



United Nations
Educational, Scientific and
Cultural Organization

UNESCO Bangkok
Asia and Pacific Regional
Bureau for Education



Secondary Teacher
Policy Research in Asia

Secondary Education
and Teacher Quality
in the Republic of Korea



United Nations
Educational, Scientific and
Cultural Organization



UNESCO Bangkok
Asia and Pacific Regional
Bureau for Education



Secondary Teacher Policy Research in Asia

Secondary Education and Teacher Quality in the Republic of Korea

Ee-gyeong Kim
Jae-woong Kim
You-kyung Han

Kim, Ee-gyeong; Kim, Jae-woong; and Han, You-kyung.

Secondary Teacher Policy Research in Asia: Secondary education and teacher quality in the Republic of Korea. Bangkok: UNESCO Bangkok, 2009. 34 pp.

1. Secondary education. 2. Educational policy. 3. Teacher qualifications. 4. Korea, Republic of.

ISBN 978-92-9223-284-9 (Print version)

ISBN 978-92-9223-285-6 (Electronic version)

Co-ordinator: Miki Nozawa

Editors: Gerry Fry, Ibtisam Abu-duhou and Miki Nozawa

Copy-editing: Daniel Calderbank

Design/Layout: Pongsuda Vongsingha and Sirisak Chaiyasook

© UNESCO 2009

Published by

UNESCO Bangkok

Asia and Pacific Regional Bureau for Education

Mom Luang Pin Malakul Centenary Building

920 Sukhumvit Road, Prakanong, Klongtoey

Bangkok 10110, Thailand

Printed in Thailand

The views and opinions expressed in this publication are those of the authors and do not necessarily represent the views of UNESCO. The designations employed and the presentation of material throughout the publication do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area or of its authorities, or concerning its frontiers or boundaries.

EPR/09/OP/043-800

Foreword

With the gradual attainment of universal primary education, governments are shifting their attention to secondary education. Responding to the increasing demand for secondary education presents serious challenges and major opportunities in the quest for Education For All (EFA), and countries are striving to find policy responses to address these emerging issues.

It is clear that teachers play a fundamental role in addressing challenges faced by secondary education. Ensuring the presence of competent secondary teachers in urban and rural areas is a major concern in both quantitative and qualitative terms. Existing studies on teacher-related issues and analyses of teacher policy in developing countries tend to focus on primary education, probably due to the special emphasis given to primary education in the EFA process. In order to fill the gaps and respond to the increasing demand for quality secondary education, the Education Policy and Reform (EPR) unit of the UNESCO Asia and Pacific Regional Bureau for Education (UNESCO Bangkok) coordinated a regional research study on secondary teacher policy and management in 2007 and 2008.

This series includes a regional synthesis paper on comparative assessment of issues and policies affecting secondary teachers in East and South-East Asia, and five case studies: Lao People's Democratic Republic, Malaysia, People's Republic of China, Republic of Korea, and Thailand. Three major areas related to secondary teachers are discussed in the case studies: quantitative analysis of demand and supply of secondary teachers, quality of secondary teachers, and compensation. Each study is presented as a summary of the original study, and gives an overview of the status and issues of the country's secondary education system. Researchers and officials from several universities and education ministries collaborated in the preparation of the study. UNESCO Bangkok would like to sincerely thank all those individuals and institutions who provided their expertise and professional experience to this research.

The findings presented in the series are intended to help governments gain insight into policy for secondary teachers across a diverse range of countries, and draw lessons for possible policy responses to challenges and problems in the expansion of secondary education.



Gwang-Jo Kim
Director
UNESCO Bangkok




Acknowledgements

This publication is part of a series of case studies on secondary teacher policy and management initiated and coordinated by the Education Policy and Reform (EPR) unit at UNESCO Bangkok.

The study on the Republic of Korea was prepared by Ee-gyeong Kim, Chungnam National University, Jae-woong Kim, Sogang University, and You-kyung Han, Ewha Woman's University, in the Republic of Korea. Eun-young Kim provided the study team with research assistance.

This publication is presented as a summary of the original study, and edited by UNESCO Bangkok's EPR unit with the assistance of Gerry Fry, University of Minnesota, USA.

The Korean study was sponsored jointly by the Government of Japan under Japanese Funds-in-Trust for the Education for All programme, the Korean Educational Development Institute (KEDI), and UNESCO.



Contents

List of Tables and Figures	i
List of Abbreviations.	ii

Section 1: Brief Overview of Korea's Development Context

1.1 Historical, Cultural, and Social Context	1
1.2 Modern Economic Development.	1
1.3 Demographic Context.	2

Section 2: Overview of Secondary Education Development in Korea

2.1 The Sequential Expansion of Korean Education	3
2.2 Basic Contemporary Data on Secondary Schools	4
2.3 The Evolution of the Policy and Administrative Structure of Secondary Education	5
2.4 The Financing of Korean Education	7
2.5 Academic Achievements of Korean Secondary School Students	8

Section 3: Policy Issues Related to Quantitative Aspects of Secondary Teachers

3.1 Secondary School Teacher Profile.	10
3.2 Demand and Supply of Teachers	11
3.3 Policy Variables Influencing the Demand for Teachers	12
3.4 The Projected Demand for and Supply of Secondary Teachers by 2020	12
3.5 Policy Implications.	14

Contents

Section 4: Quality of Secondary Teachers

4.1	Defining Quality Teachers	15
4.2	Significance of Teacher Quality Assurance in the Korean Context	15
4.3	Initial Education for Secondary Teachers	16
4.4	Recruitment of Secondary Teachers.	18
4.5	In-Service Education for Secondary Teachers	19
4.6	Teacher Evaluation and Promotion	21
4.7	The Korean “Paradox”: High Student Achievement, but Dissatisfaction with Teachers	23

Section 5: Teacher Compensation

5.1	The Structure of Teacher Salaries	25
5.2	Teacher Salaries over Time and in Comparison with Other Sectors	26
5.3	The Korean Teacher Salary System: Strengths and Weaknesses	28

Section 6: Conclusions, Discussion and Policy Implications

6.1	Quantitative Aspects of Policy Issues Related to Secondary Education and Teachers.	29
6.2	Major Quality Issue: “The Korean Paradox”.	30
6.3	Teacher Compensation	31
6.4	The Future of Secondary Education and Teachers in Korea	31

References	32
----------------------	----

List of Tables and Figures

Table 1:	The Distribution of Public Expenditure by School Level (1963-2006)	8
Table 2:	Korean Students' Achievement Level in Different Domains of PISA 2003	9
Table 3:	Estimated Number of Secondary School Teachers Needed (2007-2020).	13
Table 4:	Statutory Secondary Teacher Salaries in Equivalent US Dollars (PPP) (1999-2004).	25
Table 5:	Comparison of Secondary Teacher Salaries with Those of Other Professional Jobs in Korea (2001-2005)	27
Figure 1:	Quantitative Expansion of Korean Education over Time	4
Figure 2:	The Number and Percentage of Student Enrolments (1965-2007)	5
Figure 3:	Estimated Number of Secondary School Teachers Needed (2005-2020).	13
Figure 4:	Potential Supply and Actual Employment of Secondary Teachers (1970-2005).	14
Figure 5:	Promotion-Purpose Teacher Evaluation Scheme.	22
Figure 6:	Total Salary of Teachers vis-à-vis GDP per Capita (1985-2006).	26

List of Abbreviations

GDP	Gross Domestic Product
KEDI	Korean Educational Development Institute (established in 1972)
KEIS	Korea Employment Information Service
KSAT	Korean Scholastic Test
MOL	Ministry of Labour
MOEHRD	Ministry of Education and Human Resource Development
OECD	Organization for Economic Co-operation and Development
PISA	Programme for International Student Assessment
PPP	Purchasing Power Parity (adjusts economic data for differential costs across countries)
V	Coefficient of Variation (a measure of inequality)

Section 1

Brief Overview of the Republic of Korea's Development Context

1.1 Historical, Cultural, and Social Context

During its 5,000-year history, Korea, which is a peninsula, has experienced frequent invasions by external forces. Despite this, it has managed to preserve a relatively strong homogenous culture in terms of ethnicity, language, and culture. Strongly influenced by Confucianism, Korean society has traditionally emphasized hierarchy, obedience, and loyalty. Moreover, a reverence for education in the humanities has resulted in a culture of deep respect for scholars and teachers.

Koreans view a good education as the key to upward social mobility. The level of educational attainment not only provides direct economic benefits, but also deeply influences social status, occupational opportunity, social life, choice of a spouse, and a range of interpersonal relations (Lee and Hong, 2002). This social context helps explain the intense interest in education present at an individual, social, and national level, which Oh (2000) and Seth (2002) describe as “education fever”.

1.2 Modern Economic Development

As of 2007, the Republic of Korea (hereafter referred to as Korea) was the 13th largest economy in the world with a GDP per capita (based on purchasing power parity, PPP) over USD\$26,000. This illustrates a drastic contrast to the economic situation of the 1950s and early 1960s, when GDP per capita was less than USD\$100. After the end of the Korean War (1950-1953), Korea began a rapid development process which transformed the nation into a wealthy developed state. This remarkably quick developmental process is now referred to as the “Miracle on the Han River” (Euromoney, 1977). The country also was successful in achieving growth with equity (Chenery, 1974; Chowdhury and Islam, 1993).

The government adopted an outward-looking export-driven development strategy to stimulate the small domestic market and compensate for the nation's lack of natural resources. By the mid-1990s, Korea was experiencing high economic growth at an unprecedented rate, undergoing rapid modernization and industrialization. Although Korea experienced a national

economic downturn as part of the Asian economic crisis and foreign currency declines in 1997, it recovered from the ordeal through extensive financial reforms. Currently as part of the world economic crisis of 2008-2009, Korea's currency has again dropped significantly by 33 percent.

