

Policy Report 2020-12

Direction and Tasks of Future Social Policymaking in Response to Demographic Changes

Lee So-young
Lee Yun-kyung·Kim Se-jin



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I

Introduction

I Introduction¹⁾

Birth rates are plummeting in South Korea at an unprecedented rate. The Korea's total fertility rate (TFR) has been declining steadily since reaching its population-replacement level at 2.1 in 1983 (Statistics Korea, 2018 and 2017). The TFR seemed to level out somewhat at around 1.6 in the 1990s, but has been plummeting since the Asian Financial Crisis of 1998, and dipped to the nadir of 1.08 in 2005. Although it did rise marginally afterward, the TFR has remained steadfastly at or below 1.3 since then (Statistics Korea, 2018 and 2017). Statistics Korea, in fact, confirmed that the TFR reached a new record low, at 0.98, in 2018, while the total number of newborns that year reached another record low, at 326,900, since the organization began compiling official statistics in 1970 (Statistics Korea, 2018). On the other hand, the increase in life expectancy and transition of Korean baby boomers into retirement en masse are two major factors that are poised to expand the senior population, aged 65 or older, in Korea at an exponential rate. The percentage of late-stage seniors aged 80 or

1) This report is a summary of Lee S. et al. (2019). Decreasing Natality and Population Size and Future Social Policy, and Lee, Y. et al. (2019). Increasing Elderly Population and Future Social Policy. See the two studies for detailed analysis.

older and in need of protection and assistance is expected to multiply especially rapidly, generating a host of likely social changes.

The middle-of-the-road projections of natural increases and prospects of natality and mortality in Korea forecast that the number of newborns will continue decreasing, falling from 350,000 in 2017 to as low as 210,000 by 2067 (Statistics Korea, 2019b). Low-level projections, meanwhile, forecast the number to drop even further down to 140,000 by the same year. Regardless of the projection estimates, it remains certain that the number of newborns in Korea has been on a steady downturn for years, and will continue decreasing in the future.

The shrinking newborn population means that the underage population (aged from under one to 14) will likewise shrink, as will the working-age population (aged 15 to 64). The Special Future Demographic Projections hold that the underage population will be more than halved from 6.72 million (13.1 percent of the national population) in 2017 to 3.18 million (8.1 percent) by 2067. The projections forecast that the underage population will range from 4.43 million (8.7 percent) to 5.79 million (10.8 percent) in 2030 and from 2.13 million (6.3 percent) to 4.54 million (10.0 percent) by 2067. The working-age population is similarly projected to decrease from 37.57 million (73.2 percent) in 2017 to 17.84 million (45.4 percent) by 2067 (Statistics Korea, 2019b).

In the meantime, the elderly population is expected to multiply. The Special Future Demographic Projections from 2019 forecast that the number of seniors in Korea will rise from 7.68 million in 2019 to 10.51 million by 2025, and further to 15.23 million by 2035, nearly double the current population size, and will begin to decrease only after reaching a projected peak of 19.01 million in 2050. The number of seniors aged 85 or older in the late stages, in particular, is also expected to multiply from 0.71 million in 2019 to 1.12 million in 2025 and 4.05 million by 2050 (Statistics Korea, 2019b).

The Korean government has been seeking to prepare for, and counter the effects of, these abrupt demographic changes by establishing and implementing the Basic Plan on Low Fertility and Aging Society (hereinafter “the Basic Plan”) every five years since 2006. With statutory support from the Framework Act on Low Birth Rate in an Aging Society (FALBRAS), the Basic Plan lays down the intermediate- to long-term directions of national policy on low fertility and population aging, as well as specific policy objectives and tasks. These and other efforts, however, have yet to stem the tide of falling birth rates. Government initiatives under the Basic Plan have thus come under increasing criticism and demand for reform from all sectors of society. In response, the Korean government has recently renounced its focus on raising the TFR to a certain level and announced new plans for revolutionizing the population policy under a new

paradigm. The Presidential Committee on Ageing Society and Population Policy (PCASPP) released its Low Birth in an Aging Society Policy Roadmap in December 2018, articulating a new policy focus for improving quality of life for all generations and ushering in a more inclusive society by promoting solidarity and integration among socioeconomic classes, genders, and generations (PCASPP, 2018). The roadmap garnered attention especially for replacing the outdated focus on raising birth rates with measures to guarantee quality of life for all generations and increase social investment in the wellbeing of future generations (PCASPP, 2018).

In this report, recognizing the need for a new paradigm of population policy capable of responding with greater flexibility to the falling birth rates and aging of Korean society, we explore, in depth, the forecasted changes of various aspects of society due to these demographic changes, and identify policy implications for Korean society in the future. Our focus is the sweeping and macro-level effects of demographic changes due to the decrease in the number of newborns and the overall population, on the one hand, and population aging, on the other.

In particular, we analyze the implications for the social policy on education and labor that stands to be affected most by the plummeting birth rates. Furthermore, we explore the future direction of the social policy needed to enhance quality of life for children, particularly regarding their health. Embracing the tran-

sition to preparing for and adapting to decreasing birth rates rather than raising the birth rates, we review available policy options in a comprehensive manner.

