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3.

Demographic changes in Korea during the period of 1960–2000 *Ik Ki Kim* 

### Introduction

The population of Korea was more or less stationary until the end of the 19th century. From the beginning of the 20th century, however, Korea has witnessed a series of population changes (Kim I K, 1987). The first sign of these changes was a decline in the mortality rate. Korea entered the first stage of mortality transition in the 1910s (Lee, 1980). The crude death rate (CDR) of 34 per thousand in the 1910s consistently declined until the period of the Korean War (1950–53). On the other hand, fertility did not show any significant pattern of change during the same period. The crude birth rate (CBR) was around 40 per thousand. The gap between fertility and mortality increased over time and resulted in rapid population growth.

The decade 1945–55 was, along with political, social and economic turmoil, a period of disturbance in Korea's demographic situation (Kwon et al, 1975). The liberation of Korea in 1945 from Japanese occupation coincided with the partition of Korea into North and South. The liberation and partition of the country brought about a vast redistribution of the Korean population all over the country. During the Korean War there was also of course a large number of casualties, particularly among young men; and there was a massive flow of refugees from North to South.

The population trends after the Korean War differ in many respects from those of earlier periods. Korea experienced a 'baby boom', which peaked in 1959. Since the beginning of the 1960s, however, South Korea experienced a major population transition, from a rapidly growing population to a moderately growing one, due to the consistent decline of the fertility rate. In

effect, the South Korean demographic transition actually began at the beginning of the 1960s.

The rapid process of demographic transition in Korea was facilitated by the combination of rapid socio-economic development and the full-scale adoption of family planning programs (Kim I K, 1987). In Korea, mortality continued to decline after 1960, but the rate of decline was lower. The fertility level slowly declined after the peak year (1959) until 1965. Until this time, effective methods of fertility control were not widely practised. In 1962, the Korean Government launched a five-year economic plan and adopted a family planning program as a national policy initiating demographic transitions which began in Korea in the mid-1960s (Kim, 1987). Thus, this chapter will focus on demographic transition and, more specifically, it will address the general trends of demographic transition. These are: mortality transitions, fertility transitions and the process of population ageing.

## General trends in demographic transition

Demographic transition is defined as changes in the fertility and mortality of a society as it makes the transition from an agrarian state to an industrialised and urbanised state (Coale, 1973). According to this definition, modernisation brings about demographic transitions; that is, a reduction in both fertility and mortality. Thus, from the perspective of modernisation, one of the most important features of this demographic transition is to be able to forecast the population trends of developing countries through the demographic model of developed countries.

As stated above, the rapid process of Korean demographic transition was facilitated by a national family planning program and rapid socio-economic development. The Korean Government implemented both the national family planning program and the first five-year economic development plan in

1962. The first five-year economic development plan was carried out successfully and since then, the Korean Government has continuously adopted five-year economic development plans.

Table 3.1 indicates the trends of GNP per capita and annual growth rates in Korea since 1960. GNP per capita in Korea was only US\$79 in 1960. By 1965 it exceeded US\$100. Since then, GNP per capita has continuously increased, exceeding US\$1500 in 1980, increasing up to US\$5000 in 1990, and reaching US\$10,000 in 1995. But in 1997 Korea was hit by the Asian financial crisis; and in 1998, GNP per capita dropped sharply to US\$6744. By 2002 Korea recovered from the crisis, and GNP per capita soared back up to US\$10,013.

Table 3.1. Trends of GNP per capita and annual growth rates in Korea, 1960–2002

Year	GNP per capita (US Dollar)	Annual growth rate (%)		
1960	79	-		
1965	105	6.6		
1970	253	28.2		
1975	594	27.0		
1980	1597	33.8		
1985	2242	8.1		
1990	5883	32.5		
1995	10037	14.1		
1998	6744	-6.6		
2002	10013	9.7		

Kim, Ik Ki. 2004. Socioeconomic concentration in the capital region and its implications in the urbanization process of Korea. A paper presented at a conference on 'Urbanization in Seoul and Ho Chi Min City: Lessons and Challenges' at Vietnam National University, June 14–16. 2004.