Korea also has experienced significant social and political development. Prior to 1987, Korea's political system was dominated by authoritarian military governments. It elected its first civilian leader in 1993. Since then, political awareness and participation has increased, resulting in a more developed civil society allowing Korea to blossom into a full-fledged democracy. Korea provides an interesting example of economically and educationally driven democratization. Korea's rapid economic development as described above contributed to the expansion of education and the creation of a middle class that demanded democratization (Oh, 1999).

1.3 Demographic Context

Demographically, Korea's exceptionally low fertility rate poses special challenges. As of July 2008, the national population stood at 48.4 million, with a fertility rate of 1.13, one of the world's lowest and the lowest among Organization for Economic Co-operation and Development (OECD) countries. This will contribute to a rapid graying of the population. There are a number of different causes for the low fertility rate such as an increase in the proportion of unmarried individuals, an increase in women's participation in economic activities, changes in the peoples' attitudes toward marriage and offspring, and rapid urbanization. In addition, the burden of additional educational expenses is often referred as one of the important reasons that young couples tend to have few children. The prestige and importance of education in Korean society has led to excessive spending on education. The pressure of college entrance examination results in intense competition for limited places, thus creating a huge demand for private tutoring and significantly increasing the cost of a child's education (Kim, M., 2006). Therefore, married couples choose to bear fewer children to reduce their economic burden, and this fewer number of children enables parents to intensify their interest in education. Hence the spending in private tutoring increases further, contributing to a vicious circle.

Section 2

Overview of Secondary Education Development in Korea

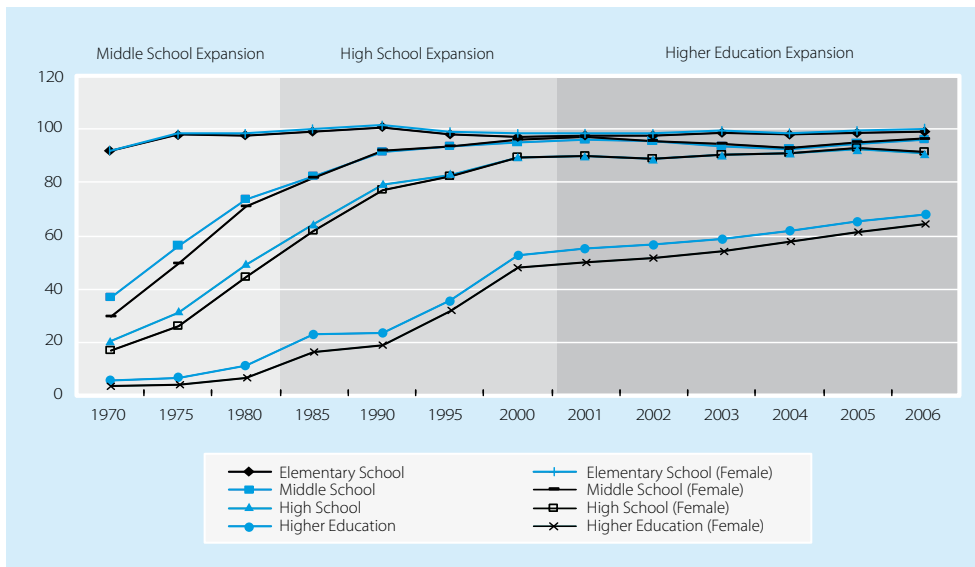
2.1 The Sequential Expansion of Korean Education

Education has played a pivotal role in Korea's economic development. Lacking natural resources, Korea focused on developing its human capital through a series of educational policies supporting the quantitative expansion of educational opportunities. The development process was led by the central government. The educational policy was designed to facilitate the dynamic economic developmental stages of the nation, supplying the nation's major industries with a trainable, well-educated, and highly motivated work force (KEDI, 1998). The approach to educational expansion was sequential and efficient. For example, primary education was universalized before secondary education expanded, and a massive expansion of secondary education preceded that of higher education.

Figure 1 shows the sequential expansion of Korean secondary education over time, built upon the solid base of universal primary education. As shown in the Figure, the enrolment rate of primary school students in 1970 was 97.8 percent, illustrating nearly full enrolment of children among the eligible population. The enrolment rate of middle school students (lower secondary level) also increased rapidly during the 1980s, increasing from 82 percent in 1985 to over 90 percent in 1990. It was only after the expansion of middle schools that high schools (upper secondary level) expanded from 50 percent enrolment rates in the 1980s to over 90 percent after the year 2000.

The remarkable success in terms of quantitative achievements was made possible through education policies seeking efficiency through uniform and standardized management. Factors such as a social demand for education, dedicated teachers, large school size, over-crowded classrooms, inferior educational conditions, and partnership with the private sector are often mentioned as unique features of Korean education that contributed to the rapid growth and development of secondary education.

Figure 1: Quantitative Expansion of Korean Education over Time



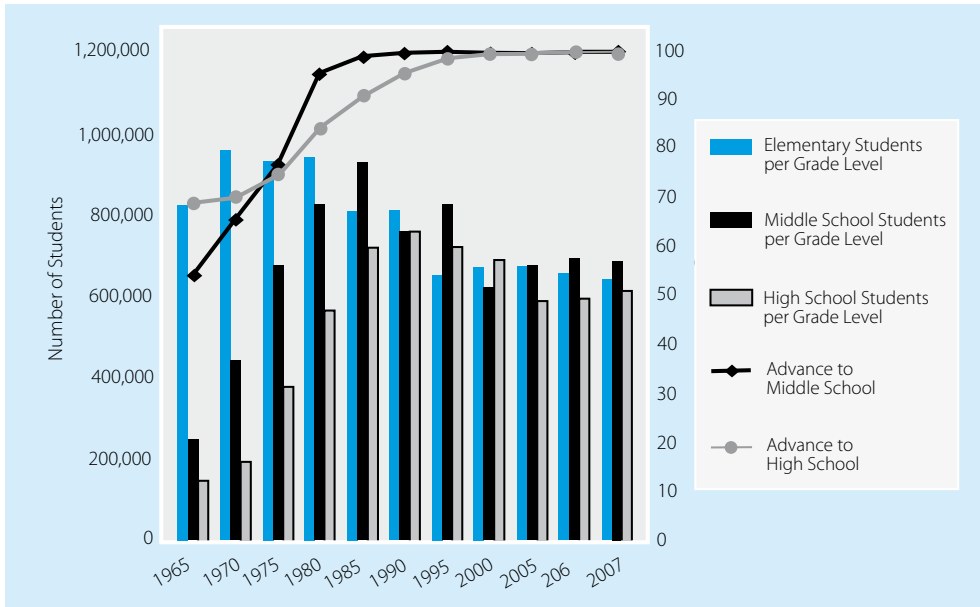
Source: Ministry of Education and Human Resource Development (MOEHRD) and Korean Educational Development Institute (KEDI) (2007).

2.2 Basic Contemporary Data on Secondary Schools

Korea's current education system is based on a 6-3-3-4 ladder structure consisting of six years of elementary school, three years of middle school, three years of high school, and typically four years of college or university education. In 2007, there were 3,032 schools, 107,986 teachers, and 2,063,159 students at the middle school level and 2,159 schools, 120,211 teachers, and 1,841,374 students at the high school level. Compared with other countries, the proportion of private schools at the secondary school level is rather high. In 2007, 21.5 percent of all middle schools and 43.6 percent of all high schools were private, while only 1.4 percent of elementary schools were private. The proportion of private middle schools decreased from the 1970s to the year 2000 due to government-mandated building of more public schools to make middle school education free and compulsory.

The enrolment rate in secondary schools is extremely high, showing 95.9 percent at the middle school level and 91.0 percent at the high school level in 2007. The advancement rate is also extremely high. That refers to the percentage of the students among the total number of students who graduate and go on to the next higher level of education. The rate of middle school graduates who advance to high school continued to rise from 70.1 percent in 1970 to 95.7 percent in 1990; it reached 99.7 percent in 2006, as indicated in Figure 2.

Figure 2: The Number and Percentage of Student Enrolments (1965-2007)



Source: MOEHRD and KEDI (2007).

The rate of students graduating from high school who advance to higher education was a mere 26.9 percent in 1970, which increased to 26.4 percent, 51.4 percent, and 82.2 percent in 1985, 1995, and 2007, respectively. There are no significant gender differences in enrolment and advancement rates indicating successful achievement of gender parity. Moreover, there have been no significant dropout problems in secondary education.

2.3 The Evolution of the Policy and Administrative Structure of Secondary Education

The period of compulsory education in Korea is nine years, that is, completion of elementary and middle school. In 1954, right after the Korean War, free and compulsory elementary education was implemented, financed by international aid. By the late 1960s, elementary education was free to all eligible school-aged children. Compulsory middle school education became free in 1985, beginning in rural regions, and then finally expanding to cover the entire country by 2004.

The increase in elementary student enrolment subsequently caused an increase in the demand for secondary education. The combination of a limited supply and a high demand resulted in intense competition for entrance into elite schools, with grade repetition and private tutoring at the elementary level soaring. As these issues received much public attention, the Korean

government addressed these problems through two different measures: the removal of student flow barriers and the capacity increase of secondary schools through a combination of public financing and privatization.

With respect to the removal of student flow barriers, entrance exams for middle schools were abolished in 1968, and a lottery system was introduced for student placement. This system was perceived as fair because placement was based on residence rather than test scores. Both students and parents welcomed the new system, as it led to a reduction in the competitive nature of elementary education. The government strived to equalize middle schools in terms of school resources such as facilities and teacher quality. In 1974, the equalization policy was also introduced across high schools, aiming for more equal operation of expenditure, student intake, class size, and education facilities. The new admission system replaced the individual high school's own entrance exam with a locally standardized test. The changes in the high school system mirrored the changes that had occurred earlier in the middle schools.

The capacity increase of secondary schools was made possible through a creative combination of public financing and privatization. Beginning in the 1950s, the government passed laws to secure public revenue for education. Legislative actions were taken to secure a fixed percentage of funds for education. According to the Grants for Financing Local Education Law (1982), 12.98 percent of domestic tax revenues were earmarked for local education. The secured financial resources were used to improve educational conditions.