We also explore ways of improving quality of life for Korea's elderly by identifying future directions for the elderly employment policy, healthcare workforce supply policy, and long-term care policy. We expect our analysis to contribute to the efforts being made to help Korea better manage its falling birth rates and population aging by shifting the focus of future social policy from meeting abstract policy objectives to enhancing quality of life for individuals.



II

Falling Birth Rates and Future Social Policy

1. Education Policy
2. Labor Policy
3. Child Health Policy

II Falling Birth Rates and Future Social Policy

1. Education Policy

The education policy in Korea has so far sought to respond to the challenge of the falling birth rates by increasing the quantity of available educational resources. It is now time to shift our focus and start investing in the quality of education for future generations. In this section, we present a new approach to education policy, stage by stage, reflecting the growing awareness that human capital is one of the essential engines of economic growth.

(1) Preschool Education Policy

Existing literature on the importance of preschool education supports the consensus on the positive long-term effects of preschool education. It is therefore important to provide quality education for preschoolers as part of efforts to augment human capital in Korea.

The appropriateness of preschool education can be assessed in terms of the budget invested in it and the content of the policy backing it. A comparison of Korea's preschool education budget (not including cash benefits, such as the child allowance, paid to

parents) to those of major member states of the Organisation for Economic Cooperation and Development (OECD) shows that, although Korea’s budget for children-related services, which was a mere 0.2 percent of its gross domestic product (GDP) in 2005, was ranked near the bottom of the list in 2005, it rapidly increased to 0.9 percent by 2013, coming close to the OECD average. Since 2009, the Korean government has been increasing the support for preschool education, going so far as to pay the tuition for daycare and preschool education for infants and toddlers of households at all income levels starting in 2013 (Lee, 2017).

[Figure 2-1] Child Service Budgets of OECD Member States as Percentages of GDP

(Unit: percentage)

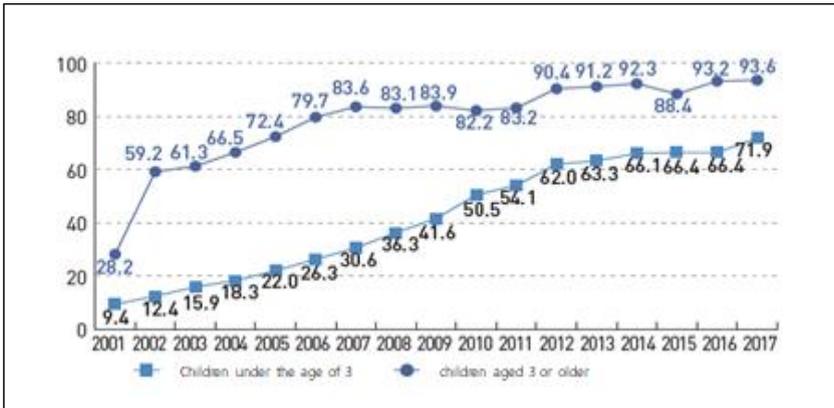


Note: Counting budgets for supporting daycare for children aged five or under.
 Source: Lee, C. (2017). Analysis of the Preschool Daycare Support Policy: Focusing on Daycare and Preschool Fee Support and the Family Care Allowance, NABO.

To provide quality preschool education, it is critical to ensure that there are sufficient numbers of daycare centers, kindergartens, and other such facilities catering to children. As of 2017, 93.6 percent of children aged three or over in Korea were enrolled in daycare centers or kindergartens. The percentage of children under the age of three enrolled in daycare had also increased to 71.9 percent.

[Figure 2-2] Daycare and Kindergarten Enrollment Rates

(Unit: percentage)



Note: The primary data are from MOHW (each year). Daycare User Statistics; MOE-KEDI (each year). Education Statistics Yearbook: Preschool and Elementary School Statistics; and MOPAS (each year). Resident-Registered Population Statistics.

Source: MOHW and KIHASA (2018). Social Security in Statistics 2018. MOHW.

The physical infrastructure supporting preschool education in Korea appears to have reached a sufficient level. Yet there appear to be many needs unfulfilled regarding the quality of preschool education and daycare. Lee (2013) demonstrates that pa-

rents of preschoolers still largely prefer public daycare centers, which are believed to provide education and care of better quality.²⁾ However, existing public daycare centers cater to less than 10 percent of the preschooler population, and access to these facilities varies widely from region to region.

Investment in preschool education and care should therefore be tailored toward increasing the supply of daycare services and increasing the number of public daycare facilities, particularly in regions that are lacking in them. State intervention is also needed to enhance the quality of services provided by private facilities.

(2) Elementary School Education Policy

The types and amounts of knowledge and learning skills that schoolchildren are supposed to acquire, develop, and master vary widely from grade to grade. It is therefore crucial to provide guidance tailored to the specific grades and stages of development these children are in. As important as laying the foundation for learning achievements is enabling schoolchildren to acquire basic non-academic skills as well.

The Korean government has been making efforts to reduce the number of students per class in an attempt to improve the quality

2) Lee (2013) notes that, whereas all public daycare facilities scored 90 percent or higher on the assessments for certification and recertification, private facilities' scores generally remained in the 80-percent range, suggesting variance in the quality of services provided by the two types of facilities.

of elementary school education. As a result, there were 23 students per class in Korea on average in 2016, similar to the OECD average of 21 per class (OECD, 2018). The number of students per class is likely to decrease further in the coming years due to the falling birth rates.

