Part II
MAJOR FINDINGS

CHAPTER 3
POPULATION SIZE AND STRUCTURE

In the 2009 Population and Housing Census, the *usual residents* were enumerated using the household as the survey unit. Households may consist of individuals eating and residing alone or a group of people residing with each other and taking meals together. The basic rule of the Census is that each person has one unique regular place of residence. However, some typical people live at some other location and at the time of the census were not enumerated in their household. There are separate rules for enumerating people in the military forces, the police and Vietnamese foreign service officers who together with their family are living and working overseas; they are not included as members of households but are still enumerated in the Census.

1. Household and population size

1.1 Household size

According to the Census results, on 01 April, 2009, Vietnam had 22,628 thousand households, an increase of 5,967 thousand households or 36% compared to 1999. During the period 1999 - 2009, the average annual growth rate in households was 3%.

TABLE 3.1: NUMBER AND GROWTH RATE OF HOUSEHOLDS, 1979–2009

Census date	Number of households	Growth rate (%)	Annual average growth rate (%)
1/10/1979	9 665 866	-	-
1/4/1989	12 927 297	33.7	3.1
1/4/1999	16 661 366	28.9	2.5
1/4/2009	22 628 167	35.8	3.1

Sources:

- 1979: Central Population and Housing Census Steering Committee, "the 1999 Vietnam Population and Housing Census: Sample Results", Hanoi-2000, page 29.

- 1989: Central Population Census Steering Committee, "the 1989 Vietnam Population Census: Completed census results", Hanoi-1991, Vol. I, Table 1.3, page 63.

- 1999: General Statistics Office, "the 1999 Vietnam Population and Housing Census: Completed census results", the Statistics Publishing House, August-2001, Table 1.3, page 11.

Table 3.2 presents the distribution of households by household size, and average household size by socio-economic region. The average number of persons

per household in 2009 was 3.8 persons, a decline of 0.8 persons compared to 1999. The differential in household size between urban and rural areas is insubstantial, at 3.7 and 3.9 persons respectively. The Red River Delta has the lowest average household size in the country (3.5 persons). The region with the largest household size is the Central Highlands (4.1 persons), followed by the Northern Midlands and Mountains and the Mekong River Delta (4.0 persons). One observes in urban areas, that the Northern Midlands and Mountains has the smallest average household size (3.2 persons). The region with the largest average household size in urban areas is the Mekong River Delta (3.9 persons). This indicates that the small family model is common in urban areas in all regions.

TABLE 3.2: DISTRIBUTION OF HOUSEHOLDS BY HOUSEHOLD SIZE AND AVERAGE HOUSEHOLD SIZE BY URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Socio-economic region	Distribution of household size (%)					Average household size (persons)
	1 person	2–4 persons	1–4 persons	5–6 persons	7+ persons	
Entire country	**7.3**	**64.7**	**72.0**	**23.0**	**5.1**	**3.8**
Northern Midlands and Mountains	5.4	63.2	68.6	24.1	7.3	4.0
Red River Delta	9.1	70.2	79.3	18.7	2.0	3.5
North and South Central Coast	7.6	61.4	69.0	26.1	4.9	3.8
Central Highlands	5.3	58.8	64.1	27.4	8.5	4.1
Southeast	7.7	65.3	73.0	20.9	6.1	3.8
Mekong River Delta	5.9	63.4	69.3	24.7	6.0	4.0
Urban	**8.1**	**67.7**	**75.8**	**19.3**	**4.9**	**3.7**
Northern Midlands and Mountains	9.9	74.4	84.2	13.8	2.0	3.2
Red River Delta	8.6	73.0	81.6	16.3	2.1	3.4
North and South Central Coast	8.0	65.9	73.9	21.5	4.6	3.7
Central Highlands	7.7	65.3	73.0	21.9	5.0	3.7
Southeast	7.6	65.1	72.7	20.4	6.9	3.8
Mekong River Delta	7.6	63.5	71.1	21.7	7.2	3.9
Rural	**6.9**	**63.4**	**70.3**	**24.6**	**5.1**	**3.9**
Northern Midlands and Mountains	4.3	60.5	64.8	26.7	8.6	4.1
Red River Delta	9.3	69.0	78.3	19.7	2.0	3.5
North and South Central Coast	7.5	59.8	67.3	27.7	5.0	3.9
Central Highlands	4.3	55.9	60.2	29.8	10.1	4.3
Southeast	7.8	65.6	73.4	21.7	5.0	3.7
Mekong River Delta	5.4	63.3	68.7	25.6	5.6	4.0

Data in Table 3.2 indicate that overall and in each of the 6 socio-economic regions, the number of one-person households (single households) accounts for a

very small share of the total. The number of households with 7 or more members accounted for the smallest share of households nationally, and in almost all regions. Small family size (households with 4 or fewer members) is very common in Vietnam (72%), especially in urban areas (76%). There is variation in household size across regions. The Central Highlands has the lowest share of households with 4 or fewer members (64%), and it is also a region with a high concentration of ethnic minority people, who tend to have high fertility and traditions favouring multi-generational families. For all remaining regions, the share of households having 4 or fewer members is more than 68%. In particular, in the Red River Delta, for every 5 households, there are 4 households containing 4 or fewer members (79%).

1.2 Population size

Total population of Vietnam at 0:00 on 01 April, 2009 was 85,789,573 persons. This makes Vietnam the third most populous country in Southeast Asia (after Indonesia and the Philippines) and the thirteenth most populous country in the world. The population in urban areas was 25,374,262 persons, accounting for 29.6%, and in rural areas it was 60,415,311 persons, accounting for 70.4% of the total population. The male population is 42,482,549 persons, accounting for 49.5% of total population and the female population was 43,307,024 persons, accounting for 50.5% of total population.

TABLE 3.3: POPULATION SIZE BY SEX, URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Unit: Persons

Socio-economic region	Total	Male	Female	Urban	Rural
Entire country	**85 789 573**	**42 482 549**	**43 307 024**	**25 374 262**	**60 415 311**
Northern Midlands and Mountains	11 064 449	5 529 524	5 534 925	1 772 059	9 292 390
Red River Delta	19 577 944	9 647 717	9 930 227	5 721 184	13 856 760
North and South Central Coast	18 835 485	9 331 599	9 503 886	4 530 450	14 305 035
Central Highlands	5 107 437	2 583 501	2 523 936	1 419 069	3 688 368
Southeast	14 025 387	6 844 678	7 180 709	8 009 167	6 016 220
Mekong River Delta	17 178 871	8 545 530	8 633 341	3 922 333	13 256 538

Data in Table 3.4 indicates that since 1999, the Vietnamese population has increased by 9.47 million persons, an average of 947,000 persons per year. The

average annual population growth rate (hereafter called the population growth rate) in the period between the 1999 and 2009 Population Censuses was 1.2% per year making it the decade experiencing the lowest population growth rate in the past 30 years. The population growth rate between the 1979 and 1989 Population Censuses was 2.1%, and between the 1989 and 1999 Population Censuses it was 1.7% per year.

TABLE 3.4: POPULATION SIZE AND GROWTH RATE, 1979–2009

Year	Population (thousand persons)	Average annual population growth rate (%)
1979	52 742	-
1989	64 376	2.1
1999	76 323	1.7
2009	85 790	1.2

Sources: 1979, 1989, 1999: Central Census Steering Committee, "the 1999 Vietnam Population and Housing Census: Preliminary results", The gioi Publishing House, September-1999. Table 1, page 10.

2. Regional population distribution and population growth

Geographic population distribution is an important aspect of development. Data in Table 3.5 indicates that, the Vietnamese population is not evenly distributed and there is large regional variation. The most heavily populated region is the Red River Delta (19,577,944 persons). The Central Highlands is the least populated region with 5,107,437 persons. Some 43% of the nation's population live in the two regions of the Red River and Mekong River Delta, the deltas of two large rivers with fertile land and conditions amenable to agricultural production. In contrast, the Northern Midlands and Mountains and the Central Highlands, high mountain regions with difficult transportation conditions and large concentrations of ethnic minority people, only hold one fifth (nearly 19%) of the nation's population. The data also indicate that over the 10 year period from 1999 to 2009, the average annual population growth rate of the Southeast and Central Highlands was higher than for the other regions. This may indicate that the Southeast and Central Highlands experienced high in-migration.

Over the past 10 years, average population growth was lowest in the North and South Central Coast region (0.4%/year), the region with the second largest population, followed by the Mekong River Delta (0.6%/year), the region with the third largest population. The Southeast experienced the highest population growth,

(3.2%/year). In this region, Ho Chi Minh City increased on average 3.5%/year, slightly higher than the overall growth rate for the entire region, while in Binh Duong, growth was 7.3%/year, 2.3 times higher than the overall growth rate of the region. Although the Central Highlands is the region with the smallest population and lowest population density (5.1 million persons with a population density of 93 persons/km^2), because of high in-migration, the population grew rapidly with an average annual growth rate of 2.3%/year over the period 1999–2009.

TABLE 3.5: POPULATION AND POPULATION GROWTH RATE BY SOCIO-ECONOMIC REGION, 1999 AND 2009

Socio-economic region	Population (Persons)		Average annual population growth rate for the period 1999–2009 (%)
	1999	2009	
Entire country	**76 323 173**	**85 789 573**	**1.2**
Northern Midlands and Mountains	10 033 878	11 064 449	1.0
Red River Delta	17 852 989	19 577 944	0.9
North and South Central Coast	18 087 097	18 835 485	0.4
Central Highlands	4 059 928	5 107 437	2.3
Southeast	10 158 606	14 025 387	3.2
Mekong River Delta	16 130 675	17 178 871	0.6

Source: 1999: General Statistics Office, "the 1999 Vietnam Population and Housing Census: Completed census results", the Statistics Publishing House, August-2001.

The population as of 01 April, 2009 for each province/municipality (hereafter simply denoted as province) is presented in Table B.1, Part III. The data indicate the provinces with the smallest populations were Bac Kan (294,660 persons), followed by Lai Chau (370,135 persons). Ho Chi Minh City had the largest population in the country (7,123,340 persons), followed by Hanoi (6,448,837 persons). In general, the population is primarily concentrated in large cities and delta regions, while mountainous provinces tend to have small populations. Over the past 10 years, under the influence of the market economy, there has been a widescale and intense redistribution of the population and labour force throughout the country.

3. Population density

With population density of 259 persons/km^2, Vietnam is one of the most densely populated countries in the region and in the world. Vietnam's population

density is the third in Southeast Asia only after the Philippines (307 persons/km^2) and Singapore (7,486 persons/km^2) and stands 16th out of 51 nations and territories in Asia.

Table 3.6 shows more clearly the concentration of population in specific regions. The Red River Delta, with the largest population in the country only contains 6% of the nations land area. Population density of the Red River Delta is the highest in the country at 930 persons/km^2, followed by the Southeast, with population density of 594 persons/km^2. These 2 regions contain 39% of the entire population of the country, but only 13% of total land area.

The Northern Midlands and Mountains and the Central Highlands together contain 19% of the population, yet they cover almost one half of the nation's land area (over 45%). The Northern Midlands and Mountains is the region with the second largest land area, yet it stands fifth in population size. Population density of the Northern Midlands and Mountains is 116 persons /km^2 and in the Central Highlands is 93 persons/km^2, the lowest in the nation.

TABLE 3.6: DISTRIBUTION OF LAND AREA, POPULATION AND POPULATION DENSITY BY SOCIO-ECONOMIC REGION, 2009

Socio-economic region	Area (%)	Population (%)	Population density (Persons/km^2)
Entire country	**100.0**	**100.0**	**259**
Northern Midlands and Mountains	28.8	12.9	116
Red River Delta	6.3	22.8	930
North and South Central Coast	29.0	22.0	196
Central Highlands	16.5	6.0	93
Southeast	7.1	16.3	594
Mekong River Delta	12.3	20.0	423

Table 3.7 presents population density by province for 1999 and 2009. Even within a region, population density varied substantially across provinces. In general, provinces with large land area were those with the lowest population density. However, areas with high population density were inevitably the urban areas, especially the capital, Hanoi, and Ho Chi Minh City. The population density in Hanoi was 1,926 persons/km^2 and in Ho Chi Minh City it was 3,399 persons/km^2. Data for provinces shows a picture of the varied population distribution in each region.

TABLE 3.7: POPULATION DENSITY BY PROVINCE, 1999 AND 2009

Province	Population density (Persons/km^2)	
	1999	2009
Entire country	**231**	**259**
Northern Midlands and Mountains	**105**	**116**
02. Ha Giang	77	91
04. Cao Bang	73	76
06. Bac Kan	57	61
08. Tuyen Quang	116	124
10. Lao Cai	74	96
11. Dien Bien	34	51
12. Lai Chau		41
14. Son La	62	76
15. Yen Bai	100	107
17. Hoa Binh	164	171
19. Thai Nguyen	293	318
20. Lang Son	86	88
24. Bac Giang	390	406
25. Phu Tho	361	372
Red River Delta	**830**	**930**
01. Ha Noi	1 296	1 926
22. Quang Ninh	169	188
26. Vinh Phuc	797	813
27. Bac Ninh	1 181	1 245
30. Hai Duong	993	1 030
31. Hai Phong	1 113	1 207
33. Hung Yen	1 201	1 222
34. Thai Binh	1 183	1 142
35. Ha Nam	944	913
36. Nam Dinh	1 127	1 105
37. Ninh Binh	637	647
North and South Central Coast	**188**	**196**
38. Thanh Hoa	310	305
40. Nghe An	175	177
42. Ha Tinh	210	204
44. Quang Binh	99	105
45. Quang Tri	125	126
46. Thua Thien Hue	209	215
48. Da Nang	548	691

Province	Population density (Persons/km^2)	
	1999	2009
North and South Central Coast (cont.)		
49. Quang Nam	132	136
51. Quang Ngai	230	236
52. Binh Dinh	240	246
54. Phu Yen	149	170
56. Khanh Hoa	196	222
58. Ninh Thuan	147	168
60. Binh Thuan	131	150
Central Highlands	**73**	**93**
62. Kon Tum	32	44
64. Gia Lai	60	82
66. Dak Lak	90	132
67. Dak Nong		75
68. Lam Dong	98	121
Southeast	**442**	**594**
70. Binh Phuoc	95	127
72. Tay Ninh	240	263
74. Binh Duong	329	550
75. Dong Nai	339	421
77. Ba Ria-Vung Tau	407	501
79. Ho Chi Minh City	2 410	3 399
Mekong River Delta	**408**	**423**
80. Long An	301	320
82. Tien Giang	686	672
83. Ben Tre	577	532
84. Tra Vinh	408	436
86. Vinh Long	680	695
87. Dong Thap	478	493
89. An Giang	598	606
91. Kien Giang	239	265
92. Can Tho	611	847
93. Hau Giang		473
94. Soc Trang	368	389
95. Bac Lieu	297	331
96. Ca Mau	215	226

Sources: *1999: Central Census Steering Committee, "the 1999 Vietnam Population and Housing Census: Preliminary results", The gioi Publishing House, September-1999. Table 1, page 10.*

Almost all provinces of the Red River Delta, including rural areas, have very high population density. In addition, with the exception of Quang Ninh, Vinh Phuc, Ha Nam and Ninh Binh provinces, almost all remaining provinces in the region have population densities over 1000 persons/ km^2. Quang Ninh had the

lowest population density in the region (188 persons/km^2). Provinces of the Mekong River Delta, have much lower population density than the Red River Delta provinces, and they have much more even population distribution, with population density ranging from 300–850 persons/km^2. Ca Mau had the lowest population density in the region at (226 persons/km^2), even below the national average.

In the Southeast, population is highly concentrated in Ho Chi Minh City — with population density of 3399 persons/km^2. Adjacent to Ho Chi Minh City are the provinces of Binh Duong, Dong Nai and Ba Ria-Vung Tau, with population densities of 550, 421 and 501 persons/km^2 respectively. The remaining provinces in this region do not have high concentrations of population, and the population densities in these provinces are about the same as the national average.

All provinces in the high mountain and border areas in the Northern Midlands and Mountains region, such as Ha Giang, Cao Bang, Bac Kan, Lao Cai, Dien Bien, Lai Chau, Son La and Lang Son have population densities below 100 persons/km^2. In particular, in this region Lai Chau province has the lowest population density of any province in the country at 41 persons/km^2.

The Central Highlands also has very low population densities, and includes Kon Tum province, which has the second lowest population density in the country at 44 persons/km^2. The North and South Central Coast region has a relatively uniform distribution of population. With the exception of Da Nang, with a population density of 691 persons/km^2, the remaining provinces have population densities lying in the range from 100–300 persons/km^2.

4. Urban and rural population

Table 3.8 indicates that by 2009, 29.6% of the population was living in urban areas compared to 23.7% in 1999. During the period 1999–2009, average annual population growth in urban areas was 3.4%/year, while in rural areas it was only 0.4%/year. Between the two censuses of 1999 and 2009, the national population increased 9.47 million persons, of which urban areas saw an increase of 7.3 million persons (accounting for 77%) while rural areas saw an increase of 2.17 million persons (accounting for 23%).

In the Southeast, the urban population accounted for 57.1% of the total (in 1999 this figure was 55.1%), explained easily by the fact that this region contains three large urban centres including Ho Chi Minh City, Dong Nai and Ba Ria-Vung Tau. The Red River Delta had a relatively high share of its population in urban areas (29.2%), compared to 1999 when the figure was 21.0%, and again, this can be explained by the fact that this region also contains three large urban centres, Quang Ninh, Hai Phong and the capital city of Ha Noi.

TABLE 3.8: URBAN SHARE OF POPULATION IN 1999, 2009 AND AVERAGE ANNUAL POPULATION GROWTH 1999–2009 BY SOCIO-ECONOMIC REGION

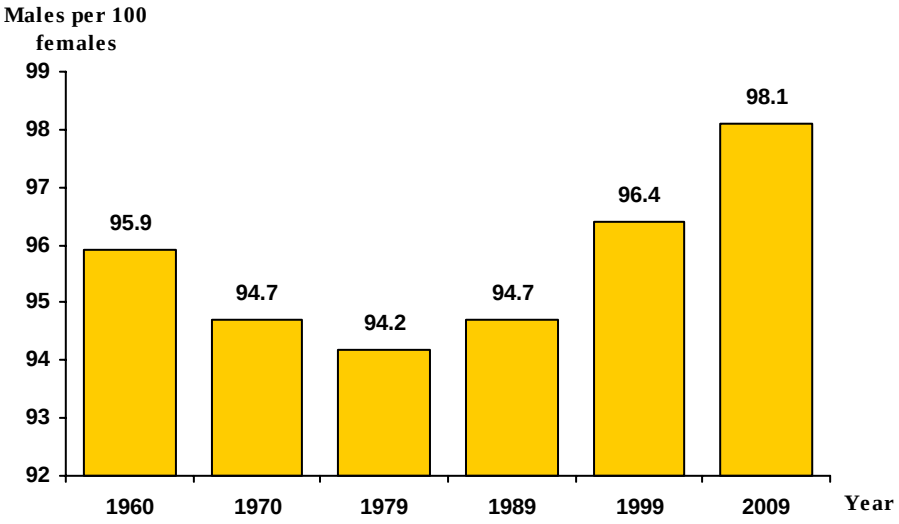
Socio-economic region	Urban share of population (%)		Average annual population growth 1999–2009 (%)	
	1999	2009	Urban	Rural
Entire country	**23.7**	**29.6**	**3.4**	**0.4**
Northern Midlands and Mountains	13.8	16.0	2.4	0.7
Red River Delta	21.0	29.2	4.2	-0.2
North and South Central Coast	19.1	24.1	2.7	-0.2
Central Highlands	27.2	27.8	2.5	2.2
Southeast	55.1	57.1	3.6	2.8
Mekong River Delta	17.2	22.8	3.4	-0.1

Source: 1999: General Statistics Office, "the 1999 Vietnam Population and Housing Census: Completed census results", the Statistics Publishing House, August-2001.

5. Sex ratio

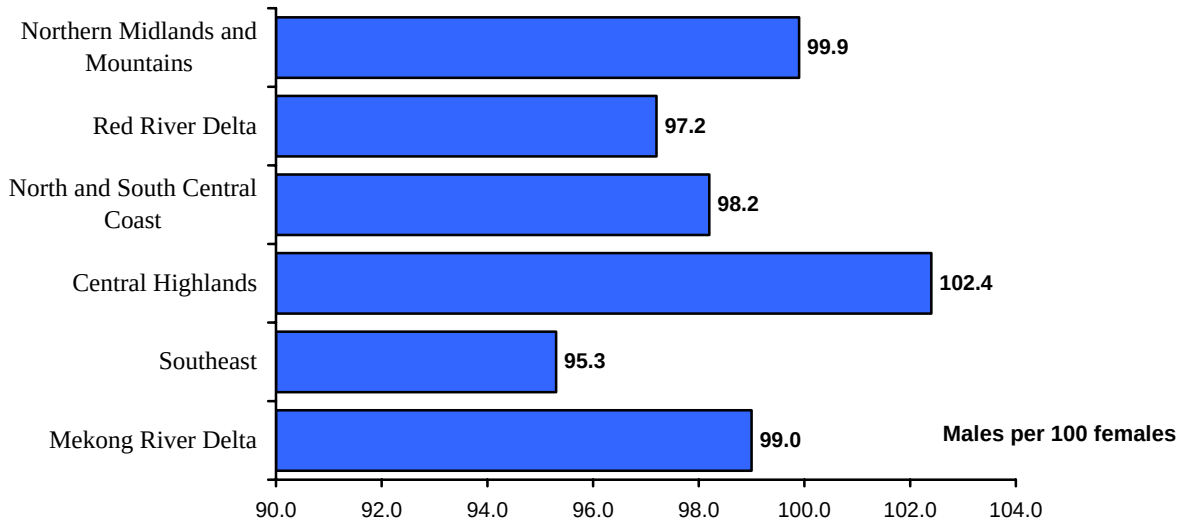
The sex ratio is defined as the number of males per 100 females. Since the earliest available estimates in 1960, Vietnam's sex ratio has always been less than 100. This situation is due to the fact that male mortality has exceeded female mortality as it has been strongly affected by wars against foreign occupiers from the 1940s to the 1970s. Because the number of post-war births accounts for an ever increasing share, the sex ratio has been gradually increasing since 1979 (see Figure 3.1). The sex ratio at birth has increased rapidly in recent years, also contributing to the increase in the overall sex ratio of the Vietnamese population.

FIGURE 3.1: SEX RATIO OF THE VIETNAMESE POPULATION, 1960–2009



The sex ratio is the lowest in the Southeast, the region containing Ho Chi Minh City, which is the largest city in the country, accounting for 51% of the population in its region, and has always had the lowest sex ratio in the country (90.2 males/100 females in 1979, 88.4 males/100 females in 1989, 92.8 males/100 females in 1999 and 92.7 males/100 females in 2009). In addition, the inter-provincial in-migration flows into the three provinces attracting the most migrants (Ho Chi Minh City, Binh Duong, Ba Ria-Vung Tau) always have more females than males.

FIGURE 3.2: SEX RATIO BY SOCIO-ECONOMIC REGION, 2009



6. Population age structure

The sex and age structure of the population reflects an overall picture of fertility, mortality and population increase of the previous birth cohorts up to the time of the Population Census on 01 April, 2009. One useful tool for describing the age and sex structure of the population is the age pyramid or namely the population pyramid. Figure 3.3 presents the population pyramid using data from the Population Censuses of 1999 and 2009.

As fertility has declined substantially in recent years, while life expectancy continues to increase, Vietnam's population is beginning to age, with the proportion of the population in young ages declining and the proportion in older groups continuing to increase. The narrowing of three bars at the base of the pyramid for both males and females is evidence that fertility in Vietnam has seen continuous and rapid declines over the past 15 years. The peak of the pyramid continues to widen compared to the 1999 Census, reflecting the increase in the number of elderly due to reductions in mortality rates. In particular, both the male and female population in the age group 80 and older has increased considerably compared to 1999.

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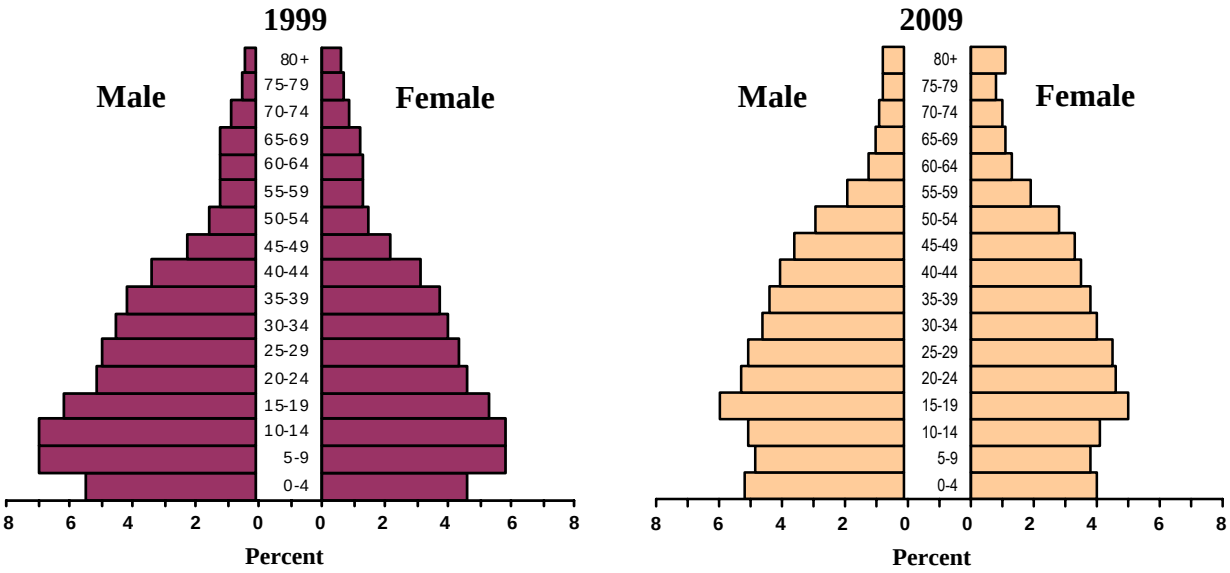
FIGURE 3.3: VIETNAM POPULATION PYRAMID, 1999 AND 2009



Source: 1999: the General Statistics Office, "the 1999 Vietnam Population and Housing Census: Completed census results", the Statistics Publishing House, August-2001, Table 1.7, page 83.

The 2009 population pyramid also indicates that the bars ranging from the age group 15–19 years through 55–59 years for both males and females has expanded uniformly, changing the population pyramid to the shape of a "drum barrel". This indicates that: (1) The proportion of women entering reproductive ages continues to increase, especially women aged 20–24 years, the age group with the highest fecundity; (2). The number of people entering working ages is also growing rapidly, creating great opportunities, but also challenges of how to generate adequate employment for this group.

TABLE 3.9: SEX STRUCTURE AND SEX RATIO BY AGE GROUP, 2009

Unit:Percent

Age group	Overall	Male	Female	Sex ratio
Total	**100.0**	**100.0**	**100.0**	**98.1**
0–4	8.5	9.0	7.9	111.5
5–9	8.0	8.4	7.6	108.7
10–14	8.5	9.0	8.1	108.5
15–19	10.2	10.6	9.8	105.3
20–24	9.2	9.3	9.2	99.0
25–29	8.9	8.9	8.8	98.4
30–34	7.9	8.0	7.8	100.8
35–39	7.6	7.7	7.5	101.3
40–44	7.0	7.0	7.0	98.9
45–49	6.4	6.3	6.5	94.9
50–54	5.3	5.0	5.5	89.3
55–59	3.6	3.3	3.8	86.3
60–64	2.3	2.1	2.5	82.4
65+	6.6	5.3	7.9	66.1

The age structure of the population is also used to calculate dependency ratios, indicators of the burden on the population in working ages. These indicators reflect the influence of fertility and mortality on age structure and the labour force. The total dependency ratio represents the number of the population under age 15 (0–14) and age 65 and older per 100 people aged 15-64. Table 3.10 reflects the total dependency ratio of Vietnam population using data from the 3 Population Censuses undertaken in 1989, 1999 and 2009.

