

# Globalisation and Individuals: The Political Economy of South Korea's Educational Expansion

SANGJOON KIM

*Department of Political Science, Yonsei University, Seoul, Korea*

**ABSTRACT** *Globalisation has produced changes in economic and social characteristics with no area more affected than job competitiveness and security. A common response has been increased investment in education. Korea has experienced this job insecurity and the associated heightened emphasis on education but the “localisation of globalisation” in Korea has had distinctive impacts. Korea began absorbing these impacts with a pre-existing “organisation-specific” knowledge system. Perceived failures in that system have pushed firms and the government toward an “individual-specific” knowledge system, like that found in US universities. The transition in Korea, however, is incomplete, leading to a combined system with complex criteria used by firms and universities to select applicants. Parents and students have lost faith in public education’s ability to adapt, spawning a massive private education system which absorbs significant social and economic resources. This peculiar localisation is the subject of this paper and, by exploring it, a larger point is made about diverse ways individuals perceive and respond to globalisation.*

**KEY WORDS:** Globalisation, organisation-specific, individual-specific, university entrance examination, private education

This paper attempts to explain how Koreans respond and adapt to the changing circumstances spawned by globalisation. Prevailing research has focused on the decline of the nation-state and the emergence of globally influential firms (Strange, 1996). This change is sometimes regarded as the most distinctive change in the international system since the creation of the modern nation-state. The consequence of this new phase of globalisation is the often assumed convergence of national political economies world-wide (Boyer, 1996).

Although convergence is often identified, the diverse ways individuals perceive and respond to globalisation, which we identify as localisation, have often been ignored. The individual’s responses to different modes of economic activities remain in a twilight zone. We might predict that globalisation provides more opportunities for individuals to realise their new selves, but it also creates new, more complicated and

---

*Correspondence Address:* Sangjoon Kim, Department of Political Science, Yonsei University, 262 Seongsanno Seodaemun-gu, Seoul, 120-749, Korea. Email: skim@yonsei.ac.kr

severe competition and many negative consequences are very widely discussed in the literature (see, for example, Bellofiore, 1999; Kiely, 2008). One such area of pervasive impact is job security. Increased competition renders jobs less secure and daily lives more anxious, making it particularly difficult for the individual to predict their future (Boltanski and Chiapello, 2007: 422). The impact on Korean society has also been profound as enormous efforts have been made to adopt globalisation. Previously, Korea had recruitment systems and career paths largely differing from Western models. Throughout their industrial development, American enterprises were concerned with worker specialisation and job differentiation. The enterprises were able to make the best use of particular talents and different skills of employees, following the principle of “the right man in the right place” (Aoki, 1988: 12). Korean enterprises, however, emphasised skills and knowledge obtained from on-the-job training (Song, 1990: 191). The structure regarded “organization-specific” knowledge as more important than extra-organizational education obtained by individuals.

With the advent of globalisation, a process that was accelerated by the 1997 financial and economic crisis, these systems and paths were reconsidered. Korean organisations, especially in the private sector, have followed the so-called world best practices usually associated with American or Western firms.

Consequently, Korean organisations now rely more upon “individual-specific” knowledge, with more people pursuing professional jobs based on personal ability. With increased job mobility, job security has dramatically decreased (Pirie, 2008: 183). Individuals’ concerns about job security have intensified, especially as Korea had long enjoyed relatively low unemployment from an incessantly expanding economy. Moreover, what was always a myth of “life-long employment” was further undermined. The cynical notion of “retirement at forty-five” (*saojung*) became a buzz word.

Because of the changed international situation, business and government demanded that Korean workers transform themselves to gain a competitive edge. This has played out within the education system, producing major changes. With the transition of firms from an emphasis on an “organisation-specific” knowledge system, there was a move to an “individual-specific” one that resulted in a high degree of ambiguity in how applicants for employment and universities are to be evaluated. The resulting anxiety among parents and students has led them to supplement or replace public education with an increasing accessing of private avenues. Vast personal resources have been poured into private education, skewing the educational process in a manner that would not have been expected just two decades ago. This pattern of localisation is explored here.

A dual localisation process is assumed. At the first level, key domestic institutions, private firms, and the government and universities respond to global market changes. At the second level, individuals adapt to these responses through a complicated, circuitous process rather than a direct causation.

### **Higher Education in Korea**

In order to remain competitive, globalisation has increased demands by individuals for higher education. Koreans have long been regarded as highly committed to

education, among the most committed in East Asia. For example, in a 1983 survey, 82.8% of Korean parents wanted their children to finish a four-year university degree compared with 42.5% of Japanese and 63.1% percent of American parents (Korea Education Development Institute, 1993: 3). According to Amsden (1989: 219), "Korea is both a general case of a well-educated late-industrializing country and a special case of an exceptionally well-educated one."

Among the many explanations for this intense desire for education, cultural factors have been most often cited. Two variations on this account are common. First, it is said that "traditional" East Asian practices emphasise education. Education in a Confucian society maintained social order and stability and was virtually the only way individuals could improve their social status (Haboush, 1991: 92). For example, it has been suggested that there was a mixture of strong class-consciousness and the Confucian meritocratic ideal in the Yi Dynasty. On the one hand, class consciousness motivated individuals to obtain the higher social status of *Yangban*, the aristocratic class. On the other hand, this aspiration was directed by the rhetoric of meritocracy. Indeed, a nationwide public school system and national examinations were devised to create a meritocratic hierarchy. This tradition continued and explains the high intensity of Korean education in the twentieth century (Haboush, 1991: 98).

In a similar vein, Robison (1991: 222-3) pointed out that the historical emphasis on education influenced the expansion of the modern education system which preceded Korea's economic takeoff. The important consequence of this was an oversupply of college graduates in the 1960s and again in the 1980s. Because of the strong belief that education could enhance social mobility, Koreans now spend a large portion of their savings on educating their children. However, these cultural arguments do not explain the contemporary variation among Asian countries which share a Confucian heritage. Furthermore, although the importance of education prevails in contemporary society, the "traditional" motivation alone cannot explain the recent radical educational expansion.

A second analysis points to Korea's tendency toward collectivism which constrains the diverse plural values of individuals (Korea Education Development Institute, 1993: 150-1). This interpretation suggests that communal reference is extremely important and communal reputation always matters for measuring individuals. In a modern version of the reference community, the reputation of a university is one of the most important criteria for measurement. It spawns social networks and creates social capital which is almost indispensable for individual success. The motivation for entering universities with strong reputations and the capacity to build these exclusive networks furthers the demand for education (Hahm and Yang, 2004: 40). In this analysis, individuals are "credential seekers" who want the potential "payoffs" accruing from educational stratification (Park and Weidman, 2000: 183). However, this alternative socio-cultural explanation cannot explain how the intense demand for higher education changes over time. Nor does it reveal why education remains intense even in an urbanised and globalised Korea where individuals increasingly accept global standards, emphasising more individualistic traits and performance.

A better explanation for the intense demand for higher education in Korea can be found in individuals' motivation and opportunity rather than Confucian tradition.