There are two main objectives concerning the future of elementary school education in Korea. First, efforts are needed to reduce the inequality of academic performance between students, especially by providing enhanced support so that children can keep making progress as they advance to higher grades. This will require establishing an objective standard for gauging students' academic performance and increasing programs, launched under the revised curriculum of 2015, that provide Korean language and mathematics tutorials for students struggling academically in school.

Second, non-academic, non-cognitive education focusing on personality development and training should be increased. There is not yet a curriculum for character-building education in elementary schools today. This serious deficiency must be addressed. Specific guidelines should be developed to enable schools to help schoolchildren with character-building, and a system of non-cognitive capability development should be established, with appropriate new subjects introduced into the school curriculum.

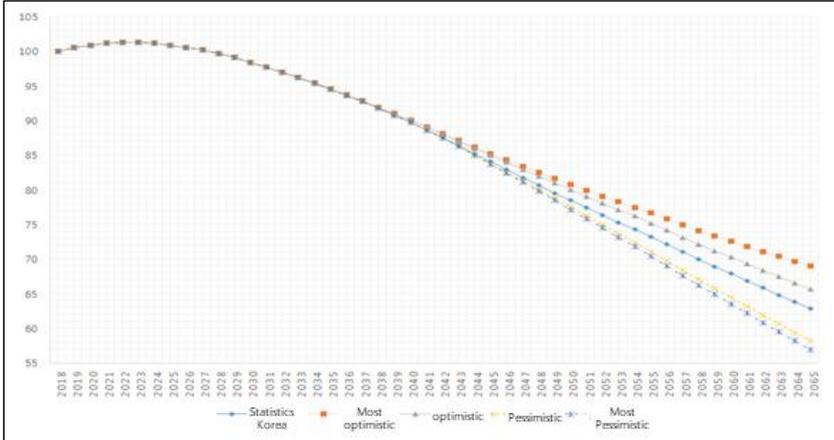
2. Labor Policy

(1) Overall Labor Force Projections

The existing labor force in Korea is not expected to decrease drastically in terms of absolute size into the mid-2030s. Things are much more uncertain 20 years down the road, however, when the generation being born today will enter the workforce.

Korea's economically active population (EAP), which currently stands at 28.35 million, is expected to peak at 28.71 million in 2022 and begin to decrease afterward (Figure 2-3). The middle-level projection from Statistics Korea forecasts that the EAP will be 17.81 million, or 62.8 percent of what it is now, by 2065. A more optimistic projection forecasts 18.61 million (65.7 percent) by the same year. Pessimistic projections forecast 16.12 million to 16.49 million (56.9 percent to 58.2 percent) by 2065.

[Figure 2-3] EAP Projections by Scenario (2018 = 100)

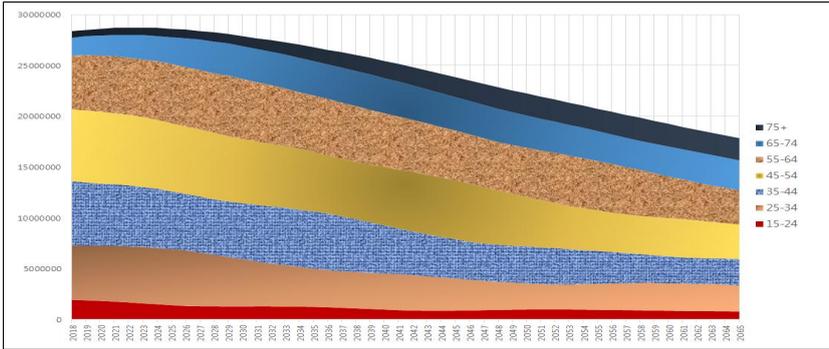


Note: The EAP sizes for 2065, based on long-term demographic projections by sex and age, are charted here as percentages of the 2018 size.

Source: Lee, S. et al. (2019), Chapter III, based on Statistics Korea (2019b). Special Future Demographic Projections 2017-2067 (press release, March 28, 2019).

Expected to play a greater role in the Korean labor market in the coming years than the changing absolute size of the EAP is the rapid aging of the existing workforce. Figure 2-4 charts the middle-level projections of Statistics Korea regarding the changing age makeup of the Korean EAP. The most prominent change is the increase in the percentage of elderly workers. Seniors aged 75 or older, who make up 2.2 percent of the EAP, are projected to grow to 12 percent or even more of the EAP by 2065. Seniors aged 65 to 74 are also projected to increase their share from 6.2 percent today to 16.5 percent by 2065. In contrast, the percentage of relatively younger workers is expected to decline drastically over the next two or three decades.

[Figure 2-4] Statistics Korea’s Middle-Level Projections of the Age Makeup of the EAP



Source: Lee, S. et al. (2019), Chapter III, based on Statistics Korea (2019b). Special Future Demographic Projections 2017-2067 (press release, March 28, 2019).

