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Financing Skills Development– Korean Experience

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ABSTRACT

The importance of skills development for national economic growth has been increasingly emphasized. Skills development system and strategy are critical in enhancing individual worker's productivity, national competitiveness and consequently people's economic well-being. Vocational education and training systems in many developing countries, however, are not properly responding to labor market skill demand. The budget for the skills development, which mainly relies on the government, is not secured and appropriately managed either. This study attempts to provide valuable guidance to designing and implementing effective skills development and its finance system of developing countries based on the Korea's experience. It points out that when designing the skills development finance system the government needs to take into account critical factors such as close linkage with private sector, utilization of training fund borne by private firms, incentives to induce employer's, employee's and unemployed's active participation in training, government's fair and transparent management including monitoring and evaluation, constant adaptation of national skills development system and finance scheme according to national economic development(changes in skill demands), application of the 'choice and competition' principle, special support to the SMEs, priority industry sectors and the disadvantaged, and the participation of employers and employees in skills development policy making and implementation.

Key Words: Skills Development, Vocational Education, Vocational Training, Employment Insurance Fund, Skills Development Finance

Financing Skills Development –Korean Experience

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1. Introduction

The importance of skills development for national economic growth has been increasingly emphasized. Skills development system and strategy are critical in enhancing individual worker's productivity, national competitiveness and consequently people's economic well-being. Thus the government tries to equip people with a right set of skills and knowledge demanded from the economy through education and training.

In many developing countries, the lack of skilled workers is one of the major obstacles towards sustainable economic growth. To achieve socio-economic transformation into a middle and high income country, they should overcome the current low skills equilibrium trap by significantly investing in human resource development. Vocational education and training systems in many developing countries, however, are fragmented and not properly responding to labor market skill demand. The budget for the skills development, which mainly relies on the government, is not secured and managed appropriately either.

This study attempts to provide valuable guidance to designing and implementing effective skills development and its finance system of developing countries based on the Korea's experience. Korea has constantly changed its skills development system and finance mechanism according to the changes in skill demand throughout national economic development process. As the Korean economy developed to more advanced level, Korea changed skills development policy focus from high school to junior college and university level and from TVET provider-based and supply-oriented to workplace-based and demand-oriented system.

Section 2 analyzes how Korea's skills development system and its financing strategy have changed according to national economic development stages. Based on the discussion in the section 2, following section reviews the structure and major policies of vocational education and training finance and assesses the performance of Korea's skills development finance. Last section draws meaningful policy implications for designing and implementing skills development finance system of developing countries.

2. Korea's Skills Development System

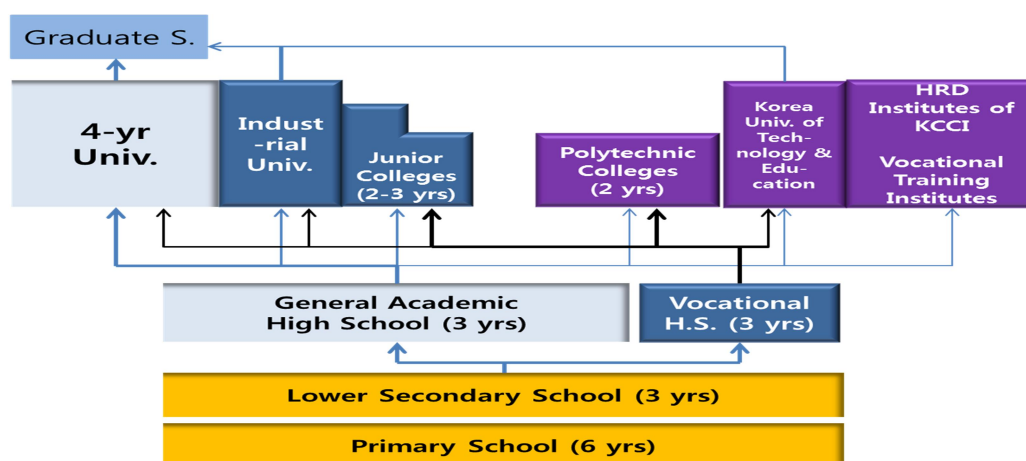
2.1. Evolvement of Korea's Skills Development System

2.1.1. Vocational Education System

The main structure of the Korea's skills development system was formed in the 1960s when Korea launched the first 5-year economic development plan. The government realized that Korea needed to supply large number of skilled workers to implement a series of the 5-year economic development plans. In 1963, the Ministry of Education(hereafter MoE) introduced national vocational education curriculum to high school. MoE also established 9 non-university vocational education institutes, which provided 3-year of vocational high school and 2-year of vocational junior college courses, to supply technicians to agriculture, fishery, forestry and engineering. In the first part of the 1970s, MoE restructured these institutes into 2-year technical colleges and merged them and other 2-year junior colleges¹ to junior colleges.² In 1982 MoE introduced industrial university to provide higher education opportunities to workers with high school and junior college education.

As of 2015, 538 vocational high schools, 138 junior colleges and 2 industrial universities provide skills development programs under the administrative guidance of the Ministry of Education and 17 local offices of education. Figure 2-1 depicts the current school system covering vocational education institutes.

<Figure 2-1> School System in Korea



¹ 2-year higher education institute like a miniature of 4-year university that did not provide vocational education programs.

² As a short-term higher education institution, junior colleges in Korea perform three main functions of providing (i) TVET programs, (ii) higher education opportunities to high school graduates with disadvantages, and (iii) lifelong learning opportunities to adults.

2.1.2. Vocational Training System

In the early 1960s, the government recognized the urgent necessity of increasing the supply of skilled workers and technicians to successfully implement a series of 5-year economic development plans. During the period of the 1st 5-year economic development plan, Korea suffered from severe labor shortage problem. Since the formal education system alone could not solve the problem of labor shortage, the government introduced the vocational training system with the Vocational Training Act in 1967. Compared to the regular school system, the vocational training system was flexible in making training programs, hiring trainers and selecting trainees which could contribute to effectively training and supplying technical manpower. With the financial and technical supports from international donors (e.g. IBRD, ADB) and advanced countries like Germany and U.S., the government established public vocational training institutes that made a significant contribution to supplying technical labor to strategic industries such as steel manufacturing, machinery and ship building.

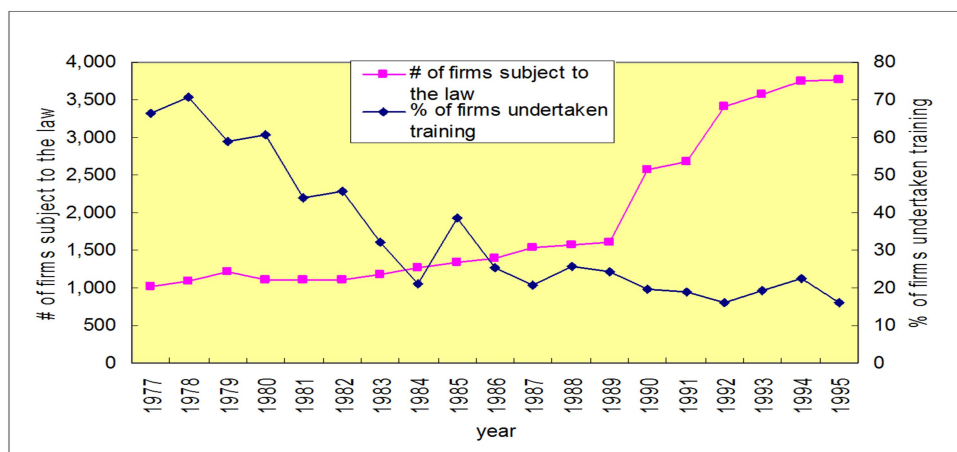
Despite the government's effort to supply technical manpower through the vocational training system, Korea still experienced labor shortage due to the high performance of the Korean economy and construction boom in both domestic and foreign market. In addition, employers were reluctant to train their new employees. They preferred to scout experienced workers from other companies. Thus the government mandated private companies with 300 employees or more to provide in-plant training to their employees with the enactment of the Basic Act of Vocational Training in 1976. The government expanded firms eligible to firms with 200 employees or more in 1989 and ones with 150 employees or more in 1992. The compulsory training system that focused on initial training played a crucial role in supplying skilled labor.³

The government introduced the levy system along with the vocational training system. An employer could provide training to employees or pay levy. The government collected levy to form the Vocational Training Promotion Fund⁴ that was used to provide public vocational training. Although more than 70% of firms provided training in the late 1970s, the proportion kept decreasing since 1979 as shown in figure 2-2. Because the amount of levy that a firm had to pay was smaller than actual cost of in-plant training and the government regulation

³ Lee, Young Hyun, Workforce Development in the Republic of Korea. ADBI. 2007. p.p.55-56.

⁴ The government enacted the 'Vocational Training Promotion Fund Act' in 1976, to provide budget for (i) training of workers and trainees, (ii) curriculum development, instructor training, and research, (iii) the operation of the Korea Manpower Agency (i.e. present HRDKorea – conducting research on vocational training, developing vocational standards and qualification standards, and providing training), and (iv) loans for equipment and facilities to firms.

[Figure 2-2] Changes of Firms affected by the Compulsory Training and Levy System



Source: Sung Joon Paik, HRD in Korea. ppt file. 2014.

In the early 1990s as the so-called knowledge-based economy progressed and the level of skills demanded rose, Korea needed a lifelong learning system to upgrade workers' skill as well as a new comprehensive and active labor market policy that covers not only unemployment benefits but also promotion of job security and vocational training. In this policy context, the government introduced the Employment Insurance System (hereafter EIS) in 1995. In the EIS, employers are required to pay insurance fee to the Employment Insurance Fund that is used to provide the unemployment benefits, employment security program and vocational competence development program. Unlike the compulsory training system that focused on initial training in manufacturing sector, the vocational competence development program⁵ of the EIS emphasized the retraining of workers in all industry sectors.