As Elster (1990: 17) suggested, human desire or motivation tends to be influenced by opportunity or socio-economic structure available to accomplish the desire. In Korea, this is a potentially powerful explanation.

The emergence of Korean higher education was closely related to the advent of modern society. Since its inception, Korean higher education had a strong association with newly emerging occupations. Western missionaries founded *Je Jung Won*, in 1885, the first modern hospital in Korea (later developing into Yonsei University) and, in 1886, *Ewha Hak Dang* (later Ewha University). Koreans were involved in the founding of modern higher educational institutions such as *Posung Jummoon Hakkyo* in 1905 (later Korea University). Around the turn of the century, diverse, small-sized professional schools for foreign language, medicine, commerce and law were also established (Kim, 2000: 22-3). This development of higher education institutions continued into the Japanese colonial period, especially in the form of professional schools. Called *Jummoon Hakkyo* in Korean and *Senmoon Gakko* in Japanese, these schools were the predominant type of higher education that the colonial government considered suitable for Koreans (Kim, 2000: 31).

A demand surge for higher education occurred during the late 1940s and 1950s when the society was reorganising after colonialism and before the onset of rapid industrialisation. After the end of Japanese colonialism in 1945, individuals aspired to take jobs leading to the “upper class.” During and after the Korean War, individuals also desperately sought jobs for regular income to survive in the midst of a devastated economy. In spite of the reality of job-scarcity, there was a strong belief that education would increase their chances. More than fifty major universities were established in the short period between the late 1940s and 1950s. In 1946, former major colleges turned into universities: Chosun Christian University (later Yonsei University) and Korea University and Ewha Woman’s University. Seoul National University was established by reorganising the former Kyongsung Imperial University. In addition, between 1945 and 1948, around 20 private colleges were established.

The boom in higher education continued during and after the Korean War. The government established universities in the major cities of Taegu, Chonju, Cheju, Kwangju, Taejon, Pusan and Chongju. For example, Kyungpuk National University was established in Taegu (1951) and Pusan National University in Pusan (1953). In the 1950s, an additional 20 private colleges were established. Subsequently, all these colleges turned into universities as they expanded their enrolment. The result of this was an over-supply of higher-education graduates. In 1954, one year after the end of the Korean War, 17% of the population had graduated from colleges and universities. In 1960, it was reported that 9000 to 15,000 college graduates were unable to find jobs (Amsden, 1989: 217, 221). In spite of the high level of job insecurity, individuals continued to believe that only higher education could provide opportunities for highly paid occupations.

Korean higher education developed along with the expansion of the need for “modern” jobs. The actual path taken has been shaped according to different socio-economic situations. Rapid industrialisation since the 1960s and globalisation since the 1990s also affected higher education, and will be discussed in the following sections.

### **From Organisation-specific to Individual-specific Education**

The demand for education in a capitalist society is reflective of the need for families and the individuals to have a job. Following industrialisation, most jobs are created by private firms whose preferences are diverse. Two modes of processing information and knowledge in firms are relevant here: "organisation-specific" and "individual-specific" (Kim et al., 2000: 60-1). This dichotomy benefits from Silberman's (1993: 414-5) insightful argument which distinguished "organisational" and "professional" modes in the rise of the rational state.

In the organisation-specific model, the organisation controls information and possesses a systematic body of knowledge. Here, individuals cannot easily move from one organisation to another because they acquire information and knowledge provided by and specific to the organisation. Typically life-long employment accompanies this model. Contracts tend to be long term, involve little *ex ante* bargaining and are difficult to terminate. The individual's personal success depends upon access to a powerful organisation for employment, and the better the university one graduates from, the more access one is likely to have. Thus, university entrance can be a "determinant point" in the individual's life. Under the individual-specific model, individuals control their assets and, as found in the USA, are relatively free to change their employment and move between organisations. Specialisation is incentivised because individual jobs are defined by function, and this function is considered interchangeable across organisations. Contracts between individuals and firms are most likely market-based, can be short term (with the option for renewal), the result of extensive *ex ante* bargaining between the contracting parties and reasonably freely terminated. Individuals are essentially free agents possessing a systematic body of knowledge. Unlike in the organisation-specific model, individuals have multiple points to decide their career, not merely upon university entrance (Kim et al., 2000: 60).

Given these models, we can hypothesise correlations between organisation and education. In the organisation-specific model, firms do not have decisive criteria for evaluating applicants in circumstances where organisational knowledge supersedes individual knowledge. Instead, firms are likely to regard as more valuable those individuals who are quick to adopt knowledge provided from the organisation. Firms tend to seek people with general knowledge and prefer inexperienced university graduates over experienced professionals. The reputation of the university becomes extremely important, as firms believe that graduates from high-ranked colleges are more likely to swiftly master organisational knowledge. The college entrance examination becomes more important than the knowledge colleges provide. In the individual-specific model, firms have concrete criteria for evaluating applicants for a differentiated job suited for a person with specialised knowledge, and they often prefer people with experience. When recruiting new workers, firms prefer candidates with job experience. The individual is expected to have mastered or attained the required knowledge *prior to* applying for a job. In this case, the university's contents and performance are crucial because skills and information belong to the individual (Kim et al., 2000: 61).

The transition from an organisation-specific to individual-specific model creates high uncertainty for individuals. Under transitional circumstances, firms consider

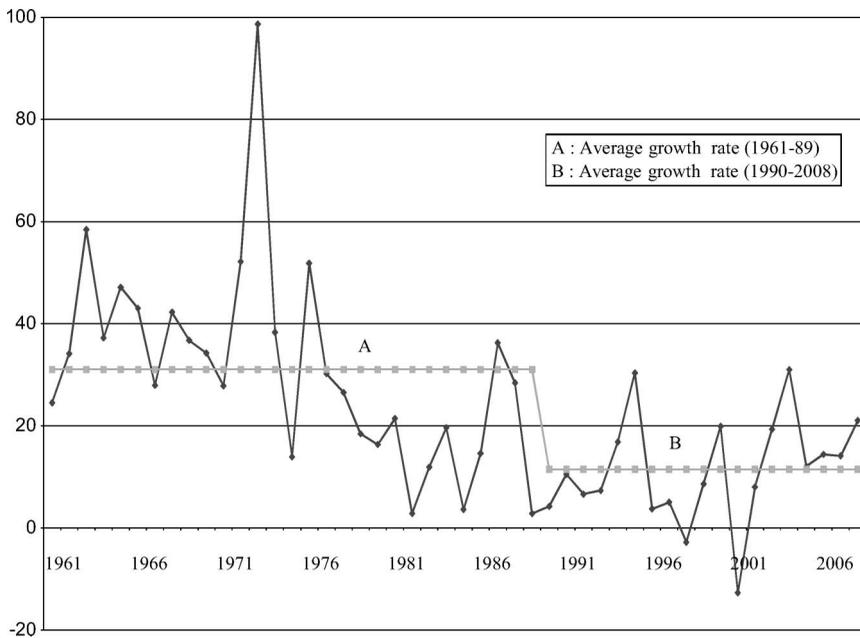
job candidates using both organisation-specific and individual-specific criteria. They evaluate personally obtained skills and knowledge as well as the university's level and reputation. Universities also consider various criteria in selecting students. They rely on objective measures such as standardised test scores in order to promote their reputation. On the other hand, they subjectively evaluate students to locate distinctive personal traits. As a result, entrance criteria of universities become highly complicated which then increases information costs to the students who are unsure of each university's criteria. We may now turn to the analysis of how Korean society is undertaking a transformation from the organisation-specific to the individual-specific model.