During the period of demographic transition Korea also experienced a rapid urbanisation process. This was linked to the Korean Government's economic policies throughout the 1960s, which were aimed at promoting export-oriented industrialisation through the support of labour-intensive manufacturing enterprises. During the first and second five-year economic development plans, extending from 1962 to 1971, the Korean economy grew at an annual rate of slightly less than 10 per cent. However, the growth of agriculture lagged compared to that of non-agricultural sectors. In this period, agriculture grew at an annual rate of 3.7 per cent compared to 17.9 per cent rate in the mining and manufacturing sectors (Ban, 1977).

Accordingly, the relative income level of peasants dropped. Luther (1979) indicates that a farm household earned about 71 per cent of an urban household's wage in 1962, but this figure declined to 61 per cent in 1970. This could be one of the many factors that brought about the massive influx of rural peasants into big cities, especially into Seoul. Rapid urbanisation concentrating on Seoul continued until the early 1990s. Since then, satellite cities surrounding Seoul, and industrial cities in the capital region, have grown much faster.

Urbanisation is a spatial manifestation of modernisation and is associated with various socio-physical phenomena (Choi & Chang, 2003). In Korea, urbanisation has been very closely related to industrialisation and economic growth. Since the 1960s, Seoul has been the centre of urbanisation in Korea. Internal migration was dominated by the centripetal movement of people from all over the country towards Seoul. In accordance with Seoul's dominance in the urbanisation process, Seoul has also been at the heart of Korea's economic growth.

Table 3.2 illustrates the population growth of cities as well as population trends in Korea from 1960 to 2000. The *total* population of Korea was 25 million in 1960, and it has consistently increased over time: to 31 million in 1970,

37 million in 1980, 43 million in 1990, and then to 46 million in 2000. The number of cities was only 27 in 1960, and this has also increased: to 32 in 1970, 40 in 1980, 73 in 1990, and 79 in 2000.

The *urban* population of Korea was only 7 million in 1960, with an urbanisation rate of 28 per cent. By 1975, it had increased to 16.8 million, with an urbanisation rate of 48.4 per cent. Korea has seen a continuous increase in its urban population and the rate of urbanisation. The urban population increased to 32.3 million in 1990, and then to 36.6 million in 2000. The urbanisation rate increased to 74.4 per cent in 1990, and then to 79.7 in 2000. As demonstrated in Table 3.2, the growth rate of the urban population has been unexpectedly high since 1960.

Table 3.2. Trends of population growth in Korea, 1960–2000

Year	Total population (1,000)	Number of cities	Urban population (1,000)	Urbanisation rate (%)	Growth rate of urban population (%)
1960	24,989	27	6,997	28	54.2
1966	29,160	32	9,780	33.5	57.4
1970	31,435	32	12,929	41.1	69.8
1975	34,679	35	16,770	48.4	52.0
1980	37,407	40	21,409	57.2	48.0
1985	40,420	50	26,418	65.4	42.0
1990	43,390	73	32,290	74.4	40.1
1995	44,554	73	34,992	78.5	16.1
2000	45,985	79	36,642	79.7	9.2

Source: KNSO, Population and Housing Census, www. http://www.nso.go.kr/.

The urban population as well as the total population have continuously increased, but between 1966 and 1970 the rural population's growth rate declined resulting in an absolute decrease in the size of the rural population for the first time in the recent history (Kim, 1987).

Table 3.3 shows the factors influencing the growth of the urban population from 1960 to 2000. Net migration from rural areas, the enlargement of urban areas, and the construction of new cities are factors that affected growth in the urban population. During the period 1960–1966, the urban population increased by 2.7 million. This was comprised of: a natural increase (42.1 per cent), net migration (40.5 per cent), urban area growth (9.3 per cent) and the construction of new cities (8.0 per cent).

In contrast to other periods, the share of net migration, almost entirely from rural areas, influencing urban population growth in 1966-1970 was exceptionally high, at 73.2 per cent. This is significant as 1966 to 1970 was the period of the second five-year economic development plan. Such a heavy shift of rural dwellers, especially of working age people also resulted in a higher dependency ratio in urban areas (Moon, 1978).

Another notable fact in the process of urbanisation has been the construction, since 1975, of new satellite cities around the established metropolis. This became especially significant in 1985–1990, when the Korean Government, concerned with the rapid growth of the urban population, especially in Seoul, began an intense period of constructing satellite cities to help redistribute that population.