The data show that the total dependency ratio in Vietnam has declined rapidly over time. According to results of the 2 most recent censuses prior to the 2009 Census, over a 10 year period, the total dependency ratio fell from 78% (in 1989) to 64% (in 1999). By 2009, this ratio had continued to decline to 46%. This

decline is almost entirely due to reductions in fertility leading to child dependency ratios declining. This again confirms that Vietnam's fertility has fallen continuously over the past 20 years. At the same time, this indicates that the burden on the population able to work continues to decline. Due to the results of population ageing, the aged dependency ratio has increased slightly starting in 1989, and hopefully it will continue to increase in the coming years.

TABLE 3.10: DEPENDENCY RATIO, 1989–2009

Unit:Percent

Dependency ratio	1989	1999	2009
Child dependency ratio (0–14)	69.8	54.2	36.6
Aged dependency ratio (65+)	8.4	9.4	9.7
Total dependency ratio	78.2	63.6	46.3

Source:

1989: The 1989 Vietnam Population Census, Completed census results, Vol. 1, Table 1.2, page 16.

1999: the General Statistics Office, "the 1999 Vietnam Population and Housing Census", Completed census results, the Statistics Publishing House, August-2001, Table 1.5, page 20.

Table 3.11 reflects even more clearly the population ageing trend mentioned above. The share of the population below 15 years of age has declined from 33% in 1999 to 25% in 2009. Average life expectancy at birth of the population continues to increase, raising the proportion of the population aged 65 years and older. In 1999, the proportion of the population aged 65 and older was 6%, while in the 2009 Census it had increased to 7%.

TABLE 3.11: PROPORTION OF POPULATION AGED UNDER 15, 15-64 AND 65 AND OLDER AND AGEING INDEX, 1989–2009

Unit:Percent

	1989	1999	2009
Proportion of population under 15 years (%)	39.2	33.1	25.0
Proportion of population 15–64 years (%)	56.1	61.1	68.4
Proportion of population 65 years and older (%)	4.7	5.8	6.6
Ageing index (%)	18.2	24.3	35.7

Sources:

1989: The 1989 Vietnam Population Census: Completed census results, Vol. 1, Table 1.2, page 16.

1999: the General Statistics Office, "The 1999 Vietnam Population and Housing Census: Completed census results", the Statistics Publishing House, August-2001, Table 1.5, page 20.

One of the important indicators to show population ageing is the ageing index, which is the ratio of the number of people aged 60 and older per 100 people aged below 15 years. This indicator reflects the dependency structure of the

population. Table 3.11 shows the ageing index for Vietnam for the years 1989, 1999 and 2009. The ageing index has increased from 18% in 1989 to 24% in 1999, and reached 36% in 2009, higher than the average for Southeast Asia (30%). This shows that population ageing in Vietnam has been taking place very rapidly over the past three decades.

By 2009, the proportion of the population in working ages (15–64 years) accounted for 68%, while the dependent proportion (below age 15 and from 65 years and older) accounted for 32%. Thus, Vietnam is in the period of the "demographic window", when each dependent is supported by 2 working age people, or in other words, the proportion of the population in working ages is double the proportion in dependent ages. How best to take advantage of the demographic window to create opportunities for socio-economic development has received and continues to receive much attention from researchers, policy-makers and the Government. The "demographic window" will not yield positive effects for the country if appropriate policies are not in place. Therefore, Vietnam must create appropriate policies in the areas of socio-economics such as ensuring social security for the elderly and vulnerable, creating employment, developing skills, and ensuring gender equality.

7. Marital status

In the 2009 Population Census, all people 15 years and older were asked about their marital status at the time of the census. Responses were coded into 5 groups: never married, currently married, widowed, divorced and separated. A person is considered currently married if by law or local custom and tradition, he or she is acknowledged to be married, or living with someone of the opposite sex as husband and wife.

An individual can only belong to one of two marital status categories: ever married, that is ever married one or more times; and never married. The first group includes people who are: currently married, widowed (person whose wife or husband has died, but the individual has not yet remarried), divorced (the individual has legally divorced, but not yet remarried), or separated (the individual is married, but does not currently live with their spouse as husband and wife). The

second group only includes people who have never been married by the time of the census.

7.1 Marital trends

Table 3.12 presents the marital status distribution of the population aged 15 years and older by age group. Over many years, the proportion married among the population aged 15 years and older has remained relatively high. Marriage in Vietnam is quite universal. Data indicate that 67% of men and 64% of women are currently married. Almost all men marry at least once in their life. In the age group 50–54, 99% of men have ever been married, while up to 6% of women in this age group have never been married (i.e. they remained single). Yet because women tend to marry earlier than men, overall, the proportion of men aged 15 and over never married is almost 8 percentage points higher than the proportion among single women (30.5% compared to 23.3%).

Table 3.12 and Figure 3.4 show that, in general, women tend to marry earlier than men, even though on a lifetime basis, marriage is more universal among men. Before age 25, a higher share of women are married than men. In the youngest age group considered (15–19 years), only about 2% of men have ever married, while 9 out of 100 women in this age group have been ever-married. In the age group 20–24 years, the proportion ever married among women is more double than that of men (49 compared to 24%). After age 35, the proportion ever-married among women begins to fall below that of men, despite the relatively high rate of widowhood among women in these ages. In the final age group in reproductive years (45–49 years), 6% of women remain never married. Figure 3.4 shows that as age increases, the proportion ever married among women is increased.

In the age group 15–49 years, 60% of men are currently married, while among women this proportion is 66%. Data in Table 3.12 show that the proportion of women currently married increases gradually from age 15 to 39 years, yet at age 40 it begins to decline slowly. The proportion of men currently married only begins to decline after age 55.

There are marital trend differentials between urban and rural areas. The proportion ever married of the population aged 15 and older in urban areas is

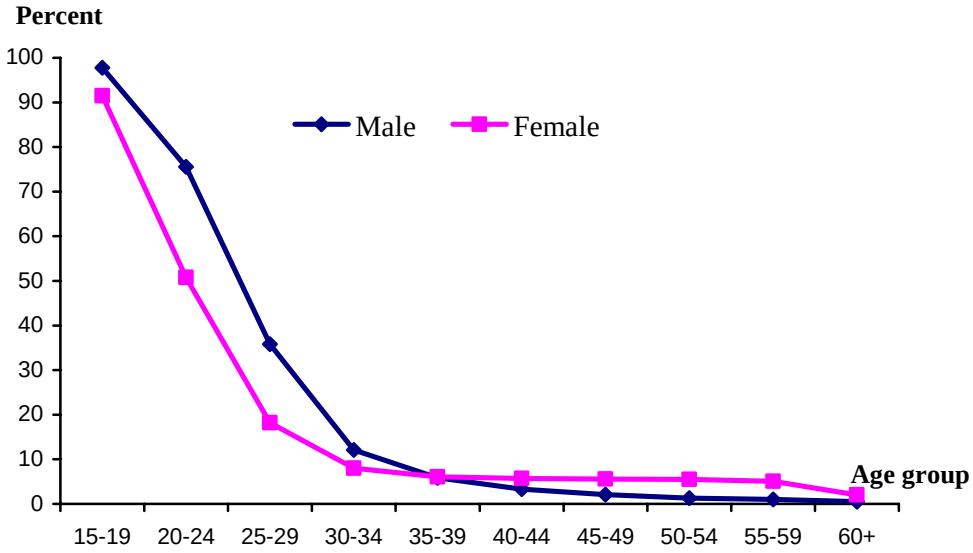
higher than in rural areas (31% compared to 25%). The proportion of the population currently married in rural areas is 67%, higher by 5 percentage points compared to urban areas (62%). The proportion widowed in rural areas is slightly higher than in urban areas, 7% and 6% respectively.

TABLE 3.12: PROPORTION OF POPULATION 15 YEARS AND OLDER BY MARITAL STATUS, AGE GROUP, SEX AND URBAN/RURAL RESIDENCE, 2009

Unit:Percent

Age group	Marital status				
	Never married	Currently Married	Widowed	Divorced	Separated
MALE					
15–19	97.8	2.2	0.0	0.0	0.0
20–24	75.6	24.1	0.0	0.2	0.1
25–29	35.8	63.2	0.1	0.5	0.3
30–34	12.1	86.4	0.2	0.9	0.4
35–39	5.9	92.3	0.3	1.0	0.4
40–44	3.3	94.6	0.6	1.0	0.5
45–49	2.1	95.7	0.9	0.9	0.4
50–54	1.3	95.7	1.6	0.9	0.4
55–59	1.0	95.2	2.7	0.7	0.4
60+	0.5	84.9	13.8	0.4	0.5
Total 15–49	***38.6***	***60.3***	***0.3***	***0.6***	***0.3***
Total 15+	**30.5**	**66.8**	**1.8**	**0.6**	**0.3**
FEMALE					
15–19	91.5	8.3	0.0	0.1	0.1
20–24	50.8	48.0	0.3	0.6	0.3
25–29	18.2	79.2	0.8	1.2	0.5
30–34	8.0	87.9	1.7	1.8	0.6
35–39	6.1	88.3	2.9	2.1	0.7
40–44	5.7	86.3	4.9	2.3	0.7
45–49	5.6	83.1	7.9	2.6	0.9
50–54	5.5	78.4	12.7	2.5	0.9
55–59	5.1	71.8	20.0	2.1	0.9
60+	2.0	44.1	52.6	0.8	0.6
Total 15–49	***30.2***	***65.6***	***2.3***	***1.4***	***0.5***
Total 15+	**23.3**	**63.9**	**10.8**	**1.4**	**0.6**
OVERALL					
Total 15+	**26.8**	**65.3**	**6.4**	**1.0**	**0.4**
Urban	***30.6***	***61.9***	***5.6***	***1.4***	***0.4***
Male	33.5	63.8	1.6	0.9	0.3
Female	27.9	60.3	9.3	2.0	0.5
Rural	***25.1***	***66.8***	***6.8***	***0.8***	***0.5***
Male	29.2	68.0	1.9	0.5	0.3
Female	21.3	65.5	11.4	1.2	0.6

FIGURE 3.4: PROPORTION NEVER MARRIED BY AGE GROUP, 2009



In general, divorce rates in Vietnam remain low, yet there are important differentials by sex and urban/rural residence. The proportion divorced among women is higher than among men. For both men and women, divorce rates in urban areas are double those in rural areas. This may be because economic conditions for people in urban areas, especially for urban women allows greater independence than in rural areas, so divorce is more easily accepted. The separation rate in Vietnam is negligible, and there are almost no differentials by sex, or by urban/rural residence.

The widowhood rate is positively related to age, with the rate increasing as age increases. The widowhood rate among women increases by age more rapidly than for men. Only 17% of men aged 55 and older are widowers, while among women in the same age group, three-fourths (73%) are widows. Data indicate the proportion widowed among women is 5 times higher than among men (11% compared to 2%). The reason for this differential include higher male mortality, greater male mortality during previous wars in Vietnam and the fact that widowers are more likely to remarry than widows.

Table 3.13 presents the percentage distribution of marital status of the population aged 15 years and older by sex, urban/rural residence and 6 socio-economic regions. The Southeast is the region with the highest proportion never married, followed by the North and South Central Coast. The Southeast contains provinces like Ho Chi Minh City, Dong Nai, Ba Ria-Vung Tau and Binh Duong,

places with dynamic economic activity, which attract the most investment projects in the country. This region attracts labour, mainly young labour from the region itself and from other regions, who migrate in to find employment. Much of this young labour may desire to remain single to obtain stable work prior to marriage. Unequal sex ratios, and crowded living conditions of workers in industrial and processing zones in this region make it difficult to find life partners and offer other explanations of why the proportion never married is high in the Southeast.

TABLE 3.13: PROPORTION OF POPULATION 15 YEARS AND OLDER BY MARITAL STATUS, SEX, URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Unit: Percent

Residence/Socio-economic region	Marital status				
	Never married	Currently Married	Widowed	Divorced	Separated
OVERALL					
Urban	30.6	61.9	5.6	1.4	0.4
Rural	25.1	66.8	6.8	0.8	0.5
Socio-economic region:					
Northern Midlands and Mountains	22.7	69.9	6.1	1.0	0.4
Red River Delta	24.5	67.5	6.8	0.9	0.4
North and South Central Coast	27.5	63.7	7.7	0.7	0.4
Central Highlands	26.0	67.4	5.4	0.8	0.4
Southeast	33.8	59.1	5.1	1.5	0.5
Mekong River Delta	25.6	66.2	6.3	1.3	0.6
MALE					
Urban	33.5	63.8	1.6	0.9	0.3
Rural	29.2	68.0	1.9	0.5	0.3
Socio-economic region:					
Northern Midlands and Mountains	26.5	71.0	1.8	0.5	0.3
Red River Delta	27.9	69.5	1.8	0.4	0.3
North and South Central Coast	31.9	65.4	2.1	0.4	0.2
Central Highlands	30.3	67.7	1.4	0.4	0.2
Southeast	36.4	60.9	1.4	0.9	0.4
Mekong River Delta	29.5	67.1	2.1	0.9	0.5
FEMALE					
Urban	27.9	60.3	9.3	2.0	0.5
Rural	21.3	65.5	11.4	1.2	0.6
Socio-economic region:					
Northern Midlands and Mountains	18.9	68.9	10.3	1.4	0.5
Red River Delta	21.2	65.6	11.4	1.2	0.5
North and South Central Coast	23.4	62.2	13.0	1.0	0.5
Central Highlands	21.7	67.2	9.3	1.2	0.5
Southeast	31.4	57.5	8.4	2.0	0.7
Mekong River Delta	22.0	65.3	10.4	1.6	0.7

7.2 Singulate mean age at marriage by residence, region and province

Age-related marriage patterns in Vietnam over the period 1989–2009 are presented in Table 3.14, including the proportion ever married in the age groups 15–19, 20–24, 45–49 and the singulate mean age at (*first)* marriage (SMAM). SMAM indicates the average number of years that a hypothetical cohort has lived unmarried before they marry for the first time. This indicator is usually calculated separately by sex. The proportion ever married for each young age group 15–19 and 20–24 has tended to decline slightly for both men and women between 1989–2009.

The proportion ever married in the age group 45–49 shows the prevalence of marriage in relation to population reproduction. This proportion among men in 1989–1999 was relatively stable at 99%, and in 2009 close to 98%. The proportion ever married among women in the age group 45-49 in 1989 was 97%, while in 1999 and 2009 it had fallen to 94%.

TABLE 3.14: SINGULATE MEAN AGE AT MARRIAGE, PROPORTION EVER MARRIED BY SEX AND AGE GROUP, 1989–2009

Year	Male				Female				Difference in SMAM between male and female
	SMAM (years)	Proportion ever married (%)			SMAM (years)	Proportion ever married (%)			
		15–19	20–24	45–49		15–19	20–24	45–49	
1989	24.4	4.5	37.6	98.6	23.2	11.4	57.5	96.7	1.2
1999	25.4	2.5	30.4	98.5	22.8	9.3	54.3	94.2	2.6
2009	26.2	2.2	24.4	97.9	22.8	8.5	49.2	94.4	3.4

Source:

1989: The 1989 Vietnam Population Census: Completed census results, Vol. I, Table 3.1, page 233.

1999: The General Statistics Office, "The 1999 Vietnam Population and Housing Census: Completed census results", the Statistics Publishing House, August-2001. Table 3.1, page 219.

Singulate mean age at marriage has shown an increasing trend for men. Compared to 1999, SMAM among men in 2009 increased 0.8 years, while SMAM among women there was no change. Difference in SMAM between male and female continued to increase, reaching 3.4 years in 2009.

Table 3.15 presents SMAM for men and women by socio-economic region and urban/rural residence. There was a differential in SMAM by residence. For

both men and women, SMAM in urban areas was higher than in rural areas. In 2009, SMAM among urban men was higher than among rural men by 2.1 years. This differential among women was 2.4 years, suggesting that urban men have a tendency to marry later than rural men.

TABLE 3.15: SINGULATE MEAN AGE AT MARRIAGE BY SEX, URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Unit: Years

Residence/Socio-economic region	SMAM		Difference in SMAM between male and female
	Male	Female	
Entire country	**26.2**	**22.8**	**3.4**
Urban	27.7	24.4	3.3
Rural	25.6	22.0	3.6
Socio-economic region:			
Northern Midlands and Mountains	24.2	21.3	2.9
Red River Delta	26.2	22.5	3.7
North and South Central Coast	26.8	23.0	3.8
Central Highlands	25.2	21.8	3.4
Southeast	27.4	24.2	3.2
Mekong River Delta	26.1	22.6	3.5

Data indicate that the Southeast was the region with the highest SMAM (27.4 years for men and 24.2 for women), followed by the North and South Central Coast. The region with the lowest SMAM was the Northern Midlands and Mountains (24.2 years for men and 21.3 for women), this was followed by the Central Highlands (25.2 years for men and 21.8 for women). These two regions contain a high proportion of the population belonging to ethnic minority groups. Data indicate that the regions where SMAM is high among men, it is also high among women. In general, areas with a greater extent of urbanization or more economic development are the areas where people tend to marry later.

SMAM among men and women and difference in SMAM between male and female by province is shown in Table A.2, Part III. Da Nang has the highest male SMAM in the country (28.4 years), followed by Ho Chi Minh City and Thua Thien-Hue (both at 28.2 years). The lowest male SMAM was in Lai Chau (21.9 years), followed by Ha Giang (22.0 years) and Son La (22.2 years). For women, the patterns across provinces were similar.

Difference in SMAM between male and female by province in 1999 indicated that only 5 provinces had a marital age gap of 3.5 years or more, while in 2009, there were 17 provinces where this gap was 4 years or higher. This indicates that increasingly, men have been choosing to marry women many years younger than themselves. Difference in SMAM between male and female was highest in Thai Binh and Quang Tri provinces (5.1 years), followed by Quang Nam and Ben Tre (both 4.8 years). The lowest gap was found in Ha Giang and Binh Duong (both 1.8 years), followed by Son La and Dien Bien (both 2.1 years).

7.3 Adolescent marriage

Similar to the 1999 Population and Housing Census and annual sample surveys of population change, data from the 2009 Population Census reveal the situation of marriage among adolescents. In order to examine trends, Table 3.16 presents the percent ever married among the population 15–19 years of age by age and SMAM for adolescents.

For both men and women, the proportion married among adolescents in rural areas was three times higher than in urban areas. The proportion ever married among women aged 18 in rural areas was 15%, almost doubling to 27% by age 19. The same figures in urban areas were only 7% and 11% respectively.

Marriage among youth aged 15–19 shows wide differentials across regions. The proportion ever married among both male and female youth in the Northern Midlands and Mountains was the highest, followed by the Central Highlands. In the Northern Midlands and Mountains, a region with a high share of ethnic minority people, for every 20 men aged 19, 3 were already married (15%), and for females this figure was more than double (37%). In addition, the extent of industrialization has been slower and the economy has remained less developed in these two regions compared to other regions, which may be the reason that marriage among youth is so high. The lowest proportion ever married among male youth 15–19 years of age was in the Red River Delta (less than 1%), and among female youth it was about 6%.

TABLE 3.16: PERCENT EVER MARRIED AMONG POPULATION AGED 15–19 BY SINGLE YEAR OF AGE, SINGULATE MEAN AGE AT MARRIAGE OF ADOLESCENT BY SEX, URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Residence/Socio-economic region	Percent ever married at age:						SMAM
	15	16	17	18	19	15–19	
MALE							
Entire country	**0.5**	**0.8**	**1.4**	**2.9**	**5.8**	**2.2**	**18.9**
Urban	0.2	0.3	0.7	1.4	2.7	1.1	18.9
Rural	0.6	1.0	1.7	3.4	7.1	2.6	18.9
Socio-economic region							
Northern Midlands and Mountains	1.7	3.0	4.7	8.8	15.0	6.4	18.6
Red River Delta	0.2	0.2	0.4	0.6	2.0	0.7	19.3
North and South Central Coast	0.3	0.4	0.6	1.5	3.5	1.1	19.1
Central Highlands	0.5	1.0	2.0	4.8	10.0	3.3	18.9
Southeast	0.3	0.4	0.9	1.8	4.0	1.6	19.0
Mekong River Delta	0.4	0.6	1.5	3.1	6.3	2.3	19.0
FEMALE							
Entire country	**1.2**	**2.6**	**5.6**	**12.6**	**21.0**	**8.5**	**18.6**
Urban	0.5	1.4	3.0	6.8	10.6	4.9	18.6
Rural	1.4	2.9	6.5	15.2	26.5	9.9	18.6
Socio-economic region							
Northern Midlands and Mountains	3.6	6.4	12.0	23.3	36.8	15.9	18.3
Red River Delta	0.2	0.7	2.7	8.7	16.8	6.0	18.9
North and South Central Coast	0.7	1.5	3.1	8.4	16.1	5.2	18.8
Central Highlands	2.2	4.4	8.7	20.1	32.1	12.1	18.4
Southeast	0.8	2.0	4.6	9.0	13.5	6.8	18.5
Mekong River Delta	1.1	3.1	7.3	15.9	26.1	10.7	18.5

It is not surprising that SMAM among adolescents is lowest in the Northern Midlands and Mountains at 18.6 years for men and 18.3 years for women. In general, SMAM among youth is higher for men than for women.

CHAPTER 4
FERTILITY

Fertility is an important factor affecting population growth. Fertility is affected by biological, economic, cultural, social, medical and environmental factors. Indicators related to fertility always attract the attention of policy makers, managers and researchers. In Vietnam, because vital registration is still incomplete, indicators reflecting fertility are calculated using survey data. The 2009 Population and Housing Census Sample Survey collected information on the birth history of women aged 15 to 49 years in all enumeration areas including: number of children ever born, number of surviving children, number of deceased children, month and year of most recent birth, number of male and female children from the most recent birth. This chapter presents a summary of fertility in Vietnam through several major indicators including: total fertility rate, age-specific fertility rate, crude birth rate, sex ratio at birth, proportion of women having a third or higher order birth in the 12 months prior to the census.

1. Total fertility rate

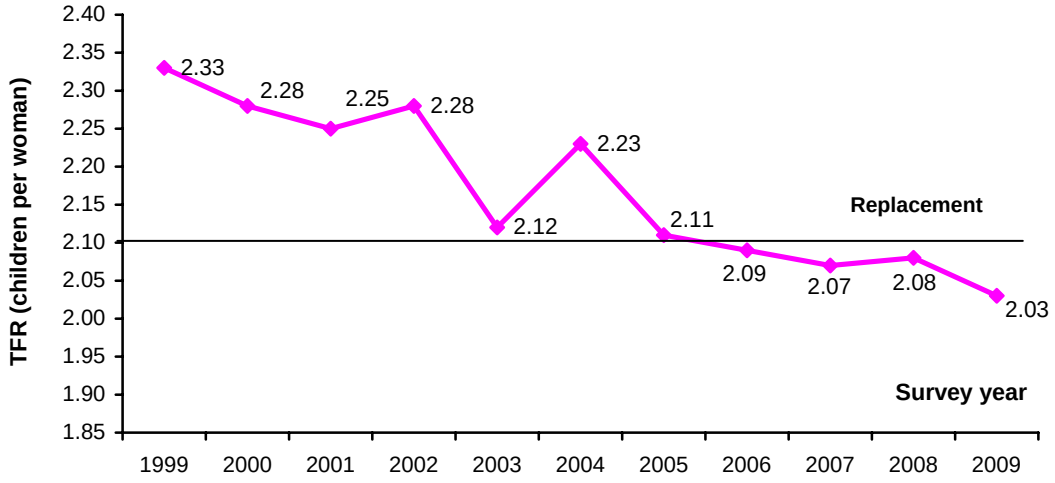
The total fertility rate (TFR) can be understood as the average number of children that would be born to a women over her lifetime if she experienced the current age-specific fertility rates observed in the 12 months prior to the survey. TFR is one of the main indicators used to measure fertility. In demography, TFR is usually estimated indirectly using the Trussell P/F ratio technique with the assumption that the number of children born in the period 12 months prior to the survey among women age 15 to 49 years are underreported. This underreporting usually occurs for cases in which the infant dies or does not stay with the parents.

Figure 4.1 describes changes in TFR estimated for Vietnam over the period 1999–2009. TFR dropped rapidly from 2.33 children per woman in 1999 to 2.03 children per woman in 2009. TFR in 2004 (fertility during the period 01 April, 2003 to 31 March, 2004) was slightly higher than in 2003 (fertility during the period 1 April, 2002 to 31 March, 2003), which may be due to a preference for having babies in auspicious years (2003 was the Lunar year of the Goat), yet it fell strongly in 2005, and has maintained the continuous downward trend for each year from 2005 to 2009. The rapid fall in TFR contributed importantly to reducing

population growth over the past 10 years, and is clear evidence of the success in Vietnam's population and family planning program.

Figure 4.1 also shows that from 2006 to the present, TFR in Vietnam has fallen continuously and reached a level below replacement fertility.[1] "Replacement fertility" is the fertility level for which an average cohort of women has just enough daughters to "replace" themselves in population reproduction. A population that reaches replacement fertility or below replacement fertility may continue to experience an increase in the number of births in the subsequent decades, because high fertility in the past leads to a high concentration of women in reproductive ages and therefore the absolute number of births continues to exceed the number of deaths. The tendency of the population to continue to increase after reaching replacement fertility is called population momentum. It may require 2 or 3 generations (from 50 to 70 years) until the number of live births is balanced with the number of deaths in the population and the population can finally be considered "stationary".

FIGURE 4.1: TOTAL FERTILITY RATE IN VIETNAM, 1999–2009



Sources:

- 1999: Central Census Steering Committee, "The 1999 Vietnam Population and Housing Census: Sample results", The Gioi Publishing House, 2000.

-2000–2008: General Statistics Office, "Population Change and Family Planning Surveys: Major Findings", Statistics Publishing House.

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Table 4.1 presents the TFR for Vietnam by urban and rural residence for 1999 and 2009. The data towards the top of the table indicate that TFR in urban

[1] *Replacement fertility is usually 2.1 (children per woman). In Vietnam, currently there is no precise assessment of replacement fertility, but some estimates indicate that this number may be slightly higher than the normal figure in Vietnam because of the relatively high sex ratio at birth.*

areas in 2009 was 1.81 children per woman, lower than the figure for rural areas at 2.14 children per woman. This differential may be due to more favourable conditions in urban areas compared to rural areas allowing easier access to information, better awareness of the benefits of a small family, and easier access to medical facilities that provide family planning services to help prevent unwanted pregnancies and births. Another reason is that living conditions in urban areas are much better than in rural areas, children in urban areas tend to be better cared for than in rural areas, leading to lower infant and child mortality in urban than in rural areas, thus contributing to reducing the need to have more births to replace the children who don't survive. In addition, the aged dependency ratio in urban areas is lower than in rural areas so urban residents tend to be less affected by the need to have children to take care of themselves in their old age.

TABLE 4.1: TOTAL FERTILITY RATE (TFR) IN VIETNAM, 1999–2009

Survey year	Reference period	TFR (Children per woman)		
		Entire country	Urban	Rural
1999	1/4/1998–31/3/1999	2.33	1.67	2.57
2001	1/4/2000–31/3/2001	2.25	1.86	2.38
2002	1/4/2001–31/3/2002	2.28	1.93	2.39
2003	1/4/2002–31/3/2003	2.12	1.70	2.30
2004	1/4/2003–31/3/2004	2.23	1.87	2.38
2005	1/4/2004–31/3/2005	2.11	1.73	2.28
2006	1/4/2005–31/3/2006	2.09	1.72	2.25
2007	1/4/2006–31/3/2007	2.07	1.70	2.22
2008	1/4/2007–31/3/2008	2.08	1.83	2.22
2009	1/4/2008–31/3/2009	2.03	1.81	2.14

Sources:

- 1999: Central Census Steering Committee, "The 1999 Vietnam Population and Housing Census: Sample results", The Gioi Publishing House, 2000.