### **Korea and Economic Globalisation**

During the last 60 years since the end of World War II, South Korea has experienced two big waves of development. During the first wave (1960s-1980s), which we may call "internationalisation," the country depended heavily upon the foreign market but maintained its own distinctive unitary system of political economy – the "developmental state" – with an industrial trajectory resembling Japan's (Johnson, 1982: 10). The country concentrated on exports as the most important strategy for economic growth. The size of the domestic market was relatively small while the population was large, leading to the export-orientated approach. As a consequence, on the 14<sup>th</sup> commemoration of Export Day on 22 December 1977, President Park Chung Hee declared, "it took only 7 years to move from one billion exports to ten billion in our country while it took 11 years in West Germany and 16 years in Japan" (cited in *Donga Ilbo*, 13 December 2008).

The second wave, which we can call "globalisation," began in the 1990s. The country did not change its export orientation strategy but opened the domestic economy to foreign direct investment in 1993 and the foreign currency market in 1994. Korea became an Organization for Economic Co-operation and Development (OECD) member in 1996 (Jang, 2002). In order to secure foreign markets for manufactured goods, the government also agreed to the opening of the domestic rice market during the Uruguay Round in 1994. It was also during the mid-1990s that the government reformed old economic practices, regulating cartels and monopolies, privatised public enterprises, and decentralised the power of the central bank.

In spite of the government's efforts, during the second wave, the economy faced greater challenges than before. Especially with the rapid emergence of a strong Chinese economy, the Korean economy was stuck between cheap-labour China and high-tech Japan and has lost some of its competitive advantage as an exporter. A fundamental flaw in the Korean economic model was an over-reliance on export-led growth. The result was over-production and severe competition among aggressive exporters that was devastating to the numerous exporting firms in Thailand, Malaysia, Indonesia and South Korea, particularly manufacturers (Pempel, 1999: 76). This, together with the rapid inward and outward flows of foreign capital, contributed to the 1997 financial crisis. As a result, the annual growth rate in exports during the second wave (1990 to 2007) was 11% compared with 31% in 1961-89 (Figure 1).



**Figure 1.** The growth rate of exports (%). *Source:* Korea International Trade Association (2008).

Facing the competitive environment of world trade, the country – and especially the government and big business – reconsidered the past model of development and opted to pursue a model that was thought to embody Western economic rationality. This global adaptation in Korea was initiated by key domestic institutions – private firms, the government and universities.

*Private firms*

Private enterprises were sensitive to the forces unleashed by economic globalisation, and there has been an increased recognition of the importance of human capital in improving competitiveness in the global market. During the high growth period of Korean industrialisation, the organisation-specific model was clearest. This model was closely related to Korea's late-industrialiser capacity for borrowing and using advanced technology. Employees would learn technology and managerial skills through the company organisation, not educational institutions. Companies often invited foreign engineering advisers and dispatched personnel to other countries to learn about their technologies. New university recruits tended to be assigned the lowest managerial positions and promotion depended heavily on seniority. Newly recruited managers tended to be trained first at the group level, in short courses that exposed them to company culture. They were then assigned to operating affiliates where they were trained on the job and through outside courses (Amsden, 1989: 228). The system closely resembled Japan's where universities offered minimal vocational training and new recruits were trained on the job (Daito, 1986: 167).

Japan developed the organisation-specific model which was regarded as an efficient method for learning from and catching-up with Western countries, especially the USA, and Korea adopted essentially the same model.

Firms primarily valued the reputation of the recruit's university because it was seen to be closely correlated to the student's ability. The gaps among universities' reputations are more substantial than those between universities and high schools (Kim, 2003). Thus, in most cases, firms did not have their own specific criteria for evaluating applicants. Distinctive changes occurred from the mid-1990s in large companies. Korea's large manufacturers were eager to transform themselves into global companies and were keen to gain a competitive edge over competitors such as Japan's large manufactures. This motivation was heightened when Korean firms lost price-competitiveness to Chinese manufacturers. In response, these companies decided to strengthen human capital as a means to maintain competitiveness or to move up the value chain. In the mid-1990s, Samsung extended the intra-company CEO training programme to all directors and expanded the training period from six to 11 months. Hyundai obliged all employees, including the CEO, to take the Test of English for International Communication (TOEIC). Hanwha and POSCO established training-abroad programmes in the USA and in European countries for senior employees (Korea Employers Federation, 1999: 111).

During the same period, such companies also changed their recruitment processes. Samsung reinforced a written examination and in-depth interviews for professional knowledge while it declared an end to discrimination based on university reputation and gender. Hyundai emphasised university grades and social activities instead of a written examination. Daewoo, for the first time in Korea, opened a job fair in 1993 and attracted domestic and foreign applicants. These enterprises gave special attention to English, humanities responsibility and specialist professional knowledge suitable for individual tasks (Korea Employers Federation, 1999: 112).

The transformation of Korean enterprises was accelerated by the financial crisis in 1997. The crisis meant that Korean organisations – especially those in the private sector – were criticised for a lack of accountability and transparency and forced to follow the “best practices” presented to them as models taken from the experience and practice of American and other Western firms. Workouts and other rescue measures led to corporate rationalisation plans as well as massive mergers and the acquisition or liquidation of many large businesses (see Ji, 2006: 334). None the less, fundamental reform, at least in terms of corporate governance, remained limited. Korean corporate governance still differed from that of the supposed Anglo-American model which is seen to emphasise the separation of ownership from control. For example, in spite of the government's restrictions on cross-shareholding, originally introduced in 1986, and re-regulated in 1999 after a short-term deregulation in 1997, the practice of *chaebol* cross-shareholding remained high (Lee, 2008: 441).

A substantial human capital management change also occurred after the economic crisis, similar in scope to the earlier changes. Manufacturers significantly changed employment practices to reduce the number of workers. Firms moved from securing life-time employment to permitting lay-offs. This had begun in the early 1990s after a 1991 Supreme Court verdict enabled employers to lay-off employees in the case of a “recovering company” (Jang, 2008: 103-4), with implementation accelerating after the crisis.

A more flexible way of employing workers emerged. The ideology of a “flexible life-long job” and “performance-based” personnel management became prevalent over that of life-long employment (Ji, 2006: 330). Irregular employment accelerated in the late 1990s. In a survey of 192 corporations with more than 100 employees, 73% of large enterprises and 56% of small and medium enterprises reported cutting the number of employees in 1998 (Samsung Economic Research Institute, 2000: 193). In a comparative sense, Korea was less likely to continue life-long employment than Japan. In 2005, 37.7% of male workers in Korea were classified as irregular while 17.6% were so classified in Japan; 61.9% of female workers in Korea were considered irregular while 52.3% was the case in Japan (Jung, 2007: 6, 10, 29). The change to easier lay-offs increased demand for experienced workers in order to save training costs (Ji, 2006: 330). The wage system also changed. According to the Korea Employers Association (1999: 146, 149), a seniority-based or collective bargaining-based approach diminished while a capability and performance-based one increased.