(2) Policy Responses

To counteract the adverse impact of the shrinking youth population on Korea’s labor force, it is critical to reform the education and labor market systems, paying particular attention to enhancing the elasticity of the human capital supply and inter-sectoral mobility of workers in response to anticipated changes in labor demand. Investment in education should be tailored toward improving the quality of education to countervail the influence of the shrinking quantity of the youth labor supply. Preschool education and daycare should be improved, with radical reforms made to the curricula for elementary and secondary education so as to enable schoolchildren and students to adopt and harness the essential skills required of the future workforce. Interdisciplinary

barriers should be lowered and new disciplines encouraged in higher education so that higher education institutions can respond more flexibly and agilely to the changing conditions in the labor market. Finally, the higher education curricula should be redesigned so as to shift the focus from producing specialized workers to producing a general workforce capable of rapidly acquiring new knowledge, information, and skills and adapting to changing work environments.

The employment and training systems of businesses should also evolve. By the time those born in the 2000s enter the labor market, employers will have far fewer workers to choose from than they used to. They will have to adapt and manage the labor demand not simply by recruiting new workers, but also by re-training existing employees and recruiting workers from other disciplines or industries.

Support for working women will also form an essential part of the policy strategy for offsetting the shrinking workforce and decreasing productivity. In the long term, more and more seniors should be hired as well.

3. Child Health Policy

(1) High-Risk Births

Korean women today are getting married later and conceiving and giving birth later, too. The risk of birth defects associated with the older age of mothers has been on the rise across Korean society. The percentage of high-risk neonates is indeed rising, as are fertility treatment demand and the multifetal pregnancy rate. Whereas 2.8 percent of newborns were twins or triplets in 2008, the percentage jumped to 4.2 percent in 2019. The average age of mothers who had multiple births in 2018 was 34.3 years old, which is 1.6 years older than single-birth mothers, who were 32.7 years old on average.

Pregnant women with health risks, such as gestational hypertension or diabetes, also face increased risks of neonatal complications, including premature births and low birthweight newborns. The percentage of premature newborns (born before the gestational age of 37 weeks) rose from 5.5 percent in 2008 to 7.8 percent in 2018. low birthweight newborns, furthermore, made up 6.2 percent of all newborns in 2018, as opposed to 4.9 percent in 2008.

Despite the significant increase in high-risk births, the number of doctors specializing in neonatal care in Korea remains dismally low compared to Japan, a society that is experiencing similar

birth rate problems. In 2016, there were only 122 pediatricians specializing in neonatal care in Korea, each handling 3,455 newborn cases on average. Compare this to Japan’s 1,221 neonatal specialists, who handle 810.8 newborn cases (HIRA and Korean Society of Neonatology, 2017).

<Table 2-1> Neonatal Specialist Availability: Korea vs. Japan

Subject	Korea	Japan
Number of newborns (2016)	421,523	990,000
Number of neonatal specialists	122	1,221
Ratio of newborns to neonatal specialists	3,455	810.8

Source: HIRA and Korean Society of Neonatology (2017).

In addition to the shortage of neonatal specialists, delays in the transportation of patients in urgent need of perinatal care is another fatal issue resulting in severe health complications or even deaths of newborns.

As the demand for medical institutions and practitioners specializing in neonatal care for high-risk babies will continue rising, it is important to expand the available infrastructure and workforce to meet that demand. A system of perinatal care should also be established nationwide, with a national center for the health of the mother and the child serving as the command center. Legal procedures concerning disputes over perinatal care should also be improved and streamlined, while obstetric, neonatal, and medical support divisions are added to regional perinatal centers. Plans

are also needed to ensure the systematic development of the medical workforce, with regional centers established in regions with essential resources and medical fees differentiated.

The national center for the health of the mother and the child should also centralize all communications regarding the transportation of perinatal patients by identifying and locating the best institutions capable of receiving new patients and ensuring immediate transfers. At the core of such arrangement would be a digitalized transfer information system, which should include features that ensure the uninterrupted transfer of patients from obstetric hospitals to tertiary hospitals with neonatal intensive care units.

(2) Policy on Health Management for Children and Youth

The most important parts of health management are diagnosis and sustained follow-up. Korea's National Health Insurance provides for checkups for infants and toddlers before the age of six, schoolchildren, employees, and adults of certain ages. Some cancer screenings are also covered by the public health insurance. In other words, there is a system in place that supports the continued monitoring of the healthy development of children from birth to their teenage years, allowing for timely intervention in cases that warrant care.

The existing health insurance system for underage health

management, however, is flawed in two ways. First, it provides the first checkup too late. Second, the list of issues screened for is not comprehensive. The current system provides for a total of seven free checkups from four months of age to 71 months. In other comparable societies, however, the first checkup is done within the first four weeks of the newborn's life. Newborns are given at least two or three checkups. Critics have pointed out that the existing system of infant checkups in Korea fails to identify issues that should be checked in the very first weeks and months of a baby's life. Even the existing checkups omit tests that are best performed as early as possible in the child's life, such as vision and hearing tests. The absence of systematic follow-up based on the results of underage checkups also makes it difficult to monitor the health of children in an effective manner.