As mentioned earlier, demographic transition in Korea was affected by both a national family-planning program and socio-economic development. Table 3.4 illustrates the demographic transition and related factors in Korea.

Table 3.3. Factors of urban population growth, 1960–2000 (Unit: 1000 persons, %)

	Urban	Factors of urban population growth (%)					
Period	population growth (in 1000s)	Natural Net growth migration		Enlargement of urban districts	Changing to city status		
1960– 1966							
1966– 1970	2709	42.1	40.6	9.3	8.0		
1970– 1975	3223	26.8	73.2	0.0	0.0		
1975-	3842	47.2	45.1	2.5	5.2		
1980	4638	45.7	39.7	4.1	10.5		
1980-	5506	44.4	36.8	1.3	17.4		
1985	5866	36.3	27.0	6.2	30.4		
1985– 1990	2727	72.8	7.0	1.3	19.0		
1990– 1995	1719	62.2	12.9	0.0	24.9		
1995– 2000							

Source: Choi et al (1993: 11); KNSO. Population and Housing Census Report, each year.

Korean society experienced a major demographic transition from the early 1960s. During the period 1960–1985, both the fertility rate and mortality rate continued to decline, and thus the population growth rate continuously decreased. This demographic transition was affected by several intermingled

socio-economic factors such as modernisation, economic development, urbanisation, and the national family planning program. Since 1985, the fertility rate in Korea has dropped to below replacement level and the mortality rate has remained stable with a slight decline. According to the Korea National Statistical Office (KNSO) projections, the population will increase from 47 million in 2000 to 50.7 million in 2020 and then begin to decrease (KNSO, 2001). This process of demographic transition may be due to factors such as sustained economic growth, the expansion of education, changes in lifestyle, and the full-scale adoption of medical insurance.

Table 3.4. Demographic transition and related factors in Korea

Stage	Period	Population growth	Fertility	Mortality	Political and socioeconomic factors
The pre- transition stage	1945–60	Rapid increase except for the period 1949–1955	High	Medium but high mortality during 1949– 1955	Liberation, partition of the country, the Korean War, social turmoil, economic hardship
The transition stage	1960–85	Continuous decline in growth rate	Rapid and continuous decline	Continued decline	Modernisation, economic development, urbanisation, family planning program
The post- transition stage	1985 to present	Stable stage with negative growth potential	Under replacement level	Stable stage with slight decline	Sustained economic g rowth, expansion of education, changes in lifestyle, medical insurance

Source: Kim D S, 2003. Growth and transition in the population of Korea. Korea National Statistical Office (KNSO).

## **Mortality transition**

Korea entered the first stage of mortality transition in the 1910s. The factors responsible for the decline in mortality were the prevention of infectious and contagious diseases and the improvement of environmental conditions and public health facilities (Lee, 1980). Additional factors were the establishment of medical schools and medical facilities. However, industrialisation and urbanisation directly related to Japanese colonisation between 1910 and 1945 had little impact on mortality rates (Kim I K, 1987).

The Korean War (1950–53) had a great impact on the Korean population. War casualties were estimated to be 1.6 million, and the crude death rate rose sharply during this period (Lee, 1980). The crude death rate during the five-year period up to 1955 hit a record high of 33 per thousand and in 1955, Korea entered the second stage of mortality transition.

The primary factor responsible for the sharp decline in mortality immediately after the Korean War was the introduction of various new medicines. Improvement of sanitary conditions during the process of restoration from the war devastation also made a remarkable contribution to the decline in mortality. In fact, the rapid reduction in mortality took place in the absence of any substantial socio-economic development within the country.

After 1960, the pattern of a decline in mortality continued, but the rate of decline decreased. Improvements from this time onwards have been most attributable to rapid socio-economic development. This includes the expansion of health and medical, in both the public and private sectors, and a decline in fertility due to an increased adoption of the family planning program and the postponement of marriage.

Table 3.5 shows mortality trends in Korea from 1960 to 2000. The crude death rate in 1960 was 16 per thousand. Since then, the crude death rate has consistently decreased: to a rate of 8 per thousand in 1971, 6 per thousand in 1985, and 5.2 per thousand in 2000.

