

Lessons for Latin America from a Comparative Education Approach:

South Korea's K-12 Education System

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Abstract

South Korea is well known for its outstanding performance on international assessments of student achievement and learning. Both public and private investments are often considered key factors in this success. This paper describes the historical factors that gave rise to the current system. The paper also highlights certain features of the education system that might be useful for policymakers in Latin American and the Caribbean.

JEL classifications: I21, I22, H52, H72

Keywords: Education system, Education expenditures, School choice, Randomization, Private tutoring

1. A Brief Description of the K-12 Education System

South Korea is one of the world's top performers in terms of the achievement of its students on international assessments of learning. For example, it ranked seventh in both math and reading, and tenth in science among world's countries participating in the 2015 Program for International Student Assessment (PISA). Among the many potential sources of its success, a society-wide emphasis on education and both public and private investments are often considered key factors (Hanushek and Woessmann, 2016).

This paper aims to draw lessons from South Korea's experience on educational setting that can be useful for Latin American countries. It presents a brief summary of the historical background of the educational institutions in South Korea (Section 1.1). It then focuses on K-12 education and examines South Korea's educational environment with respect to three dimensions: the formal schooling system, private consumption of education, and student outcomes (Sections 2 to 4).

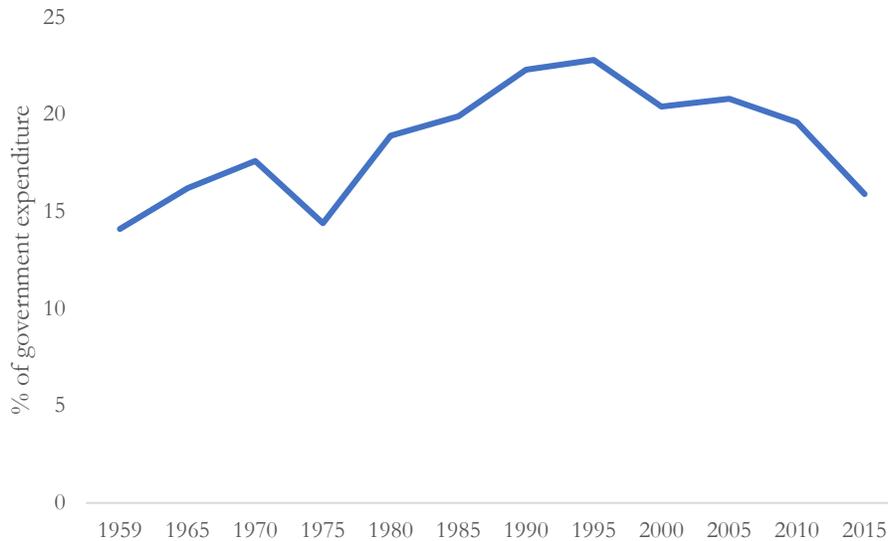
1.1. Institutional Setting

In South Korea educational opportunities for the general population were restricted until its independence from Japanese occupation in 1945. At that time, the illiteracy rate among adults was estimated to be 78 percent, according to the Committee for Adult Education. Since then, the South Korean government, together with the private sector, has exerted massive efforts to promote literacy and educational attainment. The initial emphasis was placed on expanding primary schooling. In 1948, when the South Korean government was established after three years of interim rule by the US military government, 9 percent of the budget was allocated to education. Within this budget, 70 percent of funds targeted primary education. The education budget for primary schooling—both in terms of budget share and absolute—has largely continued to rise since then. For example, in 1959, when the South Korean government made primary education compulsory, 14.1 percent of the government budget was allocated to education, and 80 percent of the overall education budget was for primary schooling (MOE, 2000). The government's emphasis on schooling and education is ongoing. The share of education in government budget has steadily increased, rising to 22.8 percent in 1995, then stabilizing at below 21 since 2000 (see Figure 1).

