Research on Afterschool Programs in Korea: Trends and Outcomes

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Abstract: Afterschool programs in Korea have been widespread and even regarded as being institutionalized recently. A clear evidence of this phenomenon is that quite a number of students and parents choose afterschool programs as the alternative to private tutoring. Therefore, this study aims to explore the recent research trends and outcomes on afterschool programs in Korea. The researchers reviewed and analyzed approximately one hundred recent studies on afterschool programs in Korea. One outstanding trend of research on afterschool program is, despite dominance of the studies using personally-collected data, the number of studies by using large-scaled national data has increased since the latter half of the 2000s. In addition, recent studies tend to be substantial in research topics and method; many of recent studies have examined the impact of afterschool participation on academic improvement and the reduction of private tutoring expenditure by using statistical methods. Those studies generally presented positive effects of afterschool participation on students' academic achievement and the reduction of private education expenditure.

Keywords: research on afterschool programs, educational effectiveness, afterschool participation, academic achievement

1 Introduction

During the past few decades, Korea's education has made significant progress both in quantity and quality. It is also widely agreed that the rapid economic growth and social development of Korea has been intimately associated with the timely and ever-increasing investment to education both at the family and national levels (Choi, 2009; Kim, S.B., 2007). As Korean students have continued to show remarkable achievements in the international assessments such as PISA (Program for International Student Assessment) and TIMSS (Trends in International Mathematics and Science Study), Korea's education is increasingly considered an exemplary model not only by developing countries but also advanced countries (McGaw, 2005).

One outstanding feature of Korea's education system, which draws greater attention of educational leaders and researchers of the world, may be that it has constantly developed and evolved responding to its ever-changing environment (Lee, C.J., 2007). It seems that the dynamics of Korean education are derived not only from

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education policies continuously and ambitiously initiated by the government but also various educational attempts made by Korean parents who are willing to sacrifice their life for the sake of their children's success and thus invest their time and money for their children's education as much as they can. In this context, discussing Korean education, one may not overemphasize the tension between public schooling and private supplementary tutoring that Korean parents purchase to help their children improve test scores and develop their talents. Thanks to the traditionally strong belief in the power of education as the means for upward social mobility, energy, time, and money that Korean people generally spend for education is incalculable.

A compatible relation between public education and private tutoring is mostly referred to with the concept of 'education fever (Seth, 2002)' and 'shadow education (Bray, 1999; Lee, Park, & Lee, 2009; Stevenson & Baker, 1992).' The two systems have developed into a unique rivalry structure in Korea's education, causing various social, political, and even academic issues – i.e., the heavy financial burden of private tutoring, the erosion of public schools, and gaps in educational opportunities. In particular, the Korean government has strived to prevent or minimize the harmful consequences derived from the epidemic of private tutoring outside schools which is often claimed to weaken public schooling and contribute to increase the education gap among regions and classes (Bae, Oh, Kim, Lee, and Oh, 2010; Lee et al., 2009)

Among many attempts to strengthen public education and decrease private tutoring outside of schools, a new form of the educational system – afterschool programs – has emerged. Researchers (Bae, Kim, Lee, & Kim, 2009) claimed that afterschool programs in Korea have developed with the strength of both public education and private tutoring. The programs are mostly run within schools and provide students with educational services as good as those that private institutions usually offer (Bae, Kim, & Yang, 2010; Chae, Lim, & Woo, 2009). While still being controversial, afterschool programs in Korea seem to be being institutionalized as one of the education systems. Namely, it is now becoming one of the three pillars constituting Korea's education – public schooling, private tutoring, and afterschool programs. Not surprisingly, in recent years, there has been an increasing amount of literature on afterschool programs in Korea.

This study aims to explore the research trends and outcomes in afterschool programs since the programs have influenced and been changing the landscape of education in Korea. Despite a relatively short history, research on afterschool programs in Korea has been vigorously conducted more recently ever since the Lee Myung Bak administration took office in 2008. By looking into the trends and outcomes of various studies, one can discern the dynamics of Korean education as well as strengths and weaknesses of afterschool programs in Korea. In the following sections, the definition and concepts of afterschool programs in Korea will be presented. Then, the history and development of afterschool programs in Korea will be examined thoroughly. Finally, research trends and accomplishments on the topic will be summarized and analyzed.