In an inverse proportion to the continuous decline of the crude death rate, life expectancy at birth has substantially increased over time. Table 3.5 also shows the trends of average life expectancy at birth since 1960. Life expectancy at birth in 1960 was 51.1 years for males and 57.3 years for females. Life expectancy has consistently increased both for males and females. For males, it increased to 62.3 years in 1980, 67.7 years in 1990, then to 72.8 years in 2000. For females, it increased at the same speed from 57.3 years in 1960, to 70.5 years in 1980, 75.9 years in 1990, then to 80.0 years in 2000. The continuous increase in life expectancy has brought about a corresponding increase in the proportion of the elderly; that is, the population is ageing.

Table 3.5. Trends in mortality and life expectancy in Korea, 1960–2000

Year	CDR	Life expec	Life expectancy at birth		
		Male	Female		
1960(1)	16	51.1	57.3		
1965	15(1)	52.7	57.7		
1971	8.0	59.0	66.1		
1975	7.7	60.2	67.9		
1980	7.3	62.3	70.5		
1985	6.0	64.3	72.8		
1990	5.8	67.7	75.9		
1995	5.4	69.6	77.4		
2000	5.2	72.8	80.0		

Kim I K, 1992. A Comparative Study of Demographic Transition between Korea and Japan.

Table 3.6 shows the age-specific death rates (ASDR) by gender in Korea during the period 1970-2000. Since 1970, all of the ASDRs for both genders have declined greatly. The death rate for those in their 20s declined faster than the rate for those aged 30 years or above. In terms of gender, the decline was faster for females than for males. However, the difference between males and females becomes smaller as age advances. The extent of crude death rate reduction was smaller among women than among men, even though ASDR declined more rapidly for women than for men. This is due to the rapid ageing of the female population given the low level of mortality. In addition, the mortality patterns are different according to gender: the mortality for middle-aged adults is much higher for men than for women (Kim, T.H., 2003). However, the gender differentials of mortality become narrow and the mortality pattern of men approaches that of women.

Causes of death are dependent upon a society's socio-economic situation. Causes of death in Korea have consequently differed from time to time in accordance with its socio-economic development. Table 3.7 shows the 10 leading causes of death between 1966 and 2000. Leading causes of death in 1966 were pneumonia and tuberculosis. Of the 10 major causes of death, six are diseases of the respiratory and digestive systems and infectious diseases. Between 1980 and 1981, however, the five most significant causes of death were three types of circulatory system disease, neoplasms and accidents. From 1990, the four main causes of death were malignant neoplasms, brain vein diseases, heart diseases, and traffic accidents. Such changes in the pattern of causes of death indicate that the sharp decline in mortality levels since 1966 has been due mainly to a reduction in diseases of the respiratory systems and infectious diseases such as pneumonia and tuberculosis.

Table 3.6. Age-Specific Death Rates by Sex, 1970–2000 (Unit: per 1000 persons)

		Male			Female			
	1970	1990	2000	1970	1990	2000		
Total	9.2	6.6	5.8	6.8	5.0	4.7		
0~4	4.7	3.7	1.3	4.5	3.2	1.2		
5 <b>~</b> 9	2.6	0.7	0.3	2.3	0.5	0.2		
10 <b>~</b> 14	2.1	0.6	0.2	1.7	0.4	0.2		
15 <b>~</b> 19	3.5	1.2	0.6	2.5	0.5	0.3		
20~24	4.2	1.5	0.9	3.5	0.7	0.4		
25 <b>~</b> 29	3.8	1.9	1.1	3.7	0.8	0.5		
30 <b>~</b> 34	4.0	2.5	1.4	3.3	1.0	0.7		
35 <b>~</b> 39	5.5	3.7	2.2	4.1	1.4	0.9		
40~44	9.1	5.4	3.6	5.3	2.0	1.3		
45 <b>~</b> 49	14.9	9.0	5.5	7.0	3.4	1.8		
50 <b>~</b> 54	22.4	12.3	7.9	10.0	4.7	2.7		
55 <b>~</b> 59	33.1	17.1	12.7	14.2	6.9	4.5		
60~64	47.5	26.7	18.2	20.4	11.1	7.0		
65 <b>~</b> 69	72.9	40.8	26.3	31.9	18.5	12.0		
70 <b>~</b> 74	95.5	64.4	43.7	49.1	33.0	23.8		
75 <b>~</b> 79	225.21	97.0	74.6	179.21	55.9	44.0		
80+	_	187.0	152.1	_	137.1	121.5		
IMR2	40.8	14.3	6.1	39.9	13.0	5.9		

Source: Kim T H, 2003.