Due to its limited financial resources, the South Korean government called upon private entities to provide higher levels of basic schooling: middle school, high school, and university.¹ Specifically, the government provided financial subsidies, curricula, and student assignments, while private entities provided school buildings, and hired teachers. Thus all schools, including privately established ones, were subject to the nationwide education policies set by the Ministry of Education (MOE). That tradition still prevails in South Korea.

In addition to the government, households also place strong emphasis on education. When South Korea experienced rapid growth in the 1970s and 1980s, it was common for Korean parents to sacrifice their financial well-being to educate their children. Even now, South Korean households spend a sizable share of their income on educating children. In 2010, the average household spent 13 percent of its income on education, and households in which the head of household was between 40 and 50 years of age (the age group likely to have children in middle or high school) spent 20 percent of their incomes on education (KNSO, 2015).

**Figure 1. Government Expenditure on Education, Total
(% of government expenditure)**



Source: KOSIS (2019).

¹ Although the South Korean government started to provide middle and high schools in the 1980s, the share of the schools established by those entities remains sizable as the schooling level advances. For example, in 2010, schools established by private entities accounted for 1.3 percent of enrollees in primary school, 18.0 percent in middle schools, 45.2 percent in high schools, 93.7 percent in technical colleges, and 84.9 percent in four-year universities.

There is no clear answer to the question of why the South Korean government and people are so focused on educating children. Certainly, we cannot ignore cultural factors. Confucianism, which emphasizes literacy and education, was adopted as a national ideal in the Chosôn Dynasty, which ruled Korea for over 600 years until 1910 when Japan occupied the Korean Peninsula. In addition, some scholars regard the high level of monetary and social returns associated with greater levels of schooling, in general, and credentials from elite institutions as a reason behind educational investment in South Korea (e.g., Lee, 2007).

The intense emphasis on education has led to various side effects. To gain admission to an elite university, children spend long hours studying, beginning at a young age, and leaving little time for leisure or interaction with parents and friends. In 2003, South Korea students ranked top among 29 countries when measured by time spent on study at 15 years of age (OECD, 2004).

Table 1. Student Studying Time in Hours per Week

	In-school activities			Out-of-school activities					
	Instruc- tion	Remedial classes	Enrich- ment classes	Total Study Time	Home- work	Working with a tutor	Out-of- school classes	Other study	Total Study Time
Korea	30.3	4.9	1.9	37.1	3.5	1.3	3.8	4.2	12.8
Germany	22.6	0.1	0.6	23.3	6.3	0.5	0.1	1.4	8.3
US	22.2	1.4	1.6	25.2	5.7	0.3	0.4	1.5	7.9
OECD	24.4	0.8	0.7	25.9	5.9	0.5	0.9	1.6	8.9

Source: OECD (2004).

On average, South Korean students study 11.2 more hours per week at school than do students in other OECD countries (see Table 1). This is because, while students in other countries spend more time working on school assignments at home than in school, South Korean students participate in after-school academic programs, such as remedial and enrichment classes offered by schools, in addition to spending relatively long hours in instruction time. Moreover, South Korean students reported they spend 3.9 more hours attending private tutoring and taking others forms of study as out-of-school activities than do their peers in other countries.

Many South Korean parents and students heavily rely on private tutoring. As a result, a prevalent concern is that educational investments depend on the status of parents who can afford to make these investments, which in turn set the stage for the next generation's socioeconomic status. Such zeal for education, and its side effects, may account for frequent changes of major

education policies, particularly those related to university admission, that have occurred in South Korea.

The Equalization Policy (EP), introduced in 1969, is South Korea's major education policy (MOE, 2000). It provides the basis of the current K-12 education system in South Korea. Prior to its adoption, middle and high schools could require applicants to take the schools' own individual entrance examinations, and these schools could select their students according to these test scores. The competition to gain admission to elite middle and high schools was severe because students at these schools were, in turn, more likely to gain admission to elite universities. To address this issue, the Korean Ministry of Education eliminated the entrance exams for middle schools. Established in 1969, the "Equalization policy" introduced a new student assignment mechanism: a lottery system that determines the placement of students in a public or privately established middle school within their residence-based school districts. This change in the admission system virtually eliminated most elite middle schools, such as Seoul and Gyeonggi middle schools (Byun and Park, 2012).