2 Definition, Concepts, and Aims

The official definition of afterschool programs in Korea is "a set of student-centered learning and development activities which are school-based operations but are not a part of the regular curriculum (Ministry of Education and Science and Technology [MEST], 2012)." This definition seems not ostensively different from that of the afterschool programs in other countries (Park, Byun & Jo, 2012). However, as seen in figure 1, the concepts of the afterschool programs and how they are practically run are distinctive as they are, in short, aimed to make up for the weakness of the public schooling and hold private supplementary tutoring, sometimes called 'shadow education', in check.

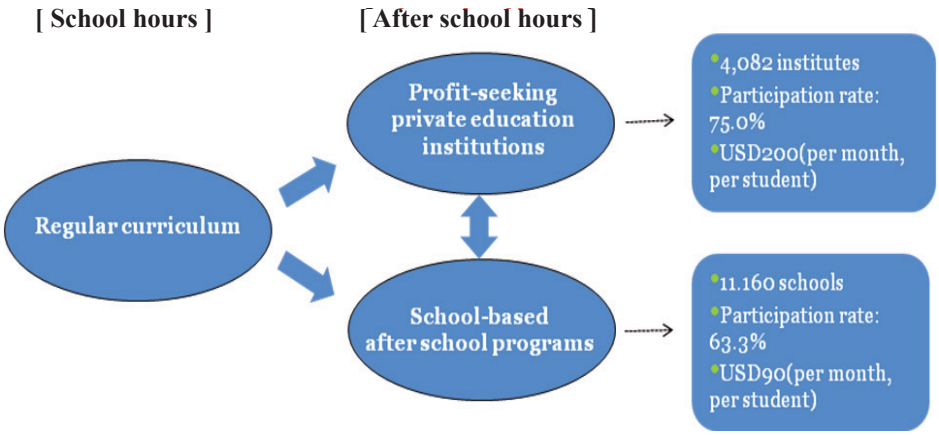

Figure 1: Conceptual Framework of Korean Students' Learning Activity (Bae & Jeon, 2011)

During the school hours, Korean students generally stay and learn at schools. After school hours, however, students are able to choose to attend private tutoring and/or afterschool programs. In reality, diverse constraints including larger class size, less-open and less-flexible national curriculum, and college entrance examination prevent public education from providing student-centered, high quality learning opportunities (Bae & Jeon, 2011). Consequently, Korean students could not but head for *hakwon* (for-profit private educational institutes) after school, seeking supplementary tutoring and quality education geared towards their particular needs and talents. Limitations and distrust in public schooling, as a result, caused so-called 'education fever' in Korea, having Korean parents spend tremendous amounts of money and efforts to make up for public education. Afterschool programs in Korea, therefore, are basically intended to respond to students' needs and interests within the realm of the public education system.

Since afterschool programs in Korea are mostly run within schools, they could be renamed as 'school-based afterschool programs (Bae et al., 2009).' 'School-based' does not only mean the programs' locational feature, but it also involves the programs' policy intentions that attempt to incorporate afterschool programs in the domain of public education. Most programs are run at school, while only a few are operated at other public educational facilities such as museums, gymnasium, and college facilities nearby students' homes. As the programs are mainly implemented

by and within school, they cannot but be supported and regulated by the government for program contents and management. This may be the biggest difference between school-based afterschool programs and profit-seeking private tutoring that exists in the market outside schools and thus is relatively free from the government regulations.