Table 3.7. Ten leading causes of death in Korea, 1966-2000

D 1-	1966¹	1980–1981²	1990³	$2000^{3}$
	Pneumonia	Malignant	Malignant	Malignant
1	Tuberculosis	neoplasms Hypertensive	neoplasms Brain vein	neoplasms Brain vein
2	Tuberculosis	diseases	diseases	diseases
3	Vascular lesions affecting the central nerve system	Cerebrovascular diseases	Heart diseases	Heart diseases
4	Malignant neoplasms	Accidents	Traffic accidents	Traffic accidents
5	Gastritis, duodenitis, enteristis and colitis	Heart diseases	Hypertensive diseases	Chronic liver diseases and cirrhosis
6	Accidents	Tuberculosis	Chronic liver diseases and cirrhosis	Diabetes
7	Influenza	Chronic liver diseases and cirrhosis	Diabetes	Chronic bronchus diseases
8	Heart diseases	Bronchitis, emphysema and asthma	Respiratory system tuberculosis	Suicides
9	Measles	Pneumonia	Chronic bronchus diseases	Hypertensive diseases
10	Bronchitis	Suicide	Suicide	Pneumonia

- Notes: 1 Based on the abbreviated list of 50 causes of death in the 7th Revision
  - 2 Based on the list of 55 causes of death in the 9th Revision of the ICD.
  - 3 Based on the list of 56 causes of death in the 1995 KSCD (KNSO, Social Indicators in Korea, 2001: 270–272).
  - 4 Deaths per 100 thousand persons aged 5 years or over.

Source: Kim T H, 2003.

# **Fertility transition**

Table 3.8 shows fertility trends in Korea between 1960 and 2000. The crude birth rate (CBR) in 1960 was as high as 45 per thousand. Since then, the rate has continuously declined. While the crude birth rate declined only by three per thousand from 1960 to 1965, it declined sharply from 42 per thousand to 31.2 between 1965 and 1970. The reduction in the crude birth rate by 11 per thousand for this five-year period is a record high. Since then, the fertility level has steadily declined without interruption: the crude birth rate declined to 22.7 per thousand in 1980, to 15.4 in 1990, then to 13.4 in 2000. As with the CBR, the total fertility rate (TFR) has also sharply declined over time. The total fertility level in 1960 was as high as six, but declined to 2.83 in 1980. Since 1985, the fertility level of the Korean population has gone below the replacement level and has shown a consistent pattern of decline over time: the TFR decreased to 1.67 in 1985, to 1.57 in 1990, and then finally dropped to 1.47 in 2000.

Table 3.8. Fertility Trends in Korea, 1960–2000

Year	CBR	TFR
1960(1)	45.0	6.0
1965(1)	42.0	4.9
1970	31.2	4.53
1975	24.8	3.47
1980	22.7	2.83
1985	16.2	1.67
1990	15.4	1.57
1995	16.0	1.65
2000	13.4	1.47

Source:

- (1) Kim I K, 1992. p 57.
- (2) Korea National Statistical Office, 2002.

Table 3.9 shows more specifically the changing patterns of agespecific fertility rates (ASFR) in Korea during the period 1960–2000. This table enumerates several important points. First of all, it indicates that most births were concentrated in the 35–39 age group, without exception throughout the whole period. Second, the majority of births were concentrated in the age group of 20–39 years during the 1955–1980 period. Third, ASFRs have consistently decreased for all the age groups between 1960 and 2000. Fourth, births for 15–19 year-olds and 40–44 year-olds have drastically declined since 1980. Fifth, there have been no births in the 45–49 age group since 1980. Putting all these findings together, we may conclude that the sharp decline in the total fertility rate is related to the shortening of the age span that women are inclined to give birth.