South Korea then introduced the High School Equalization Policy (HSEP) in 1974 in Seoul and Busan, the two largest metropolitan areas in Korea. The policy, which was further expanded to include other cities across the country, was designed to address three key government objectives. The primary goals were to: i) dismantle the hierarchy of elite high schools, ii) alleviate parents' burden of paying for private tutoring (e.g., "cram schools"), and iii) reduce inequalities between elite high schools and others (Lee, 2013). This drastic and rigid regime shift achieved its aims in some respects, but raised other serious problems, including: i) offering students no choice of schools, ii) creating differential increases in residential prices within Seoul² and iii) generating higher demand for private tutoring to enter elite universities. Despite these controversies, as of 2009, most of the academic high school students across the country were covered by the HSEP, according to MOE.

² According to Lee (2013), the school districting policy and relocation of top-tier private high schools to Gangnam-gu (the so-called District 3 in 1970s) attracted a substantial increase of higher-income parents—a phenomenon that was reflected in the sudden rise in residential land prices of this area, and accelerated land price inequality across the city.

1.2. Education System

The Korean K-12 education system is based on the “6-3-3” ladder structure. That is, after six years of primary education, all students are required to attend middle school for three years, and then, after graduating from middle school, students may opt to enter high school. The first nine years of schooling are compulsory in South Korea and they are free of charge. High school education, while not obligatory, nonetheless has close to universal attendance in Korea. As of 2016, high school enrollment reached 99.7 percent.³ Both public and private high schools charge tuition fees.

Schools in Korea can be classified according to their founding entities. National schools are established by the national government, while public schools are established by local government. Private schools are founded by private bodies. Most elementary and middle schools in Korea are public. As of 2018, there were 5,973 public schools among the total number of 6,064 elementary schools, and 2568 public schools among 3,214 middle schools. The percentage of public schools drops by 59 percent at the secondary level (see Table 2).

In 2014, Korea’s total expenditures on educational institutions at primary and secondary levels reached 4 percent of total GDP, above the 3.6 percent OECD average (OECD, 2016). This higher-than-average level of investment is mainly due to a significant increase in the public funding share, which rose by 9 percent from 2008 to 2014 (from 78 percent to 87 percent), reaching about the average level of OECD countries (see Figure 2). The increase in public funding and drop in private spending can be attributed to government policies that deliberately aimed to decrease household spending on education in recent years.

Table 2. Number of Schools in Primary and Secondary Education

Type	Elementary School	Middle School	High School
National	17	9	19
Public	5,973	2,568	1,393
Private	74	637	946
Total	6,064	3,214	2,358

Source: Korean Statistical Information Service (2019).

Central and local institutions share authority over the education system. Playing a central role, the MOE is responsible for national school curriculum, policy and funding across the nation.

³ Statistical Yearbook of Education, Korean Educational Development Institute, <http://cesi.kedi.re.kr>.

Metropolitan and provincial offices of education administer the assignment of students and teachers to schools⁴ and manage county-level education offices. Reflecting this centralized educational system, the same curriculum and school assignment mechanisms apply to all schools, both public and private, and all non-compulsory high schools, except for a small number of special-purpose schools (mostly for arts, sports, science, and foreign languages). Likewise, the school funding system in Korea is also very centralized.