2.2. Current Skills Development System in Korea

In Korea 2 ministries, the Ministry of Education and the Ministry of Employment and Labor (hereafter MoEL), are responsible for managing the skills development system. MoE governs policies and administration of vocational education provided by vocational high schools, junior colleges, and industrial universities. MoEL manages the vocational training system that provides (i) pre-employment training programs to school drop-outs and school graduates, (ii) continuing training for workers, (iii) training for the unemployed, and (iv) training for disadvantaged groups like defectors from North Korea and multi-cultural families. Vocational training programs are provided by polytechnic colleges, Korea University of

⁵ For detailed explanation on the Vocational Competency Development Program (VCDP), refer to section 2.3.2.

Technology and Education (KoreaTech), HRD institutes of Korea Chamber of Commerce and Industry (KCCI), and private vocational training institutes.

<Table 2-1> Vocational Education and Training System in Korea (2016)

	Vocational Education	Vocational Training
Central Gov't	Ministry of Education	Ministry of Employment and Labor
Local Gov'ts	Offices of Education	Offices of Labor
Institutes	Vocational High Schools Junior Colleges Industrial Universities	Polytechnic Colleges ⁶ HRD Institutes(KCCI) In-plant Vocational Training Institutes Vocational Training Inst. of Local Gov't Private Vocational Training Institutes
Finance	About 60% of budget from private sources ⁷	Budget mainly from Private Source – Employment Insurance Fund
Period of VET	2 to 4 years (vocational H.S.: 3 years, junior col: 2-3 years, university: 4 years)	6 months to 4 years

Source: Paik, Sung Joon. Pre-employment VET Investment Strategy in Developing Countries-Based on the Experiences of Korea. KDI School Working Paper. 2014. p.7.

<Table 2-2> Types of TVET institutes in Korea (2016)

	Public	Private
A. Vocational Education Schools		
1. Secondary School		
1.1. Lower Secondary	n/a	n/a
1.2. Upper Secondary (539)	Vocational High Schools (277) Meister High School(36)	Vocational High Schools (221) Meister High School(5)
2. Post-Secondary School		
2.1. Junior College (138)	2-3 year Junior Colleges (9)	2-3 year Junior Colleges (129)
2.2. University (2)	n/a	Industrial Universities (2)
B. Vocational Training Institutes		
1. Secondary Level	n/a	Vocational Training Institutes
2. Post-Secondary Level	Polytechnic Colleges(11) Korea Univ. of Tech. & Educ.(1)	HRD Institutes(8) under Korea Chamber of Commerce & Industry(KCCI), Vocational Training Institutes

Source: <http://kess.kedi.re.kr/index> Sept. 17, 2016.

⁶ The Origins of polytechnic colleges were public training institutes that provided high-school level vocational training and were managed by the Korea Manpower Agency (now HRDKorea) under the Ministry of Labor. As demand for workers with high-school level skills decreased due to the progress towards the knowledge-economy, the Ministry of Labor transformed public vocational training institutes into polytechnic colleges.

⁷ Vocational high schools, whether public or private, are publicly funded. However, main revenue source of private junior colleges (129 in 138 junior college) is student tuition and fees.

2.3. Key Skills Development Strategies

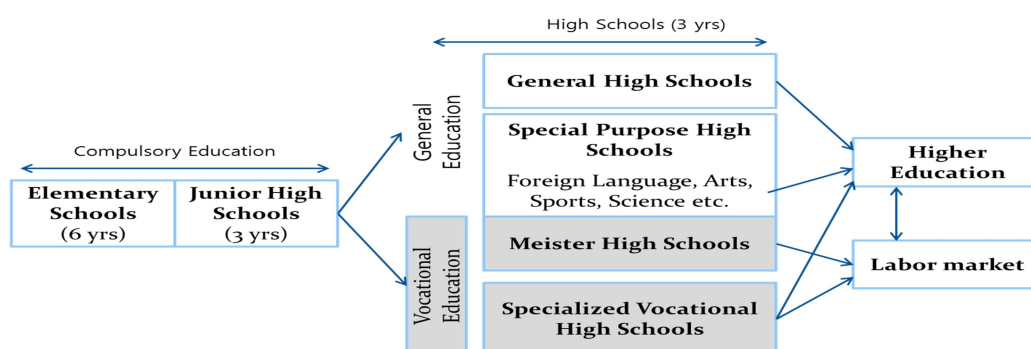
In the past when Korea was in the early stage of economic development and skills demanded did not change much, vocational education and training was supply-oriented. As the type and level of skills demanded became diverse and sophisticated, however, Korea needed to adopt demand-oriented and market-driven approach because it was difficult to catch up with the speed of skill change without inputs from private sector.

2.3.1. Strengthening School-Industry Linkage

In the 2000s Korea was confronted with the problems of the shortage of quality skilled workers with high school qualification, skill mismatch between vocational high school curriculum and skill demands from new industries like internet and e-business, and high youth unemployment due to excessive demand for higher education. The government also needed to prepare for sharp decrease in age cohort of high school expected for the next 20 years.

Along with the policy of restructuring (into 2 categories of specialized and meister⁸ high school as described in figure 2-4) and downsizing vocational high school system (from 692 to 400 schools by 2015), MoE emphasized the school-industry relationship in designing and implementing vocational education programs. For example, the curriculum of vocational high schools is developed based on the National Competency Standards(NCS). In addition, MoE emphasizes employment-focused education by the provision of tailor-made curriculum, internship programs and career guide and job search services, and tax incentives to companies.

[Figure 2-3] Vocational High School System in Korea



Source: Park, D.Y., *Korean Policies on Secondary Vocational Education*. BiBB BWP. 2011. p.31.

⁸ The government took the term of 'Meister' from Germany's Meister. 'Meister' in the meister high school can be referred to a candidate who wants to be a Meister.

For higher education, the government adopted new paradigm since 2000 as described in table 2-4. The government tries to reflect the perspectives of firms and industries in university-industry collaboration policies, focus on equipping students with practical job skills, and change college system to promote closer college-industry linkage.

<Table 2-3> Paradigm shift in School-Industry Cooperation

	Old Ways	New Ways
Approach	Supply-based (from the perspectives of junior colleges & universities and the government)	Demand-oriented (from the perspectives of firms, SMEs, Industries)
Support Strategy	Project-based / Department-based Partial Support	College-based Comprehensive Support (college system change)
Scope	Partial Participation(project, professors)	Comprehensive (students, professors, and firm's workers)
Focus	R&D focused	Commercialization-focused / Start-up
Education	Theory / Research-based	Practical Job Skills Training

With this new paradigm, MoE encouraged colleges and universities to establish new office called the ‘Industry-College Cooperation Corporation.’ Main objective of this office is to provide technical and administrative support for the promotion of virtuous cycle of R&D to start-up, commercialization, and HRD to employment.⁹ Main functions of the Corporation includes the contract of the industry-college project, acquisition and management of intellectual property right, financial account management, facilities and equipment management, technology transfer and commercialization, and rewards to technology providers and researchers. In addition MoE has implemented policies like the Project for Developing Industry-College Cooperation-centered Junior Colleges (2005-2012) and the Leaders in Industry-College Cooperation (2012-2016).

2.3.2. Applying Market Mechanism to Vocational Competency Development Program in EIS

In 1995, MoEL introduced a new vocational training system called the Vocational Competency Development Program (hereafter VCDP) as a part of the EIS, as explained earlier. The target group of VCDP includes employers, employees and the unemployed. VCDP provides financial assistance to these groups’ vocational training.

What is particular in the VCDP compared to the old system is the application of the market mechanism, specifically choice and competition principle to the training market. In the new system, employers, employees and the unemployed can make choices of training institute and program according to their training needs. Once they received a training program at an

⁹ For example, the College-Industry Cooperation Corporation supports to launch start-ups by utilizing new technology developed by junior colleges and to re-invest profit in R&D and education.

institute they want, they can request the reimbursement of training cost to HRDKorea. HRDKorea pays back the training cost from the EIF after reviewing the validity of their request.¹⁰

Since employers, employees and the unemployed make decisions on training program and institute, TVET providers should compete with each other to attract trainees. This requires TVET providers to provide vocational training programs with higher quality and eventually leads to higher productivity of the vocational training system. To promote competition among TVET providers, MoEL invited all types of TVET providers – public, private, schools and institutes – to the training market. What MoEL does is to evaluate each TVET provider’s and its program’s performance and make public the results.¹¹ With the evaluation results, clients can make informed decisions. Difference between old and new vocational training system is summarized in table 2-4.

<Table 2-4> Reform of Vocational Training System – Paradigm Shift

	Before 1995 – Compulsory Training System (1977-1998)	Now(1995-present) – Vocational Competency Development Program
Law	Basic Law for Vocational Training(1976)	Employment Insurance Law(1995) Workers Vocational Training Promotion Act(1997) → Workers Vocational Competency Development Act(2004)
Financial Source	Training Levy	Employment Insurance Fee
Fund used	Vocational Training Promotion Fund	Employment Insurance Fund
Operation Mode	Government-controlled ¹² Supply-oriented ¹³	Demand-driven / Market-oriented / Incentive system
Training Market	Closed	Open to private training institutes
Target Industry	Manufacturing Sector focused	All industries and occupations
Main Training	Initial Training	Continuing Training
Target Groups	Youth without skills	Incumbent Workers / Unemployed

In 2004, MoEL enacted a new act called Workers Vocational Skills Development Act to guarantee equitable vocational training provision to SMEs and the disadvantaged¹⁴ and promote the labor union’s participation. The EIF supports employers, employees, and the unemployed¹⁵ through VCDP, while the general account of the MoEL supports vocational training for youth unemployed, self-employed, female family heads, and defectors from North Korea.