School-based afterschool programs can be categorized into three types: afterschool child care, enrichment programs, and academic programs (MEST, 2012). The Korean government has supported afterschool programs, aiming at improving public education by resolving educational and social issues within public schools. In this context, while afterschool programs in other countries are usually enrichment or development programs, those in Korea distinctively includes day-care and academic programs. For instance, since caring for children of working mothers has been a social issue as the number of working women has increased year by year in Korea, the government planned child care programs within public schools. Child care programs are often provided in 1st through 3rd grade in the elementary level and have kept increasing. On the other hand, enrichment programs aim to develop students' creativity and meet their interests and needs. These programs, therefore, include arts and crafts, music, sports, English for conversational purpose, cultural programs, etc. As most enrichment programs are non-academic, they are generally more popular among the elementary students, who have fewer burdens on entrance examinations compared to middle and high school students. Among middle and high school students, however, academic programs are dominant as they are typically subject-based, aiming to satisfy students' academic needs. Those academic programs are also intended to narrow achievement gaps among students of different social groups as the gaps are regarded to be derived from the differences in learning opportunities after school and specifically expenditure on private supplementary tutoring (Bae, Kim, & Yang, 2010) – the richer people are, the more they generally spend in private tutoring after school (Bae & Jeon, 2011; Lee et al., 2009).

3 Development and History

Afterschool programs in Korea have a relatively short development history compared to those in other countries. However, ever since *the May 31 Education Reform* which was a comprehensive education reform initiated by the Presidential Education Reform Committee in May 31, 1995, they have developed and expanded substantially (Jeong, 2007). Nowadays, more than 65 % of all students enroll in at least one afterschool program and the number is growing year by year. In compliance with each administration's ideological orientation, the programs have been adjusted, evolved, and even fairly institutionalized (Bae & Jeon, 2011). With vast financial support from both the central and local governments, afterschool programs could have retained their position as third party institutions that have equal footing with both regular and private tutoring (Bae, Song, & Kim, 2012).

The first developmental period of afterschool programs in Korea began in 1995 when the May 31 Education Reform Initiatives were announced by the Kim Young Sam administration (Jeong, 2007). Based upon neo-liberalism, the new policy aimed

to provide more 'student-centered' educational services which public schools have difficulties in offering (Heo, 2007). In other words, the advent of afterschool programs in Korea may be better understood as part of the student-centered education reform movement. With more emphasis on student choice, students could attend enrichment programs and cultural activities which had not been provided in the regular curriculum before. These early afterschool programs, in addition, were mostly run in the elementary level due to excessive competition for highly ranked colleges and universities at the secondary education level.

The second period continued between the Kim Dae Joong (1998–2003) and the Roh Moo Hyun (2003–2008) administrations. Both of the administrations were left-wing governments which favored equality over efficiency and excellence in education. The two administrations employed afterschool programs as a means to solve educational inequality, social disparities, and soaring expenditure on private tutoring (Bae, Oh, Kim, et al., 2010). The Roh Moo Hyun administration provided students from low income families or in rural areas with additional opportunities to have more diverse and quality educational experiences via afterschool programs. As schools were greatly encouraged to offer academic programs especially for the disadvantaged students, participation rates of high school students have steadily increased in this period. Moreover, since 2006, both a steep rise in government investment in afterschool programs and publication of afterschool vouchers were provided to the disadvantaged students who could not afford expensive private tutoring outside school. Consequently, as K. K. Kim (2007) argues, afterschool programs began their role as 'the fixer' of educational inequality and social disparities.

The third developmental period of afterschool programs began with the Lee Myung Bak Administration in 2008. The current Korean administration continues the tradition of supporting and developing afterschool programs. Like his predecessors, President Lee Myung Bak, since his inauguration, has encouraged afterschool programs as a means to rectify educational inequality which prevails nationwide. However, this government made a new attempt unlike the previous administrations. The Lee administration differentiates its afterschool programs from those in the past that intended to run the programs within the public education framework as feasibly as they could. The government announced to broaden the boundaries of afterschool programs and invite the private education vendors to improve the quality of the programs and provide more diverse programs (MEST, 2012). This announcement was quite epoch-making since public education and private education providers had been traditionally regarded as competitors in Korea before.