Consequently, following the economic crisis, Korean firms have witnessed a significant change in employment practices: the decline of life-long employment, more frequent lay-offs, and a higher emphasis on personal capacity and performance. Companies attempted to transform the organisation-specific to individual-specific model in managing human capital.

### *The government*

The governments' involvement in industrialisation was not limited during each of the development waves discussed above, though it sometimes differed in intensity and strategy. For example, in the high-growth period of 1960-80s, the government provided private firms with necessary credit, while, in the lower-growth period of the 1990s and 2000s, the government was less involved in this. None the less, in both waves, the government attempted to direct resources in ways that maximised human capital for rapid industrialisation. The OECD (2000: 57) observed “in the past three decades, the [Korean] government has, through its highly regulated and centralised governing system, attained remarkable educational achievements.” However, the ways of building human capital have significantly changed over the last two decades.

During the first wave, human capital greatly contributed to the development of the economy. There was neither technological invention, as was the UK experience in the nineteenth century, nor innovation as was the American and German experience in the twentieth century. Korea vigorously learned and deftly imported the essential technology from already industrialised countries, especially the USA. A “learning effect” played the role that invention or innovation did in the Western world (Amsden, 1989: 3-5).

The government emphasised universities as an important institution in promoting economic growth. Under government initiation, the idea of “nation-building through industrialisation [*gonggeob ipguk*]” was harmonised with that of “nation-building through education [*gyoyuk ipguk*].” In 1974, the government implemented a policy of nurturing engineering in national universities. It designated 51 engineering departments from 18 national universities and provided governmental funds for research. For example, Pusan National University was to specialise in machine engineering while Kyungbuk National University focused on electronic engineering.

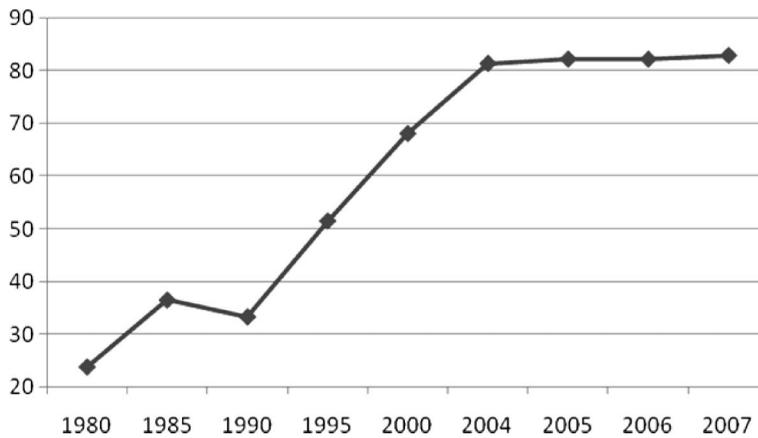
As a result, engineering departments at most national universities could accept five or six hundred students each year (Korea Education Development Institute, 1996: 175). In the 1980s, some highly competitive institutes of technology were created. Korea Institute of Science and Technology, a government research institute, established the Korea Advanced Institute of Science and Technology in 1984, an undergraduate programme of natural science and engineering. POSCO, the government-owned steel company, established its Pohang University of Science and Technology (known as POSTECH), an engineering college, in 1986. These engineering colleges became the nation's leading institutions of technology. Consequently, most major universities now have engineering departments.

This development also occurred in other practical fields. Undergraduate business management studies thrived because of their perceived high potential for job security. Undergraduate law and medical science were also preferred by students because of their license-providing incentive. Thus, during the first wave, under the government's initiation, universities largely guided students toward pragmatic education in undergraduate programmes, enabling students to learn advanced knowledge designed to help Korea catch up with more advanced countries.

During the second wave, the government's response to the global economy differed although the emphasis on human capital continued into the 1990s. First, the government increased the number of students and schools in higher education. Previously, the government had tightly controlled the quota of undergraduate and graduate students. During the 1990s, the Ministry of Education increased the quota of students, especially engineering majors at four-year universities where 70% of newly-increased quotas were allocated. On the other hand, the Ministry also deregulated two-year professional colleges. The number of these schools increased from 117 in 1990 to 145 in 1995 and the number of their students almost doubled from 323,825 to 569,820 (Korea Education Development Institute, 1996: 241, 244). As a result, the entry rate to four-year universities and two-year colleges sharply increased from 33.2% in 1990 to 81.3% in 2004 (Figure 2).

The sharp increase in higher education in Korea reflected the demand for upgraded human capital, as the economy became increasingly dependent upon external markets and an expanding but increasingly diverse domestic market. In addition to increasing the numbers in higher education, the government was also concerned to enhance the global competitiveness of the Korean education system by graduating students who were better suited for the changing economy and society. Policy shifted from "learning" and "catching up" to "nurturing innovation," and from "imitating" to developing original technology. The government encouraged a synergistic relationship between universities and industry in order to commercialise academic research. In the Special Act for Venture Firms in 1997, the government legalised the venture businesses of researchers at universities, approving their leave of absence and joint positions with business (Seong, 2001: 214). The portion of R&D to GDP increased from just 1% in 1983, to 2% in 1992 and 3% in 1995 or which was approximately similar to the US level (J. Kim, 2002: 297). The number of patents increased from 2264 per year between 1979 and 1989 to 22,000 between 1990 and 1999 (J. Kim, 2002: 301-2).

During the 1990s, the government assisted universities in establishing professional graduate schools in areas such as international and media studies and many



**Figure 2.** Annual higher education entry rate to four-year universities and two-year special colleges (%). *Source:* Korea Education Development Institute (1990; 2004; 2008a).

classes at the professional graduate schools were conducted in English. The government also launched the Brain Korea 21 (BK21) programme which was designed to build world-class research universities. Recently, it has guided universities into establishing professional schools for MBA, law and medicine, following the American model.

### *Universities*

At the end of the 1980s, higher education remained tightly controlled by the centralised administrative authorities of the Ministry of Education, with rigid restrictions and uniform control, even though some 80% of higher education institutions were private (Mok et al., 2003: 63). During the 1970s, university entrance consisted of two different examinations: (i) the nationally unified Preliminary Examination [*yebi gosa*] (PE, a one-time test score evaluation) as the first round entrance test; and (ii) the University-Specific Test [*bongosa*] as the second round. The former was administered by the Ministry of Education and the latter by particular universities. In 1981, the government replaced the previous examinations with the Scholastic Achievement Test (SAT, *hangnyeok gosa*) and high school records and abolished the University-Specific Test (Joo, 2000: 90). As an important consequence of the unified entrance examination system, universities thus became delineated and graded from top to bottom, in a highly visible way, and firms were easily able to determine the best universities for recruitment.