Secondly, privatization contributed to the expansion of secondary schools, resulting in a large proportion of secondary schools, particularly private high schools. The government has played a mixed role with respect to promoting private secondary schools. On one hand, the government has tried to foster private initiatives in providing education. This was done through various tax incentives, subsidies, and loans. The government, for example, provided subsidies to private secondary schools to support teacher salaries. On the other hand, the government has tightly managed the private schools by administering a set of norms and standards related to, for example, tuition fees, curriculum, student selection, teacher recruitment, and facilities.

As middle school education became free and compulsory nationwide in 2004, private middle school students have not had to pay tuition. However, high school students are required to pay tuition fees. Both private and public high schools charge the same amount of tuition fees. In terms of student selection, the same admission policy is used regardless of the school's status as public or private. As primary and middle school graduates are assigned to middle and high schools through a lottery system, there is little distinction between public and private schools from the standpoint of a student. The ownership along with the authority to hire teachers is the major difference that distinguishes private from public schools.

During the expansion periods, the highly centralized governance structure of the Korean education system helped facilitate efficient operation of the school system through top-down administrative orders and regulations. While sacrificing diversity and autonomy, national education policies were implemented at the individual school level without much resistance. Areas such as curriculum, personnel management, school financing, and educational

decision-making all benefited from the centralized structure which made rapid decision making possible. However, the structure has led to criticism that quantitative expansion was pursued at the expense of qualitative deterioration.

One of the most serious concerns relates to the lack of decentralization and autonomy in educational management. The educational administrative system is comprised of a three-level structure of central, intermediate, and the local levels. Centralizing tendencies remain strong in the allocation of authority and responsibility. The relationship between the educational authorities and individual schools is also characterized by its strong top-down nature. Although school-based management has been implemented since the mid-1990s, the scope of autonomous decision making authority of schools in curriculum management, personnel decision, and educational finance remains limited.

Korea adopts a national curriculum. Namely, the goals and contents of education are determined at the national level, and the school curriculum is organized and implemented at the individual school level only within the framework provided by the central government. Although recent curriculum adjustments adopted since 1997 have extended the autonomy of schools in curriculum management, the primary centralizing tendency still remains.

Teacher policy is also within the jurisdiction of the central administration, therefore restricting the authority and autonomy of the individual schools in personnel management of teachers, such as hiring, dismissing, and rewarding teachers. Since teachers are hired by the intermediate level education authorities and assigned to schools, schools have little voice in the staffing decision-making process.

2.4 The Financing of Korean Education

Investment in education in Korea and the related dramatic expansion of secondary school enrolments have made a positive contribution to economic growth (McMahon, 1995). The positive effects of public investment in secondary education were made possible due to Korea's universal primary education as well as high rates of investment in physical capital and a highly successful export-oriented growth strategy.

These two facts, the timely supply of human resources and the off-setting of diminishing returns to physical capital through increasing human capital, indicate that Korean education policies have been successful from an economic point of view. As mentioned earlier, educational quantitative expansion was also made possible due to the high degree of cost recovery from students and parents in secondary education, given the government's budget constraints. Contributions from the private sector (i.e. private foundations which established many schools) and households contributed importantly to the successful implementation of national education development policies. In 2006, government funding contributed only a little over 50 percent of the costs of Korean education.

Table 1 shows the distribution of public expenditure in education by school level since 1963. Total public spending on education has increased dramatically over time with the sequential education expansion strategies. There appears to be a strong relationship between education investment priorities and the successive stages of economic growth. Korea put great

emphasis on primary education at a very early stage of development, prior to its high growth phase. Having achieved universal access to primary education and a minimum threshold of per capita income, the emphasis was shifted to secondary education and eventually higher education, thus further facilitating economic growth. The same pattern of shifting investment priority was found in other “advanced Asian economies” such as Japan, Singapore, and Taiwan, China (Paik, 1999).

Table 1: The Distribution of Public Expenditure by School Level (1963-2006)

(Unit: USD, %)

Year	Total	Elementary education	Secondary education	Higher education
1963	1,110,024,323	50.4	35.3	14.3
1966	1,437,992,809	49.6	30.2	20.2
1971	3,780,600,677	46.8	37.1	16.1
1976	5,465,103,638	39.4	44.3	16.4
1981	8,307,550,761	36.5	37.4	26.1
1986	11,967,165,821	34.1	37.0	28.9
1991	16,563,356,599	30.9	40.4	28.7
1996	26,494,168,782	31.0	38.9	30.2
2001	38,737,005,076	29.5	40.5	30.0
2006	49,271,347,293	25.2	37.4	37.4

Note: 1 USD=1338.40 Korean Won as of May, 2009
 Source: MOEHRD and KEDI (2007).

2.5 Academic Achievements of Korean Secondary School Students

Despite the relatively large class size and heavy workloads for teachers, secondary school students in Korea show extremely high achievement levels, as reflected in various international student assessments. The main results of Korean students’ performance from Programme for International School Assessment (PISA) 2003 are shown in Table 2. Korea was ranked third, second, fourth, and first, in mathematics, reading, science, and problem solving, respectively. Overall, Korean students’ performance was outstanding among OECD member countries. In addition, differences between the upper 5 percent and the lower 5 percent of Korean students were smaller than the OECD average. The average score of the lower 5 percent of Korean students is at about the lower middle level of the OECD average. This indicates that not only did Korean students test well on average, but also the lowest achieving students did

not test poorly viewed from international standards (Lee et al., 2004). Based on the data in Table 2, the coefficient of variation (V), a good measure of inequality, was computed. For the Korean students' achievement it was 16.7 percent, significantly lower than the V value of 21.5 percent for OECD students.

Table 2: Korean Students' Achievement Level in Different Domains of PISA 2003

Category	Ranking	Average (Standard Deviation) for Korea	Average (Standard Deviation) for All OECD Countries
Mathematical Literacy	3/40	542(92)	489(104)
Reading Literacy	2/40	534(83)	488(104)
Scientific Literacy	4/40	538(101)	496(109)
Problem Solving Literacy	1/40	550(86)	490(106)

Source: OECD (2004).

Section 3

Policy Issues Related to Quantitative Aspects of Secondary Teachers

3.1 Secondary School Teacher Profile

Between 1970 and 2007, the number of high school teachers rapidly increased six-fold, from less than 20,000 to nearly 120,000. There was also a rapid increase in the number of middle school teachers from 1970 to 1995. In 2007, 81.6 percent of middle school teachers worked for public schools, while 18.4 percent worked for private schools.

The ratio of female to male secondary teachers has steadily increased from 14.9 percent in 1970 to 51.8 percent in 2007, reflecting gender parity. The female teacher ratio at the middle school level was 18.6 percent in 1970 increasing to 63.6 percent in 2007. For high school teachers, the female teacher ratio was 9.0 percent in 1970 and 41.1 percent in 2007. Despite their numerical dominance as teachers, however, women generally hold proportionately fewer administrative leadership positions in schools than do men.

The average age of teachers has steadily increased during the last three decades. Currently, the average age of teachers is 40.5 for middle school teachers, 41 for academic high school teachers and 42.6 for vocational high school teachers. The aging of the teaching workforce raises several concerns. First, it has budgetary implications since there is a direct link between pay and years of teaching experience. An increase in school costs due to teachers aging can limit the capacity of school systems to take on other initiatives. Second, although a more experienced teaching workforce can bring benefits to schools, additional resources may be needed to update skills and knowledge, and increase motivation among those who have been teaching for a long time (OECD, 2005).

Workload: Class Size and Student-Teacher Ratios

In 1970, secondary school classrooms in Korea were densely packed with over 60 students per class in middle schools as well as in general high schools. However, the class size was reduced significantly to 35.0 in middle school, 34.3 in general high school, and 30.0 in vocational high school as of 2007. This reduction is largely due to the Educational Condition Improvement

Project, introduced by the government in 2001. Although crowded classrooms are still common in middle schools and general high schools, they are becoming less prevalent. The number of students per class tends to be far greater in urban than in the rural and remote regions.

In 1970, the number of students per teacher was 42.3 in middle school, 32.2 in general high school, and 27.5 in vocational high schools. It is now less than half of that at 19.1, 16.1 and 13.5 students to each teacher in middle school, general high school, and vocational high school, respectively.

The average weekly instructional hours are 20 hours for middle school and 17.7 hours for high school teachers. However, there are differences between regions and school size; it appears that the workload of teachers in schools is heavier if the school is either located in a metropolitan area or is a large-sized school.

Teachers undertake numerous other duties in addition to classroom instruction, such as student guidance, participation in school management, document processing, and parental consultation. Among these duties, document processing was criticized due to its unprofessional nature. Thus, many claim that teachers' instructional load should be decreased and miscellaneous chores reduced, if instructional quality is to be improved. The government is also preparing a plan to hire more administrative staff to assist in freeing teachers from excessive clerical responsibilities.

3.2 Demand and Supply of Teachers

A major quantitative issue exists in the balance between the demand for and supply of teachers. In this section, future demand for and supply of teachers is projected.

The projected demand and supply of secondary teachers is based on the study conducted by KEDI, the Korean Educational Development Institute (Kim, H., Kim, E., and Han, 2008). According to the authors, in addition to the population change, three policy variables were considered in the projections: the class size reduction policy, the reduction of instructional hours of teachers, and the policy to eliminate Saturday classes. While the first two policies are likely to increase the need for teachers, the Saturday-off policy would decrease the need for teachers.

Estimating the Demand for Secondary Teachers: Estimating the School-Age Population

The variable that exerts the greatest influence upon the future demand for teachers is Korea's low fertility rate of 1.13 children per mother, the lowest among the OECD countries. The most direct effect of low fertility is the decrease in the school age population. The school age population for secondary school level is expected to decrease starting from 2009, so that the years 2015 and 2020 will see a reduction of 14 percent and 30 percent, respectively, vis-à-vis 2005, with a projected enrolment of 2.7 million secondary students in 2020. The decline in the school age population will reduce the demand for teachers.

