

Economic Education in the Republic of Korea

New Directions

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Sustaining the Republic of Korea's (ROK) outstanding economic achievements in part means improving economic education. Historically, an agriculturally based economy with little industrialization, culture, and tradition shaped the ROK's economy; and little advanced economic reasoning or understanding was required. Now that the ROK is an advanced economy, widespread economic literacy is imperative. Examples of critical economic knowledge and skills include rational consumption and production decisionmaking, optimal allocation of scarce resources, and basic understanding of important economic issues. Globalization has intensified the need for widespread economic literacy. The ROK has few natural resources, and economic understandings can foster success in international markets and growth-sustaining global integration.

The ROK's educational system is inadequately responding to the challenge of this significantly changed economic environment. On average, high schools now allocate fewer in-class hours for economic topics than in the past. Also, the number of high school students selecting economics as an assessment subject in the National Scholastic Aptitude university entrance examinations has drastically declined. In the latter half of the first decade of the twenty-first century (2006-2009 school years), more than 80,000 students annually selected economics as an assessment area in their university entrance examinations. The proportion of university-bound students who chose economics as one of their testing areas in the national entrance examinations steadily declined from 16.0 percent in 2006 to 11.3 percent in 2010. The ratio further plummeted to 6.4 percent in 2011 and to 5.3 percent in 2012.

2006-2012 ROK University Entrance Examinees/Economics Examinees

School year	2006	2007	2008	2009	2010	2011	2012
Total examinees (A)	551,884	550,588	559,475	638,216	668,991	648,946	621,336
Economics selectors (B)	88,038	84,239	80,559	84,837	75,372	41,726	32,701
B/A	16.0%	15.3%	14.4%	13.3%	11.3%	6.4%	5.3%

Source: "National Scholastic Aptitude Test for University Entrance," *Korea Institute for Curriculum and Evaluation*, <http://suneung.re.kr/index.do> (in Korean, downloaded on August 29, 2013).

Before 2012, students were required to choose four out of eleven subject areas categorized as social studies or associated fields for testing. The 2012 changes required only three selections out of ten subject areas, and the Ministry of Education (MOE) required only two social studies or associated area choices from ten subject areas in the November 2013 university entrance examinations.

These developments are serious challenges for the Economic Information and Education Center (EIEC), an affiliate of the Korea Development Institute (KDI), a leading ROK think tank. EIEC is one of a limited number of organizations responsible for economic education. However, in the ROK's educational system, selection of what subjects to teach and how many class hours to assign per subject are made either by the MOE or, in some cases, individual schools. Thus, EIEC limits its role to provision of economic curriculum materials, teacher retraining programs, and support for student economics-related extracurricular activities.

Currently, the KDI/EIEC is developing new middle and high school teacher economic education retraining. We don't assume the new pro-

grams will reverse recent declines in economic education in the short run, but we do believe that the new retraining initiative is more substantive than other current ROK economic education programs. These programs tend to overlap and, more importantly, *be too short in duration*, especially because the large majority of ROK schoolteachers were not economics majors and have limited prior knowledge of the subject. The essay that follows is an overview of the current state of economic education in the ROK, a brief account of what future teachers will learn about economics, and an analysis of the major problems and possible responses. The essay concludes with a description of the new KDI/EIEC economic education programs.

The Current State of Korea's Economic Education

K-12 Economics and Social Studies Courses and Requirements

As is the case in many countries, the ROK uses a 6-3-3 grade division. Kindergarten facilities are widely available but mostly private. Primary and middle school education is legally compulsory, but high school education is heavily subsidized by the government, and the ROK has one of the world's highest high school graduation rates.

Education in basic economic concepts starts at third or fourth grade with topics such as "Rational Economic Decisions." In the fifth or sixth grade, students explore the topic of "How Our Economy Has Developed." These basic economic concepts are included in social studies textbooks.

In middle school, economic topics are integrated into mandatory social studies courses, such as history or geography. This approach makes it easier for teachers to explain economic phenomena or activities using real-life situations rather than theory. Because educators consider eco-

nomics to be more difficult than other social studies content, economic content is addressed in the last two years (eighth and ninth grades) of middle school. Topics at the middle school level include "Understanding Economic Life" (general introduction to the importance of economics), "Understanding a Market Economy" (how the market mechanism operates for production, distribution, and consumption), "National Economy and Economic Development" (introduction to macro-

economic concepts, such as inflation and national income), and "International Economics and Globalization" (introduction to international trade and investment). In most middle school textbooks, the market economy is explained utilizing depictions of individual, business, and corporate actors and their relationships with each other, as well as the state. Descriptions of production, distribution, consumption, and taxation are not accompanied at the middle school level with content on the history of economic thought, which would include information on Adam Smith or other famous advocates of the market.

Additional topics, such as the economic effects of natural disasters, demography, regionalism, environmental issues, and sustainability, are included in middle school geography textbooks. Since social studies is a compulsory subject in middle school, economic content is nationally standardized, and this is reflected in school textbooks.