Since the late 1980s, the government has provided higher education institutions with even more autonomy in student selection. In 1992, instead of the previous nationally unified PE or SAT examination, the government decided to enable universities to use more diverse criteria. The new admission policy, implemented in 1994, introduced a performance-based evaluation. It consisted of three criteria: (i) the Scholastic Aptitude Test (*suneung siheom*, different from the previous SAT) which was provided by the Ministry of Education; (ii) the Student Complex Achievement Records (SCAR) which were reported by high schools; and (iii) the

Essay Test, for which the questions were set by universities (Korean Educational Development Institute, 1996: 248). The SAT was basically a continuation of the previous national test although it was modelled after the one used in the USA. The SCAR was an evaluation of student class performance with a relative scale for a three-year period during high school.<sup>1</sup> Unlike the SAT and SCAR, which were largely a modification of the old evaluation process, the Essay Test was a new test of active knowledge in presenting ideas, replacing the previous passive knowledge demonstrated by memorisation for multiple choice tests.

The government also further liberalised admission procedures. Previously, the government permitted admissions only once a year, which significantly limited students' choice (Joo, 2000: 94; Park, 2000: 168). In 1995, for the first time, universities were allowed to decide their own admission schedules (Korean Educational Development Institute, 1996: 248). With these changes in government policy, universities increased their autonomy and flexibility (Mok et al., 2003: 68). Eventually, in their entrance examinations and screenings, universities attempted to test applicants in more diversified ways, consistent with the individual-specific model. This change in the university entrance examination contrasts with the case of Japan (another organisation-specific country), where the common examination for public university entrance has remained largely unchanged since 1979.

Paralleling the diversified ways of selecting students, universities also became interested in the idea of globalising campuses with internationally inbound and outbound students. Since the early 2000s, some major universities began to establish international colleges for undergraduate programmes which were meant to attract both Korean and foreign students. Applicants are selected by their SAT scores, English essays, English interviews and TOEFL (Test of English as a Foreign Language) scores.<sup>2</sup> In this milieu, the number of full-time foreign faculty doubled from 917 in 2002 to 1778 in 2006 (*University News Network*, 6-11 August 2007). In 2008, in order to host world-renowned scholars at Korean campuses, the government established the World Class University (WCU) project which subsidised universities to invite those scholars.

These policies can be interpreted as demonstrating a preference for the "individual-specific" over the "organisation-specific" model. Universities were no longer simply organisations providing industries with generalists. Compared to the first wave, Korean universities became more concerned with seeking students based on diversified and substantive skills, especially language, and professional knowledge based on standards considered to be "global."

### **Transforming and Expanding Private Education**

One of the most important consequences of this transition to the individual-specific model has been an increase in private education, especially private supplementary tutoring.

There is a strong belief that a better university produces more suitable human capital for the individual-specific model. There is more competition for entrance into the better universities. For example, in 2007 only 3.4% of high school graduates went to the three major institutions, Seoul National University, Yonsei University and Korea University, while 13.5% entered those universities in 1981 (Mo, 2008).

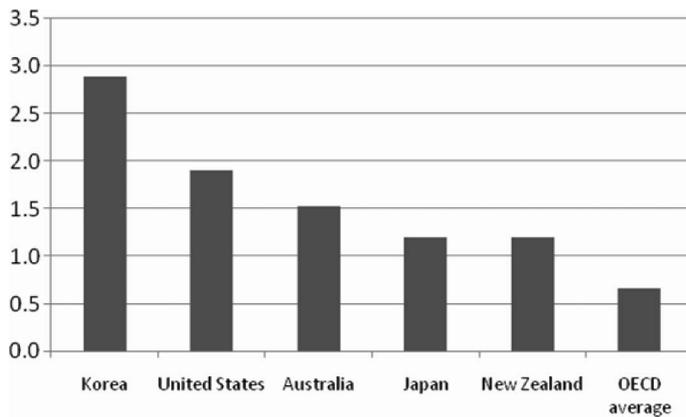
Over the same period, the entrance quota for these universities decreased from 15,913 to 11,256 (a 29.3% decrease) while the total number of university applicants increased from 118,229 to 329,976 (176% increase).

Many parents and students are not satisfied with public (and regular) education where some programmes are strictly standardised and some are highly “liberal” and seen as irrelevant to the university examination. Certainly, the expansion of private education mirrors the decline of public education. In a survey conducted in 1999, 87% of middle and high school public education teachers answered they have experienced a phenomenon known as “school collapse” – difficulties in performing classes, teachers’ weakened authority, difficulties in students’ communication and attention and rigid school administrators (Yoon et al., 1999). Furthermore, the extremely diversified and complicated entrance examination increased information costs for parents and students. Indeed, during the past two decades, higher education was full of experiments. The university examination system frequently oscillated around such issues as management responsibility (college versus government), admission criteria (entrance examination, high school records, special talents), test format (multiple choice, essay) and application procedures (times of admission, exam followed by application, application followed by exam) (Joo, 2000: 94). The different tendencies of entrance examinations for particular institutions, which were identified as being neither objective nor transparent, also added to applicant confusion.

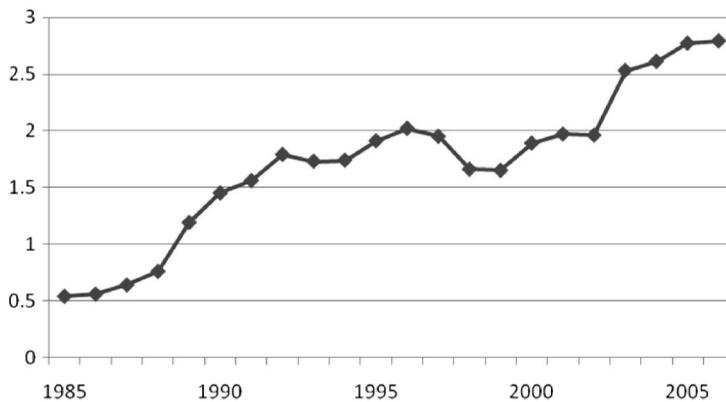
In this way, the spending on private education per household steadily increased in the 1990s and topped that of other OECD countries, exceeding that of the USA, Australia, Canada and Japan. The amount was four times higher than the OECD average (Figure 3).

Over the last 20 years, private education expenditure increased five times relative to GDP, from 0.56% in 1986 to 2.79% in 2006 (Figure 4), much of this due to supplementary tutoring. Though declining immediately after the financial crisis, it has again increased since 2000. The amount spent on private education was estimated at 23.6 trillion won (US\$28.4 billion) in 2007 (*Chosun Ilbo*, 8 September 2008). The total amount of revenue from private education firms, which are listed on the stock market, increased from six trillion won in 2000 to 11 trillion won in 2006. These companies include Megastudy, Daekyo, Woongjin, and Eduhansol. Large companies such as Samsung, CJ, KT and SK are also active in this private education market through their subsidiaries. For example, Samsung has been active in internet education market through Samsung Credu (*Chosun Ilbo*, 8 September 2008).