3.3 Policy Variables Influencing the Demand for Teachers

Reducing the Number of Students per Class

As mentioned earlier, the number of students per class in Korea's elementary and secondary schools is quite high compared to those of other OECD member countries. The OECD average was 24.1 students per class in 2004, while the average was 35.5 for Korea in the same year (OECD, 2006). The figure itself represents a reduction in the original class size facilitated by the government's intensive investment in class size reduction. The current situation implies that the policy for reducing the number of students per class is likely to continue. Therefore, increases in the number of teachers are needed. Consequently, the government has initiated a plan to reduce gradually the number of students per class over a 15-year period until 2020.

Reducing the Instructional Hours of Teachers

Over the next 15 years, the Ministry plans to reduce the instructional hours of teachers to the average level of OECD countries, a plan which will require an increase in the number of teachers. The goal established for 2020 is 17 hours for middle school and 15 hours for high school.

Eliminating Saturday as a School Day

Since 2006, alternate Saturdays have been designated as a rest day for students of grades higher than elementary third grade. The rest day is expected to be extended to every Saturday at the elementary and secondary school levels in the near future. This will reduce the number of school days and subsequently the number of teachers required.

3.4 The Projected Demand for and Supply of Secondary Teachers by 2020

Estimations suggest that the lowest number of middle school teachers needed will occur in 2016, at 94,335. The demand is forecasted to increase from 2017 and is set to reach 104,625 in 2020. The number of teachers was at a peak in 2007, with 108,150. As shown in Table 3 and Figure 3, the number of high school teachers needed is estimated to be at a minimum in 2019, at 105,642.

An estimation of future teacher supply requires a review of employment and retirement statistics. About 7,300 new secondary school teachers have been employed every year for the last five years, with an annual average of 3,000 retirements. Mid- and long-term estimation of the employment size of secondary school teachers is based on the total estimated number of the required teachers in middle and high schools, while taking into account the annual retirement rate.

The estimated number of secondary school teachers will be the lowest in 2019, at 206,859, which is about 13,500 less than the number of secondary school teachers (220,246) in 2005. The decrease by a total of 13,500 over a 14-year period from 2005 to 2019 means a yearly decrease

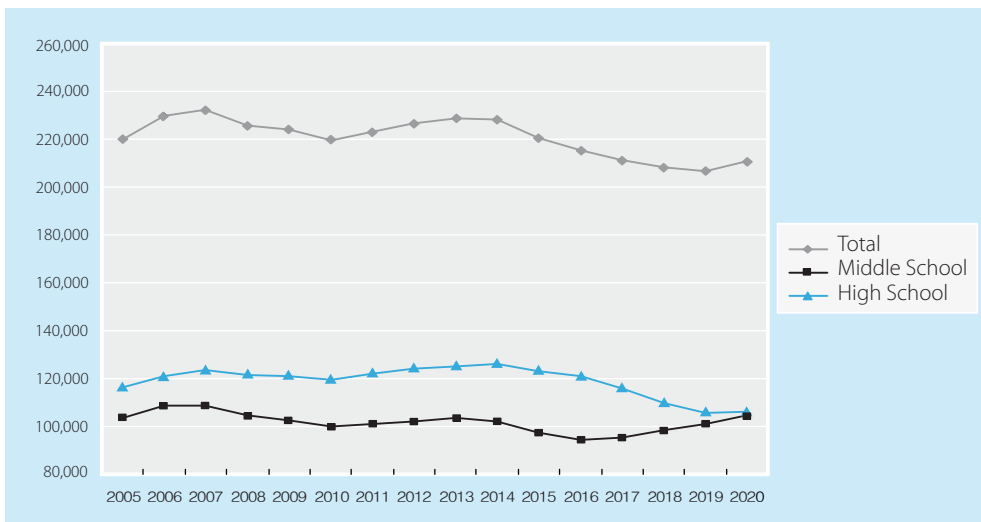
Table 3: Estimated Number of Secondary School Teachers Needed (2007-2020)

(Unit: persons)

Category	2007	2008	2009	2010	2011	2012	2013
Middle School	108,150	103,882	101,991	99,175	100,123	101,666	103,348
High School	123,254	120,647	120,442	118,480	121,456	123,616	124,837
	2014	2015	2016	2017	2018	2019	2020
Middle School	102,078	97,391	94,335	95,418	98,269	101,217	104,625
High School	126,072	123,181	120,882	115,738	109,753	105,642	106,137

Source: Kim, H. et al. (2008).

Figure 3: Estimated Number of Secondary School Teachers Needed (2005-2020)



Source: Kim, H. et al. (2008).

of about 1,000 teachers. In 2005, the total number of retiring secondary school teachers is 2,783. Therefore, to match the number of secondary school teachers to the minimum estimated needed by 2019, the number of newly employed teachers for the next 13 years from 2006 to 2019 should be limited to only 1,800 every year, on average.

This comprehensive investigation into teacher numbers and demand shows that secondary school teachers are being oversupplied. Economic conditions in recent decades as well as the relative social popularity of the teaching profession, have, despite minor fluctuations, resulted in a chronic oversupply.

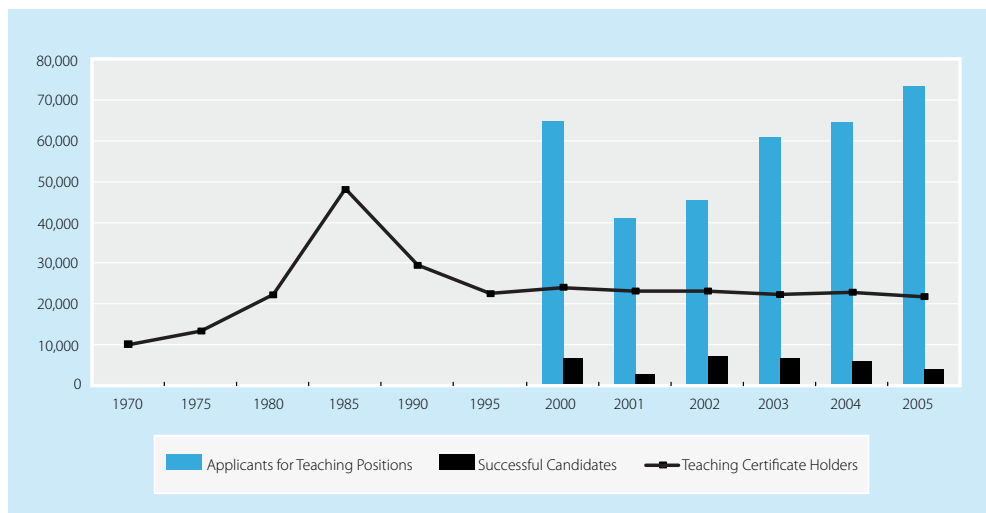
3.5 Policy Implications

The issue of oversupply is due largely to the special demographic context of Korea as well as an excess of graduates with teaching certificates. In the 1970s and 1980s, a rapid increase in the teacher population was necessary to facilitate the expansion of the schooling system. However, now that such an expansion is no longer necessary, fundamental adjustments need to be made to the system.

The oversupply of secondary school teachers is evident when the size of supply is contrasted with that of appointments. On average, less than 20 percent of all the graduates of various teacher education institutions are employed. As shown in Figure 4, a very small number of prospective teachers are employed as secondary school teachers compared with the number of teaching certificate holders and applicants for teaching positions. More attention should be paid to the excessive production of secondary teaching certificate holders, through the restructuring of teacher education institutions. Critics argue that those teacher education institutions offering poor quality education should be closed to reduce the number of providers to an optimal level; the following section will discuss this issue further.

Another implication can be drawn from the projection of teacher demand. The influence of low birth rates on the future demand for secondary teachers is much more serious than originally thought.

Figure 4: Potential Supply and Actual Employment of Secondary Teachers (1970-2005)



Note: The figures in the box are the ratio of applicants who were employed.

Source: MOEHRD and KEDI (2007).

Section 4

Quality of Secondary Teachers

4.1 Defining Quality Teachers

Defining what is meant by a “quality teacher” is complex. There is general agreement regarding the desirability of having high quality schools and teachers. But there is no agreement on a common definition. Scholars, such as Frazer (1994), emphasize efficiency and effectiveness. Ellis (1993) defines quality as “the standards that must be met to achieve special purposes to the satisfaction of customers”. Thus, parents and students as “customers” should be satisfied with the teaching and learning in the schools their children attend.

Normally, the term “qualified teachers” refers to those who have obtained their teaching certificates. In Korea, the teaching certificate is a national certificate. Therefore, to qualify, applicants must show that they have acquired the knowledge and skills needed to perform the duties of a teacher.

Attainment of a teaching certificate may be a necessary condition for being a quality teacher, but it is not sufficient. Although teachers are fully qualified, students and parents may not be satisfied with the teaching services provided by teachers. Being a high quality teacher requires more than just possessing a teaching certificate. It is also important to discuss the “determinants” of quality teaching, and consequently methods to improve and assure teacher quality. A combination of many factors, including personal background, way of interacting with others, different experiences at teacher education institutes, and other policy factors, affect the quality of a teacher.

4.2 Significance of Teacher Quality Assurance in the Korean Context

Korea has sufficient supply of qualified secondary teachers with a strong initial level of education, social status, and respect. Korean students have achieved impressive academic success as illustrated by PISA results. This seems to imply that the quality of Korean secondary teachers is certainly adequate if not exceptionally good.

Nevertheless, few parents agree that students' performance is the result of the efforts of qualified teachers. Increasing numbers of students and parents are unsatisfied with teachers and schools. According to the recent KEDI poll (Kim, I., 2006) of 1,200 randomly sampled adults, 43 percent of parents of school children indicated that they intend to send their children to schools abroad if the conditions were properly met. It may be unfair to blame teachers for all of this. The reason for the level of dissatisfaction might be because both public and private schools have no autonomy and operate within a highly rigid and standardized curriculum. Dissatisfaction may also be due to excessive expectations and demands placed by parents on teachers. Nonetheless, more and more people are likely to point to teacher quality as the reason why students and parents are dissatisfied with their schools. As a result, the government has begun to direct serious attention to the issue of teacher quality.

