan	90.93	8.94	0.04	0.09
5	Tuyen Quang	91.67	8.26	0.01	0.06
6	Lao Cai	82.93	16.95	0.03	0.09
7	Dien Bien	79.22	20.44	0.09	0.25
8	Lai Chau	73.94	25.68	0.04	0.33
9	Son La	78.68	20.98	0.10	0.24
10	Yen Bai	89.67	10.26	0.01	0.06
11	Hoa Binh	93.99	5.92	0.03	0.06
12	Thai Nguyen	95.46	4.51	0.01	0.01
13	Lang Son	93.61	6.33	0.02	0.05
14	Quang Ninh	95.92	4.05	0.00	0.03
15	Bac Giang	95.41	4.56	0.01	0.02
16	Phu Tho	96.18	3.78	0.01	0.04
17	Vinh Phuc	95.28	4.68	0.01	0.03
18	Bac Ninh	95.79	4.16	0.01	0.04
19	Hai Duong	96.73	3.20	0.02	0.05
20	Hai Phong	96.63	3.31	0.00	0.06
21	Hung Yen	96.37	3.59	0.01	0.02
22	Thai Binh	97.37	2.63	0.00	0.00
23	Ha Nam	97.02	2.95	0.01	0.02
24	Nam Dinh	96.13	3.74	0.04	0.09
25	Ninh Binh	97.51	2.47	0.00	0.02
26	Thanh Hoa	96.75	3.20	0.02	0.03
27	Nghe An	96.66	3.29	0.01	0.04
28	Ha Tinh	98.73	1.26	0.00	0.01
29	Quang Binh	97.67	2.31	0.02	0.01
30	Quang Tri	96.72	3.22	0.03	0.03
31	Thua Thien Hue	98.15	1.84	0.00	0.01

No.	Provinces/Cities	Single	Married	Widowed	Divorced/ separated
32	Da Nang	98.52	1.44	0.01	0.02
33	Quang Nam	97.21	2.75	0.01	0.03
34	Quang Ngai	96.40	3.50	0.05	0.04
35	Binh Dinh	97.23	2.73	0.02	0.02
36	Phu Yen	96.04	3.83	0.03	0.10
37	Khanh Hoa	96.43	3.42	0.06	0.09
38	Ninh Thuan	94.94	4.90	0.07	0.10
39	Binh Thuan	95.63	4.20	0.05	0.13
40	Kon Tum	89.96	9.83	0.06	0.15
41	Gia Lai	88.83	10.92	0.07	0.18
42	Dak Lak	94.44	5.45	0.05	0.06
43	Dak Nong	91.61	8.28	0.01	0.09
44	Lam Dong	94.54	5.39	0.03	0.04
45	Binh Phuoc	92.83	7.01	0.05	0.11
46	Tay Ninh	92.40	7.25	0.06	0.28
47	Binh Duong	93.81	6.07	0.02	0.10
48	Dong Nai	96.76	3.16	0.02	0.06
49	Ba Ria-Vung Tau	96.57	3.34	0.01	0.08
50	Ho Chi Minh City	96.60	3.36	0.00	0.03
51	Long An	93.86	6.02	0.03	0.09
52	Tien Giang	94.28	5.54	0.01	0.17
53	Ben Tre	95.14	4.71	0.03	0.13
54	Tra Vinh	93.68	6.08	0.03	0.21
55	Vinh Long	95.44	4.47	0.04	0.06
56	Dong Thap	93.42	6.36	0.02	0.20
57	An Giang	91.60	8.05	0.02	0.32
58	Kien Giang	93.44	6.37	0.03	0.16
59	Can Tho	94.03	5.88	0.02	0.07
60	Hau Giang	92.87	6.97	0.01	0.15
61	Soc Trang	93.87	5.93	0.04	0.15
62	Bac Lieu	94.83	5.04	0.03	0.10
63	Ca Mau	93.00	6.88	0.02	0.10

Table A17. Distribution of marital status (%) among male population aged 15–19 by province in Viet Nam, 2009