- 2000–2008: General Statistics Office, "Population Change and Family Planning Surveys: Major Findings", Statistics Publishing House.

Data in Table 4.1 also indicates that TFR in rural areas has fallen relatively rapidly from 2.57 children per woman to 2.14 children per woman, nearly reaching replacement fertility; while in urban areas there has been negligible change, maintaining TFR at 1.80 children per woman over the decade from 1999 to 2009. Clearly in the past 10 years, there have been many positive changes in awareness of the benefits of having fewer children among rural women. This again confirms the success of the population and family planning program and many other programs and campaigns for community health, especially reproductive health in

rural areas. Nevertheless fertility in rural areas remains considerably higher than in urban areas, so in the coming years it will be necessary to continue to promote implementation of the reproductive health program and family planning combined with investments in development of socio-economic infrastructure with a much greater orientation towards rural areas.

TABLE 4.2: TOTAL FERTILITY RATE (TFR) BY SOCIO-ECONOMIC REGION, 1999–2009

Unit: Children per woman

Survey year	TFR (children per woman)							
	North-east	North-west	Red River Delta	North Central Coast	South Central Coast	Central High-lands	South-east	Mekong Delta
1999	3.07	3.07	2.35	2.70	2.49	3.56	2,16	2,21
2000	2.27	2.27	2.14	2.55	2.40	3.15	2,03	1,99
2001	2.22	2.72	2.17	2.58	2.26	3.06	1,79	1,91
2002	2.32	2.51	2.23	2.63	2.31	3.06	1,88	2,02
2003	2.28	2.49	2.06	2.45	2.21	3.07	1,85	2,00
2004	2.23	2.43	2.05	2.48	2.28	2.82	1,76	1,92
2005	2.18	2.39	2.11	2.32	2.19	2.77	1,74	1,87
2006	3.07	3.07	2.35	2.70	2.49	3.56	2,16	2,21
2007	2.27	2.27	2.14	2.55	2.40	3.15	2,03	1,99
2008	2.30		2.13	2.30		2.68	1.73	1.87
2009	2.24		2.11	2.21		2.65	1.69	1.84

Sources:

- 1999: Central Census Steering Committee, "The 1999 Vietnam Population and Housing Census: Sample results", The Gioi Publishing House, 2000.

- 2000–2008: General Statistics Office, "Population Change and Family Planning Surveys: Major Findings", Statistics Publishing House.

Table 4.2 presents TFR for the period 1999–2009 disaggregated by socio-economic region. Data in the table show that in the past 10 years, the Central Highlands has remained the region with the highest fertility. In 2009, TFR in this region was 2.65 children/woman, much higher than the national average. The next highest fertility after the Central Highlands is the Northeast and Northwest (now combined as the Northern Midlands and Mountains) with TFR in 2009 at 2.24 children/woman. The two regions with the lowest fertility are the Southeast and the Mekong Delta with TFRs of 1.69 and 1.84 children per woman respectively. Although they have the highest fertility, the Northern Midlands and Mountains and the Central Highlands are the 2 regions that have seen the most rapid drop in fertility over the past decade. The TFR in the Central Highlands fell from 3.56 children/woman in 1999 to 2.65 children/woman in 2009, a decline of 0.9 children/woman; the TFR in the Northern Midlands and Mountains fell by 0.8

children/woman from 3.07 in 1999 to 2.24 in 2009. Nevertheless, fertility in these two regions remains high compared to the national average.

2. Age-specific fertility rates

Age-specific fertility rates (ASFR) indicate the number of births in a given year for every 1000 women in a given age (or age group).

TABLE 4.3: AGE SPECIFIC FERTILITY RATES (ASFR), 1999 AND 2009

Age group	ASFR (births per 1000 women)	
	1999	2009
15–19	29	24
20–24	158	121
25–29	135	133
30–34	81	81
35–39	41	37
40–44	18	10
45–49	6	1
TFR	**2.30**	**2.03**

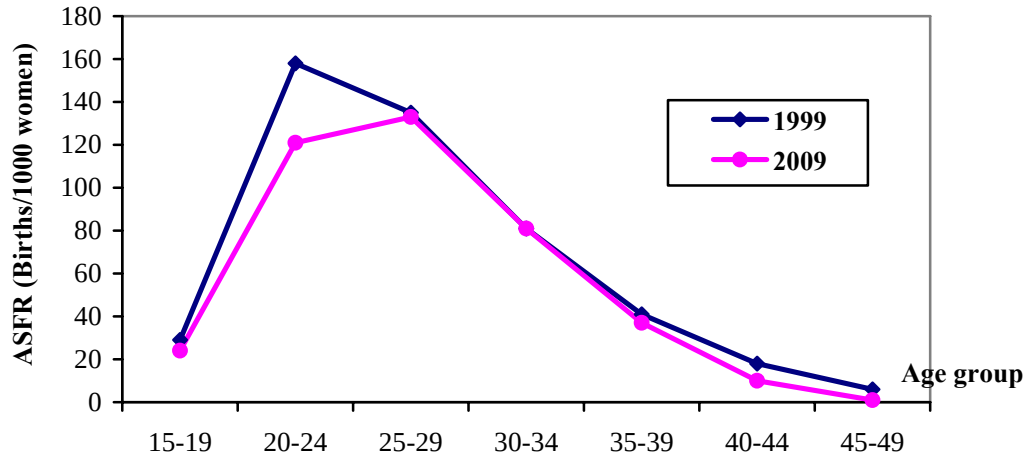
Source: 1999: Central Census Steering Committee: "The 1999 Vietnam Population and Housing Census: Sample results", The Gioi Publishing House, 2000.

Table 4.3 presents the age-specific fertility rates by 5-year age groups in Vietnam based on data collected in the 1999 and 2009 Censuses. Data for 2009 indicate that women from 25–29 years of age have the highest fertility rate; for every 1000 women this age, there were 133 births. The second highest fertility is found among women aged 20–24, with 121 births per 1000 women. These figures are much higher than the third highest figure, which stands at 81 births per 1000 women aged 30–34 years. These results indicate that most Vietnamese women give birth during the period from age 20 to 29 years. Above age 30, fertility falls rapidly (See Figure 4.2).

Figure 4.2 describes changes in fertility patterns between 1999 and 2009. It indicates a shift in the age group with the highest fertility from age 20–24 years with 158 children per 1000 women in 1999 to age group 25–29 years with 133 children per 1000 women in 2009. In 1999, the age group with the second highest fertility was the age group 25–29 with 135 children per 1000 women, still slightly higher than the fertility of the age group with the highest fertility rates in 2009. The age group with third highest fertility rate in both periods had fertility rates

substantially lower than the second highest fertility group. Thus, compared to 1999, women in 20009 have fewer children and the fertility pattern is shifting from "early childbearing" towards "later childbearing". In general, during the period from 1999–2009, fertility has remained concentrated primarily in the age group 20–29 years. In older age groups, fertility falls rapidly as age increases, although the intensity of the decline for age groups 35 and older in 1999 was lower than in 2009.

FIGURE 4.2: AGE-SPECIFIC FERTILITY PATTERNS AMONG VIETNAMESE WOMEN, 1999 AND 2009



Source: 1999: Central Census Steering Committee: "The 1999 Vietnam Population and Housing Census: Sample results", The Gioi Publishing House, 2000.

FIGURE 4.3: AGE-SPECIFIC FERTILITY RATES IN URBAN AND RURAL AREAS, 2009

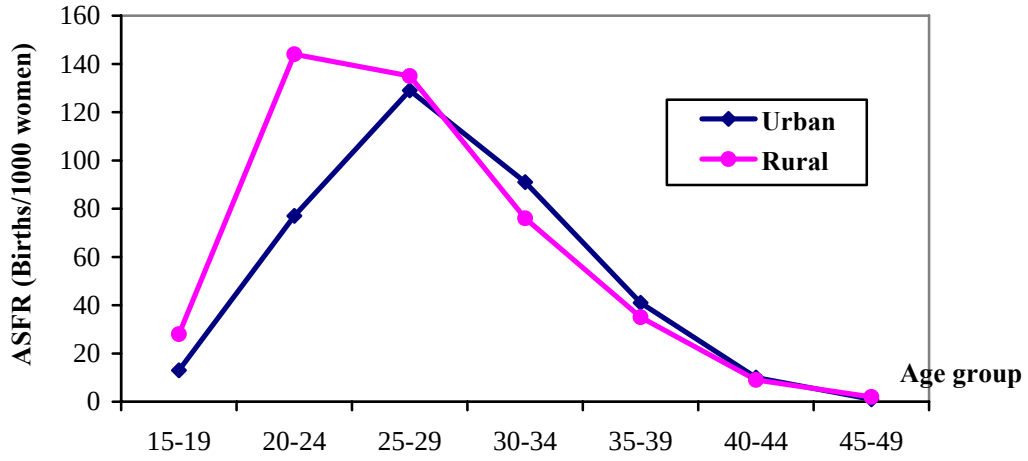


Figure 4.3 describes the age specific fertility rates in Vietnam in 2009 by urban/rural residence. Although both curves have a similar "bell shape", the line representing urban fertility patterns is not only lower, but also indicates a "longer

delay" compared to the line representing rural fertility, which means that urban women give birth later and have fewer children than rural women. In urban areas, fertility is highest among women aged 25–29 with 129 children per 1000 women. In rural areas, on the other hand, fertility is highest in the age group 20–24 years with 144 children per 1000 women. If we compare fertility of women in the age group 20–24 years by residence, we find that rural fertility is almost double urban fertility (144 compared to 77). This may result from rural women having few opportunities to obtain higher qualifications compared to urban women, so they tend to marry and give birth earlier.

3. Crude birth rate

The crude birth rate (CBR) indicates the number of births in the 12 months prior to the survey per 1000 population. Similar to the TFR, because of underreporting in the number of births, the CBR is calculated indirectly by taking the crude birth rates directly from the survey and multiplying by the Trussell P/F ratio adjustment factor.

Table 4.4 presents the CBR for Vietnam from 1999 to 2009 by urban and rural residence. Data in the table show that the CBR for Vietnam in 2009 was 17.6 per thousand population. The CBR is not very different between urban and rural areas: in rural areas it is 17.8 per thousand population, only slightly higher than in urban areas (17.3 per thousand population).

TABLE 4.4: CRUDE BIRTH RATE (CBR) BY URBAN/RURAL RESIDENCE, 1999–2009

Unit: Births per 1000 population

Year	Entire country	Urban	Rural
1999	19.9	15.9	21.2
2001	18.6	15.4	19.7
2002	19.0	16.9	19.6
2003	17.5	15.0	18.9
2004	19.2	16.7	19.9
2005	18.6	15.6	19.9
2006	17.4	15.3	18.2
2007	16.9	NA	NA
2008	16.7	15.8	17.3
2009	17.6	17.3	17.8

Sources:

- 1999: Central Census Steering Committee, "The 1999 Vietnam Population and Housing Census: Sample results", The Gioi Publishing House, 2000.

- 2000–2008: General Statistics Office, "Population Change and Family Planning Surveys: Major Findings", Statistics Publishing House.

Nevertheless, it is important to note that the CBR is an indicator used primarily for estimating population growth rates, rather than for evaluating changes in fertility such as TFR, because it not only is affected by fertility, but also by the age and sex structure of the population. For two population groups with the same age-specific fertility rates, the one with the higher share of women in childbearing ages is the one that will have the higher CBR. For this reason, when comparing CBRs of 2 or more different groups in the population, or for two population groups at different time periods, it is important to remove the effect of the differential in age structure of that population by using standardization methods. Necessary and sufficient conditions to apply this method are that we have data on age-specific fertility rates for each population group to be compared and we select an age structure of a specific population group to be the standard (CBR will thus be standardized by the age structure of this population). Basically with this method we take the age-specific fertility rates for each population group to be compared and multiply by the number of women in the respective age group in the "standard population", then we add them up to get the total standardized births (B*) of each population group to be compared. If we divide total standardized births (B*) by the standard population (P*), we obtain standardized crude birth rates (CBR*) for the population being studied.

TABLE 4.5: CBR IN 1999 AND 2009 STANDARDIZED BY AGE STRUCTURE OF WOMEN AGED 15–49 IN 2009

Age group	Women 15–49 years of age in 2009	ASFR 1999	ASFR 2009	Number of children born in the 12 months prior to the 1999 Census standardized by the 2009 age structure	Number of children born in the 12 months prior to the 2009 Census
(A)	*(1)*	*(2)*	*(3)*	*(4)=(1)x(2)/1000*	*(5)*
15–19	4 257 045	29	24	123 454	102 092
20–24	3 968 673	158	121	627 050	480 071
25–29	3 828 866	135	133	516 897	508 562
30–34	3 389 906	81	81	274 582	273 972
35–39	3 243 539	41	37	132 985	118 996
40–44	3 022 031	18	10	54 397	28 824
45–49	2 815 996	6	1	16 896	3 943
	Total			**1 746 262**	**1 516 460**
	CBR*=B*/P*=∑B$_i$* /P*			***20.4***	***17.6***

Table 4.5 presents results on standardized CBRs for the entire country in 1999 and 2009 by age structure in 2009 (i.e. using the 2009 age structure as the standard). Results of the calculations in the table show that clearly after eliminating changes in age structure, the age-standardized CBR in 1999 was higher (by nearly 3 per thousand) compared to 2009, equivalent to 20.4 and 17.6 per 1000 population. This indicates that the reason unstandardized CBRs do not indicate much difference between 1999 and 2009 is because of considerable changes in age structure in Vietnam over the past 10 years.

Table 4.6 presents results of standardized CBRs for urban and rural areas in 2009 using the national age structure as the standard. Results in the table show that after standardization, the CBR in rural areas is higher than in urban areas by 3.1 per thousand. This is consistent with the evidence about differential fertility (TFR) in rural and urban areas that was analysed in the sections above.

TABLE 4.6: CBR IN URBAN/RURAL AREAS IN 2009 STANDARDIZED BY THE AGE STRUCTURE OF WOMEN AGED 15–49 THROUGHOUT THE COUNTRY, 2009

Age group	Women aged 15–49 in 2009	ASFR urban	ASFR rural	Number of children born in the 12 months prior to the Census in urban areas standardized by national age structure in 2009	Number of children born in the 12 months prior to the Census in rural areas standardized by national age structure in 2009
(A)	*(1)*	*(2)*	*(3)*	*(4)=(1)x(2)/1000*	*(5)=(1)*(3)/1000*
15–19	4 257 045	13	28	55 342	119 197
20–24	3 968 673	77	141	305 588	559 583
25–29	3 828 866	129	134	493 924	513 068
30–34	3 389 906	91	76	308 481	257 633
35–39	3 243 539	41	35	132 985	113 524
40–44	3 022 031	10	10	30 220	30 220
45–49	2 815 996	1	2	2 816	5 632
	Total			**1 318 187**	**1 589 162**
	CBR*=B*/P*=∑Bi* /P*			***15.4***	***18.5***

Because fertility was high in the past, the number of women in high fertility ages (20–34 years) in Vietnam will continue to increase in the next few years, leading to a continued high number of births (according to UN projections for the period 2010–2015, each year on average Vietnam will have 1,462,000 new births). Therefore, the need in terms of quantity and quality for maternal and child health care, pre-school and primary education will continue to grow.

4. Sex ratio at birth

The sex ratio at birth is determined as the number of boys born per 100 girls in a given period, usually 1 year. This ratio is usually about 104–106/100 girls and in general it is quite stable over time and location, between different continents, nations, regions and races. Any substantial change in this ratio away from normal biological levels reflects some level of active intervention, and will affect the natural balance, threatening stability of global population.[2]

Table 4.7 presents the sex ratio at birth in Vietnam from 1999 to 2009 (starting in 2006 data began to be disaggregated by urban/rural residence). For the period from 1999 to 2005, data in the table indicate no apparent trend in the Vietnam's sex ratio at birth and the ratio varied between 104 and 109 boys for every 100 girls born. This variation was within a range that was somewhat higher than the normal levels, but could nevertheless be considered normal within the random variation that could occur when the study sample is small. However, starting in 2006 and up to the present, the sex ratio at birth in Vietnam began to show signs of substantial increase. According to results of the Survey of Population Change in 2006, the sex ratio at birth in Vietnam was 109.8 boys for every 100 girls. In 2007 and 2008 the sex ratios at birth were 111.6 and 112.1 respectively. There appears to be an increase of about half a percentage point from one year to the next. In 2009, the sex ratio at birth fell slightly, but remained at a high level of 110.5 boys for every 100 girls. Clearly there is cause for concern about loss of balance in Vietnam's sex ratio at birth.

TABLE 4.7: SEX RATIO AT BIRTH BY URBAN/RURAL RESIDENCE FOR VIETNAM, 1999–2009

Unit: Boys per 100 girls

	1999	2001	2002	2003	2004	2005	2006	2007	2008	2009
Entire country	**107.0**	**109.0**	**107.0**	**104.0**	**108.0**	**106.0**	**109.8**	**111.6**	**112.1**	**110.5**
Urban							109.0	112.7	114.2	110.6
Rural							110.0	111.3	111.4	110.5

Source:

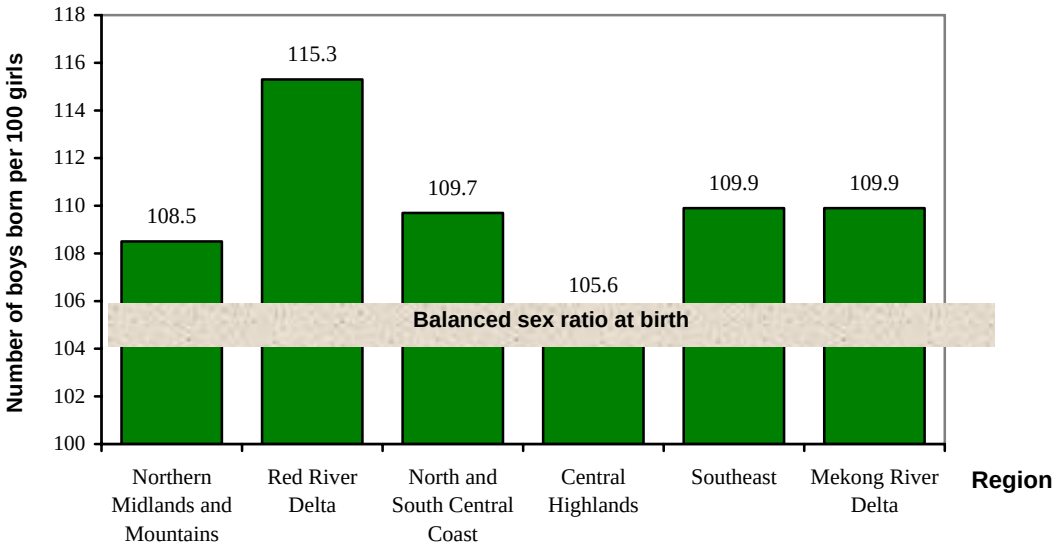
- 2006–2008: General Statistics Office, "Population Change and Family Planning Surveys: Major Findings", Statistics Publishing House-2007, 2008 and 2009.

Figure 4.4 describes the sex ratio at birth in Vietnam for 2009 by socio-economic region. The above data show large differentials in sex ratio at birth

[2] *"Recent Changes in the sex ratio at birth in Vietnam- A review of the evidence" – UNFPA 2009*

between regions in Vietnam in 2009. The region with the lowest sex ratio at birth at 105.6, is the Central Highlands, a region populated by a large number of poor people with low educational attainment and limited ability to access diagnostic services for early fatal sex determination, so people tend to have children until they get a child of the desired sex. This is also one of the reasons fertility in this region has remained the highest of all regions over many years. The region with the highest sex ratio at birth is the Red River Delta (115.3). This is also a region with relatively low fertility and a dynamic and developed economy. Here, access to medical services and modern equipment is relatively easy, and the people in this region also have higher levels of education and higher living standards, so they are able and willing to pay for early foetal sex determination services.

FIGURE 4.4: SEX RATIO AT BIRTH BY SOCIO-ECONOMIC REGION, 2009



5. Proportion of women having third and higher order births

Vietnam is implementing a fertility reduction policy through various population and reproductive health programs including family planning. Small family size is encouraged. In addition to provision of reproductive health and family planning services, many informational and behaviour change communication activities have been organised to provide knowledge and to encourage couples to implement family planning goals. Because of this, information on women having third and higher order births each year is of great interest to agencies involved in communication campaigns for population and family planning. The proportion of women having third and higher order births

indicates the number of women who had a third or higher order birth in the 12 months prior to the survey per 100 women who gave birth during that period.

Table 4.8 presents the proportion of women aged 15-49 years having third and higher order births in Vietnam from 2005 to 2009 by urban and rural residence. Data show that in the past, the proportion of women having third or higher order births overall has fallen from 20.8% in 2005 to 16.1% in 2009. Passing through half a decade, the proportion of women having third or higher order births in rural areas has remained double the proportion in urban areas despite more rapid fertility reductions in rural than urban areas. In other words, the proportion of women who stop giving birth after their first or second child in both urban and rural areas has increased, contributing positively to fertility reduction in Vietnam, and achievement of replacement level fertility. This trend has helped Vietnam have the opportunity to achieve a stable population, reducing the child dependency burden, and creating advantages for Vietnam in implementing goals of sustainable and quality economic development.

TABLE 4.8: PROPORTION OF WOMEN AGED 15-49 YEARS WHO HAVE A THIRD OR HIGHER ORDER BIRTH BY URBAN/RURAL RESIDENCE, 2005–2009

Unit: Percent

	2005	2006	2007	2008	2009
Entire country	**20.8**	**18.5**	**16.7**	**16.9**	**16.1**
Urban	11.6	10.0	9.0	9.7	9.3
Rural	23.7	21.4	19.3	19.6	18.9

Source: 2005–2008: General Statistics Office, "Population Change and Family Planning Surveys: Major Findings", Statistics Publishing House-2006- 2009.

In summary, the quality of data on births in the 2009 Census in general is good. Results of the survey confirm the other assessments that indicate reductions in fertility and the possibility of losing sex balance at birth in the Vietnamese population. However, the existence of considerable fertility differentials between regions requires that the Population and Family Planning program continue to be promoted, especially in regions with high fertility. In addition, the imbalance in the sex ratio at birth makes it imperative that information and communication campaigns affirm and raise status of women in the family and society, eliminate the attitude of "respect men and disdain women" in order to contribute to balance in the sex ratio at birth.

CHAPTER 5
MORTALITY

Mortality or death is the end of a person's life. Humans are not immortal. This fact cannot change. However, prolonging life into old ages or delaying mortality are very human aspirations. Families and governments do not regret efforts to extend longevity. Because long life is a basic value that cannot be denied, the United Nations uses average life expectancy at birth or longevity (in this chapter referred to as average life expectancy) along with educational attainment and average income per capita to calculate the human development index.

Reducing mortality is not easy, because it depends on many environmental, economic, cultural, social, and technological conditions, ... Therefore, mortality has always been an important topic of research in demography and many other scientific fields related to epidemiology, public health or statistics, ... The purpose of this research has been to gather scientific knowledge needed to improve lives through appropriate programmes and policies. In demographic research, mortality plays a rather important role, and mortality along with fertility are the two most important factors that determine population growth.

The 2009 Population and Housing Census provides a new opportunity for assessing mortality in Vietnam. In this chapter, two important measures of mortality, the crude death rate (CDR) and infant mortality rate (IMR) were used to assess mortality. The above indicators of mortality were estimated using indirect methods. The following data were used to estimate mortality:

- Age and sex distribution of the population from the 1999 and 2009 Population Censuses.
- Age and sex distribution of people who died in the 12 months prior to the Population and Housing Census in 1999 and 2009.
- Number of births and number of surviving children by woman's age in the 2009 Population Census.

1. Assessment of quality of information related to mortality

In general, mortality data collected in the sample of the Population and Housing Census, especially the set of questions on deaths in the household in the year prior to the survey, face problems of missing deaths. This problem exists in most censuses in the world and leads to underestimation of mortality making it necessary to apply indirect estimation methods.

The General Growth Balance method (GGB) and Synthetic Extinct Generation (SEG) methods were used to assess and adjust data on reported deaths. The GGB method requires three major assumptions: (1) a closed population, that is a population not or only slightly affect by migration, (2) invariant coverage of population and deaths by age; and (3) accurate recording of age for both population and deaths.

The SEG method adds an additional assumption, besides the three assumptions in the GGB methodology, that is it assumes invariant coverage of population of two surveys. The basic logic of these two methods is assessment of completeness in death reporting by comparing the age structure of the surviving population with the age distribution of deaths reported.

The problem of changes in census coverage (resulting in biased population growth rates for all ages) may be resolved by combining the SEG and GGB methodologies: first, using the GGB method to estimate changes in census coverage, then adjusting the data for estimated coverage change, and then applying the SEG methodology.

Both methods of GGB and SEG did not present the system evaluation for various errors. Also these did not provide agreement for using whether which method, what age range for final estimation.

The result is affirmed to be true as the method is suitable and its assumption is met. The method also shows convinced foundation for mis-reporting pattern by age. However, the results is interference if that method is not appropriate, completeness is varied by age and population is influenced by migration. In the case of no reliable information to assess errors fully it is the best to use both of the General Growth Balance method (GGB) and Synthetic Extinct Generation (SEG)

methods. As assessed by many demographers, combined GGB-SEG method is the most safe way of approaching while there is not other information related mis-reporting deaths[1].

Table 5.1 presents estimates of completeness of deaths reported for age groups from 5 through the oldest group age 70 years and above in the 12 months prior to the 2009 Population Census. The GGB method is applied to the 2009 Census data, while the SEG method is applied to the 1999 and 2009 Census data. Results show that completeness of male death reporting is higher than female death reporting according to all three methodologies. The completeness rate of male deaths compared to the population is 67%, compared to only 54% for female deaths using the combined methodology.

TABLE 5.1: RELATIVE COMPLETENESS OF MORTALITY REPORTING IN THE 2009 CENSUS

Unit: Percent

Sex	Relative completeness of mortality reporting by methodology		
	GGB	SEG	Combined GGB – SEG
Male	72	71	67
Female	65	53	54

2. Crude death rates

Crude death rates (CDR) in the past 12 months indicate on average, for every 1000 people in the population, how many deaths have occurred in the 12 months prior to the Census. The CDR is affected by the population age and sex structure. When the share of the population under age 5 (with its relatively high mortality rate) declines under conditions of low fertility, the CDR may also decline. However, growth of the aged population (with its higher age-specific mortality rates) will offset the decline in the number of infant and child deaths. The result is that CDRs may not change at all, or may even increase.

Data from the 2009 Population Census indicate that the CDR for the entire country was 6.8 deaths per 1000 population, while for urban areas it was 5.5 per 1000 population and in rural areas, 7.4 per 1000 population. Data in Table 5.2 indicate that the CDR in 2009 was higher than in 1999; but the differential in CDRs between urban and rural areas had increased slightly.

[1] *Kenneth Hill, Danzhen You and Yoonjoung Choi "Death distribution methods for estimating adult mortality: Sensitivity analysis with simulated data errors" in Demographic Research, 21(9), publised on 25 August 2009, downloaded from http://www.demographic-research.org/Volumes/Vol21/9/.*

TABLE 5.2: CRUDE DEATH RATE BY URBAN/RURAL RESIDENCE, 1989–2009

	1989	1999	2009
Entire country	**7.3**	**5.6**	**6.8**
Urban	5.1	4.2	5.5
Rural	7.9	6.0	7.4
Standardized CDR for entire country by age structure of the 2009 Census	9.7	5.6	6.8

Sources: 1989 and 1999: Central Census Steering Committee, "The 1999 Vietnam Population and Housing Census: Sample results", The Gioi Publishing House, 2000.

To examine the effect of age structure on CDR, we have standardized CDR using the direct standardization method. This means the CDR was adjusted by taking age-specific mortality rates of the population being studied and applying the age structure of a standard population. In this case, the 2009 national population age structure was used as the standard. Standardized CDRs were obtained for 1989 and 1999 using the 2009 population age structure. The standardized CDR for the entire country in 1989 was 9.7 deaths per 1000 population. The same result was obtained for standardized CDR in 1999 (5.6 deaths per 1000 population).