Although the range of middle school economic topics appears impressive at first glance, there is a major problem due to the low priority given to economics among the subjects covered in social studies. During the

three years of middle school, students spend a total number of 510 hours (instructional time per hour is actually forty-five minutes) on social studies. Our analysis of middle school social studies textbooks, which Korean teachers closely follow, indicates approximately 146 classroom hours should be devoted to economic topics. However, the reality is that many teachers often skip over or quickly cover economic topics near the end of the semester. This is primarily, in our opinion, because of teachers' lack of economic knowledge or students' low interest in the subject (or both).

In the ROK, high schools are more diverse than in the lower compulsory grades. Although most high schools feature a general curriculum, other schools offer specialized concentrations in such areas as foreign languages, science, arts and music, business activities, and vocational and industrial training. The MOE is responsible for the high school economics curriculum, and its specified content is similar to what is included in the US Council for Economic Education's 2010 publication, *Voluntary National Content Standards in Economics*. As in the US, students study such topics as scarcity and fiscal and monetary policy.

As part of the 2013 curricular changes mentioned earlier, economics is now only one among ten possible social studies-related subjects whose content is based upon academic disciplines such as history, geography, politics, law, sociology, and ethics. It is compulsory that students earn fifteen class units (approximately 255 class hours, with each high school class hour running for fifty minutes) in social studies. Since the MOE adopted this so-called elective system, each individual school chooses a minimum of three out of ten possible subjects to concentrate their social studies hours. When students take university entrance examinations, as previously mentioned, they are tested on only two social studies courses. In their allocation of hours to social studies subjects, schools now have some discretion in deciding whether economics courses in a particular school will provide enough class hours to adequately prepare students for university entrance examinations. Furthermore, compared with mandatory middle school education, elective high school economic courses tend to be focused on theory, which often makes the courses unpopular among students.

Generally, Korea's high school economics curriculum is comprehensive and systematic; students who understand its content have basic knowledge of the market economy. Nevertheless, there are curricular areas that need improvement. Little information is provided on the ROK's post-Korean War economic rise nor of the ROK's role or responsibility in the global economy. Not enough emphasis is placed upon contemporary economic issues and concerns. Despite the 1997 East Asian and the 2008 global financial crises, only a small number of ROK high school students—the 5 percent who choose economics as an elective—learn financial literacy or consumer education.

The Economic Education of Future Teachers

At the tertiary level, there are two institutions that educate future teachers: teachers' colleges and universities. Prospective elementary teachers attend teachers' colleges and prospective middle and high school teachers attend universities. In teachers' colleges, students concentrate on basic subjects, such as Korean language and mathematics, and are likely to learn little or no economic concepts as college undergraduates.

Although both middle and high school teachers are university graduates, it is rare for a high school teacher to change to middle school or vice-versa. However, public middle and high school teachers can expect periodic transfers from one middle or high school to another school at the same level. Future social studies teachers choose between either a Common Social Studies or General Social Studies major. Undergraduates who complete one of these majors and pass the National Test for Secondary Teachers are eligible to teach courses with economics content.

In Common Social Studies, economics is one of seven other subjects that are theoretically given equal emphasis, but students, because of their

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great freedom to design individual majors, can still complete this major without taking any economics courses. A disproportionately high number of middle school teachers graduate with the Common Social Studies major.

General Social Studies, the major of most high school teachers, includes courses in four required subjects: economics, politics, society and culture, and law, with relatively more emphasis on specialization than is the case with Common Social Studies. Because these courses are taken across all majors, the logical assumption is that more class hours would be devoted to economics. However, the reality is that usually students take, at most, a couple of economics courses, earning four to five university credits, and sometimes, despite formal requirements, earn no credits at all.

Given how little economics teachers at all levels study, there is a market for so-called retraining programs. Organizations like KDI/EIEC, the teachers' union, the central bank, and various other financial and banking institutions make economic education teacher workshops and courses widely available for no cost to participating educators. KDI/EIEC has the longest-lived tradition of offering economic education services for primary as well as secondary school teachers. Typically, most economic education teacher workshops are two to three days. The five-day programs that KDI/EIEC offer are an exception. Traditionally, teacher economic education programs feature economists presenting similar lectures to what might occur in a university classroom.

Major Problems and Possible Responses

Two significant problems that are barriers to increased economic literacy in the ROK are lack of ample hours for classroom study—especially in high school—and lack of teachers' economic knowledge. The large majority of middle and high school teachers responsible for economic content never majored in economics as undergraduates, a problem found in other developed countries, including the US. In the ROK, however, more systematized and in-depth teacher economic education retraining is a much more immediate possibility than the certainly welcome long-term strategy of restructuring university curriculum. Piecemeal current economic education programs for teachers are not working.

Economics teachers in the ROK also frequently complain about the lack of good classroom supplementary materials, especially ones that bridge the gap between economic theory and the real world. KDI/EIEC is attempting to facilitate the development of better supplementary materials through expanding teacher cooperative curriculum development in both workshops and through web-based activities, but the infrastructure to do this on a widespread basis is far from a reality at present.

