

# 2013 Modularization of Korea's Development Experience: In-Service Training Policy in Korea

2014



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2013 Modularization of Korea's Development Experience:  
**In-Service Training Policy in Korea**

## 2013 Modularization of Korea's Development Experience

### In-Service Training Policy in Korea

<b>Title</b>	In-Service Training Policy in Korea
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# Preface

The study of Korea's economic and social transformation offers a unique window of opportunity to better understand the factors that drive development. Within one generation, Korea had transformed itself from a poor agrarian society to a modern industrial nation, a feat never seen before. What makes Korea's experience unique is that its rapid economic development was relatively broad-based, meaning that the fruits of Korea's rapid growth were shared by many. The challenge of course is unlocking the secrets behind Korea's rapid and broad-based development, which can offer invaluable insights, lessons and knowledge that can be shared with the rest of the international community.

Recognizing this, the Korean Ministry of Strategy and Finance (MOSF) and the Korea Development Institute (KDI) launched the Knowledge Sharing Program (KSP) in 2004 to share Korea's development experience and to assist its developing country partners. The body of work presented in this volume is part of a greater initiative launched in 2007 to systematically research and document Korea's development experience and to deliver standardized content as case studies. The goal of this undertaking is to offer a deeper and wider understanding of Korea's development experience in hopes that Korea's past can offer lessons for developing countries in search of sustainable and broad-based development. In furtherance of the plan to modularize 100 cases by 2012, this year's effort builds on the 20 case studies completed in 2010, 40 cases in 2011, and 41 cases in 2012. Building on the past three year's endeavor that saw publication of 101 reports, here we present 18 new studies that explore various development-oriented themes such as industrialization, energy, human capital development, government administration, Information and Communication Technology (ICT), agricultural development, and land development and environment.

In presenting these new studies, I would like to express my gratitude to all those involved in this great undertaking. It was their hard work and commitment that made this possible. Foremost, I would like to thank the Ministry of Strategy and Finance for their encouragement and full support of this project. I especially would like to thank KSP Executive Committee, composed of related ministries/departments, and the various Korean research institutes, for their involvement and the invaluable role they played in bringing this project together. I would also like to thank all the former public officials and senior practitioners for lending their time and keen insights and expertise in preparation of the case studies.

Indeed, the successful completion of the case studies was made possible by the dedicated efforts of the researchers from the public sector and academia involved in conducting the studies, which I believe will go a long way in advancing knowledge on not only Korea's own development but also development in general. Lastly, I would like to express my gratitude to Professors Kye Woo Lee, Jinsoo Lee, Taejong Kim and Changyong Choi for their stewardship of this enterprise, and to the Development Research Team for their hard work and dedication in successfully managing and completing this project.

As always, the views and opinions expressed by the authors in the body of work presented here do not necessarily represent those of the KDI School of Public Policy and Management.

**April 2014**

**Joon-Kyung Kim**

**President**

**KDI School of Public Policy and Management**



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# Summary

## 1. Introduction

As the importance of training In-Service workers was emphasized in the late 1980s, the standard for imposing the training obligation was changed from the number of employees to the total payroll. However, In-Service worker training did not get much attention before the Asian financial crisis struck in the late 1990s. The vocational skills development project for In-Service workers was activated in earnest in 1995 when the obligatory in-plant vocational training system was abolished and integrated into the employment insurance system. In other words, Korea finally introduced a system that obligated all enterprises to pay training levies as part of employment insurance premiums and gives such training levies back to those that provide training to cover their training costs. The vocational skills development project for In-Service workers was greatly reinforced by adopting this incentive-based funding approach and accommodating demands from employers who were the main providers of financial resources. The procedures for recognizing training institutions were eased as well, which allowed various professional education and training institutions to actively participate and offer training courses for In-Service workers, and thus further promoted the project.

This study was conducted as part of the Knowledge Sharing Program to systematically compile and modularize Korea's development experience, and its aim is to offer basic materials that can be used to develop various consulting and education programs to transfer Korea's outstanding development experience to developing countries. The study focuses on specific policies and programs, such as the employer-directed training program, the SME training consortium project and the employee-directed training program, so that developing countries can learn lessons from Korea's experience in implementing the vocational skills development project for In-Service workers and use them in their policy processes.



## 2. Employer-Directed In-Service Training

**Table 1 | Summary of Employer-directed In-Service Training**

<p><b>1. Objective and Contents of the Project</b></p>	<p>The ultimate objective of the employer-directed training program is to ease the burden of employers from providing training and to contribute to productivity growth through In-Service improved job skills by supporting the training costs of employers who provide support for training costs of employers who provide vocational training to their current and prospective employees</p>
<p><b>2. Achievement and Impacts of the Project</b></p>	<p>First, there are increases in training opportunities for in-service workers. Second, in-service training, whose main beneficiaries were workers in large companies in its early days, gradually spread to employees of SME's with fewer than 150 employees Third, participation in the employer-directed training program is considered to have a positive impact on employers' overall training investment Fourth, there is a positive effect of in-service training on productivity and wages</p>
<p><b>3. Backgrounds and Needs for the Project</b></p>	<p>First, the industry demand for new skilled workforce was stiffly decreased Second, technological innovations based on microelectronics led to factory automation, which in turn, changed workers' job satisfaction in the 1980s Fourth, the vocational training system was recognized into employment insurance in 1995</p>
<p><b>4. Strategy and System for the Implementation of the Project</b></p>	<p>The concept of vocational skills development for in-service workers has been clearly stated in law since the establishment of Basic Vocational Training Second, Korea relies on a levy-exemption system while implementing the obligatory in-plant vocational training system under the Basic Vocational Training Act, but switched to a levy-grant system after its vocational training system was reorganized into the vocational skills development project under the Employment Insurance Act in 1998 Third, a lot of training institutions and training courses were provided in the training market when regulations were relaxed</p>
<p><b>5. Success Factors and Limitations</b></p>	<ul style="list-style-type: none"> <li>- Securing stable funding from employment insurance fund</li> <li>- Expanding in-service training market through deregulation</li> <li>- Ensuring equality through support differentiation based on enterprise size</li> <li>- Deregulation administrative burden</li> <li>- Lack of incentive for training participation</li> </ul>
<p><b>6. Implication for Developing Countries</b></p>	<p>First, it is necessary to have an adjustment period by phasing in the system, starting with large companies. Strong government leadership and legal backing are also needed to enforce it Second, they may need a comprehensive approach that can simultaneously address various problems in society Third, in developing countries where there is a weak link between enterprises of different sizes and workforce demand has yet to take concrete shape, it is difficult to figure out demand for skills development for in-service workers among SMEs</p>

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## 2.1. Objectives and Contents of the Project

The employer-directed training program in Korea means a program that provides government support for training costs if an employer provides training to his/her In-Service workers directly or via an entrustment arrangement or an In-Service worker voluntarily receives training to improve job skills directly related to productivity and wages. The ultimate objective of the employer-directed training program is to ease employers' burdens resulting from providing training and contribute to productivity growth through In-Service workers' improved job skills by supporting the training costs of employers who provide vocational training to their current and prospective employees.

The employer-directed training program provides support to employers who implement vocational training recognized by the Minister of Employment and Labor for In-Service workers, prospective recruits, job seekers, etc., covered by employment insurance, since the support is financed from the employment insurance fund.

## 2.2. Achievement and Impacts of the Project

The first one is increasing training opportunities for In-Service workers. In 1981 a provision recommending the 'training of employed workers' was newly inserted into the Basic Vocational Training Act. In 1986 the cost of providing education and training to employed workers was included in the scope of investments in vocational training. The number of workers participating in In-Service worker training was 13,425 in 1987 and 12,986 in 1988, resulting in a combined total of just 26,301 for the two years. But the figure stayed at 100,000~120,000 a year from 1992 to 1996.

The second one is reducing the gap in training opportunities between large companies and SMEs. The proportion of training participants in enterprises with fewer than 150 employees stood at a mere 8.4% in 1997 and 12.2% in 1998 and fell short of 15% in 2005. However, the figure started to grow in 2006, reaching as high as 23.1% in 2008, 35.5% in 2011, and 29.6% in 2012. This suggests that In-Service worker training whose main beneficiaries were workers in large companies in its early days gradually spread to SMEs with fewer than 150 employees.

The third one is the promotion of employer's investment in In-Service worker training. Many studies suggest that on the whole, the employer-directed training program has the effect of increasing the amount of education and training in enterprises. In other words, participation in the employer-directed training program is considered to have a positive impact on employers' overall training investment.

The fourth one is positive effect of In-Service worker training on productivity and wages. In light of the empirical studies mentioned above, it can be said that Korea's training levy-

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grant system which collects employment insurance premiums first and pays subsidies in the form of rebates later has realized its purposes, namely higher productivity and better business performance, by promoting the accumulation of human capital by In-Service workers.

### 2.3. Backgrounds and Needs for the Project

Firstly, the industry demand for new skilled workforce was stiffly decreased. Amid difficult external conditions, such as the continuing global economic recession and spreading trade protectionism, coupled with domestic political and social unrest, the Korean economy suffered from triple distress in the early 1980s: a slowdown in growth due to sluggish exports, a deteriorating balance of payments caused by growing oil imports, and serious inflation. Also as the industrial structure changed from labor-intensive industries to technology-intensive ones and from mass production to diversified small-quantity production, high-level multi-skilled workers were needed, and in addition to cultivating new skilled workers, improving the quality and skill levels of existing ones became necessary. Rising incomes and growing social awareness about the importance of education resulted in higher college enrollment rates and a rapid decline in demand for secondary vocational education and short-term vocational training. This, in turn, reduced the pool of target people that could be nurtured into skilled workers through training.

Secondly, technological innovations based on microelectronics led to factory automation, which in turn, changed workers' job content in the 1980s. During the early days of industrialization, there was demand for skilled workers, i.e. those who accumulate their skills through repeated practice. However, as automated facilities emerged as a result of technological innovation in production processes, an improvement of workers' competencies was in demand. In other words, technological sophistication and shorter technology development cycles increased the need for In-Service workers to be equipped with knowledge and skills covering the entire range of related fields, including pre- and post-processes, as well as the field they specialized in, and made it necessary for employers to develop various kinds of job skills upgrade training for In-Service workers and provide them flexibly in order to improve productivity and product quality.

Thirdly, the standard for imposing training obligation was changed and the scope of training investment activities was expanded. In response to the fall in demand for new recruits and changes in job content caused by technological innovation, the government started to give concrete shape to the system of supporting upgrade training for In-Service workers, for example, by revising the Basic Vocational Training Act. To be more specific, the government changed the standard for imposing the training obligation on employers and expanded the scope of activities that can be recognized as training investment activities by making the fourth amendment to the Basic Vocational Training Act in 1986.

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Fourthly, the vocational training system was reorganized into employment insurance in 1995. In order to reflect In-Service training needs, the obligatory in-plant vocational training system that focused on fostering new skilled workers was integrated into the vocational skills development project under the employment insurance system, which was aimed at helping In-Service workers improve their overall job skills.

## 2.4. Strategy and System for the Implementation of the Project

Firstly, the concept of vocational skills development for In-Service workers has been clearly stated by law since the establishment of the Basic Vocational Training. The employer-directed training program, institutionally underpinned by the Employment Insurance Act and the Workers Vocational Skills Development Act, started in earnest at the beginning of the 2000s when technological innovation gathered pace and the spread of information technology completely transformed working environments.

Secondly, Korea relied on a levy-exemption system while implementing the obligatory in-plant vocational training system under the Basic Vocational Training Act, but switched to a levy-grant system after its vocational training system was reorganized into the vocational skills development project under the Employment Insurance Act in 1998. The obligatory in-plant vocational training system continued to exist until 1998 (It applied only to large companies with 1,000 employees or more from 1995 to 1998, but since 1999 these companies also have been subject to the employment insurance system). The employment insurance system, implemented since 1995, takes a levy-grant approach. Employment insurance premium rates have been different depending on enterprise size.

Thirdly, a lot of training institutions and training courses were provided in the training market by relaxing regulations. When the Basic Vocational Training Act was enacted in 1977, there were 79 public training institutions, 558 in-plant training institutions, and 33 authorized training institutions in Korea. However, the number of training institutions dwindled as in-plant training shrank in the 1980s, but grew again to 242 in the 1990s. The growth of private training facilities was because the government considerably relaxed the criteria for setting up training institutions and launching training courses under the Workers Vocational Training Promotion Act.

## 2.5. Success Factors and Limitations

### • Securing Stable Funding from Employment Insurance Fund

Korea could promote employer-directed training basically because it was able to secure a stable source of funding for such training. The employer-directed training program, under which employers should pay a certain amount of vocational skills development

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contributions calculated according to the employment insurance premium rates related to the unemployment benefit project each year and can get a refund of those contributions only if they provide training, has provided an incentive for enterprises to invest in training. Most SMEs pay employment insurance premiums too, but they tend to be unaware of the need for training or incapable of providing training. So their contributions are often regarded as taxes that cannot be returned. But in fact, employment insurance premiums paid by SMEs go into the employment insurance fund and are used to subsidize training in occupational areas experiencing labor shortages, allowing SMEs to benefit indirectly from the program.

- **Expanding In-Service Worker Training Market through Deregulation**

Under the obligatory in-plant vocational training system, employers were recommended to train their workers at their own training facilities. However, the cost of installing training facilities and operational and administrative burdens impeded the promotion of In-Service worker training. To address this problem, the Korean government not only actively utilized public training institutions but also amended relevant regulations to make various private education and training facilities provide training programs for In-Service workers. By doing so, it promoted employer-directed training entrusted to private training institutions.

- **Ensuring Equality through Support Differentiation Based on Enterprise Size**

In Korea, unlike other countries, there is continuity between the obligatory in-plant vocational training system and the vocational skills development project. From the beginning, the government has provided a differentiated support based on the enterprise size given SMEs' low ability to pay for training. Some scholars argue that despite such support differentiation, SMEs face relatively difficult training conditions compared to large companies that enjoy good training environments (or because of large company-oriented training policies and systems) even though they pay employment insurance premiums. Nevertheless, applying differentiated employment insurance premium rates has helped to ensure equality between enterprises of different sizes. The government also ensures such equality by implementing other support systems, such as the SME-specific training program and the employee-directed training program for SMEs.

- **Deregulation and Administrative Burden**

The employer-directed training program has achieved some success in expanding training opportunities and ensured equality between enterprises of different sizes. In spite of this, enterprises are constantly demanding an improvement of the government's rigid support procedures. They also call for an expansion of the scope of training courses eligible for support and an increase in training subsidies, as well as an improvement of the administrative procedures.

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They cited ‘complicated and difficult application procedures’ as the biggest reason for failing to receive support. The second and third biggest reasons were ‘did not apply because the amount of subsidy was too small’ and ‘did not know the program’. This implies that the administrative procedures for providing skills development subsidies to employers need improvement (Ministry of Employment and Labor, 2011).

It was also found that SMEs are reluctant to provide employer-directed training, which is not classified as SME-specific training for various reasons, such as lack of awareness of the need for training, lack of knowledge about training contents and methods, lack of time and lack of related professional workers. It may be difficult to find a single unified solution that can address the various problems that arise due to the unique characteristics of SMEs all at once.

• **Lack of Incentive for Training Participation**

Most workers participating in employer-directed training think that such training is helpful in performing their present work (results of a survey of workers participating in employer-directed training in 2010). As high as 80% of workers say that their job skills have been improved through training. However, it is very rare that employers take account of training experience when evaluating employee performance or making a decision on a promotion or salary increase. Therefore, one of the challenges that need to be tackled in the future is the insufficient incentive for workers to participate in training. Employers, too, recognize that the employer-directed training program is very important to companies and is designed to meet their training needs. However, the difficulty of objectively measuring its visible effects on productivity discourages employers from providing such training actively.

## 2.6. Success Factors and Limitations

First, in the case of a developing country, it is desirable that vocational training should be led by the government in its early days but, after a certain time, should be operated mainly by the private sector since it is a public good highly likely to lead to a market failure. In this sense, Korea’s system which requires employers either to provide in-plant training or to pay a training levy in order to promote companies’ participation is quite appropriate. However, the training levy system could impose too heavy a burden on enterprises ill-prepared for such a system. Therefore, it is necessary to have an adjustment period by phasing in the system, starting with large companies. Strong government leadership and legal backing are also needed to enforce it.

Second, Korea was clearly aware of the limitations of private enterprises from the beginning of industrialization, so the government directly selected industries in need of development and then pursued development in those industries. This was a very useful

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strategy in the early stage of industrialization, and Korea saw a gradual increase in demand for In-Service worker training as the industrial structure became sophisticated. As the private sector grew and led the economy, the government reduced its role in training supply and integrated its training project into the employment insurance system by involving the private sector. However, this phased development strategy is not appropriate for developing countries which have already introduced a social safety net, such as unemployment insurance. They may need a comprehensive approach that can simultaneously address various problems in society.

Third, Korea implements the policy of preferentially treating SMEs in a corporate ecosystem where large companies and SMEs co-exist, thereby pursuing equality of training opportunities for In-Service workers. However, in developing countries where there is a weak link between enterprises of different sizes and workforce demand has yet to take concrete shape, it is difficult to figure out demand for skills development for In-Service workers among SMEs.

### 3. SME Training Consortium

**Table 2 | Summary of SME Training Consortia**

<p><b>1. Objective and Contents of the Project</b></p>	<ul style="list-style-type: none"> <li>- The objective was to encourage SMEs to organize themselves to launch skills training programs for their workers voluntarily and in partnership with other stakeholders</li> <li>- To achieve this objective, the project provided a group of organized SMEs with two training specialists financed by public funds to relieve the organizational, informational, and financial constraints that SMEs face in developing their human resources</li> </ul>
<p><b>2. Achievement and Impacts of the Project</b></p>	<ul style="list-style-type: none"> <li>- In the in-service training courses for workers in SMEs, a total of 6,573 persons were trained. This number far exceeds the number of workers identified initially by employers in the training needs survey as requiring in-service training (3,087) and accounts for almost half the total number of workers in all member SMEs of the three pilot TCs</li> <li>- The project promoted SME workers' productivity, solving the most critical SME problem of skilled manpower shortage, and helped prevent unemployment</li> </ul>
<p><b>3. Backgrounds and Needs for the Project</b></p>	<ul style="list-style-type: none"> <li>- Both large firms and SMEs got rebates of their training levies paid, yet large enterprises recovered a disproportionately greater proportion of their training levies paid by training a larger proportion of their workers</li> <li>- To help solve the institutional/technical/informational constraints in SMEs, a new incentive system had to be found so that more SMEs could actively train their workers</li> </ul>
<p><b>4. Strategy and System for the Implementation of the Project</b></p>	<ul style="list-style-type: none"> <li>- The Ministry of Labor (MOL) made the decision to launch the SME In-Service Training Consortium (TC) Project. However, the implementation of the project was entrusted with the Korea Chamber of Commerce and Industry (KCCI)</li> </ul>
<p><b>5. Factors Contributing to the Success of the Project</b></p>	<ul style="list-style-type: none"> <li>- Above all, the success of the project could be attributed to the fact that the project was implemented by the private sector, especially by the employers' organization (KCCI)</li> </ul>
<p><b>6. Implication for Developing Countries</b></p>	<ul style="list-style-type: none"> <li>- The pilot project in Korea could serve as a useful model to be considered especially for middle income countries where noticeable gaps have developed between large firms and SMEs in the process of rapid development</li> </ul>



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### 3.1. Objectives and Contents of the Project

In the wake of the Asian financial crisis in 1998, the project aimed at arresting further aggravation of unemployment and improving the productivity of employed workers of SMEs by helping a group of SMEs organize themselves for the expansion of in-service training of their workers. The pilot project launched in 2001 focused on SMEs because they were hit hardest by the Asian crisis, held greater capacity for employment (86% of total employment), and had lower productivity. To stem further deterioration of unemployment, SMEs needed to retain their current workers and increase their employment. This would prove impossible unless they improved the skill levels and productivity of their workers.

Despite the favorable training-levy rebate incentive system for enhancing workers' productivity, SMEs were not actively participating in the training incentive system. The challenge that the government faced was how to encourage SMEs to provide training programs for their workers, taking advantage of the training-levy rebate incentive and ultimately improving workers' productivity. The answer was the pilot project for SME Training Consortiums (TCs).

The objective was to encourage SMEs to organize themselves to launch skills training programs for their workers voluntarily and in partnership with other stakeholders (Lee 2006). To achieve this objective, the project provided a group of organized SMEs with two training specialists financed by public funds to relieve the organizational, informational, and financial constraints that SMEs face in developing their human resources. Individually, each SME could not afford to hire its own training specialist, since it is too costly. The two training managers (TMs) were to play key roles for the TC.

Other countries have adopted similar systems to provide financial incentives to SMEs so that they undertake the training of their workers, such as tax incentive systems (e.g., Chile, Brazil, World Bank 2002) or general levy rebate systems (e.g. Singapore, Gill et al. 1999). However, the TC project was different from the simple tax incentive system in the sense that it obligated all enterprises to pay training levies in advance irrespective of the fact that they offered in-service training or not. The project mobilized additional public resources for the financial incentives and discouraged free-riders. The TC project also diverged from the general levy rebate system by providing preferential rebates to SMEs. The TC project was also unique in the sense that the financial incentives created a structure that limited the hiring of training managers exclusively for groups of SMEs, thus economizing public resources and helping SMEs fill their gap in institutional and technical capacities.

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## 3.2. Achievements and Impacts of the Project

### (1) Organization and Operation of Training Consortiums

Originally, the project aimed to organize 90-member SMEs into three training consortiums (TCs). However, the project started with 163-member SMEs in three TCs, one in each of the three Chamber areas. By the end of 2002, TC members increased to 732 SMEs, an increase of four and half times. The 557 member SMEs in June 2002 had a total of 14,043 workers with 65 percent being production workers. About 70 percent of the member SMEs were those with less than 50 workers and were located in the industrial zones developed by the government.

### (2) Participation in In-Service Training

The output of the project was impressive. In the in-service training courses for workers in SMEs, a total of 6,573 persons were trained. This number far exceeds the number of workers identified initially by employers in the training needs survey as requiring in-service training (3,087) and accounts for almost half the total number of workers in all member SMEs of the three pilot TCs (<Table 2>). Before the initiation of this pilot project, SME had rarely provided training opportunities for their workers, and therefore had not been able to get their training levy rebated. With the advent of the pilot project, training managers facilitated training opportunities for SMEs workers, which enabled active participation in the training levy rebate process. Consequently, the proportion of TC-member enterprises offering training to their workers increased from 11 percent to 50 percent, an increase of 451 percent. This compares favorably with an increase from 21 percent to 57 percent or an increase of 271 percent for all sizes of enterprises nationwide.

### (3) Training-Levy Rebates to SMEs

The project accorded substantial financial benefits to member SMEs by helping them organize the training of their workers and then get reimbursed for training expenses from the training-levy fund (a part of the unemployment insurance fund). Before the pilot project, TC member SMEs got 24% of their training levies rebated. However, after the pilot project, they got as much as 48%. This resulted in a sharp contrast in the performance of nationwide SMEs, which got 25% of their training levies rebated before the pilot project, but 15% after the pilot project.

**Table 3 |** Performance of SME's without and with the Pilot TCs

	SMEs without Pilot TCs (June 2001)	SMEs with Pilot TCs (June 2002)	Cf: all SMEs in Korea
Training Levies Rebated (rate)	24%	48%	25%→15% for all SMEs
Enterprises Participating in Training	11%	50%	21%→57% for all SMEs
Workers Participating in Training	3,087 (planned)	6,573 (actual)	12%→10% decline
# of TC	0	3	0
# of SMEs in Total 3 TCs	0	90→163→197→557→732	Not from the same industry + area
# of SMEs in 3TCs	90 (planned)	Average 240 (actual)	
# of TM in a TC	0	2	0

Source: Lee (2006).

#### (4) Other Results of the TC Project

Although this study does not attempt to make a cost-benefit analysis of the project, it is appropriate to mention some benefits. The project promoted SME workers' productivity, solving the most critical SME problem of skilled manpower shortage, and helped prevent unemployment. In addition, the project also motivated the government and training institutions to change their training policy towards a demand-driven system; developed a new working relationship between SMEs and training institutions; and promoted a partnership between private sector associations and public/non-governmental organizations (Lee 2006).

**Table 4 |** Employment of SMEs without and with the Pilot TCs Project

	Number of Workers without TC Project	Number of Workers with TC Project	Change
SMEs Participating In Training	4,850	4,931	81 (+1.7%)
SMEs Non-Participating In Training	4,960	4,524	-436 (-8.8%)

Source: Lee (2006).

### 3.3. Backgrounds and Needs for the Project

Since 1995, all firms, large and small, were obligated by law to pay training levies and were entitled to get a rebate of the training levies to cover the costs of training their workers. Although the levy rebate system did serve as an effective incentive for enterprises to carry out job-related skills training of their workers, it has worked regressively.

This regressive result occurred even though the system paid special attention to compensate SMEs with greater financial incentives for their training activities. For example, the rate of training levies as a percentage of workers' wages was lower for SMEs than for large enterprises. Moreover, the level of rebate for large firms was up to 100 percent of training levies paid, however, SMEs were to receive rebates up to 270 percent of training levies paid. As a result, for each worker trained, the financial profit, i.e. the difference between training levies paid by enterprises and the rebates received by enterprises, was greater for SMEs than for large enterprises.

Despite the special financial incentives, SMEs did not avail themselves of the incentive system as much as large enterprises. Consequently, a regressive situation developed. Both large firms and SMEs got rebates of their training levies paid, yet large enterprises recovered a disproportionately greater proportion of their training levies paid by training a larger proportion of their workers. In 2001, while 77.6 percent of large enterprises trained 37.5 percent of their total workers, making use of the training-levy rebate incentive system, only 4.7 percent of SMEs offered training programs to only 4.2 percent of their total workers, receiving the training-levy rebates. As a result, large enterprises as a whole got about 30 percent of their training levies reimbursed in 2001; however, SMEs recovered only 15 percent of their training levies. This was a serious policy issue since SMEs accounted for 99.9 percent of total enterprises, provided 86 percent of total contracted employment opportunities, and about half of the national exports and income.