The inflow of quality programs and instructors from the private sector has helped schools provide their students with inexpensive but quality programs (MEST, 2011). Although there still exists animosity in Korean society to open the school door to the private sector, the Lee administration asserts that involvement of the private vendors in afterschool programs not only increased the quality of education but also decreased the burden of the teachers at school (MEST, 2011, 2012). Before the third period, schools and their individual teachers were mainly responsible for providing afterschool programs within their schools. This was because public schools were regarded as a sanctuary from the *evil* of private tutoring.[2] However, some research-

2 Private education in Korea has been often considered as 'a necessary evil' since it amplifies educational consumption and contributes to increase overall academic ability of Korean students, but also has been believed to intensify the competition among students and increase social as well as academic disparities.

ers (Han, 2011; Kim, M. H., 2006; Kim, 2008; Woo, Kim, Kang, & Yang, 2011) presented that resources from outside of schools have somewhat raised the quality of public education. Moreover, other studies (Bae & Jeon, 2011; Jeon & Kim, 2011; Heo, 2007) also displayed that afterschool programs as 'a school within a school' have increased the overall satisfaction of all education participants including students, teachers, parents and even the community.

Although it is still disputable, involvement of the private sector in afterschool programs has now become a fait accompli. For instance, social ventures established by universities and news media actively and eagerly run, or help public schools operate afterschool programs. As of 2012, there exist 15 university-driven and 22 news media-driven social ventures working in the afterschool domain. Moreover, the programs that they are offering are very popular among students and, thus, the participation rate has steeply increased year by year (MEST, 2012). In brief, although afterschool programs in Korea have a relatively short history of approximately two decades, in reflection of distinctive conditions of Korean education, the afterschool programs have evolved and still are developing.

4 Research Trends and Outcomes

Ever since the first implementation of afterschool policy in 1997, researchers have exerted themselves to examine effectiveness of afterschool programs concerning academic, social, and political aspects. However, since the middle of Roh's administration, more vigorous research activities have been done regarding the topic as the government emphasizes the significance of the programs. In this section, research trends and outcomes in afterschool programs in Korea will be summarized after review and analysis of several tens of related studies including journal papers, personal theses and dissertations, and policy reports.

Research Trends

As previously seen in the history and development of afterschool programs, the recent form of afterschool programs in Korea – i.e. *school-based afterschool programs* – was initiated since 2004 after President Roh Moo Hyun was inaugurated. The Roh administration split the existing afterschool programs into three types: child care, enrichment, and academic programs. President Lee Myung Bak, then, poured oil on the flames: the Lee's administration has innovatively reinforced afterschool programs by inviting the private providers into the public education. Programs run by private vendors are providing diverse learning experiences that public schools may not be able to offer. As afterschool programs were highlighted as one significant means to resolve educational and social problems by the two governments, studies on the topic has naturally ridden the crest of the boom. For example, over one hundred studies have been conducted only in the last five years regarding the topic including master's thesis and doctoral dissertations.

Research trends in afterschool programs in Korea may be examined in two criteria: theme and data. For instance, researchers of different academic interests in-

vestigate different research questions such as psychological influence of afterschool participation on elementary students and effects of afterschool participation on reduction of private education expenditure. Furthermore, researchers use different kinds of data to study afterschool programs. Some researchers analyze large-scaled national data such as Korea Educational Longitudinal Study (KELS), Private Education Expenditures Survey (PEES), and Korean Education & Employment Panel (KEEP), while the others may use individually collected data. Therefore, to grasp the research trends of afterschool programs thoroughly, it may be necessary to explore the topic by considering both of the criteria.

Research on afterschool programs may be divided into two time periods: before and after 2008. Studies on afterschool programs before the Lee administration tend to be exploratory (Kim, Han, & Han, 2007; Lee, B. Y., 2007; Lee, Kim, Hong, & Min, 2007), trying to seek alternatives to establish or perfect the programs. Therefore, the majority of studies on afterschool programs published before 2008 introduced and compared foreign models (Lee, J. A., 2007; Yoo, 2005), conducted demand survey analyses (Kim, J. S., 2006; Lee et al., 2007), developed afterschool programs (Lee, B. Y., 2007; Shin, Yu, & Yi, 2007), and conducted case studies in elementary or middle schools (Byun, 2007; Yoon, 2007). Moreover, before 2008, most academic studies were conducted at an individual level by using personally collected data, while most policy reports were likely to be demand survey analysis or case study reports. Furthermore, those studies dealt with enrichment programs rather than academic ones since academic programs began to be included in 2004, yet stressed in earnest since 2008.