3. Infant mortality

Currently, in the world, 24 thousand children aged under 5 die every day, this means on average, every 4 seconds a child under age 5 dies, with 16–17 children under age 5 dying every minute, and just about 8.8 million children under 5 years dying each year. Of particular concern is that 4 million children die each year before reaching their one month birthday (data for 2008).[2] Vietnam has succeeded in reducing infant mortality rates from 44.4 per 1000 live births in 1990 to 16 infant deaths per 1000 live births in 2009. Although declines in infant mortality rates have exceeded national goals (reduction to 25 deaths per 1000 live births in 2010), but to fully achieve the 2/3 reduction in under 5 mortality rates by 2015 as required in the Millennium Development Goals, it will be necessary to strengthen efforts and provide additional support, especially in remote and isolated areas and regions with concentrations of ethnic minority peoples.[3]

Infant mortality rates (IMR) are estimated as the number of deaths to children under age 1 per 1000 live births in the reference period, usually one year. Reports of deaths to children under 1 year of age tend to be incomplete. This is a

[2] *UNICEF, The State of the World's Children, published November 2009, accessed at http://www.unicef.org/rightsite/sowc/pdfs*
[3] *Ministry of Planning and Investment, Viet Nam continues to achieve the Millennium Development Goals, December, 2008.*

sensitive question in surveys because relatives do not want to recall the death, so the extent of underreporting may even be larger than for adult deaths. Therefore, these rates must be estimated indirectly.

TABLE 5.3: INFANT MORTALITY RATE (IMR) BY SOCIO-ECONOMIC REGION, 1999–2009

Unit: Deaths to children under age 1 per 1000 live births

Residence/Socio-economic region	1999[4]	2009
Entire country	**36.7**	**16.0**
Urban	18.3	9.4
Rural	41.0	18.7
Socio-economic region:		
Northern Midlands and Mountains	43.8	24.5
Red River Delta	26.5	12.4
North and South Central Coast	38.4	17.2
Central Highlands	64.4	27.0
Southeast	23.6	10.0
Mekong River Delta	38.0	13.3

The demographer, Brass, proved that the probability of death during the period from birth to age a, denoted as q(a), can be estimated using the formula: q(a)= 5Mx*5Dx, in which 5Dx is the share of deaths to mothers in age group (x, x+5), and 5Mx is the age specific coefficient, or multiplier. Four regression equations have been developed in relation to 4 model life tables of Coale and Demeny (Trussel regressions) to estimate q(a). The regression equation used to estimate infant mortality rates 1q0 and probability of death between age 1 and 5 years (4q1), and life expectancy at birth (e0) are respectively the values of q(a) in each model life table (for both sexes).

The United Nations has computerized indirect estimation of mortality through the software MORTPAK. In this software package, the CEBCS procedure is used for estimating 1q0 and the MATCH procedure for estimating e0. After applying the CEBCS procedure over a period of time, software programmers made adjustments made to some coefficients in the regression equation for estimating q(a) mentioned above and developed a new software called QFIVE to estimate 1q0 and 4q1.

[4] *1999 data have been readjusted to the 6 new socio-economic regions*

With data from the 2009 Census, the QFIVE software was used to estimate mortality rates for children under 1 year of age. Data in Table 5.3 shows that infant mortality rates have declined considerably over the past 10 years (1999–2009). In urban areas, IMR has fallen from 18.3 to 9.4 deaths per thousand live births, while in rural areas IMR has fallen from 41.0 to 18.7 deaths per thousand live births. While the percentage point drop in IMR in rural areas was larger than in urban areas, the relative decline is not much different between these two areas (respectively 49% and 54%). In 1999, IMR in rural areas was 2.2 times higher than IMR in urban areas, and by 2009, this differential was almost the same at 2.3 times. This means that the drop in IMR over the period 1999–2009 occurred relatively evenly in urban and rural areas so there is no sign of a narrowing of the differential in IMRs between the two areas.

Although infant mortality overall has declined considerably, differentials between regions remain large. IMR in the Northern Midlands and Mountains and the Central Highlands remains high, at 24.5 and 27.0 infant deaths per thousand live births respectively

4. Life expectancy at birth

As mentioned above, life tables can be made corresponding to the probability of death of children under one year of age. Similar to replacing the CEBCS procedure in the MORTPAK software with the QFIVE software, demographer Griffith Feeney, PhD has proposed use of a spreadsheet to make life tables to replace the MATCH procedure in the MORTPAK software. The spreadsheet developed by Griffith Feeney, PhD was used to make a life table corresponding to probability of death of children under 1 year estimated above.

Sex-specific life tables for Vietnam's population are presented in Table 5.4. Average life expectancy in 2009 for males was 70.2 years and for females it was 75.6 years. Overall life expectancy at birth for the entire country was 72.8 years. Average life expectancy for the whole country, male and female in 1999 was respectively 68.2 years, 66.5 years and 70.1 years. Results of the 1999 and 2009 Censuses show that average life expectancy of men is lower than that of women. This reflects the reality in Vietnam, as in most societies, that male mortality is

usually higher than female mortality in all but the highest age group and thus life expectancy of males is usually lower than for females.

TABLE 5.4: LIFE TABLE FOR VIETNAM BY SEX, 2009

Age	n	${}_nL_x$	l_x	${}_nd_x$	${}_nq_x$	${}_np_x$	${}_nm_x$	T_x	e_x
Male									
0	1	97782	100000	1808	0.0181	0.9819	0.0185	7022743	70.2
1	4	388909	98192	1303	0.0133	0.9867	0.0034	6924961	70.5
5	5	484555	96889	231	0.0024	0.9976	0.0005	6536052	67.5
10	5	483444	96658	331	0.0034	0.9966	0.0007	6051497	62.6
15	5	481880	96327	500	0.0052	0.9948	0.0010	5568053	57.8
20	5	479419	95827	575	0.0060	0.9940	0.0012	5086172	53.1
25	5	476561	95252	613	0.0064	0.9936	0.0013	4606753	48.4
30	5	473557	94639	756	0.0080	0.9920	0.0016	4130192	43.6
35	5	469923	93882	1082	0.0115	0.9885	0.0023	3656635	38.9
40	5	464809	92800	1721	0.0185	0.9815	0.0037	3186713	34.3
45	5	456708	91079	2784	0.0306	0.9694	0.0061	2721903	29.9
50	5	443579	88295	4427	0.0501	0.9499	0.0100	2265195	25.7
55	5	422555	83868	6718	0.0801	0.9199	0.0159	1821616	21.7
60	5	390401	77150	9637	0.1249	0.8751	0.0247	1399061	18.1
65	5	343909	67513	13015	0.1928	0.8072	0.0378	1008661	14.9
70	5	280479	54498	16034	0.2942	0.7058	0.0572	664752	12.2
75	5	200582	38463	16222	0.4217	0.5783	0.0809	384273	10.0
80+		183691	22242	22242	1.0000	0.0000	0.1211	183691	8.3
Female									
0	1	98750	100000	1381	0.0138	0.9862	0.0140	7560088	75.6
1	4	393963	98619	277	0.0028	0.9972	0.0007	7461338	75.7
5	5	491759	98342	96	0.0010	0.9990	0.0002	7067376	71.9
10	5	491291	98246	130	0.0013	0.9987	0.0003	6575617	66.9
15	5	490675	98116	193	0.0020	0.9980	0.0004	6084326	62.0
20	5	489743	97923	260	0.0027	0.9973	0.0005	5593650	57.1
25	5	488479	97664	332	0.0034	0.9966	0.0007	5103907	52.3
30	5	486877	97332	458	0.0047	0.9953	0.0009	4615428	47.4
35	5	484692	96874	686	0.0071	0.9929	0.0014	4128551	42.6
40	5	481458	96188	1102	0.0115	0.9885	0.0023	3643858	37.9
45	5	476257	95086	1749	0.0184	0.9816	0.0037	3162401	33.3
50	5	467973	93337	2722	0.0292	0.9708	0.0058	2686144	28.8
55	5	455093	90615	4280	0.0472	0.9528	0.0094	2218171	24.5
60	5	434933	86335	6904	0.0800	0.9200	0.0159	1763079	20.4
65	5	402354	79432	10906	0.1373	0.8627	0.0271	1328145	16.7
70	5	350391	68526	15831	0.2310	0.7690	0.0452	925791	13.5
75	5	272775	52695	18543	0.3519	0.6481	0.0680	575400	10.9
80+		302626	34152	34152	1.0000	0.0000	0.1129	302626	8.9

Notes:

x: Age group 0, 1, 5,...,80+

n: Number of years in age group (1, 4, 5, 5, 5,....)

${}_nL_x$: Number of people-years lived from age x to age x+n

l_x: Number of people living at age x

${}_nd_x$: Number of deaths between age x and x+n

${}_nq_x$: Probability of death from age x to age x+n

${}_np_x$: Probability of survival from age x to age x+n

${}_nm_x$: Age-specific mortality rate of age x to x+n

T_x: Number of person years lived from age x and older

e_x: Life expectancy at age x

5. Cause of death

In the 2009 Population and Housing Census forms, some questions were asked to collect information intended for assessing cause of death (especially deaths due to accidents). If a death had occurred in the household, at the time of the survey, the household head was asked about the cause of death of the deceased. The response was coded according to one of the following categories: illness, work accident, traffic accident, other accident, other cause.

TABLE 5.5: PROPORTION OF DEATHS OCCURRING IN THE 12 MONTHS PRIOR TO THE CENSUS BY CAUSE OF DEATH, SEX, URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Unit: Percent

Residence/Socio-economic region	Total	Cause of death:					
		Illness	Labour accident	Traffic accident	Other accidents	Other causes	Not specified
OVERALL							
Entire country	**100.0**	**82.1**	**1.0**	**4.7**	**3.0**	**8.9**	**0.3**
Urban	100.0	83.4	0.8	4.6	2.2	8.7	0.3
Rural	100.0	81.6	1.1	4.7	3.2	9.0	0.3
Socio-economic region:							
Northern Midlands and Mountains	100.0	82.2	1.2	3.5	3.4	9.4	0.3
Red River Delta	100.0	81.0	1.2	4.1	2.3	10.9	0.4
North and South Central Coast	100.0	80.1	1.2	5.6	3.2	9.5	0.4
Central Highlands	100.0	75.9	1.2	7.7	5.4	9.3	0.4
Southeast	100.0	83.0	0.8	5.4	2.5	8.2	0.1
Mekong River Delta	100.0	86.9	0.7	3.9	2.7	5.6	0.2
MALE							
Entire country	**100.0**	**80.6**	**1.6**	**6.5**	**3.6**	**7.4**	**0.3**
Urban	100.0	82.5	1.2	6.1	2.7	7.2	0.2
Rural	100.0	79.9	1.7	6.6	3.9	7.5	0.3
Socio-economic region:							
Northern Midlands and Mountains	100.0	81.4	1.7	4.8	3.7	8.1	0.3
Red River Delta	100.0	80.6	1.9	5.4	2.8	9.0	0.3
North and South Central Coast	100.0	78.6	1.8	7.8	3.9	7.6	0.3
Central Highlands	100.0	74.6	1.8	9.9	5.9	7.4	0.5
Southeast	100.0	81.1	1.1	7.7	3.5	6.6	0.0
Mekong River Delta	100.0	84.2	1.1	5.7	3.7	5.1	0.3
FEMALE							
Entire country	**100.0**	**84.1**	**0.3**	**2.1**	**2.0**	**11.1**	**0.4**
Urban	100.0	84.7	0.1	2.4	1.4	10.9	0.4
Rural	100.0	83.9	0.3	2.0	2.3	11.2	0.4
Socio-economic region:							
Northern Midlands and Mountains	100.0	83.5	0.4	1.3	2.8	11.6	0.4
Red River Delta	100.0	81.7	0.2	2.3	1.7	13.6	0.6
North and South Central Coast	100.0	82.2	0.3	2.6	2.3	12.3	0.4
Central Highlands	100.0	78.2	0.3	3.9	4.6	12.6	0.4
Southeast	100.0	85.9	0.3	1.8	1.0	10.7	0.3
Mekong River Delta	100.0	90.6	0.1	1.6	1.5	6.1	0.1

Data in Table 5.5 indicate that a majority of deaths occurring in the 12 months prior to the Census were due to illness (82.1%). Among deaths due to accidents, traffic accidents accounted for the largest share, five times higher than work accidents (4.7% versus 1%). The share of deaths due to accidents among males was 3 times higher than among females (11.7% versus 4.4%). In both urban and rural areas, and in different socio-economic regions this pattern was generally the same. In the Central Highlands, the share of deaths due to traffic accidents was the highest (7.7%), and this was also the region with the highest share of deaths due to any type of accident (14.3%).

6. Maternal mortality ratios

In the 2009 Census sample survey's form, questions related to maternal mortality were asked of the household head if any deaths to women aged 15–49 were reported that were not due to accidents. In these cases, the household head was asked whether the deceased woman died while pregnant, while giving birth, after miscarriage or abortion, or within 42 days after giving birth or terminating pregnancy. This information allows estimation of the number of deaths related to childbearing.

The maternal mortality ratio is an indicator that reflects mortality related to childbearing. This indicator is calculated as the ratio between the number of female deaths related to childbearing in the year over the number of live births in the year. In contrast to other demographic ratios, the maternal mortality ratio is not measured per 1000, but rather per 100,000. This indicator shows for every 100,000 live births in a year, how many mothers died from causes related to child-bearing.

The maternal mortality ratio estimated from data collected in the 2009 Population Census was 69 per 100,000 live births. In reality, to achieve the Millennium Development Goals and reduce maternal mortality by 75% between 1990 and 2015 (i.e. to reduce from 233/100,000 to about 58 maternal deaths per 100,000 live births) it will be necessary to prioritize improvement in reproductive health for mothers and ensure widespread access to reproductive health services, including access to family planning services, prevention of unwanted pregnancy, and provision of high quality prenatal and delivery services.

CHAPTER 6
MIGRATION AND URBANIZATION

Migration is a change in the place of residence of an individual from one territorial unit to another in a given time period. In other words, a change in residence over some period of time.

In Vietnam, starting from the Renovation period at the end of the 1980s in the 20th century, as the economy has been transformed from a centrally planned to a market economy, internal migration has increased. Data from the 1999 Population and Housing Census show that the interprovincial and rural to urban migration flows account for a high share of total migrants. There are many reasons for people to migrate, but the main reason is to seek employment. Because migration affects the process of socio-economic development, it receives attention from managers, policy-makers, development programme designers and the whole society.

As with the 1999 Census, the 2009 Census collected information on migration through questions about place of usual residence in the 5 years prior to the survey for people aged 5 and older. The main purpose in the Census is to collect information on domestic migration. A person is considered a migrant if their current place of residence at the time of the survey and the place of residence 5 years prior to the survey are not the same administrative unit at the commune[1] level. Note that at the time of the census, a person who remains a resident in a commune-level administrative unit, whose name changes (from commune to ward or district capital or vice versa) compared to 5 years previously, is not considered a migrant.

The Census cannot collect data on actual migration, only data on migration across government determined administrative borders. Depending on the research objectives, one could select different borders as needed to define migration. Table 6.1 presents types of migration that can be described by the Census data based on changes in place of usual residence compared to 5 years prior to the census. In order to facilitate presentation and effectively serve the needs of data users,

[1] *Commune-level administrative units include: commune, ward and town district capital.*

migrants are defined by different levels of administrative units. Thus there are 4 types of migration as follows: 1) migration within the administrative boundaries of a district-level unit[2], this type of migration is called intra-district migration; 2) migration between districts within one province[3], called inter-district migration; 3) migration from one province to another; and 4) migration between socio-economic regions. Among these, the first three migrant groups are independent and exclusive types, that is an individual can only belong to one of these three migrant statuses. An inter-provincial migrant may, however, also be an inter-regional migrant, if the origin and destination provinces belong to different regions.

TABLE 6.1: MIGRATION IN RELATION TO PLACE OF USUAL RESIDENCE 5 YEARS PRIOR TO THE CENSUS FOR PEOPLE AGE 5 YEARS AND OLDER, 2009

<table>
<tr><td colspan="3">Place of usual residence 5 years prior to the Census</td><td>Migrant status</td></tr>
<tr><td colspan="3">1. Same commune</td><td>Non-migrant</td></tr>
<tr><td rowspan="4">2. Other commune</td><td colspan="2">2.1 Same district</td><td>Intra-district migrant</td></tr>
<tr><td rowspan="3">2.2 Other district</td><td>2.2.1 Same province</td><td>Inter-district migrant</td></tr>
<tr><td>2.2.2 Other province</td><td>Inter-provincial migrant</td></tr>
<tr><td>2.2.3 Other region</td><td>Inter-regional migrant</td></tr>
<tr><td colspan="3">3. Overseas</td><td>International immigrant</td></tr>
</table>

1. Level of migration by administrative level

Table 6.2 presents the scale of different types of migration between the 1999 and 2009 Censuses. In this table, the number of non-migrants of any given migrant status can be understood as the total population age 5 years and older minus the number of migrants of a given type. In this chapter, migration rates are calculated as the number of migrants per 1000 inhabitants age 5 years and older at the time of the 2009 Census. The data reveal that in all migrant statuses, the intensity of migration in the period 2004–2009 was greater than in the period 1994–1999. Among migrant types, inter-regional migration rates saw the strongest growth, an increase of 1.5 times, from 19 per thousand in 1999 to 30 per thousand in 2009. Inter-provincial migration increased by 14 migrants per thousand, from 29 per thousand in 1999 to 43 per thousand in 2009. Inter-district migration increased by 6 migrants per thousand, from 16 per thousand to 22 per thousand. The lowest

[2] *District-level administrative units include: rural and urban districts, and provincial-level towns.*

[3] *Province-level administrative units include: provinces and municipalities directly under the Central level. Currently in Vietnam there are 5 municipalities including: Ha Noi, Hai Phong, Da Nang, Ho Chi Minh City and Can Tho.*

increase was among intra-district migrants, with growth of only 2 migrants per thousand.

TABLE 6.2: NUMBER OF MIGRANTS AND MIGRATION RATE BY MIGRANT STATUS, 1999 AND 2009

Administrative/geographic level	Number of migrants (1000 persons)		Number of non-migrants (1000 persons)		Migration rate (‰)	
	1999	2009	1999	2009	1999	2009
Intra-district migrant (2.1)	1 343	1 618	67 808	76 893	19	21
Inter-district migrant (2.2.1)	1 138	1 709	68 013	76 802	16	22
Inter-provincial migrant (2.2.2)	2 001	3 398	67 150	75 113	29	43
Inter-regional migrant (2.2.3)	1 334	2 361	67 817	76 150	19	30

Data in Table 6.2 also indicates that during the period 2004–2009, the number of migrants increased by more than 2.2 million people compared to the period 1994–1999, and in particular the increase in the number of migrants rose with the migration distance. While intra-district migration only increased by 275,000 people, inter-district migration within the same province increased by 571,000, and inter-provincial migration increased by nearly 1.4 million people. Inter-regional migration increased by more than 1 million people.

Once again it is possible to see a correlation between migration and economic development. During the period 2004–2009, a large increase was seen in the number of industrial and processing zones built in numerous locations throughout the country. These production facilities require skilled labour. At the same time during this period, the people were moving in large numbers to cities and urban areas to find employment to earn a living. This phenomenon is regularly found in developing countries.

2. Inter-regional migration

In order to understand more details about changes in migration over the past 10 years, Table 6.3 presents information on inter-regional migration based on the 1999 and 2009 Population Censuses.[4] In order to make the comparison, indicators

[4] *In the 1999 Population Census there were 8 regions, while in the 2009 Census there were only 6 regions.*

in the 1999 Census were recalculated according to the current regional classifications based on completed Census results.

In general, the picture of inter-regional migration is similar to that found in the 1999 Census. In 2009, there were only 2 net in-migration regions (in-migrants exceeded out-migrants), the 4 remaining regions are net out-migration regions (out-migrants exceeded in-migrants). Over the decade, the Central Highlands and Southeast continued to attract migrants. The Southeast, which includes Ho Chi Minh City, is the head of the economic "engine", an attractive destination area for workers throughout the country. It is important to note, however, that in the migration flows to the Southeast, a substantial number of migrants come to pursue their studies or obtain training to improve their qualifications. After completing their studies, they remain to work, satisfying recruitment needs for agencies of the government, organizations, companies, enterprises, and other places in need of highly skilled workers that are still in shortage in the region.

The reasons for migration to the Central Highlands appear to be quite different. The population density in the Central Highlands is still low, and cultivable land is still abundant, so this region is a place that attracts rural migrants from the Northern provinces who come in search of cultivable land, and to produce agricultural cash crops for export such as coffee, rubber, tea, etc.

Over the 10 years between the censuses, the intensity of migration to the Southeast and Central Highlands has moved in opposite directions. The net migration rate in the Central Highlands has dropped considerably, from 76 to 9 per thousand, inhabitants while in the Southeast it has increased 2.5 times, from 49 to 117 per thousand inhabitants.

As for the remaining 4 out-migration regions, three have seen increases in levels of net out-migration rates (in absolute value) over the decade between the censuses. The Mekong River Delta net migration rate has quadrupled in absolute value, going from -10 to -42 per thousand inhabitants; this is followed by the North and South Central Coasts (almost doubling in absolute value from -19 to -38 per thousand inhabitants), the Northern Midlands and Mountains, (almost doubling in absolute value from -10 to -18 per thousand inhabitants). Only the Red River Delta has seen declines in absolute value of net migration rates (from -11 to -2 per

thousand inhabitants). The Red River Delta contains the capital city of Hanoi, and has also been attracting a large amount of people and labour over the past 10 years.

To make even clearer the picture of inter-regional migration, we examine in-migration and out-migration for each region and how these flows have changed over the decade.

Regarding in-migration, three regions, the Northern Midlands and Mountains, North and South Central Coast and the Mekong River Delta have rates of in-migration that have remained almost constant or have had only slight changes during the period 1999–2009. The remaining three regions have seen major changes in the opposite direction. While the in-migration rate of the Central Highlands has fallen from 93 to 36 per thousand, the in-migration rates in the Southeast and the Red River Delta have increased from 63 to 127 per thousand and from 11 to 16 per thousand respectively.

Regarding out-migration, in the period 1999–2009, slight reductions in out-migration rates were seen in two regions – the Red River Delta (from 21 to 18 per thousand) and the Southeast (14 to 10 per thousand inhabitants). The remaining four regions saw increases in out-migration rates from 1.5 to 3 times. The largest increase was seen in the Mekong River Delta (from 14 to 46 per thousand inhabitants), followed by the North and South Central Coast (26 to 45 per thousand inhabitants). The lowest increase in the out-migration rate, an increase of only 1.5 times, was seen in the Northern Midlands and Mountains and the Central Highlands.

Table 6.4 shows us more clearly the trends in inter-regional migration in the 5 years prior to the 2009 Census. As mentioned above, in the 5 years prior to the Census, only the Southeast and Central Highlands experienced net in-migration.

Also mentioned above, data in Table 6.4 show that people moving out of their region of residence tend to move to the Southeast, with the exception of people from the Northern Midlands and Mountains. Nearly three fifths (160,000 persons, accounting for 59% of migrants) of people migrating out of this region chose to go to the Red River Delta, which contains the major city of Hanoi; only one fourth (73,000 people, about 27%) chose to go to the Southeast.

TABLE 6.3: NUMBER OF IN-MIGRANTS, NUMBER OF OUT-MIGRANTS, AND MIGRATION RATE IN 5 YEARS PRIOR TO THE CENSUS BY SOCIO-ECONOMIC REGION, 1999–2009

Socio-economic region	Number of people age 5 years and older (1000 persons)		Number of in-migrants (1000 people)		Number of out-migrants (1000 persons)		Net migrants (+/-) (1000 persons)		In-migration rate in 5 years prior to the Census (‰)		Out-migration rate in 5 years prior to the Census (‰)		Net migration rate in 5 years prior to the Census (‰)	
	1999	2009	1999	2009	1999	2009	1999	2009	1999	2009	1999	2009	1999	2009
Entire country	**69 059**	**78 511**	**1 334**	**2 361**	**1 334**	**2 361**	**0**	**0**	19	30	19	30	0	0
Northern Midlands and Mountains	9 859	10 011	84	91	180	271	-96	-180	9	9	18	27	-10	-18
Red River Delta	15 507	17 931	163	289	333	331	-170	-42	11	16	21	18	-11	-2
North and South Central Coast	16 158	17 292	114	110	425	775	-311	-665	7	6	26	45	-19	-38
Central Highlands	3 497	4 569	326	166	60	125	266	41	93	36	17	27	76	9
Southeast	9 257	12 906	580	1 635	125	125	455	1 510	63	127	14	10	49	117
Mekong River Delta	14 781	15 802	67	70	211	734	-144	-664	5	4	14	46	-10	-42

Note: Data from the 1999 Population and Housing Census in this table were recalculated to be consistent with the current 6 socio-economic regions using data from completed results.

Almost all people leaving other regions prefer to go to the Southeast, especially people from the Mekong River Delta. A vast majority of people from this region (97%) went to the Southeast.

In the 5 years prior to the 2009 Census, nearly 1.6 million people from all over the country, migrated to the Southeast. The largest group of in-migrants to the Southeast were from the Mekong River Delta (713,000 people), followed by the North and South Central Coast (570,000 people) and the Red River Delta (195,000 people).

For the four net out-migration regions (negative net migration), the North and South Central Coast and the Mekong River Delta have the largest outflows, equivalent to 665,000 and 664,000 persons respectively. The figure for the Red River Delta is the lowest.

TABLE 6.4: PLACE OF USUAL RESIDENCE OF MIGRANTS ON 01 APRIL, 2004 AND 01 APRIL, 2009 BY SOCIO-ECONOMIC REGION

Place of usual residence on 01 April, 2009	Place of usual residence on 01 April, 2004 (1000 persons)						Number of migrants (1000)		
	Northern Midlands and Moun-tains	Red River Delta	North and South Central Coast	Central High-lands	South-east	Mekong River Delta	In-migrants	Out-migrants	Net migra-tion
Total*	**270**	**331**	**775**	**125**	**125**	**734**	**2 361**	**2 361**	**0**
Northern Midlands and Mountains	-	70	13	3	4	1	91	271	-180
Red River Delta	160	-	98	9	19	4	289	331	-42
North and South Central Coast	8	29	-	29	36	9	110	775	-665
Central Highlands	27	29	79	-	23	7	166	125	41
Southeast	73	195	570	83	-	713	1 635	125	1 510
Mekong River Delta	2	9	15	2	43	-	70	734	-664

*The total may not be equal to the total of the parts because of rounding.

From the above findings, we can conclude that, the main factor driving the choice of destination region for migrants is employment. The next most important factor is distance as most migrants seem to prefer migrating to neighbouring regions. This is easy to understand because Vietnamese people, when migrating, want to remain close to their origins and relatives. In particular, almost all migrants from the Mekong River Delta chose to migrate to the Southeast.