**Table 5 |** Comparisons between large enterprises and SMEs in Training Situation

	SMEs	Large	Total
Training Levies Rebated (rate)	15%	30%	
Enterprises Participating in Training	4.7%	78%	
Workers Participating in Training	4%	38%	
Workers Paying Levy	4.5m	2.4m	6.9m
Workers Receiving Training Rebate	0.2m	0.9m	1.1m

Source: Lee & Kim (2004).

This situation implies that financial incentives (financial profits) were either inadequate or insufficient for SMEs to undertake the training of their workers. For SMEs, the costs or disincentives of training their workers (e.g., not enough workers to substitute the workers sent for training, poaching risks, administrative burdens to arrange training and recover levies, asymmetry of available information on training markets) must have been greater than the financial incentives. The government recognized that in order to address the regressive results of the training levy-rebate incentive system, additional factors should be considered that causes the regressive utilization of the incentive system. That is, in developing human resources, SMEs have the scale jeopardy, public good jeopardy, financial jeopardy, and institutional and organizational jeopardy, compared with large enterprises (Lee 2006).

In sum, SMEs participated in training at a much lower rate than larger enterprises, and the training-levy rebate incentive system, alone, proved to be inadequate. Additional or different types of incentives should have been devised to compensate SMEs for their disadvantages in undertaking the training of their workers. Besides financial constraints, SMEs have institutional and informational/technical weaknesses. To help solve the institutional / technical / informational constraints in SMEs, a new incentive system had to be found so that more SMEs could actively train their workers. The answer was the SME Training Consortiums Project.

### 3.4. Strategy and System for the Implementation of the Project

#### (1) Organizations

The Ministry of Labor (MOL) made the decision to launch the SME In-Service Training Consortium (TC) Project. However, the implementation of the project was entrusted with the Korea Chamber of Commerce and Industry (KCCI), a private employers' organization. The Pilot Project was launched in June 2001 and was completed in December 2002. The MOL and KCCI selected three industrial cities for the Project: Busan, Incheon, and Kwangjoo, and the field office of the MOL and the local chamber of the KCCI in these cities played instrumental roles for the implementation of the project.

Each local Chamber of Commerce and Industry helped a group of 30-50 SMEs in the same area and industry organize into a training consortium (TC) by financing and seconding two training managers to each TC. Each TC formed an operating committee (OC) to manage its training tasks. The OC was composed of representatives of TC members, local Chamber, Ministry of Labor field office, and training experts, and met periodically for the planning and management of the training affairs of the TC members.

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The two training managers of each TC played key roles in the project. The TMs were to act as the training specialist of each member SME. They were to establish an information network among TC members (e.g., home page, email systems, and periodic meetings); conduct a training-needs survey of each member SME through interviews with managers and workers, and through job analysis; plan for and program training activities of member SMEs; contract outside training institutions to train workers collectively as much as possible; collaborate with training institutions to develop training programs and materials; monitor their training activities; and conduct an evaluation study upon completion of major training courses on behalf of the member SMEs.

With the mainstreaming of the pilot project later, the Ministry of Labor replicated the organization of TCs with two more modalities. One was TCs organized large enterprises for SMEs supplying parts and services to them: A large enterprise helped its cooperative SMEs organize a TC and train their workers in its own in-plant training institutes. The other was TCs organized by training institutes: They organized SMEs located in their vicinity and provided in-service training to their workers.

## **(2) Finances of the Project**

In 1999, the Korean government applied, through the Ministry of Labor, for a grant to launch the Project to the World Bank, which was administering a technical assistant trust fund, entrusted by the Asia and Europe Economic Meeting (ASEM) for Asian countries affected by the 1998 financial crisis. The project was initially implemented with this grant fund only in the city of Busan, which was hit hardest by the economic crisis, in June 2001. With the signs of promising prospects, the Ministry of Labor provided its own budgetary funds to the KCCI for implementation of the project in two other cities (Incheon and Kwangju) in September 2001 and extended the pilot to December 2002.

## **3.5. Factors Contributing to the Success and Limitation**

Many factors were responsible for the huge success of the Pilot Project. First of all, the financial crisis itself was the key contributor by making all stakeholders act with a sense of urgency and priority. Second, the pilot nature of the Project enabled all stakeholders to manage it with a sense of experimentation, i.e. careful design, monitoring and learning. Certainly, the World Bank's operational procedures for a technical assistance project helped the successful experimentation with the project. Third, the already established software infrastructure for vocational training, especially the training finance system (training levy-rebate system) helped the TC system to start off the ground smoothly. Fourth, above all, however, the success of the project could be attributed to the fact that the project was implemented by the private sector, especially by the employers' organization (KCCI). It had

a vested interest in meeting their needs for in-service training and enhanced productivity of their workers and had the efficiency and flexibility needed in the implementation.

With the mainstreaming of the pilot project, the SMEs in-service training service has become the bellwether program of the Ministry of Labor.

**Table 6 | Evolution of the SMEs Training Consortium Program**

	2001	2002	2003	2004	2005	2006	2007
Number of TCs Assisted (Cumulative)	6	8	19	30	47	57	69
Workers Trained ('000)	4	10	20	38	71	143	295
Number of SMEs ('000)	1	3	8	15	33	63	134
Levies Rebated (Billion Won)	3.2	6.1	14.1	16.8	39.9	45.0	74.4

Source: Ministry of Labor (2006).

The TC project was not without weaknesses. Despite the sharp increases in the number of member SMEs, only one TC was maintained in each of three areas throughout the project implementation period. This enabled each TC to enjoy economies of scale. However, each TC's operational effectiveness was gradually lowered to less than optimum, having too many and diverse member SMEs belonging to different industrial associations. As a result, the training managers (TMs) could not provide tailor-made advice and attention to each member SME. Also, a TC lost homogeneity and solidarity among member SMEs. It became difficult to organize training courses to accommodate the diverse but small number of workers of each member SME belonging to different industrial sectors. Each course had too small a number of trainees to offer courses economically.

### 3.6. Implications for Developing Countries

The SMEs In-Service Training Project in Korea can be replicated in other developing countries with necessary adjustments to suit the local situation. In many developing countries, SMEs play instrumental roles for growth of outputs, employment and exports. And many developing countries have operated a training levy system of one kind or another. The pilot project in Korea could serve as a useful model to be considered especially for middle income countries where noticeable gaps have developed between large firms and SMEs in the process of rapid development and industrialization.

## 4. Employee-Directed In-Service Training

**Table 7 |** Summary of Employee-Directed In-Service Training

<p><b>Program Purpose and Contents</b></p>	<ul style="list-style-type: none"> <li>- In-service training refers to the education that is financially supported by the government either when the employer trains his/her employees or when employees receive trainings on their own will. The employee-directed in-service training refers to the latter one</li> <li>- The employee-directed in-service training among the job capability development programs of the Employment Insurance System includes the vocational ability improvement fund, the 'Naeil-Baeum Card' program, the student loan for workers, the loan for vocational training fee (for temporary workers), a short-term job skills support program called Job-ability Upgrading &amp; Maturing Program (JUMP), among others</li> </ul>
<p><b>Program Achievement</b></p>	<ul style="list-style-type: none"> <li>- Workers capability development system has a positive effect of inducing training participation for the disadvantaged workers who tend to be excluded from the opportunity to get the training from business owners, and therefore the number of participants, budget, and size are constantly increasing</li> <li>- Looking into the analysis results on the training effects and job relevance of the people who received vocational trainings through the vocational ability improvement fund and the Naeil-Baeum Card system, it turned out that these programs have helped people to switch from a temporary position to a permanent position, to change their jobs as they want, and to improve their job skills</li> </ul>
<p><b>Program Background</b></p>	<ul style="list-style-type: none"> <li>- The necessity of employee-directed in-service training largely emerged after the mid- to late 1990s when the industrial structure upgraded and services deepened due to unemployment and the financial crisis</li> <li>- Since 2000, more various programs were carried out in accordance with low growth, low employment, bipolarization, low fertility, and aging symptoms</li> </ul>
<p><b>Program Strategies and System</b></p>	<ul style="list-style-type: none"> <li>- After the enactment of Vocational Training Legislation in 1967, revision in Workers' Vocational Training Promotion Legislation in 1997 was one of the various strategies to respond to the demands of manpower fostering and improvement. In 2005, innovative methods for vocational capability development were announced, focusing on promoting capability development in district and labor-management, financial integration of employment stability and capability development project, and expanding the targets to students and self-employed. In addition, Joint Training Infra Innovation Methods in 2005 and Lifelong Vocational Capability Development System Innovation Methods in 2006 were established</li> <li>- Current vocational capability development training project system can be classified into Employer-driven Learning and Self-directed Learning, and others include public training institutions (Korea Polytechnic University, Korea University of Technology and Education, among others), qualification exam, technical skill promotion, training media development, study, and research</li> </ul>



<p><b>Success Factors and Limitations</b></p>	<ul style="list-style-type: none"> <li>- Key factors for success of employee-directed in-service training program are as follows: 1) fostering high-quality technical professionals through workers skill improvement; 2) lifelong vocational capability development system establishment; 3) expanding choices for workers by introducing a variety of training programs; and 4) promoting employers' and employees' participation in vocational training by strengthening each party's role respectively in programs</li> <li>- However, there is also room for improvement, such as needs for 1) more active cooperation of the company and In-Service workers, 2) raising awareness of the necessity of workers' vocational capability development, 3) and stabilization of financial management through timely and effective system improvement</li> </ul>
<p><b>Implications for Developing Countries</b></p>	<ul style="list-style-type: none"> <li>- Generally, the employee-directed in-service training can be discussed in countries where industrialization has already been completed or ongoing, and the proportion of wage workers is high enough among the population. In this regard, the governments of less-developed or low-income countries that do not have enough industrial infrastructures may have difficulties establishing employee-directed in-service training system</li> <li>- Moreover, a number of things should be taken into account in developing employee-directed in-service training programs, such as personal preference of trainees and skill demands of companies. Thus, employees' own wills to participate in the programs, the government's support policy, and a partnership between the public sector and business corporations may be required to provide appropriate employee-directed in-service training programs for employees</li> </ul>

## 4.1. Program Purpose and Contents

In-service training refers to the education that is financially supported by the government either when the employer trains his/her employees or when employees receive trainings on their own will. The employee-directed in-service training refers to the latter one. After the 2008 global financial crisis, job performance development for employees has been supported by the government so that the companies can use the economic crisis as a chance to accumulate human capital, not as an employment adjustment. In particular, the government expanded the support for the SMEs that lack capacity or environment for self vocational training for their own employees in comparison with the big companies.

The employee-directed in-service training among the job capability development programs of the Employment Insurance System includes the vocational ability improvement fund, the 'Naeil-Baeum Card' program, the student loan for workers, the loan for vocational training fee (for temporary workers), and a short-term job skills support program called Job-ability Upgrading & Maturing Program (JUMP).

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First, the vocational ability improvement fund targets (among employment insureds) the fixed-term, part-time, dispatch, daily workers, workers employed by the companies which are supported by the government by priority, and voluntarily insured self-employed workers. Funding requirements include completing the training that is approved by the Minister of Employment and Labor, attending more than 80% of the training course (class or time) to graduate, and paying the training fee at his/her own expense. Support details are to fund within 1 million KRW per year, but the total amount of grant per worker cannot exceed 3 million KRW in 5 years (within 2 million KRW per year including the grant through the 'Naeil-Baeum Card' program).

Second, the 'Naeil-Baeum Card' program supports (among employment insurance insureds) the fixed-term, part-time, dispatch, daily workers, potential turnover within 90 days, and unpaid leave of absence or closed for more than 90 days and did not return. The support details are to issue Naeil-Baeum Card for the workers to get the training from employment centers, show it to the training centers that they wish to get the training (training centers approved by the Minister of Employment and Labor), and the training centers receive training fees from the government.

Third, the student loan for workers is for In-Service workers who are employment insureds. They need to be enrolled in technical college, cyber college or junior college, and the loan pays the tuition in full (admission fee, tuition, student fees). When the worker received scholarships, the loan pays the balance.

Fourth, the loan for vocational training fee (for temporary workers) supports the temporary workers and the former unemployed who participate in vocational training to get the systematic training without the burden for cost-of-living by lending them long-term loans so that they can get better jobs. Training for loan recipients include temporary worker training (trainings approved by Ministry of Employment and Labor; vocational development training, vocational development account training, short-term job course (JUMP course), training for acquiring national technical qualification at technical institutions) and training for former unemployed (training programs approved by the Ministry of Employment and Labor; training for more than four weeks, including vocational development training, national organization, strategic industrial job training, vocational development account training, industrial accident compensation insurance act, disabled workers employment promotion, vocational rehabilitation training, and acquiring national technical qualification at public vocational training facility installed by local governments).

In addition, a short-term job skills support program called Job-ability Upgrading & Maturing Program (JUMP) is a newly launched training policy that began in 2009 as a part of specialized training strengthening for the SMEs and temporary workers along with vocational capability development training for business owners, which was one of the

employee-directed in-service projects. JUMP project is a supporting policy for temporary workers of SMEs to receive modular short-term job skills improvement training on the weekends and during the week at night time without interference of the business owners (self-directed learning) since they have relatively less opportunity to get trainings than the full-time employees of big companies. Training program consists of subdivided modular training courses that are based on a capability roadmap for four major occupations where many SME and temporary employees work at; marketing, accounting, human resources, production management.

Aside from those programs, there are also subsidy programs for qualification test fee, selection programs of masters/excellent leaders, possessors of traditional skills, and excellent technicians in SMEs.

## 4.2. Project Achievement

### (1) Program Outcomes

Job capability development program of Employment Insurance categorizes the recipients of policy support into business owners, employees, and the unemployed (Ministry of Employment and Labor, 2012). According to the outcomes of the vocational ability improvement fund and the student loan for workers, there is a pattern of an increase after 2002, a temporary decrease after 2008, and then a slight increase. This can be interpreted as an influence of the economic downturn after the global financial crisis.

**Table 8 |** The Status of the Employee-Directed In-service Training

(Unit: Person, Million KRW)

Division		2002	2003	2004	2005	2006	2007	2008	2009	2010
Person Supported	Vocational Ability Improvement Fund	35,528	29,177	38,908	70,732	155,620	269,045	287,827	280,667	262,689
	Student Loan for Workers	24,444	27,772	30,978	29,149	28,342	25,225	25,507	29,424	25,394
	Total	59,972	56,949	69,886	99,881	183,962	294,270	313,334	310,091	288,083
Fund Amount	Vocational Ability Improvement Fund	3,435	4,224	5,873	11,688	28,851	52,782	53,508	56,033	49,614
	Student Loan for Workers	52,188	63,476	74,799	76,505	81,642	79,851	87,755	99,076	90,769
	Total	55,623	67,700	80,672	88,193	110,493	132,633	141,263	155,109	140,383

Source: Ministry of Employment and Labor (each year), employment insurance statistics yearbook, employment insurance white paper.

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The ‘Naeil-Baeum Card’ program supports fixed-term, part-time, dispatched, and daily workers to complete the training courses that are approved by the Ministry of Employment and Labor. Due to the integration and restructuring of the individual support project for vocational capability development, the vocational capability development trainings for the workers on unpaid leave or closed state have been newly established, and temporary workers can get the support for vocational capability development training through the vocational capability development account program regardless of their employment status.

The loan for vocational training fee was first adopted in 2009 for the unemployed and fixed-term workers to get the systematic training without having to worry about their living costs and to move into better jobs. In 2011, 4,930 people received 11,851 million KRW for their cost of living.

## **(2) Program Achievement**

Workers who have job skills suited to the industry demand have high employment security and can change jobs easily by their own free will. Job capability development improves In-Service workers’ job skills and contributes to the enhancement of the labor market, including wage increases and organizational commitment. Workers capability development system has a positive effect of inducing training participation for the disadvantaged workers who tend to be excluded from the opportunity to get the training from business owners, and therefore the number of participants, budget, and size are constantly increasing.

Looking into the analysis results on the training effects and job relevance of the people who received vocational trainings through the allowance program for education fee and the Naeil-Baeum Card system, it turned out that these programs have helped people switch from a temporary position to a permanent position, change their jobs as they wanted, and improve their job skills (Na, Youngsun, 2010). The allowance for education fee is an important means to increase participation and investment of the SME workers in training, especially for the SME workers who wish to get training but their companies do not provide or have no desire for investments. Moreover, there is a high possibility to increase effectiveness and performance when workers participate voluntarily.

Training beneficiaries and effects were estimated based on the training incentives according to the employment legislation; there was higher probability for the employees of the companies that have a high funding rate, there was a training-based wage increase, and a correlation between training implementation and the amount of training was positive when personality traits were good.

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### 4.3. Project Background

Vocational training in Korea has changed and developed along with the national economic growth. Workers support for In-Service worker training largely emerged after the mid to late 1990s when the industrial structure upgraded and services deepened due to unemployment and the financial crisis. Since 2000, more various programs were carried out in accordance with low growth, low employment, bipolarization, low fertility, and aging symptoms.

In particular, vocational training in the 2000's established as the lifelong vocational capability development system, and the demands for vocational trainings to strengthen support for SMEs and vulnerable groups across their life increased. Demands of vocational trainees for vocational training became complex, self-training in the private sector in public sector-led training has led to rapid transition. Therefore, the existing provider-centered training providing system was reformed to the consumer-centered, In-Service worker improvement training was expanded and intensified. The SME-specific support system and special support system for the low-income group and female breadwinners were introduced.

Recent changes in the concept of lifelong job, companies are also paying the proper wages and providing the opportunity to develop new skills for their employees so that they can get new jobs in different workplaces. Therefore, the importance of life-long vocational capability development has become much more significant, and the reasons for the workers to participate in the education trainings also became clearer. As a consequence, the workers have higher reasons to actively participate in the vocational trainings than the companies, thus a private vocational capability development system is needed.

Recent trends include also training and learning-oriented, organic combination of work and learning, and individual learning needs based on competency level selection process. Changes are also occurring in courses and, instructors, and with learners, including a growing emphasis on learner and learner-oriented interaction between the self-directed learning, emphasis on talent and expertise, and on e-learning and blended learning. In this context, the support program for In-Service worker training is being expanded in scope and scale of support.

### 4.4. Implementation Strategy and System

#### (1) Program Strategies

Enactment and revision of the legislations related to vocational training have supported economic development and manpower requirement for companies. Enactment of Vocational Training Legislation in 1967, National Technical Legislation in 1973, Polytechnic College

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Legislation in 1977, Act on the Encouragement of Technical Skills in 1989, introduction of Employment Insurance System in 1995, enactment of Vocational Education and Training Legislation in 1997, and revision in Workers' Vocational Training Promotion Legislation in 1997 have been responding to the demands of manpower fostering and improvement. In 2005, innovative methods for vocational capability development were announced, focusing on promoting capability development in district and labor-management, financial integration of employment stability and capability development project, and expanding the targets to students and self-employed. In addition, Joint Training Infra Innovation Methods in 2005 and Lifelong Vocational Capability Development System Innovation Methods in 2006 were established.

In addition, the First Basic Plans for Lifelong Vocational Capability Development were established in 2007, which selected key projects such as vocational capability development covering the working life, vocational capability development as universal rights, market-friendly delivery system innovation, capability-centered system and culture expansion, and vocational capability development promotion system organization for promotion. Through this, long-term vision and strategic tasks are established, and comprehensive and systematic policy action plans are promoted for the fairness and expansion of opportunity for vocational capability development.

In 2009, training participants' choice enhancement, increase in the industry and local participation, field-centered capability development promotion, and systematic management of vocational capability development projects were selected and promoted as policy objects through the construction of market-friendly vocational capability development systems.

In 2012, the Second Basic Plans for Lifelong Vocational Capability Development have been established. Detailed policy objects are 1) support for growth and innovation of the industry and private sector, 2) promotion for open employment and lifelong education, 3) social integration through individuals' work and their skills development, 4) and building sound training market through a partnership between the public and private sectors (the Joint Interagency, 2012). The Plans include methods for integration of individual support programs of the employee-directed in-service training system (the Naeil-Baeum Card program, the vocational ability improvement fund), and ways to support the actual costs for activation of vocational capability development for temporary workers.

## **(2) System**

Current vocational capability development training project system can be classified into Employer-driven Learning and Self-directed Learning, and others include public training institutions (Korea Polytechnic University, Korea University of Technology and Education), qualification exam, technical skill promotion, training media development, study, and

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research. Employer-driven Learning can be divided into individual company support and initial-stage business support. Individual company support has employer training that supports the training procedure, SME core job skills improvement training, SME learning organization that supports training infrastructure, and SME CEO-HRD personnel training. Initial-stage business support has SME vocational training consortium, joint council for human resource development per industry, labor-management joint training, and first-select job training. Among these, the support project for joint council for human resource development per industry was included in the larger frame of national human resources development consortium from 2011 as a form of SME vocational training consortium after being promoted as a supporting business for education training innovation center. Self-directed Learning is composed of workers tuition support fund, workers capability development card, training for the unemployed and student loans for employees.

#### 4.5. Success Factors and Limitations

As discussed above, key factors for success of employee-directed in-service training program are as follows; 1) fostering high-quality technical professionals through workers skill improvement; 2) lifelong vocational capability development system establishment; 3) expanding choices for workers by introducing a variety of training programs; and 4) promoting employers' and employees' participation in vocational training by strengthening each party's role respectively in programs. However, there is also room for improvement, such as needs for 1) more active cooperation of the company and In-Service workers, 2) raising awareness of the necessity of workers' vocational capability development, 3) and stabilization of financial management through timely and effective system improvement.

Employee-directed in-service training system in Korea is being settled as a system dedicated to capability development for all adults and their lifelong education. Since the main purpose of lifelong education is to make adult workers continue developing their capabilities through long-term learning, the support for continued education is operating employee-directed in-service training system with the goal of training system for continuous employable status maintenance.

Current workers support system for the vocational ability improvement fund targets SME workers, and Naeil-Baeum Card system targets temporary workers. Recently, qualified self-employed and some of the specially employed are included as beneficiaries. Vulnerable In-Service workers' job skills are improved through vocational capability development, and the targets are being expanded in order to match the goal of the system, to maintain employability.

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Therefore, the subject target for employer individual training support needs to be the vulnerable temporary workers, and workers training support system needs to be strengthened to support the less-skilled workers and the vulnerable workers. For differentiated operation according to the job skill level of every In-Service worker, an accurate and precise measurement tool for the vocational skill level test is needed along with the delivery system. Also, methods to provide differentiated support according to the training characteristics can be considered. Currently, Naeil-Baeum Card system is providing training consultation for employees in the process of determining the need for training or selecting training. Meanwhile, for the in-service training, the training consultation functions well exist although it is weaker than that of the unemployed. It especially shows that training and occupation consultation are necessary for some In-Service trainees.

#### 4.6. Implications for Developing Countries

Generally, the employee-directed in-service training can be discussed in countries where industrialization has already been completed or ongoing, and the proportion of wage workers is high enough among the population. In this regard, the governments of less-developed or low-income countries that do not have enough industrial infrastructures may have difficulties establishing an employee-directed in-service training system. Moreover, a number of things should be taken into account in developing employee-directed in-service training programs, such as personal preference of trainees and skill demands of companies. Thus, employees' own will to participate in the programs, the government's support policy, and a partnership between the public sector and business corporations may be required to provide appropriate employee-directed in-service training programs for employees.

In terms of policy implications for developing countries, first, the employee-directed in-service training programs tend to be successful in middle- or high-income countries where the government is able to pay attention to the In-Service workers' skills development and skill demands of companies. It means that the likelihood of program success is directly related to the country's industrial structure and its development phase. Therefore, in countries in an early stage of industrial growth, like low-income countries, the employee-directed in-service training system should be developed from a long-term perspective in consideration of the country's industrial development phase. Also, when establishing it, in-depth pre-review of the system is recommended, such as a policy piloting at the national level.

Second, there is a need to raise awareness among business owners about the necessity of employees' job skills development. In other words, the government should make employers realize that investment in human capital ultimately leads to an increase in companies' productivity and profits. Furthermore, the government should consider designing policies



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supporting companies that provide many vocational training programs for their own employees.

Third, the Korean government currently operates a variety of programs for the employee-directed in-service training system, such as the vocational ability improvement fund, the Naeil-Baeum Card program, the student loan for workers, the loan for vocational training fee, and the short-term job skills support program. However, it is highly likely that all these programs will not have similar impacts on every developing country as it has different national conditions. Therefore, more detailed program models, which are based on all employee-directed in-service training programs, which the Korean government has so far executed, need to be provided to developing countries in order for them to adopt programs suited to their domestic circumstances more easily and quickly.



2013 Modularization of Korea's Development Experience  
In-Service Training Policy in Korea

# Chapter 1

## Introduction

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# Introduction

Korea's vocational training system was officially launched with the enactment of the Vocational Training Act on January 17, 1967. With the establishment of the Basic Vocational Training Act in 1976 the obligatory in-plant vocational training system (or training levy system) was introduced, encouraging interest and investment in workforce training among enterprises, the end user of a workforce. This system required enterprises to provide initial training to a certain number of new recruits or pay a training levy equivalent to the cost of providing such training. In the early 1980s, the slow growth and shrunken investment caused by the oil shock led to a sharp fall in demand for new recruits, and there was a growing awareness of the need to train In-Service workers in order to achieve growth through improved productivity. All this significantly reduced the effectiveness of the obligatory in-plant vocational training system that focused on the initial training of workers.

As the importance of training In-Service workers was emphasized in the late 1980s, the standard for imposing the training obligation was changed from the number of employees to the total payroll. However, In-Service worker training did not get much attention before the Asian financial crisis struck in the late 1990s. The vocational skills development project for In-Service workers was activated in earnest in 1995 when the obligatory in-plant vocational training system was abolished and integrated into the employment insurance system. In other words, Korea finally introduced a system that obligates all enterprise to pay training levies as part of employment insurance premiums and gives such training levies back to those that provide training to cover their training costs. The vocational skills development project for In-Service workers was greatly reinforced by adopting this incentive-based funding approach and accommodating demands from employers who were the main providers of the financial resources. The procedures for recognizing training institutions were eased as well, which allowed various professional education and training institutions

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to actively participate and offer training courses for In-Service workers, and thus further promoted the project.