Micro-level elements also contributed to the development of private education. Analogous to manufacturing where a sophisticated market developed the industry, the demands made by highly-educated parents furthered private education. Because price was not always a good index of a private school’s quality, and students could not have comprehensive information about the schools, the parents’ role (especially the mother’s role) became important for comparing schools. This phenomenon arose as a result of increased educational opportunities for women. Korean women’s employment rates generally decrease after their marriage, having the typical M-shape, and, even when women work outside the home, the available jobs were sometimes menial, preventing female college graduates from finding appropriate work. In 2005, 54.9% of married women (25-65 years old) were classified as part of



**Figure 3.** National comparison of the size of private education as a percentage of GDP, 2003. *Source:* OECD (2006).



**Figure 4.** Private education expenditure as a percentage of GDP, 1985-2006. *Source:* Nam (2007: 71).

the population of economic participants which contrasted with 83.3% of unmarried women aged 25-34 years (Kim, 2008: 73).

This imposed a “moral burden” upon women – they could not simply remain housekeepers. The automation of household chores also reduced the time needed for house-keeping and pressed liberated housewives to expand their home activity to increasingly sophisticated and time-consuming childcare. Of course, this story is not confined to the college graduate; the high school graduate could not help following these trends. Arguably, the mother’s most demanding task became supporting children, especially through private schooling.

As noted above, private education influenced the pattern of married women’s economic participation. Interestingly, private education was a disincentive for married women with higher education to work while it was an incentive for married women of low education to work. The families of married women with higher education spent more on private education than their counterparts with lower education. Furthermore,

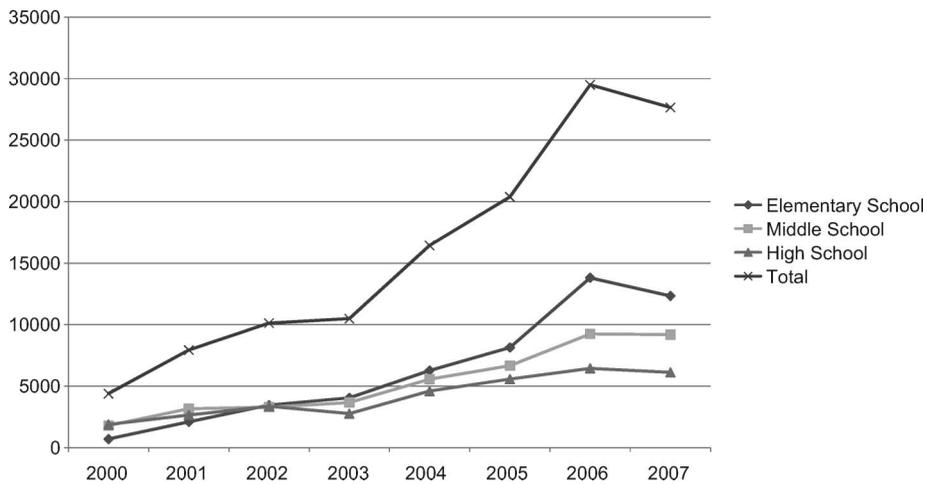
married women with higher education were more likely to stay at home for childcare than their counterparts. On the other hand, married women with lower education were more likely to work in order to increase family income, probably in order to compensate for the cost of private education (see Kim, 2008: 90, 91).

*Private Education and its Impact on "Educational Migration"*

The data on private education and university entrance are mixed. Some studies report a positive correlation (see Choi, 2008:102); others do not (see Kim and Lee, 2007). At the same time, it is not easy to measure the effectiveness of private education in a situation where virtually all students currently participate in private education. In 2007, in Seoul, 80.6% of students (including in elementary, middle and high schools) received private education (Korea National Statistical Office, 2008: 18). In 2002, 69.8% of students used private education for "advanced learning" in which a student masters a higher level curriculum of next semester or upper grades (C. Kim, 2002: 40).

Unprecedented demand for private education created the new social phenomenon of "educational migration," domestically and globally. The first impact of intense private education was domestic migration. Although there are no objective criteria for reliably measuring private education institutions individually, there are distinctive streets, zones and regions for private education. Families have moved into places with a competitive educational environment which significantly contributed to the country's uneven development, concentrating on Seoul and its suburban cities. Within Seoul, more people preferred competitive educational areas. In 2004-06, whereas the average price of apartments in Seoul increased 15.5% and the average number of private education institutions increased 9.2%, in the Kangnam district, the price of apartments increased 22% and the number of private education institutions increased 24%; in Seocho district, apartments increased 32% and private education 12%; and in Songpa district, it was 23% and 12%. All these districts were ranked as the areas with the most expensive apartments in the country during the 2000s (Kim and Lee, 2007: 242). The spawning of private education institutions in the areas resembled that of industrial clusters. New enterprises are spun off from larger ones, nurtured by locally pervasive information, and grow into larger ones. Intense local competition leads to upgrades. Eventually, the improved reputation attracts consumers from wider areas.

Another impact from intense private education is global migration for "early study abroad" [*jogi yuhak*]. Parents choose to send their children to other countries. Apparently, Korean parents believe that the global language of English broadens children's future job prospects. Indeed, in 2008, 124,000 Koreans applied for the TOEFL test, the largest number in the world (*Yonhapnews*, 8 May 2008). Parents who want their children to get early study abroad chose mainly English-speaking countries, such as, in 2005, the USA (34.6% of total students participating in "early study abroad"), Canada (12.6%), Australia (4.8%) and New Zealand (4%). The countries of the Association of South East Asian Nations (ASEAN) (as a total 11.4%) are also selected because of such English-speaking countries as Singapore and the Philippines. China (18%) and Japan (2%) are also popular but far less than the English-speaking countries (Korea National Statistical Office, 2006: 2). This has



**Figure 5.** The annual numbers of South Koreans studying abroad in elementary, middle and high school. *Source:* Korea Education Development Institute (2008b).

resulted in the phenomenon of separated families where the children and their mothers go abroad for study while the fathers continue to work in Korea. According to the United States Department of Homeland Security, the number of Korean students (including undergraduate and graduate students) in the USA in 2007 was 103,394 and comprises 14% of total foreign students in that year. The number surpassed those from China (72,190), Japan (41,853), Taiwan (32,897), Canada (31,866) and Mexico (14,922) (cited in *Kyunghyang Shinmun*, 5 March 2008).

Since 2000, students of elementary, middle and high schools began to be involved in this movement to study abroad, long reserved for students in higher education (Figure 5).

There are several tendencies in “early study abroad.” First, more students from elementary school went abroad than students of middle or high schools. This is because parents believe that younger children are better at learning a language. On the other hand, fewer high school students go abroad because they need to prepare for Korea’s university entrance examinations. Secondly, parents want to reduce the risk of children’s failure in the very keen domestic competition for university placements. These parents seek new possibilities abroad. Early study abroad is extremely costly and it is not confined to the rich. Many middle class families are involved, partly because of improved economic conditions and a reduced number of children. In the 1990s, the fertility rate steadily decreased from 1.78 in 1992 to 1.08 in 2005, the lowest among OECD countries (OECD, 2008). None the less, in most cases, the child’s study abroad has been supported by an irrationally significant amount of the family’s disposable income.