3. Inter-provincial migration

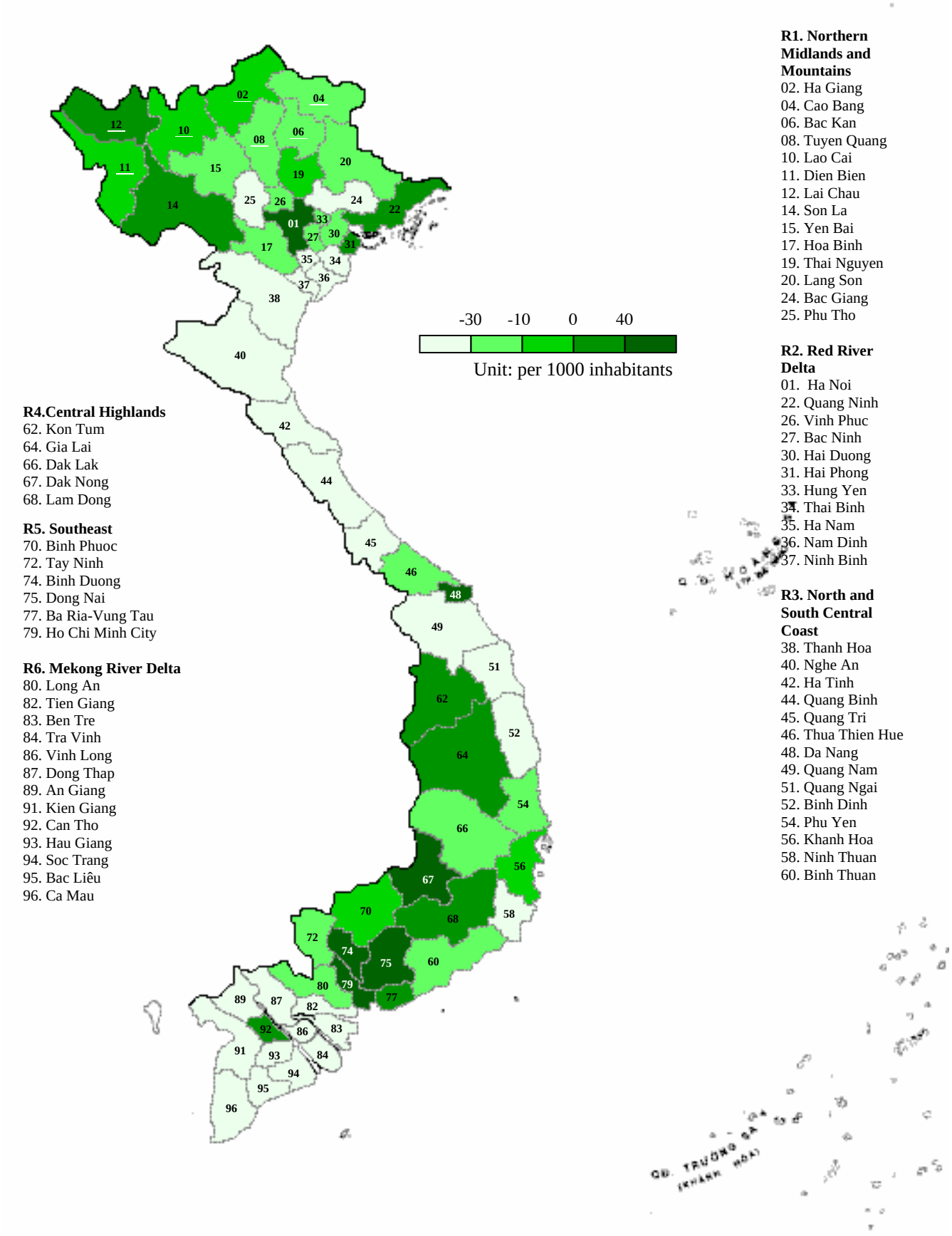
Table B.12, Part III presents data on inter-provincial migration in the 5 years prior to the 2009 Census.

In the 2009 Census, one fourth of provinces (15/63) had positive net migration rates (in-migrants exceeded out-migrants), and the remaining provinces had negative net migration rates (out-migrants exceeded in-migrants). Provinces with positive net migration rates included Binh Duong (340 per thousand), Ho Chi Minh City (136 per thousand), Da Nang (77 per thousand), Dong Nai (66 per thousand), Dak Nong (66 per thousand) and Hanoi (50 per thousand). These figures indicate that one out of every 3 residents of Binh Duong came from another province in the past 5 years; one out of every 10 residents of Ho Chi Minh City is an in-migrant from another province. Localities with high in-migration rates need to take appropriate measures to ensure living conditions, housing, employment, schools and other conditions for in-migrants.

Provinces with the highest negative net migration rates include Thanh Hoa (-68 per thousand); Ben Tre (-67 per thousand); Ha Tinh (-65 per thousand), Tra Vinh (-61 per thousand), Ca Mau (-57 per thousand), Thai Binh (-57 per thousand), Ha Nam (-54 per thousand), Nam Dinh (-53 per thousand) and Vinh Long (-52 per thousand).

As noted above, the Southeast region had a positive net migration rate. Almost all provinces in this region had positive net migration rates with the exception of Binh Phuoc and Tay Ninh provinces where people chose to move to more developed provinces within the region leading to negative net migration rates. Almost all provinces in the Central Highlands also had positive net migration rates with the exception of Dak Lak. This is primarily because of the redistribution of population after dividing former Dak Lak into 2 new provinces of Dak Lak (new) and Dak Nong. In particular there was a large movement of government staff, workers and members of their family moving to Dak Nong, leading to high positive net migration rates into Dak Nong, while Dak Lak (new) experienced negative net migration rates.

MAP 6.1: NET INTER-PROVINCIAL MIGRATION, 2009



R1. Northern Midlands and Mountains
02. Ha Giang
04. Cao Bang
06. Bac Kan
08. Tuyen Quang
10. Lao Cai
11. Dien Bien
12. Lai Chau
14. Son La
15. Yen Bai
17. Hoa Binh
19. Thai Nguyen
20. Lang Son
24. Bac Giang
25. Phu Tho

R2. Red River Delta
01. Ha Noi
22. Quang Ninh
26. Vinh Phuc
27. Bac Ninh
30. Hai Duong
31. Hai Phong
33. Hung Yen
34. Thai Binh
35. Ha Nam
36. Nam Dinh
37. Ninh Binh

R3. North and South Central Coast
38. Thanh Hoa
40. Nghe An
42. Ha Tinh
44. Quang Binh
45. Quang Tri
46. Thua Thien Hue
48. Da Nang
49. Quang Nam
51. Quang Ngai
52. Binh Dinh
54. Phu Yen
56. Khanh Hoa
58. Ninh Thuan
60. Binh Thuan

R4.Central Highlands
62. Kon Tum
64. Gia Lai
66. Dak Lak
67. Dak Nong
68. Lam Dong

R5. Southeast
70. Binh Phuoc
72. Tay Ninh
74. Binh Duong
75. Dong Nai
77. Ba Ria-Vung Tau
79. Ho Chi Minh City

R6. Mekong River Delta
80. Long An
82. Tien Giang
83. Ben Tre
84. Tra Vinh
86. Vinh Long
87. Dong Thap
89. An Giang
91. Kien Giang
92. Can Tho
93. Hau Giang
94. Soc Trang
95. Bac Liêu
96. Ca Mau

Although overall, the Red River Delta had a negative net migration rate, it is not surprising that the 3 focal economic "engines" of the North, Ha Noi, Hai Phong and Quang Ninh experienced positive net migration rates.

A majority of the provinces of the Northern Midlands and Mountains had negative net migration rates, with the exception of Lai Chau (similar to Dak Lak with redistribution of inhabitants after the province was split into Lai Chau and Dien Bien), and Son La (possibly because the construction of the Son La Hydro-electric power plant attracted many skilled workers for employment) leading to positive net migration rates.

4. Urbanization

There is no standard definition of urban areas. The United Nations encourages each country to determine urban population according to specific conditions in each country. In Vietnam, urban areas include inner districts and wards of municipalities and cities, and district capitals. All other remaining areas (communes) are rural.

Urbanization in Vietnam began to increase in pace towards the end of the 1980s, along with the initial period of economic transformation. Urban development depends on economic development In developed countries, reverse urbanization (urban to rural diffusion) is occurring, that is urban population is returning to live in the urban outskirts or in rural areas. In contrast, in developing countries, such as Vietnam, the rural population is being pulled into urban areas to work and live.

As of 01 April, 2009, 29.6% of Vietnam's population lived in urban areas compared to 23.7% in 1999 (See Table 6.5). The urban population share in Vietnam is low compared to Bruney (72%), Malaysia (68%), Philippines (63%), Indonesia (48%), Thailand (36%) và Myanma (31); higher than in Cambodia (15%), East Timor (22%) and Laos (27%)[5].

During the period 1999–2009, the urban population grew rapidly, on average 3.4% per year, while in rural areas, population growth only reached 0.4% per year.

[5] *Source: Population Reference Bureau, 2008 World Population Data Sheet.*

Over many years, the crude birth rate in rural areas has exceeded the rate in urban areas while crude death rates have varied little between these two areas. This means that the above findings on urban and rural population growth reflect large flows of population from rural to urban areas. It is also important to note that besides the flows of migrants from rural to urban areas, there have also been changes in administrative divisions (rural communes becoming district capitals or urban wards) that represent another type of urbanization.

Between the 1999 and 2009 Censuses, population in Vietnam increased by 9.47 million people, consisting of an increase of 7.3 million people (77%) in urban areas and about 2.17 million people (23%) in rural areas.

TABLE 6.5: NUMBER AND SHARE OF POPULATION IN URBAN AREAS, 1979–2009

Year	Urban population (1000 persons)	Urban population share (%)
1979	10 094	19,2
1989	12 463	19,4
1999	18 077	23,7
2009	25 374	29,6

Table 6.6 presents the general population, urban population and urban share of the population by region. The Southeast is the region containing the largest urban population, which accounts for 57.1% of total regional population (in 1999 it was 55.1%), followed by the Red River Delta with 29.2% of its population in urban areas (in 1999 this figure was 21.0%). In terms of rate of growth, urbanization is occurring more rapidly in the Red River Delta than in the Southeast.

TABLE 6.6: GENERAL POPULATION, URBAN POPULATION, URBAN SHARE BY SOCIO-ECONOMIC REGION, 2009

Socio-economic region	General population (1000 persons)	Urban population (1000 persons)	Urban population share (%)
Entire country	**85 790**	**25 374**	**29.6**
Northern Midlands and Mountains	11 064	1 772	16.0
Red River Delta	19 578	5 721	29.2
North and South Central Coast	18 835	4 530	24.1
Central Highlands	5 107	1 419	27.8
Southeast	14 025	8 009	57.1
Mekong River Delta	17 179	3 922	22.8

Data in Table 6.7 indicate that during the 5-years prior to the Census, net migrants from rural to urban areas is 1,395,000 people (in the 5-years prior to the 1999 Census this figure was 768,000 persons). The pace of this migration flow has doubled compared to 10 years ago. On average, in-migration has contributed 0.57 percent point to annual population growth in urban areas. At the same time, this migration flow has reduced the annual growth of population in rural areas by 0.23 percent point.

TABLE 6.7: MIGRATION FLOWS BETWEEN URBAN AND RURAL AREAS IN THE 5 YEARS PRIOR TO THE 2009 CENSUS

Migrant population and direction of migration (1000 persons)			Effect of rural to urban migration on Population growth (%)	
Rural to urban	Urban to rural	Net rural-urban migration	Rural	Urban
1 943	548	1 395	-0.23	0.57

CHAPTER 7
EDUCATION

Vietnam has made substantial achievements in the area of education the entire country has succeeded in largely eliminating illiteracy and making primary education universal, and is in the process of universalizing lower secondary education. Vietnam has a well-established national education system that is reaching uniform standards through a system that covers different levels of education from pre-school through post-university training. It includes diverse forms of education and training qualifications through its network of general schools and vocational and professional training institutions that have been developed throughout the country.

In order to obtain more complete data on the picture of the current education situation in Vietnam, questions were asked to collect information on school attendance of the population 5 years of age and older. Similar to the 1999 Census, questions on school attendance, highest level of schooling attained, and literacy were designed and included in the questionnaires. Information on the actual grade or highest year ever studied was also collected in the Census for the first time, to satisfy the requirements of the national statistical indicator system and in accordance with the latest education and training classification table.

1. School attendance

TABLE 7.1: PROPORTION OF POPULATION 5 YEARS AND OLDER BY SCHOOL ATTENDANCE STATUS, 1989–2009

Unit: Percent

School attendance status	1989	1999	2009
Total	**100.0**	**100.0**	**100.0**
Currently attending	23.6	27.6	24.7
Attended in the past	58.4	62.6	70.2
Never attended	18.0	9.8	5.1

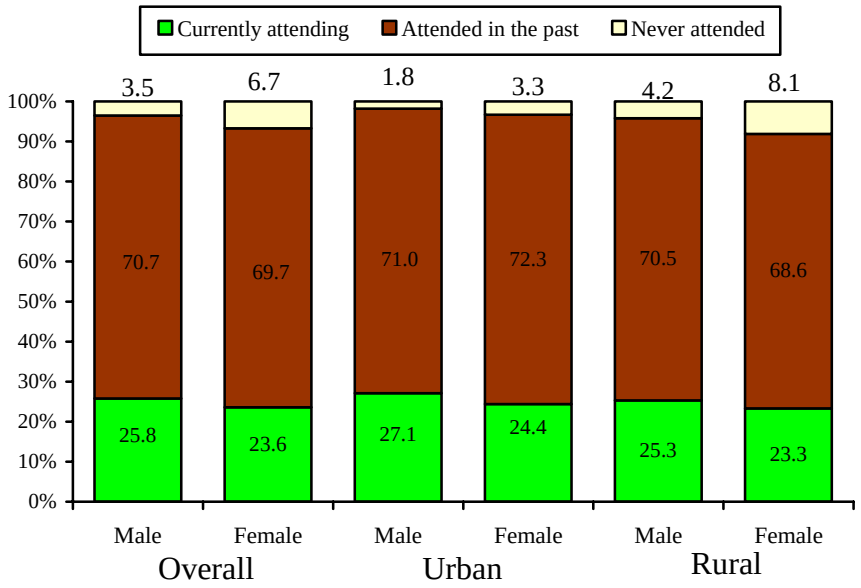
Source: 1989 and 1999: Central Census Steering Committee, "The 1999 Vietnam Population and Housing Census: Sample results", The Gioi Publishing House, 2000, Table 8.1, page 63.

The status of "currently attending" includes being in a school belonging to Vietnam's national education system. Data in Table 7.1 shows that nearly one quarter of the population age 5 and older are currently attending some type of

school (24.7%). During the previous 20 years, the proportion of the population 5 years and older who have never attended school has declined considerably, in 2009, only 5.1% of the population reported that they had never attended school, a decline of 4.7 percentage points compared to the proportion in 1999.

Figure 7.1 indicates that the proportion of people who have never attended school is higher among females than males (6.7% versus 3.5%). The data also indicate differentials in attendance across rural/urban residence, with the proportion who have never attended in rural areas more than double that in urban areas (6.2% versus 2.6%).

FIGURE 7.1: PROPORTION OF POPULATION 5 YEARS AND OLDER BY SCHOOL ATTENDANCE, SEX AND URBAN/RURAL RESIDENCE, 2009



The Central Highlands and Northern Midlands and Mountains have the highest proportions of the population that have never attended school, (8.9% and 10.4% respectively). These 2 regions have large concentrations of ethnic minority people, complicated geography hindering mobility, and poorer economic conditions than other regions.

Figure 7.2 shows that the proportion who have never attended school is higher among females than males, indicating the historical disadvantages females have faced in terms of the benefits of schooling compared to males. However, the two curves in the figure are close to each other in the younger age groups, only

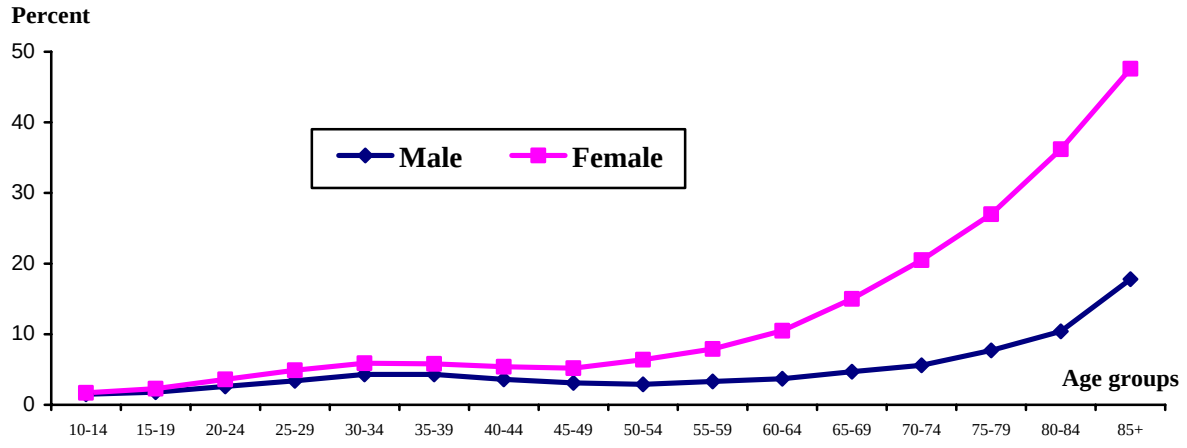
diverging at older age groups. This indicates that the sex disparities in the proportion never attending school have narrowed substantially in recent years.

TABLE 7.2: PROPORTION OF POPULATION 5 YEARS AND OLDER BY SCHOOL ATTENDANCE, URBAN/RURAL RESIDENCE, AND SOCIO-ECONOMIC REGION, 2009

Unit: Percent

Residence/Socio-economic region	Total	Currently attending	Attended in the past	Never attended
Entire country	**100.0**	**24.7**	**70.2**	**5.1**
Urban	100.0	25.7	71.6	2.6
Rural	100.0	24.3	69.5	6.2
Socio-economic region:				
Northern Midlands and Mountains	100.0	24.8	64.8	10.4
Red River Delta	100.0	25.4	72.4	2.2
North and South Central Coast	100.0	27.5	68.2	4.2
Central Highlands	100.0	29.8	61.3	8.9
Southeast	100.0	22.9	73.9	3.2
Mekong River Delta	100.0	20.7	72.7	6.6

FIGURE 7.2: PROPORTION NEVER ATTENDING SCHOOL AMONG THE POPULATION 10 YEARS AND OLDER BY SEX AND AGE GROUP, 2009



The findings mentioned above indicate that school attendance was weaker in the past, and that women have historically been disadvantaged compared to men. These results confirm two concurrent trends, general improvements in education in terms of attendance levels, and the narrowing of the gender gap.

In most countries in the world, one would expect a larger proportion of people with technical/professional qualifications at a lower level, and the proportion with technical/professional qualifications to decline as the level of training increased. Data in Table 7.3, however indicate clearly an imbalance in the structure of technical training and professional education after general schooling.

Among people age 15 years and older who are attending technical training and professional education, some 53% are currently in university and post-university programs. If we add in the number attending junior college, this figure adds up to nearly 80% of the total. This imbalance is apparent for both men and women, and for both urban and rural areas. The pressure "to go to university" weighs heavily in the psychology of Vietnamese people. The fact that school pupils overwhelmingly choose to take university entrance exams rather than technical school exams, is the natural consequence of a training orientation for youth that is not in line with the needs of socio-economic development.

TABLE 7.3: PROPORTION CURRENTLY ATTENDING TECHNICAL/PROFESSIONAL TRAINING AMONG POPULATION 15 YEARS AND OLDER BY QUALIFICATION LEVEL, SEX, URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Unit: Percent

Sex/Residence/Socio-economic region	Currently attending				
	Total	Technical worker	Technical secondary	Junior college	University and above
Entire country	**100.0**	**1.7**	**20.5**	**24.5**	**53.3**
Male	100.0	2.4	21.1	22.7	53.8
Female	100.0	1.0	19.9	26.3	52.8
Urban	100.0	1.3	16.6	22.6	59.5
Rural	100.0	2.6	28.4	28.1	40.8
Socio-economic region:					
Northern Midlands and Mountains	100.0	2.4	27.8	23.4	46.3
Red River Delta	100.0	1.3	18.6	27.3	52.8
North and South Central Coast	100.0	1.8	24.0	28.3	45.8
Central Highlands	100.0	2.3	19.6	15.5	62.6
Southeast	100.0	1.5	17.6	21.3	59.6
Mekong River Delta	100.0	2.7	23.4	20.0	53.9

The Central Highlands is the region with the most imbalanced structure of students currently attending technical/professional training, with over 60% at university and post-university levels, higher than the national average by almost 10 percentage points (62.6% compared to 53.3%), and higher even than the two large political-economic regions of the Southeast and Red River Delta, locations with the highest density of universities and junior colleges.

2. Gross and net enrolment rates

According to Vietnam's Education Law, the general education system in Vietnam is divided into three levels, with varying requirements on duration and

ages as follows: (1) primary school: from grade 1 to 5, pupils start grade 1 at age 6 years; (2) lower secondary school: from grade 6 to 9, pupils starting grade 6 must have completed primary school and be at least 11 years of age; (3) upper secondary: from grade 10 to 12, pupils starting grade 10 must have completed lower secondary and be at least 15 years of age. Besides general schooling, there is also tertiary education including junior college, university, Masters and PhD programs; in this analysis of enrolment rates, when discussing tertiary education we will only discuss enrolment rates among junior college and university, using general duration of schooling at this level from 3 to 4 years, and age at the beginning of this education level set at 18 years.

Enrolment rates are indicators that reflects inputs to education. The gross enrolment rate is the number of pupils/students who are enrolled in a given educational level, regardless of their age, as a percentage of the total population of the official age for that educational level. The net enrolment rate is the number of pupils/students of the official age for a given level of schooling who are enrolled in that level as a percentage of the total population of the official age for that educational level.

TABLE 7.4: GROSS AND NET ENROLMENT RATES BY LEVEL OF SCHOOLING, URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Unit: Percent

Residence/Socio-economic region	Gross enrolment rate				Net enrolment rate			
	Primary	Lower secondary	Upper secondary	Tertiary	Primary	Lower secondary	Upper secondary	Tertiary
Entire country	**102.9**	**89.5**	**64.4**	**25.1**	**95.5**	**82.6**	**56.7**	**16.3**
Urban	101.6	93.8	76.5	54.0	97.2	88.8	68.4	36.2
Rural	103.3	88.2	60.3	11.1	94.9	80.6	52.8	6.7
Socio-economic region:								
Northern Midlands and Mountains	103.0	88.1	57.3	12.0	92.0	77.2	48.6	5.7
Red River Delta	102.4	98.6	81.3	39.8	97.8	93.9	74.9	27.1
North and South Central Coast	102.5	93.6	69.0	22.4	96.4	86.8	61.9	14.2
Central Highlands	104.1	83.7	57.9	13.7	93.1	74.9	48.7	7.0
Southeast	102.0	89.5	60.9	34.7	96.8	83.5	52.7	23.5
Mekong River Delta	103.9	78.1	48.5	13.3	94.3	71.5	40.4	8.1

Table 7.4 presents gross and net enrolment rates by educational level. The data show that overall, the country has achieved universal primary education. Regarding lower secondary education, Vietnam has achieved a gross enrolment

rate of 89.5%. In primary school, there is little difference in the enrolment rate between urban and rural areas (101.6% versus 103.3%). However, the higher the educational level, the greater the disparity in enrolment rates between urban and rural areas, specifically: in lower secondary, the urban-rural gap is 5.6 percentage points; in upper secondary the gap is 16.2 percentage points and at junior college and university levels, the gap is 42.9 percentage points.

Data indicate opposite tendencies in educational enrolments in the two major delta areas of the country. While the Mekong River Delta has the lowest gross enrolment rates in lower secondary, upper secondary and junior college/university (respectively 78.1%, 48.5% and 13.3%), the Red River Delta has the highest rates (respectively 98.6%, 81.3% and 39.8%). This indicates that lower and upper secondary enrolments are a major concern for the Mekong River Delta.

3. Literacy

Literacy is the ability to read and write a simple passage on everyday activities using the Vietnamese national language, an ethnic minority language or a foreign language. The question on literacy in the Census is asked of all people who have not yet completed primary schooling (i.e. not yet completed grade 5), and the assumption is that all people who have education beyond primary school are literate. The literacy rate is one of the most general measures of educational output, and is defined as the percentage of literate people in a given age out of the total population in that age group.

TABLE 7.5: LITERACY RATES OF THE POPULATION 10 YEARS AND OLDER BY SEX, 1989–2009

Unit: Percent

Sex	Literacy rate of population 10 years and older		
	1989	1999	2009
Total	**88.2**	**91.1**	**94.0**
Male	92.8	94.3	96.0
Female	84.2	88.2	92.0

Source: 1989 and 1999: Central Census Steering Committee, "The 1999 Vietnam Population and Housing Census: Sample results", The Gioi Publishing House, 2000, page 68.

Result of the 2009 Population and Housing Census show that the literacy rate among the population aged 10 and older is 94%. In the past 10 years, the literacy rate among women has increased 3.8 percentage points while among men

it has increased 1.7 percentage points, narrowing the male-female gap in literacy rates (currently 96.0% and 92.0% respectively). In general, gender inequality in general education in Vietnam has almost been eliminated.

Literacy rates in urban areas are higher than in rural areas due to disparities in level of development between the two areas. Nevertheless, in recent years, because of policies for universal primary education and elimination of illiteracy, the gap in literacy rates between urban and rural areas has fallen quite low – less than 5 percentage points (96.9% in urban areas and 92.0% in rural areas).

The Red River Delta is the region with the highest literacy rates (97.1%). The lowest literacy rates are found in the Northern Midlands and Mountains (87.3%), this is also the region with the largest urban-rural gap in literacy rates at 11.6 percentage points, followed by the Central Highlands with an urban-rural gap of 10.7 percentage points. In the other regions the urban-rural gap is only about 3 percentage points (Table 7.6).

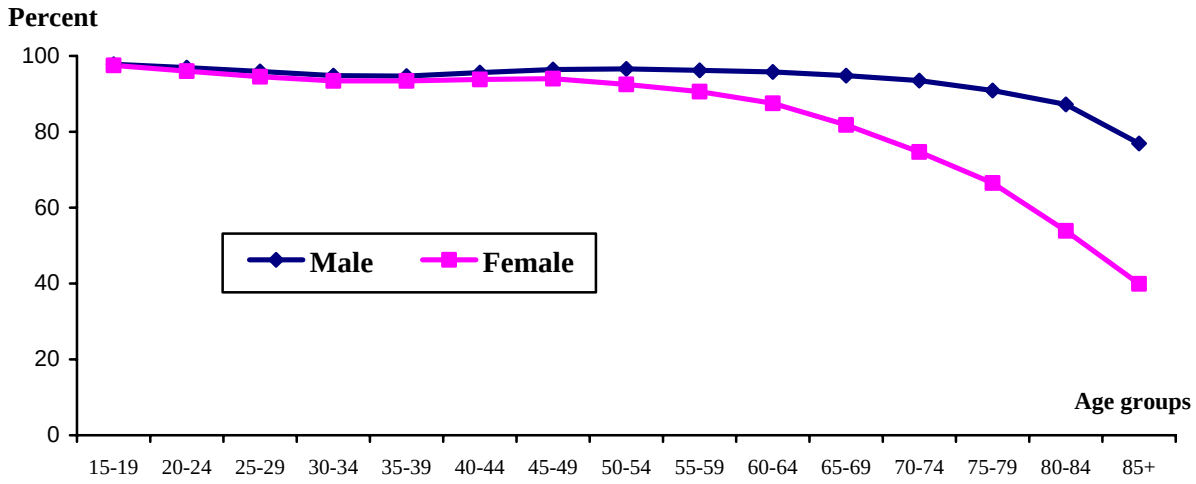
TABLE 7.6: LITERACY RATE OF THE POPULATION 15 YEARS AND OLDER BY SEX, URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Unit: Percent

Residence/Socio-economic region	Total	Urban	Rural	Urban-rural gap
Entire country	**93.5**	**97.0**	**92.0**	**5.0**
Urban	95.8	98.0	94.8	3.2
Rural	91.4	96.0	89.3	6.7
Socio-economic region:				
Northern Midlands and Mountains	87.3	97.0	85.3	11.6
Red River Delta	97.1	98.7	96.5	2.2
North and South Central Coast	93.9	96.4	93.1	3.2
Central Highlands	88.7	96.2	85.5	10.7
Southeast	96.4	97.6	94.7	2.9
Mekong River Delta	91.6	94.0	90.9	3.1

Figure 7.3 shows the literacy rates of the population 15 years and older by age group. These data indicate that literacy rates in Vietnam have improved substantially in the past few decades. The younger the age group, the higher the literacy rate, and the narrower the male-female gap. The two curves in the figure, referring to male and female literacy rates by age group in younger ages, are very close together, but become further apart in the age groups starting around 50 years and older, indicating that in the past women were more disadvantaged than men in schooling, but that this inequality has been reduced considerably in recent years.