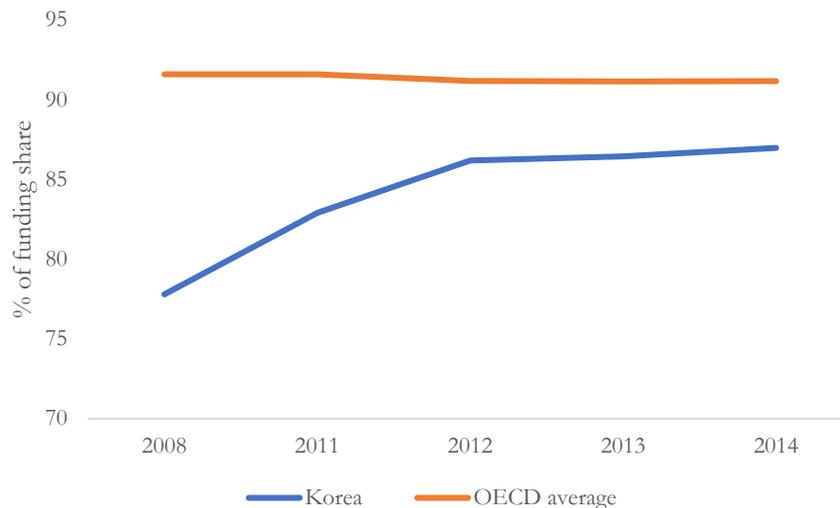
2. School Choice

2.1. School Assignment

2.1.1 Elementary School

Primary education in Korea is free and compulsory from the age of seven. It runs from first grade through sixth grade, and the enrollment rate at this level is essentially universal. All students are generally assigned by the lottery system to a neighborhood school in their respective districts. A regular school district is usually the size of a municipality; Seoul has 11 school districts, which contain approximately 600 elementary schools. All schools at this level are coeducational schools (KOSIS, 2019).

Figure 2. Expenditure on Education Institutions at Elementary and Secondary Levels (as a percentage of GDP)



Source: OECD (2017).

⁴ The random assignment mechanism varies across different education offices because not all areas are governed by the EQ policy.

The academic year starts in March, continuing through February of the following year. Students are assigned to mixed-ability classes, called “bahns,” of approximately 22.4 students. During the first two years, pupils study Korean, mathematics, ethics, and general social formation subjects called “wise living,” “pleasant living,” and “we are first graders.” English, social studies, science, arts, music, and physical education are added in the third grade. At this level, a single teacher, considered a “homeroom” teacher, develops all subjects (see Table 3). Most instruction consists of teacher lectures, with only few interruptions for questions. The government mandates that private schools must teach the national curriculum and offer tuition-free education at the compulsory education levels (elementary and lower secondary) in return for receiving government subsidies.

**Table 3. South Korean National School Curriculum
(Minimum Annual Class Hours)**

School Year Subject	Elementary School						Middle School		
	1	2	3	4	5	6	7	8	9
Korean Language									
Arts	210	238	238	204	204	204	170	136	136
Ethics	60	68	34	34	34	34	68	68	34
Social Studies			102	102	102	102	102	102	136
Math	120	136	136	136	136	136	136	136	102
Science			102	120	102	102	102	136	136
Practical Course					68	68	68	102	102
Physical Education			102	102	102	102	102	102	68
Music			68	68	68	68	68	34	34
Arts			68	68	68	68	34	34	68
Foreign Language (English)			34	34	68	68	102	102	136
Independet Activity	60	68	68	68	68	68	136	136	136
Special Activity	30	34	34	68	68	68	68	68	68
Wise living	90	102							
Pleasant Living	180	204							
We are 1st Grade	80								
Annual Class Time	830	850	986	986	1,088	1,088	1,156	1,156	1,156

Source: Ministry of Education (2015).

Promotion and graduation are based on internal, school-based tests and assessments at this level. In 2011, the government abolished the formal mid-term and final exams in an attempt to move away from an overly test-driven system. The current curriculum, which was updated in 2015, emphasizes the fostering of creative thinking, and prioritizes essays over multiple-choice tests.

2.1.2 Middle School

Middle school, like primary school, is free and compulsory. Attendance of this three-year-long level of schooling is virtually universal. All middle schools are subject to random assignment of students within their respective school districts, and there are no entrance examinations for students.