¹⁰ For detailed explanation on the EIF, refer to section 3.2.2.

¹¹ The results of the evaluation studies on the performance of the vocational training institutes and programs are uploaded in the government website (<https://www.hrd.go.kr/>).

¹² In the compulsory training system, the government decided the number of workers who would get training by sector annually, considering demand for skilled manpower.

¹³ Vocational training institutes decided training subjects and contents.

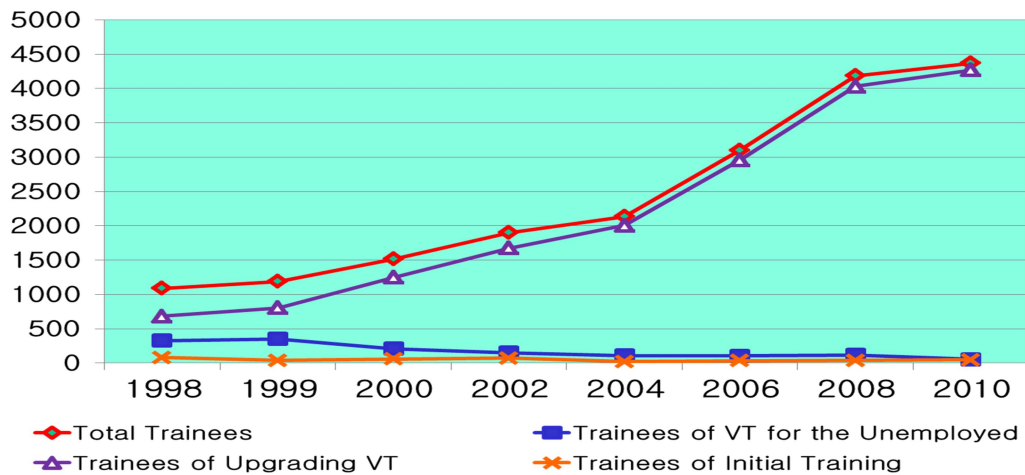
¹⁴ the aged, women, youth, the unemployed

¹⁵ Unemployed who once was employed in company that paid employment insurance fees.

New vocational training system played a significant role in providing training opportunities to workers as shown in figure 2-4. Contributing factors include the budget secured by the EIF, the expansion of training market to all private institutes, and the differential financial support to the SMEs.¹⁶

[Figure 2-4] Changes in Number of Trainees in VCDP

(unit: 1,000 persons)



¹⁶ Relatively smaller insurance fee rate is applied to SMEs, while SMEs get relatively higher rate of refund

3. Skills Development Finance in Korea

3.1. Revenue for Skills Development

3.1.1. Vocational Education

In Korea the budget for education is appropriated by 4 funding sources: Ministry of Education, local governments, private school foundations and parents and students. As table 3-1 indicates, as of 2015 the MoE budget amounts to 3.5% of GDP and 14.7% of national budget. 71.7% of the MoE budget is transferred to the local offices of education as a local education grant,¹⁷ part of which is used for vocational education at high schools¹⁸. In addition, the MoE provided 563.3 billion KW(about 470 million US\$)¹⁹ to vocational high schools²⁰ as a national subsidy to implement the MoE's vocational education policies.

17 local offices of education(hereafter LOEs) are responsible for providing vocational education. Total education budget of 17 LOEs consists of the MoE's grant, transfer from the general account of local government, and tuition. 17 LOEs allocate part of the budget for vocational education by applying the unit cost per school, classroom and student to guarantee the equity of finance. It is difficult to accurately estimate the total amount of the budget expenditure used for vocational education by the MoE and 17 LOEs due to the complexity of the budget account systems.

<Table 3-1> GDP, Government Budget and Ministry of Education Budget in Korea

(unit: billion KW, %)

	GDP(A)	Government Budget(B)	MoE Budget(C)	B/A	C/A	C/B
2013	1,429,445.4	348,988.3	53,492.3	24.4	3.7	15.3
2014	1,486,079.3	355,805.0	54,248.1	23.9	3.7	15.2
2015	1,558,591.6	375,400.0	55,132.2	24.1	3.5	14.7

Sources: (1) <http://kosis.kr/> Sept. 18, 2016 and (2) Ministry of Education, Budget Plan, each year.

For vocational education of national junior colleges, MoE provides the expenses of operating education programs in addition to the salaries of faculty and staff. For the private institutes, MoE provides financial subsidy to implement its policies such as the Specialized Colleges of

¹⁷ There are two types of local education grant: general and special grants. MoE transfers the general grant, the source of which are internal tax revenue and national education tax, as a block grant to 17 local offices of education that is responsible for elementary and secondary education. 17 local offices have autonomy to use the general grant. MoE provides the special grant for unexpected situations like national disaster.

¹⁸ Gu, Gyun Cheol. Equity, Efficiency, and Adequacy in Local Governments' Funding for K-12 Education Finance. *The Journal of Economics and Finance of Education*. vol.24.no2. 2015.6. p.94.

¹⁹ As of Dec. 26, 2016, 1.00 US\$=1,198.5KW.

²⁰ Ministry of Education. 2015 Education Budget and Fund Plan. 2014. 9. p.p.18-19.

Korea Project and the Leaders in Industry-College Cooperation and. The total amount of junior colleges' budget in 2015 is 5,060.9 billion KW(about 4.2 billion US\$), 99.7% of which is for private junior colleges. For the budget of the private junior college, 58.0% comes from tuition and fees that students pay (2,928.5 billion KW, about 2.4 billion US\$) and 19.5% from national subsidy (985.3 billion KW, about 822 million US\$).²¹ This indicates that junior colleges in Korea are heavily dependent on students' tuition and fees and the government provides relatively small financial support to junior colleges.

3.1.2. Vocational Training

3.1.2.1. General Account of the Ministry of Employment and Labor Budget

Ministry of Employment and Labor (hereafter MoEL) is responsible for providing vocational training to employees and the unemployed. MoEL uses 2 funding sources to provide vocational training: the general account of the MoEL budget and the Employment Insurance Fund. The vocational training budget in 2015 was set to be 375,777 million KW (about 314 million US\$) in its general account budget (1,897,785 million KW, about 1,6 billion US\$).²² This MoEL budget for vocational training includes (i) vocational training of (a) the unemployed youths not covered by the Employment Insurance System and (b) out-of-school youths in risk, (ii) budget support to the management of (a) HRDKorea, (b) Korea Polytechnic College, and (c) KoreaTech, and (iii) the management of national and private qualifications.²³

3.1.2.2. Employment Insurance Fund

In addition to the MoEL budget, the MoEL provides financial support to employers, employees and the unemployed with the Employment Insurance Fund.²⁴ In 2015, the MoEL set the EIF budget for vocational training of 1,621,675 million KW(about 1.4 billion US\$).²⁵ In 2014, the MoEL spent 1,459,653 million KW(about 1.2 billion US\$).²⁶ EIF for Vocational Competency Development Program covers all industry sectors and occupations. It is used to provide financial support to employers for their employees' training, and individual employees and the unemployed for their vocational training. Ministry of Employment and Labor is responsible for collecting and managing EIF, the legal base of which is the National

²¹ <http://kess.kedi.re.kr/index> Oct. 1, 2016.

²² MoEL's expenditure for vocational training in general account budget (1,970,024 million KW) in 2014 was 315,507 million KW.

²³ MoEL. 2015 Plan for Budget and Funds. 2014.12. p.15 and p.p.22-23.

²⁴ For more detailed explanation, refer to section 4.

²⁵ MoEL. 2015 Plan for Budget and Funds. 2014.12. p.p.43-49

²⁶ MoEL. 2014 Plan for Budget and Funds. 2014.1. p.p.40-45.

Finance Act.²⁷

For VCDP, employers are required to pay insurance fee by the insurance fee rate, pre-determined by MoEL, as shown in table 3-2. For example, an employer of the enterprise with 1-149 employees pays the 0.25% of his/her employees' total wage as an insurance fee to the EIF. For VCDP & employment security, employers should pay employment insurance fees in advance and are entitled to get refunded after providing training.²⁸

<Table 3-2> Employment Insurance Fee Rates

		Employee	Employer
Employment Security & VCDP	Enterprises with 1-149 employees	-	0.25%
	Priority Support Enterprises with 150 employees or more	-	0.45%
	Enterprises with employees 150-999 except Priority Support Enterprises	-	0.65%
	Enterprises with 1,000 employees+	-	0.85%
Unemployment Benefit		0.65%	0.65%

EIS is applied to every workplace with 1 worker or more since October 1998. As shown in table 3-3, the EIS covers about 1.94 million workplaces and 11.93 million workers. The EIS plays a crucial role in promoting continuous vocational training for workers, which characterizes the key part of the national skills development strategy.

<Table 3-3> Workplaces and Workers in the Employment Insurance System

(unit: 1,000 places, 1,000 persons)

	2002	2005	2010	2011	2012	2013	2014
Workplaces	826	1,148	1,408	1,508	1,611	1,748	1,935
Workers Insured	7,171	7,966	10,131	10,675	11,152	11,571	11,931

Source: Ministry of Employment and Labor. The Employment Insurance White Paper. 2015.12. p.61.

As the numbers of workplaces and workers insured steadily increased, the amount of the EI fee collected also gradually increased as shown in table 3-4. As of 2014, 8,039.7 billion KW (about 6.7 billion US\$) was collected in total. 2,281.1 billion KW (about 1.9 billion US\$, 28.4% of the total amount collected) was collected for the Employment Security Program and the Vocational Competency Development Program, while 5,758.6 billion KW (about 4.8 billion US\$) for the Unemployment Benefit Program(71.6%). The proportion of the fund for the unemployment benefit kept increasing between 2010 and 2014, compared to the fund for the employment security and VCDP, because for the unemployment benefit employees also pay insurance fees. MoEL manages the unemployment benefit and VCDP by using the same

²⁷ Ministry of Employment and Labor. Employment Insurance White Paper. 2015. p.p.324-326.