FIGURE 7.3: LITERACY RATES OF THE POPULATION 15 YEARS AND OLDER BY AGE GROUP AND SEX, 2009



4. Educational attainment

4.1 Educational attainment

Educational attainment is an important indicator of population quality. In the 2009 Population and Housing Census, educational attainment was divided into 5 groups including: (1) never attended school, (2) incomplete primary, (3) completed primary, (4) completed lower secondary and (5) completed upper secondary and higher.

Data in Table 7.7 show that overall, people with educational attainment of lower secondary and higher account for 44.5% of the population age 5 years and older. There are urban-rural gaps in educational attainment. In 2009, the share of the population with lower secondary or higher education in urban areas was 37.4%, while in rural areas the share was 23.6%.

There are considerable regional disparities in educational attainment. The two regions with the highest levels of socio-economic development are also the locations that strongly attract people with high education, namely the Red River Delta and the Southeast. In these two regions, the number of people who have completed upper secondary and higher account for 30.1% and 27.2% of the population of these regions. The Mekong River Delta and the Central Highlands are the two regions with the highest proportion who have never completed primary education (accounting for 32.8% and 25.7% of their populations respectively).

These are also the regions with the lowest proportion completing upper secondary and higher, especially the Mekong River Delta (10.7%, only half the national level).

TABLE 7.7: PROPORTION OF THE POPULATION 5 YEARS AND OLDER BY EDUCATIONAL ATTAINMENT, URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Unit: Percent

Residence/Socio-economic region	Total	Never attended	Incomplete primary	Completed primary	Completed lower secondary	Completed upper secondary and higher
Entire country	**100.0**	**5.1**	**22.7**	**27.6**	**23.7**	**20.8**
Urban	100.0	2.6	16.7	22.9	20.4	37.4
Rural	100.0	6.2	25.3	29.6	25.1	13.8
Socio-economic region:						
Northern Midlands and Mountains	100.0	10.3	22.7	25.6	23.1	18.3
Red River Delta	100.0	2.2	15.8	18.9	33.0	30.1
North and South Central Coast	100.0	4.2	22.2	28.6	25.9	19.1
Central Highlands	100.0	8.9	25.7	30.9	20.8	13.7
Southeast	100.0	3.1	19.7	29.1	21.0	27.2
Mekong River Delta	100.0	6.6	32.8	35.6	14.3	10.7

4.2 Technical qualifications

Data in Table 7.8 indicate that in the group of the population aged 15 years and older, 86.7% do not have any technical/professional qualifications. Overall the number of people with technical/professional qualifications from technical worker to post-university levels accounts for only 13.3% of the total population, and specifically people with university and higher education account for only 4.4% of the total population. This figure should be a warning regarding the labour force in Vietnam, labour supply is very large, but there is a severe shortage of skilled labour.

There is a rather large gap between urban and rural areas in the share of the population with technical/professional training at all training levels. The proportion that have received training from technical worker to junior college levels in urban areas is double that in rural areas. The proportion with university and higher education in urban areas is 7 times higher than in rural areas.

TABLE 7.8: PROPORTION OF THE POPULATION 15 YEARS AND OLDER BY TECHNICAL/PROFESSIONAL QUALIFICATIONS, SEX, URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Unit: Percent

Sex/Residence/ Socio-economic region	Highest technical/professional qualifications attained					
	Total	No qualifica-tions	Elemen-tary	Secon-dary	Junior college	Univer-sity and higher
Entire country	**100.0**	**86.7**	**2.6**	**4.7**	**1.6**	**4.4**
Male	100.0	84.3	3.7	5.5	1.4	5.1
Female	100.0	88.9	1.5	4.0	1.8	3.7
Urban	100.0	74.6	4.4	7.6	2.5	10.8
Rural	100.0	92.0	1.8	3.5	1.2	1.5
Socio-economic region:						
Northern Midlands and Mountains	100.0	86.7	2.4	6.4	1.8	2.8
Red River Delta	100.0	80.6	3.5	6.8	2.3	6.8
North and South Central Coast	100.0	87.8	2.1	4.8	1.7	3.6
Central Highlands	100.0	90.2	1.9	3.8	1.3	2.8
Southeast	100.0	84.2	3.6	3.8	1.6	6.6
Mekong River Delta	100.0	93.4	1.4	2.2	0.9	2.1

When examining differences across regions, the Red River Delta and the Southeast are the locations with the highest concentrations of technically/professionally trained people, yet the proportion graduating from university or higher levels only accounts for a modest share of the population aged 15 and older, that is 6.8% and 6.6% respectively across the two regions. The lowest share is found in the Mekong Delta, with only 2.1% having university and higher education. This is the largest “rice basket” of the country and the region where the share of the population with no technical/professional qualifications is highest (93.4%).

Over the years, the development of technical/professional training has seen important improvements, however the imbalance in the structure of technical training is a problem that needs appropriate policy adjustments. Vietnam remains and will continue to remain in need of high quality labour and skills, but clearly the current supply does not meet these needs. Effective solutions are needed from the Government to resolve the situation of imbalance in training in Vietnam at present, and at the same time, solutions to link supply and demand between the educational-training system and the employers in order to satisfy the need for number and quality in the labour market.

CHAPTER 8
LABOR AND EMPLOYMENT

In the 2009 Population and Housing Census, people 15 years and older were asked about their economic activities through questions on income earning work in the 7 days prior to the survey reference point. This method of asking is based on the concept of "current economic activity" and is not the same as in the 1989 and 1999 censuses which determined economically active status based on the concept of "usual economic activity" through questions on main activity (the activity that accounted for the most time) in the 12 months prior to the survey. This difference must be borne in mind when comparing data on economic activity collected in this Census compared to previous censuses.

1. Economically active population or labor force

The economically active population is the part of the population that supplies or is ready to supply labor for production of material goods and services. In other words, the economically active population includes people currently working and the unemployed during the period of the study. When the "current economic activity" concept is used to determine economic activity status, the "Economically active population" has another name that is widely used, the "labor force".

1.1 Size and distribution of the labor force

At the reference point of the Census, 01/04/2009, the entire country had 49.2 million people aged 15 years and older who belonged to the labor force, accounting for 57.3% of total population and including 47.7 million employed and 1.5 million unemployed people. Among the nation's labor force, women accounted for a shaller share than men (48% female and 52% male) (Table 8.1). Over the past 30 years, the proportion of the labour force comprised of women has changed very little (1989 Census: 48.8%; 1999 Census: 48.2%).[1]

The female share of the labor force varies little between urban and rural areas, yet does show some variation across regions, from the lowest level at 44.7%

[1] *These figures were calculated from Table 2.3, page 15, Chapter 2 of "1999 Population and Housing Census: Census Monograph on Labour Force and Employment in Vietnam. Hanoi: Transport Communication Publishing House. 2002.*

in the Mekong River Delta, to the highest level at 50.2% in the Red River Delta. The data indicate contrasting labor force participation by sex between the two large delta regions of the country. While in the Mekong River Delta, women account for a smaller share of the labour force than men (44.7% compared to 55.3%), in the Red River Delta the share is almost equal between men and women (50.2% compared to 49.8%). The reason may be that many women in the South (Mekong River Delta and Southeast) mainly perform housework, and do not participate in economic activity.

TABLE 8.1: LABOR FORCE BY SEX, URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Residence/Socio-economic region	2009 Census				Female share (%)
	Total	Male	Female	% of labor force	
Entire country	**49 187 222**	**25 585 509**	**23 601 713**	**100.0**	**48.0**
Urban	13 235 482	7 004 409	6 231 073	26.9	47.1
Rural	35 951 740	18 581 100	17 370 641	73.1	48.3
Socio-economic region:					
Northern Midlands and Mountains	6 782 899	3 398 250	3 384 649	13.8	49.9
Red River Delta	11 117 284	5 539 739	5 577 545	22.6	50.2
North and South Central Coast	10 548 048	5 400 880	5 147 169	21.4	48.8
Central Highlands	2 847 823	1 487 038	1 360 784	5.8	47.8
Southeast	7 872 392	4 222 094	3 650 298	16.0	46.4
Mekong River Delta	10 018 776	5 537 509	4 481 268	20.4	44.7

Over the past 3 decades, although there has been a substantial increase in the proportion of the labour force in urban areas, yet by 2009, approximately three-fourths (73.1%) of the labour force in Vietnam are still concentrated in rural areas.

Among the 6 socio-economic regions, nearly two-thirds of the nation's labour force are concentrated in three regions: the Red River Delta, the North and South Central Coast and the Mekong River Delta with a total of 32 million people. Thus, the rural areas and 3 socio-economic regions are our "focal point addresses" for national programs to utilize the labour force, create employment and provide occupational training over the coming years.

1.2 Labor force participation rate

The labour force participation rate is one of the most general measures of the extent of the population's participation in the labour force. It is defined as the

proportion of the population accounted for by the labour force to the population aged 15 and over. Table 8.2 presents the labour force participation rate of the entire country, urban and rural areas and socio-economic regions.

In 2009, out of a total of 64.3 million people aged 15 years and older more than three-fourths (76.5%) participated in the labour force. The labour force participation rate is very different between men and women (81.8% compared to 71.4%) and varies across regions.

The labour force participation rate in 2009 for the population in rural areas was higher than for urban areas by up to 14 percentage points (80.6% compared to 67.1%). Both men and women experience this differential, although the differential is larger among women than men.

TABLE 8.2: LABOUR FORCE PARTICIPATION RATES BY SEX, URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Unit: Percent

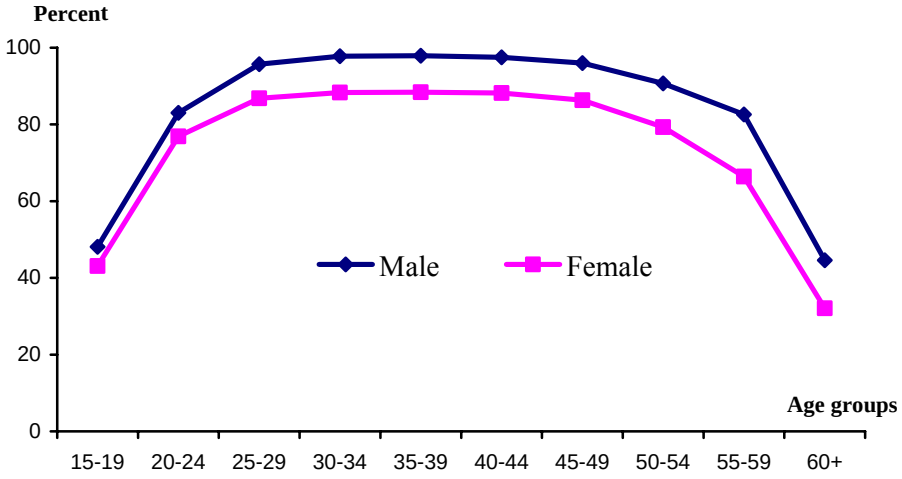
Residence/Socio-economic region	Total	Male	Female	Male-female gap
Entire country	**76.5**	**81.8**	**71.4**	**10.5**
Urban	67.1	74.4	60.4	14.0
Rural	80.6	85.0	76.3	8.7
Socio-economic region:				
Northern Midlands and Mountains	84.4	85.9	82.9	3.0
Red River Delta	73.9	76.2	71.6	4.6
North and South Central Coast	76.0	80.1	72.1	8.0
Central Highlands	82.9	86.8	78.9	7.8
Southeast	72.1	81.0	63.9	17.1
Mekong River Delta	77.1	87.0	67.6	19.3

The labour force participation rate varies from the lowest level in the Southeast (72.1%) to the highest level in the Northern Midlands and Mountains (84.4%). It is important to notice, that while the labour force participation rate is highest in the two mountainous regions of the Northern Midlands and Mountains and the Central Highlands (82.9%), it is the lowest in the two most economically developed regions of the Southeast and the Red River Delta, with labour force participation rates of 72.1% and 73.9%. Another feature worth noting is that the labour force participation rate of women is lowest in the two southern regions (Southeast and Mekong River Delta). The data show that in all 6 socio-economic regions, the labour force participation rate of women is always lower than for men.

The male-female gap in labour force participation increases gradually as we move from north to south, with the Northern Midlands and Montains having the smallest male-female gap at 3%, and the Mekong River Delta having th largest at 19.3%. This finding once again confirms that in the South, many women devote themselves to housework instead of participating in economic activity.

Sex and age-specific labour force participation rates are one of the most reliable indicators of changing trends in economic activity, because they are independent of age and sex structure of the population. Figure 8.1 shows that the labour force participation rate of women is lower than men in all age groups. The male-female gap in labour force particiaption increases gradually from the age group 15-19 years (with a gap of 5%), and reaches its maximum at the age group 55–59 years (with a gap of 16.2%). The reason for this is related to women's retirement age being set at 55 years, and the fact that after retirement, women usually do not continue to participate in economic activity.

FIGURE 8.1: LABOR FORCE PARTICIPATION RATE BY AGE AND SEX, 2009



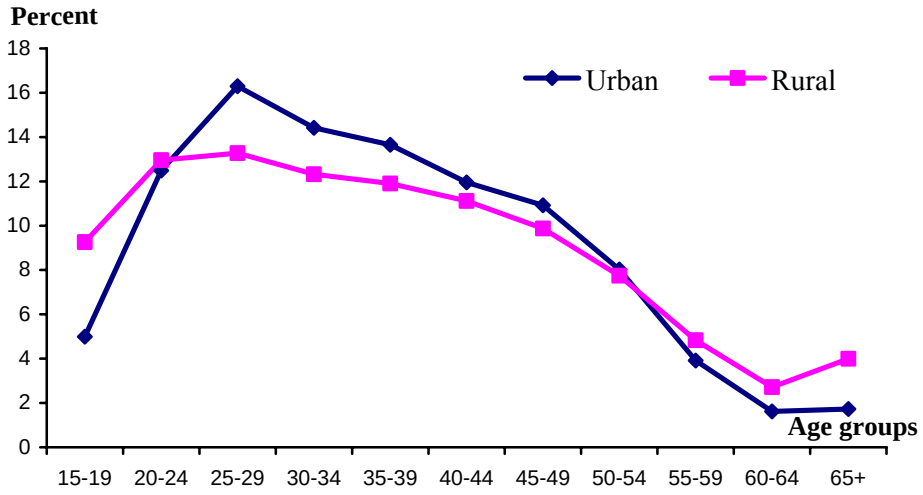
1.3 Labor force features

a. Age

The sex and age structure of the labour force reflects the demographic and socio-economic situation. For example, high enrollment rates in the population lead to low labour force participation rates in younger ages. Similarly, high living standards of the population lead to reductions in labour force particiation of the older age population.

There are substantial differences in the age structure of the labour force acorss urban and rural areas. The share of the labour force in young ages (15–24 years) and in older ages (55 years and above) of urban areas is lower than in rural areas. In contrast, the share of the labour force in the main working ages (25–54 years) in urban areas is higher than in rural areas. (Figure 8.2). This indicates that urban people tend to enter the labour force later and leave the labour force earlier than people in rural areas. The main reason to explain this phenomenon is that the young population in urban areas tend to spend longer in school and older people in urban areas tend to retire earlier than in rural areas (partly because retired people in urban areas usually don't continue to participate in economic activities). Figure 8.2 also indicates, Vietnam has a young labour force, with more than half (52.2%) of the labour force in the age group 20-39 years.

FIGURE 8.2: PROPORTION OF THE LABOR FORCE BY AGE AND URBAN/RURAL RESIDENCE



b. Educational attainment

Data in Table 8.3 shows that people with educational attainment of lower secondary and higher in 2009 account for more than half (54.1%) of the labour force of the country. There is a disparity in educational attainment of the labour force between urban and rural areas. In 2009, the proportion of the labour force with lower secondary education or higher in urban areas was 69.1%, while in rural areas it was 48.6%.

There is a substantial variation in educational attainment of the labour force across regions. The proportion of the labour force who have never attended school

is found in the Northern Midlands and Mountains (accounting for 11.3% of the region's labour force), followed by the Central Highlands (10.2%) and the Mekong Delta (5.7%). These are also the regions with the lowest proportion of the labour force having completed upper secondary or higher levels of education, especially the Mekong River Delta (13.4% - only half the level of the national figure). The two regions with the highest socio-economic development, also the places that strongly attract highly educated people, high are the Red River Delta and the Southeast. In these two regions, the number of the labour force who have completed upper secondary education or higher account for 35.9% and 32.9% of the labour force respectively.

TABLE 8.3: PROPORTION OF LABOR FORCE BY EDUCATIONAL ATTAINMENT, URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Unit: Percent

Residence/Socio-economic region	Total	Never attended	Incomplete primary	Completed primary	Completed lower secondary	Completed upper secondary and higher
Entire country	**100.0**	**4.6**	**13.7**	**27.6**	**28.5**	**25.6**
Urban	100.0	1.7	7.6	21.6	22.3	46.8
Rural	100.0	5.7	15.9	29.9	30.7	17.8
Socio-economic region:						
Northern Midlands and Mountains	100.0	11.3	13.1	25.1	27.9	22.6
Red River Delta	100.0	0.8	5.5	16.2	41.6	35.9
North and South Central Coast	100.0	3.6	12.3	28.0	31.2	24.8
Central Highlands	100.0	10.2	13.9	32.2	24.9	18.8
Southeast	100.0	2.2	11.2	29.7	24.0	32.9
Mekong River Delta	100.0	5.7	26.4	38.7	15.8	13.4

c. Technical qualifications

Results of the Census indicate that the proportion of the labour force that has received technical qualifications remains low. Out of 49.2 million workers aged 15 years and older in Vietnam's labour force, only 7.3 million people have received technical training, accounting for 14.9% of the labour force. In this way, Vietnam's labour force is young and abundant, but with low levels of skills and technical specialization. Currently the entire country has more than 41.8 million workers (accounting for 85.1% of the labour force) who have never received training to achieve any level of technical specialization. This figure places a heavy responsibility for efforts aimed at improving the quality of the labour force to serve industrialization and modernization and global economic integration for Vietnam.

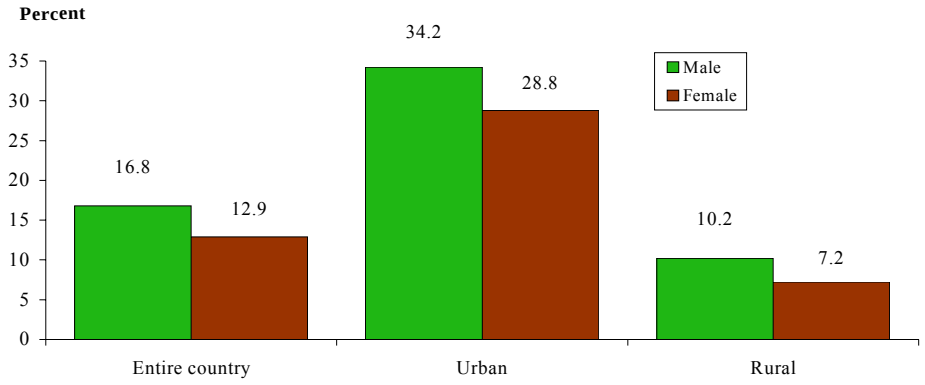
TABLE 8.4: PROPORTION OF THE LABOR FORCE WITH TECHNICAL QUALIFICATIONS BY TECHNICAL QUALIFICATIONS, URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 2009

Unit: Percent

Residence/Socio-economic region	Total	Elementary	Secondary	Junior College	University and higher
Entire country	**14.9**	**3.0**	**5.1**	**1.8**	**5.0**
Urban	31.6	5.7	8.9	3.1	13.9
Rural	8.8	2.0	3.7	1.4	1.7
Socio-economic region:					
Northern Midlands and Mountains	13.4	2.3	6.3	1.9	2.9
Red River Delta	21.2	4.1	7.1	2.5	7.6
North and South Central Coast	13.8	2.5	5.3	1.9	4.2
Central Highlands	11.0	2.2	4.1	1.5	3.2
Southeast	19.4	4.7	4.6	1.9	8.1
Mekong River Delta	7.8	1.7	2.6	1.1	2.5

The proportion of workers who have received any technical training is highest in the Red River Delta (21.2%) and lowest in the Mekong River Delta (7.8%). The proportion of the male labour force that has received training is higher than for women (Figure 8.3). The proportion of the labour force with university or higher qualifications varies substantially across regions. The region with the highest proportion having university education is the Southeast (8.1%), followed by the Red River Delta (7.6%). Of special interest is the Mekong River Delta, the Đáng chú ý là Đồng bằng sông Cửu Long – the largest rice basket of the country, but the region with the lowest proportion of the labour force with university or higher qualifications (2.5%).

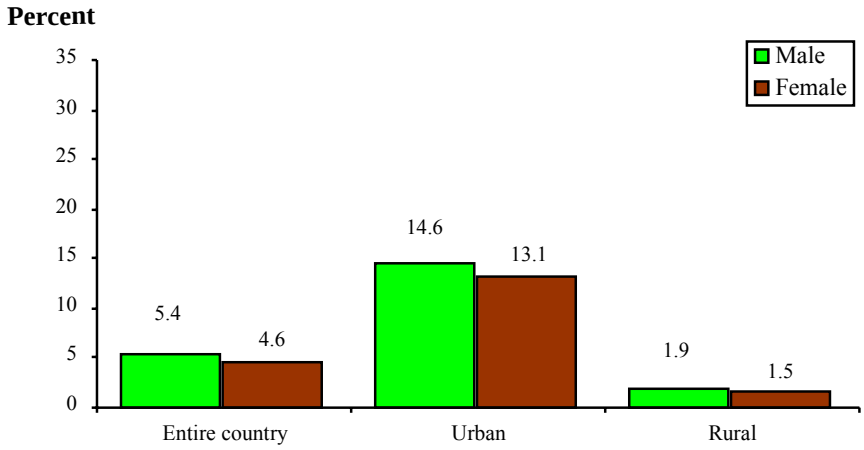
FIGURE 8.3: PROPORTION OF THE LABORFORCE WITH TECHNICAL QUALIFICATIONS BY URBAN/RURAL RESIDENCE AND SEX, 2009



As can be seen in Figure 8.4, the proportion of the labour force with university or higher education among men is higher than among women in all groups being examined. The gap in this proportion is especially clear when

observing urban-rural differentials. The proportion of the labour force with university or higher education in urban areas in 2009 was 8 times higher than in rural areas, and in particular among women, the urban-rural gap is nearly 9 times.

FIGURE 8.4: PROPORTION OF THE LABOR FORCE WITH UNIVERSITY QUALIFICATIONS OR HIGHER BY URBAN/RURAL RESIDENCE AND SEX, 2009



Vietnam has begun a period of "demographic window". The work of exploiting this "demographic window" to create opportunities for socio-economic development is receiving much attention from researchers and policy-makers. Because of this, in order for us to have a golden labour force in this period, we must develop a human resource development strategy linked to the socio-economic development strategy in order to more effectively exploit this golden opportunity for development, focused on reforming and adjusting the university, technical and technical specialist training with an orientation towards the market in order to create a technical labour force with skills and qualifications that satisfy "thirst" for skilled labour of the entreprise sector.

d. Geographic mobility of the labor supply

Migration is a component of population dynamics and is closely related to many important issues in sustainable development, especially labour and employment. In order to understand more deeply the situation of employment among migrants, Table 8.5 presents the labour force participation rates of the labour force that has migrated between provinces and the distribution of the migrant labour force across employment and unemployment status. Among people aged 15 years and older who have migrated across provinces in the 5 years prior to the Census, almost three-fourths (73.1%) belong to the labour force. A majority of

inter-provincial migrants are in young ages, and the main reason for their migraiton is to study. Almost one half of migrants aged 15–19 years do not participate in the labour force. Among migrants aged 20–29 years, 74.6% participate in the labour force. Nevertheless, the proportion Tuy nhiên, the proportion of the unemployed in this population group compared to all unemployed migrants is quite high (63%). This shows that resolving employment for young migrants is an issue requiring society's attention.

The pattern of distribution of the labour force participation rate by age among rural-urban migrants in the 5 years prior to the census is generally the same for overall migrants. It starts with a low rate (47.9%) in the youngest age group (15–19 years), then it gradually increases as age increases and reaches a maximum (91.2%) in the age group 30–49 years, then it drops rapidly as age increases. One point worth paying attention to when observing these patterns is that in all age groups, the labour force participation of rural-urban migrants is always lower than that of general migrants.

TABLE 8.5: LABOR FORCE PARTICIPATION RATE OF MIGRANTS, AGE STRUCTURE OF EMPLOYED AND UNEMPLOYED MIGRANTS BY FORM OF MIGRATION, 2009

Unit: Percent

Age group	Migration (all types)			Rural-urban migration		
	Labor force participation rate	Distribution of employed migrants	Distribution of unemployed migrants	Labor force participation rate	Distribution of employed migrants	Distribution of unemployed migrants
Total	**73.1**	**100.0**	**100.0**	**67.8**	**100.0**	**100.0**
15–19	52.8	13.8	13.7	47.9	15.4	16.1
20–29	74.6	55.6	63.0	69.0	56.5	63.5
30–49	92.1	27.2	18.0	91.2	25.4	16.2
50–64	62.3	3.2	4.5	60.6	2.6	3.3
65+	18.6	0.3	0.8	15.6	0.2	0.8

2. Employment

Employment is an important indicator for assessing socio-economic development. Analysis of the changing dynamics of employment allows us to assess the impact of socio-economic transition and propose employment policies appropriate with socio-economic conditions of the nation. Vietnam's economy has undergone important changes in the past few decades, especially in the first decade

of the twenty-first century. These important changes combined with improvements in education of the labour force in recent years have changed the structure and distribution of employed labour.

A majority of the labour force has employment; the number unemployed accounts for only a small share. Therefore, basic characteristics of the employed labour force such as marital status, technical qualifications, etc. will contribute to determining characteristics of the labour force that we were studying in the previous section. This section will mainly discuss issues related to the employed labour force.

2.1 Employed labor and occupation

By 2009, a majority of employed labour in Vietnam's economy have unskilled occupations (accounting for 40.3%) and agricultural, forestry or fishing occupations (18.5%). This indicates that Vietnam's labour market remains underdeveloped, and the issue of training the labour force to have technical qualifications is an extremely urgent issue.

TABLE 8.6: NUMBER AND STRUCTURE OF EMPLOYED WORKERS BY SEX AND OCCUPATION, 2009

Occupation	Number			Structure (%)			% Female
	Total	Male	Female	Total	Male	Female	
Total	**47 682 334**	**24 768 904**	**22 913 430**	**100.0**	**100.0**	**100.0**	**48.1**
1. Leader in all fields and levels	410 291	316 006	94 285	0.9	1.3	0.4	23.0
2. High level professional	2 112 304	1 069 390	1 042 914	4.4	4.3	4.6	49.4
3. Secondary level professional	1 702 183	751 872	950 311	3.6	3.0	4.1	55.8
4. Clerks	624 083	328 404	295 680	1.3	1.3	1.3	47.4
5. Personal services, protection and sales	5 919 628	2 155 990	3 763 639	12.4	8.7	16.4	63.6
6. Agricultural, forestry, fishery occupation	8 829 174	5 011 545	3 817 628	18.5	20.2	16.7	43.2
7. Skilled manual workers and other related workers	5 512 621	3 984 072	1 528 549	11.6	16.1	6.7	27.7
8. Assemblers and machine operators	3 336 266	2 026 351	1 309 916	7.0	8.2	5.7	39.3
9. Unskilled occupations	19 235 784	9 125 275	10 110 509	40.3	36.8	44.1	52.6

Among the nine occupational groups we examine, only three occupations use more female than male labour: "Personal services, protection and sales" (women account for 63.6%); "Secondary level professional" (women account for

55.8%), and “unskilled occupations” (women account for 52.6%). Clearly these occupational groups primarily require low technical qualifications. This indicates gender inequality in occupations.