Both single-sex and coeducational schools exist at this level and students are taught in mixed-ability classes. The average number of students is 27.4 per class, a level that is above the Teaching and Learning International Survey (TALIS) average. The students are between 13 and 15 years of age. The curriculum for this level consists of 10 required, elective and extra-curricular subjects totaling 1,156 hours of annual class time. Each class time is 45 minutes. Each school has a homeroom teacher, but instruction is given by different subject teachers who visit the classrooms to present their subjects (MOE, 2015).⁵

Regular examinations are administered twice per semester for each subject. Final grades are recorded at the school academic record, which is used to screen student academic achievement for university admission. Following the adoption of the latest revised national curriculum in 2015, pupils have begun to enjoy a “free semester,” during which they do not take any written examination for assessment. This change was introduced to promote “Happy Education” for all children.

2.1.3 High School

After completing middle schools, students are expected to advance to high schools at which attendance is not mandatory, but is, in practice, universal. Unlike compulsory elementary and middle schools, both public and private high schools charge tuition fees to supplement government

⁵ Students from two separate classrooms are divided into two groups: high- and low-performing groups based on their math and English test scores.

subsidies. These tuition fees, however, do not present a financial burden for households because a large portion of schooling in high school is funded by government.⁶

South Korea has three different types of high schools: academic, vocational, and special-purpose schools that offer specialized education in subjects such as foreign languages, arts, sports, and science. In 2016, 71.7 percent of students were enrolled in general academic schools, compared with 16.6 percent in vocational schools and around 11.5 percent in special-purpose schools. All general academic schools follow the same nationwide curriculum. Academic school is a preparatory school for university. Approximately three-quarters of all high school students go on to attend university (KOSIS, 2019).⁷

About 60 percent of high schools are located within so-called “equalization zones,” in which students are assigned to schools on the basis of a lottery system. In 2005, however, the government made a change following complaints from parents and students about the lack of choice in school selection. The Seoul Metropolitan Office of Education (SOME) responded by introducing a “wide-area school system” into the high school assignment process. The system allows students to apply to some schools in a district located in the central area of the city that lacks sufficient residents to fill schools to capacity. In 2009, this system expanded to all the districts in Seoul, where it remains in place. Since then, students in Seoul and other major cities, such as Busan, have been assigned to high schools through what is known as the “Boston mechanism,” which attempts to assign as many students as possible to their first-choice school. Under this system, assignments to schools that students rank as their top choice are offered first, followed by students’ second-choice schools, and so on (Pathak and Tayfun, 2008).

⁶ The total amount of tuition for high school is uniformly determined by regional authority, considering the conditions of each area. High school tuition in Seoul, for example, is set at about \$1,000 per year, 4 percent of the average household net-adjusted income in Korea, and it can be paid in four installments collected over four terms.

⁷ Statistical Yearbook of Education, Korean Educational Development Institute, <http://cesi.kedi.re.kr>.

Table 4. Seoul School Ranking Form

Position	Type of Rankable School	Name of the School
3 rd	Regular in the city	
4 th	Regular in the city	
5 th	Regular in your choice zone	
6 th	Regular in your choice zone	

Source: Seoul Metropolitan Office of Education (2015)

In the Seoul administrative division, students can choose up to four preferred academic high schools: two schools in the city, and two schools in their respective school district (see Table 4).

After all students submit school rankings, they are assigned to one of those schools by a computerized lottery system. Therefore, because students can submit their school assignment preferences, the high school assignment system in Seoul is not completely random. However, students from different academic levels, based on their performance ranking in middle school, are distributed equally among high schools, according to the Office of Education.

Some schools—including vocational, special-purpose and academic schools that are not located in equalization zones—use their own, individual selection processes, which are administered by the schools themselves. Admission to such schools is highly competitive and driven by free market mechanisms. This means that eligibility is usually determined by grade point averages and scores on entrance examinations, as well as by interviews and/or teacher recommendations.