Vocational skills development training aimed at helping In-Service workers acquire and develop job performance skills are supported through the following three programs. First, there is a program providing support to employers who set up necessary training courses for In-Service workers. Part of their training costs is supported from the employment insurance fund. This training program is called ‘employment insurance rebate training program’ or ‘employer-directed training program’ (hereinafter ‘employer-directed training program’). The second is the SME-specific training program, such as the SME training consortium project, which is a type of employer-directed training program, but available only to SME employers and employees. The third is the employee-directed training program which provides training subsidies directly to individual workers not employers. The job skills upgrading subsidy, the individual training account system for In-Service workers, loans for workers’ school expenses and loans for non-regular workers’ living costs during vocational training fall into this category.

This study was conducted as part of the Knowledge Sharing Program to systematically compile and modularize Korea’s development experience, and its aim is to offer basic materials that can be used to develop various consulting and education programs to transfer Korea’s outstanding development experience to developing countries. The study focuses on specific policies and programs, such as the employer-directed training program, the SME training consortium project and the employee-directed training program, so that developing countries can learn lessons from Korea’s experience in implementing the vocational skills development project for incumbent workers and use them in their policy processes.

<Table 1-1> shows types of vocational skills development training for In-Service workers and the number of training participants by year since the integration of the vocational training system into the employment insurance system. Training for employees on paid leave mentioned here is a type of employer-directed training, but provided on an extremely small scale. Under this training program, an SME employer who provides training to his/her workers during their paid leave is given a subsidy to cover their wages. In this study, employer-directed training is limited to ‘upgrade training for In-Service workers’.

**Table 1-1 | Vocational Skills Development Training Programs  
for In-Service Workers in Korea (1998-2012)**

(Unit: Persons)

Year	Total	Employer-Directed Training		Employee-Directed Training			Core Job Skills Upgrading Subsidy	SME Training Consortium Project
		Upgrade Training for In-Service Workers	Training for Employees on Paid Leave	Loan for School Expenses	Subsidy for Taking Training Courses	Individual Training Account System		
1998	679	667	4	12	-	-	-	-
1999	795	781	-	14	-	-	-	-
2000	1,239	1,220	-	19	-	-	-	-
2001	1,617	1,555	-	4	58	-	-	-
2002	1,744	1,682	6	24	36	-	-	-
2003	1,725	1,662	6	28	29	-	-	-
2004	2,034	1,958	6	31	39	-	-	-
2005	2,526	2,351	5	29	71	-	-	71
2006	3,104	2,752	5	28	155	-	19	143
2007	3,926	3,300	7	25	269	8	22	295
2008	4,313	3,654	9	25	287	29	26	281
2009	5,209	4,504	13	29	280	81	71	231
2010	4,500	3,764	11	25	262	171	35	231
2011	3,614	3,005	11	22	162	129	33	252
2012	3,747	3,180	11	18	164	65	38	272

Source: Ministry of Employment and Labor. The Current Status of the Vocational Skills Development Project, Yearly.

2013 Modularization of Korea's Development Experience  
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## Chapter 2

### Employer-Directed In-Service Training

1. Program Objective and Features
2. Program Outcomes
3. Program Background
4. Implementation Strategy and System
5. Success Factors and Limitations
6. Implications for Developing Countries

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# Employer-Directed In-Service Training

## 1. Program Objective and Features

### 1.1. Objective

According to Becker (1975) who divided worker training into general and firm-specific training, training for In-Service workers belongs to firm-specific training, which is not expected to affect wages or productivity if workers move to other companies after training. In theory, companies should be able to pay newly recruited workers lower wages during their training periods, but in reality, it is very difficult to reduce their wages to a level below that customarily agreed upon by society. Not only is it hard to make a clear distinction between general and firm-specific training, but companies also see investments in education and training as the costs that they may not recoup in the short term, regardless of the type of training. As a result, a market failure occurs in which companies avoid providing training. In order to address such a market failure, namely, to ensure an adequate supply of training, the government intervenes in in-plant training. With regard to the training of In-Service workers, a market failure could also happen as companies hire experienced workers who have received training in other companies and give their In-Service workers fewer training opportunities than needed. So the government intervenes in in-plant training by supporting employer-directed training.

The employer-directed training program in Korea means a program that provides government support for training costs if an employer provides training to his/her In-Service workers directly or via an entrustment arrangement or an In-Service worker voluntarily receives training to improve job skills directly related to productivity and wages. The ultimate objective of the employer-directed training program is to ease employers' burdens



resulting from providing training and contribute to productivity growth through In-Service workers' improved job skills by supporting the training costs of employers who provide vocational training to their current and prospective employees.

The in-plant vocational training system, the predecessor of the employer-directed training program, was basically a sort of 'firm-specific training program'. It had the advantage of promptly supplying a workforce easily adaptable to industrial sites by making companies train and secure necessary skilled workers on their own and of saving training costs by using existing training facilities, equipment and materials (Ministry of Labor, 1990). The Korean government introduced the obligatory in-plant vocational training system to encourage companies to participate in such an effective workforce training system. Its original purpose and meaning has not changed since, although the target of the training policy was shifted from new skilled workers to In-Service workers in response to industrial changes.

## 1.2. Features

The employer-directed training program provides support to employers who implement vocational training recognized by the Minister of Employment and Labor for In-Service workers, prospective recruits, and job seekers, covered by employment insurance, since the support is financed from the employment insurance fund.

Specific details of support are as follows. If an employer directly provides training at his/her own training facilities or entrusts a training institution to provide training through various methods, such as off-the-job, on-the-job and distance training (internet or mail), the training costs are subsidized. Typically, if off-the-job training is provided for more than 16 hours over the course of two days, part of the training costs is supported. However, SMEs are subsidized fully or at a preferential rate. Although SMEs' training costs can be reimbursed from the employment insurance fund, it is difficult for them to provide training on their own due to their poor business conditions and fears of a possible gap in business operations. Considering this, SMEs are given a higher level of support than large companies in terms of the percentage of training costs covered and the maximum amount of subsidy.<sup>1</sup> Detailed subsidy requirements for each training method are described in <Table 2-1>.

1. The formulas, 'base unit cost of training for the relevant occupation × adjustment factor × training hours × number of persons who have completed training ×100%' and 'base unit cost of training for the relevant occupation × adjustment factor × training hours × number of persons who have completed training ×80%', apply to preferentially supported enterprises and large companies, respectively. The term 'preferentially supported enterprises' refers to mining businesses with 300 or fewer employees, manufacturing businesses with 500 or fewer employees, construction businesses with 300 or fewer employees, transport and communications businesses with 300 or fewer employees and other businesses with 100 or fewer employees [Article 12 of the Enforcement Decree of the Employment Insurance Act].

In the case of off-the-job training, training allowances and meal and accommodation expenses are subsidized. Support details are as follows. If a prospective recruit or job seeker is provided with more than 120 hours of training a month on average for more than one month and paid training allowances, the training allowances are subsidized up to KRW 200,000 a month. Additionally, if a trainee is provided with more than 5 hours of training a day and is offered meals and accommodation or paid for them, the meal and accommodation expenses are subsidized up to KRW 3,000 a day and KRW 8,500 a day respectively.

**Table 2-1 | Subsidy Requirements by Training Method under Employer-Directed Training Program**

	Off-The Job Training	On-The-Job Training	Distance Training	Mixed Training
Definition	Training provided at dedicated training facilities or other facilities suitable for training (excluding production facilities and places of work), which are separated from production facilities and places of work	Training provided at places of work or production facilities in businesses	Training provided by vocational skills development training providers to workers at remote places using information and communication media (internet-based distance training and mail-based distance training)	Training that combines off-the-job and on-the-job training, distance and on-the-job training, distance and off-the-job training or off-the-job, on-the-job and distance training
Subsidy requirements	Training should be provided for more than 16 hours over 2 days (more than 8 hours a day in case of preferentially supported enterprises), and part of the training costs is supported	If training is provided to those who have completed off-the-job or distance training related to on-the-job training courses for more than 16 hours over 2 days (more than 8 hours a day in case of preferentially supported enterprises), 40% of the training costs is supported	① Internet-based distance training: The amount of subsidy is determined based on size of contents (more than 16 hours) and grade of training course ② Mail-based distance training: The training duration should be longer than 2 months. Support is provided based on grades of training course and institution	The total duration of mixed training should be longer than 16 hours (longer than 8 hours in case of preferentially supported enterprises). The amount of subsidy is the sum of all subsidies, each calculated according to the subsidy payment standards for each training course of mixed training

Source: Ministry of Employment and Labor (2013). *The Current Status of the Vocational Skills Development Project*.

[Figure 2-1] shows participation in the employer-directed training program by industry from 2008 to 2012. The manufacturing industry took up the largest share, maintaining nearly 37% for the past five years, which was followed by financial, insurance and real estate activities with 12.5%~17.6% and education and other services with about 9.4%~18.2%. The share of financial, insurance and real estate activities was in decline over that period. This contrasts with the steady increase in services' share. The upward trend in the number of enterprises giving training opportunities to incumbent workers in the service sector can be explained by the fact that occupations in which In-Service worker training was provided were mostly clerical and managerial ones.

**Figure 2-1 | Participation in Employer-Directed Training Program (Upgrade Training for Incumbent Workers) by Industry and Year**



Source: Ministry of Labor, Employer-Directed In-Service Training(2008~2012) data.

<Table 2-2> shows the number of employer-directed training courses by training area. Clerical and managerial occupations (4,097 courses) accounted for the largest share, which was followed by services (318 courses) and information and telecommunications (297 courses).

**Table 2-2 |** Number of Employer-Directed Training Courses by Training Area (Oct. 2013)

Training area	No. of Courses	Training Area	No. of Courses	Training Area	No. of Courses
Machinery and equipment	175	Construction	146	Chemical Therapy	24
Information and Telecommunications	297	Clerical and Managerial Occupations	4,097	Environment	13
Services	318	Electricity	109	Industrial Application	95
Transport Equipment Manufacturing	10	Electronics	29	Textiles	1
Finance and Insurance	250	Crafts	15	Agriculture, Forestry and Mining	12
Health Care	50	Metal	9	Level-up Training	27

Source: [http://www.hrd.go.kr/jsp/HRDP/HRDP100/HRDP150/HRDP155/HRDP155\\_1List.jsp](http://www.hrd.go.kr/jsp/HRDP/HRDP100/HRDP150/HRDP155/HRDP155_1List.jsp).

The application and subsidy (employment insurance rebates) payment procedures of the employer-directed training program are as follows. An employer who intends to provide employer-directed training should make an application for recognition of training courses to the Human Resources Development Service of Korea (HRD Korea). After undergoing an examination by HRD Korea and getting a recognition notice, he/she provides training and then applies for a subsidy. HRD Korea pays a subsidy directly to the employer after careful consideration of whether to make that payment. Employers had pointed out the administrative burden caused by providing employer-directed training as one of their difficulties. However, since January 2010 employers have been allowed to receive training subsidies before paying their credit card bills if they use a company credit card to pay training costs. This institutional reform made it possible to relieve employers from cost burdens if they entrust external training institutions to provide training. The administrative burden was also reduced by allowing training institutions to apply for training subsidies on behalf of employers.

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## 2. Program Outcomes

### 2.1. Increased Training Opportunities for In-Service Workers

First, let's look at how many In-Service workers have participated in training. In 1981 a provision recommending the 'training of employed workers' was newly inserted into the Basic Vocational Training Act. In 1986 the cost of providing education and training to employed workers was included in the scope of investments in vocational training. The number of workers participating in incumbent worker training was 13,425 in 1987 and 12,986 in 1988, resulting in a combined total of just 26,301 for the two years. But the figure stayed at 100,000~120,000 a year from 1992 to 1996.<sup>2</sup>

Companies' vocational training needs started to change in 1990. As for target groups, while the government's vocational training policy focused on initial training mainly for production workers, companies became more interested in upgrade training for In-Service workers. Regarding training contents, they demanded enterprise-specific training that suits each enterprise's circumstances rather than general training that can be applied to any enterprise. With regards to training methods, they called for diverse training periods and courses, such as daytime, evening and weekend courses. As there were an increasing number of companies, especially large companies, running various in-company educational institutions, such as corporate technical universities and graduate schools, together with existing vocational training centers, the vocational training system oriented towards production workers turned into the vocational skills development system designed to promote skills development across all occupations and workers. Specific examples are illustrated in [Box 2-1].

2. Job skills upgrade training for incumbent workers, including training for managers and supervisors, was incorporated into 'training for skilled workers' in 1992. As a result, it became difficult to get separate data on the results of incumbent worker training. In-plant training for skilled workers was provided to 14,000~43,000 people a year from 1987 when the standard for imposing the training obligation was changed to 1992, and skilled workers were produced at an average annual rate of 30,000 between 1992 and 1996. It can be inferred from this that 100,000~120,000 people received incumbent worker training each year during that period [Source: Ministry of Labor. *The Current Status of the Vocational Training Project*. 1998].

### Box 2-1 | Examples of Incumbent Worker Training Provided Voluntarily by Companies

Samsung Group set up a corporate university at the Samsung Advanced Technology Training Institute in its Giheung complex in March 1996. The university provides two-year full-time college-level education to all its students and gives them a professional engineer license. The curriculum consists mainly of high-tech courses, such as marketing (sales management, product planning, market research), machine and mold technology (machine tools, precision processing, production engineering), mechatronics (robot control, machine control), applied electronics (digital, computer applied control) and ICT (system operation, networking, software development). The university aims not only to develop human resources but also to bring about actual effects using its advanced training equipment, top-quality faculty and practice-based education. Any employee who falls within the range between employee with a high school diploma and assistant manager and has worked at the company for 2 years or longer can be admitted to the university. Upon graduation, employees with a high school diploma or junior college degree are chosen for jobs open only to university graduates, and those with a university degree are given a one-step special salary increase.

Cheil Industries' open university enables employees with a high school diploma or junior college degree to complete university courses through individual learning networks. The university opened two courses of study - production and sales management - in 1996 and has gradually increased the number of courses since 1997 with a target of 10 courses in total. Education is provided individually through the company's internal computer and broadcast networks outside working hours. Education contents focus on practical work directly related to developing individuals' job competencies and improving productivity. Students are required to receive guidance from their superiors to prevent dropouts. They must go through an evaluation by the company's college of business and technology and other relevant colleges to graduate. Graduates are awarded an associate degree by the company and get extra points during performance evaluation. Outstanding graduates are given a one-step special salary increase.

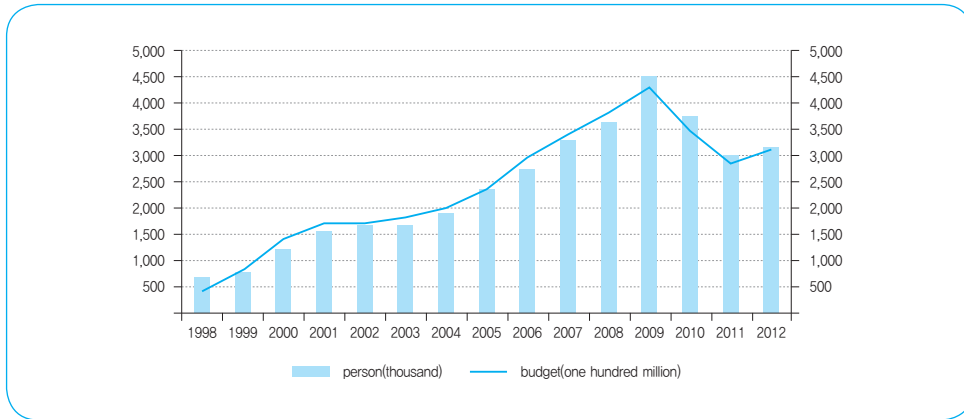
Hyundai Electronics set up a corporate junior college affiliated with Yeosu Institute of Technology. The company made a contract with Yeosu Institute of Technology to entrust the education of its employees. This allows its employees with a high school diploma to take junior college courses. The college offers three courses of study - computer science, electronic data processing and home economics - with an entrance quota of 120 students. They are two-year four-semester courses and classes that meet 4-5 hours a day, five days a week. One feature is that the same things are taught in day and evening classes given the company's three-shift system. Once an employee has graduated from this college, he/she is recognized as having attained the level of education (i.e. junior college degree) certified by the Ministry of Education, and thus the company assigns him/her to a position suitable for junior college graduates. Hyundai has also come up with a plan to pay the full school expenses of 40% of all students jointly with the college.

Shinsegae Distribution University run by Shinsegae Department Store offers one-year three-semester courses targeting male and female employees with a high school diploma. Education is provided every Tuesday, Wednesday and Friday from 8 to 11 a.m. at the training center in the company's headquarters. Classes are also held once a month at the Distribution Training Center in Yongin-si, Gyeonggi-do. The university will be kept at the level of junior colleges.

Source: Sung-su Choi, 1996.

As shown in [Figure 2-2], the number of training participants rose steeply for the 15 years after upgrade training for In-Service workers was integrated into the vocational skills development project under the employment insurance system. The number of training participants, which stood at a mere 667,000 in 1998, grew seven-fold to 4,500,000 in 2009, and reached 3,700,000 in 2012. As for training investment, the amount of money spent on employer-directed training, which hovered around KRW 57.3 billion in 1998, increased to KRW 740 billion in 2009, and was KRW 540 billion in 2012. This training levy-grant system has certainly encouraged companies to voluntarily provide upgrade training to their workers. A comparison of the absolute numbers of workers receiving training from companies before and after the integration also reveals that the levy-grant system under the Employment Insurance Act has a more positive effect on the training of In-Service workers than the previous training levy system (about 13,000 employed workers trained each year). The vocational training system finally established itself as part of active labor market policies and became connected to the unemployment benefit and employment security projects within the framework of the employment insurance system.

**Figure 2-2 | Trend in Number of Training Participants and Training Budget under Employer-Directed Training Program (1998~2012)**



Source: Ministry of Employment and Labor. *The Current Status of the Vocational Skills Development Project*. Yearly.

Indeed, the employer-directed training program runs the risk of causing a deadweight loss as it is based on a training levy-rebate (grant) system. One of its institutional characteristics is that because training is supported wholly from the employment insurance fund, employers can receive training subsidies as long as they have fully paid employment insurance premiums, of which vocational skills development contributions are a part, and meet the eligibility requirements whenever providing training. If companies consider their employment insurance premiums as fixed costs, the government may end up subsidizing the training that they would invest in anyway even without such subsidy, or encouraging them to provide training more than needed (Soon-hee Kang et al. 2011). Nevertheless, there is no doubt that the employer-directed training program has greatly contributed to expanding training opportunities for incumbent workers in a short period of time.

## 2.2. Reduced Gap in Training Opportunities between Large Companies and SMEs

Let's look at the trend in the proportion of employer-directed training participants by enterprise size from 1997 when the employer-directed training program financed by the employment insurance fund started until 2013 now (<Table 2-3>).

The proportion of training participants in enterprises with fewer than 150 employees stood at a mere 8.4% in 1997 and 12.2% in 1998 and fell short of 15% in 2005. However, the figure started to grow in 2006, reaching as high as 23.1% in 2008, 35.5% in 2011 and



29.6% in 2012. This suggests that In-Service worker training whose main beneficiaries were workers in large companies in its early days gradually spread to SMEs with fewer than 150 employees.

**Table 2-3 |** Trend in Number of Vocational Skills Development Training Participants by Enterprise Size (1997~2012)

	Total		Fewer than 150 Employees		150 Employees or More		1,000 Employees or More	
	(Persons)	(%)	(Persons)	(%)	(Persons)	(%)	(Persons)	(%)
1997	184,007	100	15,493	8.4	37,382	20.3	131,132	71.3
1998	315,379	100	38,497	12.2	33,472	10.6	243,410	77.2
1999	781,408	100	98,479	12.6	232,062	29.7	450,867	57.7
2000	1,220,334	100	166,149	13.6	315,881	25.9	738,304	60.5
2001	1,555,402	100	181,509	11.7	419,028	26.9	954,865	61.4
2002	1,681,862	100	290,597	17.3	301,015	17.9	1,090,250	64.8
2003	1,661,978	100	180,261	10.8	303,656	18.3	1,178,061	70.9
2004	1,958,130	100	285,002	14.6	337,531	17.2	1,335,597	68.2
2005	2,350,509	100	349,270	14.9	485,890	20.7	1,515,349	64.5
2006	2,752,052	100	442,911	16.1	599,733	21.8	1,709,408	62.1
2007	3,300,197	100	635,445	19.3	809,367	24.5	1,855,385	56.2
2008	3,654,216	100	845,121	23.1	917,444	25.1	1,891,651	51.8
2009	4,503,595	100	1,138,085	25.3	1,013,519	22.5	2,351,991	52.2
2010	3,764,139	100	1,094,991	29.1	1,022,733	27.2	1,646,415	43.7
2011	3,004,691	100	1,066,604	35.5	803,895	26.8	1,134,192	37.2
2012	3,179,609	100	942,095	29.6	818,133	25.7	1,419,381	44.6

Source: Ministry of Employment and Labor. *The Current Status of the Vocational Training Project*. Yearly.

Subsidy take-ups as a percentage of vocational skills development contributions paid into the employment insurance fund also increased to 30.9% in 2010, especially having hit a record high of 37.2% in 2009. In particular, the take-up rate was on the steady rise until 2009 and SMEs with fewer than 300 employees played a large part in such growth. The rate among large companies with 1,000 employees or more remained at around 22.1%~26.7% after peaking at 39.4% in 2009, while the figure for enterprises with fewer than 50 employees shot up from 20.2% in 2006 to 51.6% in 2009. In short, it is obvious that the gap in training opportunities between large companies and SMEs has gradually narrowed even though the

proportion of enterprises taking training subsidies among those paying vocational skills development contributions into the employment insurance fund has been slightly up or down each year (Ministry of Employment and Labor, 2011).

### 2.3. Promotion of Employers' Investment in In-Service Worker Training

The outcome of the employer-directed training program depends on how much this program has helped to address the related market failure by increasing training among enterprises.

**Table 2-4 | Enterprise Survey: Impacts of Employer-Directed Skills Development Support Policy on Training in Enterprises**

		No. of Cases (workplaces)	The Overall Amount of Training was Determined Independently of Government Support.	Officially-Approved Particular Training Eligible for a Refund of Training Levies Increased, but there was no Change in the Overall Amount of Training.	The Overall Amount of Training Decreased as Emphasis was Placed on Officially-Approved Particular Training Eligible for a Refund.	There was an Absolute Increase in Training Provided by our Company Thanks to Government Support for Employer-Directed Training.	Total
Total		(318)	36.8	30.8	10.7	21.7	100.0
Location	Metropolitan Area	(186)	37.6	31.7	10.8	19.9	100.0
	Non-Metropolitan Area	(132)	35.6	29.5	10.6	24.2	100.0
No. of Employees	1 - 49 Employees	(157)	38.9	23.6	12.7	24.8	100.0
	50 - 299 Employees	(89)	29.2	39.3	11.2	20.2	100.0
	300 Employees or More	(72)	41.7	36.1	5.6	16.7	100.0
Industry	Agriculture/ Manufacturing/ Construction	(169)	35.5	32.0	8.9	23.7	100.0
	Distributive and Personal Services	(36)	41.7	22.2	8.3	27.8	100.0
	Producer and Social Services	(113)	37.2	31.9	14.2	16.8	100.0

Source: Ministry of Employment and Labor (2011). *The First-Year Final Report on Projects Designated and Operated by the Employment Insurance Assessment Center (Vocational Skills Development Project)*.

Research institute: Korea Research Institute for Vocational Education and Training.

As shown in <Table 2-4>, an enterprise survey found that enterprises where the total amount of training was determined irrespective of the government's intervention, such as support for employer-directed skills development training, accounted for the largest proportion at 36.8%. However, among enterprises participating in the government's training support project, 21.7% saw an increase in training amount. The figure was higher than 10.7% which saw a decline. These findings suggest that on the whole, the employer-directed training program has the effect of increasing the amount of education and training in enterprises. In other words, participation in the employer-directed training program is considered to have a positive impact on employers' overall training investment.

A study conducted by Byeong-hee Lee and Dong-bae Kim (2004) using employment insurance data and data provided by the Korea Investors Service also shows that in the case of enterprises which did not participate in the government's vocational skills development project at first but later joined it to receive support, their project participation had a significant effect on their spending on education and training. However, research by An-kook Kim (2008) produced a different result. When he made a simple comparison between enterprises that participated in the government's project and those that did not, he found that the government's vocational skills development project for In-Service workers did have a statistically significant effect on education and training growth. However, when analysed figures after controlling benefits by participating a government enterprise, government intervention had an adverse effect. He then made an analysis that the government's intervention was found to have a negative effect.

To sum up, with only piecemeal and patchy research results, it is difficult to generalize about whether the employer-directed training program is effective in promoting training investment or not. Follow-up research, especially an empirical one, needs to be done for the accumulation of further evidence.

## 2.4. Effect of In-Service Worker Training on Productivity and Wages

Employers' ultimate purpose of providing training opportunities to In-Service workers is to improve productivity. Many empirical studies have been carried out to prove that training In-Service workers leads to higher productivity or better business performance. The following is a summary of main research results.

Yong-jin Nho and Chang-kyun Chae (2009) conducted an empirical analysis using data taken from the Human Capital Corporate Panel Survey by the Korea Research Institute for Vocational Education and Training to find out what effect corporate education and training has on productivity and earnings. They used sales and value added as productivity indicators,

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operating profits as an earnings indicator and per-capita training costs as a training variable. They reported in their study that per-capita training costs had a statistically positive impact on per-capita sales, but no statistically significant impact on value added and operating profits. The study appears to partially support the hypothesis that education and training provided by employers has an effect on productivity.

Chul-in Lee and Kyeong-joon Yoo (2011) analyzed workers' participation in employer-directed training using data taken from the Korean Labor and Income Panel Study by the Korea Labor Institute. According to their analysis, by and large, workers employed in enterprises with a higher net support rate had a greater chance of receiving training, and as a result of making a regression analysis of wage increases during the sample period or estimating wage levels by applying a fixed effects model, they found that workers' participation in training caused a statistically significant increase in wages. In other words, if differences in training amount between enterprises of different sizes were controlled, participation in training made a difference in wage increase rates to some extent. The study concluded that the government's employer-directed training program led to an increase in training, which in turn raised the chances of wage growth.