No.	Provinces	Single	Married	Widowed	Divorced/ separated
1	Ha Noi	99.35	0.65	0.00	0.00
2	Ha Giang	82.75	17.18	0.02	0.04
3	Cao Bang	89.30	10.55	0.03	0.13
4	Bac Kan	94.51	5.46	0.01	0.02
5	Tuyen Quang	96.72	3.28	0.00	0.00
6	Lao Cai	88.63	11.31	0.02	0.04
7	Dien Bien	85.60	14.26	0.00	0.14
8	Lai Chau	81.35	18.46	0.00	0.19
9	Son La	85.97	13.88	0.06	0.08
10	Yen Bai	94.84	5.13	0.00	0.03
11	Hoa Binh	98.17	1.83	0.00	0.00
12	Thai Nguyen	99.15	0.85	0.00	0.01
13	Lang Son	96.53	3.40	0.01	0.06
14	Quang Ninh	98.83	1.17	0.00	0.01
15	Bac Giang	99.03	0.96	0.01	0.00
16	Phu Tho	99.26	0.71	0.00	0.02
17	Vinh Phuc	99.31	0.69	0.00	0.00
18	Bac Ninh	99.29	0.70	0.00	0.01
19	Hai Duong	99.39	0.54	0.01	0.06
20	Hai Phong	99.13	0.85	0.00	0.02
21	Hung Yen	99.03	0.97	0.00	0.00
22	Thai Binh	99.63	0.37	0.00	0.00
23	Ha Nam	99.25	0.75	0.00	0.00
24	Nam Dinh	99.56	0.33	0.04	0.06
25	Ninh Binh	99.67	0.31	0.00	0.02
26	Thanh Hoa	98.85	1.13	0.00	0.02
27	Nghe An	98.50	1.49	0.00	0.01
28	Ha Tinh	99.79	0.21	0.00	0.00
29	Quang Binh	99.35	0.65	0.00	0.00
30	Quang Tri	98.63	1.33	0.02	0.02
31	Thua Thien Hue	99.33	0.67	0.00	0.00

No.	Provinces	Single	Married	Widowed	Divorced/ separated
32	Da Nang	99.61	0.39	0.00	0.00
33	Quang Nam	98.67	1.30	0.01	0.03
34	Quang Ngai	98.50	1.49	0.00	0.01
35	Binh Dinh	99.40	0.59	0.01	0.00
36	Phu Yen	98.82	1.16	0.00	0.02
37	Khanh Hoa	98.86	1.12	0.00	0.02
38	Ninh Thuan	98.26	1.72	0.00	0.01
39	Binh Thuan	98.70	1.30	0.00	0.00
40	Kon Tum	95.31	4.65	0.02	0.03
41	Gia Lai	94.54	5.41	0.01	0.04
42	Dak Lak	97.68	2.31	0.00	0.01
43	Dak Nong	96.62	3.36	0.00	0.02
44	Lam Dong	98.14	1.84	0.00	0.01
45	Binh Phuoc	97.71	2.25	0.00	0.05
46	Tay Ninh	97.37	2.56	0.01	0.06
47	Binh Duong	97.47	2.47	0.02	0.04
48	Dong Nai	98.78	1.22	0.00	0.00
49	Ba Ria-Vung Tau	98.94	1.06	0.00	0.00
50	Ho Chi Minh City	98.62	1.37	0.00	0.01
51	Long An	97.82	2.16	0.00	0.02
52	Tien Giang	98.06	1.90	0.01	0.03
53	Ben Tre	98.62	1.34	0.02	0.03
54	Tra Vinh	97.81	2.12	0.00	0.07
55	Vinh Long	98.57	1.42	0.02	0.00
56	Dong Thap	97.59	2.37	0.01	0.03
57	An Giang	96.60	3.32	0.00	0.09
58	Kien Giang	97.54	2.45	0.01	0.01
59	Can Tho	97.81	2.18	0.00	0.01
60	Hau Giang	97.46	2.49	0.00	0.05
61	Soc Trang	97.63	2.33	0.02	0.02
62	Bac Lieu	98.30	1.66	0.00	0.04
63	Ca Mau	97.17	2.76	0.01	0.05

Table A18. Distribution of marital status (%) among female population aged 15–19 by province in Viet Nam, 2009