Under the current curriculum for general academic high schools, students can freely choose subjects from science- or liberal arts-oriented streams, in addition to taking required subjects like Korean, mathematics, English, and a second foreign language. Promotion to the next grade is based on educational assessments and evaluations, with midterm and final exams at the end of each semester. High school records usually provide detailed information about academic performance, class ranking, and attendance. Students who complete all required 204 credit units are awarded a certificate of graduation from high school. Those who want to pursue education in university or other tertiary education take the College Scholastic Ability Test (CSAT), an eight-hour set of university entrance tests, which is used to determine university admission along with student records and other data.

3. Information and Incentives

3.1. Private Tutoring

Many East Asian countries that have for such a long time relied on private tutoring as a routine aspect of students' overall education are cultures deeply influenced by traditional Confucian concepts and values (Sorensen, 1994). Their traditional respect for knowledge, and a relentless focus on education overall, often labeled "education fever," derives from Confucian ideology that values education as a means of self-cultivation and as a pathway to achieve higher social status and power. Particularly in Korea, under the Chosôn Dynasty (1392-1910), most important governmental positions were selected through an examination system. As a result, the major preoccupation of many Koreans was to pass the exam and acquire high social status and honor not only for the individual, but for the family as well, since family lines were strongly emphasized in Korean society. Education thus served as the mark of social mobility to perpetuate the status of the elite.

Today, many Koreans still rely on educational attainment as the key measure of a person's worth. They believe that graduating from a prestigious university will ultimately determine future career success and will give them more opportunities and better lives than was possible for their parents and previous generations. Research does suggest the important role that name-brand universities may play in career advancement in Korea. For example, Lee (2007) showed that Korea has a high concentration of CEOs who are graduates of its top universities. His work showed that 74 percent of Korea's CEOs are graduates of Korea's top three universities; by contrast, in the United States, 17 percent of CEOs are graduates of 10 highly ranked universities. Lee emphasizes that students work hard in the "signaling stage" as determined by their societies. Therefore, East Asians study harder in high school than in university to gain admission to the top universities that provide the signals that are most often used to judge workers' abilities in these countries.

This situation can explain why Korean high school students and parents are extremely obsessed with university admissions. They view this as a "make-it-or-break-it" time of life, and, in turn, they spend substantial amounts of money on private tutoring and "cram schools."

In 2016, total household expenditures on private tutoring reached 47 percent of total national spending on formal education. Among students who receive private tutoring, average monthly expenditures are USD 515 per high school student, USD 438 per middle school student, and USD 307 per elementary school student (KOSIS, 2017).

A national survey of private education expenditures in 2016 showed the pervasive extent of private tutoring. It estimated that private tutoring takes place among 80 percent of elementary school students, 63.8 percent of middle school students, and 52.4 percent of high school students (see Table 5). Weekly student participation hours were estimated to be 6.8 hours in elementary school, 6.2 hours in middle school, and 4.6 hours in high school (KNSO, 2016).

Despite the government’s substantial expenditure on public education and its efforts to reduce the reliance on private tutoring, household spending on private tutoring activities has been increasing impressively, and Korean students are still facing strong pressure to devote long hours of study to enter prestigious universities.

Table 5. Private Education Participation Rate

Classification	2012	2013	2014	2015	2016
Elementary school	80.9	81.8	81.1	80.7	80.9
Middle school	70.6	69.5	69.1	69.4	63.8
High school	50.7	49.2	49.5	50.2	52.4

Source: KNSO (2016).

Despite the government’s substantial expenditure on public education and its efforts to reduce the reliance on private tutoring, household spending on private tutoring activities has been increasing impressively, and Korean students are still facing strong pressure to devote long hours of study to enter prestigious universities.

Students and parents participate in private education in Korea for many reasons. The most well-known purpose, as previously mentioned, is to prepare for the university entrance test. Because of the strong national importance attached to a university education, and because of the emphasis placed on credentials from top universities as a pathway to a successful life, the demand for supplementary tutoring activities is sizable.