Ga-woon Ban (2013) conducted an analysis by enterprise size using data from the 2010 Survey on Vocational Training in Enterprises by the Ministry of Employment and Labor to find out whether increased investment in education and training due to government support really enhances business performance. The study found that support for SMEs resulted in a statistically significant increase in their spending on education and training. But this was not the case with large companies probably because of a deadweight loss. Nevertheless, it concluded that on the whole, government support led to a statistically significant increase in training spending among enterprises. Moreover, with regard to productivity growth<sup>3</sup>, no statistically significant effect on productivity growth was observed in large companies, but such support was found to have a positive effect on productivity growth in SMEs. To sum up, enterprises' investment in education and training improved their business performance regardless of their size, and this effect was more evident in SMEs than large companies.

In light of the empirical studies mentioned above, it can be said that Korea's training levy-grant system which collects employment insurance premiums first and pays subsidies in the form of rebates later has realized its purposes, namely higher productivity and better business performance, by promoting the accumulation of human capital by In-Service workers.

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3. Productivity growth is measured on the 5-point Likert scale.

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## 3. Program Background

In Korea, the government's intervention in companies' training policies was institutionalized by the Vocational Training Act and the Basic Vocational Training Act ('obligatory in-plant training system' or 'training levy system'). In its early days (1970s), the focus of the system was placed on supplying new skilled workers to support Korea's intensive investment in heavy and chemical industries. However, the economic slump in the early 1980s caused a decline in new investment, which led to a fall in demand for training aimed at fostering new skilled workers. Meanwhile, changes in job content, which were caused by technological innovations, such as plant automation and systematization, raised the need to improve In-Service workers' competencies on a regular basis. Against this backdrop, upgrade training for In-Service workers became institutionalized as a vocational training program. The historical background and evolution of the program is discussed below.

### 3.1. Fallen Demand for Training of New Skilled Workers

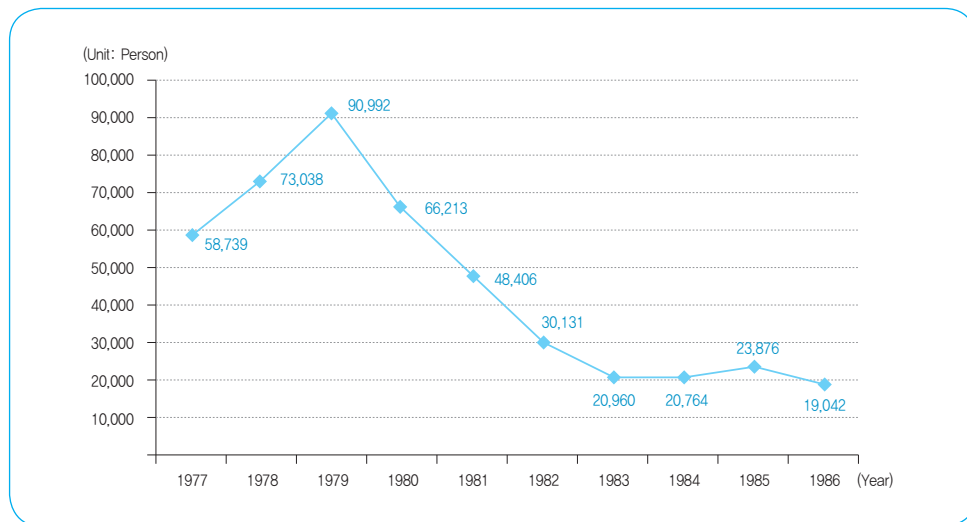
Amid difficult external conditions, such as the continuing global economic recession and spreading trade protectionism, coupled with domestic political and social unrest, the Korean economy suffered from triple distress in the early 1980s: a slowdown in growth due to sluggish exports, a deteriorating balance of payments caused by growing oil imports, and serious inflation. During that period, growth rates were negative and the unemployment rate reached 5.2%. This labor market period can be described as a period of moderate growth and moderate unemployment. In the 1980s, overall economic growth remained high with an annualized growth rate of 7%, but the shift in the industrial structure from labor-intensive industries towards capital-intensive ones influenced the employment structure. Over the decade from 1976 to 1986, the number of people employed in the primary industry fell by 88.1% while that for the secondary and tertiary industries increased by 48% and 86.8%, respectively.

As the economic and industrial structures changed, new demands for vocational training emerged, and rising income levels led to shrinkage of the target group for training, i.e. youths who do not go for higher education. In other words, as the industrial structure changed from labor-intensive industries to technology-intensive ones and from mass production to diversified small-quantity production, high-level multi-skilled workers were needed, and in addition to cultivating new skilled workers, improving the quality and skill levels of existing ones became necessary. Rising incomes and growing social awareness about the importance of education resulted in higher college enrollment rates and a rapid decline in demand for secondary vocational education and short-term vocational training, and this, in

turn, reduced the pool of target people that could be nurtured into skilled workers through training.

[Figure 2-3] shows the trend in the number of new skilled workers fostered through in-plant training from 1977 when the obligatory training system came into effect with the establishment of the Basic Vocational Training Act to 1986 just before the upgrade training for In-Service workers was introduced. People in charge of training at enterprises said that the main reason for such a sharp fall was the skills mismatch which arose as training contents failed to reflect changes in technology and production processes in industries (Young-sun Ra. 1987).

**Figure 2-3 |** Trend in Number of Skilled Workers Fostered through In-plant Training (1977~1986)



Source: Ministry of Labor. *The Current Status of the Vocational Training Project*. Yearly.

### 3.2. Changes in Job Content Caused by Technological Innovation

During the early days of industrialization, there was demand for skilled workers, i.e. those who accumulate their skills through repeated practice. However, as automated facilities developed as a result of technological innovation and were used in production processes, the improvement of workers' competencies was in demand. In other words, technological sophistication and shorter technology development cycles increased the need for In-Service workers to be equipped with knowledge and skills covering the entire range of related fields including pre- and post-processes, as well as the field they specialized in, and made

it necessary for employers to develop various kinds of job skills upgrade training for In-Service workers and provide them flexibly in order to improve productivity and product quality.

In the 1980s, technological innovations based on microelectronics led to factory automation, which in turn, changed workers' job content (<Table 2-5>). As shown in the table below, among job responsibilities that newly emerged, start-up, shutdown and monitoring, measurement, testing, recording, preparation for work transition, jig and fixture adjustment, fault detection and diagnosis, operation and assembly of simple machine tools, etc., were carried out mainly by skilled workers and job improvement, work process improvement, program check, simple repair, etc., were the responsibilities of supervisory skilled workers. Engineers and technicians were in charge of programming, program modification and program checks, installation of programs into robots, workplace improvement, process improvement, relatively large-scale repair, etc. As can be seen from these findings, the purpose of introducing plant automation equipment was to improve productivity and product quality and cut costs, and enterprises made their production sites more rational, efficient and quality-focused. Thus, the focus of workforce training was shifted from new recruits towards field employees, and job skills upgrade training mainly for such employees gradually grew in importance. At that time, more than two-thirds of workers in enterprises were adapting to changes in job content by making constant efforts to learn new job responsibilities that were emerging. (Sung-su Cho et al. 1986).

**Table 2-5 | Job Responsibilities of Plant Automation Equipment Operator**

(Unit: Persons)

	Skilled Employees			Maintenance Workers	Technicians	Engineers	Outsourced Workers	Others	Total
	Semi-Skilled	Skilled	Supervisory Skilled						
Start-up, Shutdown and Monitoring	4	17	8	2	-	3	-	-	24
Measurement, Testing, Recording	-	14	7	4	4	7	1	-	37
Preparation for Work Transition and Jig and Fixture Adjustment	1	16	8	1	4	6	-	-	36
Fault Detection and Diagnosis	1	14	5	5	7	5	-	-	38
Simple Repair	7	10	7	10	3	-	6	-	37
Large-Scale Repair	-	6	5	5	6	10	-	-	38

	Skilled Employees			Maintenance Workers	Technicians	Engineers	Outsourced Workers	Others	Total
	Semi-Skilled	Skilled	Supervisory Skilled						
Programming	1	4	4	2	10	12	-	-	33
Program Modification	1	5	4	2	6	13	-	-	31
Program Check	2	5	7	1	7	11	-	-	33
Designing of Programs for Robots	-	1	1	-	2	10	-	1	15
Operation and Control of Machine Tools, etc.	3	12	5	1	8	2	-	-	21
Assembly	9	12	-	5	1	2	-	-	29
Workplace and Work Process Improvement	-	3	14	1	4	13	-	-	35

Source: Sung-su Cho et al. (1986).

In 1987 a survey was conducted among 9,465 enterprises to find out what changes micro-electronization brought to production skills and workplace organization. The survey found that at first only 0.9% of enterprises had provided education to all employees when introducing microelectronic equipment, but later 53.5% had expanded their scope of target employees (research by the Vocational Training Research Center, 1987). These findings show that technological innovation and the introduction of new technologies inevitably required improving the job skills of incumbent workers.

### 3.3. Changed Standard for Imposing Training Obligation and Expanded Scope of Training Investment Activities

In response to the fall in demand for new recruits and changes in job content caused by technological innovation, the government started to give concrete shape to the system of supporting upgrade training for In-Service workers, for example, by revising the Basic Vocational Training Act. To be more specific, the government changed the standard for imposing the training obligation on employers and expanded the scope of activities that can be recognized as training investment activities by making the fourth amendment to the Basic Vocational Training Act in 1986. The details are as follows.

In its early days, the Basic Vocational Training Act imposed the training obligation on enterprises with 300 employees or more on the basis of a certain proportion of their permanent employees, which was set at different levels according to the industry and enterprise size (<Table 2-6>). The proportion of employees each enterprise was mandatorily required to



train was lowered from 5.7% in 1977 to 1.63% in 1986, and the number of employees receiving training also fell from 58,000 to 19,000 over the same period.

**Table 2-6 |** Proportion of Employees Required to Receive In-plant Vocational Training by Year

Year	No. of Enterprises Subject to Training Obligation	% of Employees Required to Receive Training (based on number of ordinarily employed workers)	No. of Training Recipients	Year	No. of Enterprises Subject to Training Obligation	% of Employees Required to Receive Training (based on total payroll)	No. of Training Recipients
1977	1,102	5.7	58,739	1987	1,537	0.173	14,774
1978	1,095	6.2	73,038	1988	1,573	0.195	20,560
1979	1,223	3.14	90,992	1989	1,612	0.176	17,570
1980	1,103	3.14	66,213	1990	2,575	0.300	31,363
1981	1,103	4.13	48,406	1991	2,675	0.479	52,602
1982	1,106	2.44	30,131	1992	3,417	0.619	122,457
1983	1,185	1.78	20,960	1993	3,557	0.673	122,151
1984	1,263	1.82	20,764	1994	3,573	0.716	152,030
1985	1,341	1.73	23,876	1995.1-6	3,776	0.671	79,725
1986	1,398	1.63	19,042	1995	390	0.831	160,413
				1996	377	0.739	151,303

Source: Ministry of Labor. *The Current Status of the Vocational Training Project*, Yearly

Note 1: The scope of enterprises subject to the training obligation was extended from those with 300 employees or more in 1977 to those with 200 employees or more in 1989 and further to those with 150 employees or more in 1992.

Note 2: The Basic Vocational Training Act applied only to large companies with 1,000 employees or more after July 1995 as the obligatory in-plant vocational training system was integrated into the vocational skills development project under the employment insurance system in 1995.

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In the early 1980s, the number of enterprises providing in-plant training, which played a leading role in fostering craftsmen and the number of training recipients began to dwindle, and there were serious labor shortages in the so-called 3D industries. Faced with this situation, the government revised the Basic Vocational Training Act in 1987 to change the standard for imposing the training obligation on employers.<sup>4</sup> The standard was changed from ‘the number of ordinarily employed workers in the previous year’ to ‘the total payroll in the previous year’. Each eligible enterprise was mandatorily required to spend for vocational training purposes the amount calculated by multiplying the total annual wages to be paid to its employees by the rate determined and announced by the Minister of Labor each year by industry and enterprise size within the limits of 20/1000 of the total payroll. In addition, the scope of activities on which enterprises could spend their mandatory training budgets was extended from the activities of providing training to the activities of setting up facilities, equipment and related infrastructure. Specific activities included providing in-plant vocational training; supporting other training providers designated by the Minister of Labor; helping workers employed by the enterprise concerned to receive education and training; and installing and purchasing the facilities and equipment necessary for vocational training. In the 1980s, the paradigm of state-led labor supply, which was adopted to prop up rapid economic growth in the 1970s, faded, and continuous upgrade training for In-Service workers, which could support stable growth, gained importance (Young-sun Ra et. al. 2011).

### 3.4. Reorganization of Vocational Training System into Vocational Skills Development Project under Employment Insurance

In the mid-1990s, training most needed by enterprises was ‘training for professional and skilled workers (28.3%)’ which was followed by ‘training aimed at improving the job performance skills of clerical workers (28.3%)’ and ‘training for new recruits (19.8%)’. Enterprises that needed initial training which was provided to recruited vocational trainees accounted for only 2.8% (<Table 2-7>). In order to reflect such training needs, the obligatory in-plant vocational training system that focused on fostering new skilled workers was integrated into the vocational skills development project under the employment insurance system, which was aimed at helping In-Service workers improve their overall job skills.

4. At that time, there was a growing tendency for employers to provide training mainly in occupational areas incurring lower training costs because they wanted to reduce cost burdens, or to fulfill their training obligation in a way that kept training levies lower than training costs.

**Table 2-7 | Training Most Needed by Enterprises in Mid 1990s**

Type of Training	Frequency	Percentage
Initial Training for Recruited Vocational Trainees	11	2.8
Training for New Recruits	79	19.8
Training to Improve Clerical Employees' Job Performance Skills	100	25.0
Job Transition Training for Employees Subject to Employment Adjustment	9	2.3
Skills Upgrade Training for Production Employees	58	14.5
Training for Managers and Supervisors	24	6.0
Training for Professional and Skilled Workers	113	28.3
Others	6	1.6
Total	400	100.0

Source: Kil-sang Yoo. *The One-Year Implementation of the Employment Insurance System: Evaluation and Improvement Measures*. Korea Labor Institute.

The employer-directed training program was activated in earnest after the obligatory in-plant vocational training system was abolished and the vocational training system was reorganized into the vocational skills development project under the employment insurance system. With a view to supporting lifelong vocational skills development, Korea changed the Basic Vocational Training Act into the Workers Vocational Training Promotion Act (currently Workers Vocational Skills Development Act) in 1999, and set out to implement the employer-directed training program, reflecting corporate demand for training of In-Service workers.<sup>5</sup>

## 4. Implementation Strategy and System

### 4.1. Legislative and Institutional Improvements

The concept of vocational skills development for In-Service workers has been clearly stated in law since the establishment of the Basic Vocational Training Act. At that time, Article 25 of the Act recommended the training of employed workers. It stipulated that an employer should provide vocational training to employed workers during working hours, could provide it for up to 2 hours a day or 12 hours a week and need not pay premium pay

5. Although the vocational skills development project under the employment insurance system was introduced for enterprises with 70 employees or more in 1995, in parallel with the project, the obligatory in-plant vocational training system continued to apply to large companies with 1,000 employees or more for several years after the introduction.

for the overtime or night work caused by such training. However, in the 1970s when the law was enacted, training for employed workers was never actively provided. It started to take off only after the government changed the standard for imposing the training obligation in 1987, specified that the cost of training employed workers was included in the scope of training costs eligible for support, and revised the Basic Vocational Training Act in 1991 to reorganize vocational training courses into a job skills upgrade training system, including initial training, upgrade training, outplacement training and re-training, taking into account each career stage. The employer-directed training program, institutionally underpinned by the Employment Insurance Act and the Workers Vocational Skills Development Act, started in earnest at the beginning of the 2000s when technological innovation gathered momentum and the spread of information technology completely transformed working environments.

Major changes to the Basic Vocational Training Act, the Employment Insurance Act and the Workers Vocational Skills Development Act (previously Workers Vocational Training Promotion Act) in relation to In-Service worker training are summarized in <Table 2-8>.

**Table 2-8 | Legislative Changes Relating to Employer-Directed Training  
(In-Service Worker Training)**

		Main Features	Remarks
Basic Vocational Training Act	Enacted in 1976	Vocational training received by employed workers was considered services offered under labor contracts. Working hours and wages applicable during vocational training were stipulated in a separate provision	
	Amended in 1981	The obligation to provide upgrade training and re-training was also imposed under the obligatory in-plant vocational training system	The legal ground for In-Service worker training was established
	Amended in 1986	The scope of activities recognized as the activities of fulfilling the training obligation was expanded to include vocational training and other related activities (① providing in-plant training ② supporting other vocational training providers (Korea Vocational Training Management Agency) ③ helping employed workers receive education and training ④ supporting the establishment of vocational training facilities and the purchase of training equipment)	It became mandatory to spend money equivalent to a certain proportion of training levies on training In-Service workers

		Main Features	Remarks
Basic Vocational Training Act	Amended in 1991	Vocational training courses were reorganized into a job skills upgrade training system that distinguished initial, upgrade, outplacement and re-training	
	Amended in 1993	A provision aimed at protecting and fostering vocational training corporations was newly established to promote private vocational training	Entrusted training for In-Service workers was promoted by expanding the training market
	Repealed in 1997	The Workers Vocational Training Promotion Act was enacted	
Workers Vocational Training Promotion Act (Workers Vocational Skills Development Act)	Enacted in 1997	The obligatory in-plant training system under the Basic Vocational Training Act was abolished. This Act stipulates the requirement for employers to devise a plan to develop and improve In-Service workers' vocational skills and support for employers' skills development training costs	The employer-directed training program was introduced
	Amended in 2004	The Workers Vocational Training Promotion Act was changed into the Workers Vocational Skills Development Act	
Employment Insurance Act	Enacted in 1995	This Act stipulates that support for employers' vocational skills development training, and programs for workers covered by employment insurance, which are subject to the Workers Vocational Skills Development Act, are financed from the employment insurance fund	

Source: Ministry of Labor, Employer-Directed In-Service Training law.

## 4.2. Sources of Funding

Most countries rely on one of the following three systems to finance vocational training: a payroll tax system where payroll taxes are collected simply to finance training; a levy-grant system where levies are collected from enterprises first and returned later if they provide training; and a levy-exemption system where enterprises, if providing training, are exempt from paying levies. Korea relied on a levy-exemption system while implementing the obligatory in-plant vocational training system under the Basic Vocational Training Act, but switched to a levy-grant system after its vocational training system was reorganized into the vocational skills development project under the Employment Insurance Act in 1998.

The obligatory in-plant vocational training system continued to exist until 1998. (It applied only to large companies with 1,000 employees or more from 1995 to 1998, but since 1999 these companies also have been subject to the employment insurance system.) During that period, employers invested in voluntarily fostering new skilled workers as a way of fulfilling the training obligation. The vocational training promotion fund was created with levies paid by enterprises that failed to comply with the in-plant vocational training obligation, and used to finance public training, companies' training facility and equipment costs, and relevant surveys and research.

The employment insurance system, implemented since 1995, takes a levy-grant approach. It requires enterprises to pay employment insurance premiums equivalent to a certain proportion of their total payroll for the purpose of funding the vocational skills development project, and provides selective support to private or public training institutions, individual enterprises or non-enterprise organizations and companies or workers (including unemployed people). The system is designed in a way that requires only employers to bear the costs of the employment security and vocational skills development projects. How the size of workplaces subject to the system has changed is shown in the table below. In their early days, the employment security and vocational skills development projects applied only to workplaces with 70 employees or more, but the scope of application was extended to all workplaces with one employee or more in 1998. Three different employment insurance premium rates have applied depending on the enterprise size (<Table 2-9>).

**Table 2-9 | Changes in Size of Workplaces Subject to Employment Insurance System**

Insurance Project	Size of Workplaces Subject to EI System						
	Jul. 1, 1995~ Dec. 31, 1996	Jan. 1, 1997~ Dec. 31, 1997	Jan. 1, 1998~ Feb. 28, 1998	Mar. 1, 1998~ Jun. 30, 1998	Jul. 1, 1998~ Sept. 30, 1998	Oct. 1, 1998~ Dec. 31, 2003	Jan. 1, 2004~
Unemployment Benefit	30 employees or more		10 employees or more	5 employees or more		1 employee or more	
Employment Security, Vocational Skills Development	70 employees or more		50 employees or more		5 employees or more	1 employee or more	
(Total construction cost in case of construction businesses)	(KRW 4 bil.)	(KRW 4.4 bil.)	(KRW 3.4 bil.)		(KRW 340 mil.)		(KRW 20 mil.)

Note: In the case of construction businesses, the applicable cost standard is for the three projects (unemployment benefit, employment security and vocational skills development projects).

Source: Ministry of Labor. *Employment Insurance White Paper*. Yearly

**Table 2-10 | Insurance Premium Rate by EI Project**

		Until Dec. 31, 1998		After Jan. 1, 1999		After Jan. 1, 2003		After Jan. 1, 2006		After Apr. 1, 2011	
		Employee	Employer	Employee	Employer	Employee	Employer	Employee	Employer	Employee	Employer
Unemployment Benefit Project		0.3%	0.3%	0.5%	0.5%	0.45%	0.45%	0.45%	0.45%	0.55%	0.55%
Employment Security Project			0.2%		0.3%		0.15%		-		-
Vocational Skills Development Project	Enterprises with Fewer than 150 Employees		0.1%		0.1%		0.1%		0.25%		0.25%
	Enterprises with 150 Employees or More (preferentially supported enterprises)		0.3%		0.3%		0.3%		0.45%		0.45%
	Enterprises with 150-1000 Employees		0.5%		0.5%		0.5%		0.65%		0.65%
	Enterprises with 1000 Employees or More, Central and Local Governments (Those obligated to provide training)		(0.05%)		0.7%		0.7%		0.85%		0.85%

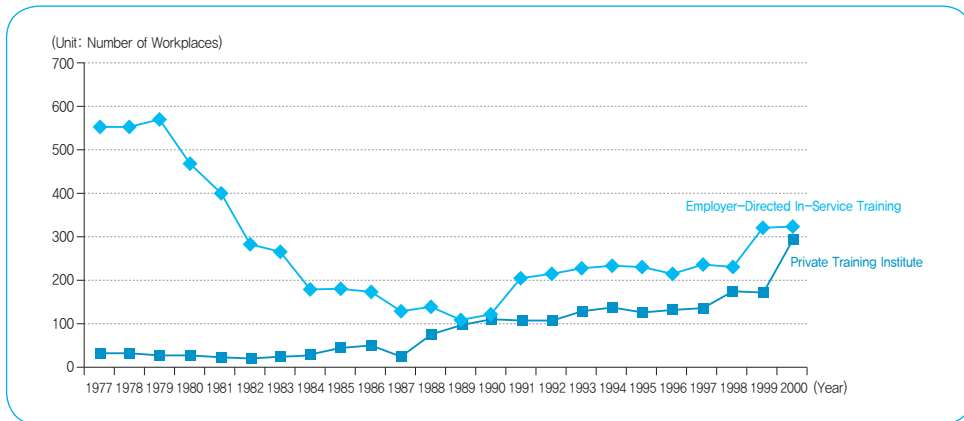
Source: Ministry of Labor, *Employment Insurance White Paper*. Yearly.

As shown in <Table 2-10>, employment insurance premium rates have been different depending on enterprise size. For instance, since 2011, 0.25/1,000 has applied to enterprises with fewer than 150 employees and 0.85/1,000 to large companies with 1,000 employees or more. As for the effect of training on job separation, it has been considered that large companies experience relatively few or no market failures when it comes to workforce training. However, given workers' frequent moves especially to large companies (poaching) and the widespread practice of hiring experienced workers in Korea, companies should be required to bear differentiated responsibilities for workforce training on the basis of their size. For this reason, differentiated training levies have been imposed based on enterprise size since the early days of the system.

### 4.3. Training Institutions and Training Courses

When the Basic Vocational Training Act was enacted in 1977, there were 79 public training institutions, 558 in-plant training institutions and 33 authorized training institutions in Korea. However, the number of training institutions dwindled as in-plant training shrank in the 1980s, but grew again to 242 in the 1990s. At that time, in-plant training institutions focused on fostering new skilled workers, but as In-Service worker training kicked in, entrusted training provided by private training institutions, i.e. training institutions other than public and in-plant training institutions, became mainstream ([Figure 2-4]). The growth of private training facilities, as shown in [Figure 2-5], was because the government considerably relaxed the criteria for setting up training institutions and launching training courses under the Workers Vocational Training Promotion Act. Before this deregulation, training institutions were required to have the facilities, equipment, vocational training materials and instructors specified in the vocational training standards (standard training) and obtain approval for their vocational training plans before implementing vocational training. However, to make anyone who provides vocational training eligible to receive support, the government introduced the concept of ‘non-standard training’ which recognizes vocational training courses developed by training providers, and applied that concept to upgrade training for In-Service workers (Taek-soo Jeong, 2008).

Figure 2-4 | Trend in Number of Private Training Institutions (1977~2000)

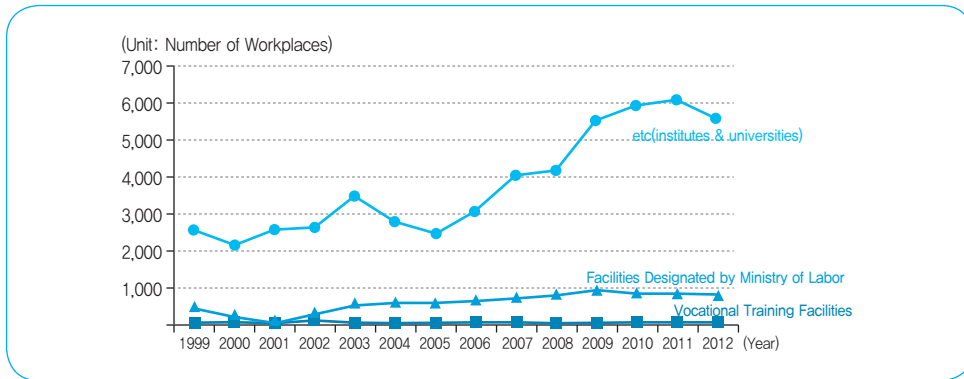


Note: Private training facilities refer to training facilities recognized before 1998 and vocational skills development training facilities designated pursuant to the Workers Vocational Training Promotion Act in 1999. The Basic Vocational Training Act permitted public organizations and organizations other than employers to become training providers, and as a result, authorized training facilities, such as not-for-profit corporations and social welfare corporations, were classified as private vocational training facilities.