In the year 2000, the Ministry of Education developed a comprehensive plan for assuring teacher quality. This plan aims to create a new image of teachers as professionals with commitment and pride.

To accomplish these objectives, the Comprehensive Plan contains major policy tasks as follows:

- revision of initial teacher education programme;
- introduction of accreditation system for teacher education institutes;
- strengthening of in-service education of teachers;
- revision of teacher recruitment and selection;
- improvement of teacher evaluation and promotion;
- improvement of teacher salary and working conditions.

Among the policy tasks proposed by the government, four major areas for guaranteeing the quality of secondary teachers are discussed, including initial education, recruitment, in-service education, and teacher evaluation and promotion.

4.3 Initial Education for Secondary Teachers

Secondary school teachers are predominantly provided through three different routes: 1) colleges of education, 2) teacher preparation programmes in general universities, and 3) graduate schools of education. As of 2004, there were 40 colleges of education, 134 universities with teacher preparation programmes, and 134 graduate schools of education. Admission quotas for these institutes in 2003 were 10,778, 22,248, and 20,487 students, respectively.

Students who complete one of the three types of pre-service teacher education programmes can obtain teaching certificates. As long as prospective teachers complete the specified number of teacher education courses, identical certificates are granted irrespective of the type of teacher education institutes and programmes. There are more private providers than public ones for secondary pre-service teacher education. There is no age restriction for certificate acquisition.

Attaining a teaching certificate, however, does not guarantee positions as teachers, as the candidates have to pass an employment examination. Those who fail to pass the exam have to choose other careers, and many choose to work in the private sector. This has led to a serious debate about the purpose of teacher education institutes and their efficiency.

Primary school teachers, however, are exclusively trained at twelve national universities across the country.¹ Due to this tight supply, most graduates of teacher education institutes for primary teachers have opportunities to be hired as teachers.

Teacher education programmes in Korea require prospective teachers to study both academic and professional pedagogy subjects. Pre-service teacher education institutes such as teacher preparation programmes in general universities and graduate schools of education, require their students to take at least 42 credit hours of major subjects and 20 credit hours of pedagogy subjects, with some differences among institutes. Colleges of education, on the other hand, have their own teacher education programmes. Therefore, curricula vary across the colleges of education, which has led to criticism that the teaching degrees are not standardized and that levels of experience vary significantly among different students and teachers. This implies a lack of quality control at the national level. This gives rise to a call for developing a common curriculum to be adopted by different teacher education institutes.

In addition to the absence of national standards for teacher education programmes, there are also criticisms about the quality of the curriculum. Questions have been raised about the professional knowledge and skills required for teachers not being appropriately linked to teaching practices. Most teachers indicate that they acquired their professional knowledge and skills through teaching practice at schools instead of through pre-service education programmes. In addition, theory-oriented courses are of little practical use, and the period of practicum, which is normally four weeks, is too short and formalistic for prospective teachers to develop the required pedagogical skills. In sum, the current secondary teacher education programmes have a limited impact on teacher development and improvements of teaching quality.

Teacher education courses can be enriched through extension of the training period, or by improving curricular content. In terms of the programme content, more diverse courses need to be offered to deal with the multiple roles played by school teachers. Secondary school teachers are expected to possess not only knowledge and teaching methods for their particular subject but knowledge and skills about school administration, counseling and guidance, as well as communication skills with parents and the community. Some critics argue that the curriculum should be broadened to include topics such as ethics, gender, counseling, leadership, law, and the politics of education. Also some argue that the content of each subject matter should be reorganized to reflect the practical needs of teachers fulfilling their duties in the classroom and the school.

¹ Exceptionally, only one private institute named Ewha Woman's University has been producing primary school teachers since 1964.

Some critics have also suggested that the four-year period of initial teacher education is not sufficient to prepare for effective teaching. The government has a long-term plan to introduce a new teacher education system that requires five or six years of education. Restructuring of existing teacher education institutes is necessary in order to resolve current issues. However, there is naturally strong resistance to such moves by existing education institutes.

Accreditation of Teacher Education Institutes

Every five years, KEDI evaluates teacher education institutes. The evaluation covers such areas as curriculum, teaching and learning, and finance and administration. The results of the evaluation are sent to the individual institutes and are open to the public, with the intension of improving quality. While the current evaluation scheme has contributed to maintaining the standards of teacher education institutes, it places no legal binding restrictions on the institutes being assessed, hence limiting its ability to bring about real change.

The government is planning to introduce a new evaluation system requiring accreditation of all teacher education institutes in 2010, which will have legal authority and provide an organizational infrastructure for accreditation. The results of the accreditation would have a legal binding effect on the institutes. For instance, if an institute fails to meet the accreditation requirements, it can be chastised or even abolished. On the other hand, financial rewards will be made available for institutes which perform well. The newly adopted accreditation scheme is expected to ensure the accountability of teacher education institutes. According to the proposed criteria for accreditation, the minimum requirements will be significantly increased so that most institutes will have to invest an enormous amount of funds for the recruitment of more faculties and the expansion of educational facilities. Thus, the new accreditation system may be fatal for some graduate schools of education with weak educational programmes and financial conditions. The following requirements, which will be applied to all kinds of training programmes, are highly recommended:

- the number of students per faculty to be less than 20;
- each department to secure more than one professor majoring in subject-specific pedagogy to strengthen professional education;
- curriculum to meet the national standards;
- micro-teaching room and multimedia room, and;
- a certain percentage of graduates must pass the teacher employment exam.

4.4 Recruitment of Secondary Teachers

Korea, unlike other OECD countries, has not experienced a teacher shortage at all. In 2006, only 15.3 percent of those who received teaching certificates after completing programmes at secondary teacher education institutes were employed by public and private schools. It is important to understand the reasons for this huge imbalance (see also Section 5 on compensation).

Recruitment processes are different depending on the types of schools. Teachers of national and public schools are selected through an open, competitive employment exam administered by each metropolitan or provincial office of education. The exam tests subject matter knowledge and pedagogy, teaching demonstration, and an in-depth interview.

For example, the recruitment process for public secondary school teachers conducted by the Seoul Metropolitan Office of Education in 2007 included two phases. The first phase consisted of tests including multiple-choice items and short-answer items. Eighty percent of the questions were on subject matter and 20 percent on education and pedagogy.

The second phase included essay writing, interviews, a test of English proficiency, and assessment of practical abilities, depending on subjects. On the other hand, private schools select and employ teachers based on their own criteria. However, more and more private schools employ their teachers through open competition measures.

The teacher recruitment system based mainly upon paper-and-pencil tests may have been an unavoidable choice considering the intense competition among a large number of teacher candidates. Serious questions, however, have been raised about the validity and adequacy of these tests. Scholars and practitioners argue that the exam should be improved in a way that can assess teachers' skills and capacity in a comprehensive and long-term perspective and enhance their adaptability to the teaching profession. The government recently announced a reform plan that would strengthen the process and content of the examination including teaching demonstrations and in-depth interviews.

For a long-term resolution of the problem, it may also be necessary to adopt an apprentice teacher system. In the apprentice teacher system, the teacher candidates who have successfully passed the open competitive exam for teacher employment are subjected to classroom observation, instructional material preparation, classroom instruction, student guidance, and classroom supervision for one semester, or a one-year probationary period under a quasi-employment status. At the end of the apprenticeship period, the candidates' acceptance will be based on the holistic evaluation of their teaching competency and potential.

4.5 In-Service Education for Secondary Teachers

According to Choolahan, Santiago, Paris, and Ninomiya (2003), one of the weaknesses of Korean teacher policy was the lack of systematic support for teachers' professional development, which should be improved in a way that ensures total upgrading of teacher performance in all school activities. It was indicated that Korea failed to reach the average level of professional development of in-service teachers.

An international survey of upper secondary schools conducted by OECD also showed that Korea was below the average, scoring the lowest among 14 countries surveyed in terms of whether or not an individual school could manage an independent budget for professional development of teachers and hours allocated for it and whether or not teachers' professional development activities were well organized. Nonetheless, Korea was above the OECD average in the following aspects: participation in the courses related to IT technology; completion of

master's and doctoral programmes; peer evaluation and participation in academic conferences with educational themes (OECD, 2005).

There are a variety of institutions offering in-service teacher education. As of September 2006, there were 14 institutes operated by the central government, 72 institutes attached to universities, 16 institutes operated by the provincial governments, and 61 institutes operated through distance education. In addition to these regular in-service teacher education institutes, teachers can take courses from various organizations recognized by education authorities.

There are two types of in-service education including general training and qualification training. The general training aims at developing teachers' professional knowledge and skills and is paid for by teachers themselves. General training is open to any teacher who wishes to participate, and the results are utilized as a factor in promotion.

On the other hand, qualification training, which is paid for by the government, is required to acquire a higher level of qualification, or a higher teacher status. For instance, a new teacher, who obtained a Grade II teaching certificate upon graduation from a teacher education institute, should take a qualification-training course to advance to a Grade I certificate. Normally this occurs approximately five years after obtaining an initial teacher certificate. Qualification training is also required for promotion to educational administrative positions such as vice-principal and principal.

With regard to in-service education for teachers, numerous problems have been identified. Firstly, teachers tend to participate in the in-service education programmes for promotion purposes, rather than for improving their teaching methods and individual professional growth. Many teachers who are interested in promotion tend to pursue training courses not based on their needs but on the degree of difficulty of the course. Teachers are often criticized by the general public that they do not spend much time upgrading their knowledge and skills for teaching after being employed. This leads to the prevalence of promotion-oriented in-service education. This contributes to distorting the concept of in-service education and results in degrading the quality of general in-service training for teachers.

Secondly, opportunities for in-service education, especially general training, are inadequate to meet the demand from teachers. This is not due to the shortage of in-service education institutes, but due to the quality of the institutes. Many of the government-operated institutes, which organize about two-thirds of all teacher in-service education courses, lack well-qualified teacher educators.