## Conclusion

The central focus of this study has been the localised impacts of globalisation. The paper’s case study has been globalisation’s impact on Korea’s “knowledge

model” and how the transition to a new model has shaped the educational structure, pushing parents and students towards a private education system. Since the early 1990s, the impact of globalisation in Korea was not always benevolent. The export-orientation model saw severe competitiveness in the global market. The process of localising the global economy in Korea required firms to move from human capital suitable to the organisation-specific model and towards that fitting the individual-specific one. However, this is a process and so firms are not necessarily clearly in either camp and apply the selection criteria of both – individually-accumulated knowledge and skills, and university ranking. The Korean government was also concerned with developing globally-competitive human capital and gave universities more autonomy in selecting their students. Universities have diversified their applicant-screening process, creating ambiguity in the selection criteria.

These combined changes produced complications in defining the suitability of persons employed by firms and entering universities. In such a fluid and complicated environment, parents and students could no longer rely entirely on public education and, since the early 1990s, have increasingly turned to private schooling. This increased demand meant that private education grew into an industry that now seems central to contemporary Korea. In the expansion and sophistication of private education, the role of Korean women could not be ignored. Korean women's employment decreased after their marriage, leaving highly educated Korean mothers at home. This imposed a “moral burden” upon the women in supporting children, especially through private schooling and its associated demands on time and resources.

Spending on private education by households has now topped that in other industrialised countries. As private education functioned as substituted goods for public education, students migrated into what was perceived as a better educational environment. While some view the expansion of private education as abnormal, the government's attempts to deflate it have not been successful. Predictably, private education will remain strong so long as parents and students believe that private education is necessary to address university entrance standards.

This phenomenon cannot be explained by the traditional emphasis on education or by the contemporary emphasis on education as social capital. Rather it stemmed from individual anxiety over one's future in a changing society. Globalisation created high uncertainty and threatened prosperity as individuals faced increasing challenges. Individuals became alert to needed adjustments and became active in taking advantage of opportunities presented by a changing environment. At the same time, the global challenges to the competitiveness of Korea's export-orientated manufacturing economy increased the individual's economic anxiety leading to the mass demand for higher education.

Individuals who fail to advance their education to ever higher levels at more prestigious and globalised institutions fear losing their economic security and that of their children in the future. As long as individuals are being exposed to globalisation, and with that exposure increasing, issues regarding an individual's education cannot be confined to schools but extend to reshaping the domestic political economic context.

## Acknowledgement

This work was supported by the Yonsei University Global 5-5-10 of 2008.

## Notes

- <sup>1</sup> The SCAR provides various student information – academic transcripts (80%), class standing by subject, aptitude and special abilities in subjects, attendance, extracurricular activities, social service activities, certification, participation in contests, awards and personality evaluations, for grades one to twelve (Joo, 2000: 92; Park, 2000: 167).
- <sup>2</sup> These programmes include the Underwood International College of Yonsei University, the Division of International Studies of Korea University, the Scranton College of Ewha Womans' University, and Pusan National University's Global Studies Program.

## References

- Amsden, A. (1989) *Asia's Next Giant*, Oxford: Oxford University Press.
- Aoki, M. (1988) *Information, Incentives, and Bargaining in the Japanese Economy*, Cambridge: Cambridge University Press.
- Bellofiore, R. (1999) *Global Money, Capital Restructuring and the Changing Patterns of Labour*, Cheltenham: Edward Elgar.
- Boltanski, L. and E. Chiapello (2007) *The New Spirit of Capitalism*, London: Verso.
- Boyer, R. (1996) "The Convergence Hypothesis Revisited: Globalization but Still the Century of Nations?," in S. Berger and R. Dore (eds), *National Diversity and Global Capitalism*, Ithaca: Cornell University Press, pp. 29-59.
- Choi, H. (2008) "Sagyoyugui daehakjinhage daehan hyogwa [The Effect of Private Tutoring on College Entrance]," *Gukje Gyeongje Yeongu [Study of International Economy]*, 14, 1, pp. 73-110.
- Daito, E. (1986) "Recruitment and Training of Middle Managers in Japan, 1900-1930," in K. Kobayashi and H. Morikawa (eds), *Development of Managerial Enterprise*, Tokyo: University of Tokyo Press, pp. 151-79.
- Elster, J. (1990) *Nuts and Bolts for the Social Science*, Cambridge: Cambridge University Press.
- Haboush, J. (1991) "The Confucianization of Korean Society," in G. Rozman (ed.), *The East Asian Region: Confucian Heritage and Its Modern Adaptation*, Princeton: Princeton University Press, pp. 84-110.
- Hahm, I. and J. Yang (2004) *Gogyopyeongjunhwa Jeongchaegui Sahoejeok Yeonghyangbunseok [An Analysis on Social Effect of Educational Equalization Policy]*, Seoul: Ministry of Education, <http://library.moe.go.kr> (downloaded 10 October 2008).
- Jang, H. (2002) "Oehwansijang gaebanggwae geumyunggaehyeok: gaehyeogui bujohwawa ttaereul notchin gaehyeok [Foreign Market Opening and Financial Reform: Reform Disharmony and Untimely Reform]," in J. Mo, H. Jeon and S. Lee (eds), *Hanguk Gyeongje Gaehyeok Saryeongu [Case Study of Korean Economic Reform]*, Seoul: Oreum, pp. 255-95.
- Jang, H. (2008) "Hanguk bijeonggyu nodongui jeongchi donghak: gukga-gieop-bijeonggyu nodonggwangye yeongu: baejeui jeongchihak hanguk bijeonggyu nodonge gwanhan yeongu [The Political Dynamics of the Contingent Work in Korea: A Study on the Relationship between State-Capital-Contingent Labour –Politics of the Exclusion: A Study on the Contingent Work]," Unpublished Ph.D. Thesis, Political Science, Yonsei University, Seoul.
- Ji, J. (2006) "Learning From Crisis: Political Economy, Spatio-Temporality and Crisis Management in South Korea, 1961-2002," PhD Thesis, Sociology, Lancaster University.
- Johnson, C. (1982) *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925-1975*, Stanford: Stanford University Press.
- Joo, C. (2000) "The Entrance Examination System," in J. Weidman and N. Park (eds), *Higher Education in Korea: Tradition and Adaptation*, New York: Falmer Press, pp. 89-107.
- Jung, E. (2007) "Bijeonggyu nodongsijangui teukseonge gwanhan hanil bigyoyeongu [A Comparative Study on the Characteristics of Non-Standard Labour Markets in Korea and Japan]," *Saneom Nodon Yeongu [Study of Industrial Labour]*, 13, 1, pp. 1-33.