Table 3.9. Total fertility rates and age-specific fertility rates in Korea. 1960–2000

(Unit: births per woman, births per 1000 persons)

Age year	Total fertility	Age-specific fertility rate (ASFR)						
rige year	rate (TFR)	15–19	20-24	25-29	30-34	35–39	40-44	45-49
1955–1960	6.30	38	308	335	270	194	96	18
1960–1965	5.99	20	255	351	274	189	92	17
1965–1970	4.64	12	180	309	223	134	59	10
1970–1975	3.96	10	146	301	220	88	19	7
1975–1980	3.00	13	152	253	122	38	17	5
1980–1985	2.38	11	160	216	72	15	2	0
1985–1990	1.62	4	103	168	39	6	3	0
1990-1995	1.64	4	74	177	58	12	2	0
1995-2000	1.55	3	56	159	72	15	5	0

Note: The five-year TFRs and ASFRs from 1970–2000 are estimated through calculation of the five-year moving averages of the KNSO data for the period concerned. Source: Jun K H, 2003.

Reduction in fertility during the period of fertility transition in Korea may be attributable to a number of factors. Assuming that fertility is confined to marriage, the overall fertility level is generally affected by both the proportion of married women in the population and the extent of 'marital fertility' control.

Control of marital fertility is achieved through contraception and induced abortion. In Korea, national family planning programs have had a tremendous impact on the decline in the fertility level since they were introduced in 1962.

As a result of these national family planning programs, the TFRs began to drop from 6 births per woman in 1960–1965 to 4.6 births per woman in 1965–1970. In 1966, fertility dropped more sharply in Seoul and other metropolitan cities because Korean couples wanted to avoid giving birth to girls in the Year of the White Horse (Kwon, 1977). Based on patriarchal and Confucian beliefs Koreans have traditionally thought that the Year of the White Horse is inauspicious for "the destiny of girls" as it implies "undesirable traits for women as wives" (Lee and Paik, 2006). Furthermore, induced abortions became prevalent in urban areas, and contraceptives began to be readily available from the early 1960s.

The rate of fertility decline was more rapid in rural than in urban areas because, beginning in the late 1960s, the Korean Government invested more resources in family planning in rural areas than in urban ones. In the early 1970s, the rate of fertility decline slowed to around four births per woman, but it later gained momentum by dropping sharply to three births per woman in the late 1970s, indicating the end of the first fertility transition (Jun, 2003).

The later phase of the first fertility transition began in the early 1970s when Korean couples internalised the concepts of desired family size (DFS), fertility regulation, and the value of children (Jun, 2003). This late phase has implications entirely different from those of the early phase of the fertility transition. Before 1975, traditional family norms had exerted strong constraints on Korean couples. Until then, most Korean couples did not internalise the idea that they would be able to achieve their desired family size through contraception and induced abortion. In cases of extreme poverty, unemployment, and difficulty in supporting a large family, Koreans were forced to participate in

government-sponsored family planning programs, due to the increasing number of surviving children resulting from improved infant mortality (Jun, 2003). However, young men and women who married after 1965 played an important role in leading the fertility transition. They began to participate in voluntary fertility regulation at the end of their childbearing years from 1975.

Table 3.10 indicates the various factors affecting changes in the total fertility rates from 1960 to 2000. Up to 1990, the decline in the marital fertility rate made a greater contribution to the decline in TFR than the effects of marital composition. Also during this period, the role of contraception was very significant in reducing the marital fertility rate, especially between 1965 and 1990. Induced abortion was another important factor in reducing the marital fertility rate, but only up until 1975. The decline in the marital fertility rate due to the adoption of family planning programs did not play a significant role in reducing TFR after 1990. Since 1990, postponement of marriage made a rather greater contribution to the decline in TFR.