Thirdly, there is no quality assurance system for in-service education institutes. This leads to poor quality and thus a mismatch between the needs of teachers and the in-service programmes, which has resulted in teacher dissatisfaction and low levels of support for the programme.

Finally, the content and methods used for in-service education for teachers are often inappropriate. Many teachers complain that the content is extremely theory-oriented and fails to reflect the reality of schooling. The programmes are also criticized for poor teaching methods, mainly top-down lectures, while interactive discussions, seminars, case presentations,

experiments, and field trips rarely occur. Also financial constraints limit the ability to attract quality lecturers.

Quality Assurance System for In-service Teacher Education Institutes

To resolve the problems indicated above, in-service teacher education should be improved in the following ways: Firstly, teachers' needs should be assessed in advance, so that the teachers' needs and interests can be properly reflected in training. Also, teachers' participation in organizing and supervising in-service education courses should be encouraged. Secondly, more field-based content should be incorporated, so that the training can actually help develop professionalism and teachers' abilities to solve problems in classroom settings. Thirdly, in-service education should utilize various activities and active learning methods, including participatory methods and small group activities.

To address these problems, the Korean government plans to introduce a new evaluation scheme in 2010. This will focus on the accreditation of in-service education institutes, along with accreditation of pre-service teacher education institutes. It is hoped that the new accreditation system will help in-service education institutes upgrade the quality of programmes. The quality assurance system is expected to hold in-service education institutes accountable for their services.

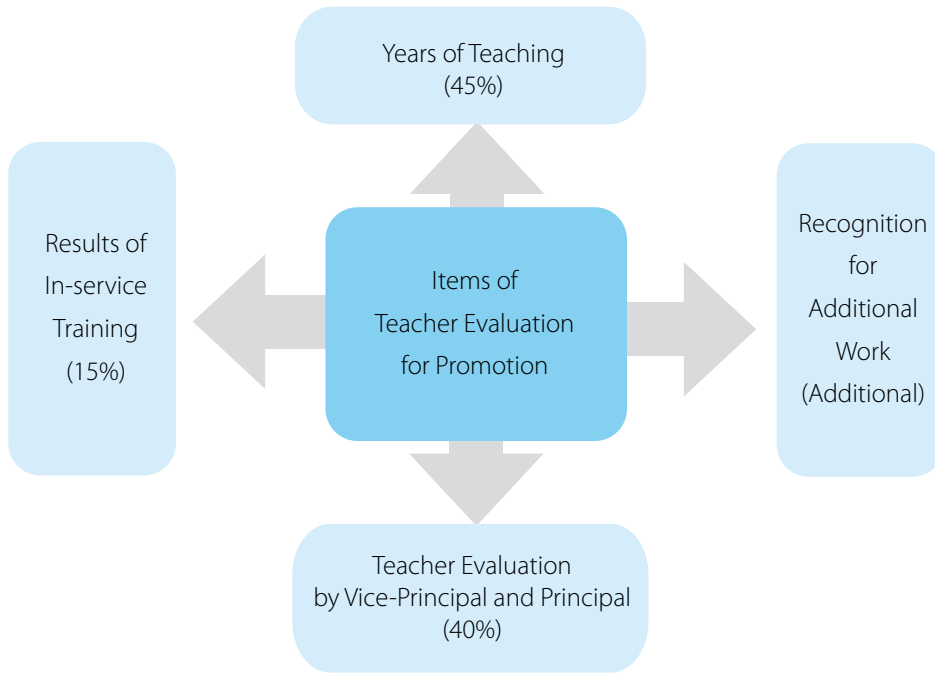
4.6 Teacher Evaluation and Promotion

Currently a new scheme of teacher evaluation is a contentious issue being hotly debated among concerned groups and key stakeholders. While teacher unions are opposed to it, parents and the general public demand the full-scale introduction of teacher evaluation. It was not until 2004 that teacher evaluation became an official policy agenda, although there had been discussions surrounding it since 1995.

The new scheme is distinguished from the old one in terms of purposes of evaluation. The old scheme was called "promotion-purpose teacher evaluation", as its purpose was to determine those who would be promoted. Consequently, few teachers were concerned with teacher evaluation and therefore, it caught the attention of those who sought promotion and were prepared to take part in the promotion competition. Teacher evaluation accounts for 40 percent of the scores for promotion (see Figure 5). Out of this 40 percent, a total of 100 points, 20 points are given to "capacity and attitude" and 80 points are given to "service and performance level".

The old scheme was criticized because of its inability to motivate teachers to develop their professionalism. In addition, it failed to identify ineffective teachers who had problems teaching, due to academic or psychological reasons. Some teachers were believed to be involved in the inappropriate manipulation of student records, and/or excessive corporal punishment.

Figure 5: Promotion-Purpose Teacher Evaluation Scheme



Research by Kim and Lee (2005) indicates that paternalism, a prevalent problem, is regarded as the major obstacle, as perceived by principals, vice-principals and teachers themselves, to dealing properly with ineffective teachers. The second major obstacle is the lack of clear evaluation criteria. The existence of ineffective teachers tends to cause dissatisfaction among students and parents and decreases the quality of student learning.

The argument for the introduction of new teacher evaluation was triggered by such problems. The new evaluation scheme, so-called “growth-oriented teacher evaluation,” has been under severe debate among different stakeholders since its announcement in 2004. A major issue of contention is the participation of parents and students as evaluators. According to the 2006 KEDI poll (Kim, I., 2006), 63.5 percent of parents agreed to the idea of participating in the evaluation of teachers.

Pilot Teacher Evaluation Scheme

In 2005, 48 primary and secondary schools were designated by the Ministry of Education as teacher evaluation pilot schools. The number of the pilot schools was increased to 67 schools in 2006 and 506 schools in 2007, respectively. At the beginning of 2008, a total of 663 pilot schools were designated to continue the government’s model operation to find problems as well as solutions before its full adoption and broader dissemination.

The new system is different from the existing teacher evaluation in terms of the purpose of evaluation, evaluation methods, evaluators, and items of evaluation. The purpose of the evaluation is to improve the capability of teachers in teaching, as opposed to providing necessary information for promotion. It was clearly stated that the results of the evaluation would not be used for the dismissal of ineffective teachers. Instead, teachers are to be recommended to take relevant in-service education courses. Evaluators include not only vice-principals and principals, but also peer teachers, students, and parents. Observation of teaching practices, visiting a class at work and a questionnaire containing checklists and open-ended questions are major methods of evaluation, which would replace subjective ratings by vice-principals and principals.

As expected, teacher organizations including the Korean Federation of Teachers' Associations and the Korean Teachers and Education Workers' Union are in opposition to the new teacher evaluation scheme, while parents' organizations and the public are in favor of it. Parents are likely to argue that the evaluation results should be utilized not only to identify ineffective teachers, but also dismiss them. It seems that the full introduction of the new teacher evaluation system will not be easy due to the resistance by the teacher unions, although the government expressed a strong will to apply it to the whole country.

4.7 The Korean "Paradox": High Student Achievement, but Dissatisfaction with Teachers

From one perspective, Korean schooling and teachers are satisfactory, for Korean students' academic achievements are extremely high, as reflected in the 2003 PISA results discussed in Section 2. Fifteen-year-old Korean students in particular marked impressive scores.

However, student outcomes in the affective domain, unlike in the cognitive, tell a different story. Korean students' self-directed learning and their sense of belonging to school were low compared with those in other OECD countries. Also, Korean students' self-efficacy, self-concept, and academic interest in science were found to be somewhat lower than the average scores of OECD countries. The discrepancy between cognitive and affective outcomes might be due to the highly examination-oriented instruction for college entrance.

There have been controversies over the role of teachers regarding the remarkable results of Korean students' achievements. Some critics argue that the academic success of many Korean students is due to private tutoring, rather than their classroom teachers. Excessive private tutoring in Korea is associated with parents' strong zeal for their children's education, which Seth (2002) called "educational fever", as well as the competitive structure of Korean society making educational success a key. Those advocating this position tend to discredit teachers as the major contributor of yielding such good results in PISA. In the 2006 KEDI Poll, only 22 percent of the respondents, who were parents of children attending school, said teachers were doing their job effectively (Kim, I., 2006).

However, the government likes to claim that the Korean PISA achievements are a result of the outstanding educational system and teachers. In some sense, this might be true. There is an old saying: "The quality of education does not exceed that of teachers." Korean teachers represent one of the best teaching forces in the world given that the top 5 to 10 percentile of youngsters out of a given age cohort in terms of Korean Scholastic Test (KSAT) scores are recruited. Benefits including solid job security; relative high social respect, though decreasing; two long paid vacations; and a dependable pension, are attracting bright students, especially female students, to the teaching profession. It might be assumed that the high qualifications of Korean teachers are related to students' achievement in some ways, but solid empirical evidence is lacking to support this claim definitely.

Section 5

Teacher Compensation

5.1 The Structure of Teacher Salaries

The salary structure for teachers is composed of basic salaries and assorted allowances. The salary scale for teachers, vice-principals, and principals of elementary and secondary schools is based on a single salary schedule. Hence, irrespective of the level of school, teachers with the same academic credential and seniority belong to the same salary step. So there is no difference in their basic salary. In addition to the basic salary, there are various types of allowances and pensions.

An analysis of the components and proportions of the basic salary and various allowances demonstrates that the proportion of the basic salary and that of the allowances out of the yearly total of the teacher's salary range from 45.9 percent to 52.4 percent.

As teachers are national public employees, the same compensation system is used throughout the country. Teachers may teach for up to 37 years before reaching the maximum age of 62. Teachers are paid by public employee compensation provisions and public employee allowance provisions, which are the same as those of general public employees.

The gross salary of secondary teachers consists of a basic salary, six allowances, and four pension benefits. The starting salary of secondary teachers was USD\$28,449 in 2004. Mid-career statutory salaries for secondary teachers are 1.71 times more than the newly appointed teachers. The teachers at the top scale earn USD\$78,351 (2.75 times greater than a new teacher) (see Table 4).