Looking into dozens of studies which have been conducted ever since the inauguration of President Lee, one can discern distinctive changes in the trends of research in afterschool programs. One outstanding feature is the usage of large-scaled national data. As large-scaled national data such as Korea Educational Longitudinal Study (KELS), Korea Education and Employment Panel (KEEP), and Private Education Expenditures Survey (PEES) were initiated in the mid 2000s, studies by using those large data sets have naturally emerged. Studies by using those large data sets, moreover, are inclined to be interested in verifying the effects of afterschool participation and outcomes of the afterschool program policy at the national level (Back, 2012; Bae, Oh, Kim, et al., 2010; Byun, Hwang, & Kim, 2011; Cha, Shin, & Min, 2011; Kim & Hwang, 2009; Kim, H. S. 2012; Kim, J. Y. 2012; ; Seo, 2011). Application of those large data sets not only broadened the scope of both the academic and policy field of study, but also changed the point of research interests from exploratory to substantial and empirical. Those large-scaled data sets have enabled the researchers to demonstrate the effect of afterschool program participation on academic improvement and reduction of private education expenditure (Bae, Oh, Kim, et al., 2010; Bae, Kim, & Yang, 2010; Byun & Kim, 2010; Byun et al., 2011; Kim, J. Y., 2012; Kim, H. S., 2012). Variables in the national data often used in those studies are presented in Table 1.

Table 1: Variables in Large-scaled national data used in studies on afterschool programs

Data	Variables	
KELS	5 Afterschool programs	6 Participation in afterschool programs (Yes/No) 7 Subject area of afterschool programs 8 Hours & expenditure on afterschool programs per week per subject 9 Reason why participate/not participate in afterschool program
	10 Education Broadcasting System (EBS)	11 Buying EBS books (Yes/No) 12 Expenditure on EBS books
	13 Private education	14 Participation in private education (Yes/No) 15 Expenditure on private education per subject 16 Form of private education
KEEP	17 Afterschool programs	18 Participation in afterschool programs (Yes/No) 19 Expenditure on afterschool programs per week per subject 20 Reason why participate/not participate in afterschool program
	21 Private education	22 Participation in private education (Yes/No) 23 Expenditure on private education per month 24 Reason why participate/not participate in afterschool program
PEES	25 Afterschool programs	26 Participation in afterschool programs (Yes/No) 27 Hours & expenditure on afterschool programs per week
	28 Education Broadcasting System (EBS)	29 Watching EBS (Yes/No) 30 Expenditure on EBS books
	31 Private education	32 Participation in private education 33 Reason why participating in private education 34 Hours and expenditure on private education per week 35 Participation in art and cultural activities 36 Hours & Expenditure on art & cultural activities

The other feature of research trends in afterschool programs is a change of the research theme. Before 2008, although academic programs were already included in 2004, the main purpose of afterschool programs before the Lee administration was to help students have diverse non-academic or non-curricula experiences. Therefore, enrichment programs such as art and cultural activities accounted for most afterschool programs in Korea. However, as the aim and focus of the policy were changed, research interests have shifted as well. As mentioned above, most studies using the national data examined the influence of afterschool participation on academic improvement and private education reduction. While the number of research studies using the national data has been increasing, studies using personally collected data still hold a large majority. Those studies using personally collected data have a wide variety of research topics from a simple report of the present conditions of afterschool programs (Kim, 2012; Shin & Lee, 2010; Woo, 2008; Woo et al., 2011; Yang, 2011) to causal analysis of afterschool programs on different outcomes including social and emotional development of children who participated in the programs,

(Kim & Han, 2008; Kim & Park, 2008; Jo, Kim, & Byun, 2010). More detailed research outcomes will be addressed in the next section.