No.	Provinces	Single	Married	Widowed	Divorced/ separated
1	Ha Noi	95.17	4.81	0.01	0.02
2	Ha Giang	74.48	25.35	0.05	0.12
3	Cao Bang	83.27	16.48	0.02	0.23
4	Bac Kan	86.92	12.84	0.06	0.17
5	Tuyen Quang	85.92	13.94	0.01	0.13
6	Lao Cai	76.84	22.97	0.05	0.14
7	Dien Bien	72.40	27.05	0.18	0.37
8	Lai Chau	66.17	33.26	0.09	0.48
9	Son La	70.92	28.54	0.13	0.40
10	Yen Bai	83.89	16.00	0.03	0.09
11	Hoa Binh	89.39	10.43	0.05	0.13
12	Thai Nguyen	91.47	8.48	0.03	0.02
13	Lang Son	90.42	9.51	0.03	0.05
14	Quang Ninh	92.71	7.23	0.00	0.06
15	Bac Giang	91.51	8.43	0.01	0.05
16	Phu Tho	92.85	7.08	0.01	0.06
17	Vinh Phuc	90.89	9.02	0.03	0.06
18	Bac Ninh	92.43	7.48	0.02	0.06
19	Hai Duong	94.00	5.93	0.03	0.05
20	Hai Phong	93.98	5.91	0.01	0.10
21	Hung Yen	93.68	6.26	0.02	0.04
22	Thai Binh	94.96	5.04	0.00	0.00
23	Ha Nam	94.60	5.34	0.02	0.04
24	Nam Dinh	92.42	7.41	0.04	0.13
25	Ninh Binh	95.04	4.93	0.01	0.02
26	Thanh Hoa	94.39	5.52	0.05	0.05
27	Nghe An	94.60	5.32	0.02	0.06
28	Ha Tinh	97.49	2.48	0.01	0.03
29	Quang Binh	95.87	4.08	0.04	0.02
30	Quang Tri	94.54	5.37	0.04	0.05
31	Thua Thien Hue	96.91	3.06	0.00	0.03

No.	Provinces	Single	Married	Widowed	Divorced/ separated
32	Da Nang	97.43	2.49	0.03	0.05
33	Quang Nam	95.63	4.31	0.02	0.04
34	Quang Ngai	94.20	5.62	0.10	0.07
35	Binh Dinh	94.87	5.05	0.03	0.04
36	Phu Yen	92.93	6.81	0.07	0.19
37	Khanh Hoa	93.94	5.77	0.13	0.16
38	Ninh Thuan	91.29	8.38	0.15	0.18
39	Binh Thuan	92.12	7.51	0.10	0.27
40	Kon Tum	84.25	15.37	0.10	0.28
41	Gia Lai	82.74	16.80	0.14	0.33
42	Dak Lak	90.98	8.81	0.10	0.12
43	Dak Nong	85.93	13.87	0.02	0.17
44	Lam Dong	90.64	9.24	0.05	0.06
45	Binh Phuoc	87.53	12.19	0.09	0.18
46	Tay Ninh	87.08	12.28	0.12	0.52
47	Binh Duong	91.10	8.74	0.02	0.14
48	Dong Nai	94.77	5.08	0.03	0.12
49	Ba Ria-Vung Tau	94.08	5.75	0.02	0.16
50	Ho Chi Minh City	94.71	5.23	0.00	0.06
51	Long An	89.62	10.15	0.07	0.17
52	Tien Giang	90.32	9.36	0.00	0.32
53	Ben Tre	91.30	8.43	0.03	0.24
54	Tra Vinh	89.46	10.14	0.05	0.35
55	Vinh Long	91.97	7.84	0.06	0.12
56	Dong Thap	88.96	10.62	0.04	0.39
57	An Giang	86.15	13.23	0.04	0.58
58	Kien Giang	88.88	10.73	0.06	0.33
59	Can Tho	90.15	9.68	0.03	0.14
60	Hau Giang	87.58	12.12	0.02	0.28
61	Soc Trang	89.91	9.73	0.07	0.29
62	Bac Lieu	91.15	8.62	0.06	0.16
63	Ca Mau	88.54	11.27	0.04	0.15

Table A19. Proportion never married among the population aged 40 and older and among the population up to age 20 by sex and province in Viet Nam, 2009