Table 4: Statutory Secondary Teacher Salaries in Equivalent US Dollars (PPP) (1999-2004)

Category	1999	2000	2001	2002	2003	2004
Starting salary	23,613(1.00)	26,148(1.11)	25,045(1.06)	26,852(1.14)	27,092(1.15)	28,449(1.20)
Salary after 15 years of experience	39,265(1.00)	43,800(1.12)	42,713(1.09)	46,269(1.18)	46,518(1.18)	48,754(1.24)
Salary at top of scale	62,135(1.00)	69,666(1.12)	68,449(1.10)	74,541(1.20)	74,843(1.20)	78,351(1.26)

Source: OECD (2006).

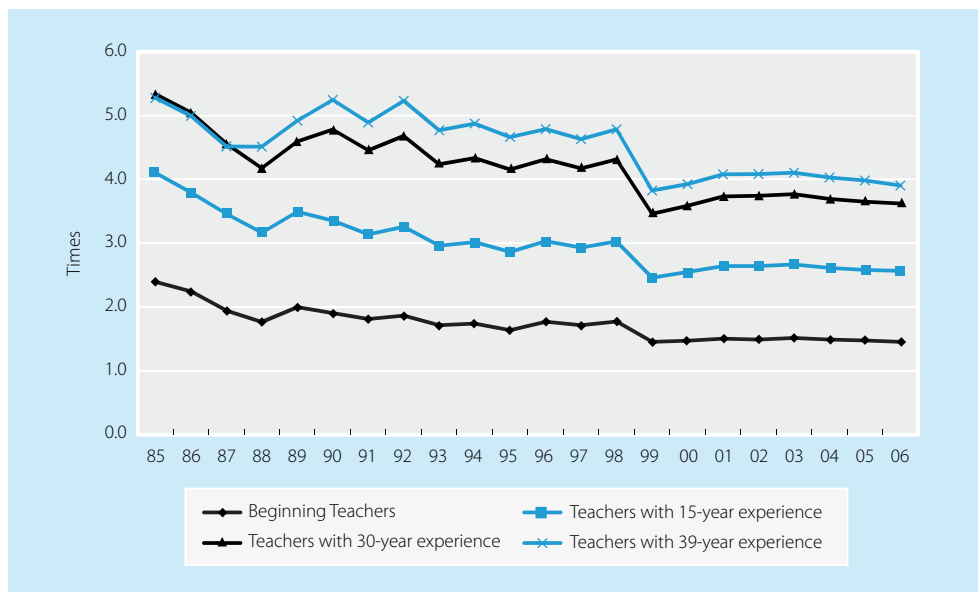
Benefits to enhance the financial status of teachers include support for the tuition of their children in secondary schools, non-interest loans for the tuition of their children in universities, and loans for living expenses. Teachers are paid additional allowances when they are appointed to posts requiring special responsibilities such as the department head, or homeroom teacher.

Since 2001, a merit-based bonus has also been awarded to teachers. Initially, the entire salary was supposed to be based on the teachers' work performance. However, primarily due to the difficulty involved in evaluating teacher performance in educational activities, in 2001, 90 percent of the merit bonus was given to all teachers without difference and the remaining 10 percent was given on a differential basis. Thus, benefits are given to nearly all teachers regardless of the quality and effectiveness of teaching.

5.2 Teacher Salaries over Time and in Comparison with Other Sectors

An important indicator currently used to assess teacher compensation is teacher salary expressed as a ratio of GDP per capita. Total yearly salary for teachers in 1985 was very high: it was 2.4 times GDP per capita for beginning teachers, 4.1 times for teachers with 15 years of experience, and 5.28 times for teachers with 39 years of experience. However, after the salary dropped drastically in 1999, it became only 1.5 times the GDP per capita for beginning teachers and 3.83 times for teachers with 39 years of experience in 2006 (see Figure 6).

Figure 6: Total Salary of Teachers vis-à-vis GDP per Capita (1985-2006)



Source: Kim and Lee (2005).

It is important to analyze teacher salaries relative to other occupations. When compared to the average salary of those working in the manufacturing sector, the teacher salaries had become somewhat higher during the 1970s and 1980s, and became about the same during the 1990s. Such a trend implies that teacher salaries have responded flexibly to the labour market conditions during the 1970s and 1990, when economic growth and quantitative educational expansion took place (Lee and Han, 1999).

Table 5 provides an indicator of teachers' relative salary position by comparing the average salary of secondary teachers with those of five selected professional jobs. Lawyers earn at least twice that of secondary teachers in Korea, but teachers earn roughly the same salary as computer programmers and engineers.

Table 5: Comparison of Secondary Teacher Salaries with Those of Other Professional Jobs in Korea (2001-2005)

Category	Accountant	Lawyer	Computer Programmer	Engineer	Professor
2001	0.496	0.329	0.917	0.886	0.634
2002	0.563	0.375	0.671	0.889	0.684
2003	0.598	0.442	0.894	0.929	0.647
2004	0.681	0.541	0.844	0.995	0.672
2005	0.730	0.455	0.928	0.974	0.672

Source: Ministry of Labour (MOL) and Korea Employment Information Service (KEIS).

Historically the teaching profession has been considered an attractive occupation for talented people. In response to the question: "What do you think of the social status of teachers compared to that of others who work in different fields yet have similar academic attainment and work experience?" from a survey conducted by KEDI (1999), over 75 percent of the respondent parents answered that the teacher's status is at least as high as, or higher than that of the others. The survey shows that the general populace still considers the social status of the teachers to be relatively high.

The number of teachers being trained exceeds the demand from schools for teachers thus making teaching a highly competitive profession. Moreover, as general interest in occupational security has grown since the 1998 Asian economic crisis, the attraction of the teaching professions has become even stronger. In Korea, aspiring secondary school teachers are generally attracted by the intrinsic motivations of the teaching profession. Yet, extrinsic motivations involving salary and occupational security are also important (Kim and Han, 2006).

5.3 The Korean Teacher Salary System: Strengths and Weaknesses

While most other developing countries have chosen the trade-off, of smaller classes but poorly paid teachers, Korea has adopted the opposite approach. Korean teachers teach a larger number of students than those of other OECD countries, and the size of the teaching force is relatively small. However, considering public discontent with schooling, the merit of the Korean approach should be subjected to more fundamental scrutiny (Han, 2001).

The present teacher salary system is considered unsatisfactory, largely because the existing salary system has been managed mainly based on the rationale of overall *equality*. There is an urgent need for the teacher salary system to be rationally restructured to improve the quality of teachers and enhance dedication to their work. This would enhance the equity of the system. Due to the single salary scale, there are hardly any incentives to seek higher payment through professional development programmes and in-service training. Hence, some argue that the teacher salary system should change from the single salary scale based on academic credential and seniority to one that takes into account the outcomes of various in-service training activities and qualifications attainment, in order to induce and facilitate teachers' professional capacity building (Seo, Kim, and Jeon, 2005). There is also a strong desire for a system incorporating incentives based on teaching accomplishment and outcomes.

Section 6

Conclusions, Discussion and Policy Implications

6.1 Quantitative Aspects of Policy Issues Related to Secondary Education and Teachers

Over the past five decades there has been a dramatic and successful quantitative expansion of Korean secondary education. Korea succeeded in having nearly universal secondary education in the 1970s, which contributed to the “miracle on the Han River”. In 2008, 84 percent of high school graduates continued on to post-secondary education to seek further education.

To have achieved this important goal of universal secondary education, Korea was extremely strategic and decided to both allow and encourage the private sector to play a major role in providing secondary education. This was an excellent way to leverage limited government funding. This was reflected in the important legislation, the Private School Act of 1963. This sharing of the financial costs of education enabled the Korean government to have more funds to pay school teachers well, to build the infrastructure for public schools - including the provision of critically needed learning materials, and to respond to the high demand for access to secondary education. Another strategic decision was to limit the quantitative increase in the number of teachers which also contributed to Korea being able to pay its teachers well. The accomplishment made in expanding secondary education was thus due to the careful selection of objectives and compromises made, such as the large class size.

Related to this latter strategic decision, Korea’s major quantitative problem related to secondary education today is the shortage of teaching jobs for new graduates in this field and the related oversupply of teachers. Only 15.3 percent of graduates in the teacher education field are able to find jobs as teachers. This suggests a major imbalance between the demand for and supply of teachers. As indicated in Section 3, there has been a chronic oversupply of teachers. There are far too many teacher education institutes engaged in producing teaches for whom there will be no teaching jobs. Certainly contributing to this problem is the failure of policies on teacher education to take into account the Republic of Korea having the lowest fertility rate among all OECD countries.

To address this problem as well as the important issue of teacher quality, Korea is planning to introduce in 2010 a strict accreditation system for teacher education institutes. This could result in the elimination of some of the weaker programmes and/or reducing the quotas for programmes with less quality.

6.2 Major Quality Issue: “The Korean Paradox”

In terms of quality, the “Korean Paradox” is dramatic. With respect to international student assessments such as PISA, Korean students do extremely well. In the four key PISA learning domains, Korean students ranked among the top four among 40 OECD countries, and were number one in problem-solving abilities. Not only was their performance superior, but also the impact of parental socio-economic backgrounds on performance was considerably weaker than other OECD countries, which meant that Korea achieved both excellence and equity. Even the lowest scoring Korean students are not testing poorly by international standards. Given the outstanding performance of Korean students on these standardized and reliable international assessments, the assumption would be that Korean secondary schools and teachers are doing exceedingly well.

Not only do Korean secondary students perform well on international tests, but also their teachers themselves have strong academic backgrounds. Korea is one of the world’s leading nations in its ability to attract outstanding students to go into the teaching field. It has one of the best teaching forces in the world, as reflected in the key statistic that those going into teaching are in the top five to 10 percent on the KSAT. Thus, Korean teachers are among the “cream of the crop” academically. Korea’s success in this area is primarily based on two factors: 1) the high sociocultural status associated with the profession of teachers, and; 2) job security as national public servants, along with relatively high salaries.