²⁸ Korea Workers' Compensation & Welfare Service assesses EI fees for employers and employees and National Health Insurance Service collects EI fees according to the Employment Insurance & Industry Calamity Insurance Fee Collection Law (article 16-2).

pot of the fund since 2006.

<Table 3-4> Amount of Insurance Fees Collected by Program

(unit: billion KW, %)

	2010		2011		2012		2013		2014	
	Fees	Δ	Fees	Δ	Fees	Δ	Fees	Δ	Fees	Δ
Total	4,247.8 (100.0)	0.7	5,071.7 (100.0)	19.4	6,328.1 (100.)	24.8	6,989.4 (100.0)	10.5	8,039.7 (100.0)	15.0
Unemployment Benefit	2,736.2 (64.4)	0.8	3,416.3 (67.4)	24.9	4,298.4 (67.9)	25.8	4,864.1 (69.6)	13.2	5,758.6 (71.6)	18.4
Employment Security	1,511.6 (35.6)	0.6	1,655.5 (32.6)	9.5	2,029.6 (32.1)	22.6	2,125.3 (30.4)	4.7	2,281.1 (28.4)	7.3
VCDP										
Collection Rate	94.0		94.8		94.8		94.0		93.8	

Source: MoEL. The Employment Insurance White Paper. 2015.12. p.112 and p.114.

Note: collection rate is the ratio of fund collected to the amount of fund expected to be collected.

3.2. Expenditure for Skills Development

3.2.1. Vocational Education

3.2.1.1. Vocational High School

For vocational high school education, superintendents (head of the local office of education) allocate budget to schools on the basis of unit cost per school, class and student by level and type of school. In other words, 17 LOEs use input-based allocation method. In addition to local education grant, MoE also uses financial subsidy to promote its vocational education strategy. For this, the Ministry of Education reviews project proposals submitted by local offices of education, selects projects based on score and provides subsidy.

3.2.1.2. Junior College – the Specialized Colleges of Korea Project(SCK project)

As explained in section 2.2, 129 out of 138 junior colleges in Korea are private. Since MoE does not provide the recurrent operating budget to them, the private junior colleges have to rely on the tuition to operate colleges' education. This indicates that most of junior colleges in Korea suffer from the severe budget shortage. They cannot respond effectively to the changes in skill demands through the development of innovative programs or the prompt revision of the existing programs. In other words, the financial subsidy by MoE is critical in improving colleges' education performance and research capacity. MoE has implemented several policies like 'Project for Developing Industry-College Cooperation-centered Junior College(20015-2012)' and 'Leaders in INdustry-College Cooperation(2012-2016).'

MoE launched a new policy called 'Specialized College of Korea'(hereafter SCK) in 2014 to induce colleges to re-design their curriculum and programs and restructure the organization of departments by focusing on the specialty areas of industry sectors. This is to enhance the efficiency and effectiveness of junior college education investment. The budget for the SCK

policy were 246.0 billion KW(about 205 million US\$) for 78 junior colleges in 2014 and 296.9 billion KW (about 248 million US\$) for 86 junior colleges in 2015. In 2016, 291.9 billion KW for 90 junior colleges is allocated. The Ministry of Education selects junior colleges for the project through reviewing their proposals that include their institutional capacity and restructuring plan. After selecting junior colleges qualified, the Ministry provides financial subsidy first for 2 years. If a junior college selected passes the mid-term evaluation that is conducted after 2 years of implementation, then the Ministry continues to provide subsidy to that college for another 3 years. In other words, the SCK project adopts performance-based finance mechanism to maximize the cost-effectiveness.

The amount of subsidy allocated to each junior college is decided based on (i) the number of students, (ii) the level of restructuring towards specialized major areas (measured by changes in the number of students in specialized major areas), and (iii) college evaluation results (measured by (a) basic capacity (35 points) - overall employment index, the ratio of the number of students registered to enrolment quota, the ratio of tuition to education expenditure, the ratio of professor number to T/O, industry-college cooperation capacity index, (b) plan for specializing college programs (50 points) – plan for specialization in linkage with local and national industry sectors and manpower development, plan for designing and application of the National Competency Standards(NCS)-based curriculum, plan for building infra of the NCS-based curriculum, plan to evaluate student’s job competency, and performance management system of specialized programs, and (c) capacity of specialized major areas (15 points) – employment index in specialized major areas, the ratio of students number to enrolment quota in specialized major areas, the rate of completing practical training in workplace for students in specialized major areas, the ratio of professors number to T/O in specialized major areas, and entrepreneurship education index in specialized major areas). The Ministry allocate subsidy to junior colleges as a form of block grant.²⁹ The mid-term evaluation results indicate the SCK policy turned out to be effective in enhancing employment rate, practical training completion rate, and entrepreneurship education index.³⁰

3.2.2. Vocational Training – Vocational Competency Development Program

3.2.2.1. Management of the Employment Insurance Fund

Following the National Finance Act, MoEL makes a EIF plan, goes through the review by the EI Committee,³¹ and submits it to the Ministry of Strategy and Finance every year (by June 20). Minister of Strategy and Finance tunes it to overall national budget plan through

²⁹ Action Plan for the SCK Project, Ministry of Education(2014.3), 2015 Plan for the SCK Project, Ministry of Education(2015.4) and 2016 Plan for the SCK Project, Ministry of Education(2016.2)

³⁰ Press release on the Mid-term Evaluation Results of the SCK Project, Ministry of Education (2016.6).

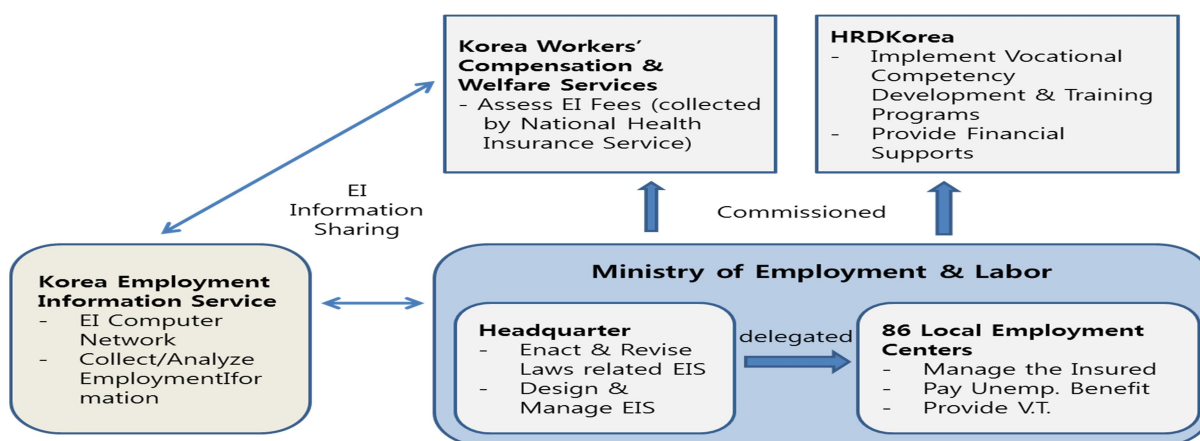
³¹ Representatives of workers and ‘someone who represent public good’ can participate in the process of reviewing the EIF plan in the EI Committee meeting.

consultation with MoEL, have it reviewed in the cabinet meeting, gets president's endorsement and submits it to the congress (at least 120 days before next fiscal year begins). EIF plan is finalized through the review and approval of the congress. Regarding the settlement of EIF program accounts, MoEL submits the settlement report to Minister of Strategy and Finance by February next year. After the review process by the cabinet meeting, Minister of Strategy and Finance submits it to head of the Board of Audit and Inspection of Korea by April 10 next year. Administration should report the EIF settlement results to the congress by May 31 next year.³²

The government has conducted an evaluation study to assess the performance of EIF management, enhance the transparency and efficiency of EIF management, and improve EIF management annually since 2000 according to the National Finance Act. For the evaluation of EIF programs, the Ministry of Employment and Labor conducts self-evaluation first and the Ministry of Strategy and Finance checks its results. For EIF investment, a separate evaluation (on investment strategy and policy, risk & performance management, profits, decision-making process, and organization) is implemented by the Fund Investment Evaluation Committee.³³

MoEL is responsible for making major decisions and planning on the operation of the EIS, while 6 regional offices of employment and labor implement. The Employment Insurance Committee, that consists of representatives of employers, workers, and the government and someone who can represent public good, discuss and decide the details of the EI institutions and programs.

[Figure 3-1] Employment Insurance Management Flow



Source: Ministry of Employment & Labor. Employment Insurance White Paper. 2015. p.341.

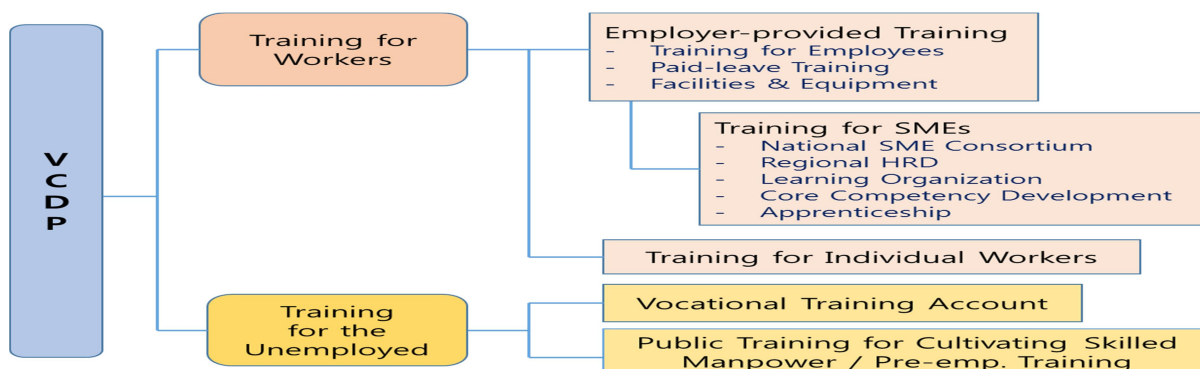
³² Ministry of Employment and Labor. Employment Insurance White Paper. 2015. p.p.327-328.