- Kiely, R. (2008) "Poverty's Fall/China's Rise: Global Convergence or New Forms of Uneven Development?," *Journal of Contemporary Asia*, 38, 3, pp. 353-72.
- Kim, C. (2002) "Saseolhagwon comneun gyoyukwangyeong joseong [The Educational Environment without Private Education]," *Gyeongje Gyoyug Yeongu [Study of Economic Education]*, 8, pp. 33-49.
- Kim, D. (2008) "Gihonyeoseongui nodonggonggeupgwa janyeogyoyuk [The Effects of Children in School on Married Women's Labour Supply]," *Nodong Gyeongje Nonjip [Journal of Labour Economy]*, 31, 2, pp. 73-102.
- Kim, G. and Y. Lee (2007) "Sagyoyuksijang mit gyoyukseonggwaga Apt. gagyeoge michineun yeonghyang [Impacts of Education Factors on Apartment Prices]," *Gukto Yeongu [Study of National Territory]*, 55 (December), pp. 239-51.
- Kim, J. (2000), "Historical Development," in J. Weidman and N. Park (eds), *Higher Education in Korea: Tradition and Adaptation*, New York: Falmer Press, pp. 7-53.
- Kim, J. (2002) *Gisul Hyeokshinui Kyungjehak [Economy of Technology Innovation]*, Seoul: Sigeuma Peureseu.
- Kim, S., S. Lim and W. Jang (2000) "Can the Tiger Change Its Stripes?: Bridging the Information-Channelling Gap between the United States and Korea," *Development and Society*, 29, 1, pp. 57-74.
- Kim, Y. (2003) "Hanguksahoeui hageyon: sahoejeok jabonui changchureseo injeokjabonui yeokhal [Korean School Network: the Role of Human Capital in Creation of Social Capital]," in S. Kim, H. Seok, H. Lim and S. Lew (eds), *Uriege Yeongoran Mueosinga [What is the Network to Us]*, Seoul: Jeontonggwa Hyeondae. pp. 99-127.
- Korea Education Development Institute (1990) *Gyoyuk Tonggye Yeonbo [Annual Report of Education]*, Seoul: Korea Education Development Institute.
- Korea Education Development Institute (1993) *Hankukineu Gyoyukryeol Yeongu [Study of Korean Educational Enthusiasm]*, Seoul: Korea Education Development Institute.
- Korea Education Development Institute (1996) *Gukga Baljeoneseoui Gyoyugui Yeokhal Bunseok Yeongu (1) [Study of Educational Role in National Development (1)]*, Seoul: Korea Education Development Institute.
- Korea Education Development Institute (2004) *Gyoyuk Tonggye Yeonbo [Annual Report of Education]*, Seoul: Korea Education Development Institute.
- Korea Education Development Institute (2008a) *Gyoyuk Tonggye Yeonbo [Annual Report of Education]*, Seoul: Korea Education Development Institute.
- Korea Education Development Institute (2008b), *Chojunggo Yuhaksaeng Tonggye [The Statistics of Elementary, Middle, and High School Students Studying Abroad]*, Seoul: Korea Education Development Institute, The Centre of Educational Statistical Information.
- Korea Employers Association (1999) *Goyongkwanri Byunhwawa Vision [Managing Employment: Changes and Visions]*, Seoul: Korea Employers Association Labour Economics Institute.
- Korea Employers Federation (1999) *Imgum Yeongu [Study of Wage]*, Seoul: Korea Employers Federation.
- Korea International Trade Association (2008) *Muyeok Tonggye [The Statistic of National Trade]*, Seoul: Korea International Trade Association, <http://stat.kita.net> (downloaded 20 October 2008).
- Korea National Statistical Office (2006) *2005 Hangnyeondo Chojunggo Yuhaksaeng Chulguk mit Gwiguk Tonggye [The Statistics of Departure and Entry of Elementary, Middle, and High School Students Studying Abroad - 2005]*, Seoul: Korea Education Development Institute, The Centre of Educational Statistical Information, <http://www.nhrd.net> (downloaded 10 November 2008).
- Korea National Statistical Office (2008) *2007 Sagyoyuk Siltaejosa Gyeolgwa [2007 Survey of Private Education Expenditure]*, Seoul: Korea National Statistical Office, <http://pedu.nso.go.kr> (downloaded 4 November 2008).
- Lee, S. (2008) "The Politics of *Chaebol* Reform in Korea: Social Cleavage and New Financial Rules," *Journal of Contemporary Asia*, 38, 3, pp. 439-52.
- Mo, J. (2008) "Illyudaehak gonggeube daehan sinhwahwa gyuje [The Myth and Regulation on the Supply of Top-ranked Universities]," *Geullobeol Gyoyukporeom [Global Educational Forum]*, <http://thinknet.or.kr> (downloaded 5 November 2008).
- Mok, K., K. Yoon and W. Anthony (2003) "Globalization's Challenges to Higher Education Governance in South Korea," in K. Mok and A. Welch (eds), *Globalization and Educational Restructuring in the Asia and the Pacific Region*, New York: Palgrave Macmillan, pp. 58-78.
- Nam, K. (2007) "Sagyoyukbi gumoui sigyeyeol chui bunseok [The Time Series Analysis of Private Education]," *Gyoyuk Jaejeong Gyeongje Yeongu [Study of Educational Finance and Economics]*, 16, 1, pp. 57-79.

- OECD (2000) *Korea and the Knowledge-based Economy: Making the Transition*, Paris: OECD.
- OECD (2006) "Education at a Glance," Paris: OECD, <http://www.thepresidency.gov.za/learning/reference/factbook/pdf/09-02-02.pdf> (downloaded 6 December 2008).
- OECD (2008) "Total fertility rates," *OECD Factbook 2008*, Paris: OECD.
- Park, N. (2000) "The 31 May 1995 Higher Education Reform," in J. Weidman and N. Park (eds), *Higher Education in Korea: Tradition and Adaptation*, New York: Falmer Press, pp. 109-30.
- Park, N. and J. Weidman (2000), "Battlefield for Higher Education," in J. Weidman and N. Park (eds), *Higher Education in Korea: Tradition and Adaptation*, New York: Falmer Press, pp. 177-96.
- Pempel, T. (1999) "Regional Ups, Regional Downs," in T. Pempel (ed.), *The Politics of the Asian Economic Crisis*, Ithaca: Cornell University Press, pp. 62-78.
- Pirie, I. (2008) *The Korean Developmental State: From Dirigisme to New-liberalism*, London: Routledge.
- Robison, M. (1991) "Perceptions of Confucianism in Twentieth-Century Korea," in G. Rozman (ed.), *The East Asian Region: Confucian Heritage and Its Modern Adaptation*, Princeton: Princeton University Press, pp. 204-25.
- Samsung Economic Research Institute (2000) *99 Gieop Gyeongyeong Ripoteu [The Corporate Management Report 1999]*, Seoul: Samsung Economic Research Institute.
- Seong, S. (2001) *Hankukeu Venture: Pyunggawa Jeonmang [Korean Venture: Assessment and Prospect]*, Seoul: Bibong.
- Silberman, B. (1993) *Cages of Reason: The Rise of the Rational State in France, Japan, the United States, and Great Britain*, Chicago: The University of Chicago Press.
- Song, B. (1990) *The Rise of the Korean Economy*, Oxford: Oxford University Press.
- Strange, S. (1996) *The Retreat of State: The Diffusion of Power in the World Economy*, Cambridge: Cambridge University Press.
- Yoon, C., I. Lee and C. Park (1999) *Hakgyobunggoe Siltae mit Daechaegyongu [Reality of School Collapse and its Countermeasure]*, Seoul: National Youth Policy Institute.

Copyright of Journal of Contemporary Asia is the property of Routledge and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.