Source: Ministry of Labor. *The Current Status of the Vocational Training Project*. Yearly.



Figure 2-5 | Trend in Number of Private Training Institutions (1999~2012)



Note: Corporations mean vocational training corporations. Designated facilities mean facilities designated by the Ministry of Employment and Labor. Other institutions mean educational institutes, colleges, etc.

Source: Ministry of Employment and Labor. *The Current Status of Vocational Skills Development Training*. Yearly.

According to research<sup>6</sup> by Young-hoon Oh et al. (2005), which analyzed training courses for In-Service workers using HRD-net database, 30-day or shorter training accounted for 72.6% of all training courses for In-Service workers, which was followed by 91~120-day training (9.3%) and 31~60-day training (8.3%). By training method, domestic off-the-job training took up the largest share (55.0%), which was followed by internet-based correspondence training (28.8%) and mail-based correspondence training (16.6%). By training areas, service, clerical and managerial and financial occupations accounted for more than half of all training courses, which was followed by electricity, electronics and information and communications. Training provided directly by enterprises accounted for 35.1%, and 56.1% of incumbent worker training took the form of entrusted training (8.8% were self-entrusted training).

6. The research analyzed 89,212 people who participated in In-Service worker training in 2005.

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## 5. Success Factors and Limitations

### 5.1. Securing Stable Funding from Employment Insurance Fund

Korea could promote employer-directed training basically because it was able to secure a stable source of funding for such training. The employer-directed training program, under which employers should pay a certain amount of vocational skills development contributions calculated according to the employment insurance premium rates related to the unemployment benefit project each year and can get a refund of those contributions only if they provide training, has provided an incentive for enterprises to invest in training. Most SMEs pay employment insurance premiums, too, but they tend to be unaware of the need for training or incapable of providing training. So their contributions are often regarded as taxes that cannot be returned. But in fact, employment insurance premiums paid by SMEs go into the employment insurance fund and are used to subsidize training in occupational areas experiencing labor shortages, allowing SMEs to benefit indirectly from the program. On the other hand, large companies are reimbursed for only about 80% of their actual training costs, which means that they have to put more money into providing training. Consequently, most of the cost of financing the vocational skills development project has been borne by large companies. In this sense, large companies' active participation in the program was one of the important factors behind its success.

### 5.2. Expanding In-Service Worker Training Market through Deregulation

Under the obligatory in-plant vocational training system, employers were recommended to train their workers at their own training facilities. However, the cost of installing training facilities and operational and administrative burdens impeded the promotion of In-Service worker training. To address this problem, the Korean government not only actively utilized public training institutions but also amended relevant regulations to make various private education and training facilities provide training programs for In-Service workers. By doing so, it promoted employer-directed training entrusted to private training institutions.

### 5.3. Ensuring Equality through Support Differentiation Based on Enterprise Size

In Korea, unlike other countries, there is continuity between the obligatory in-plant vocational training system and the vocational skills development project. So from the beginning, the government has provided a differentiated support based on the enterprise

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size given the SMEs' low ability to pay for training. Some scholars argue that despite such support differentiation, SMEs face relatively difficult training conditions compared to large companies that enjoy good training environments (or because of large company-oriented training policies and systems) even though they pay employment insurance premiums. Nevertheless, applying differentiated employment insurance premium rates has helped to ensure equality between enterprises of different sizes. The government also ensures such equality by implementing other support systems, such as the SME-specific training program and the employee-directed training program for SMEs.

#### 5.4. Deregulation and Administrative Burden

The employer-directed training program has achieved some success in expanding training opportunities and ensured equality between enterprises of different sizes. In spite of this, enterprises are constantly demanding an improvement of the government's rigid support procedures. They also call for an expansion of the scope of training courses eligible for support and an increase in training subsidies, as well as an improvement of the administrative procedures. According to a survey of enterprises participating in the employer-directed training program under the employment insurance system in 2011, 35.8% of enterprises received support for all of their education and training from the employment insurance fund, and 31.4% provided training that did not meet the support requirements. The rest provided training but did not receive support from the employment insurance fund. They cited 'complicated and difficult application procedures' as the biggest reason for failing to receive support. The second and third biggest reasons were 'did not apply because the amount of subsidy was too small' and 'did not know the program'. This implies that the administrative procedures for providing skills development subsidies to employers need improvement (Ministry of Employment and Labor. 2011).

It was also found that SMEs are reluctant to provide employer-directed training which is not classified as SME-specific training for various reasons, such as lack of awareness of the need for training, lack of knowledge about training contents and methods, lack of time and lack of related professional workers. It may be difficult to find a single unified solution that can address various problems arising due to the unique characteristics of SMEs all at once. However, the government is seeking ways to redesign In-Service worker training in a way that can address SMEs' potential training needs and thus encourage their participation in training. One such way is to set up a consultative body at the regional and industry levels to make a concerted response.

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## 5.5. Lack of Incentive for Training Participation

Most workers participating in employer-directed training think that such training is helpful in performing their present work (results of a survey of workers participating in employer-directed training in 2010). As high as 80% of workers say that their job skills have been improved through training. However, it is very rare that employers take account of training experience when evaluating employee performance or making a decision on a promotion or salary increase. Therefore, one of the challenges that need to be tackled in the future is the insufficient incentive for workers to participate in training. Employers, too, recognize that the employer-directed training program is very important to companies and is designed to meet their training needs. However, the difficulty of objectively measuring its visible effects on productivity discourages employers from providing such training actively. In other words, from the viewpoint of both employers and workers, one problem with the employer-directed training program is the lack of incentive for training participation.

## 6. Implications for Developing Countries

Korea's measures, such as securing a stable source of funding for training, ensuring equality by differentiating support according to enterprise size, and supplying quality education and training programs by expanding the training market, can be used as benchmarks by developing countries to design and activate their vocational skills development projects for In-Service workers. However, in such cases, they should take into account of the following points.

First, in the case of a developing country, it is desirable that vocational training should be led by the government in its early days but, after a certain time, should be operated mainly by the private sector since it is a public good highly likely to lead to a market failure. In this sense, Korea's system which requires employers either to provide in-plant training or to pay a training levy in order to promote companies' participation is quite appropriate. However, the training levy system could impose too heavy a burden on enterprises ill-prepared for such a system. Therefore, it is necessary to have an adjustment period by phasing in the system, starting with large companies. Strong government leadership and legal backing are also needed to enforce it.

Second, Korea was clearly aware of the limitations of private enterprises from the beginning of industrialization, so the government directly selected industries in need of development and then pursued development in those industries. This was a very useful strategy in the early stage of industrialization, and Korea saw a gradual increase in demand for In-Service worker training as the industrial structure became sophisticated. As the private sector grew and led the economy, the government reduced its role in training supply

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and integrated its training project into the employment insurance system involving the private sector. However, this phased development strategy is not appropriate for developing countries, which have already introduced a social safety net, such as unemployment insurance. They may need a comprehensive approach that can simultaneously address various problems in society.

Third, Korea implements the policy of preferentially treating SMEs in a corporate ecosystem where large companies and SMEs co-exist, thereby pursuing equality of training opportunities for In-Service workers. However, in developing countries where there is a weak link between enterprises of different sizes and workforce demand has yet to take concrete shape, it is difficult to figure out demand for skills development for In-Service workers among SMEs.



### SME Training Consortiums

1. Objectives and Contents of the Training Consortiums Project
2. Achievements and Impacts of the Training Consortiums Project
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# SME Training Consortiums

## 1. Objectives and Contents of the Training Consortiums Project

The project aimed at preventing further aggravation of unemployment and improving the productivity of SME workers by helping a group of SMEs organize themselves for the management of in-service training of their workers. The pilot project focused on SMEs (enterprises employing less than 300 workers) because they were hit hardest by the Asian financial crisis in 1997-98, held greater capacity for employment, and had lower productivity. Like in many other developing countries, small and medium enterprises (SMEs) in Korea accounted for about half the national income and exports, and 86% of total employment. Therefore, in the aftermath of the financial crisis, the government wanted to develop the human resources of SMEs and improve productivity and welfare of their workers.

To stem further deterioration of unemployment, SMEs needed to retain their current workers and even increase their employment. This would prove impossible unless the skill levels and productivity of their workers were improved. For training of workers, the already existing training-levy rebate incentive system provided more favorable incentives to SMEs. However, SMEs did not avail themselves to the training incentive system actively. The challenge that the government faced was how to encourage SMEs to provide training programs for their workers, taking advantage of the training-levy rebate incentive, which was more favorable to SMEs, and ultimately improving productivity. The government attempted to confront the challenge with the SME Training Consortium Project.

The project consisted of four phases: (i) Planning and organization of a training consortium, (ii) Training-needs survey and training program development for each member SME, (iii) Training service provision and monitoring, and (iv) Outcome evaluations. The



focus of the activities was that each local Chamber of Commerce and Industry helped a group of 30-50 SMEs organize into a training consortium (TC) by financing and seconding two training managers to each TC. The cost of the training managers is financed by the government. Each TC formed an operating committee (OC) to manage its training tasks. The OC was composed of representatives of TC members, local Chamber, Ministry of Labor field office, and training experts, and met periodically for the planning and management of the training affairs of the TC members. The objective was to encourage SMEs to organize themselves to launch skills training programs for their workers voluntarily and in partnership with other stakeholders (Lee 2006). To achieve this objective, the project provided a group of organized SMEs with training specialists financed by public funds to relieve the organizational, informational, and financial constraints that SMEs face in developing their human resources. Individually, each SME could not afford to recruit its own training specialist.

Other countries have adopted similar systems to provide financial incentives to SMEs so that they undertake the training of their workers, such as the tax incentive systems (e.g., World Bank 2002) or levy rebate systems (Gill et al. 1999). However, the TC project was different from the simple tax incentive system in the sense that it obligated all enterprises to pay training levies in advance irrespective of the fact that they offered in-plant training or not. In this way, it discouraged free-riders and encouraged SMEs to provide training for their workers first. Moreover, the project mobilized additional public resources for the financial incentives to the members of a TC by providing training managers for a group of SMEs who became members of a TC. The TC project also diverged from the simple levy rebate system by providing preferential rebates to SMEs vis-à-vis large enterprises. The TC project was unique in the sense that the financial incentives were provided to each TC instead of individual SMEs. In other words, training managers' services were made available to a group of SMEs who became members of a TC, thus economizing public resources and at the same time helping SMEs fill their gap in institutional and technical capacities.

## 2. Achievements and Impacts of the Training Consortiums Project

Evaluation of achievements and impacts of the pilot project focuses on (i) The organization and operation of the TC; (ii) Participation in in-service training; (iii) Training-levy rebates to SMEs; and (iv) Other outcomes (such as promotion of SME productivity, prevention of unemployment, shift to a demand-driven training system, enhanced competition and cooperation in training markets; and strengthened partnership between public and private

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entities in training affairs). Before discussing the achievements and impacts, methodology and data of our evaluation study are discussed.

## 2.1. Methodology and Data of Evaluation

The objective of our evaluation of the pilot Training Consortia Project is not to compare the costs and benefits of the training programs themselves. Many studies in the literature have already vouched for the efficiency and economic viability of enterprise-provided training programs in different parts of the world, including Korea (Bartel 2000; Barret and O'Connell 2001; Groot 1995; Kim et al. 2003; Lee et al. 2004). On the basis of this accumulated knowledge of the high returns to investment in employer-provided training programs, this study rather attempts to assess whether the government policy through the pilot project has been effective. In other words, did the government policy stimulate and encourage SMEs to undertake training programs for their workers voluntarily, and redress inequities caused by the training-levy rebate system. The reason for this focus of our assessment is that even though the training programs' financial and economic returns to individual workers of SMEs were much higher than to those of large enterprises, few SMEs participated in the training of their workers under the training-levy rebate incentive system.

To assess the effectiveness of the government policy scientifically, it is necessary to collect data on the outputs and the effects on the pilot project TC groups, and compare them with the experience of the SME groups that have similar social and economic characteristics but did not receive the project assistance (Grossman 1994). Since no control groups were selected randomly before launching the pilot project, this scientific and experimental evaluation method could not be used.

Therefore, a quasi-experimental method had to be adopted by selecting control groups after the pilot project was launched and by adjusting for differences in observable and unobservable attributes of the control and experimental groups. As experimental groups, this study takes the SMEs, which were members of the TCs in Busan, Kwangju and Incheon, depending on the data available. As control groups, this study has adopted "all SMEs nationwide" and "all enterprises nationwide." Ideally, the differences in the observable and non-observable attributes of the experimental and control groups have to be adjusted or corrected. However, it is assumed that the experimental groups are randomly selected from the control groups since the individual experimental group is so small compared with the control groups, and there are no clear distinctions between SMEs of different regions in terms of factors affecting training.

For the experimental groups, the data were collected from surveys of the TC-member SMEs, which were conducted through questionnaires with the help of the Korea Chamber of Commerce and Industry (KCCI) at the beginning (June 2001) and at the end of the pilot project (December 2001 and June 2002). These survey data were complemented by intensive interviews with managers and workers of selected SMEs in each of the three cities at the same time as the surveys (Lee 2006).

Data for the control groups were obtained from the Quarterly Employment Trends of the Employment Information Center of the Human Resources Development Service of Korea, and the Current Situation of the Occupational Skills Development Program, and the annual report of the Ministry of Labor.

## 2.2. Organization and Operation of Training Consortia

Originally, the project aimed to organize 90-member SMEs into three training consortia (TCs). However, the project actually started with 163-member SMEs in three TCs, one in each of the three chamber areas. By the end of 2002, TC members increased to 732 SMEs—an increase of four and half times the original number of SMEs. The 557 member SMEs in June 2002 had a total of 14,043 workers with 65 percent of them being production workers. About 70 percent of the member SMEs were those with less than 50 workers and were located in the industrial zones developed by the government.

Despite the sharp increases in the number of member SMEs, only one TC was maintained in each of three areas throughout the project implementation period. This enabled each TC to enjoy economies of scale. However, each TC's operational effectiveness was gradually lowered to less than optimum, having too many and diverse member SMEs belonging to different industrial associations. As a result, the training managers (TMs) could not provide tailor-made advice and attention to each member SME. Also, the TC lost homogeneity and solidarity among member SMEs. It became difficult to organize training courses to accommodate the diverse but small number of workers of each member SME belonging to different industrial sectors. Each course had too small a number of trainees to offer courses economically. This prodded TMs to increase the number of member SMEs irrespective of their industrial sector. This in turn aggravated the problem of organizing economical courses. In retrospect, it would have been better to organize each TC by SMEs belonging to the same trade association, as originally planned, and the ratio between two TMs and about 30 SMEs of each TC should have been maintained.

## 2.3. Participation in In-Service Training

The output of the project was impressive. In the in-service training courses for workers already-employed in SMEs, a total of 6,573 persons were trained. This number far exceeds the number of workers identified initially by employers in the training needs survey as requiring in-service training (3,087) and accounts for almost half the total number of workers in all member SMEs of the three pilot TCs (<Table 3-1>). Another notable fact is that about 50 percent of all trainees had more than 10 years of service with the member SMEs (Lee 2006).

Most courses lasted from 1 to 30 days, and about 60 percent of the total workers who participated in the training programs went through only one training course per worker, and the balance of the workers took two or three training courses per worker. The subjects of training courses were not confined to technical skills, but also included management, accounting, tax administration, and motivation skills of middle and high level managers. This is a good sign that was not noted in the past since public training centers did not offer such courses. Studies abroad indicate that among many types of enterprise training, economic and administrative training yields much higher wage gains than technical training (Groot 1995).

Training programs and materials were developed by contracted training institutions and the training managers. Altogether, 65 training programs were developed on the basis of the analyses of 140 job categories, 147 modular training syllabi and texts were developed for 14 job categories. Also, 13 programmed learning materials were prepared for trainees to study using computers.

**Table 3-1 | Output of In-Service Training for Employees (2002)**

(Unit: Person)

	Total	Busan	Incheon	Gwangju
Actual Trainees*	6,573	2,353	1,837	2,383
Planned Trainees	3,087	871	1,573	643
Actual / Target (%)	213%	270%	117%	371%

Note: \* Multiple counted each time a worker was trained.

Source: KCCI.

## 2.4. Training-Levy Rebates to SMEs

The project accorded substantial financial benefits to member SMEs by helping them organize the training of their workers and then get reimbursements of their training expenses from the training-levy (a part of the unemployment insurance) funds. Before the initiation of this pilot project, the SMEs had rarely provided training opportunities for their workers, and therefore had not been able to get their training levy rebated.

With the advent of the pilot project, training managers facilitated training opportunities for SMEs workers, which enabled active participation in the reimbursement process. Consequently, the proportion of TC-member enterprises offering training to their workers increased from 11 percent to 50 percent, an increase of 451 percent. This compares favorably with an increase from 21 percent to 57 percent or an increase of 271 percent for all sizes of enterprises nationwide (<Table 3-2>).

**Table 3-2 |** Number of TC-Member SMEs Participating in Training-Levy Rebates

Area	Pre-Project (Jan.-May 2001)	Post-Project (Jan.-June 2002)	Percentage Increase (%)
Busan	31	127	410%
Incheon	56	118	211%
Gwangju	110	172	156%

Source: KCCI and Employment Information Center.

The TC-member training-levy recovery rate (the ratio between the training levy paid by member SMEs and the reimbursement received for training workers) of the Busan TC increased from 24 percent of total paid training levies to 48 percent, which contrasts with the decrease from 25.5 to 14.6 percent for all SMEs nationwide. The amount of the recovered training levy in the Busan TC area was increased by 18 million won during the pilot project period (<Table 3-3>). The regressive outcome of the training-levy rebate system was effectively redressed.

**Table 3-3 | Training-Levy Recovery**

(Unit: Won)

	2001 (Jan.-Dec.)	2002 (Jan.-Dec.)	Increases
<b>Busan TC Members</b>			
- Total Training Levy Paid	116,138,630	95,990,480	-20,147,110
- Total Rebates	28,129,250	46,489,050	18,359,800
- Recovery Rate	24.2 %	48.4 %	200%
<b>All Enterprises Nationwide</b>			
- Recovery Rate	33.0%	24.8%	-25%
<b>All SMEs Nationwide</b>			
- Recovery Rate	25.5%	14.6%	-43%

Source: KCCI/Busan and Employment Information Center.

## 2.5. Other Results of the TC Project

Although this study does not attempt to make a cost-benefit analysis of the project, it is appropriate to mention some positive outcomes. The project promoted SME worker productivity, solving the most critical SME problem of skilled manpower shortage, and helped prevent unemployment. In addition, the project also motivated the government and training institutions to shift their training policy towards a demand-driven system; developed new working relationships between SMEs and training institutions; and promoted a partnership between private sector associations and public/non-governmental organizations (Lee 2006).

### 2.5.1. Promotion of SME Productivity

This project enhanced the capability of SME workers and promoted SME productivity. For example, in the welding course, trainees scored only an average of 65 points on a skills test before the course; however, they scored 93 points on average after the course (Busan Chamber area).

At an ex-post evaluation through interviews with member SMEs, employers revealed that workers' job performance and productivity improved sharply after training (81 percent of total responses); savings in maintenance and repair expenses resulted (67 percent of responses); factory machinery utilization factor increased (88 percent of responses); waste or defective products declined (72 percent of responses) (Incheon Chamber area). Also, many employers indicated that workers attitudes towards their jobs changed most noticeably (88 percent of responses) (Gwangju Chamber area).

Interestingly, the practice of poaching or scouting workers by other enterprises declined substantially since all SMEs of the same trade and area joined the TC. Industry-wide collective action reduced the risks of training and poaching. Thus, workers stayed longer with the same SME and consequently, SME productivity was enhanced.

### 2.5.2. Prevention of Unemployment

This project helped prevent SME workers from becoming unemployed. This effect of the project was important in the aftermath of the Asian financial crisis when the level of unemployment was unusually high (from the usual 3% to almost 8%). According to the TC survey conducted in June 2001, those member SMEs that participated actively in the training programs of a TC were reluctant to lay off their workers and, in fact, slightly increased the overall employment level by 1.7 percent (81 persons). In contrast, those member SMEs that did not participate in the training programs of a TC, suffered from a reduction in the total employment level by 8.8 percent (436 persons), aggravating the unemployment level of their workers (<Table 3-4>) (Lee 2005). Although these statistics may be criticized on the basis of possible selection biases, there is no strong reason to suspect that TC members had sharply different business prospects since they all joined the same TC voluntarily at the same time for a similar purpose.

**Table 3-4 |** Employment Level of Participating versus Non-Participating SMEs in Training

(Unit: Person)

		Pre-Project (June 2001) Employment	Post-Project (June 2002) Employment	Changes in Employment (%)	No. Enterprises Sampled
Participating SMEs	Total	4,850	4,931	81 (1.7)	63
	Busan	1,069	1,057	-12 (1.1)	17
	Incheon	1,691	1,637	-54 (3.2)	17
	Gwangju	2,090	2,237	147 (7.0)	29
Non- Participating SMEs	Total	4,960	4,524	-436 (8.8)	97
	Busan	786	755	-31 (3.9)	19
	Incheon	2,888	2,870	-18 (0.6)	47
	Gwangju	1,286	899	-387(30.1)	31

Source KCCI.

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### 2.5.3. Demand-Driven Training Systems

The pilot training consortiums project enabled TC-member SMEs to meet their training needs, especially in-service training needs. The project demonstrated the need for, and feasibility of, shifting the emphasis of training from exclusively pre-service training toward in-service training of SME workers on the job. While demographic and economic growth rates have stabilized, reducing the supply of and demand for young trainees, the need for training has increased for already-employed workers to adapt their job skills to restructured industry, changing technology, and shortening product life-cycles.

Before this project, large enterprises could conduct in-service training in their own training facilities, while SMEs lacked the financial or managerial capacity and staff to establish and operate their own or joint-training facilities. Until the training consortium was organized, training in SMEs had depended entirely on public training institutions that concentrated on pre-service training of youth for possible hiring by SMEs and did not offer in-service training.

With the advent of the TC project, training by enterprises took place mostly under contracts with outside training institutes; yet, a substantial number of training courses were conducted in-plant of member SMEs, using their own machines, tools, equipment, and materials. In these cases, the SME often closed down their production lines for several days to involve all workers in the training courses. The contracted training institutions brought their training instructors and equipment to the plant in a vehicle. This means that micro-enterprises or SMEs often prefer to train all their workers at the same time and in-plant, rather than sending their workers one by one to training institutions at different times. This mode of training met the special needs of micro-enterprises and SMEs, since they prefer to protect their unique technical know-how and promote teamwork and solidarity among their small number of workers.

This project also motivated the Ministry of Labor to change its training policy toward a demand-oriented training system and aided its decision to provide financial support to replicate the project scheme with two more local chambers in September 2001, then later with three more employers' associations in January 2002.

In addition, the Ministry replicated the TC concept into two more modalities. One was a TC organized by a large enterprise for SMEs supplying parts and services to it: A large enterprise helped its cooperative SMEs organize a TC and train their workers in its own in-plant training institute or outside training institutes. The other was a TC organized by a training institute: Training institutes organized SMEs located in their vicinity and provided in-service training to their workers.



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#### 2.5.4. Enhanced Competition and Cooperation in Training Markets

The project promoted market-oriented selection of training institutions. In theory, TCs had the freedom to choose the most suitable training institution available in the competitive training market. In practice, TCs hired vocational training institutes (VTIs) of the KCCI for most training courses; TCs preferred KCCI-sponsored VTIs on account of their merits and the TMs who were seconded from the VTIs through government grants. Likewise, other training institutes were also contracted on the basis of their merits (e.g., auto repair and maintenance training institutes, accounting, and motivation training institutes). Since the selection of training institutions were based on their merits, more training institutions were expected to join training markets, and competition in training markets was expected to be keener in the future; hence improving the quality of training. From 2006, colleges and universities were allowed, in fact, to offer training courses for TC-member SMEs organized by large enterprises.

The training managers (TMs) of each TC provided useful services to member SMEs, who normally lacked in training specialists and information on the needs for training and training markets. The TMs recommended to each member SME the training priorities to be addressed and the training institutions to be contracted, administered the training-levy rebate documents and processes, monitored and supervised training services, and evaluated the result of training on behalf of member SMEs. TMs filled the organizational and managerial, as well as informational gaps prevalent in an average SME.

The TM system not only promoted competition in training markets, it also induced cooperation between SMEs and training institutions. While most SME members of the Busan TC were located in the newly established industrial zone on the outskirts of the city, most training institutions were located on the opposite side of the city. This long distance discouraged both employers and workers to participate in training programs offered at the training institutes. With the progress of this project, an industrial association of the member SMEs (the machinery manufacturers association) offered a building and other spaces for the establishment of a new training facility right in the center of the industrial zone. This geographical proximity enabled the member SMEs to participate in the training programs actively and enthusiastically. This also encouraged training institutions to consult with their client SMEs closely and more often for the development of training programs, thus being more relevant and demand-responsive.

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### 2.5.5. Strengthened Partnerships between Public and Private Entities

This project strengthened the partnership among central and local government agencies, local and national Chambers of Commerce and Industry, training institutions, training experts, academics, and SMEs for training and human resources development. Representatives of the government (Ministries of Labor and Industry, provincial and municipal governments) developed a new relationship with the private sector by becoming members of the TC Operating Committee and advising the TC regarding training and human resources development. The TCs also periodically held consultative meetings and seminars to monitor and evaluate the progress in the project, and suggested/appealed for improved/simplified government procedures and processes related to SME training courses and levy rebates. Such close consultations and collaborations between the private and public sectors concerning training and human development had no precedent in Korea. As a result of such practice, for example, the training rebate ceilings for SMEs were lifted from 200 to 270 percent of the training levy paid, or 1.5 million won to 2.5 million won per year; training expenses were reimbursed at the time of the government's approval of training courses, in contrast to the past practice of ex-post reimbursement upon completion of the training courses; and the lead time required for submission of a training plan for the government's approval was shortened substantially.