A major way of managing the falling birth rates in Korea is maximizing the survival of newborns and minimizing their health risks as a first step toward their growth into healthy adults. It is also equally important to ensure effective monitoring of the health of children and youth, and to educate them properly on ways of preventing lifestyle diseases. There needs to be a system that ensures the monitoring of the healthy development of children from birth to their teenage years so as to ensure early and timely intervention and preventive care where necessary. The current system of free infant and toddler checkups should be

expanded into a larger system that oversees checkups for schoolchildren and teenagers and made part of public healthcare that provides checkups for all age groups.

Primary care institutions should be at the heart of the underage health management system in order to maximize its effectiveness. Early tests and interventions are critical for the wide range of diseases that have been increasingly affecting Korea's youth recently, such as asthma, atopic dermatitis, and mental health issues. Primary care institutions should be tasked with detecting and consulting on these cases early, and higher-level hospitals should then be required to confirm primary practitioners' diagnoses and decide the eventual course of treatment. Primary and higher levels of care should also be integrated to maximize the convenience of underage patients so that they can receive proper and consistent care at all levels of the medical system. Primary care institutions, moreover, should become centers that provide education and information on underage health management. These changes will contribute significantly to improving the health of children and youth in Korea.



III

Population Aging and Future Social Policy

1. Middle-Aged Employment Policy
2. Medical Workforce Policy
3. Long-Term Care Policy

III Population Aging and Future Social Policy

1. Middle-Aged Employment Policy

Population aging in Korea is expected to accelerate even further as the first generation of Korean baby boomers, born in 1955, begin to join the ranks of seniors (defined as individuals aged 65 or older) in 2020. Korean baby boomers are burdened with the uncertain financial prospects of old age as they have been forced to exit the labor market without having been able to properly secure income for their post-retirement years. In this chapter, we shall survey the current status of employment and retirement for middle-aged workers in Korea,³⁾ and explore ways of improving the employment policy to promote their continued employment.

(1) Middle-Aged Employment

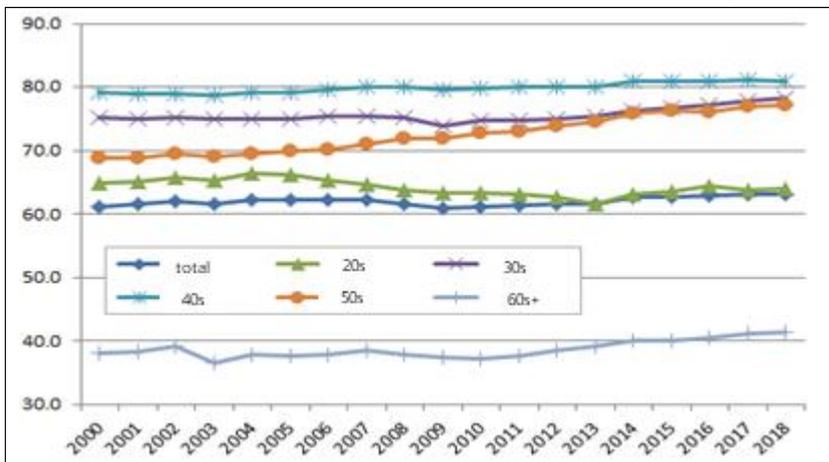
Our survey of the current working status and conditions of the

3) There is not yet a widely accepted consensus on the definition of middle-aged workers in Korea. In the context of policy research on elderly workers and the labor market, researchers' primary interest is workers aged either from 50 to 64 or from 55 to 64. While workers in their 50s and 60s are the main concern of this chapter, we will specify the ages of workers the policy should target when doing so is necessary in the given context of the discussion.

middle-aged in Korea reveals that the middle-aged in Korea are more actively engaged in the economy than ever. The economic participation rate of Koreans in their 50s has been rising rapidly, while the percentage of working Koreans in their 60s has also been growing. Whereas, in 2000, only 68.8 percent of Koreans in their 50s were working, the figure had shot up by 8.3 percentage points to 77.1 percent by 2018. This increase is all the more striking when we consider the fact that the economic participation rates of Koreans in their 30s and 40s managed to grow by 3.1 percentage points and 1.8 percentage points, respectively, over the same period of time. The economic participation rate of Koreans in their 60s also increased by 3.2 percentage points.

[Figure 3-1] Economic Participation Rates by Age

(Unit: percentage)

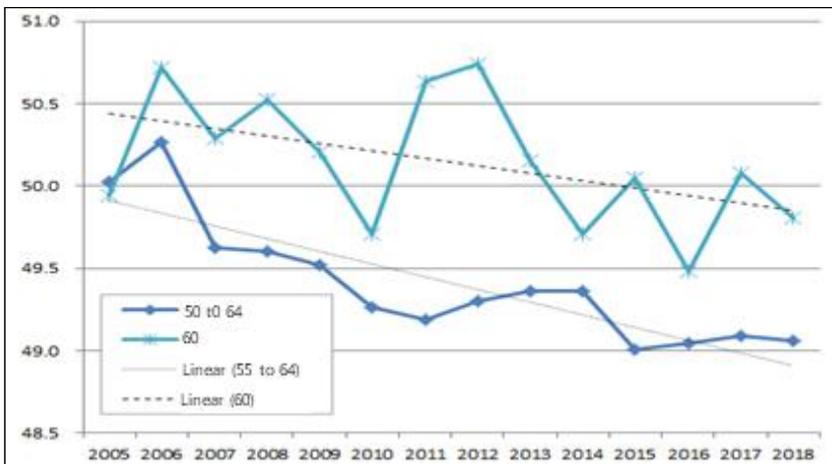


Source: Statistics Korea (each year). Economically Active Population Surveys: Addenda on the Elderly (Aged 55 to 79) (raw data reanalyzed) (https://mdis.kostat.go.kr/extract/extYearsSurvSearch.do?curMenuNo=UI_POR_P9012, retrieved on July 8, 2019).