³³ Ministry of Employment and Labor. Employment Insurance White Paper. 2015. p.p.329-332.

3.2.2.2. Vocational Competency Development Program financed by the Fund

EIF for the VCDP is the main source to finance vocational training to workers including the unemployed. The VCDP has 2 categories of training – one for workers(employees) and the other one for the unemployed including people in pre-employment training. In other words, the current VCDP covers continuing training, pre-employment training and training of the unemployed.³⁴

[Figure 3-2] Vocational Competency Development Program³⁵



3.2.2.2.1. Financial Support to Employer

3.2.2.2.1.1. Support to Employer-provided Vocational Training

The MoEL reimburses part of training costs to employers who insured their employees with the EI when they provide employees of their companies, workers to be employed by them, and job-seekers with vocational training that is approved by the Minister of Employment and Labor.³⁶ Employers either commission vocational training to outside TVET institutes or provide in-house training by themselves. Vocational training takes the forms of workplace-based training, group training, distance training (e.g. internet, mail)³⁷ or blended training. Employers should provide training of more than 16 hours / 2 days (for the priority-support

³⁴ EIS covers the unemployed who were once employed in firms that pay employment insurance fees for the VCDP. For people unemployed with disadvantages (e.g. defectors from North Korea, foreign immigrants due to marriage, poor self-employed, daily workers in construction, and people who live under the minimum living expenses), the MoEL budget covers training cost for them.

³⁵ Ministry of Employment and Labor. Current Status of Vocational Competency Development Project. 2015.7. p.3.

³⁶ The Ministry of Employment and Labor manages the EI fund via the HRDKorea that is responsible for operating the process of receiving and reviewing the refund requests from employers and reimbursing the training costs, as described in figure 4-1..

³⁷ Distance learning is not popular due to the possibility of unfair practice or cheating.

enterprises,³⁸ 8 hours / 1 day) to get reimbursed. Amount of the reimbursement is estimated by following formulas: (i) for the priority-support enterprises, training unit cost by occupation x adjustment index x training hours x number of trainees who completed training x 120%, and (ii) for large companies, training unit cost by occupation x adjustment index x training hours x number of trainees who completed training x 80%(for companies with 1,000 employees or more, 50%).³⁹

HRDKorea implements service activities of providing reimbursement for the VCDP. In order to get financial support(i.e. reimbursement) from the EIF, employer first submits the application form to get training program(s) that s/he going to provide to her/his employees approved (7 days before training starts in case of commissioned training and 5 days before in case of in-company training) to HRDKorea's regional offices. After getting approval, s/he reports their training with the list of trainees and provides training. Employer makes completion report within 14 days of finishing the training program and request reimbursement within 30 days of training completion.⁴⁰

3.2.2.2.1.2. Support to Paid-leave Vocational Training

The MoEL provides financial support to employers who permit employees to take paid-leave for their vocational training of mid-term or long-term period of time. For the priority support enterprises and enterprises with fewer than 150 regular employees, MoEL provides (i) part of training cost and trainees' wages when employers allow employees to have paid-leave longer than 7 days for their training of more than 30 hours, and (ii) part of substitute workers' wages in addition to training cost and trainee's wages when employers allow employees paid-leave longer than 30 days for their training of more than 120 hours and employ substitute workers. For other enterprises, the MoEL supports part of training cost and trainees' wage when employers allow paid-leave of longer than 60 days to employees who has worked more than 1 year for their training of more than 180 hours. Employers request reimbursement to local offices of HRDKorea.⁴¹

3.2.2.2.1.3. Loan for Vocational Training Facilities and Equipment

Employers, employer organizations, worker organizations, training foundations, and training institutes designated by the MoEL can get a loan to install the facilities and equipment of

³⁸ The priority-support enterprises include (i) companies with 300 employees or fewer in mining, construction, transport and communication industry, (ii) companies with 500 employees or fewer in manufacturing industry, and (iii) companies with 100 employees or fewer.

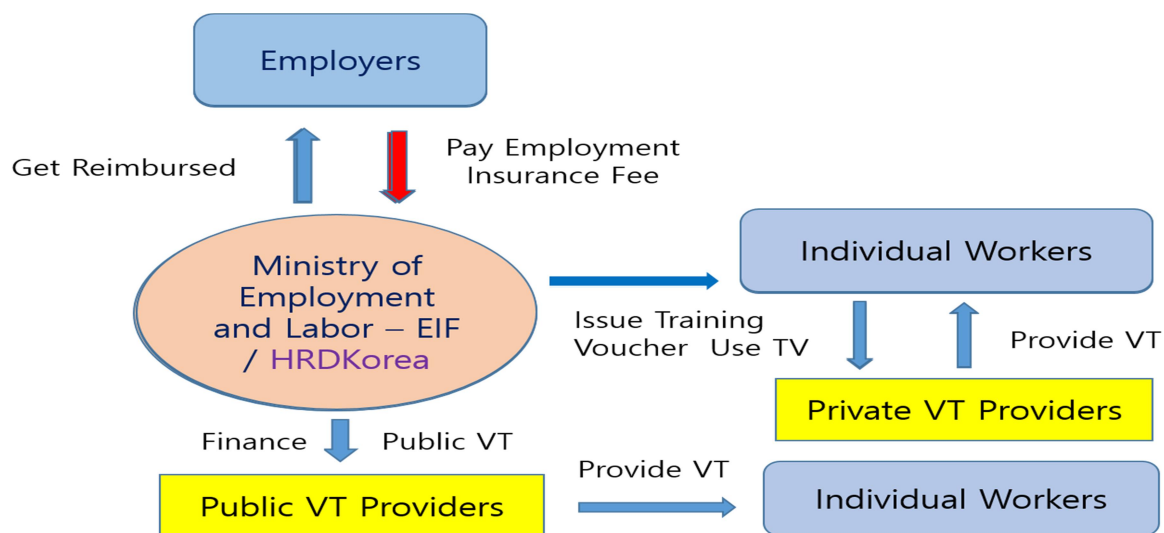
³⁹ Ministry of Employment and Labor. Current Status of Vocational Competency Development Project. 2015.7. p.p.4-5.

⁴⁰ <http://www.hrdkorea.or.kr/3/1/3/1> Sept. 14, 2016.

⁴¹ Ministry of Employment and Labor. Current Status of Vocational Competency Development Program. 2015.7. p.p.6-7.

vocational training up to 6 billion KW (about 5 million US\$) with the condition that the loan should be paid in 5 years following a 5-year of grace period. Borrowers pay 1% - 3% interests. Employers request loans to local offices of HRDKorea.⁴²

[Figure 3-3] Flow of Employment Insurance Fund for Vocational Competency Development Program



3.2.2.2.2. Financial Support to Individual Workers

3.2.2.2.2.1. Worker Training Voucher

MoEL provides the training voucher to an individual worker who is insured by the EIS for his/her vocational training of his/her own decision. Target groups include the employees insured in the priority-support enterprises, short-term contracted workers, employees scheduled to leave jobs within 180 days, the insured who has been enrolled in the EI more than 3 years and never received employer-provided training and support to individual training by his/her own decision, workers in child-bearing & rearing leave, employees in unpaid-leave due to business difficulties, and self-employed who never fails to pay insurance fees. Employment centers under HRDKorea issue training voucher to employees who request for their voluntary training. By presenting training voucher individual employees can take training courses in TVET providers that offer training programs recognized by the MoEL. TVET providers receive training expenses from MoEL. MoEL subsidizes training cost up to 2 million KW (about 1,669US\$) to an employee per year (5 million KW max. for 5 years).⁴³

⁴² Ministry of Employment and Labor. Current Status of Vocational Competency Development Program. 2015.7. p.7.

⁴³ Ministry of Employment and Labor. Current Status of Vocational Competency Development

3.2.2.2.2. Support to Worker's Vocational Competency Development

MoEL also provides financial support to the insured employees in the priority-support firms, workers with short-term contract, and the self-employed workers when they complete training programs with their own expenses. Individual workers request subsidy to the employment center after completing training and then the center provides workers with subsidy up to 80% of training tuition for general training courses, 60% for foreign language courses and 100% for internet courses. Individual worker can get subsidy of up to one million KW per year and 3 million KW for 5 years.⁴⁴

3.2.2.2.3. Financial Support to SMEs

3.2.2.2.3.1. National HRD Consortium

Since the VCDP was implemented, it was pointed out that the smaller the firm size, the lower the rate of benefit over contribution to the EIF. Small firms lack financial and human resources, information, and organizational capacity. The government introduced a new measure, National HRD Consortium Project, designed for SMEs (as a part of the financial support to employers) in 2001. The SMEs training consortium project was proposed in 'Knowledge-based Economy Development Strategy(2000.4)' by the Ministry of Finance and Economy and the Ministry of Labor and '3-year Plan for Vocational Competency Development(2000.12)' by the Ministry of Labor in 2000. In 2011 the project was expanded and redesigned into the National HRD Consortium by integrating 11 training projects of other 6 ministries.⁴⁵

Main objective is to provide customized vocational training (both initial and continuing) to employees of SMEs through contract between HRDKorea and enterprises, employers' organizations and higher education institutions (they form 'joint training center') that make a consortium with SMEs. Operating process is as follows: (i) HRDKorea makes public announcement of the National Consortium Project, (ii) joint training centers that consist of enterprises and employers' organizations apply by submitting project proposals, (iii) the review committee select joint training centers and HRDKorea makes a contract and provide subsidy, (iv) HRDKorea monitors and evaluates, and (v) HRDKorea conducts audit by hiring external accounting firm.⁴⁶

HRDKorea provides expenses for (i) facilities and equipment (up to 1.5 billion KW (1.3 million US\$) per year – up to 80% of total expenses – the joint training center is required to bear more than 20% of the expense as a matching fund), (ii) personnel and operation (up to

Program. 2015.7. p. 9.