Table 3.10. Components of the percentage change in total fertility rates, 1960–2000

Year components	1960– 1965	1965– 1970	1970– 1975	1975– 1980	1980– 1985	1985– 1990	1990– 1995	1995– 2000
TFR changes (%)	-16.8	-17.6	-13.4	-24.6	-25.7	-18.3	1.2	-5.4
(a) Marital	-6.3	-3.7	-3.5	-5.6	-6.4	-6.5	-5.8	-9.9
Proportion Married	-7.6	-3.4	-3.7	-4.9	-6.7	-7.9	-5.6	-9.6
Divorce &	1.3	0.5	0.2	0.7	0.3	1.4	-0.2	-0.3
(b) Age-specific	-10.5	-14.1	-9.9	-19.1	-19.3	-11.8	7.0	4.5
Contraception	-5.4	-9.5	-5.9	-23	-23.9	-13.4	-5.3	-7.4
Induced abortion	-5.1	-4.6	-4.0	3.9	4.6	1.6	12.3	11.9
Source: Jun, 2003.								

As mentioned earlier, postponement of marriage has affected the reduction in the total fertility rate, especially since 1990. Table 3.11 shows the trends in age at the time of marriage from 1970 to 2000. The average ages at marriage for both males and females have continuously increased over time. For males, it increased from 26.7 years in 1970, to 27.8 years in 1990, then to 29.3 years in 2000. For females, it increased from 22.6 years in 1970, to 24.8 years in 1990, then to 26.5 years in 2000.

Table 3.11. Trends of average age at marriage in Korea, 1970–2000

Year	Age at marriage (M)	Age at marriage (F)
1970	26.7	22.6
1975	26.8	22.8
1980	26.4	23.2
1985	27.0	24.1
1990	27.8	24.8
1995	28.4	25.5
2000	29.3	26.5

Source: KNSO. Korea Statistical Yearbook. 2002.

Not only the postponement of marriage but also the increasing proportion of those who are not married has affected the decline in the total fertility rate. Table 3.12 illustrates the trends in the proportion of those who are not married during the period 1970–2000. The proportion of those who are not married for females aged 25–29 years increased from 10 per cent in 1970, to 22 per cent in 1990, then to 40 per cent in 2000. The proportion of those who are not married for females aged 30-34 years was only 1 per cent in 1970, but it increased to 5 per cent in 1990, then to 11 per cent in 2000. The proportion of those who are not married for males aged 30–34 years increased from 6 per cent in 1970, to 14 per cent in 1990, and then to

28 per cent in 2000. The proportion of males aged 35–39 not married was only 1 per cent in 1970, but it increased 4 per cent in 1990, and then to 11 per cent in 2000.

Table 3.12. Trends of the proportion (by percentage) of those who are not married in Korea

Age group	1970	1980	1990	2000
Female				
20–24	57	66	81	89
25–29	10	14	22	40
30–34	1	3	5	11
Male				
20–24	93	93	96	98
25–29	43	45	57	71
30-34	6	7	14	28
35–39	1	2	4	11

Source: KNSO. Korea Statistical Yearbook. 2002.

## Trends in population ageing

The rapid process of demographic transition has brought about an increase in both the absolute number and the proportion of the elderly in Korea. Those aged 60 and over increased from 1.5 million in 1960 to 3.3 million in 1990, and this number is projected to increase to 9.9 million by the year 2020 (Kim I K, 2004). This shows that the number of elderly people aged 60 years and over has doubled within the past three decades and is expected to increase by almost three times the 1990 figure and more than six times the 1960 figure.

Table 3.13 shows the age structure of the population from 1960 to 2000. The proportion of young people aged 0–14 years has continuously decreased. On the other hand, the proportion of the elderly aged 65 years and over has consistently increased over time: from 2.9 per cent in 1960, to 3.9 per cent in 1980, and then to 5.9 per cent in 1995. The proportion of those aged 65 years and over reached to 7.3 per cent in 2000, which indicates that Korea has become an 'ageing society'.

Table 3.13. Trends in the age structure of Korea, 1960–2000 (%)

Year	Total	0-14	15-64	65+	75+
1960	100.0	40.6	55.6	2.9	0.9
1966	100.0	43.5	53.2	3.3	0.9
1970	100.0	42.1	54.6	3.3	0.9
1975	100.0	38.1	58.4	3.5	1.0
1980	100.0	33.8	62.3	3.9	1.1
1985	100.0	29.9	65.7	4.3	1.3
1990	100.0	25.7	69.4	5.0	1.5
1995	100.0	23.0	71.1	5.9	1.9
2000	100.0	21.0	71.7	7.3	2.3

Source: KNSO (Population and Housing Census Report, each year).