## 3. Backgrounds and Needs for the TC Project

### 3.1. Origins of the Training Consortiums Project

The pilot Training Consortiums (TC) Project was conceived in the wake of the Asian financial crisis. The financial crisis quickly spread to the real sectors of the economy, which in turn devastated the labor market in 1998. The Korean government was desperate to lower the high unemployment rate in the short run and encouraged enterprises to raise their international competitiveness in the long run. It was against this background that the Korean Chamber of Commerce and Industry (KCCI) prepared a pilot project for SME training consortiums (TCs) in 1999 and applied, through the government to the World Bank/Asia and Europe Economic Meeting (ASEM), for a grant to launch it. The project was initially implemented only in Busan City, which was hit hardest by the economic crisis, from June 2001 through December 2002. With promising prospects, the Ministry of Labor provided additional funds to the KCCI for implementation of the project in two other cities (Incheon and Kwangju) in September 2001 and extended the pilot to June 2002.

## 3.2. Rationale of the Training Consortiums Project

Since 1995, all firms, large and small, were obligated by law to pay training levies and were entitled to get rebates of the training levies to cover the costs of training their workers. Although the levy rebate system did serve as an effective incentive for enterprises to carry out job-related skills training of their workers, it has worked regressively against SMEs. SMEs did not avail themselves to the training levy rebate system since they did not participate in training of their workers as actively as large enterprises.

This regressive result occurred even though the system paid special attention to compensate SMEs with greater financial incentives for their training activities. For example, the rate of training levies as a percentage of workers' wages (which ranges from 0.1% to 0.7%) was lower for SMEs than for large enterprises. Moreover, the level of rebates for large firms was at 80% of the training costs up to a total of 100 percent of training levies paid. However, SMEs were to receive rebates at 100% of training costs up to a total of 270 percent of training levies paid. As a result, for each worker trained, the financial profit, i.e. the difference between training levies paid by enterprises and the rebates received by enterprises was greater for SMEs than for large enterprises. The financial profit or net grant to large enterprises was 0.08%-0.14% of the average wage of workers; however, it was 0.10%~0.24% for SMEs (Lee and Yoo 2011).

Despite these special financial incentives, SMEs did not avail themselves to the financial incentive system as much as large enterprises. Consequently, a regressive situation developed in the training levy rebates for SMEs vis-a-vis large enterprises. Both large firms and SMEs pay training levies, yet a disproportionate share of the reimbursements went to large firms. While 77.6 percent of large enterprises trained 37.5 percent of their total workers, making use of the training-levy rebate incentive system in 2002, only 4.7 percent of SMEs offered training programs to only 4.2 percent of their total workers, receiving the training-levy rebates. Of the total 6.9 million employees who paid the training levy (actually paid by employers as part of employment insurance fees), SME workers accounted for 65 percent (or 4.5 million workers). However, the number of SME workers who undertook training programs and received the training-levy rebates accounted for only 4.2 percent (or 192,000 workers) of all SME workers in 2002. In contrast, while workers of large enterprises accounted for only 35 percent (or 2.4 million workers) of total workers paying training levies, about 37.5 percent (or 904,000 workers) of their workers participated in training programs and received training-levy rebates (Lee and Kim 2004). Thus, large enterprises were able to recover their training levies at a much higher rate than SMEs. While large enterprises as a whole got about 30 percent of their training levies reimbursed in 2002, SMEs recovered only 15 percent of their training levies.

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The (recovery) rate between rebates received per trained worker and the training levy paid per worker—the financial return—was higher among SMEs than large enterprises. While the recovery rate was between 66 and 100 percent for large enterprises in 2002, it was between 126 and 905 percent for different groups of SMEs by the size of employees. In other words, for each worker participating in training, the recovery rate was greater among SMEs than large enterprises due to the more favorable financial incentive given to SMEs. Therefore, under such a favorable system for SMEs, it is a striking fact that a regressive situation developed against SMEs vis-à-vis large enterprises.

This situation implies that financial incentives (financial rates of return) were either inadequate or insufficient for SMEs to undertake training of their workers. For SMEs, the costs or disincentives (e.g., training costs, poaching risks, administrative burdens to arrange training and recover levies, asymmetry of available information on training markets) must have been greater than the financial incentives. Besides the rebate incentive, additional factors should have been considered and the government should have taken greater action to redress the regressive result of the training-levy rebate incentive system.

Some discernible characteristics between large enterprises and SMEs in their training performance enable us to identify possible causes of the regressive utilization of the incentive. They are the scale jeopardy, public good jeopardy, financial jeopardy, and institutional and organizational jeopardy of SMEs in developing their human resources (Lee 2005). These jeopardizes justify additional or different types of public financial or organizational subsidies and incentives for SMEs.

First is the scale jeopardy of SMEs. SMEs, because of their small number of employees, must have found it difficult to organize in-plant training programs or arrange suitable institutional training programs outside the enterprise. SMEs in general do not have the flexibility to send workers for external training without disrupting their production schedule, and they incur a higher training cost per worker, compared with large enterprises, due to a small sale of each course. Moreover, SME workers usually have to carry out multiple tasks and possess a broader range of skills due to the size of the enterprise and the nature of technology they adopt. Not only do SMEs have justifiable reasons to be compensated for their extra training costs on equity grounds, they also confront difficulties organizing formal in-house training programs for in-service or pre-service training courses, or entering into contracts with outside training institutions (i.e., supplier-oriented training courses).

Furthermore, with a small number of administrative and managerial workers and little flexibility, SMEs were also disadvantaged in the training of the workers who would bring in higher returns. Administrative and managerial workers also participated in training at a higher rate than production-related workers since more educated and skilled workers are

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inclined to have a higher level of learning efficiency. This tendency reflects employers' recognition that returns on training are higher among administrative and professional workers than production-related workers, which is supported by empirical studies (Groot 1995).

Second is the public goods jeopardy of SMEs. Like education, training is public or semi-public goods, especially merit goods (Musgrave 1959; Freedman 1962), and both have positive externalities. Trained workers prove more valuable than before not only to the current employers, but to other enterprises. Therefore, trained workers often become a subject of poaching, especially by competing but free-riding enterprises, which usually offer better working conditions and career prospects but do not offer adequate in-service training. Workers in SMEs generally stay for a shorter period than in larger enterprises and have a higher turn-over rate. As such, entrepreneurs are reluctant to provide or finance training with their own funds just like any other public goods. Since the demand for a socially optimal quantity of skills training is larger than the market-determined quantity of training, the cost of training is higher than in an equilibrium market. The government needs to increase the quantity of skills training by subsidizing SMEs adequately to compensate for the higher training costs.

Third is the financial jeopardy of SMEs. Training is an investment in human capital over a relatively long gestation period, and the returns to the investment accrue over a long period. The limited financial and credit situation of SMEs does not allow them to invest in their workers as much as larger enterprises and have justification to be assisted by the government in financing their training costs for national economic strength.

Fourth is the institutional and organizational jeopardy of SMEs. They do not have anyone working exclusively on the planning, organization, and management of their workers' training. Even though SMEs could identify priority training needs, they did not have specialized staff members who could determine suitable outside training institutions, negotiate with them, enter into a contract for institutional training programs, monitor their training processes, evaluate the training effectiveness, and/or handle the cumbersome processes for the reimbursement of their training expenses. For many SMEs, the cost of hiring a training/HRD officer would be higher than the rebated amount of the training levies. These factors contributed to the low level of SMEs participation in the skills development program, and the government had to take action to address the institutional and organizational problems of SMEs.

Historically, SMEs have had institutional and informational difficulties in making training arrangements with public training institutes, which focus mainly on pre-service training and do not offer in-service training programs for enterprises, especially for SMEs. Asymmetries

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of information between the large enterprises—with personnel/HRD officers and the ability to organize and often offer in-service training programs for their own workers in-plant or in the workplace—and the SMEs—without such capacities and amenities—compounded the imbalance between large enterprises and SMEs in the provision of in-service training of their workers

Fifth was the adverse government incentive system. Employers responded to the levy rebate incentive system by initially emphasizing institutional training instead of on-the-job or in-plant training. This was because rebates for institutional training courses were twice that for in-plant training, and a ceiling was placed on the total grants given for on-the-job training conducted by each firm. Consequently, in 1999, 47.4 percent of enterprises undertaking enterprise training courses carried them out under contracts with outside training institutions. This proportion rose to 53.2 percent in 2000. However, it declined to 46 percent of enterprises in 2001 and to 47 percent in 2002 (Lee and Kim 2004). This change reflects the practice of SMEs, which had been increasingly participating in in-service training programs, but in the form of in-plant or on-the-job training. SMEs found the in-plant or on-the-job training mode more compatible with their production technology, small size, and teamwork. SMEs also found that in-plant training or on-the-job training curtailed poaching of their workers by other enterprises since it minimized their workers' contact with other enterprises. Although about 52 percent of all enterprises chose in-plant training in 2002, about 80 percent of SMEs relied on it (Korea Small and Medium Business Administration 2002). Nevertheless, the government's levy-rebate incentive system ran against the in-plant or on-the-job training mode by curtaining the rebate level by half, and public training institutions did not offer mobile training programs that could visit SMEs for in-plant or on-the-job training.

Finally, SMEs suffer from the gender jeopardy. While women workers represent a greater portion of total employees among SMEs (31 percent) than in large enterprises (27 percent), a greater proportion of male workers underwent training than female workers. While 16 percent of male workers participated in training, only 9 percent of female workers took training courses. Since female workers in general have a higher incidence of separation and a shorter career due to marriage, childbirth and child rearing, employers tend to eschew female workers in selecting trainees (Lee et al. 2001). As a result, SMEs tend to use the training incentive system less actively than large enterprises. Therefore, to promote enterprise-provided training, it would be effective to establish greater incentives for SMEs, especially female workers in SMEs, so that they may more easily select female workers as trainees.

In sum, SMEs participated in training at a much lower rate than larger enterprises, and the training-levy rebate incentive system, alone, proved to be inadequate to promote

training by SMEs. Additional or different types of incentives should have been devised to compensate SMEs for their jeopardy and disadvantages in undertaking the training of their workers. Besides financial constraints, SMEs have institutional and informational/technical weaknesses. Lepenies also argued that because of information asymmetries inherent in training markets, there is a strong need for introducing institutionalized *ex-ante* and *ex-post* “voice” in a voucher project for worker training (Lepenies 2004). To help solve the institutional / organizational / informational constraints in SMEs, a new incentive system had to be created so that more SMEs could actively train their workers. The answer was the Training Consortiums Project.

## 4. Strategy and System for the Implementation of the Project

### 4.1. Organizations

The Ministry of Labor (MOL) made the policy decision to launch the SME In-Service Training Consortium (TC) Project. However, the implementation of the project was entrusted with the Korea Chamber of Commerce and Industry (KCCI). The Pilot Project was launched in June 2001 and was completed in December 2002. The MOL and KCCI selected three industrial cities for the Project: Busan, Incheon, and Kwangjoo, and the field office of the MOL and the local chamber of the KCCI in these cities played instrumental roles for the implementation of the project.

Each local Chamber of Commerce and Industry helped a group of 30-50 SMEs in the same area and industry organize into a training consortium (TC) by financing and seconding two training managers to each TC. Each TC formed an operating committee (OC) to manage its training tasks. The OC was composed of representatives of TC members, local Chamber, Ministry of Labor field office, and training experts, and met periodically for the planning and management of the training affairs of the TC members.

The two training managers of each TC played key roles of the project. The TMs were to act as the training specialist of each member SME. They were to establish an information network among TC members (e.g., home page, email systems, and periodic meetings); conduct a training-needs survey of each member SME through interviews with managers and workers, and through job analysis; plan for and program training activities of member SMEs; contract outside training institutions to train workers collectively as much as possible; collaborate with training institutions to develop training programs and materials; monitor their training activities; and conduct an evaluation study upon completion of major training courses on behalf of the member SMEs.

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With the mainstreaming of the pilot project later, the Ministry of Labor replicated the organization of TCs with two more modalities. One was TCs organized by large enterprises for SMEs supplying parts and services to them: A large enterprise helped its cooperative SMEs organize a TC and train their workers in its own in-plant training institutes. The other was TCs organized by training institutes: They organized SMEs located in their vicinity and provided in-service training to their workers.

## 4.2. Finances of the Project

In 1999, the Korean government applied, through the Ministry of Labor, for a grant to launch the Project to the World Bank, which was administering a technical assistant trust fund, entrusted by the Asia and Europe Economic Meeting (ASEM) for Asian countries affected by the 1998 Asian financial crisis. The project was initially implemented with this grant fund only in the city of Busan, which was hit hardest by the economic crisis, in June 2001. With the signs of promising prospects, the Ministry of Labor provided its own budgetary funds to the KCCI for implementation of the project in two other cities (Incheon and Kwangjoo) in September 2001 and extended the pilot to December 2002.

The grant amount that the government of Korea applied to the World Bank was \$730,000. However, the finally approved amount was \$250,000. Therefore, this amount was allocated to the implementation of the pilot project in the city of Busan area alone. However, in September 2001, the Ministry of Labor allocated \$2.5 million for refurbishing KCCI's training equipment and facilities, and the KCCI decided to allocate \$103,000 for recurrent expenditures of the training consortium projects in the cities of Incheon and Kwangjoo.

## 5. Factors Contributing to the Success and Limitation

Many factors were responsible for the huge success of the Pilot Project. First of all, the financial crisis itself was the key contributor by making all stakeholders act with a sense of urgency and priority.

Second, the pilot nature of the Project enabled all stakeholders to manage it with a sense of experimentation. All stakeholders checked the project design and monitored implementation against the project objectives and with the purpose of learning from the project results. Certainly, the World Bank's operational procedures for a technical assistance project helped the successful experimentation of the project. The World Bank carefully reviewed the Korean government's proposal and commented on it for improvement. In addition, the World Bank's supervisory team advised that the implementation team of the KCCI establish some indicators for monitoring implementation and carry out an evaluation of the project before the completion of the project implementation. Such requirements made



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the Ministry of Labor and the implementing unit of the KCCI be more conscious of the results of the project throughout the project implementation process.

Third, the software infrastructure for vocational training has already been established. Since the training finance system --training levy-rebate system— has been already established to induce enterprises to train its workers, the SME training consortium system was able to start off the ground smoothly. Since the Vocational Training Law of 1967, the government of Korea has established the software infrastructure of vocational training, such as standards for vocational training and skill tests, the training system for vocational training instructors, the training-related research and development system, and the vocational training finance system. As a result, enterprises including SMEs recognized the importance of training their workers, and the training levy-rebate system induced them to undertake training of their workers. The training consortium system only reinforced and strengthened the vocational training inducement systems for SMEs.

Fourth, the success of the project could be attributed to the fact that the project was implemented by the private sector, especially by the employers' organization (KCCI). It had a vested interest in meeting their needs for in-service training and enhanced productivity of their workers and implementation efficiency and flexibility for its member enterprises.

From the beginning of 2003, the pilot project was mainstreamed, and since then, the SMEs Training Consortium project has become the bellwether program of the Ministry of Labor. However, the TC project was not without weaknesses, which were revealed only when the project was mainstreamed in 2003. Encouraged by the positive evaluation results of the training consortiums (TC) pilot project, the government mainstreamed the TC project across the nation from the beginning of 2003. The government decided to expand the coverage of the training-levy rebates to SMEs not only for the recurrent expenses of the training managers (i.e., in-service training management, including visits and consultations with TC members and public relations activities), but also capital expenses for training equipment and facilities. Today, together with training programs for unemployed workers, the TC program for the training of workers employed by SMEs is the bellwether program of the Ministry of Labor in Korea. In 2007, the TC program trained 295,000 workers from 134,000 SME establishments with the training-levy rebates reaching 74.4 billion won (<Table 3-5>).

**Table 3-5 | Performance of the TC Program**

(Unit: Person)

	2001	2002	2003	2004	2005	2006	2007
Number of TCs Assisted (Cumulative)	6	8	19	30	47	57	69
Workers Trained ('000) *	4	10	20	38	71	143	295
Number of SMEs ('000)*	1	3	8	15	33	63	134
Levies Rebated (Billion Won)	3.2	6.1	14.1	16.8	39.9	45.0	74.4

\*Multiple counted whenever training plan is approved.

Source: Ministry of Labor (2008).

By the end of 2007, about seven years since the launch of the pilot TC project and five years since the mainstreaming of the project, the coverage of the TC program was less than magnificent and was far from reaching the original targets. Between large and small-medium enterprises still remains the stark regressive nature in the enterprises' participation in worker training and recovery of training levies through rebates. The majority of large enterprises (with 300 workers or more) trained their workers, and a large part of their workers underwent in-service training programs in 2007. Nevertheless, only 13 percent of SMEs offered training service to their workers, and only 18 percent of their workers went through in-service training programs in the same year. Consequently, large enterprises recovered about 33 percent of their training levies, but SMEs recovered only 28 percent.

Participation of SMEs in the training of their workers has not improved noticeably since the completion of the training consortiums pilot project in 2002. Rather, the speed of expansion in the TC membership and the degree of participation in training among TC-member SMEs slowed substantially. During the pilot project period (2001~2002), TC membership expanded 3-fold in a year despite the start-up difficulties. In contrast, it expanded only 2.16-fold a year since the completion of the pilot project. While the number of trained workers increased at 2.5 times during the pilot project period, it increased only at 1.97 times a year since then. Only the training-levy recovery rate increased at a slightly faster rate (1.9 times vs. 2.1 times), although this is due to an approximately 70 percent increase in the rebate ceiling between the two periods (<Table 3-6>).

**Table 3-6 | Growth of TC Program during Pilot and Mainstreaming Periods**

Average Annual Increase	2001~2002 (Pilot Period)	2002~2007 (Mainstreaming Period)
Number of TC-member SMEs	3.00 fold	2.16 fold
Number of Workers Trained	2.50 fold	1.97 fold
Amount of Training Levy Rebated	1.91 fold	2.11 fold

Source: Ministry of Labor MOL (2008).

Although there may be many reasons for SMEs' inactive participation in the TC program and meek contribution of the TC program to the human resources development activities of SMEs, the following five reasons stand out:

- The training supplier-centered TC program
- Too few a number of TCs and training managers in each TC
- Discrimination against on-the-job or in-plant training programs
- Weak competition and cooperation in training markets
- Inappropriate government financial supports.

Although the Ministry of Labor has started addressing these causes since 2006, and today the regressiveness of the recovery rates in training levy rebates has disappeared, each of these causes deserves further elaboration for the purpose of drawing some lessons.

## 5.1. Training Supplier-Centered TC Program

The nature of the training consortiums changed sharply since mainstreaming the TC program. Under the latest government regulation for implementation of the TC program (Ministry of Labor Regulation No. 559, 2003), it is stipulated that the operator of the TC is the chief of the training institution, and he/she becomes the chairperson of a TC operating committee. The representative of the member SMEs attends meetings only as a member of the committee, together with other stakeholders, such as government representatives and academics. This is starkly different from the pilot stage of the TC program when the SMEs organized the TC (although often assisted by training institutions and government agencies), and one representative of the member SMEs became the chairperson of the TC. There are two other major structural changes. First, TMs report directly to the chief of the training institution (and not the TCs). Second, the government's additional financial assistance for TCs (e.g., the salaries and operating expenses of TMs and the capital expenses for equipment and buildings) now is allocated to the training institutions in lieu of the training consortiums.

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Under the current TC program the training institution of a TC decides on and selects the training service provider. In fact, it monopolizes all of the training services for member SMEs, effectively eliminating competition with outside training institutions, and the TMs play no role in this respect. The government's financial assistance for the training of SME workers is provided directly to the training service provider, not to the TC. In this sense, a TC is no longer a group organized by SMEs and for SMEs, but an agency organized and operated by a training service provider for the benefit of the training institution directly and for the SMEs indirectly. Under these circumstances, it is natural that few SMEs will take interest in joining a TC and even if they do join, member SMEs will be less enthusiastic about training their workers.

## 5.2. Too Few a Number of Training Managers and Too Many SMEs in each Training Consortium

Since mainstreaming the project, the government has tried to take advantage of economies of scale in providing financial assistance for the training consortiums (TCs). It laid down the criteria for providing additional financial assistance to a TC as follows: Each TC composed of about 90 SMEs would be provided with financial assistance equivalent to 80 percent of the salaries and operating expenses of three training managers (TMs) and one assistant as long as they train a cumulative number of 2,400 workers in a year (and 4,800 workers when a large enterprise organizes its associated SMEs who provide parts and supplies to it). For this purpose, one worker is counted as trained when he/she undergoes a training course that is at least eight hours a day. In practice, a worker undertook training of, on average, 18 hours a year. Therefore, the obligation of training 2,400 cumulative workers means in practice 1,067 net workers in a year had to be trained.

However, to satisfy the training obligation, TMs (Training Managers) have to perform extraordinarily. Since the average TC member SME trains about 5% of their average number of workers (40), to train at least 1,067 net workers a year, three TMs in fact have to represent at least 190 SMEs. With this number of SMEs, it would take more than two months for three TMs to visit each of the 190 SMEs. With such an interval of visits, TMs cannot be taken seriously by each SME as its own training manager, and cannot carry out their duties properly. In practice, each TM can reasonably visit two SMEs a day, and can use his/her time to visit member SMEs 15 of the 20 working days a month. This means that a TM can reasonably visit about 30 SMEs a month. For TMs to be taken seriously by SMEs and to be effective in carrying out their duties, they would have to visit each SME at least once a month on average. Therefore, the number of TMs (3) specified to receive the government's financial assistance should be revised upward by at least two or three times. In fact, the average number of SMEs in each TC was not 90, but 1,940 in 2007. Therefore,

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three training managers could not serve as an effective training manager of TC member SMEs.

Despite the sharp increases in the number of member SMEs, only one TC was maintained in each of the three areas throughout the project implementation period. This enabled each TC to enjoy economies of scale. However, each TC's operational effectiveness was gradually lowered to less than optimum, having too many member SMEs belonging to different industrial associations and localities. As a result, the training managers (TMs) could not provide tailor-made advice and attention to each member SME. Also, a TC lost homogeneity and solidarity among member SMEs, and it became difficult to organize optimum size training courses for the majority member SMEs. Each course had too small a number of trainees to offer courses economically since member SMEs belonged to different industries and localities, and the occupational structure of member SMEs were so diverse. The original organizing principle of the TC, that is, the SMEs belong to the same industrial association in the same locality, was disregarded.

### 5.3. Discrimination against On-the-Job or In-Plant Training Programs

In 2007, almost no TC training suppliers offered on-the-job or in-plant training. Prior to becoming the organizing and directing institution of the training consortiums, training suppliers did not offer any mobile training and did not have any mobile training facilities and personnel.

Even after the change in their status, the training suppliers did not have any legal or financial incentives to procure mobile training facilities to offer in-plant or on-the-job training. Government regulations on the TC training program stipulate that training-levy rebates shall be made at 100 percent for institutional training courses, but at 40 percent for in-plant or on-the-job training courses. From the TC-member SMEs' perspective, the government regulations are unfair and inappropriate since SMEs have to stop production processes and offer their own machinery and equipment, as well as training spaces for in-plant and on-the-job training courses. They believe that they should be paid more than 100 percent.

The disincentives against in-plant or on-the-job training are due to the myths of the government officials in charge of SME policies regarding the learning and training in SMEs (Ashton et al. 2008). The processes of learning and training are quite different depending on the size of enterprises. SMEs depend more on informal and on-the-job learning and training processes. Therefore, the government's policy interventions to expand investment in formal and institutional training in SMEs are not justified. ILO's Human Resources Development

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Recommendation 2004 (No. 195) stresses that member states should promote the expansion of workplace learning and training.

#### 5.4. Weak Competition and Cooperation in Training Markets

Government policies and incentives ran counter to building up training markets and promoting competition in the markets. Post-mainstreaming meant not only a near-monopoly of training services by a single supplier, but also exclusion of any outside training services from recognizing as legitimate training records, effectively stifling cooperation or collaboration among training institutions. If a TC member SME wanted to change a training supplier or hire an additional training supplier after a TC has been organized by a training institute, it had to leave the TC. Monopolization of training services is likely to lower the quality of training services

#### 5.5. Inappropriate Government Financial Assistance

For the successful operation of a TC and TMs, government's financial assistance for the recurrent expenses of a TC was thought to be more effective than the capital expenses for the training suppliers. However, the mainstay of the financial assistance for TCs was not the recurrent expenses of the training managers (TMs), but the capital expenses for training facilities up to an annual ceiling of 1.5 billion won (the average exchange rate during 2003-2007 was about US\$1.00=1,000 Korean won). Moreover, the training equipment financed did not include any mobile training facilities. It has been used primarily to refurbish the existing equipment and facilities, which were used mainly for pre-employment training programs; i.e., the core programs of the training institute, which organized a TC.

The reasons for the government's emphasis on capital assistance may have a dual purpose: to expedite disbursements of annual budget before the end of a fiscal year to help boost the economy in recession; and to compensate for the lack of regular budgets for replacement and upkeep of training equipment and facilities in many education and training institutes on a periodic basis. Even though a TC required greater recurrent expenses for an increased number of TMS and their publicity and personnel services, government's financial assistance policy focused on the capital expenses. Moreover, the government decree required that TCs to match government's financial assistance for the recurrent expenses with their own resources amounting to 20 percent of total recurrent expenses. In view of the non-profit nature of a TC and the monopoly power of the training service supplier, the counterpart fund (20% of total recurrent expenses) must have been shifted to TC member SMEs by lowering the quality of training services offered by the training supplier, which organized the TC.

The government's financial assistance to the TCs was undoubtedly made in competition with other human resources development programs. While the government was stingy in expanding financial assistance for the recurrent expenses of the pilot-tested TC program, it was generous in financing new, but inefficient programs. The budget allocations and incentive provisions of the Ministry of Labor must have sent SMEs confusing or wrong signals. As a result, scarce resources have been wasted, and financial assistance to induce SMEs for training of their workers by mainstreaming the TC program was not so successful in the initial stage.

## 6. Implications for Developing Countries

The SMEs Training Consortium Project in Korea can be replicated in other developing countries with necessary adjustments to suit the local situation. In many developing countries, SMEs play instrumental roles for growth of outputs, employment and exports. Many developing countries have operated a training levy system of one kind or another. The pilot project in Korea could serve as a useful model to be considered by rapidly industrializing or developing countries, especially middle income countries where noticeable gaps have developed between large firms and SMEs in the process of rapid industrialization and development.