⁴⁴ Ministry of Employment and Labor. The Employment Insurance White Paper. 2015.12. p.230.

⁴⁵ Ministry of Employment and Labor. The Employment Insurance White Paper. 2015.12. p.209.

⁴⁶ <http://www.hrdkorea.or.kr/3/1/3/2> Sept. 14, 2016.

0.4 billion KW (348,000 US\$) per year), and (iii) developing training programs (up to 0.1 billion KW (87,000 US\$) per year).⁴⁷

3.2.2.2.3.2. Regional HRD tailored to Local Economy and Industry⁴⁸

To establish new industry-initiated HRD systems based on regional labor demand, the MoEL provides financial support to vocational training programs designed and implemented by the Regional Councils⁴⁹ that consist of representatives from regional Chamber of Commerce and Industry, Korea Employers Federation, local Offices of Employment and Labor, Small and Medium Business Administration, and local Office of Education. Regional Councils analyze changes in skill demand of the local labor market, make regional HRD plans and get the approval of this plan from HRDKorea. With approval, HRDKorea grants subsidies to the Regional Councils. They provide training in joint training centers and employment services in collaboration with regional employment centers. After completing training, HRDKorea evaluates the results.

MoEL grants subsidies for personnel expenses, labor demand analysis costs and management costs to the Regional Councils up to 600 million KW per year. MoEL also provide financial support to regional joint training centers for the installment of training facilities and equipment up to 1.5 billion KW (joint training center should provide 20% matching fund), the provision of training (following the reimbursement procedures of employer-provided training), the management of the regional HRD plan up to 300 million KW (for personnel expenses, 20% matching fund is required), and training program development up to 200 million KW.

3.2.2.2.3.3. Making SMEs Learning Organizations

MoEL supports SMEs' learning activities and establishment of learning infra so that SMEs can accumulate and disseminate job-related knowledge, experience and know-how internally in a systematic way. MoEL provides subsidies to employers of the priority-support enterprises who carry out activities necessary to become learning organizations like forming learning networks, supporting learning club activities, recognizing exemplary learning activities, providing consultancy and coaching services and preparing learning space and

⁴⁷ Ministry of Employment and Labor. Current Status of Vocational Competency Development Program. 2015.7. p. 11.

⁴⁸ Ministry of Employment and Labor. Current Status of Vocational Competency Development Program. 2015.7. p.p. 11-12.

⁴⁹ As of 2015, 16 Regional Councils are formed and in function. Regional council consists of representatives of local chamber of commerce and employers' organizations, workers' organizations, local office of labor, Small & Medium Business Agency, and local office of education.

equipment.⁵⁰

MoEL provides financial supports for (i) learning team activities (300,000 KW per team per month for team activities, 2 million KW per company for learning organization education, and up to 200,000 KW per month for leader's activities), (ii) the promotion of learning activities (up to 2 million KW for exemplary learning activities and up to 3 million KW for competition prizes), and (iii) learning network (up to 1 million KW per company).⁵¹

3.2.2.2.3.4. Support for Core-Competency Training Programs

Private training market in Korea did not provide vocational training programs for the SMEs sufficiently enough to meet demand from the SMEs. Most of training programs were oriented to large firms. Thus, the Ministry of Labor introduced this project to induce private TVET providers to design and supply vocational training programs for the SMEs and thus to strengthen the job capacity of the SMEs' workers.⁵² MoEL provides subsidies to SME employers and workers so that they can take core job-competency development programs selected by HRDKorea, which they could not take due to high cost. Total amount of training cost is subsidized (up to 30,000 KW per hour).⁵³

3.2.2.2.3.5. Apprenticeship Training Program

In 2013 the government introduced the Apprenticeship Training System⁵⁴ in which (i) companies hire job-seeking youths as 'learning worker' and provide systematic and long-term vocational education and training in workplaces or higher education institutions to supply workers with practical job competencies required in industry, and (ii) the government or industry evaluates the job competencies of trainees and grant qualification (i.e. technical certificate or degree).⁵⁵

The MoEL supports companies that participate in this government-initiated apprenticeship training program and employees in these companies who take apprentice training of 6 months to 4 years. The MoEL provides financial subsidies for (i) developing education and training programs of the apprenticeship training system, (ii) establishing training infra, and (iii) providing education and training programs (i.e. compensation for trainers⁵⁶, trainee

⁵⁰ Ministry of Employment and Labor. Current Status of Vocational Competency Development Program. 2015.7. p.p. 13-14.

⁵¹ Ministry of Employment and Labor. The Employment Insurance White Paper. 2015.12. p.216.

⁵² Ministry of Employment and Labor. The Employment Insurance White Paper. 2015.12. p.218.

⁵³ Ministry of Employment and Labor. Current Status of Vocational Competency Development Program. 2015.7. p.14

⁵⁴ The government benchmarked the apprenticeship training systems in Swiss and Germany and customized them to the Korean situation.

⁵⁵ <http://www.hrdkorea.or.kr/3/8/2> Sept. 20, 2016.

⁵⁶ 4 to 16 million KW for firms with fewer than 1,000 employees and no support for firms with

allowance⁵⁷, and costs of On-the-Job Training and Off-the-Job Training⁵⁸).⁵⁹ In that sense, this program specifies the direct connection between training and work-relevant certificates.⁶⁰

3.2.2.2.4. Support to the Unemployed

The MoEL issues the vocational training account to job-seekers. Their training needs and acuteness should be approved through the consultation with the employment center.⁶¹ This account is designed to support job-seeker's vocational competency development systematically by providing training subsidies and managing information on his/her training history. Through this account, the MoEL provides a job-seeker with training cost up to 2 million KW per year (20-50% of the training cost should be paid by trainee him/herself) and training incentive if trainees attend more than 80% of training days.⁶² For the unemployed who worked in companies that paid the EI fees, the EIS provides financial support, while the MoEL budget appropriates for the other disadvantaged unemployed.

3.2.2.2.5. Public Training for Cultivating Skilled Manpower

MoEL supports vocational training courses for cultivating multi-skilled technicians and skilled workers that are provided by the Korea Polytechnic Colleges. These colleges offer (i) 2-year associate degree courses for cultivating multi-skilled technicians to high school graduates and (ii) one year or short-term courses for training skilled workers to the unemployed older than 15 years or the 3rd grade academic high school students who decided not to go to college.⁶³

3.2.2.3. Provision of Subsidy by the Employment Insurance Fund

In 2014, 1,207.5 billion KW (about 1 billion US\$) was spent providing the VCDP, in which 697.4 billion KW (about 581.9 million US\$, 57.8% of total subsidy) was subsidized for the

1,000 employees or more

⁵⁷ Up to 400,000 KW per month for firms with fewer than 1,000 employees and no support for firms with 1,000 employees or more

⁵⁸ The amount of subsidy is estimated based on the formula as follows: unit cost by occupation X adjustment index X number of trainees X number of training hours

⁵⁹ Ministry of Employment and Labor. Current Status of Vocational Competency Development Program. 2015.7. p.10.

⁶⁰ Funding regulation of the VCDP, designed to provide financial support to training for workers and the unemployed, does not specify the condition for the connection between training and getting a certificate (except the Apprenticeship Training Program).

⁶¹ As of 2016 there are 88 employment centers under the Ministry of Employment and Labor.

⁶² Ministry of Employment and Labor. Current Status of Vocational Competency Development Program. 2015.7. p.p.15-16.

⁶³ Ministry of Employment and Labor. Current Status of Vocational Competency Development Program. 2015.7. p.20.

training of workers (3,674 thousands trainees), 430.2 billion KW (about 358.9 million US\$, 35.6%) for the training of the unemployed (284 thousands trainees), and 79.9 billion KW (about 66.7 million US\$, 6.6%) for public training (37 thousands trainees), as shown in table 3-5. In the training for workers, 350 billion KW (about 292 million US\$, 29.0% of total subsidy) was spent to support employer-provided training and 244.8 billion KW (about 204.3 million US\$, 20.3%) to support training for SMEs. The proportion of subsidy for SEMs training increased between 2012 and 2014, while that of subsidy for the training of individual workers decreased between 2013 and 2014. This indicates that SMEs training has been emphasized.