Table 8.7 presents the proportion of employed labour above and below 40 years of age by occupation and sex. In each occupational group, the age structure is dissimilar. For the occupational group “leaders in all fields and levels”, nearly 70% are 40 years and older. In contrast, for the occupational group “unskilled occupations” and some technical occupations, about 60-80% of workers are below 40 years of age.

TABLE 8.7: PROPORTION OF EMPLOYED LABOR BY AGE GROUP, SEX AND OCCUPATION, 2009

Unit: Percent

Occupation	Below 40 years			40 years and above		
	Total	Male	Female	Total	Male	Female
Total	**60.2**	**61.0**	**59.3**	**39.8**	**39.0**	**40.7**
1. Leader in all fields and levels	30.9	28.9	37.8	69.1	71.1	62.2
2. High level professional	72.2	68.3	76.3	27.8	31.7	23.7
3. Secondary level professional	66.9	64.0	69.2	33.1	36.0	30.8
4. Employee (clerks)	59.5	48.8	71.4	40.5	51.2	28.6
5. Personal services, protection and sales	55.6	55.5	55.6	44.4	44.5	44.4
6. Agricultural, forestry, fishery occupation	43.4	43.5	43.2	56.6	56.5	56.8
7. Skilled manual workers and other related worker	71.0	69.9	74.1	29.0	30.1	25.9
8. Assemblers and machine operator	79.1	71.1	91.4	20.9	28.9	8.6
9. Unskilled occupations	61.7	66.2	57.6	38.3	33.8	42.4

2.2 Industrial sector of employment

The economic structural shift towards industrialization and modernization are major policies of the Party and Government in Vietnam. This process inevitably will increase the proportion of labour in industry, construction and services, and reduce the proportion of the labour force in agriculture. Table 8.8 indicates a shift in the labour structure between the three main industrial sectors over the past 10 years: "Agriculture, forestry, fishing"; "Industry and construction"; and "Services". One can see that in all three main industrial sectors have all strived to generate new employment, and "Services" has generated the most employment (6.3 million jobs), followed by "Industry and construction" (approximately 4.5 million jobs). These two sectors have also seen growth in their share of labour in

the economy. There has been a clear shift in labor between industrial sectors over the past 10 years. In 2009, "Agriculture, forestry, fishing" accounted for 53.9% of labour (a decline of 15.4 percentage points compared to 1999), "Industry and construction" accounts for 20.3% and "Services" for 25.8%.

TABLE 8.8: NUMBER AND DISTRIBUTION OF EMPLOYED LABOR BY MAIN INDUSTRIAL SECTOR, 1999 AND 2009

Industrial sector	1999		2009	
	Number	Proportion (%)	Number	Proportion (%)
Total	**35 847 343**	**100,0**	**47 682 334**	**100.0**
Agriculture, forestry and fishery	24 806 361	69,4	25 731 627	53.9
Industry and construction	5 126 170	14,9	9 668 662	20.3
Services	5 914 812	15,7	12 282 045	25.8

FIGURE 8.5: DISTRIBUTION OF EMPLOYED LABOR BY MAIN INDUSTRIAL SECTOR AND SOCIO-ECONOMIC REGION, 2009

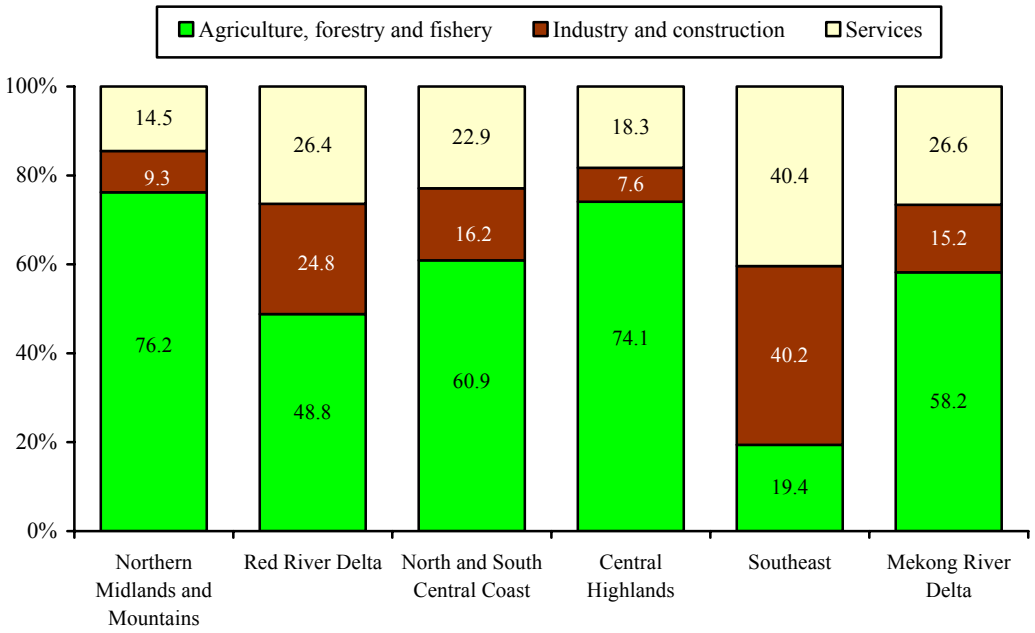


Figure 8.5 presents the proportion of employed labour by industrial sector for each region. The data show that the Southeast is the most developed region, with 80.6% of employed labour working in industry, construction and services. In the mountainous and coastal areas, the proportion of labour working in Sector I remains quite high, in the Northern Midlands and Mountains at 76.2%, Central Highlands at 74.1% and the North and South Central Coast at 60.9%.

Table 8.9 presents the distribution of employed labour by industrial sector. Among the 21 level 1 industrial sectors being examined, the sector "A. Agriculture, forestry and fishing" accounts for more than half of all employed labour. Some other sectors have a relatively large share including "C. Manufacturing" accounting for 13.7%, G. Wholesale and retail trade; repair of motor vehicles and motorcycles" accounting for 9.8% and F. Construction" accounting for 5.5%; each of the remaining sectors accounts for only a small share (below 4%).

TABLE 8.9: DISTRIBUTION OF EMPLOYED LABOR BY SEX AND INDUSTRIAL SECTOR, 2009

Unit: Percent

Industrial sector	Total	Male	Female	% Female
Total	**100.0**	**100.0**	**100.0**	**48.1**
A. Agriculture, forestry and fishing	53.9	51.9	56.2	50.1
B. Mining and quarrying	0.6	0.9	0.3	27.2
C. Manufacturing	13.7	12.7	14.8	51.8
D. Electricity, gas, steam and air conditioning supply	0.3	0.4	0.1	17.2
E. Water supply; sewerage, waste management and remediation activities	0.2	0.2	0.2	39.0
F. Construction	5.5	9.8	0.9	7.9
G. Wholesale and retail trade; repair of motor vehicles and motorcycles	9.8	8.1	11.7	57.1
H. Transportation and storage	2.8	5.0	0.5	8.4
I. Accommodation and food service activities	3.3	1.9	4.9	69.9
J. Information and communication	0.5	0.6	0.4	38.8
K. Financial, banking and insurance activities	0.5	0.4	0.5	53.5
L. Real estate activities	0.1	0.2	0.1	42.2
M. Professional, scientific and technical activities	0.5	0.6	0.3	31.8
N. Administrative and support service activities	0.3	0.4	0.2	36.1
O. Communist Party, socio-political organizations, public administration and defence; compulsory social security	2.0	2.7	1.2	28.2
P. Education and training	3.1	1.8	4.5	69.9
Q. Human health and social work activities	0.8	0.6	1.0	61.1
R. Arts, entertainment and recreation	0.4	0.4	0.5	50.2
S. Other service activities	1.2	1.4	1.0	41.5
T. Hired domestic help	0.4	0.1	0.7	90.3
U. Activities of international organizations and agencies	0.0	0.0	0.0	61.5

Overall in the economy, female labour is almost balanced with male labour (female labour accounts for 48.1% of all employed labour). Gender selection in some industrial sector is clear, and some sectors have a very small share of women in the labour force such as "F. Construction" with only 7.9% female, "H. Transportation and Storage" (8.4%), "D. Electricity, gas, steam and air conditioning supply" (17.2%). In contrast, there are other sectors which employ primarily female labour, like "T. Hired domestic help" in which women account

for 90.3%, "P. Education and training" and "I. Accommodation and food service activities" in which female labour accounts for nearly 70% of the sector's labour force.

TABLE 8.10: AGE STRUCTURE OF EMPLOYED LABOR BY AND INDUSTRIAL SECTOR, 2009

Unit: Percent

Industrial sector	Total	Below 30	30–39	40–49	50 and above
Total	**100.0**	**34.6**	**25.6**	**21.8**	**18.0**
A. Agriculture, forestry and fishing	100.0	31.8	23.1	22.3	22.8
B. Mining and quarrying	100.0	34.8	29.2	25.1	10.9
C. Manufacturing	100.0	52.0	26.1	14.5	7.5
D. Electricity, gas, steam and air conditioning supply	100.0	32.3	32.3	23.9	11.4
E. Water supply; sewerage, waste management and remediation activities	100.0	29.8	31.3	26.7	12.2
F. Construction	100.0	37.1	31.8	22.6	8.5
G. Wholesale and retail trade; repair of motor vehicles and motorcycles	100.0	28.8	29.8	24.9	16.5
H. Transportation and storage	100.0	28.7	33.6	25.7	12.0
I. Accommodation and food service activities	100.0	29.7	25.3	26.0	19.1
J. Information and communication	100.0	44.7	29.8	15.5	10.0
K. Financial, banking and insurance activities	100.0	41.6	28.6	20.4	9.4
L. Real estate activities	100.0	25.9	26.5	23.9	23.6
M. Professional, scientific and technical activities	100.0	39.9	30.3	17.2	12.5
N. Administrative and support service activities	100.0	39.0	28.2	21.0	11.8
O. Communist Party, socio-political organizations, public administration and defence; compulsory social security	100.0	24.4	23.9	27.2	24.4
P. Education and training	100.0	31.8	32.9	23.0	12.2
Q. Human health and social work activities	100.0	30.0	25.0	28.9	16.1
R. Arts, entertainment and recreation	100.0	26.7	25.1	25.0	23.2
S. Other service activities	100.0	46.7	28.0	14.1	11.2
T. Activities of households as employers (hired domestic help)	100.0	32.5	21.4	25.6	20.5
U. Activities of international organizations and agencies	100.0	35.0	40.2	15.7	9.0

If Table 8.9 helped us to determine the extent of gender selection in industrial sectors, Table 8.10 helps us determine the extent of age selection. Sectors in the fields of industry, technology and services tend to use primarily young labour below 40 years of age, like: "C. Manufacturing" (78.1%); "S. Other service activities" (74.7%),"J. Information and communication" (74.5%), "U. Activities of international organizations and agencies" (75.2%) and "K. Financial, banking and insurance activities" (70.2%). Some industries rely more on older labour (40 years and older) including: "O. Communist Party, socio-political organizations, public administration and defence; compulsory social security"

(51.7%), "R. Arts, entertainment and recreation" (48.2%), and "L. Real estate activities" (47.6%).

2.3 Employed labor by employment sector

As can be seen in Table 8.11, out of the total of more than 47.7 million jobs in 2009, the self-employed/household entreprise sector" accounted for 80.1%. The cooperative/collective sector that predominated in the 1970s, with worthy contributions to the developoment of socialism in our country, now retains only a very small share of all employment (0.3%). The fact that "self-employment and household entreprise" sector accounts for the largest share, indicates the low level of development of the labour market in our country.

TABLE 8.11: DISTRIBUTION OF EMPLOYED LABOR BY EMPLOYMENT SECTOR AND SEX, 2009

Unit: Percent

Economic sector	Total	Male	Female	% Female
Total	**100.0**	**100.0**	**100.0**	**48.1**
Self-employed/ household entreprise	80.1	80.1	80.1	48.1
Cooperative/collective	0.3	0.4	0.2	32.7
Private entreprise	6.5	7.3	5.7	42.0
State	9.6	9.8	9.4	47.0
Foreign invested entreprise	3.4	2.4	4.6	63.7
Other	0.1	0.1	0.1	51.0

The last column in Table 8.11 helps us to determine the gender selection by employment sector. It is worth noting that the "collective" sector uses more male than female labour, while the "foreign invested entreprise" sector has a highest female share (63.7%), and this is an employment sector with high incomes and good working conditions. Out of 1,046,455 workers working in the foreign-invested enterprise sector, there are 963,718 workers (accounting for 92.1%) working in the manufacturing sector (mainly textiles and garments) and 696,702 workers (accounting for 66.6%) working as assemblers or machine operators (mainly operating industrial machinery).

In the economy, labour is distributed relatively evenly across age groups being studied: below 30 years, 30–39 years, 40–49 years and 50 years and above, with a tendency to decline as age increases. Foreign-invested entreprise sector and the private entreprise sector use more young labour (below 30 years), which shows

the vitality of these two sectors; in contrast, the collective and state entreprise sectors tend to use older labour (40–49 year).

TABLE 8.12: AGE STRUCTURE OF EMPLOYED LABOR BY FORM OF EMPLOYMENT SECTOR, 2009

Unit: Percent

Economic sector	Total	Below 30	30–39	40–49	50 and above
Total	**100.0**	**34.6**	**25.6**	**21.8**	**18.0**
Self-employed/ household entreprise	100.0	31.8	25.2	22.8	20.2
Cooperative/collective	100.0	31.0	23.7	24.9	20.4
Private entreprise	100.0	54.2	26.7	13.3	5.8
State	100.0	31.3	30.0	24.8	13.9
Foreign invested entreprise	100.0	71.0	21.9	5.9	1.2
Other	100.0	40.8	23.6	19.7	15.9

3. Unemployment

Unemployment includes people age 15 years and older who meet the following three conditions during the week being studied: (1) not working, but (2) available for work, and (3) have taken concrete steps to find work. This group includes people not currently working but who are preparing to start their own economic activities or to receive a new job after the reference period; or people who were always available for work during the week being studied, yet who did not find employent due to temporary illness, occupied with personal business (marriage, death, small children), due to bad weather, or waiting for the season.

Unemployment is a common socio-economic problem for almost all nations. Vietnam is no exception. Research on unemployment levels helps to assess accurately living standards and socio-economic stability, etc of a country. Surveys on labour and employment also supply information appropriate for assisting us in research and evaluation of this issue.

3.1 Employment levels

Results of the 2009 Population and Housing Census indicate that nationally, 1,504,888 people were unemployed, in urban areas this figure was 627,219 people accounting for 41.7% of the total unemployed, with women accounting for 688,283 people, accounting for 45.7% of all uneployment.

Among the more than 1.5 millio unemployed workers, the number of young unemployed (from 15–29 year) accounted for nearly half (49.4%), while this age group accounts for only 37.7% of the entire population aged 15 years and older.

TABLE 8.13: NUMBER AND STRUCTURE OF THE UNEMPLOYED BY AGE GROUP AND SEX, 2009

Age group	Number			Structure (%)			% Female
	Total	Male	Female	Total	Male	Female	
Total	**1 504 888**	**816 605**	**688 283**	**100.0**	**100.0**	**100.0**	**45.7**
Below 30	743 534	370 243	373 291	49.4	45.3	54.2	50.2
30-39	214 556	115 224	99 332	14.3	14.1	14.4	46.3
40-49	194 138	126 233	67 905	12.9	15.5	9.9	35.0
50 and above	352 659	204 904	147 755	23.4	25.1	21.5	41.9

Observation of the number of women unemployed by age shows that an issue of concern, namely that the proportion of female labour that is unemployed is the highest in young ages (below 30 years), accounting for 54.2% of the total. There are many reasons for this, but the underlying reason is the need for employment and the difficulties in finding work of young females, people who besides working to earn a living, also have to ensure the tasks of being a wife and mother.

TABLE 8.14: NUMBER AND PERCENT DISTRIBUTION OF UNEMPLOYED POPULATION BY URBAN/RURAL RESIDENCE AND AGE GROUP, 2009

Age group	Number			Structure (%)		
	Total	Urban	Rural	Total	Urban	Rural
Total	**1 504 888**	**627 219**	**877 669**	**100.0**	**100.0**	**100.0**
Below 30	743 534	322 748	420 786	49.4	51.5	47.9
30–39	214 556	101 659	112 897	14.3	16.2	12.9
40–49	194 138	87 606	106 532	12.9	14.0	12.1
50 and above	352 659	115 206	237 454	23.4	18.4	27.1

As observed by urban/rural residence it is shown that in urban areas the number of unemployed workers is concentrated mainly in younger ages below 30 years, while in rural areas, the number unemployed are concentrated in the youth under age 30 and labour 50 years and older. Therefore, the problem of

unemployment is put out for all young people in urban and rural areas and also for older people in rural area.

The unemployed population in Vietnam has a relatively high educational attainment, with one third (32.5%) having upper secondary or higher education, and the proportion who have never attended school accounting for 10% of al the unemployed. The male-female gaps in educational attainment among the unemployed are not great. This is an advantage that the labour market in Vietnam currently needs to take advantage of.

The final column in Table 8.15 presents the proportion female among unemployed labour by highest educational attainment. Among people who have never attended school or have incomplete primary education, women account for a higher share of the unemployed. In contrast, at higher educational attainment levels the proportion female among the unemployed is substantially lower. This indicates that opportunities for employent for women with low education are fewer than for men. Thus one of the methods to help increase employment opportunities for women is to improve their educational attainment.

TABLE 8.15: NUMBER AND STRUCTURE OF THE UNEMPLOYED BY SEX AND EDUCATIONAL ATTAINMENT, 2009

Educational attainment	Number			Structure (%)			% Female
	Total	Male	Female	Total	Male	Female	
Total	**1 504 888**	**816 605**	**688 283**	**100.0**	**100.0**	**100.0**	**45.7**
Never attended	85 982	33 811	52 171	5.7	4.1	7.6	60.7
Incomplete primary	214 098	99 582	114 516	14.2	12.2	16.6	53.5
Completed primary	372 632	204 704	167 928	24.8	25.1	24.4	45.1
Completed lower secondary	342 832	200 539	142 293	22.8	24.6	20.7	41.5
Completed upper secondary and higher	489 345	277 970	211 375	32.5	34.0	30.7	43.2

3.2 Unemployment rate

According to an International Labour Organization (ILO) report on global employment trends (January 2009), starting with the start of the Asian financial crisis, unemployment trends have increased, but in general, unemployment in Southeast Asia and the Asian and Pacific region remain at a relatively low level

compared to other regions of the world and have remained stable in recent years (5.5% in 2007).

The unemployment rate studied below is calculated for the population in working ages , that is, it includes the population aged 15-59 years for men and 15-54 for women. In Vietnam, unemployment in 2009 in urban areas was 4.6%, for men (4.9%), higher than for women (4.2%) by 0.7 percentage points.

Table 8.16 shows that the unemployment rate in urban areas and of socio-economic regions varies substantially. This figure in the Central Highlands is the lowest (3%), and in the North and South Central Coast, it is the highest (5.5%). Unemployment in urban areas for men is higher than for women in all regions, except the Central Highlands (men 2.9% compared to women 3.3%) and the Mekong River Delta (male 4.5% and female 4.6%). This indicates that the need for employment among women in these two regions.

TABLE 8.16: UNEMPLOYMENT RATE BY URBAN/RURAL RESIDENCE, SEX AND SOCIO-ECONOMIC REGION, 2009

Unit: Percent

Socio-economic region	Overall	Residence		Urban residence	
		Urban	Rural	Male	Female
Entire country	**2.9**	**4.6**	**2.3**	**4.9**	**4.2**
Northern Midlands and Mountains	1.4	3.9	1.0	4.6	3.2
Red River Delta	2.7	4.6	2.0	5.1	4.0
North and South Central Coast	3.1	5.5	2.4	5.8	5.3
Central Highlands	2.0	3.0	1.6	2.9	3.3
Southeast	4.0	4.5	3.4	4.8	4.1
Mekong River Delta	3.3	4.5	3.0	4.5	4.6

Table 8.17 indicates the unemployment rate in urban areas was higher among the youngest group aged 15–19 (11.2%), followed by the age group 20–24 years (8.9%) and falling gradually into middle ages (25–39) then increasing again with older ages (40 years and older). Unemployment among youth has become a clear risk for developing countries because this group accounts for a higher share of the labour force compared to developed countries. The main reason for this unemployment among youth increasing is partly resulting from the fact that the labour market has added many new workers to labour supply while the economy has not yet reached growth rate able to satisfy this need for employment.

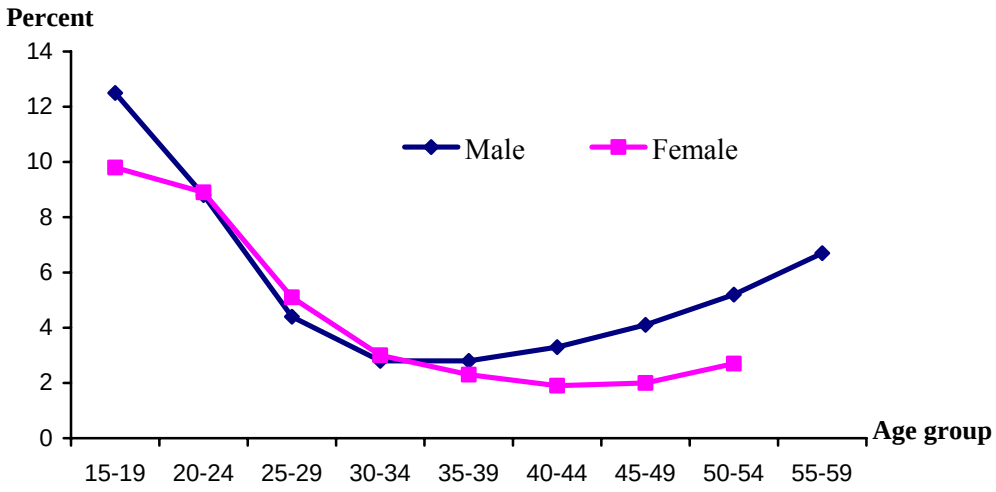
TABLE 8.17: UNEMPLOYMENT RATE BY URBAN/RURAL RESIDENCE, SEX AND AGE GROUP, 2009

Unit: Percent

Age group	Overall	Residence		Urban residence	
		Urban	Rural	Male	Female
Total	**2.9**	**4.6**	**2.3**	**4.9**	**4.2**
15-19	5.0	11.2	3.8	12.5	9.8
20-24	5.3	8.9	4.0	8.8	8.9
25-29	3.0	4.7	2.3	4.4	5.1
30-34	1.8	2.9	1.4	2.8	3.0
35-39	1.6	2.6	1.2	2.8	2.3
40-44	1.7	2.7	1.3	3.3	1.9
45-49	2.0	3.1	1.6	4.1	2.0
50-54	2.7	4.0	2.3	5.2	2.7
55-59	4.6	6.7	3.9	6.7	-

Figure 8.6 show the gender gap in the unemployment rate in urban areas. It is worth noting that unemployment among young women in child-bearing ages (20–34 years) is higher than among young men. This is an issue that society needs to pay attention to, because during this period when they are busy becomingmothers, they are vulnerable and in a disadvantaged position compared to men of the same age in terms of finding employment.

FIGURE 8.6: URBAN UNEMPLOYMENT RATE BY AGE GROUP AND SEX, 2009



As much as educational attainment is an advantaged of unemployed labour, technical qualifications are problematic. Out of all unemployed labour in working ages (1,311,659 people), up to 1,062,932 people have never received technical/professional training, accounting for 81%.

Table 8.18 shows a large differential in the unemployment rate for urban areas across different levels of qualifications. Labour that has not yet received

technical/professional tarining has urban unemployment much higher than the overall level in urban areas (5.1% compared to 4.6%). As for labour that has received training, in general urban unemployment rates decline gradually as technical/professional qualifications increase.

TABLE 8.18: UNEMPLOYMENT RATE BY URBAN/RURAL RESIDENCE, SEX AND TECHNICAL QUALIFICATIONS, 2009

Unit: Percent

Technical qualifications	Overall	Residence		Urban residence	
		Urban	Rural	Male	Female
Total	**2.9**	**4.6**	**2.3**	**4.9**	**4.3**
No technical qualifications	2.8	5.1	2.1	5.8	4.6
Elementary	1.7	1.9	1.6	1.8	2.0
Vocational secondary	4.7	4.4	4.9	4.2	5.0
Professional secondary	4.3	4.7	3.9	4.7	4.7
Junior technical college	7.3	6.9	7.6	6.9	6.9
Junior college	4.2	4.7	3.8	5.6	4.1
University	3.3	3.1	3.9	2.9	3.3
Masters	1.4	1.5	1.3	1.2	1.9
Doctorate	0.3	0.3	0.9	0.1	0.8

4. Economically inactive population

The economically inactive population includes people aged 15 and older who are are not working and who are not unemployed during the reference week.

FIGURE 8.7: PROPORTION OF THE POPULATION ECONOMICALLY INACTIVE BY AGE GROUP AND SEX, 2009

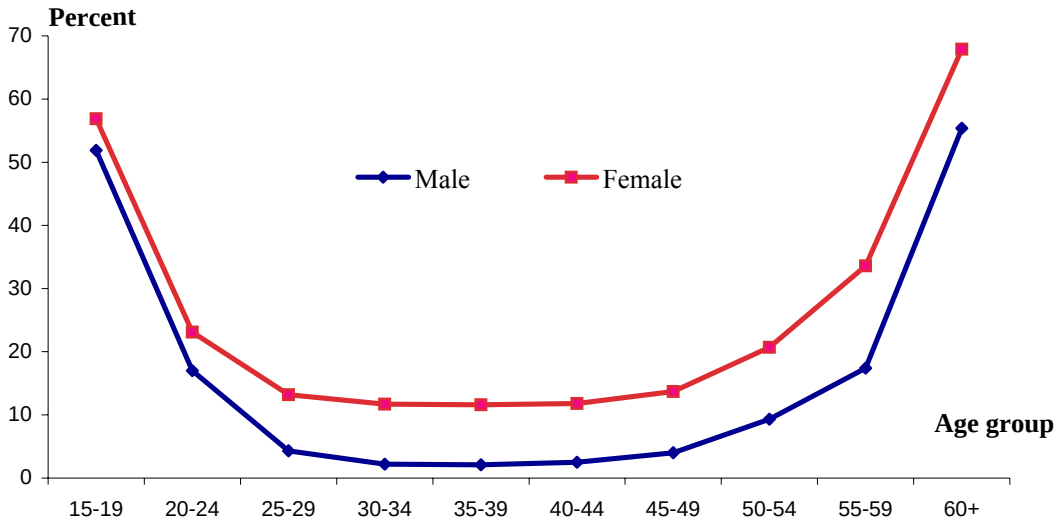


Figure 8.7 presents the proportion of the population who are not economically active by age group and sex. The proportion of the population that is not economically active among women is higher than among men in all age groups, and is highest in the youngest age group (15–24 years) and the elderly (60 years and older). The gender gap is concentrated in the age groups 25 to 54 years. This is primarily because many women in these age groups are ensuring housework for their families.

In each disaggregation, the number of economically inactive people report the reason for their inactivity as "in school" accounts for the highest share (36.6%), and for men this share is even greater at 49.6%. At the same time, 37.9% of women who are economically inactive report the reason as "busy with housework for their family". Among economically inactive men 13% report the reason for this as "don't want to work". Almost all people reporting housework as the reason for their economic inactivity, women account for the vast majority (94.4%). Thus the economically inactive population does not necessarily mean that they are not contributing to society, but in reality a majority of them are preparing their skills to participate in the labour market, another important group are the silent workforce who ensure that "rice is good, soup is delicious" for others in the labour force and their families.