Research Outcomes

As afterschool programs brought an innovative structural change in Korean education, it is necessary to examine what the outcomes of the implementation of the programs and participation in the programs are. When addressing the influence and effects of afterschool participation, three aspects should be considered: demographic, academic, and socio-political outcomes. Demographic outcomes mainly deal with current conditions of the programs such as how many students participated in the programs, their socioeconomic status, and how many and what types of programs are offered. Academic outcomes include the effects of after school participation on student academic achievement. Socio-political outcome concerns if people are satisfied with the policy and how afterschool programs have contributed to the reduction of private tutoring expenses, particularly for low income families. The majority of the studies on afterschool programs examined the research topics under these three categories.

Demographic Outcomes

Studies dealing with demographic outcomes are often conducted by using large-scaled national data. In addition, those studies tend to be sponsored by the government. Those studies are interested in inquiring into the current conditions of afterschool programs such as students and school participation rate, number of programs offered in individual schools, locally, and nationally, number of participating teachers/instructions. In addition they also look into how the trend has changed.

As seen in table 2, almost 100 % of all schools are participating in afterschool programs as of 2010 (Kim & Yang, 2011). Student participation rate has increased yearly as well from 49.8 % in 2007 to 65.2 % in 2011. In 2012, according to the report of MEST (2012), 71.9 % of students were reported to be involved in at least one afterschool program. One notable change is that participation of high school students has increased steadily. Before the inclusion of academic programs, the majority of high school students tended to rely on private tutoring outside schools for complementary learning.

Table 2: Afterschool participation rate of schools and student

	Elementary	Middle	High	Total	Past years			
					2010	2009	2008	2007
Number of schools	5,878	3,151	2,278	11,307	11,226	11,149	11,076	10,941
Ratio (%)	100.0	99.9	99.9	99.9	99.9	99.9	99.9	99.8
Students (thousand)	1,937	1,173	1,449	4,559	4,573	4,276	4,096	3,831
Ratio (%)	61.8	61.4	74.5	65.2	63.3	57.6	54.3	49.8

Source: Kim, H. S. & Yang, A. K. (2011)

The number of programs also has increased since 2007. In 2007, 159,216 programs were provided nationally while more than three times the number of programs were provided in 2011. As seen in table 3, enrichment programs are mainly offered in elementary schools, while academic programs are mostly in high schools. This phenomenon can be interpreted that afterschool programs have gained credentials as a means to stand up to expensive private tutoring (Bae et al., 2011; Bae & Jeon, 2011).

Table 3: Number of afterschool programs between 2007–2011

		Elementary	Middle	High	Total 2010	Past years			
						2009	2008	2007	
Total	No. of programs	201,586	144,421	184,643	530,650	494,965	285,929	230,339	159,216
Academic	No. of programs	70,852	115,058	169,248	355,158	338,891	161,348	117,534	68,403
	Ratio (%)	35.1	79.7	91.7	66.9	68.5	56.4	51.0	43.0
Enrichment	No. of programs	130,734	29,363	15,395	175,492	156,074	124,581	112,805	90,813
	Ratio (%)	64.9	20.3	8.3	33.1	31.5	43.6	49.0	57.0

Source: Kim, H. S. & Yang, A. K. (2011)

The average number of afterschool program courses taken by a student per month was 2.8 in 2011. When afterschool programs were first introduced and established in Korea, only elementary school students participated in the programs. However, the current number of courses taken by high school students is 4.1 in 2011 as in table 4. This also means afterschool programs have absorbed the function of private education to a substantial extent.