<Table 3-5> Number of Trainees and Subsidy for Vocational Competency Development Program supported by EIF(2012-14)

(unit: persons, billion KW and %)

	2012		2013		2014	
	Trainees	Subsidy	Trainees	Subsidy	Trainees	Subsidy
Total	4,120 (100.0)	1,073.4 (100.0)	4,326 (100.0)	1,212.2 (100.0)	3,995 (100.0)	1,207.5 (100.0)
Training for Workers	3,749 (91.0)	606.8 (56.5)	3,839 (88.7)	669.0 (55.2)	3,674 (92.0)	697.4 (57.8)
* Support to Employers except paid-leave training	3,180 (77.2)	312.6 (29.1)	3,284 (75.9)	321.3 (26.5)	3,102 (77.6)	350 (29.0)
* Paid-leave Training	11	10	10	9.5	10	9.8
* Facilities & Equipment Loan	-	5	-	6.3	-	11.2
* Support to Workers	248 (6.0)	118.3 (11.0)	279 (6.4)	134.6 (11.1)	287 (7.2)	81.8 (6.8)
Subsidy for Worker VCD	165	30.4	212	54.2	209	57.7
Worker Training Voucher	65	18.7	51	18	34	12.4
Tuition Loan/Support to Individual Workers	18	69.2	16	62.4	44	11.7
* Support to SMEs	310 (7.5)	160.9 (15.0)	266 (6.1)	197.3 (16.3)	275 (6.9)	244.8 (20.3)
National HRD Consortium	272	139.7	223	170.4	209	208.6
Learning Organization	-	5.5	-	4.9	-	5.1
Core Competency Development	38	15.7	43	22	66	31.1
Training for the Unemployed	338 (8.2)	401.8 (37.4)	451 (10.4)	471 (38.9)	284 (7.1)	430.2 (35.6)
Public Training	33 (0.8)	64.8 (6.0)	36 (0.8)	72.2 (6.0)	37 (0.9)	79.9 (6.6)

Sources: Ministry of Employment and Labor, Current Status of Vocational Competency Development Program, 2015.7. p.59; Ministry of Employment and Labor, The Employment Insurance White Paper. 2015.12. p.p.204-233.

Note: Public Training includes multi-skilled technician training, skilled worker training, trainer training and HRD staff training provided by the Polytechnic Colleges and KoreaTech.

In 2014, 3,674 thousands workers were supported for their training by the EIF that was 30.8% of the total workers insured (11,931 thousands), as shown in table 3-6. The proportion of

workers supported by the EIF tended to decrease by 2.8 percentage points from 33.6% in 2012 to 30.8% in 2014. The subsidy provided by the EIF amounted to 697.4 billion KW in 2014. The proportion of the subsidy in the insurance fee collected increased from 29.9% in 2012 to 31.5% in 2013 and slightly decreased to 30.6% in 2014.

As explained in section 2.4.2, the VCDP in the EIS provides financial subsidy for training of all industry sectors. In 2014, 31.1% of trainees in the employer-provided training including paid-leave training were in manufacturing sector, 31.7% in education service and others, 11.2% in finance, insurance and real estate sector, and 8.1% in whole & detail sales, transport, lodging, and restaurants, as shown in table 3-7.

<Table 3-6> Workplaces, Workers and Subsidy Supported by the EIF(2012-2014)

(unit: places, 1,000 persons, billion KW, %)

	Employment Insurance			Supported by EIF			C/A	D/B
	Workplaces	Workers Insured(A)	Insurance Fee Collected(B)	Workplaces	Workers(C)	Subsidy(D)		
2014	1,935,302	11,931	2,281.1	291,779	3,674	697.4	30.8	30.6
2013	1,747,928	11,571	2,125.3	303,970	3,839	669.0	33.2	31.5
2012	1,610,713	11,152	2,029.6	223,451	3,749	606.8	33.6	29.9

Sources: Table 3-1, 3-4, and 3-5; MoEL, Current Status of Vocational Competency Development Program. 2015.7. p.60.

<Table 3-7> Proportion of Trainees in Employer-provided Training including paid-leave training by Sector

(unit: persons, %)

	2012	2013	2014
Number of Trainees	3,190,400 (100.0)	3,294,864 (100.0)	3,112,312 (100.0)
Agriculture, Marine, Fishery, Forestry, Mine	3,356 (0.1)	3,241 (0.1)	3,098 (0.1)
Manufacturing	1,160,653 (36.4)	1,063,619 (32.3)	966,657 (31.1)
Electricity, Gas, Water Supply, Sewage	53,151 (1.7)	37,260 (1.1)	29,882 (1.0)
Construction	122,126 (3.8)	98,167 (3.0)	86,966 (2.8)
Whole/Retail Sales, Lodging, Restaurants	290,778 (9.1)	263,009 (8.0)	252,620 (8.1)
Publishing, Media, Communication, Broadcast, Information Services	326,080 (10.2)	240,553 (7.3)	174,602 (5.6)
Finance, Insurance, Real Estate	399,066 (12.5)	353,311 (10.7)	349,270 (11.2)
Sciences & Technology Services, Business Facilities & Support Services	217,021 (6.8)	222,449 (6.8)	227,698 (7.3)
Public Administration, National Defense, Social Welfare Administration	37,928 (1.2)	40,645 (1.2)	36,025 (1.2)
Education Services and others	580,241 (18.2)	972,610 (29.5)	985,459 (31.7)
Unable to categorize	0 (0.0)	0 (0.0)	5 (0.0)

Source: MoEL, The Employment Insurance White Paper, 2015.12. p.199.

3.2.2.4. Monitoring & Evaluation /Efficiency in the Use of Resources

Basic principle of designing and implementing the VCDP supported by the EIF is to fully utilize market mechanism. The main role of the government is to produce and disseminate the information on the performance of TVET providers and their programs so that employers, employees and the unemployed can make informed decisions on the choice of TVET provider and program. TVET providers would compete against each other to attract more trainees by providing quality program. However, the market mechanism cannot guarantee the efficiency and effectiveness of the VCDP.

It was pointed out that the EIS lacked systematic evaluation and did not perform as expected. Since 2007, the MoEL has designated Korea Labor Institute(KLI), Korea Research Institute of Vocational Education and Training(KRIVET), KoreaTech, or the consortium of the government-funded research institutes and private institutes like universities as the ‘EIF Evaluation Center.’ Since 2013, KLI has been appointed as the center. Main functions of the center are (i) to conduct comprehensive evaluations on the performance of the EIS considering the changes in policy environment like low fertility rate and rapid aging and study on how to revise the system and (ii) to monitor and evaluate the objectives, implementation and results of individual programs of the EIS and make proposals to improve their performance.⁶⁴

With respect to the VCDP provided between 2010-11, the center found out the need to provide training matched with enterprises’ manpower demand and training needs, solve the problem of mismatch between training supply and demand within region, introduce new policy to support SMEs’ hiring of substitute labor in induce more SMEs to participate in the VCDP, control the number of training vouchers issued for the unemployed to make the training supply and demand mechanism function properly, and increase investment in training and information infra.⁶⁵ As counter measures, MoEL introduced projects for national HRD consortium in 2011, regional HRD tailored to local economy and industry in 2013, and the SMEs training strengthening including the apprenticeship training in 2013.

⁶⁴ Ministry of Employment and Labor. The Employment Insurance White Paper. 2015.12. p.294-296.

⁶⁵ Ministry of Employment and Labor. The Employment Insurance White Paper. 2015.12. p.299-303.

4. Assessment on the Skills Development Finance in Korea

4.1. Vocational Education

Vocational education in both high school and higher education level experienced a paradigm shift from school-based and textbook-oriented approach to school-industry linkage-based and demand-oriented one.

4.1.1. Vocational High School

Since the implementation of a series of policies such as restructuring vocational high schools and promoting school-industry linkages, the employment ratio of vocational high school graduates rose from 19.2% in 2010 to 45.0% in 2014 and 46.4% in 2016. This indicates that these policies have been working as intended.

It is necessary, however, to carefully evaluate the cost-effectiveness of the budget investment in vocational high school education, since MoE put large amount of the budget along with the restructuring of vocational high school system. Kye-Woo Lee et al(2016) found that among three types of high schools – general academic, specialized vocational and meister high school - meister school education was least cost-effective mainly because of high cost.⁶⁶ This indicates that MoE needs to conduct in-depth analysis on the cost-effectiveness of the budget investment in vocational high school education from the short- and long-term perspectives.

4.1.2. Junior College

A series of MoE policies discussed - the Industry-College Cooperation Corporation, the Project for developing Industry-College Cooperating-centered Junior Colleges(2005-2012), the Leaders in Industry-College Cooperation Project(2012-2016) and the Specialized Colleges of Korea Project(2015-) – were intended to change the ways of conducting the college-industry collaboration and the structure of individual colleges. These policies appear to have positive results intended such as the changes in student composition among departments and programs, the introduction of new programs, and the increase in the employment rates in specialized areas. The average employment rate of graduates rose from 55.6% in 2010 to 61.4% in 2014.⁶⁷

Recently junior colleges have serious difficulties in securing revenue required to provide quality education because the government controls the increase in tuition and induces colleges to reduce the enrolment quota to respond to the sharp decrease in school age cohort. Considering that the major revenue source of private junior colleges is student tuition, MoE

⁶⁶ Kye-Woo Lee et al. Is Meister Vocational High School more Cost-Effective? International Journal of Educational Development. Vol.51. 2016. Pp.84-95.

⁶⁷ KEDI, Brief Statistics on Education, 2014.11. p.15.

needs to increase the SCK project budget.

4.2. Vocational Training – VCDP

As the lifespan of knowledge and skills became shorter, workers needed to keep upgrading their job competencies. In the mid-1990s, Korea shifted its vocational training paradigm from supply-oriented, initial training-focused, and mainly manufacturing sector-targeted approach to demand-oriented, continuing training-focused, and all sector targeted one. In the new VCDP in the EIS, employers, employees and the unemployed can choose training programs and institutes based on their training needs.

The number of workers who received continuing training has kept increasing since the late 1990s, as in Figure 2-5, indicating that the VCDP has performed well to meet the very purpose of introducing it. Although recently the number of trainees decreased to around 3.7 million because of economic downturn, the VCDP has successfully responded to the demand for training of all industries. It was pointed out that the SMEs did not utilize the VCDP due to the lack of financial and human resources as much as the large firms. However, the government has tried to tackle the problem of the SMEs' disadvantage by applying the differential insurance fee and benefit policy. For the SMEs, smaller insurance fees and higher refund rates are applied.⁶⁸ Key success factors include mobilization of training budget through the Employment Insurance Fund, expansion of training market to private providers, and differential financial support by firm size.