No.	Provinces	% of never-married population aged from 40		% population ever-married by the age of 20	
		Male	Female	Male	Female
1	Ha Noi	1.28	3.12	0.87	6.02
2	Ha Giang	0.28	2.78	0.71	7.57
3	Cao Bang	0.42	3.18	0.97	6.32
4	Bac Kan	0.65	5.44	0.75	5.4
5	Tuyen Quang	0.55	5.31	0.44	7.58
6	Lao Cai	0.60	6.56	0.37	5.04
7	Dien Bien	1.58	1.24	17.25	25.52
8	Lai Chau	0.75	1.41	11.37	23.16
9	Son La	0.41	2.23	0.97	8.49
10	Yen Bai	0.82	1.65	3.47	9.58
11	Hoa Binh	1.06	2.55	3.28	14.08
12	Thai Nguyen	0.92	2.48	5.16	16.11
13	Lang Son	0.61	3.31	0.74	7.15
14	Quang Ninh	1.05	1.69	5.49	13.08
15	Bac Giang	1.05	1.36	1.17	7.29
16	Phu Tho	1.19	1.33	18.65	33.83
17	Vinh Phuc	0.91	1.10	14.4	27.6
18	Bac Ninh	0.78	1.73	14.03	29.08
19	Hai Duong	0.50	2.72	1.15	5.61
20	Hai Phong	0.58	2.43	1.50	5.4
21	Hung Yen	0.62	3.19	0.21	2.51
22	Thai Binh	0.67	2.45	0.65	4.13
23	Ha Nam	1.15	4.19	1.37	5.46
24	Nam Dinh	1.47	4.53	0.67	3.09
25	Ninh Binh	2.77	5.35	0.39	2.57
26	Thanh Hoa	1.60	6.83	1.33	4.37
27	Nghe An	1.18	4.54	1.50	5.8
28	Ha Tinh	1.28	4.46	0.6	5.13
29	Quang Binh	1.29	3.71	1.18	7.07
30	Quang Tri	2.73	4.31	1.14	6.06

No.	Provinces	% of never-married population aged from 40		% population ever-married by the age of 20	
		Male	Female	Male	Female
31	Thua Thien Hue	1.11	1.77	5.46	17.26
32	Da Nang	0.88	1.28	3.38	14.07
33	Quang Nam	1.85	3.78	1.86	9.36
34	Quang Ngai	6.45	10.88	1.38	5.29
35	Binh Dinh	2.07	3.19	1.74	8.71
36	Phu Yen	1.12	1.52	2.29	12.47
37	Khanh Hoa	2.56	4.81	2.63	12.92
38	Ninh Thuan	3.58	5.53	2.53	8.9
39	Binh Thuan	2.06	3.54	1.30	7.88
40	Kon Tum	2.02	4.78	2.18	10.38
41	Gia Lai	1.96	4.47	2.41	11.04
42	Dak Lak	2.26	5.24	3.40	13.85
43	Dak Nong	2.28	5.85	1.94	9.68
44	Lam Dong	2.13	5.55	1.43	8.03
45	Binh Phuoc	2.21	4.75	1.38	8.7
46	Tay Ninh	1.61	3.94	2.46	11.12
47	Binh Duong	2.92	6.90	2.19	9.85
48	Dong Nai	1.39	3.82	2.54	12.42
49	Ba Ria-Vung Tau	1.55	4.28	2.19	10.54
50	Ho Chi Minh City	2.00	5.03	2.37	10.09
51	Long An	1.82	4.60	1.70	8.85
52	Tien Giang	0.99	2.79	2.83	11.46
53	Ben Tre	1.29	1.64	10.70	16.73
54	Tra Vinh	0.75	2.56	0.85	8.53
55	Vinh Long	0.38	2.65	0.69	9.11
56	Dong Thap	0.99	3.76	0.65	4.83
57	An Giang	0.43	3.17	0.61	6
58	Kien Giang	0.56	5.29	0.33	4.96
59	Can Tho	0.76	2.25	1.83	10.61
60	Hau Giang	1.39	1.95	4.69	15.75
61	Soc Trang	1.41	2.11	2.32	9.02
62	Bac Lieu	3.20	5.53	1.22	5.23
63	Ca Mau	2.41	4.21	1.06	5.92

Table A20. Regression on probability of never marriage among population aged 40–69, Viet Nam, 2009

	Total		Male		Female	
	Coef.	SE	Coef.	SE	Coef.	SE
Region						
Northern Midlands and Mountains	0.000		0.000		0.000	
Red River Delta	0.631	0.016	0.174	0.034	0.718	0.018
North and South Central Coast	0.546	0.015	0.519	0.030	0.563	0.017
Central Highlands	-0.027	0.022	0.446	0.040	-0.185	0.026
Southeast	1.189	0.016	1.545	0.031	1.080	0.019
Mekong River Delta	0.718	0.016	0.944	0.030	0.688	0.019
Urban (Rural=0)	0.558	0.008	0.917	0.017	0.438	0.009
Age group						
40–44	0.000		0.000		0.000	
45–49	-0.198	0.010	-0.556	0.019	-0.045	0.011
50–54	-0.410	0.010	-1.216	0.024	-0.136	0.012
55–59	-0.659	0.013	-1.794	0.033	-0.309	0.014
60–64	-1.108	0.017	-2.446	0.045	-0.709	0.019
65–69	-1.894	0.024	-3.044	0.060	-1.495	0.026
In-migrant	0.150	0.030	0.216	0.055	0.147	0.035
Ethnic minority	-0.040	0.014	0.141	0.026	-0.077	0.017
Religious adherent	0.297	0.009	0.220	0.018	0.321	0.011
Educational attainment						
Below primary	0.000		0.000		0.000	
Below L. Secondary	-0.780	0.013	-1.314	0.025	-0.608	0.015
Below U. Secondary	-0.929	0.014	-1.518	0.025	-0.712	0.016