Trends in the growth rate of each age group reveal a different pattern. Table 3.14 indicates these trends for the period from 1960 to 2000. The growth rate of the young population aged 0–14 years decreased but showed a positive rate from 1960 to 1970, and then from 1970 to 1975 it showed a zero growth rate. Since 1975, it has continuously shown a negative growth rate.

The proportion of those aged 15–64 years showed a higher growth rate than that of the elderly aged 65 years and over, until 1975. Since 1975, however, the proportion of this age group has shown lower growth rate than that of the elderly. This table also shows an interesting finding in that the proportion of those aged 75 years and over has been higher through all the years than that of those aged 65 years and over.

Table 3.14. Trends in the annual growth of the age structure in Korea, 1960–2000 (%)

Year	Total population	0–14	15–64	65 +	75 +
1960-1966	2.8	4.2	2.0	0.5	1.7
1966–1970	2.0	1.1	2.6	2.0	3.1
1970–1975	2.1	0.0	3.6	3.2	3.5
1975–1980	1.6	-0.8	3.0	4.0	3.7
1980–1985	1.6	-0.9	2.8	4.2	6.2
1985–1990	1.5	-1.6	2.6	4.7	5.4
1990–1995	0.5	-1.6	1.1	4.4	5.0
1995-2000	0.6	-1.2	0.8	5.6	5.9

Source: KNSO (Population and Housing Census Report, each year).

Table 3.15 shows Korea's projected population and population growth rates. The population is projected to increase up to 2020, and thereafter to decrease drastically. The proportion of the young population aged 0–14 years is projected to consistently decrease: from 21.1 per cent in 2000, to 13.9 per cent in 2020, and then to 10.5 per cent in 2050. The proportion of the working age group of 15–64 years is projected to increase from 71.7 per cent in 2000 to 72.1 per cent in 2010, and then

consistently to decrease after 2010. In contrast to the other age groups, the proportion of the elderly aged 65 years and over is projected to continuously increase: from 7.3 per cent in 2000, to 15.1 in 2020, to 23.1 per cent in 2030, then to 34.4 per cent in 2050.

Table 3.15. Projected total population and population growth rates, 2000–2050 (Unit: 1000 persons, %)

	2000	2010	2020	2030	2040	2050
Total population	47,008	49,594	50,650	50,296	48,204	44,337
Annual pop growth rate	0.71	0.38	0.04	-0.24	-0.64	-1.04
Total	100.0	100.0	100.0	100.0	100.0	100.0
% Age 0–14	21.1	17.2	13.9	12.4	11.5	10.5
% Age 15–64	71.6	72.1	71.0	64.6	58.4	55.1
% Age 65+	7.3	10.7	15.1	23.1	30.1	34.4

Source: KNSO (2001).

### **Concluding remarks**

This chapter has described the changes in Korea's demography since the 1960s. In addition to general trends in demographic transition, it has dealt with mortality transition, fertility transition, and the process of population ageing. Along with rapid economic development, Korea has experienced rapid demographic changes in urbanisation, significant declines in mortality and fertility and a significant rise in the age of its population.

Like many countries in the 21st century, Korea is faced with the serious demographic trends of very low fertility rates and a rapidly ageing population. In the early 1960s, concerned with rapid population growth, the Korean Government adopted

national family planning programs. These programs are known to have been one of the most successful cases in the world in reducing a high fertility level. Less than 40 years later, however, the Korean Government is again worrying about the fertility level, but this time it is now one of the lowest in the world. As of 2004, the total fertility rate in Korea was reported to be 1.17.

Korea has experienced a very rapid decline in fertility, since the beginning of the 1960s. Because of this trend, both the UN and the KNSO predict that from 1995 to 2050 the population of working age people in Korea will drastically decrease (KNSO, 2001; United Nations, 2000). In relation to this drastic decline in the labour force, the UN suggests that encouraging immigration would be the only acceptable policy to cope with the labour shortage. As Korea has been experiencing below replacement rates of fertility since 1984, the rapid decline in fertility and the equally rapid ageing of the population have had substantial effects on Korea society. As there is no foreseeable shift in these trends, Korea will have to act quickly to address its population problems. Various adaptive mechanisms, such an increased migration to address the labour shortage, will be necessary.

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