Although Korean law stipulates a retirement age of 60, the majority of workers actually retire from their main careers before they reach that age. In fact, the average age at which workers aged 55 to 64 retired from their main careers was 49.1 years old in 2018, falling almost 11 years short of the legal retirement age. The average age at which Koreans have been retiring from their main careers has been falling over the years. As Figure 3-2 shows, the average was 50.0 years old in 2005. After some fluctuations, it dropped to 49.1 years old in 2018.⁴⁾

[Figure 3-2] Average Retirement Ages

(Unit: years old)



Source: Statistics Korea (each year). Economically Active Population Surveys: Addenda on the Elderly (Aged 55 to 79) (raw data reanalyzed) (https://mdis.kostat.go.kr/extract/extYearsSurvSearch.do?curMenuNo=UI_POR_P9012, retrieved on July 8, 2019).

4) Our survey of workers at age 60 (the legal retirement age) also revealed that the average retirement age for these workers, while slightly older than the overall average, has also been falling.

(2) Future Direction of the Middle-Aged Employment Policy

The key to managing the rapid aging of the Korean population is minimizing the retirement of middle-aged Korean workers from their main careers and the labor market altogether (Nam, 2019). This can be achieved in two ways. First, middle-aged workers should be able to work longer in their main jobs with policy support for their continued employment. Second, greater policy support is needed for the reemployment of middle-aged workers who retire from their main careers.

In order for the middle-aged to continue working longer in their main careers, the various factors that promote early retirement should be removed. One of these factors is the seniority-based wage practice that is dominant in Korea. When it was first introduced, seniority-based wages served as a powerful incentive for young workers to continue working in their respective jobs and thereby contribute to the rapid growth of the Korean economy (Nam, 2019). Now that the Korean economy is no longer growing at the same pace and Korean society is aging at an accelerated rate, maintaining the same seniority-based wage practice is likely to prompt more and more workers to retire from their main careers earlier than the law stipulates. As the increasing life expectancy in Korea also adds more working years to individuals' lives, it is high time to reform the retirement age and wage practice.

Active policy support will also be crucial to ensure the retraining and reemployment of middle-aged workers who retire from their main careers early.

2. Medical Workforce Policy

The growing percentage of seniors in the Korean population also means increases in medical costs for society. An aging society entails growing demand for medical care and medical workers. Policy responses are certainly needed to anticipate and manage that demand. In this section, we shall review whether the current policy is capable of producing the medical workers necessary to meet the anticipated increases in the demand for medical care.

(1) Medical Workforce Demand and Supply Projections

The shortage of doctors in Korea is becoming critical as medical schools continue reducing the number of students they admit, while hospitals themselves are also maintaining their rigid employment practices. Projections based on the supply of doctors (number of licensed doctors working) and the demand as of 2018, as well as the supply and demand trend over the years 2001 through 2018, forecast that there will be 8,566, 18,585, and 58,764 fewer doctors than needed by 2025, 2030,

and 2050, respectively, far greater than the Ministry of Health and Welfare (MOHW, 2017)'s projected shortage of 7,647 doctors by 2030. These projections, moreover, do not reflect the current administration's plan to enhance the coverage of the public health insurance. Also, the shortage of doctors in Korea could be far worse than those projections if the enhanced public insurance coverage lead to greater demand for medical care.

(Table 3-1) Relative Index Model Projections of Mid- to Long-Term Supply of and Demand for Doctors

(Unit: number of doctors)

Subject		2018	2020	2025	2030	2040	2050
Based on 2001	Supply (A)	124,507	130,245	144,590	158,935	187,625	216,315
	Demand (B)	146,563	155,541	180,361	209,002	266,432	323,863
	A-B	-22,056	-25,296	-35,771	-50,067	-78,807	-107,548
Based on 2018	Supply (A)	124,507	130,245	144,590	158,935	187,625	216,315
	Demand (B)	124,507	132,117	153,156	177,520	226,299	275,079
	A-B	0	-1,872	-8,566	-18,585	-38,674	-58,764

Nurses are therefore expected to be in oversupply in the future. Our projections forecast that there will be 528,000, 673,000, and 1,771,000 nurses in Korea by 2025, 2030, and 2050, respectively, far surpassing the clinical demand figures of 258,000, 280,000, and 370,000, respectively. In consequence, the employment rates of nurse trainees are expected to rise from 42.9 percent in 2010 to 51.9 percent in 2020, and then fall to

29.8 percent and 20.9 percent, respectively, by 2040 and 2050. However, our projections include only nurses hired by medical/clinical institutions and do not include nurses active in non-clinical fields. The overall supply and demand projections may change somewhat depending on the demand for nurses in non-clinical fields.