It is recommended that those countries that try to emulate the SME Training Consortium pay special attention to the following factors learned from the Korean experience.

- Compared with large enterprises, SMEs in general have various weaknesses or vulnerabilities in labor productivity. Removing such weaknesses or vulnerabilities would improve equity in the economy and promote economic growth of a nation. However, it can be done not by the market, but by the government. The government should do it in such a way not to restrict the competitiveness of large enterprises, but to enhance labor productivity of SMEs. Otherwise, the international competitiveness of a nation would be lowered.

- A Training Consortium can be effective when it is organized voluntarily by SMEs themselves. When it is organized by an outside organization, especially by a training institute, the government should pay special attention to ensure the autonomy of the TC.
- It is advisable to start not on a national scale, but with a small scale pilot project in a selected suitable area to accumulate experience and knowledge.
- Government's financial assistance for the SME TC may focus not on the capital expenditures to expand or improve training equipment and facilities, but on the

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recurrent expenditures for the operation of the TC and Training Management Specialists. It is important to ensure adequate budgets allocated to the increases and operations of the training management specialists, so that they can function as staff responsible for personnel and training management in each member SME of a TC.

- For most SMEs, informal and in-plant training is more effective and preferred to the formal institutional training offered by an outsider, the government may want to ensure that SMEs have access to training institutions which can help organize and conduct in-plant training for SMEs
- The government should minimize the bureaucratic red tape, so that the approval of training plans and the recovery of training levies can be carried out in a simple manner and in a short period of time. The Training Consortium project is not to regulate the SME activities, but to serve SMEs training activities, and therefore SMEs should find the processes and procedures involved to be simple and helpful to SMEs.



2013 Modularization of Korea's Development Experience  
In-Service Training Policy in Korea

## Chapter 4

### Employee-Directed In-Service Training

1. Project Purpose and Contents
2. Project achievement
3. Project background
4. Implementation strategy and system
5. Success Factors and Limitations
6. Implications for Developing Countries

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# Employee-Directed In-Service Training

## 1. Project Purpose and Contents

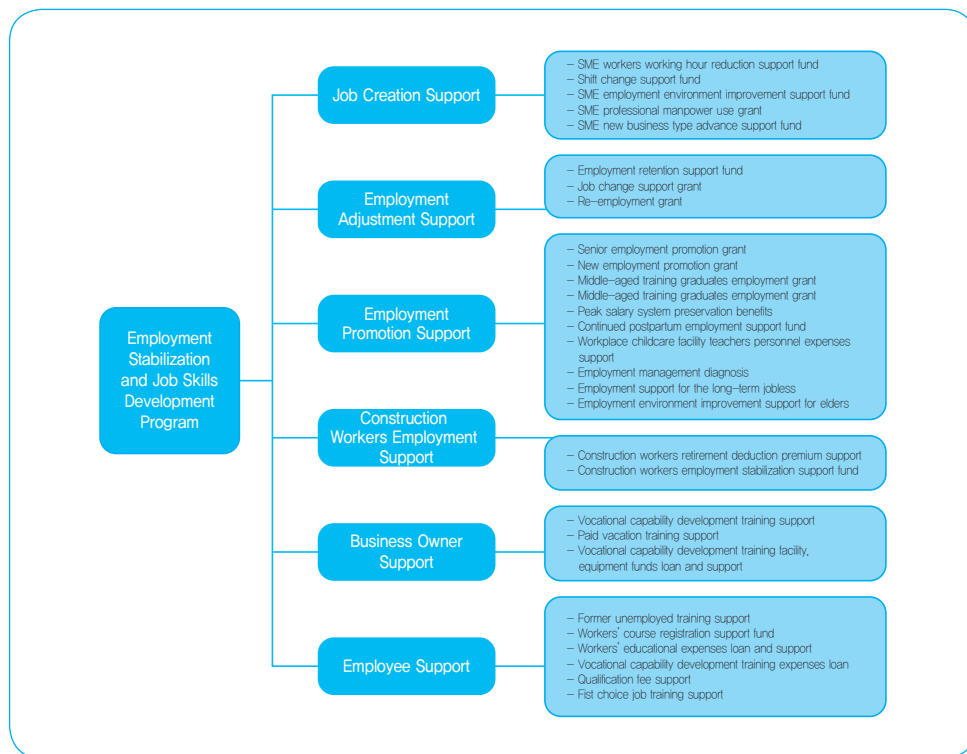
### 1.1. Purpose of the Project

In-service training refers to the education that is financially supported by the government either when the employer trains his/her employees or when employees receive trainings on their own will. The employee-directed in-service training refers to the latter one. After the 2008 global financial crisis, job performance development for employees has been supported by the government so that the companies can use the economic crisis as a chance to accumulate human capital, not as an employment adjustment. In particular, the government expanded the support for the SMEs that lack capacity or environment for self vocational training for their own employees in comparison with the big companies.

In-service training is operated within the system of Employment Insurance Program. Article 1 of the Employment Insurance Act in Korea clarifies that “the purpose of this Act is, through the enforcement of employment insurance, to seek to prevent unemployment, promote employment, and develop and improve the vocational skills of workers, to strengthen the nation’s vocational guidance and job placement capacity, and to stabilize the life of workers and promote their job-seeking activities by granting necessary benefits when they are out of work, thereby contributing to the economic and social development of the nation (Ministry of Government Legislation)”. In other words, the purpose of this Act is, through the enforcement of employment insurance program, to promote stability of workers’ lives and their job-seeking activities to contribute to the economic and social development of the nation.

To accomplish the purpose of the Employment Insurance, unemployment benefits, employment security program, and job skills development projects have been established. The job skills development programs aim to support and promote workers' lifelong job skills development; the programs support job skills development trainings for the insureds that are implemented by business owners, financially support the insureds when they develop job skills on their own, and gives job skills development trainings for the unemployed ones who used to be insureds to improve workers' vocational capabilities. By doing this, the insureds' vocational capabilities are developed and improved, unemployment is prevented, and re-employment is promoted. Thus, this means that the job skills development programs partially support the business owners and employees financially when they receive training for self development or when the business owner provide their own employees with a training (Ministry of Labor, 2005).

Figure 4-1 | Structure of the Employment Insurance Plan



Source: Ministry of Employment and Labor ([www.moel.go.kr](http://www.moel.go.kr)).

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## 1.2. Contents of the Program

The employee-directed in-service training among the job capability development programs of the Employment Insurance System includes the vocational ability improvement fund, the ‘Naeil-Baeum Card’ program, the student loan for workers, and the loan for vocational training fee (for temporary workers) ([www.moel.go.kr](http://www.moel.go.kr)).

First, the vocational ability improvement fund targets (among employment insureds) the fixed-term, part-time, dispatch, daily workers, workers employed by the companies which are supported by the government by priority, and voluntarily insured self-employed workers. Funding requirements include completing the training that is approved by the Minister of Employment and Labor, attending more than 80% of the training course (class or time) to graduate, and paying the training fee at his/her own expense. Support details are to fund within 1 million KRW per year, but the total amount of grant per worker cannot exceed 3 million KRW in 5 years (within 2 million KRW per year including the grant through the ‘Naeil-Baeum Card’ program). Actual payment amounts are set as follows: for general courses, 80% of the registration fee (up to 100% of the standard training costs); for food and other services, 50% of the registration fee (up to 60% for temporary position, up to 50% of the standard training costs); for foreign language course, 50% of the registration fee (up to 45,000 KRW for 20 hours, up to 2,250 KRW for below 20 hours). Also, the application period is within 30 days from the last day of the training (90 days for potential turnover), and the procedure is to visit the provincial employment labor office that is in charge of the training organization to fill out and submit the application form. Workers’ job capability development support fund application, proof of attendance, and registration receipt need to be submitted. The application is submitted in the applicant’s residential area or the local labor office employment center within the jurisdiction of the training organization.

Second, the ‘Naeil-Baeum Card’ program supports (among employment insurance insureds) the fixed-term, part-time, dispatch, daily workers, potential turnover within 90 days, and unpaid leave of absence or closed for more than 90 days and did not return. The support details are to issue Naeil-Baeum Card for the workers to get the training from employment centers, show it to the training centers that they wish to get the training (training centers approved by the Minister of Employment and Labor), and the training centers receive training fees from the government. Temporary workers (fixed-term, part-time, dispatch, daily workers) receive 80~60% of the approved training fees within the limit (1 million per year, 3 million per 5 years) as a grant.

**Table 4-1 | Comparison between Naeil-Baeum Card Program and the Vocational Ability Improvement Fund**

	<b>Naeil-Baeum Card Program</b>	<b>Allowance for Education Fee</b>
Recipient	Fixed-term, part-time, dispatch, daily workers, potential turnover within 90 days, unpaid leave of absence or closed for more than 90 days and did not return	Employed by the first-supported-companies, temporary workers, voluntarily insured self-employed workers
Support Limit	2 million KRW per year, 3 million KRW in 5 years (sum of the two)	1 million KRW per year, 3 million KRW in 5 years
Supporting Amount	Ministry of Employment and Labor directly pays the training organization 80~60% of the training fees within the support limits One's own expenses (total 20%, foreign language 50%)	Workers pay for the training on their own, and receives 50~100% of the paid fees after completing the course
Training Program	Program approved by the Minister of Employment and Labor; over 10 days, over 40 hours	Program approved by the Minister of Employment and Labor; over 2 days, over 16 hours

Source: Ministry of Employment Labor (2013), website.

Third, the student loan for workers is for In-Service workers who are employment insurants. They need to be enrolled in technical college, cyber college or junior college, and the loan pays the tuition in full (admission fee, tuition, student fees). When the worker received scholarships, the loan pays the balance. Conditions for the loan are presented below <Table 4-2>.

**Table 4-2 | Conditions for the Student Loan for Workers**

<b>Division</b>	<b>Details</b>
Loan Interest Rates	Student loan: grace period (1% per year), payback period (3% per year) The same as credit guarantee loan (Woori Bank, Kiup Bank), conventional loans (NACF: National Agricultural Cooperative Federation)
Grace Period	Student loan: 6~9 years (including 2~5 years of grace period)
Payback Method	Student loan: 1 year after graduation (total 2~5 years) mounted for 4 years repayment

Source: Ministry of Employment and Labor (2013), website.

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Fourth, the loan for vocational training fee (for temporary workers) supports the temporary workers and the former unemployed who participate in vocational training to get the systematic training without the burden for cost-of-living by lending them long-term loans so that they can get better jobs. Employment and Labor Notice No. 2012-34 (2012. 3. 20) presents the recipients of the loan and training programs for them. The recipients include temporary workers (employment insurants, annual income of less than 24 million KRW), former unemployed (disqualified employment insurants, except when annual income exceeds 40 million KRW (sum of the income of a spouse), and the ones who are receiving unemployment benefits by the Ministry of Employment and Labor. Training for loan recipients include temporary worker training (trainings approved by Ministry of Employment and Labor; vocational development training, vocational development account training, short-term job course (JUMP course), training for acquiring national technical qualification at technical institutions) and training for former unemployed (training programs approved by the Ministry of Employment and Labor; training for more than 4 weeks, including vocational development training, national organization, strategic industrial job training, vocational development account training, industrial accident compensation insurance act, disabled workers employment promotion, vocational rehabilitation training, acquiring national technical qualification at public vocational training facility installed by local governments). Loan terms per person are limited to 3 million KRW for temporary workers (application date within the current remaining training period), and 6 million KRW for unemployed (application date within the current remaining training period). However, when the temporary worker who was receiving loans for living costs retires or leaves work for training, the total loan limit is within 6million KRW. Monthly loan limit is less than 1 million KRW, and from the second month, the training and loan requirements (requirement changes, overdue, credit information) are checked; this is automatically performed. However, when the remaining training period in the application month is less than 15 days, the repayment is due the following month (loan payments stop in case of overdue interest in split loan). Repayment method can be selected from 1-year grace period 3 years, 2-year grace period 4 years, and 3-year grace period 5 years of level payment. For divided payments, the due date, installment date, and interest payment date need to conform to the first payment. Loan interest rate is 1%, and the warranty requirements can use public credit guarantee system (warranty rate 1% per year). For loans, you need to register online at the public homepage (certification required) → apply for loan and credit guarantee → submit documents (competent offices) → then a review of eligibility and credit guarantee is issued (public SMS sent, within 7 days after application) → log on to Industrial Bank Internet Banking (<http://mybank.ibk.co.kr>) (applicant) → personal internet banking → loans (immediate loans) → IBK workers life settlement loan → check loan warranty number and input loan account number, apply for loan (within 15 days after warranty issue date)

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→ deposited after deduction of a credit guarantee of 1% annual loan agreement (precharge off for 4 years).

In addition, a short-term job skills support program called Job-ability Upgrading & Maturing Program (JUMP) is a newly launched training policy that began in 2009 as a part of specialized training strengthening for the SME and temporary workers along with vocational capability development training for business owners, which was one of the In-Service workers' capability development supporting projects. JUMP project is a supporting policy for temporary workers of SMEs to receive modular short-term job skills improvement training on the weekends and during the week at night time without interference of the business owners (self-directed learning) since they have relatively less opportunity to get trainings than the full-time employees of big companies. Training program consists of subdivided modular training courses that are based on a capability roadmap for 4 major occupations where many SME and temporary employees work at; marketing, accounting, human resources, production management. In other words, the courses can be reorganized according to the training organization; marketing (15 courses), accounting (6 courses), human resources (11 courses), production management (11 courses). Recently 5 occupations that are largely in demand for temporary worker training (sales, trading, buying, secretary, quality control) have been added for operation. Training fee support includes training program development, instructor fees, renting venues, book costs, PR fees, and general management expenses. It has been operated for the target for training, the workers of SME, to get the training for free or by partially paying for it; 52,113 people participated in 2009, 57,066 people in 2010, and it has been incorporated in In-Service workers training since 2011.

Aside from those programs, there are also subsidy program for qualification test fee, selection programs of masters/excellent leaders, possessors of traditional skills, and excellent technicians in SMEs.

## 2. Project Achievement

### 2.1. Project Outcomes

Job capability development program of Employment Insurance categorizes the recipients of policy support into business owners, employees, and the unemployed (Ministry of Employment and Labor, 2012). According to the outcomes of the allowance for education fee and the student loan for workers, there is a pattern of an increase after 2002, a temporary decrease after 2008, and then a slight increase. This can be attributed to the economic downturn after the global financial crisis.

**Table 4-3 | The Status of Employee Assistance In-Service Worker Training**

(Unit: Person, Million KRW)

Division		2002	2003	2004	2005	2006	2007	2008	2009	2010
Person Supported	Allowance for Education Fee	35,528	29,177	38,908	70,732	155,620	269,045	287,827	280,667	262,689
	Student Loan for Workers	24,444	27,772	30,978	29,149	28,342	25,225	25,507	29,424	25,394
	Total	59,972	56,949	69,886	99,881	183,962	294,270	313,334	310,091	288,083
Fund Amount	The Allowance for Education Fee	3,435	4,224	5,873	11,688	28,851	52,782	53,508	56,033	49,614
	Student Loan for Workers	52,188	63,476	74,799	76,505	81,642	79,851	87,755	99,076	90,769
	Total	55,623	67,700	80,672	88,193	110,493	132,633	141,263	155,109	140,383

Source: Ministry of Employment and Labor (each year), employment insurance statistics yearbook, employment insurance white paper.

The ‘Naeil-Baeum Card’ program supports fixed-term, part-time, dispatched, and daily workers to complete the training courses that are approved by the Ministry of Employment and Labor. Due to the integration and restructuring of individual support project for vocational capability development, the vocational capability development trainings for the workers on unpaid leave or closed state have been newly established, and temporary workers can get the support for vocational capability development training through the vocational capability development account program regardless of their employment status. Temporary workers can participate in high-cost and high-quality training through the account since the annual training support fee has been increased compared to the past workers capability development card system (1 million KRW per annum → 2 million KRW per annum).

**Table 4-4 | The Current Status of the ‘Naeil-Baeum Card’ Program**

(Unit: Person, Million KRW)

Year	2007	2008	2009	2010	2011
No. of Person	7,638	29,337	80,691	170,609	129,451
Budget	1,891	7,373	20,684	45,226	31,144

Source: Ministry of Employment and Labor (each year), employment insurance statistics yearbook.



The loan for vocational training fee was first adopted in 2009 for the unemployed and fixed-term workers to get systematic training without having to worry about their living costs and to move into better jobs. In 2011, 4,930 people received 11,851 million KRW for their cost of living.

**Table 4-5 |** The Current Status of the Loan for Vocational Training Fee (2011)

(Unit: Person, Million KRW)

Division	Budget	Funded Amount	No. of Person
Employment Insurance Fund (the former unemployed, temporary workers)	15,280	9,909	4,163
Workers' Welfare Fund (the newly unemployed)	2,029	1,942	767

Source: Ministry of Employment and Labor (each year), employment insurance statistics yearbook.

## 2.2. Project Achievements

Workers who have job skills suited to the industry demand high employment security and can change jobs easily by their own free will. Job capability development improves In-Service workers' job skills and contributes to the enhancement of the labor market, including wage increases and organizational commitment. Workers capability development system has a positive effect of inducing training participation for the disadvantaged workers who tend to be excluded from the opportunity to get training from business owners, and therefore the number of participants, budget, and size are constantly increasing.

Individual support method gives the vulnerable SME workers and temporary workers an opportunity to participate in the training, and are the most effective training expense type of support for the disadvantaged groups. Various financial support systems are operated in OECD countries to expand company and employee incentives in learning, and these systems are based on wages and taxes. Direct personal support systems such as grants, individual learning accounts, tax-deductible, and paid vacation training substantially reduced the cost of participation, and is used as an important means of facilitating learning and training for the low-skilled workers (Na, Youngsun, 2011).

The Korean government's support for business owners providing training programs for their own employees takes the form of financial reimbursement. Thus, the proportion of this type of support is higher than the government's support for individuals. However, this type of financial support is difficult to meet the training demands of business owners and employees. Therefore, in order to expand the training opportunity for vulnerable workers, the vocational ability improvement fund is constantly being improved for its effectiveness.

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Looking into the analysis results on the training effects and job relevance of the people who received vocational trainings through the allowance program for education fee and the Naeil-Baeum Card system, it turned out that these programs have helped people switch from a temporary position to a permanent position, to change their jobs as they wanted, and to improve their job skills (Na, Youngsun, 2010). The allowance for education fee is an important means to increase participation and investment of the SME workers in training, especially for the SME workers who wish to get the training but their companies do not provide or have any desire for investments. Moreover, there is a high possibility to increase effectiveness and performance when workers participate voluntarily.

Training beneficiaries and effects were estimated based on the training incentives according to the employment legislation; there was higher probability for the employees of the companies that have high funding rate, there was training-based wage increase, and correlation between training implementation and the amount of training was positive when personality traits were good (Lee, Chulin et al, 2009).

The analysis result of the gender difference in the workers who get the training showed that male workers participate more in programs supported by the business owners while female workers participate more in individual support programs. This gender distribution seems to be caused by the characteristics of industrial distribution that has a high proportion of manufacture in business owner support and a high proportion of services industry in personal support. This means that male workers who are more employed by manufacturing businesses get the training with the business owner support, and female workers who are more employed by service industry get the training by personal support. Another reason for gender distribution is that many female workers are temporary workers, and work for SMEs. Private support has a higher proportion for female workers, especially in the In-Service account. For the method of training, foreign language courses in learning-my-job card system had 81.0% of female workers. On the other hand, Internet remote training showed to have a low proportion of female workers.

**Table 4-6 | In-Service Worker Training, Employment Type, and Number of Gender-based Training**

(Unit: Case, %)

Division		Total	Male		Female		
Employer Support	Total	512,723	335,316	(65.4)	177,407	(34.6)	
	Employer	Total	480,671	308,748	(64.2)	171,923	(35.8)
	Capability Development Grant	Full-time	470,124	304,376	(64.7)	165,748	(35.3)
		Temporary	10,547	4,372	(41.5)	6,175	(58.5)
	National Human Resource Development Consortium	Total	32,052	26,568	(82.9)	5,484	(17.1)
Full-time		32,052	26,568	(82.9)	5,484	(17.1)	
Individual Support	Total	56,273	20,776	(36.9)	35,497	(63.1)	
Allowance for Education Fee	Total	37,768	15,938	(42.2)	21,830	(57.8)	
	Full-time	35,075	15,205	(43.3)	19,870	(56.7)	
	Temporary	2,693	733	(27.2)	1,960	(72.8)	
Naeil-Baeum Card System	Total	18,505	4,838	(26.1)	13,667	(73.9)	
	Temporary	18,505	4,838	(26.1)	13,667	(73.9)	

Source: Korea Employment Information EIS, 2012 1/4.

**Table 4-7 | Individual Support In-Service Worker Training Performance per Method of Training**

(Unit: Case, %)

Division			Training Performance				
			Total	Male		Female	
Personal Support	Total		56,273	20,776	(36.9)	35,497	(63.1)
Allowance for Education Fee	Collective Training	General Course	29,138	12,487	(42.9)	16,651	(57.1)
		Foreign Language Course	8,216	3,234	(39.4)	4,982	(60.6)
	Remote Training	Internet	414	217	(52.4)	197	(47.6)
Naeil-Baeum Card System	Collective Training	General Course	16,118	4,308	(26.7)	11,810	(73.3)
		Foreign Language Course	1,754	334	(19)	1,420	(81)
	Remote Training	Internet	633	196	(31)	437	(69)

Source: Korea employment information EIS, 2012 1/4.

In the case of In-Service worker training, several problems have been found: 1) foreign language market is too big compared to other courses; 2) job capability development training courses are more focused on the choices made by the company rather than the employees; 3) motivation for the training participation is low due to the strict practices in the work places which put emphasis on work experience, not the job capability of the employees. In other words, wages (compensation) are not paid according to personal achievements or work evaluation, but are paid according to employment status and salary determined based on the seniority. Incentive (bonus) is also paid according to the performance of the organization (company or business unit), thus participation in vocational capability development training for personal development is not considered as important as mutual ties or cooperation in the organization (Kim, Cheol Hee (2012)).

When looking at labor market perspective, temporary workers training is a typical area of market failure. Employers' investment in vocational training is low, and the workers are vulnerable in terms of training since they are employed in jobs that are not continuous, and have high probability of turnover. Temporary workers' vocational training status shows 7% of training and 12-14% of support amount. Thus, 1/3 of the temporary workers get vocational training, and 2/3 of them get the grant compared to the labor market proportion.

**Table 4-8 |** Participation Status of Temporary Workers Vocational Training

(Unit: Case, KRW)

Division	2008		2009		2010		2011.2	
	No. of Training	Grant Amount	No. of Training	Grant Amount	No. of Training	Grant Amount	No. of Training	Grant Amount
Total	4,006,649 (100)	474,119 (100)	4,949,420 (100)	559,665 (100)	4,243,270 (100)	466,947 (100)	520,036 (100)	53,959 (100)
Full-Time Worker	3,886,582 (97)	447,407 (94)	4,752,224 (96)	516,052 (92)	3,956,446 (93)	401,929 (86)	485,691 (93)	47,419 (88)
Temporary Workers	120,067 (3)	26,712 (6)	197,196 (4)	43,613 (8)	286,824 (7)	65,018 (14)	34,345 (7)	6,540 (12)

1) Number of case is number of trainees double-counted.

2) In-Service worker training performance since 2008 = employer vocational capability development training, paid vacation training, tuition support training, SME core duty improvement support, workers capability development card system total.

3) Numbers in parenthesis indicate proportion.

Source: Ministry of Employment and Labor (2011.3), employment insurance statistics.

## 3. Project Background

### 3.1. Economic Development and Changes in Vocational Training Policy

Vocational training in Korea has changed and developed along with the national economic growth. Workers support for In-Service worker training largely emerged after the mid to late 1990s when the industrial structure upgraded and services deepened due to unemployment and the financial crisis. Since 2000, more various programs were carried out in accordance with low growth, low employment, bipolarization, low fertility, and aging symptoms.

In particular, vocational training in the 2000's was established as a lifelong vocational capability development system, and the demands for vocational trainings to strengthen support for SMEs and vulnerable groups across their life increased. Demands of vocational trainees for vocational training became complex, self-training in the private sector and in the public sector-led training has led to rapid transition. Therefore, the existing provider-centered training providing system was reformed to the consumer-centered, In-Service worker improvement training, which was expanded and intensified. The SME-specific support system and special support system for the low-income group and female breadwinners were introduced.

**Table 4-9 | Major Vocational Training Policy and Performance in Korea**

Era	Major Policy	Performance
Mid 1960's-1970's (quicken period)	Nation-led new workforce training Mandatory vocational training system	Technical manpower training and timely supply Promote company's workforce training participation
Early 1980-1990's (growth period)	Multi-functional, multi-technical manpower training Strengthening the role of public training institution	Mid-high level manpower training and timely supply Civilian workforce training and complement through public training
Mid-late 1990's (transition period)	Improvement training for In-Service workers Social safety net establishment through introduction of employment insurance system	Skilled technical manpower increase Re-employment of the unemployed to overcome financial crisis
2000's (innovation period)	Establishing continuing vocational capability development system Strengthening the vulnerable workforce, customized manpower training	Vocational training policy recipient, beneficiaries and scope expansion Strengthening customer-centered vocational training policy

Source: Kim, Chulhee (2012), economic development and vocational training policies in Korea.

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Due to the acceleration in technological progress, social risk in employment stabilization and social mobility was increasing when employment capability development through continued education training was not carried out after employment. However, SME workers, temporary workers, working poor group lack the opportunities for continuing education, which makes them lack globalization and the adaptability to changes in the knowledge and information society (Ministry of Employment and Labor, 2012).