4.2.1. Employer-provided Training

Overall the VCDP seems to have a positive effect on the employers' provision of vocational training to their employees in both SMEs and large firms. According to a survey study done by S.H. Kang et al,⁶⁹ The training hours of companies supported by the VCDP were much larger than those of companies not supported between 2010 and 2014. Training cost of companies supported also were 4 – 6 times greater during the same period of time except 2012. The survey also found that there is still a gap between SMEs and large firms in training hours and costs despite the government efforts mentioned above. The average training hours and costs of firms with 300 employees or more were much higher than those of smaller firms.

4.2.2. Support to SMEs

Although the SMEs still have difficulties in guaranteeing the sufficient level of training provision to their employees, they seemed to be satisfied with the SME-targeted training programs like the national HRD consortium, core-competency training and learning

⁶⁸ The ratio of the number of trainees from firms with 1-149 employees to that from larger firms increased from 12.2% in 1998 to 29.6% in 2012.

⁶⁹ Kang, S.H. et al. An Analysis on the Vocational Training Participants. 2015.5. p.23.

organization programs according to the FGI by S.H. Kang et al.⁷⁰ The FGI found following problems: (i) due to the diversity of the SMEs' demands for training, it was difficult to decide the level and contents of the training programs; (ii) not many SMEs participated in the core competency programs; and (iii) because the duration of the program was relatively short and staff was changed frequently, firms had difficulties in maintaining the learning organization's status.

4.2.3. Training Voucher to Individual Worker

Training voucher to individual worker appears to have positive effect on encouraging individual worker's attempt to have training. According to the survey mentioned above, conducted to training voucher users in 2014,⁷¹ the proportions of respondents who took training programs in each area were as follows: professional job competencies training programs 61.7%, foreign languages 44.7%, technical certificates 40.7%, general administration 20.7%, leadership 19.0%, basic competencies and knowledge 17.3%, information utilization 17.0%, and quality control and production 4.0%.⁷² 75.7% of voucher users responded that they could select training programs they wanted and 68.7% answered that the training programs they took had relevancy to their current occupations. 80.3% of respondents expressed their satisfaction with training program supported by voucher. 75.3% of respondents agreed that without voucher they would have not been able to take training.

The majority of respondents, however, pointed out that their training was not linked to their career development in terms of placement, promotion, change of employment status to permanent staff or transfer to other firm, indicating that in general a firm's HRD policy for individual workers was not implemented in a comprehensive way integrated with personnel management.

4.2.4. Support to the Unemployed

For the training programs for the unemployed, the survey study⁷³ mentioned above found that overall the employment rate within 6 months rose steadily from 34.1% in 2012 to 54.8% in 2014. Male trainees' employment rate tended to be slightly higher than female trainees' but the difference became smaller. The general patterns of the effects of the training programs for the unemployed were found such as the higher the level of educational attainment, the higher the employment rate and the older the trainees, the lower the employment rate. This implies that Korea needs to design more programs that provide financial support for older workers.

⁷⁰ Kang, S.H. et al. An Analysis on the Vocational Training Participants. 2015.5. p.p.47-56.

⁷¹ Survey was conducted between Feb. 9, 2015 and May 29, 2015 by e-mail and fax (Kang, S.H. et al. An Analysis on the Vocational Training Participants. 2015.5. p.p.28-40).

⁷² Results of multiple choices (3 priority areas)

⁷³ Kang, S.H. et al. An Analysis on the Vocational Training Participants. 2015.5. p. 67.

4.3. Discussions

Korea needs to pay attention to improving the cost-effectiveness of the skills development finance. As pointed out in previous section, the budget investment in the meister high school turned out to be least cost-effective compared to other types of high school education. Individual workers' training experience is not systematically linked to their career development. The employment rates of the unemployed after training tend to be lower for people with lower level of education and older age. All these facts imply that the government, firms and TVET providers are required to work together to come up with more cost-effective ways of providing training, utilizing training results and thus improving the efficiency and effectiveness of the skills development finance system.

With respect to the skills development investment for junior colleges and the SMEs, the amount of the investment per institute and per worker needs to be increased to guarantee a critical level of quality. In other words, the condition of the adequacy of skills development investment should be fulfilled. In that sense, the government may consider the further application of the 'select and concentrate' principle⁷⁴ to junior colleges along with the increase of the budget. For the SMEs, the government may strengthen the current differential policy by further decreasing the insurance fee rate and increasing refund rate of the SMEs.

5. Policy Implications

When the government designs or revises the skills development finance system, it needs to take into account critical factors as follows:

Close linkage with private sector: Skills development strategies and policies need to be designed and implemented through a systematic cooperation with the private sector (industry and firms) which is a pre-requisite for guaranteeing the effectiveness and efficiency of the skills development investment. Industry and firms (employers) are in the best position to catch changes in skill demands in their sector and utilize the results of skills development policies and programs. Skills development strategies and financing mechanism that are not based on demand would not be able to meet what the economy needs. This is the most critical and fundamental reason for Korea to introduce the Employment Insurance System.

Utilization of training fund borne by private firms: The government budget is limited in providing all types of vocational education and training required to provide skilled labor. The government needs to diversify its funding sources for skills development. One of the most logical and legitimate funding sources is firms because they are the first beneficiary of skills

⁷⁴ This principle is to select high-performing institutes and concentrate the budget investment in those institutes instead of spreading out the budget to all institutes.

development programs. Although payroll levy scheme may not be applied to low income countries where the number of firms with the capacity of bearing levy is limited, it is worthwhile for countries to adopt a training fund scheme, distinct from the government budget channel, as they achieve economic transformation into more formal sector economy.

Incentives to induce employer's, employee's and the unemployed's active participation in training: It is crucial to provide policy environment in which employers and employees voluntarily participate in training activities. Once employers make financial contribution to the fund for skills development, they need to be allowed to use the fund for their own training objectives. Employees and the unemployed also should be allowed to make decisions on training based on their own needs without worrying about cost. There should be training market that can provide diverse training programs according to the training needs of employers, employees and the unemployed.

Market mechanism (choice & competition) to enhance efficiency and effectiveness: The effectiveness of the skills development system depends on the quality of TVET programs provided by providers in the training market. Once the training market is formed, it would be better to make TVET providers compete against each other to attract more trainees by making money follow trainees. As the national economy would develop continuously, skill demands would increase and so training. If then, more TVET providers would join the training market. In that case, it is most effective to apply choice and competition principle in the market to control quality.

Government's fair and transparent management: To maintain and further boost the private sector's cooperation in skills development policy and finance, the government needs to prepare legal bases, organizations and institutional frameworks like official procedures to collect information and opinion from private sector on a regular bases, allocate the budget collected from private sector for skills development according to its needs, and monitor and evaluate the process and results of skills development finance policy implementation including the performance of TVET providers and programs. If the skills development system fails to meet private sector's demand, then it would be difficult for the government to work with private sector as a partner.

Constant adaptation of national skills development system and finance scheme according to national economic development: The level and type of skills demanded become sophisticated and diversified as the national economy moves to advanced level. This indicates that the government needs to revise its skills development system (e.g. contents of vocational education and training programs, qualification system, and teacher/trainer training) and financing scheme (e.g. levy collected was used to provide public vocational training in the beginning stage of economic development, while later more cost-effective way such as employer training incentives in VCDP was adopted in Korea). In the early stage of economic development, the government needs to take major responsibility for providing initial

vocational education and training. As the national economy develops and private firms build their own capacity, the government can expand the private sector's roles and responsibilities and also the scope of training into continuing TVET.

Attention to the SMEs, strategic industry sectors and the disadvantaged: The SMEs' role in national economic development is crucial in most countries. Compared to large firms, however, SMEs do not have enough financial and human resources to provide training to their employees. The government needs to design special programs targeting SMEs and/or different allocation formula for SMEs. When the government and private sector's capacity is limited, it would be better to select priority sectors (e.g. agricultural or manufacturing sectors) for skills development and financial subsidy. It is also important to provide financial subsidy to the disadvantaged in realizing inclusive growth.

Roles of employers and employees in making decisions on skills development policy and training fund: Since employers bear training levy (e.g. EI fees in Korea) and employers and employees are primary targets and beneficiaries of skills development system including finance, their opinion needs to be considered in making key skills development policy decisions. This implies that to induce active cooperation and participation from employers and employees and thus enhance the effectiveness of skills development system the partnership approach is necessary. Thus it is crucial to design the governance system that consists of not only the government and government agency but also employers (e.g. employers' organization) and employees (e.g. trade union).

The government also needs to check whether conditions necessary to successfully implement skills development finance policy are in place. Examples are as follows:

Private sector's sense of ownership: In relation to this, private sector (industry and firms) as a major beneficiary of the skills development system should take responsibilities for national skills development policy formulation and implementation and also finance. In other words, private sector should have a sense of ownership for skills development. Considering the private sector's sense of ownership, the government can design a skills development finance system in which private sector's active participation is critical in revenue generation and training provision.

Steady growth of national economy: Skills development is a necessary condition for national economic development. What if there were abundant skilled workers and technicians but no jobs available? What if the national economy cannot absorb youths from schools? In that case, employers would not participate in skills development policy process and fund raising. The number of TVET providers in the training market will decrease because they expect sharp decline in students and trainees. This indicates that national economic growth is a necessary condition for skills development system and fund to be maintained (sustainability) and further expanded.

Quality basic education: In general vocational education starts at secondary school and vocational training is provided for youths of secondary school age and above. If they lack basic core skills of reading, writing and calculating, they cannot learn skills and knowledge required in the labor market. This indicates that it is extremely important to make sure that all elementary school graduates should be able to communicate with national language and basic level of calculating and problem-solving skills. For continuing vocational training, the elimination of adult illiteracy is a critical policy challenge in many developing countries.

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