〈Table 3-2〉 Long-Term Supply of and Demand for Nurses

(Unit: number of nurses)

Subject	2000	2010	2020	2030	2040	2050
Supply (A)	160,295	270,274	425,439	672,998	1,091,975	1,771,785
Demand (B)	65,707	116,071	220,741	280,538	325,456	370,374
B/A (%)	41.0%	42.9%	51.9%	41.7%	29.8%	20.9%

(2) Future Direction of the Medical Workforce Supply and Demand Policy

The policy implications of our projections of future medical workforce supply and demand, in light of population aging, can be summarized as follows.

As the admissions of medical schools play the decisive role in doctor supply, it is necessary to increase the gross admissions of all medical schools in Korea to at least 4,000 to 5,000 by 2020. To stem the shortages of doctors more effectively, admissions should be increased to 6,000. One way to increase admissions is to foster diversity in the education and training of future doctors.

Also, legal flexibility should be given to medical schools so that they may introduce new departments. In addition to increasing the admissions of existing schools, public medical schools should be added to national universities outside Seoul to increase the number of future doctors working in public medicine. As doctors in Korea typically undergo six to 10 years of training before they become fully licensed practitioners, it is crucial to start increasing the supply of available doctors as soon as possible.

〈Table 3-3〉 Change in Admissions of Medical Schools and Projections of Doctor Supply and Demand

(Unit: number of doctors)

Reference point	Admissions level	2025	2030	2040	2050
Based on 2001	Present	-35,771	-50,067	-78,807	-107,548
	4,000	-35,771	-41,866	-58,486	-75,107
	5,000	-35,771	-36,866	-43,486	-50,107
	6,000	-35,771	-31,866	-28,486	-25,107
Based on 2018	Present	-8,566	-18,585	-38,674	-58,764
	4,000	-8,566	-10,384	-18,353	-26,323
	5,000	-8,566	-5,384	-3,353	-1,323
	6,000	-8,566	-384	11,647	23,677

Note: Supply-demand difference = supply - demand

The demand for nurses in Korea is also growing thanks to the recent integration of nursing and care services and increasing number of services involving nurses visiting patients in their homes. The Korean government has also begun to implement measures to increase hospitals' demand for nurses. While both

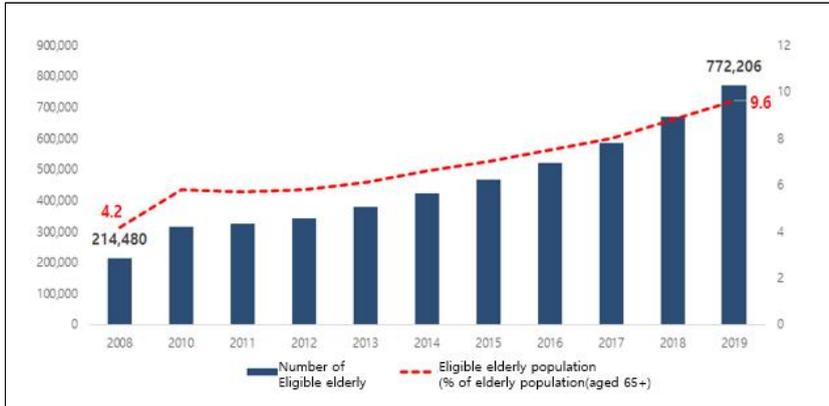
supply and demand are growing, nursing colleges in Korea have also radically increased their admission capacity in recent years, while the rate of increase in demand thanks to the integration of nursing and care services will likely decline once the service program comes to an end. It is therefore important to increase chronic disease management services and nursing homes at the local level in order to ensure the employment of the increasing number of nurses.

3. Long-Term Care Policy

(1) Long-Term Care (LTC) Policy Today

The number of seniors eligible to receive government-subsidized long-term care (LTC) has increased dramatically since the Long-Term Care Insurance for Seniors (LTCIS) was introduced in 2008. Specifically, the percentage of eligible seniors more than doubled from 4.2 percent of the elderly population in 2008 to 9.6 percent, or 772,000, in 2019, reflecting the policy efforts that have been made over the years to expand the reach of the LTCIS.

[Figure 3-3] Number of LTCIS-Eligible Elderly



Source: NHIS (each year). LTCIS Statistics Yearbooks. Retrieved from <https://www.nhis.or.kr/menu/boardRetriveMenuSet.xx?menuId=F332a> on October 15, 2019.

The number of LTC providers in Korea was 24,953 in 2019, of which 5,543 were residence-type facilities and 19,410 were agencies providing services for seniors in their own homes. The majority of LTC providers in Korea are either individuals or corporations. Public providers make up only 2.1 percent of residence-type facilities and 0.7 percent of agencies providing at-home care.

<Table 3-4> LTC Providers (2019)

Subject	Residence-type facilities			Agencies providing at-home care						
	Subtotal	Nursing homes	Group homes	Subtotal ¹⁾	Care at home	Bathing at home	Nursing at home	Day/night care	Short-term care	Equipment rental
Total	5,543	3604	1939	19,410	15,305	11,121	795	4,179	162	1,975
Individuals	4,060	2303	1757	16,641	13,496	9,879	661	1,010	121	1,701
Corporations	1,354	1188	166	2,554	1,718	1,184	127	3,035	36	262
Local governments	114	104	10	134	30	17	3	120	5	-

Note: 1) The subtotal for agencies providing at-home care does not include agencies in overlapping categories.