The demand side—declines in university-bound students who take the SAT economics examination—has been partially addressed but deserves further elaboration. The fact that students are reluctant to choose economics as a component in their university admissions examination is directly related to the current high school elective system and a largely examination-driven educational system.

Korea has long boasted of high enthusiasm for education, which has, since the mid-1960s, been cited as a critical factor in achieving economic

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development. Recent statistics show that about 80 percent of high school graduates go to various types of tertiary institutions, making the ROK second only to Hong Kong. Such zeal for higher education has created a highly competitive environment, especially among students attempting to enter higher-ranking universities. Because of this high stakes admissions race and an elective system where students can choose examination options, many high schools and their students worry most about doing well on entrance examinations. In order to achieve higher test scores on the SAT, many students tend to concentrate on subject options perceived as “easy” and that may be quickly mastered by extensive memorization. This environment is unfavorable for such subjects as economics, which requires more understanding and reasoning than memorization and demands careful study over a relatively long period of time.

The examination race and elective system has other unintended consequences. Korea’s high school education has long been criticized for its overly theoretical and academic nature, a tendency partially linked to university entrance examinations, which primarily consist of objective questions that don’t require critical thinking, and to an elective system that incentivizes students to choose easily memorized content.

The MOE, in order to counter the negative unintended consequences of the high school elective system, recently expanded middle school’s economic content to include macroeconomics and personal finance. As a result, economic content increased in middle school textbooks. However, middle school teachers are not adequately prepared enough in economics to effectively teach the new economics content now present in their 2013 textbooks.

New KDI/EIEC Economic Education Initiatives

In the ROK, it is not an exaggeration to depict secondary school economics as virtually in a state of crisis. Thus, KDI/EIEC is developing new retraining programs for both middle and high school teachers, initially emphasizing middle school because of the aforementioned textbook problem. It is also hoped that a long-term consequence of effective new middle school teacher training programs might be increased interest in economics among future high school students.

In developing KDI/EIEC’s new retraining programs, a major priority is increasing the time teachers spend learning economics because appropriate time on task is critical in actually enabling teachers to be competent in implementing the new middle school curriculum. The new KDI/EIEC total instructional package encompasses 180 hours of teaching and learning. Total instructional time includes sixty hours of online learning and 120 hours of classroom instruction. The major focus of online learning is a series of web-based lectures on economic principles. The in-class component of the retraining program concentrates on various effective pedagogical strategies and real-world applications of economic knowledge.

In consideration of teachers’ difficulty in their time allocation for lengthy learning, the program has been separated into two parts. Each part contains ninety contact hours: thirty hours online and sixty hours in class. Part one has been designed to cover basic principles and key issues in middle school economic education but is not exclusively for middle school teachers. It is also designed to serve those high school teachers with relatively low levels of economic understanding. Generally, part one includes more active learning opportunities than part two.

Part two is specifically created for high school teachers and features advanced economic principles and more diverse examples and applications of real-world problems. In recognition of the reality of Korean high school education, certain portions of classes have been allocated to review theory-oriented economic issues so that teachers will be better prepared to help students do well on the economics component of the university entrance process.

Ideal program development in any field would consist of research, system design, structuring curriculum, preparation, implementation, evaluation, and feedback. However, the KDI/EIEC program could not follow this orderly process because, as previously mentioned, middle school teachers have an urgent problem: learning enough economics to effectively use the new textbooks that are already adopted.

In spite of the rush, due consideration has especially been paid to research concerning initial implementation. In contrast to many other retraining programs, KDI/EIEC staff and collaborators have attempted to both assess teacher needs and understand their perspective about the initiative as participants. A whole series of fact-finding activities has been conducted, including workshops, field research, and focus group teacher interviews.

One key feature of KDI’s new program is that it is to be implemented in close association with regional economic education centers, which are affiliated with regional economic research institutions under provincial governments. Nationally, eleven regional economic education centers exist, but so far, only four are partners in our program implementation, with KDI/EIEC staff providing center support assistance.

It is too early to evaluate the new program, but future challenges are probable. One is the possibility of teachers’ negative reaction that the new program is too time-consuming, too significant a change from other economic education initiatives, and designed on a number of untested assumptions.

The other challenge is the lack of strong teacher participation incentives. The most powerful incentive for ROK teacher participation in retraining programs are credits toward promotion. Two types of retraining programs exist for secondary school teachers: “training for certificates,” which is mandatory for promotion and is offered by a few MOE-designated public retraining organizations; and “job training,” which is only supplementary for promotion and is offered by a number of public organizations and financial and banking institutions. Since KDI/EIEC program is one of various “job trainings,” it must compete with all the other “job training” programs in this category. In an effort to win over teachers’ interest in this program, KDI/EIEC will try to come up with additional incentives, such as awarding high-performance teachers with prizes such as honorary medals, overseas workshop opportunities, and other exceptional professional development chances.

Ultimately, though, we think the most decisive element in the success of our new initiatives will be their quality. If we succeed on that front, the word will spread, and more teachers who are intrinsically motivated to learn about economics will find us. ■

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