Second, public education fails to satisfy the desires of students and parents. Public education appears to leave students and parents dissatisfied with the amount and level of preparation offered, particularly in light of the intense competition to gain admission to prestigious universities. Dissatisfaction with public schooling appears to relate in part to student assessments and other activities that are perceived to take away from preparation time, and from the lack of provision of tailored instruction that can target specific student needs. Generally, students are assigned to a classroom (bahn) in which they spend all school hours. Bahns generally contain

students with various academic achievement levels, instead of using tracking to group together students of similar learning levels.

Finally, private tutoring is used as an enrichment strategy in Korea, which means that high-scoring students are twice as likely as low-scoring students to receive private tutoring, further increasing their scores, their chances of gaining admission into top universities, and their chances of being hired for prestigious jobs later in life (Baker, 2001). These perceptions and beliefs that private tutoring improves academic achievement, and the underlying anxiety about the possible consequences of not using extra tutoring, eventually lead students to participate in some form of private tutoring.

Four different types of private tutoring are most commonly used in Korea: cram schools (hakwon), one-on-one tutoring (gwae), online tutoring, and correspondence courses (hakseupji).

Cram schools are the most dominant type of private tutoring. They are private institutions similar to schools that offer supplementary classes (mostly in English and math) for a limited group of students. In general, after regular school classes, almost all Korean students attend some sort of hakwon to review what they learned at schools, but, for the most part, they participate in hakwon education largely to achieve better academic test scores. Moreover, it is common in Korea for about one third of high school graduates, so-called jaesusang, to spend an extra year or more solely for CSAT preparation by attending private test preparation institutions to try to gain admission into the university they wish to attend (Avery et al., 2014).

Individual tutoring (gwae) is typically provided by university students at a student's home. Tutors teach general academic content and offer students advance preparation for subjects and topics that are about to be introduced at school. High-income households are the most frequent users of this form of private tutoring.

Online tutoring is fast growing as the most accessible form of private tutoring in Korea. Almost all high school students seek further CSAT preparation at their homes through online courses provided by private tutoring institutes. These tutoring institutes in Korea not only give lessons in person, but also prepare online courses and materials so that students can purchase them and study at home. The government also provides its own e-learning system free of charge through the Educational Broadcasting System (EBS)⁸ television broadcast and Internet portal. The EBS

⁸ This public online tutoring system was originally created in the mid-1990s to reduce dependence on private tutoring and further to lessen households' financial burden.

provides numerous free lectures and less expensive workbooks to students, enabling them to study without bearing any financial burden. In 2004, the authorities announced a policy that 70 percent of CSAT, a key university admission criterion, will be linked to the EBS workbook for 10 years in an attempt to more strictly address prevailing pressures to use private tutoring.

Lastly, students may sign up for memberships that deliver self-study materials (*hakseupji*) and provide feedback either in person at home or through written comments.

3.2. Student Assessment

Promotion between grades is based on educational assessments and evaluations, with midterm and final exams at the end of each semester. However, Korea does not practice grade retention. Basically, students receive yearly “Student School Records,” which contain detailed information about their academic performance and are issued by school. These records are increasingly used for admission to university to alleviate the pressure of exam-based admission system.

To measure academic achievement, MOE administers each June a national test, the National Assessment of Educational Achievement (NAEA), June for all students in grades six, nine, and 11. The NAEA consists of three subjects: reading, math, and English (KEDI, 2016). In 2018, the NAEA changed from a full assessment to a sampling assessment in which only 3 percent of schools nationwide participate. This shift is part of broader educational reforms to eliminate strong competition that can be counterproductive or harmful among students and schools.

3.3. University Admission

Korea’s higher education admission policy has changed over the years. Initially, higher education institutions administered their own admission tests. These were abolished when the government introduced the national CSAT in 1981. Institutions have since generally used two main admission criteria: comprehensive high school records and the CSAT. High school records must account for at least 40 per cent of universities’ total admission score, while the CSAT is optional. In fact, only 22.7 percent of freshman students were admitted exclusively on the basis of CSAT scores, whereas the majority of students were admitted based on other criteria, including high school grade averages, university admissions tests, essays, letters of recommendation, practical tests, extracurricular activities, and interviews. Most of these admissions are through “early admissions,” for which candidates apply in September before the annual CSAT in November (OECD, 2010).