	Total		Male		Female	
	Coef.	SE	Coef.	SE	Coef.	SE
U. Secondary	-0.887	0.016	-1.443	0.028	-0.651	0.019
Post secondary	-0.862	0.022	-1.573	0.041	-0.564	0.025
Working	-0.255	0.009	-1.238	0.020	-0.038	0.011
Vision Disability	0.635	0.029	0.399	0.051	0.722	0.035
Hearing Disability	0.125	0.019	0.087	0.036	0.166	0.023
Walking Disability	0.315	0.019	0.084	0.034	0.363	0.022
Memory Disability	1.376	0.017	1.676	0.029	1.150	0.020
Female (male=0)	0.992	0.009				
Constant	-3.639	0.024	-2.279	0.041	-3.081	0.026
N	3643806	3643806	1716721	1716721	1927085	1927085
R²						
Cox-Snell	0.173		0.190		0.126	
Nagelkerke	0.202		0.274		0.137	
McKelvey & Zavoina	0.619		0.751		0.445	
McFadden	0.099		0.178		0.054	

Table A21. Regressions on probability of ever-marriage among population aged 15–19, Viet Nam, 2009

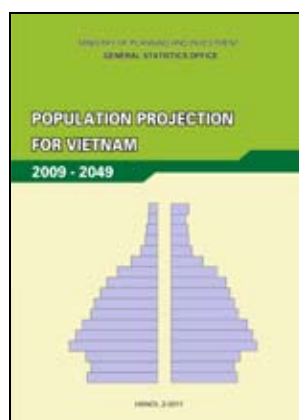
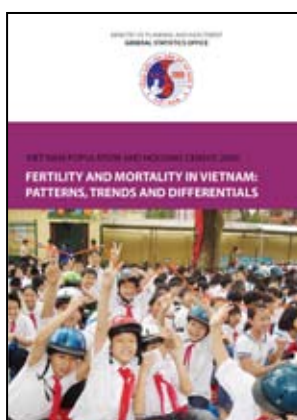
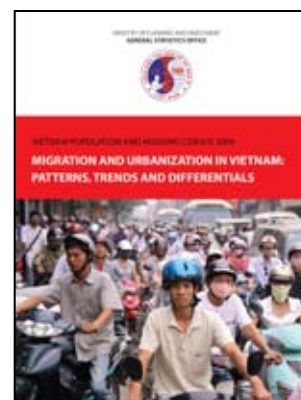
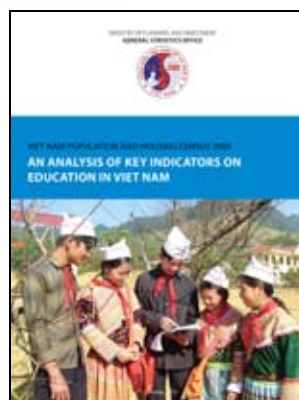
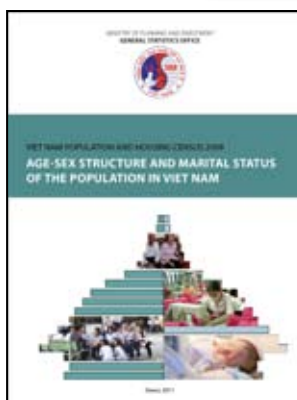
	Total		Male		Female	
	Coef.	SE	Coef.	SE	Coef.	SE
Region						
Northern Midlands and Mountains	0		0		0	
Red River Delta	-0.467	0.082	-0.912	0.042	-0.339	0.019
North and South Central Coast	-0.707	0.053	-0.895	0.027	-0.613	0.017
Central Highlands	-0.156	0.059	-0.480	0.030	-0.004	0.020
Southeast	-0.616	0.084	-0.555	0.043	-0.579	0.025
Mekong River Delta	-0.165	0.053	-0.419	0.027	-0.051	0.018
Urban (Rural=0)	-0.305	0.065	-0.013	0.033	-0.379	0.017
Age group						
15 years	0		0		0	
16 years	0.791	0.094	0.508	0.048	0.886	0.031
17 years	1.624	0.088	1.128	0.045	1.775	0.029
18 years	2.506	0.084	1.782	0.043	2.713	0.028
19 years	3.205	0.082	2.517	0.042	3.398	0.028
In-migrant	0.345	0.120	0.079	0.061	0.387	0.024
Ethnic minority	0.747	0.037	1.250	0.019	0.544	0.014
Religious adherent	-0.029	0.053	-0.050	0.027	-0.020	0.016
Educational attainment						
Below primary	0		0		0	
Below L. Secondary	-0.312	0.069	-0.232	0.035	-0.415	0.024
Below U. Secondary	-0.941	0.065	-0.762	0.033	-1.084	0.021
U. Secondary	-1.637	0.082	-1.413	0.042	-1.792	0.025
Post secondary	-1.950	0.584	-0.579	0.298	-2.364	0.176
Working	1.043	0.065	1.700	0.033	0.945	0.013
Female (male=0)	1.639					
Constant	-5.545	0.061	-5.761	0.060	-3.890	0.035
N	1474153		752881		721272	
R²						
Cox-Snell	0.472		0.251		0.541	
Nagelkerke	0.517		0.351		0.559	
McKelvey & Zavoina	0.830		0.820		0.790	
McFadden	0.261		0.230		0.227	