Source: NHIS (each year). LTCIS Statistics Yearbooks. Retrieved from <https://www.nhis.or.kr/menu/boardRetrieveMenuSet.xx?menuId=F332a> on October 15, 2019.

There were 492,000 workers providing LTC, 90 percent of whom were professional care workers. The total also includes social workers, nurses, and nurses' aides.

<Table 3-5> LTC Workforce

Subject	Social workers	Doctors (incl. part-time)	Nurses	Nurses' aides	Physical/occupational therapists	Care workers	Nutritionists	Total
Overall	26,395	2,358	3,312	12,054	2,350	444,525	1,131	492,132
Agencies	19,610	104	1,793	4,567	361	377,726	69	404,237
Facilities	6,831	2,324	1,582	8,301	2,114	73,082	1,067	95,301

Source: NHIS (each year). LTCIS Statistics Yearbooks. Retrieved from <https://www.nhis.or.kr/menu/boardRetrieveMenuSet.xx?menuId=F332a> on October 15, 2019.

Population aging and the increasing late-stage senior population are expected to increase the demand for LTC radically in the coming years. The growing demand, in turn, will require increasing the number of LTC providers and workers, particularly in innovative ways as the consistent drop in birth rates will mean that there will be fewer and fewer new workers entering the field.

(2) Future Direction of LTC Policy

As the elderly population will continue increasing, in terms of its size and percentage of the total population, in Korea, it will be crucial to train the medical workforce and ensure a sufficient supply of medical workers so that the growing demand for medical and nursing care can be met in a reliable manner.

Policy efforts are especially needed to increase public LTC providers. The vast majority of LTC providers today are for-profit private operators. The shortage of public LTC hinders the realization of the public value of LTC. Public LTC providers should thus be substantially increased in the future to meet the growing demand, both in quantity and quality.

The increasing number of seniors in need of LTC also requires increasing the workforce catering to them. Aged societies worldwide have already experienced the difficulties of producing sufficient care workers and launched various measures to solve the

problem. Japan, for example, has begun to source more care workers from abroad. Regions in Korea that are already more aged than others and have comparatively smaller under-64 populations than populations in need of care will struggle to find adequate numbers of care workers in the coming years. The Korean government, too, should consider officially allowing more international workers to work in care services. These foreign workers should be concentrated in underserved regions and given systematic language and other skills training. Proper measures for managing these workers should also be established.



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IV

Conclusion

IV Conclusion

The number of newborns in Korea will continue falling, while the rest of the population continues aging at an accelerated rate. The absolute size of the elderly population will increase, and seniors in the future will have characteristics different from those of seniors today. Demographic changes are entwined with social changes at large, requiring diverse policy measures for concerted structural responses. Policymakers should thus design policies that have room for flexibility and growth, while closely monitoring demographic changes, so as to help individuals adapt to social changes while also respecting their freedom of choice.

It is individuals who decide whether to bear and raise children. Macro-level socioeconomic factors nonetheless play a decisive role in shaping those decisions. The decline in birth rates and the resulting downsizing of the population, in turn, affect individuals' values and attitudes and the socioeconomic environment at large alike. Effective responses to the consequences of the falling birth rates and shrinking population will require concerted efforts across all disciplines, including childcare, education, and labor. Education is central to enhancing the productivity of the workforce. Investment is there-

fore needed to improve the quality of education. Policy support for perinatal care, for both the mother and the baby, and for the health of children and youth is also essential to the health of the overall population. In order for the diverse policy programs addressing the falling birth rates to have the desired effects, it is important to ensure the continuity of those programs.

Population aging is another major factor expected to transform the structure of the Korean population profoundly. Social policy responses to population aging should especially focus on improving quality of life for seniors. Middle-aged employment, medical care, and LTC are critical areas of in which preparations need to be made for the future and where policy responses are most needed, given the increasing life expectancy and aging of the population in Korea.

Policy efforts aimed at minimizing middle-aged workers' early retirement from their main careers or even the labor market will carry great significance for both individuals' lives and the productivity of the society as a whole. Reforms are needed to enable middle-aged Koreans to work longer in their main careers, and to ensure their swift and effective reemployment when they do retire from their main careers.

The growing elderly population is expected to raise the demand for medical and long-term care dramatically in the coming decades. In preparation for this, policy action based on long-term

perspectives is necessary now. It is particularly important to ensure the reliable supply of medical workers in anticipation of the rapidly growing demand. Equally important is to increase public LTC providers and secure more care workers in order to ensure the reliable management of LTC in Korea.

Low birth rates and population aging are phenomena experienced by all high income countries worldwide. However, the rate of decrease in birth rates is especially high in Korea compared to other countries. The Korean population and society are aging at an unprecedented rate. Demographic changes and policy responses are therefore expected to exert transformative effects on all areas of policymaking, including economics, finance, social security, transportation, and the urban environment. Active efforts are needed to minimize and counter the adverse effects of these demographic changes in all these areas.

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