Table 4: Number of afterschool program classes taken per month

	Elementary	Middle	High	Total	Past years			
					2010	2009	2008	2007
Number of courses	1.6	3.1	4.1	2.8	3.4	2.3	2.2	2.4

Source: Kim, H. S. & Yang, A. K. (2011)

Table 5 presents the number of teachers/instructors who contribute to afterschool programs. As the number of programs has increased, that of teachers and instructors has also grown. 142, 737 teachers/instructors took part in the programs in 2006 and the number increased to 274,842 in 2010 which is almost double the number. Once inclusion of the private sector was legalized, the number of instructors from outside of school has drastically increased from 52,062 to 90,011.

Table 5: Number of teachers/instructors participating in afterschool programs

	2010	2009	2008	2007	2006
Total number of teachers/ instructors	274,842	219,157	186,448	178,379	142,737
teachers	184,831	149,247	121,469	109,730	90,675
instructors	90,011	69,910	64,979	68,648	52,062

Source: Kim, H. S. & Yang, A. K. (2011)

Academic Outcomes

Among different research outcomes, researchers may be most interested in academic outcomes of afterschool programs. However, not many studies so far were conducted to investigate the relationship between afterschool participation and academic achievement. In those studies, grades and college entrance examination scores are often used as a barometer for academic achievement. Since large-scaled national data usually have variables of those scores, some studies after 2008 were done to investigate the research question (Bae et al., 2010; Byun & Kim, 2010; Jo et al., 2010; Byun et al., 2011; Back, 2012; Chae et al., 2009; Park, 2008; Kim, H.S. 2012; Kim, J. Y. 2012). Generally, those studies proved participation in afterschool programs, to some extent, are associated positively with academic achievement in a positive way.

For example, Bae and his colleagues (2010) found that afterschool programs had a positive impact on student academic performance. The effects were strongest in high school since more academic-centered afterschool programs were provided and emphasized preparation for college entrance. In addition, it is notable that the positive relation between afterschool participation and academic achievement tended to be greatest for low-income students. Their findings can be interpreted that the higher participation rate of low-income students in afterschool programs may contribute to reducing achievement gaps among students of different socio-economic groups. Chae et al. (2009) also found taking afterschool programs had a positive influence on high school students' trial test of the Korea Scholastic Ability Test (KSAT). Byun et al. (2010) analyzed KELS: 2006–2007 data and found middle school students in rural areas who attend afterschool programs tended to have improved Korean and English scores. Kim et al. (2010) studied the data of National Assessment of Educational Achievement (NAEA). Their study presented 6th grade, 9th grade, and 10th-grade students who participated in afterschool programs generally showed higher academic achievement than those who did not participate in the programs. Their study, in particular, found top-graded students were likely to take supplementary and advanced academic programs.

Socio-political Outcomes

Among the three categories of afterschool program outcomes, studies related to socio-political outcomes are largest in number. The main focus of studies on socio-political outcomes is whether and how afterschool programs are related to calm the

craze for private tutoring. Many of the studies on this topic generally demonstrate afterschool programs somewhat contribute to the reduction of private tutoring expenditure. According to the results of Private Education Expenditures Survey (PEES) by Statistics Korea, students who took part in any afterschool programs spent 530,000 won (USD 480) less per year than those who did not in 2010. Studies based upon the statistical data of PEES also showed similar research outcomes.

Kim et al. (2008) analyzed the 2010 data and found afterschool programs are related to the decrease of participation in private tutoring in all school levels, locations, and income brackets. According to their study, expenditure on private tutoring was reduced by 36.69 % in elementary schools, 19.7 % in middle schools, and 25.38% in high schools. In addition, the reducing effect is greater in the student groups of low income families. Bae, Oh, Kim, et al. (2010) also displayed similar findings as Kim and his colleagues that students who spend more on afterschool programs tended to spend relatively less on private tutoring. In addition, they also found the higher the school level and family income, the less students tended to spend on private education. Their study suggests that parents have an affirmative attitude toward afterschool programs. Lee and his colleagues' study (2009) and Sung & Hong's Study (2008) also found a reduction of private tutoring expenditure in all school levels. Kim (2012) found the substitution effect of afterschool programs on private education is greater in middle school level and the non-Kangnam area.[3] He also found the substitution effect is highest on the students from middle class families and they have higher grades in school.