Table A22. Regressions on probability of divorce or separation among population aged 15–69, Viet Nam, 2009

	Total		Male		Female	
	Coef.	SE	Coef.	SE	Coef.	SE
Region						
Northern Midlands and Mountains	0		0		0	
Red River Delta	-0.223	0.012	-0.173	0.023	-0.251	0.014
North and South Central Coast	-0.346	0.012	-0.219	0.022	-0.382	0.014
Central Highlands	-0.219	0.016	-0.133	0.030	-0.222	0.018
Southeast	0.263	0.013	0.421	0.024	0.221	0.016
Mekong River Delta	0.116	0.012	0.477	0.021	-0.014	0.014
Urban (Rural=0)	0.411	0.008	0.365	0.014	0.424	0.009
Age group						
15–19	0		0		0	
20–29	0.226	0.034	0.232	0.082	0.343	0.039
30–39	0.484	0.034	0.324	0.081	0.716	0.040
40–49	0.650	0.034	0.265	0.081	0.985	0.040
50–59	0.642	0.034	-0.084	0.082	0.649	0.038
60–69	0.359	0.036	-0.618	0.085	0.442	0.040
In-migrant	-0.242	0.022	-0.476	0.045	-0.204	0.027
Ethnic minority	-0.378	0.012	-0.388	0.021	-0.356	0.015
Religious adherent	0.085	0.009	0.014	0.016	0.122	0.010
Educational attainment						
Below primary	0		0		0	
Below L. Secondary	-0.057	0.015	-0.186	0.027	0.008	0.018
Below U. Secondary	-0.232	0.015	-0.424	0.028	-0.130	0.019
U. Secondary	-0.289	0.017	-0.500	0.030	-0.183	0.020
Post Secondary	-0.631	0.022	-0.849	0.040	-0.530	0.027
Working	0.016	0.010	-0.937	0.019	0.242	0.011
Vision Disability	0.239	0.052	-0.025	0.075	0.346	0.071
Hearing Disability	-0.099	0.028	-0.229	0.042	0.016	0.036

	Total		Male		Female	
	Coef.	SE	Coef.	SE	Coef.	SE
Walking Disability	0.107	0.025	-0.077	0.038	0.115	0.032
Memory Disability	0.927	0.023	1.186	0.032	0.629	0.031
Ever given birth					-0.462	0.018
Female (male=0)	0.822	0.007				
Constant	-4.664	0.040	-3.441	0.088	-3.937	0.044
N	6728732	6728732	3249608	3249608	3479124	3479124
R²						
Cox-Snell	0.045		0.030		0.037	
Nagelkerke	0.061		0.051		0.046	
McKelvey & Zavoina	0.385		0.356		0.279	
McFadden	0.035		0.034		0.023	

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