The CSAT test has been revised several times. It is conducted by the Korea Institute for Curriculum and Evaluation (KICE) every year in November nationwide. It consists of five subjects, divided into specific tests on math, English, Korean language, social science/science, and a second foreign language/classic Chinese literature. Tests on math, English and Korean language are identical for all candidates. Tests in the other subjects are choice based, whether social science or science subject. The test has 400 total points, which are generally divided into nine different levels of achievement. Students who take the CSAT can apply to three different universities at a time.

In 2017, about 606,000 applicants registered for the CSAT (MOE, 2018). Among them, about 22 percent were repeat applicants. Because it has a major impact on students' university prospects, this high-stakes examination is an important event in the life of the country. On test dates, businesses and the stock market open late to prevent traffic jams. Bus and subway services are increased to ensure that students arrive on time for the test. Underscoring the importance of the test, air traffic in Korea is suspended during the listening section of the eight-hour test.

The CSAT score is one of the key admission criteria at many universities, and students work hard to get the highest possible score on this test. In fact, it is within bounds to say that Korean students study hard only to prepare for this test at the end of high school.

4. Conclusion

South Korea is well known for its outstanding performance on international assessments of student achievement and learning. Both public and private investments are often considered key factors in this success.

The central government in South Korea plays a main role in designing and providing education institutions. Since the country's independence in 1948, the central government in South Korea has spent a substantial share of its budget in building public elementary schools and eradicating illiteracy. The Korean government then continued to spend heavily to build middle and high schools, and eventually to build universities as well. Under the Korean system, the government essentially absorbs private schools into its public school system so that students' tuitions and teachers' salaries in private schools are equal to those in public schools. Moreover, Korea continues to invest in public education at higher-than-average levels. In 2014, for example,

Korea's total expenditures on public educational institutions reached 6.3 percent of total GDP, notably above the 5.2 percent OECD average (KNSO, 2016).

Parents and students invest tremendous time and resources into private tutoring. Beginning in the 1960s, the use of private tutoring for secondary and high school admissions expanded at an alarming rate. The South Korean government implemented various policies to alleviate this demand. One key measure is its Equalization Policy, which changed the student selection system by abolishing competitive entrance exams and adopting random allocation of students. Nonetheless, this policy has not been able to end the demand for private tutoring. The policy, which contributed to the remarkable expansion of secondary school enrollments, shifted the competition for admission to higher educational institutions. Students now vie for entry into better, more prestigious colleges. At 15 years of age, South Korean students report that they spend 3.9 more hours per week attending private tutoring and out-of-school activities than do their peers in other OECD countries (OECD, 2004). As a result, the demand for private tutoring remains one of the main challenges for the government. The government has sought to address the issue by introducing a national model of tutoring, the Educational Broadcasting System (EBS), which is intended to provide a substitute to reduce both the use of private tutors and the resulting financial burden on households. In addition, the government adopted the 2015 New Revised National Curriculum to cultivate a "creative and integrative learner," and to emphasize the importance of "Happy Education." Such efforts are intended to address the growing concerns for student's well-being in South Korea (KEDI, 2018).

Meanwhile, the education system faces other challenges, including a lack of school choice. The government is pursuing various policies to address curricula, technology, and systems of selection into schools (Bray et al., 2012).

The heavy involvement of and investments by the government, parents and students play important roles underpinning the high academic achievements of students in South Korea. Given South Korea's distinct historical background and educational culture, applying its educational policies in other countries' settings might prove difficult, and might lead to different outcomes. Despite such limitations, other countries may find value in attempting to adjust, apply, and emulate some aspects of South Korea's effective developmental process of education.

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