This then leads directly to the “Korean paradox”. Despite the notable successes just described, many Korean parents and their children express considerable dissatisfaction with teachers and the quality of education being received. Some are so dissatisfied that they are defecting from the system and sending their children abroad, for example, to continue their studies. Parents often attribute the academic success of their children to their proficiencies acquired in private tutoring institutes, a huge industry in Korea, and parental support and assistance, not to their schools and teachers.

Another factor contributing to the dissatisfaction of parents is the nature of the learning being emphasized by schools. Generally the schools are rigidly oriented toward cognitive learning related to the high stakes testing environment (Zeng, 1999). Many parents seek a more holistic education for their children involving diverse areas of learning including arts and affective domains. Clearly there is pressure for teachers to “teach to the test”. The highly centralized bureaucratic system does not provide much curricular flexibility.

Another possible issue related to the quality of secondary education is the relatively large classes in Korean secondary education. Though class sizes have declined over time, they are still large by international OECD standards. The policy currently in place is to continue to reduce class sizes.

The Korean government is deeply concerned about this paradox and the severe critique of the quality of its secondary education system and teachers. To address the problem, a number of important initiatives are underway. One important initiative is to change the reward system to provide concrete incentives for good teaching and performance. Currently the reward structure is based almost entirely on seniority and academic credentials. Only 10 percent of rewards are merit-performance related. Thus, the Korean government is piloting a new teacher evaluation system. There is also an initiative to change the examination system for recruiting teachers to give greater weight to practical teaching abilities. Another initiative is to change the pre-service education system to require *five to six* years of training instead of the current *four* years of training. Finally, the government is planning in 2010 to introduce an accreditation system for both pre-service and in-service educational training institutes as a mechanism to increase the quality and relevance of such training.

6.3 Teacher Compensation

Generally and over time, Korean teachers have been well compensated. They did suffer during the 1997-1998 Asian economic crisis, but so did those in other occupations. Also over time, their salaries as a percentage of GDP have declined, but that appears to be a global trend. As countries become more developed, teacher salaries as a percentage of GDP decline (Mingat and Tan, 1998).

The reason for the relatively high salary of Korean teachers was government policy to limit the expansion of the size of the teaching force. This was an explicit trade-off between lower class size and more compensation for teachers. The Korean government opted for the latter.

6.4 The Future of Secondary Education and Teachers in Korea

The new government, elected in 2008, is attempting to find a solution to the “Korean Paradox” through a major educational reform based on the principles of choice, competition, evaluation, and decentralization. However, it is unclear if implementation of such a reform can be undertaken successfully, given the strong resistance by teachers against the new teacher evaluation system and the power of teacher unions.

The impressive academic achievement of Korean students and the high academic qualifications of Korean teachers are reflective of Korea’s dynamic educational potential. To realize this potential, there is a crucial need for a balance between control and autonomy, between equity and excellence, and between demand for and supply of teachers. Based on the fundamental assumption that the real quality of education is largely determined by the quality of teachers, it is imperative that Korea finds ways to enhance teacher quality. Given Korea’s ambitious national goals, its visionary “Brain Korea 21” project to nurture highly qualified human resources for the 21st century knowledge-based society, and with over 80 percent of high school graduates now going on to colleges and universities, the “Korean Paradox” must be eliminated through the significant improvement of teaching in the nation’s secondary schools.

References

- Chenery, H. 1974. *Redistribution with Growth: An Approach to Policies to Improve Income Distribution in Developing Countries in the Context of Economic Growth*. London, Oxford University Press.
- Chowdhury, A. and Islam, I. 1993. *The Newly Industrializing Economies of East Asia*. London, Routledge.
- Coolahan, J., Santiago, P., Paris, R. and Ninomiya, A. 2003. *Attracting, Developing and Retaining Effective Teachers: County Note for Korea*. www.oecd.org/edu/teacherpolicy
- Ellis, R. 1993. Quality assurance for university teaching: Issues and approaches. In R. Ellis (ed.), *Quality Assurance for University Teaching*. Buckingham, UK, and Bristol, PA, The Society for Research into Higher Education and Open University Press.
- Euromoney. 1977. *Korea: The Miracle on the Han River*. London, Euromoney.
- Frazer, M. 1994. Quality in higher education: An international perspective. In D. Green (ed.), *What is Quality in Higher Education?* Buckingham, UK and Bristol, Pa., The Society for Research into Higher Education and Open University Press.
- Han, Y. 2001. 한국의 교원 보수 정책 평가 (The policies and structures of teacher salaries in Korea: A review). *교육재정경제연구 [The Journal of Economics and Finance of Education]*, Vol. 10, No. 2, pp 271-298. (In Korean.)
- Kim, E. and Han, S. 2006. 중등 예비교사들의 교직 희망 동기에 관한 요인 분석 (Choosing mathematics teaching as a career: An analysis of prospective teachers' reasons to become teachers). *한국교육 [The Journal of Korean Education]*, Vol. 33, No. 2, pp 51-73. (In Korean.)
- Kim, E., Han, Y., and Park, J. 2008. Teachers' salaries in Korea, 1985 to 2007: An in-depth analysis and policy recommendations. *KEDI Journal of Educational Policy*, Vol. 5, No. 2, pp. 89-112.
- Kim, E. and Lee, T. 2005. 부적격 교사의 판별과 조치에 관한 교원의 인식 분석 (Teachers' perceptions evaluating ineffective elementary and secondary teachers in Korea). *교육행정학연구 [The Journal of Educational Administration]*, Vol. 23, No. 4, pp 77-101. (In Korean.)
- Kim, H., Kim, E., and Han, Y. 2008. 초중등 교원의 중장기 수급 전망 (Projecting demand and supply of elementary and secondary teachers in Korea). *교육재정경제연구 [The Journal of Economics and Finance of Education]*, Vol. 17, No.2, pp 59-83. (In Korean.)

- Kim, I. 2006. *The Public Opinion Survey of Education: KEDI Poll 2006*. Seoul, Korean Educational Development Institute.
- Kim, M. 2006. 입시산업의 규모 및 추이 분석: 대입정책과 사교육의 관계분석을 위한 기초 연구 [*The Size of College Entrance Examination Cramming Business and an Analysis of its Development*]. Seoul, Korean Educational Development Institute. (In Korean.)
- Korean Educational Development Institute (KEDI). 1998. *Educational Development in Korea: An Analysis of Investment and Development Strategies*. Seoul, Korean Educational Development Institute.
- Lee, J. and Han, Y. 1999. 초중등 교원 보수 체제 모형 개발 연구 [*A Study on Developing a Model for Elementary and Secondary Teacher Pay System*]. Seoul, Ministry of Education. (In Korean.)
- Lee, J. and Hong, Y. 2002. 한국 사회에서의 학력의 가치 변화 연구 *The Changing Value of Educational Attainment in Korean Society*. Seoul, Korean Educational Development Institute. (In Korean.)
- Lee, M., Kwak, Y., Min, K., Chae, S. and Choi, S. 2004. *PISA 2003 결과 분석 연구*. 서울: 한국교육과정평가원 [*The Results From PISA 2003: Problem Solving and School Effects on Mathematics Achievement*]. Seoul, Korean Institute of Curriculum and Evaluation. (In Korean.)
- McMahon, W. 1995. "Endogenous Growth in East Asia: The Contribution of Secondary Education to Growth and Development in Japan, South Korea, Malaysia, Thailand and Indonesia". Seoul, World Bank-KEDI Secondary Education Study Tour. 25-30 June, 1995.
- Mingat, A. and Tan, J. 1998. *The Mechanics of Progress in Education: Evidence From Cross-Country Data*. Washington, D.C., World Bank. Research Working Paper No. 2015. http://www.wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2000/02/24/000094946_99031911105738/Rendered/PDF/multi_page.pdf
- Ministry of Education and Human Resource Development and Korean Educational Development Institute. 2007. *Statistical Yearbook of Education*. Seoul, MOEHRD and KEDI.
- Ministry of Labour (MOL) and Korea Employment Information Service (KEIS). Job Map. www.work.go.kr
- OECD. 2004. *Learning for Tomorrow's World: First Results from PISA 2003*. Paris, OECD.
- OECD. 2005. *Teachers Matter: Attracting, Developing and Retaining Effective Teachers*. Paris, OECD.
- OECD. 2006. *Education at a Glance: OECD Indicators*. Paris, OECD.
- Oh, J. 1999. *Korean Democracy: The Quest for Democracy and Economic Development*. Ithaca, NY, Cornell University Press.

Oh, O. 2000. 한국사회의 교육열 [*Educational Fever of Korean Society.*] Seoul, Gyoyukgwahaksa. (In Korean.)

Paik, S. 1999. *Economic Development and Educational Policies in Korea.* Seoul, Korean Educational Development Institute.

Seo, J., Kim, M. and Jeon, J. 2005. 교원 우대를 위한 보수체계의 개편 방향과 과제 (Exploration of policy directions and tasks for the teacher compensation system in Korea). *교육재정경제연구 [The Journal of Economics and Finance of Education]*, Vol. 14, No. 1, pp 215-243. (In Korean.)

Seth, M. 2002. *Education Fever: Society, Politics, and the Pursuit of Schooling in South Korea.* Honolulu, University of Hawaii Press. Hawaii Studies on Korea.

Zeng, K. 1999. *Dragon Gate: Competitive Examinations and Their Consequences.* London, Cassell.



United Nations
Educational, Scientific and
Cultural Organization

UNESCO Bangkok

Asia and Pacific Regional Bureau for Education

Mom Luang Pin Malakul Centenary Building
920 Sukhumvit Road, Prakanong, Klongtoey
Bangkok 10110, Thailand
E-mail: epr@unesco.org
Website: www.unesco.org/bangkok
Tel: +66-2-3910577 Fax: +66-2-3910866