Another group of studies were conducted by using KELS. They also presented that afterschool programs have a reduction effect on private tutoring expenditure. For example, Byun et al. (2011) examined KELS data: 2006~2008 and found participation of afterschool programs has a substitution effect on private education participation. In addition, they also found parents perceived the positive effect of afterschool programs that alleviated private tutoring expenditure. Other studies also found afterschool programs contributed to the reduction of private education participation and expenditure (Kim & Yang, 2011; Lim et al., 2010; Woo & Lee, 2010).

On the contrary, there are some studies that show afterschool programs didn't have a positive influence on reduction of private tutoring participation and expenditure (Byun et al., 2009; Chae et al., 2009; Kim, 2012; Park, 2008). These studies used either PEES or KELS data. Their studies commonly argue that afterschool programs have little or no substitution effect on private tutoring. For example, Byun and Kim studied KELS and found that continuous participation in afterschool programs generally has a positive relation to private education reduction. However, according to their findings, when students are simply divided into two groups, those who participate in any afterschool programs or those who participate in no afterschool programs, afterschool program participation is positively related to higher private tutoring expenditure.

3 Kangnam is usually referred to a combined area of three districts in Seoul: Kangnam, Seocho, and Songpa where the residents' socio-economic status is higher than any other areas in Korea.

5 Conclusion

Thanks to the traditionally strong belief in education for social upward mobility, education in Korea has always been overheated. However, the country has seemingly been in a furnace for the last two decades as the craze in education is getting closer to its peak than at any other time. Thus, President Lee Myung Bak pledged to cool off the fever upon his inauguration in 2008. As one of the means to reduce prevalent private supplementary tutoring and normalize the crippled public education, the government reinforced the school-based afterschool programs more than ever. With its policy intension, the school-based afterschool programs have been widespread and almost all schools in Korea now provide at least one afterschool program.

As the hugest budget and social interest ever was allocated to the afterschool program policy, researchers as well as policymakers became interested in the effectiveness of the policy. This changed the landscape of research in afterschool programs in Korea during the Lee administration. Before 2008, the majority of the studies on afterschool programs were rather qualitative and exploratory; researchers often introduced and compared foreign cases, did individual school-based case studies, or conducted demand survey analyses. Moreover, those studies were likely to be conducted and analyzed with individually collected data including interviews, simple surveys, and different documents. Furthermore, before 2008, academic programs were rarely (before the Roh administration) or partially (after the Roh administration) provided. Therefore, it was difficult for the researchers to prove the actual influence of afterschool participation on students' academic attainment and private tutoring expenses.

However, the Lee government strongly encouraged schools at all levels to provide their students with diverse programs including 'private-educational-institution-like' academic programs. In addition, the development of nationally-collected large-scaled data around the mid-2000s enabled researchers to investigate afterschool programs more quantitatively and scientifically. Studies since 2008 largely tend to examine the impact of afterschool program participation on reduction of private tutoring expenditure and academic improvement by using those large data sets such as KELS, KEEP, and PEES. Outcomes of those recent studies could be categorized into three groups: demographic, academic, and socio-political. Studies on demographic outcomes show an increase in quantity. Academic and socio-political outcomes, according to those studies, present a positive relation between afterschool program participation and higher academic achievement and less expenditure on private education.

Although afterschool programs in Korea have a relatively short history they has developed dramatically for the last seventeen years by forming their unique features. Like the prior governments did, the new government, beginning in March 2013 is expected to invest in and support afterschool programs extensively as well. Moreover, as people already take the recent form of afterschool programs for granted (Bae & Jeon, 2011; Bae et al., 2012), it will be quite interesting to continuously look at the development and evolution of afterschool programs in Korea, particularly as the third education institution in comparison with public schooling and private tutoring. For example, since the government enhanced participation of social ventures and other private sectors, their participation will consequently increase and change the

landscape of public schooling in Korea. Accordingly, studies on afterschool programs in Korea are also expected to increase in number and research questions will become more versatile.

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