TABLE 8.19: DISTRIBUTION OF THE ECONOMICALLY INACTIVE POPULATION BY URBAN/RURAL RESIDENCE, SEX AND REASON FOR NOT WORKING, 2009

Unit: Percent

Reason for not working	Overall	Residence		Sex		% Female
		Urban	Rural	Male	Female	
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**62.8**
No appropriate work available/ don't know how to find a job	2.8	3.5	2.3	4.8	1.7	37.0
In school	36.6	36.9	36.4	49.6	28.9	49.6
Housework	25.2	28.1	23.0	3.8	37.9	94.4
Lost ability to work	6.2	4.4	7.6	8.0	5.2	52.1
Don't want to work	8.0	12.1	4.9	13.0	5.1	39.6
Other	21.1	15.0	25.8	20.8	21.3	63.4

A majority (92%) of the economically inactive population age 15 years and older have not yet received technical/professional training. The share of economically inactive population with no technical qualifications is higher among women than men.

TABLE 8.20: STRUCTURE OF ECONOMICALLY INACTIVE POPULATION BY SEX AND TECHNICAL QUALIFICATIONS, 2009

Unit: Percent

Technical qualifications	Total	Male	Female	% Female
Total	**100.0**	**100.0**	**100.0**	**62.8**
No technical qualifications	92.0	89.1	93.7	64.0
Elementary	1.2	1.5	1.0	54.0
Vocational secondary	1.4	2.0	1.0	44.9
Professional secondary	2.1	2.4	1.9	58.2
Junior technical college	0.2	0.3	0.1	43.5
Junior college	0.8	0.8	0.8	61.5
University	2.3	3.8	1.4	39.4
Masters	0.1	0.1	0.0	36.1
Doctorate	0.0	0.1	0.0	18.2

CHAPTER 9
HOUSEHOLD LIVING CONDITIONS

In the 2009 Census, along with the census of population, a census of housing, basic living conditions and amenities of households was conducted. Information related to housing in the questionnaire included: whether the household had a dwelling or not; total living area; type of housing used; energy source for lighting and cooking; source of water used for drinking; type of toilet used and various basic household amenities. Enumerators collected information by combining observation with direct interview of respondents to determine responses to record in the census.

1. Housing status

Following the census definition, a dwelling is a construction used for housing, including 3 basic components: walls, roof and floor. Housing status was asked in Question 43 of the 2009 Population and Housing Census sample survey form. This question ignored ownership status of the house or apartment. While collecting housing information, interviewers did not ask respondents, but rather observed and recorded the appropriate response choice.

Table 9.1 presents the proportion of households without a dwelling by region and urban/rural residence. Data indicate that, at the time of the 2009 Census, for every 10,000 households, nearly 4.7 households were without a dwelling. This represents a reduction of 2 households for every 10,000 households compared to 1999. In 1999, the Central Highlands and Red River Delta had the lowest shares with 3.9 and 4.7 households without a dwelling per 10,000 households respectively. After 10 years, their rank has not changed, but the proportion has declined to 1 and 1.9 households without a dwelling per 10,000 households. In 1999, the proportion of households without a dwelling was highest in the Mekong River Delta (12.1 per 10,000 households), but by 2009 this proportion declined by half (5.7 per 10,000 households) and the rank fell to second along with the Southeast and the North and South Central Coast. In general, in the past decade, overall the proportion of households without a dwelling has been maintained at a low level and exhibits an apparent declining trend, although the extent of the decline in this proportion is not insignificant in statistical terms, yet it

does provide some indication that the quality of life of the people has gradually improved.

TABLE 9.1: PROPORTION OF HOUSEHOLDS WITHOUT A DWELLING BY URBAN/RURAL RESIDENCE AND SOCIO-ECONOMIC REGION, 1999 AND 2009

Unit: Per 10 000 households

Residence/Socio-economic region	1999	2009
Entire country	**6.7**	**4.7**
Urban	8.7	6.9
Rural	6.1	3.7
Socio-economic region:		
Northern Midlands and Mountains	5.0	3.1
Red River Delta	4.7	1.9
North and South Central Coast	5.9	8.0
Central Highlands	3.9	1.0
Southeast	6.2	5.7
Mekong River Delta	12.1	5.7

Source: 1999: Central Census Steering Committee, "The 1999 Vietnam Population and Housing Census: Completed census results", Statistics Publishing House, August-2001.

2. Type of housing

In order to assess the quality of residential housing, the 2009 census questionnaire was designed to collect information on the main construction materials used in the housing structure, including the supporting columns (or supporting walls), roof and walls. Table 9.2 presents the classification method for housing based on main construction materials used in the 2009 Population and Housing Census.

TABLE 9.2: METHODS FOR CLASSIFYING HOUSING BASED ON CONSTRUCTION MATERIALS IN THE 2009 POPULATION AND HOUSING CENSUS

	Main material of supporting columns	Main material of roof	Main material of walls
Sturdy	1. Steel-reinforced concrete 2. Brick/stone 3. Iron/steel/solid wood	1. Steel-reinforced concrete; 2. Tile (cement, terra cotta)	1. Steel-reinforced concrete 2. Brick or stone masonry 3. Wood/metal
Flimsy	4. Scrap wood/ bamboo 5. Other	3. Sheeting (fibro-cement/metal); 4. Leaves/straw/tar paper; 5. Other	4. Mud/lime/straw 5. Slabs/bamboo screen/ planks 6. Other

On the basis of classifying materials by their sturdiness or flimsiness, housing can be divided into 4 types: permanent, semi-permanent, temporary and simple. Permanent housing includes dwellings for which the three main structural elements: supporting columns, roof and walls all consist of sturdy types. Semi-permanent housing indicates that two out of three structural elements are made of sturdy categories while temporary structures only have one of the three structural elements belonging to the sturdy category. Simple structures are those for which all three structural elements are classified as flimsy. This method of classification differs from the method used in 1999, which required that enumerators observe and based on the situation and durability of the dwelling, make their own assessment of the household's dwelling type by choosing one of the following types: permanent, semi-permanent, durable wood frame and simple. In that classification, permanent dwellings included villas, multi-story dwellings, apartments in multi-story buildings, pre-fabricated multi-story cement structures, and flat-roofed structures (reinforced concrete roof). Semi-permanent dwellings included those with masonry walls/wood planks/ wood frames and roofs made out of tiles/corrugated tin/sheeting/panels or similar materials. Durable wood frame dwellings included those with a wooden supporting structure, and the entire roof supported by wooden pillars, with an expected life of more than 15 years, with a roof made of thatch, bamboo, leaves or tar paper. Simple dwellings include those with simple structures, crude materials, with walls made of mud, leaves, bamboo screens and roofs usually made from thatch, bamboo, leaves or tar paper.

According to various experts, the classification of housing in the 2009 Population and Housing Census compared to the 1999 Census is clearer and more objective, and will reduce dependence on subjective opinions of the enumerators and respondents. Although the methodology for determining the classification of housing has changed, the underlying basis for classifying dwellings in the two censuses remains about the same, so comparison and evaluation of change in dwelling types between the two censuses is still reasonable.

Table 9.3 presents the number and distribution of households with a dwelling by urban/rural residence and dwelling type. The data indicate that the proportion of households living in permanent dwellings account for almost half (46.7%) of all households who have a dwelling. This figure is higher in rural (49.0%) than in urban areas (41.4%). The number of households in semi-

permanent dwellings is smaller than the number in permanent dwellings, but still accounts for a high share, at 38.2% overall, and this share in urban areas much higher (52.7%) than in rural areas (31.7%). The reason for this situation may be due to the increased pace of building temporary dwellings and rental housing with flimsy roofing materials (corrugated tin or fibro cement) in urban areas in recent years causing the number of semi-permanent structures in urban areas to increase. This contributes to assisting rural to urban migrants having housing appropriate with their conditions, yet increases the proportion living in semi-permanent dwellings in urban areas to a level higher than in rural areas.

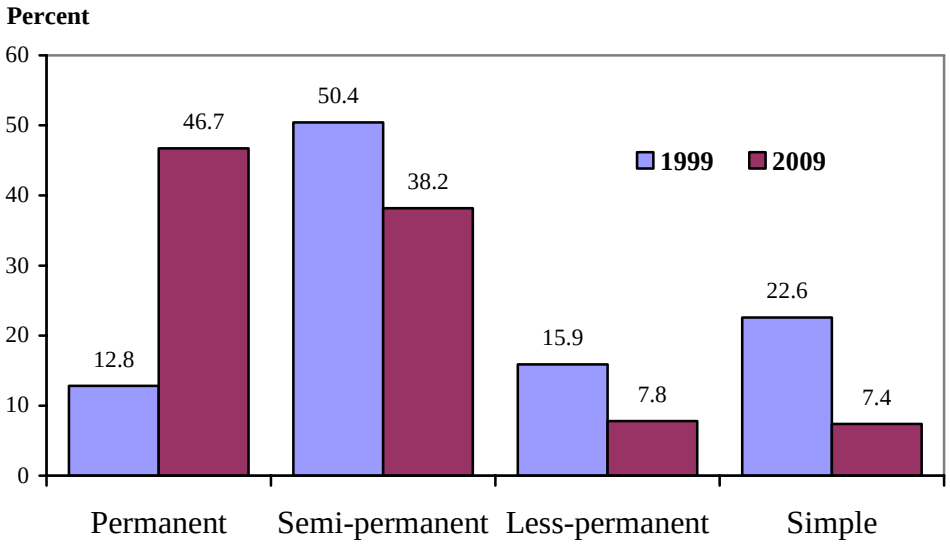
The number of households living in simple dwellings accounts for the smallest share (7.4%) of all households with a dwelling. In rural areas, this share is 7 percentage points higher than in urban areas, at 9.5% and 2.6% respectively. In absolute terms, the number of households living in simple dwellings in rural areas is much higher than in urban areas, with rural households accounting for 89% of all households living in simple dwellings throughout the country.

TABLE 9.3: NUMBER AND DISTRIBUTION OF HOUSEHOLDS WITH HOUSING BY URBAN/RURAL RESIDENCE AND DWELLING TYPE, 2009

Dwelling type	Number (Household)			Percentage distribution (%)		
	Total	Urban	Rural	Total	Urban	Rural
Overall	**22 616 405**	**6 945 594**	**15 670 810**	**100.0**	**100.0**	**100.0**
Permanent	10 559 513	2 877 521	7 681 992	46.7	41.4	49.0
Semi-permanent	8 633 005	3 661 632	4 971 373	38.2	52.7	31.7
Temporary	1 759 816	227 964	1 531 853	7.8	3.3	9.8
Simple	1 664 071	178 478	1 485 593	7.4	2.6	9,5

Figure 9.1 indicates change in the proportion of households living in different dwelling types between the 1999 and 2009 Censuses. This figure indicates that over one decade, living standards of the people have improved substantially, and the proportion of households living in permanent dwellings has increased almost 4 times over the decade (in 2009 it was 46.7% compared to 12.8% in 1999). The proportion of households living in simple dwellings has fallen dramatically from 22.6% to 7.4% over the past decade. Semi-permanent and temporary dwellings have also declined considerably. This is striking evidence of major achievements in the poverty reduction program in Vietnam over the past few years.

FIGURE 9.1: PROPORTION OF HOUSEHOLDS WITH HOUSING BY DWELLING TYPE, 1999 AND 2009



Source: 1999: Central Census Steering Committee, "The 1999 Vietnam Population and Housing Census: Completed census results", Statistics Publishing House, August-2001.

TABLE 9.4: DISTRIBUTION OF HOUSEHOLDS WITH HOUSING BY URBAN/RURAL RESIDENCE AND HOUSING AREA, 1999 VÀ 2009

Unit: Percent

Housing area	1999			2009		
	Whole country	Urban	Rural	Whole country	Urban	Rural
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than 15m^2	2.2	3.8	1.6	1.9	3.0	1.4
From 15–24 m^2	10.2	12.3	9.4	5.2	6.3	4.7
From 25–36 m^2	25.7	22.6	26.9	11.6	9.5	12.5
From 37–48 m^2	24.6	18.3	27.0	14.8	11.3	16.4
From 49–59 m^2	13.1	10.9	14.0	12.1	9.0	13.5
60 m^2 and over	24.2	32.2	21.2	54.3	60.9	51.4

Source: 1999: Central Census Steering Committee, "The 1999 Vietnam Population and Housing Census: Completed Census Results", Statistics Publishing House, August-2001.

Besides dwelling types, the quality of housing can also be assessed through housing area and the year the dwelling was put into use. Table 9.4 shows the distribution of households with a dwelling by urban and rural residence and housing area. The data indicate that in 2009, the proportion of households living in dwellings with housing area 60m^2 and over accounts for the largest share (54.3%) of all households with a dwelling, and in urban areas this share is 60.9%, higher by 9.5 percentage points compared to rural areas. After 10 years, the proportion of households living in dwellings with housing area above 60m^2 has more than doubled, from 24.2% to 54.3%. This is a success in the effort to implement the Government's residential housing development strategy in order to increase

average housing area per capita. Nevertheless, after 10 years, the proportion of households living in cramped living quarters (below $15m^2$) has not declined substantially, overall the decline has been only 0.3 percentage points and in urban areas only 0.8 percentage points. This indicates growing disparities between the rich and the poor in terms of housing area in both urban and rural areas.

TABLE 9.5: NUMBER OF HOUSEHOLDS WITH A DWELLING BY YEAR THE HOUSING WAS PUT INTO USE, URBAN/RURAL RESIDENCE AND OWNERSHIP, 2009

Unit: Household

Ownership	Year housing put into use				
	Total	Before 1975	1975–1999	From 2000 to the present	Unspe-cified
Entire country	**22 617 236**	**1 216 647**	**10 154 121**	**11 159 893**	**86 575**
- Own home	20 966 160	1 144 083	9 676 743	10 101 808	43 526
- Rent/borrow	1 465 815	58 745	422 520	943 489	41 061
- Institutional housing/other ownership	132 598	7 729	34 073	89 740	1 056
- Unclear ownership	39 070	5 209	15 181	18 440	240
- Unspecified	13 592	882	5 603	6 415	692
Urban	**6 945 866**	**628 775**	**3 175 824**	**3 087 061**	**54 206**
- Own home	5 930 539	563 759	2 820 261	2 525 031	21 488
- Rent/borrow	947 732	53 187	326 450	536 342	31 752
- Institutional housing/other ownership	39 395	6 836	17 185	14 784	591
- Unclear ownership	22 076	4 474	9 520	7 912	169
- Unspecified	6 125	518	2 408	2 991	206
Rural	**15 671 369**	**587 872**	**6 978 297**	**8 072 832**	**32 368**
- Own home	15 035 621	580 324	6 856 482	7 576 778	22 038
- Rent/borrow	518 084	5 557	96 070	407 147	9 309
- Institutional housing/other ownership	93 202	893	16 888	74 956	465
- Unclear ownership	16 995	735	5 662	10 527	71
- Unspecified	7 468	364	3 195	3 424	485

Table 9.5 indicates the number of households with a dwelling by the year the dwelling was put into use, urban/rural residence and ownership status. The data show that nationally more than 11 million people live in dwellings put into use from the year 2000 to the present, accounting for about 50% of all households with a dwelling in the entire country. Assuming that the time a dwelling was put into use is related to the period since completion of the construction of the dwelling, this indicates that over the past 10 years, growth in residential housing construction has been very strong. The pace of construction in rural areas has been greater than

in urban areas (52% of rural dwellings were built from 2000 to the present compared to 44% of urban dwellings).

A majority of people live in a dwelling owned by their family, with the proportion of owned housing at 93% of all households with a dwelling. In rural areas this proportion is higher by 11 percentage points compared to urban areas (96% versus 86%). Only 7% of households are renting or borrowing their dwelling, and this occurs primarily in urban areas. The proportion of households living in rental or borrowed housing in urban areas is 4 times higher than in rural areas, with proportions at 14% and 3% respectively. Currently in Vietnam, especially in urban areas, almost all people desire to live in a dwelling they own, because the cost of renting housing is a substantial burden compared average household incomes. Thus, the figure of 14% of households in urban areas living in rental/borrowed housing, one could estimate that about 14% of households in urban areas aspiring to own their own home. This is not an insubstantial number, especially in the context of rural to urban migration flows that show no tendency of declining in the near future, and this contributes to explanations of why the urban housing and land markets have not yet seen reductions in their intensity.

3. Living conditions

In order to serve national development planning, ensure social security, the Census in 2009 also collected information on basic living conditions of households. Compared to the 1999 Census, basic living conditions and sanitation of the population have seen clear improvements.

In 2009, overall 96.1% of households used electricity from the national network for lighting, an increase of 18 percentage points compared to 1999. The extent of the increase in rural areas (from 72.1% to 94.6%) was much greater than in urban areas (from 95.8% to almost 99.6%). The strong increase in the proportion of households obtaining electricity from the national electricity network, reaching almost 100% in recent years indicates that the population's access to the national electricity network has been strengthened and provides evidence of important achievements in building and development and advancement of the country towards industrialization and modernization. It contributes to increasing the quality

of life of the people and strongly promotes the urbanization and modernization of the entire nation.

Along with electric lighting, the proportion of households using a sanitary toilet (flush and semi-flush toilets) in 2009 has also increased strongly compared to 1999. In 2009, nationally 54% of households used sanitary toilets, a tripling compared to 1999. After 10 years, the proportion of households using a sanitary toilet in urban areas has seen an increase of 1.6 times, from 54.3% in 1999 to 87.8% in 2009. In rural areas, the growth is even more impressive, from 4.4% in 1999 to 39.0% in 2009, an increase of nearly 9 times over 10 years. However, proportion of households using a sanitary toilet in urban areas is still double than rural area, 87.8% versus 39.0% respectively. These data indicate that sanitary conditions of the people, especially in rural areas are being improved in a strong positive direction. However, overall the country still has 46.0% of its households using unsanitary toilets, reflecting the reality that life of the people in Vietnam, especially rural people (almost 60% without a sanitary toilet) remains poor and deprived, and that basic sanitation is still not guaranteed.

TABLE 9.6: DISTRIBUTION OF HOUSEHOLDS BY URBAN/RURAL RESIDENCE AND SELECTED HOUSEHOLD LIVING CONDITIONS, 1999 AND 2009

Unit: Percent

Living conditions	1999			2009		
	Total	Urban	Rural	Total	Urban	Rural
Energy source for lighting	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Electricity network	77.8	95.8	72.1	96.1	99.6	94.6
Other source	22.2	4.2	27.9	3.9	0.4	5.4
Main drinking water source	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Piped water from water treatment plant	13.1	46.9	2.3	25.5	63.5	8.6
Bore well or protected hand-dug well	54.9	41.5	59.1	49.3	30.4	57.8
Rain water	10.1	3.4	12.3	11.9	2.4	16.1
Natural spring or unprotected hand-dug well and other sources	21.9	8.2	26.3	13.3	3.7	17.5
Toilet	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Sanitary toilet	16.4	54.3	4.4	54.0	87.8	39.0
Other toilet	67.7	36.7	77.5	38.2	9.9	50.8
No toilet	15.9	9.0	18.1	7.8	2.3	10.2

Source: 1999: Central Census Steering Committee, "The 1999 Vietnam Population and Housing Census: Completed Census Results", Statistics Publishing House, August-2001.

Although not as strong as increases in the proportion of households using electricity and sanitary toilets, the proportion of households using clean water (including piped water, rain water, bore well and protected hand-dug wells) has also increased since 1999. In 2009, overall 86.7% of households used clean water, an increase of 9 percentage points compared to 10 years before. The extent of increase in this proportion in both urban and rural areas has been about the same, from 91.8% to 96.3% in urban areas and from 73.7% to 82.5% in rural areas. Although the proportion of households using clean water has increased, nationally still only 25.5% of households are able to use piped water from water treatment plants, and in rural areas this water source only accounts for nearly 8.6% of the total. In rural areas, the proportion of households using unclean water including natural springs, unprotected hand-dug wells and other unclean water sources remains relatively high, accounting for 17.5%, more than double the proportion with access to piped water from water treatment plants. Therefore, an urgent issue is to build and implement programs that provide clean water in rural areas, which is a first step towards attaining the long-term goal of improving and strengthening the quality of life of the people.

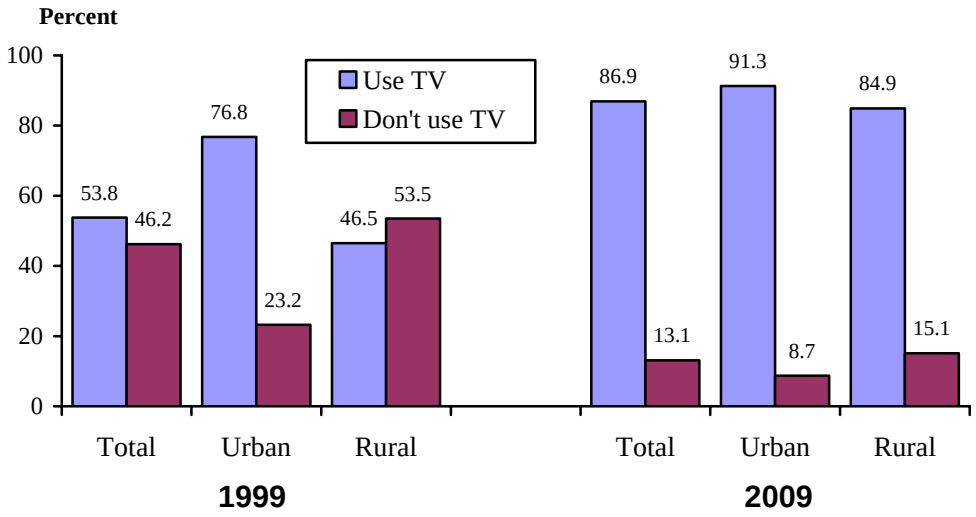
4. Amenities

Besides questions on housing and living conditions of households, the 2009 Population and Housing Census also asked questions to collect information on amenities used by the household in order to assess living conditions and quality of life of the population to serve the purpose of policy-making, planning, national programs related to living standards of the people throughout the country and in each locality. Results collected in the 2009 Census indicate that modern amenities are becoming widely available in Vietnam.

Figure 9.2 presents the proportion of households using a television based on data collected from the 1999 and 2009 Censuses. The figure shows that 10 years ago, overall 46.2% of households did not use a television; in rural areas this figure was 53.8% while in rural areas it was 23.2%. This proportion has fallen substantially and at present, televisions have become an essential asset that one cannot do without for almost all households including in rural and urban areas. Nationally, 86.9% of households use a television, a doubling since 1999. This proportion in rural areas is still lower than in urban areas, but the pace of growth over the past 10 years is more

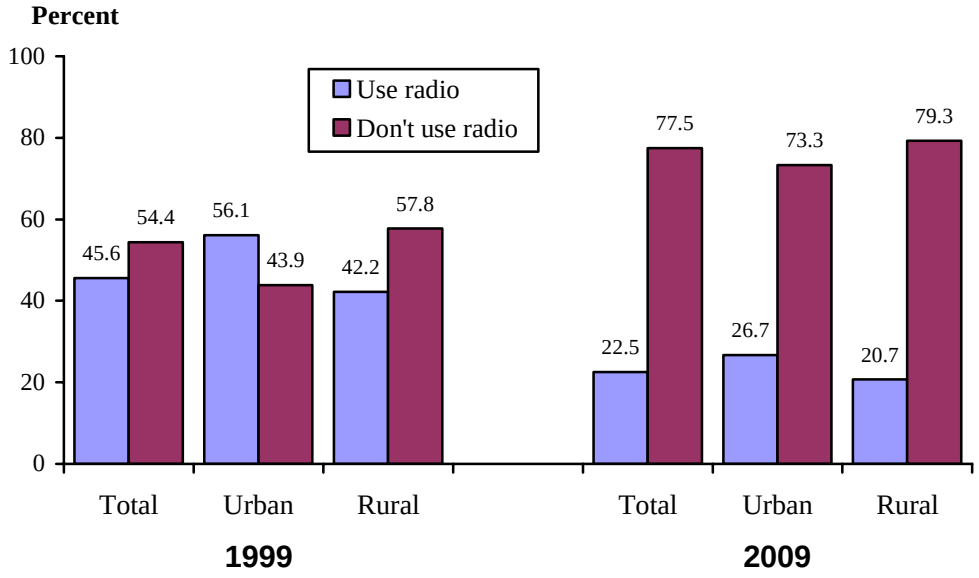
impressive. In rural areas this proportion increased from 46.5% in 1999 to 84.9% in 2009, while in urban areas the increase was from 76.8% to 91.3%.

FIGURE 9.2: TELEVISION USE BY URBAN/RURAL RESIDENCE, 1999 AND 2009



Source: 1999: Central Census Steering Committee, "The 1999 Vietnam Population and Housing Census: Completed Census Results", Statistics Publishing House, August-2001.

FIGURE 9.3: RADIO USE BY URBAN/RURAL RESIDENCE, 1999 AND 2009



Source: 1999: Central Census Steering Committee, "The 1999 Vietnam Population and Housing Census: Completed Census Results", Statistics Publishing House, August-2001.

Figure 9.3 presents the proportion of households using a radio (includes radio-cassette players) in urban and rural areas for 1999 and 2009. There is nothing surprising with the contrasting trends we find with rapid increases in use of televisions and rapid declines in use of radios because they are substitutes for each other. When

the demand for one of these goods increases, the demand for the other falls, and the good with more convenient features will predominate in the market. Clearly, compared to televisions, radios have fewer conveniences, so the proportion of households using them has declined substantially over the past decade. The figure indicates that while in 1999, 45.6% of households nationwide used radios, this figure had fallen by half over the decade, to 22.5%. The extent of the decline in urban areas (from 56.1% to 26.7%) was slightly more than in rural areas (from 42.2% to 20.7%).

Table 9.7 presents the percentage distribution of household use of other basic amenities. The data indicate, compared to 10 years ago, daily life of the people has improved considerably. In 1999, many modern amenities like landline telephones, computers, washing machines, refrigerators, air conditioners were out of reach for most people, while at present, these conveniences have become widespread, especially in urban areas. In 2009, nationwide, 45.7% of households had landline telephones, 13.5% had computers, 14.9% used a washing machine, 31.6% used a refrigerator, 5.9% used an air conditioner and 72.3% used a motorcycle. In urban areas the proportion of households using these modern amenities was much higher than in rural areas, indicating that living standards of the people in urban areas are much higher than for people in rural areas.

TABLE 9.7: DISTRIBUTION OF HOUSEHOLDS BY URBAN/RURAL RESIDENCE AND USE OF BASIC HOUSEHOLD AMENITIES, 2009

Unit: Percent

Basic household amenities	Total	Urban	Rural
Land-line telephone	**100.0**	**100.0**	**100.0**
Use	45.7	61.7	38.6
Don't use	54.3	38.3	61.4
Computer	**100.0**	**100.0**	**100.0**
Use	13.5	31.8	5.4
Don't use	86.5	68.2	94.6
Washing machine	**100.0**	**100.0**	**100.0**
Use	14.9	36.1	5.5
Don't use	85.1	63.9	94.5
Refrigerator	**100.0**	**100.0**	**100.0**
Use	31.6	57.4	20.2
Don't use	68.4	42.6	79.8
Air conditioner	**100.0**	**100.0**	**100.0**
Use	5.9	16.2	1.3
Don't use	94.1	83.8	98.7
Motorcycle	**100.0**	**100.0**	**100.0**
Use	72.3	83.2	67.5
Don't use	27.7	16.8	32.5

One especially noteworthy finding is the proportion of households using a motorcycle obtained from the 2009 Census. Statistics indicate that currently nationwide 72.3% of households use a motorcycle, in urban areas this figure is 83.2%, which is 15.7 percentage points higher than in rural areas. Although statistical data on motorcycle use are not available for 1999, direct observation by anyone indicates that the number of motor vehicles, especially motorcycles participating in traffic in Vietnam has increased rapidly in recent years. This illustrates how Vietnam's economy is flourishing, but it also brings with it not just a few concerns for policy-makers, people who participate in and direct traffic, as well as environmental protectors as the density of motor vehicles increases day by day, and the amount of land reserved for transportation networks declines, while air pollution and noise pollution continue to increase.

In sum, the general picture of housing we obtain from the 2009 Population and Housing Census, indicates abundance and vibrancy, with many points of light. Census data reflect major achievements of the nation in the process of implementing renovations, Resolution of the 9th and 10th Party Congress, and the socio-economic development strategy for 2001-2010.