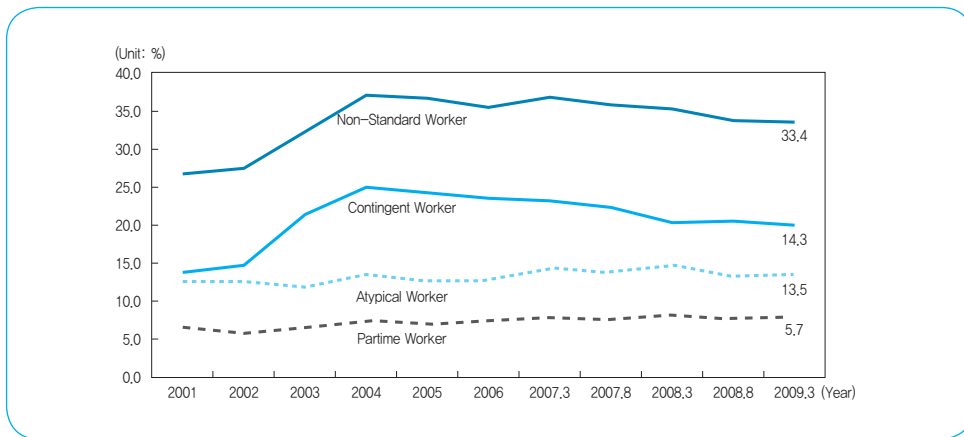
### 3.2. Changes in Labor Market Environment

Currently the labor market in Korea has a number of issues to address. Along with the low birth rate, aging, and polarization of the labor market, a high proportion of employees in the labor market are temporary workers. Moreover, improvement of the workers' job skills is demanded to meet the fast advancement in the service and manufacturing industries. Growth without employment and youth unemployment are also important issues in Korea's labor market. The lack of the skilled workers caused by the retirement of the baby boom generation is another concern. In addition, the new hires are unable to meet the demands of the enterprise, and the quality mismatch of the skills is deepening.

Workplace within the enterprise shows fast automation of production facilities and services as technical innovation is applied to the production field. In this process, the working organization changes, and the contents demanded to the workers in terms of skills are changing greatly. Quantitative and qualitative mismatch problems rising in recent recruits need to be interpreted as having to do with production and service field changes. In the vocational training standpoint, this discrepancy is positive for new hires, as well as training for In-Service workers to improve and become multi-functional, suggesting that there is a possibility to change the demands and contents of training (Park, Chunsoo, 2012).

When we look at the changes in the labor market, although the growth of temporary workers weakened by the Act for temporary workers in 2007, the number of temporary workers are rising and employment in the labor market diversification is underway. This means that the concept of lifelong job is fading, and the mobility in the labor market is increasing.

Figure 4-2 | Proportion of Temporary Workers among Waged Workers



Source: Yoo KJ (2009), study on temporary workers problem, Korea Development Institute.

Competition between companies has been intensified in the knowledge-based economy, and development and retention of key personnel has become the company's survival factor. In this environment, corporate-led unilateral, uniform personnel training system cannot adequately respond to the changing circumstances. Individual workers also need to retain and improve their market value by voluntarily developing and acquiring a high level of professional abilities (Kang SH, 2000).

Recent changes have also occurred in the concept of lifelong jobs. Companies are also paying the proper wages and providing the opportunity to develop new skills for their employees so that they can get new jobs in different workplaces. Therefore, the importance of life-long vocational capability development has become much more significant, and the reasons for the workers to participate in the education trainings also became clearer. In consequence, the workers have higher reasons to actively participate in the vocational trainings than the companies, thus a private vocational capability development system is needed.

### 3.3. Project Background

Vocational training system in Korea was officially introduced in 1967 when the vocational training law was established. Vocational training basic law for employers was established and enacted in 1976 based on mandatory vocational training. Vocational training basic law had the purpose to foster technical manpower needed in the industrial society. It largely contributed to economic growth by fostering adolescents, who could not afford to get a higher education, to become high-quality technical manpower, and then supplying them to

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industries. The law also expanded the opportunity for the disabled, housewives, the elderly, and the unemployed to get vocational training.

However, abrupt changes in the demand for vocational training in the 1990's demanded rapid changes. Higher education and aging greatly decreased the positive trainees, but the demands for vocational trainings for the unemployed, middle-aged, low-income groups increased. The need for the In-Service workers improvement trainings especially increased as the industrial structure was upgraded. However, the vocational training basic law system was government-led and uniform, thus voluntary in-company vocational training was hindered, and did not meet the informative, global trend of the time. In order to actively cope with domestic and international training conditions, the vocational capability development project was introduced, and vocational training-focused technical manpower training was expanded to workers' life-long capability development. Thus, the vocational capability development project on employment insurance law has a close relationship with vocational training on vocational training basic law (Ministry of Employment and Labor, 2005).

The purpose of vocational training basic law is to have the government be in charge of fostering the technical manpower but to have companies be responsible for vocational training by adopting an in-company mandatory vocational training system, and when the training company does not use the training fees in the vocational training, the company has the obligation to pay the difference of mandatory training fees and the actual training fees to promote companies' vocational training. At the time the system was introduced, companies implemented vocational training for the insureds in accordance to vocational training basic law. There were supporting projects that were implemented as well, such as education training for the employers who support or give classes; education trainings by the president's executive orders for the development and improvement of other insureds' vocational capabilities; paid vacations for the insured's vocational capability development or offering classes, education trainings for adaptation in the working environment or acquiring skills, and the knowledge needed for employment for the workers who plan to change jobs or jobseekers. For employee support projects, there were vocational trainings for the unemployed to promote re-employment, re-employment trainings for the unemployed that give education training grants, course tuition grants, and loans.



**Table 4-10 | Job Capability Development Project, Main Contents of Employee Support Project Among Incumbent Worker Training**

Project Type	Support Requirements	Amount of Cost
Subsidies for Attending Courses	When an employee insurant over the age of 50 attended vocational training or educational training at an education training facility appointed by the minister of labor or vocational training facility for development and improvement of his vocational capabilities at his own expense (attended more than 80%)	1/2 of the total tuition, but limits to 500000 KRW (purchase of study aids, housing, meals excluded)
Loans for Education Expenses	When an insurant enters technical college or Engineering Department of a school approved by the Education Law at his own expense	All of tuition or lending a part of it (interest rate, duration, and condition of the loan are consulted with the Minister of Labor and the Minister of Strategy and Finance)

Source: Ministry of Employment and Labor (2005), Employment Insurance 10 years, p.146 restructured.

From the late 1990's voluntary vulnerable workers were supported with the development of life skills and the training costs were supported. In 2010, other support programs emerged including grants for employees, capacity building cards for employees, professional development accounts, and the operation of targeted training. Training courses recognized methods, standards and procedures to streamline costs.

Recent trends also incorporate training and learning –oriented programs, organic combination of work and learning, and individual learning needs based on competency level selection process. Programs were being designed with more emphasis on the learner and learner -oriented interaction, on self-directed learning, on enhancing talent and expertise, and incorporated e-learning and blended learning methodology. In this context, the support programs for incumbent worker training are being expanded in scope and scale. The following table is the summary of the major changes in the support program for In-Service worker training since 1996.

**Table 4-11 | Main Changes in Workers Support Project**

Division	Main changes
1996	Expanded the targets of the student loan program for workers to students studying in any department of junior colleges Expanded elderly training institutions, increased limit amount of support Delegate vocational training planning to local labor office chair
2000	Enhanced tuition grants application requirements and recipients Established insurants' national technical qualification fees support system Expanded employment support recipients
2001	Student workers loan selection priority and loan amount regulation Established trainee regulations for government-run training
2002	Expanded tuition subsidy support for offices with more than 50 personnel Established loan for In-Service capability development fees
2004	Mitigated application requirements for worker students' tuition funding support Changed Worker Vocational Training Promotion Act to Workers Vocational Capability Development Act

Source: Ministry of Labor (2005), restructured from contents extracted from 10 years of employment insurance.

This shows the integration of the country's personal training support system. From September 2011, job skills and grant aid for workers were integrated and operated. Employee skills development card system was integrated with the professional development account, the zero-operated account, and the account for the unemployed and incumbent.

**Table 4-12 | Change System in Employee Support Project**

Classification		Current System			Integrated System(2011.9)	
		Vocational Ability Development Account	Vocational Ability Development Card	Vocational Training Support Fund	Vocational Ability Development Account	Vocational Ability Improvement Fund
Training Purpose		<ul style="list-style-type: none"> <li>□ Employment and business foundation support</li> </ul>	<ul style="list-style-type: none"> <li>□ Job change support</li> <li>□ Working ability improvement support</li> </ul>	<ul style="list-style-type: none"> <li>□ Job change support</li> <li>□ Working ability improvement support</li> </ul>	<ul style="list-style-type: none"> <li>□ Vocational Ability Development Account System</li> <li>□ Job change support</li> <li>□ Working ability Improvement support</li> </ul>	<ul style="list-style-type: none"> <li>□ Job change support</li> <li>□ Working ability improvement support</li> </ul>
Support Target		<ul style="list-style-type: none"> <li>□ Unemployed people</li> <li>□ Small business owners</li> <li>* Vocational counseling required</li> </ul>	<ul style="list-style-type: none"> <li>□ Short-term, dispatched, part-time or daily workers</li> </ul>	<ul style="list-style-type: none"> <li>□ Workers considering Job change</li> <li>□ Workers of preferentially supported companies</li> <li>□ Business owners with employment insurance</li> </ul>	<ul style="list-style-type: none"> <li>□ Unemployed people(A)</li> <li>□ Small business owners(B)</li> <li>□ Short-term, dispatched, part-time or daily workers(C)</li> <li>□ Workers considering Job change(D)</li> <li>□ Workers on unpaid leave(E)</li> <li>* Vocational Counseling required (A,B)</li> </ul>	<ul style="list-style-type: none"> <li>□ Short-term, dispatched, part-time or daily workers(C)</li> <li>□ Workers of preferentially supported companies(F)</li> <li>□ Business owners with employment insurance(G)</li> </ul>
Training Course		□ >40h for 10 days	□ >16h for 2 days	□ >16h for 2 days →	□ >40h for 10 days	□ >16h for 2 days
Support Level	Class Room Training Course (General Course)	<ul style="list-style-type: none"> <li>□ 60-80% of training fee</li> <li>* 100% for vulnerable class</li> <li>* transportation/food expenses supported</li> </ul>	<ul style="list-style-type: none"> <li>□ 60-80% of training fee</li> </ul>	<ul style="list-style-type: none"> <li>□ 50-80% of training fee (50-100% of standard training fee)</li> </ul>	<ul style="list-style-type: none"> <li>□ 60-80% of training fee(A,B)</li> <li>* 100% for vulnerable class</li> <li>* transportation/food expenses supported</li> <li>* 60-80% of training fee(C,D,E)</li> </ul>	<ul style="list-style-type: none"> <li>□ 60-80% of training fee(C)</li> <li>□ 50-80% of training fee(F,G) (50-100% of standard training fee)</li> </ul>
	Internet Training Course	□ N/A	□ 80% of training fee	<ul style="list-style-type: none"> <li>□ 100% of training fee (up to the amount notified by the Ministry of Employment and Labor)</li> </ul>	<ul style="list-style-type: none"> <li>□ 100% of training fee(C,D,E) (up to the amount notified by the Ministry of Employment and Labor)</li> </ul>	<ul style="list-style-type: none"> <li>□ 100% of training fee (up to the amount notified by the Ministry of Employment and Labor)</li> </ul>
	Language Course	□ N/A	<ul style="list-style-type: none"> <li>□ 0% of training fee (up to the amount notified by the Ministry of Employment and Labor)</li> </ul>	<ul style="list-style-type: none"> <li>□ 50% of training fee (up to the amount notified by the Ministry of Employment and Labor)</li> </ul>	<ul style="list-style-type: none"> <li>□ 50% of training fee(C,D,E) (up to the amount notified by the Ministry of Employment and Labor)</li> </ul>	<ul style="list-style-type: none"> <li>□ 50% of training fee (up to the amount notified by the Ministry of Employment and Labor)</li> </ul>

Classification		Current System			Integrated System(2011.9)	
		Vocational Ability Development Account	Vocational Ability Development Card	Vocational Training Support Fund	Vocational Ability Development Account	Vocational Ability Improvement Fund
Support Level	Internet Language Course	□ N/A	□ 80% of training fee (up to the amount notified by the Ministry of Employment and Labor)	□ N/A	□ N/A	□ N/A
Support Limit		□ 2 million KRW annually	□ 1 million KRW for the insurance year Total 3 million KRW for 5 years from training	□ 1 million KRW for the insurance year Total 3 million KRW for 5 years from training	→ □ 2 million KRW annually(A,B) □ 2 million KRW for the insurance year Total 3 million KRW for 5 years from training * Added up with the amount of Vocational Ability Improvement Fund	□ 1 million KRW for the insurance year Total 3 million KRW for 5 years from training * Added up with the amount of Vocational Ability Development Account

Source: Oh KT et al. (2012), study on personal training support system performance analysis, p.8.

### 3.4. Necessity of Employee-Directed In-Service Training

The training support system of Korea is divided into employer support and individual support. There are two programs for the employment support, which are the employer capacity development support fund (employer subsidy) and the National Human Resource Development Consortium (the Consortium). These employer-centered training programs are performed in a way in which the employment insurance fund refunds the cost of training to the employer. Meanwhile, the individual support system partly supports the costs for individually run training and consists of the temporary worker-centered vocational capability development account for In-Service workers (In-Service account system) and SME worker-centered vocational capability improvement support fund (improvement fund).

The primary purpose of training is to improve individual human capital, thereby promoting work skills of employees and raising their value in the labor market (Becker, 1964). This purpose can be achieved through training by the employer. In the employer's perspective, improving workers' vocational capability means increasing productivity and profit of the company. Then a question of why the individual training is necessary would be raised. If the purpose of training can be achieved through employer training, there would be no need to operate separate individual training, and an integrated system of employer-individual training would be more efficient. Nevertheless, the western developed countries such as the USA and UK are operating the individual training system separately, and are

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even intensifying this type of training recently (Na Youngsun, 2011; Choi Youngsup 2009; Lee, 2010).

Theoretically, when there is a conflict of interest between the employer and an individual in terms of training, there should be separate trainings for them. If the employer is interested only in the worker's vocational capability improvement, especially in the higher part of the return on investment calculation, then there can be blind spots in the falling part of the return. Therefore, employers would focus more on the area where they can directly get profits or increase productivity in the future by investing in trainings, and if they determine that these effects are weak, they would not invest in the training. For example, if the trained workers leave the company for new jobs, the profit from the investment to train them would not be guaranteed and thus employers would be reluctant to invest in training the employees who have high potential to change jobs. In addition, employers would not invest in training when they determine that training would not be effective in terms of productivity or profitability.

However, workers can have different interests on training. From the workers' perspective, it would be important to improve their work skills and foster their capabilities both for their current and future job positions. Unlike the past, it is difficult to find jobs for life as the labor market is becoming unstable and the environment is rapidly changing. Especially, employers may passively invest in training the temporary workers due to their employment instability, but in the perspective of temporary workers, capability development is a pressing need for the same reason. Similarly positioned, specially employed workers in the labor market and the self-employed who are in poor situations are also in a similar situation.

Thus, there is some need to support individual training separately from employer training. If there is no significant difference between the characteristics of individual training and employer training, it can be interpreted that they have similar interests and the two trainings have no discrimination, then integrating the two trainings would be the more efficient method. On the other hand, when individual training has different subject targets, labor market characteristics, and training market characteristics, then having a separate training from employer training would be desirable (Oh Kyetaek, 2012).

The features of government-sponsored training programs will be discussed in terms of their types. The training programs that are supported by the government can be classified into direct support from the government, co-training, support for employers, and support for individuals. Direct government support means that the government directly provides trainings in Polytechnic University, College of Industrial Technology, and University of Technology and Education. The advantages of these trainings are that these programs are stable and developed from the long-term perspective since there is an organic link between the government's human capital development strategies and these training programs.

However, they have high administrative costs and are difficult to quickly reflect the demands of the labor market.

Second, a method of joint training can be a national human resources development consortium project, which has an advantage of providing appropriate trainings for job skills and training demands, and to improve the economy. However, when it is large company-centered, there would be less practical benefits for SMEs, and is likely to have a marginal deadweight loss.

Third, support for employers can be the employer capability development support fund through the employment insurance reimbursement grants. The advantage of this support is that firm-specific trainings can be provided in consideration of the uniqueness of the individual companies and that skills training programs are available, and that the individual business gets high benefit. However, there is a possibility that trainings can be operated with the main purpose of getting the employment insurance reimbursement, general trainings may be the main trainings, and participation of SMEs may be low although they have a higher support fund amount for each individual.

Fourth, support for individuals can be divided into the vocational ability improvement fund and In-Service workers account system. The advantage of this type of support is that it is relatively easy and convenient for employees to choose programs. However, the limitations are difficulty of enhancing firm-specific trainings and lack of programs that support temporary workers and vulnerable groups who are excluded from the regular programs (Oh Kyetaek, 2012).

**Table 4-13 | Classification and Characteristics of Vocational Training**

Supporting Method	Program	Advantage	Disadvantage
National Supports	Polytech, Industrial Colleges	- Can be operated organically by linking with government's manpower management long-term planning and stability of program excellence in performance and employment	Administration costs are relatively high difficult to reflect demand changes in labor market difficult to ensure flexibilities of the program operation
Public Training	Consortium Programs	Useful in providing training programs based on the demands and skills of the company can operate training programs for the difficult skills through demands of the labor market	If the operating oriented SMEs to large practical benefits are limited the possibility of deadweight loss (efficiency of support) operation of the equipment and facilities center

Supporting Method	Program	Advantage	Disadvantage
Employer Support	Through Employment Insurance	Expertise and workplace-specific training can be provided can operate skills training programs considering specific situations in each company discretion of individual companies are high in running the training programs	The main purpose of unemployment insurance is to receive a refund of training programs tend to general training focusing on the possibility of operatingSME support costs are high per capital participation rate is low
Private Support	In-Service Account Project -Improvement Support	Enhance training and enable the participation of the possibility support of the voucher scheme used by an individual's perspective, it would be advantageous and maximize the discretion of individual workers – to enhance firm-specific training Difficulties	Company-specific training is difficult to enhancecan weaken protecting specific group of people[temporary workers] may intensify the dead zone for training

Source: Oh KT et al. (2012), study on personal training support system performance analysis, p.22.

## 4. Implementation Strategy and System

### 4.1. Program Strategies

Enactment and revision of the legislations related to vocational training have supported economic development and manpower requirement for companies. Enactment of Vocational Training Legislation in 1967, National Technical Legislation in 1973, Polytechnic College Legislation in 1977, Act on the Encouragement of Technical Skills in 1989, introduction of Employment Insurance System in 1995, enactment of Vocational Education and Training Legislation in 1997, and revision in Workers' Vocational Training Promotion Legislation in 1997 have all been responses to the demands of fostering and improving manpower. In 2005, innovative methods for vocational capability development were announced focusing on promoting capability development in district and labor-management, financial integration of employment stability and capability development project, and expanding the targets to students and self-employed. In addition, Joint Training Infra Innovation Methods in 2005 and Lifelong Vocational Capability Development System Innovation Methods in 2006 were established.

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In addition, the First Basic Plans for Lifelong Vocational Capability Development were established in 2007, which selected key projects such as vocational capability development covering the working life, vocational capability development as universal rights, market-friendly delivery system innovation, capability-centered system and culture expansion, and vocational capability development promotion system organization for promotion. Through this, long-term vision and strategic tasks are established, and comprehensive and systematic policy action plans are promoted for the fairness and expansion of opportunity for vocational capability development (Ministry of Labor, 2007).

In 2009, training participants' choice enhancement, increase in the industry and local participation, field-centered capability development promotion, and systematic management of vocational capability development projects were selected and promoted as policy objectives through the construction of market-friendly vocational capability development systems.

In 2012, the Second Basic Plans for Lifelong Vocational Capability Development have been established. Detailed policy objectives are 1) support for growth and innovation of the industry and private sector, 2) promotion for open employment and lifelong education, 3) social integration through individuals' work and their skills development, 4) and building sound training market through a partnership between the public and private sectors (the Joint Interagency, 2012). The Plans include methods for integration of individual support programs of the employee-directed in-service training system (the Naeil-Baeum Card program, the vocational ability improvement fund), and ways to support the actual costs for activation of vocational capability development for temporary workers.

## 4.2. System

Current professional development training and business skills development system can be categorized as follows: by the employer (Employer-driven Learning); and self-directed skills development (Self-directed Learning); and other public training institutions (Korea Polytechnic University, Korea University of Technology and Education, etc.). Capacity building support organized by the employer and the individual companies can be divided into second enterprise level support, individual business owners support, which includes job skills training, small business training, infrastructure training, and SME CEO- HRD training. Second company has a small unit support job training consortium, council human resource development industries, and joint labor-management training. Dual- industry human resource development council supports the business innovation center that supports projects to promote education and training.



Financial support system for vocational training imposed a duty of vocational training on the companies with a certain number of employees by adopting the Levy-Exemption from 1975 to 1998. Mandatory spending rate for training costs were set within the range of 0.2% of the total wage or the number of mandatory training based on full-time workers. The companies that failed to perform the duty were to pay contributions to the government and to raise funds to promote job training with corporate contributions. These vocational training promotion funds were mainly used for public training, training facilities such as companies, equipment support, research, and study.

In 1995, the Employment Insurance (Levy-Grant) was introduced. The composition of the employment insurance fund was for private training, unemployment training, and funding to support training for workers at the Korea Polytechnic University.

## 5. Success Factors and Limitations

### 5.1. Basic Directions of Employee-Directed In-Service Training

As discussed above, key factors for success of the employee-directed in-service training program are as follows; 1) fostering high-quality technical professionals through workers skill improvement; 2) lifelong vocational capability development system establishment; 3) expanding choices for workers by introducing a variety of training programs; and 4) promoting employers' and employees' participation in vocational training by strengthening each party's role respectively in programs. However, there is also room for improvement, such as needs for 1) more active cooperation of the company and In-Service workers, 2) raising awareness of the necessity of workers' vocational capability development, 3) and stabilization of financial management through timely and effective system improvement.

### 5.2. Contributions to Lifelong Vocational Capability Development

The employee-directed in-service training system in Korea can be understood as an intensified support for the vulnerable In-Service employees. This direction of support has the validity in providing the socially and economically vulnerable In-Service workers the opportunity to work at better workplaces by improving their job skills through capability development, and let them work longer in the labor market.

Employee-directed in-service training system can be understood as a policy to support learning expenses for adults, including the workers who have a high possibility of failing in the market. Adult workers who graduated from the school education system can be indifferent to the education training if they lack interest in company trainings, and therefore

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a mechanism is needed for the employee to have continuous interest in education training voluntarily. In this perspective, the government's support for education training helps adult workers maintain continuous education training.

Employee-directed in-service training system in Korea is being settled as a system dedicated to capability development for all adults and their lifelong education. Since the main purpose of lifelong education is to make adult workers continue developing their capabilities through long-term learning, the support for continued education is operating employee-directed in-service training system with the goal of a training system that maintains continuous employable status (Oh Kyetaek, 2012; Na Youngsun, 2009).

### 5.3. Promoting Efficiency through Program Integration

The vocational ability improvement fund is for the improvement of SME workers' vocational capability, and Naeil-Baeum Card system is operated with the purpose to develop temporary workers' capability. For this reason, some training occupations or industry may be different, but basically has similar characteristics. Both systems support training and improve job skills for In-Service workers who are in relatively vulnerable situations, and aim to maintain the workers' employability in the labor market (Na Youngsun, 2010). In particular, the training institutions that provide training, and the workers who are the practical beneficiaries do not feel the differentiation of the two systems and in terms of providing the same training opportunity for workers regardless of position in the labor market, an efficient method to integrate the systems is necessary.

In terms of the purpose of training, the vocational ability improvement fund is vocational capability-centered and Naeil-Baeum Card system is operated in self-development-centered system. However, an integration to support employment stabilization through voluntary capability development can be done. Trainings with the purpose of self-development can contribute to capability development and employability of a worker in long-term, thus this can be included in the purpose of the system, but there should be a method to adjust training supply and demand through increasing the spending rates for the trainings with the purpose of strong self-development.

Integrated operation of a similar system for the financial efficiency of training, cost saving effect can be expected, and a method to make training finances effective by adjusting the rate of spending properly to the labor market situation in order to control the ethics of the training participants, and minimizing the loss by delivering the training for the subjects who need it also need to be considered.

Furthermore, current support training system for Korea's employers is separate from employee-directed in-service training. Employer support trainings are company-centered

training, and the training fees are refunded from employment insurance. In workers support, a qualified worker chooses a training program, pays for it, gets the training and the rest of the training fee is supported by the employee training support system. The employee-directed in-service training is made on a personal level, therefore it is difficult to find out which training an employee is getting, therefore the same training can be given twice, and this lack of information on training market can decrease resource distribution efficiency.

Therefore, separate systems are operated through differentiating training market for the employer support training and worker support training. Logically, it is effective to support the trainings that have possibility of investment from companies, and the ones that lack investment possibility can be supported for workers training. Workers support need to promote in the direction of decreasing blind spots of training by supporting the field that lacks investments.

#### 5.4. Expanding Beneficiaries for Individual Support System

Current workers support system for the vocational ability improvement fund targets SME workers, and Naeil-Baeum Card system targets temporary workers. Recently, qualified self-employed and some of specially employed are included as beneficiaries. Vulnerable In-Service workers' job skills are improved through vocational capability development, and the targets are being expanded in order to match the goal of the system, to maintain employability (Oh Kyetaek, 2012).

If temporary workers do not get enough education training, they can move from a company to another company as temporary workers. When trainings operated by employers are only supported, the trainings can be focused on full-time workers, and temporary workers have high risk of falling into the training blind spots. Therefore, the subject target for employer individual training support needs to be the vulnerable temporary workers, and workers training support system needs to be strengthened to support the less-skilled workers and the vulnerable workers.

#### 5.5. Consideration of each Employee's Job Skill Level

In the case of Korea's employee-directed in-service training, personal spending rate is adjusted according to the type of employment and training procedure. Current workers training support system lacks consideration on the functional level of an individual. Therefore, understanding the In-Service workers' skill levels and providing a proper level of support is necessary. In this process, employees' vocational ability may improve through education. However, this might result in a decrease in the individual support opportunities for those employees, which can be called 'reverse discrimination'. Thus, a follow-up action

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is required. For differentiated operation according to the job skill level of every In-Service worker, an accurate and precise measurement tool for the vocational skill level test is needed along with a delivery system. Also, methods to provide differentiated support according to the training characteristics can be considered (Oh Kyetaek, 2012).

## 5.6. Enhancing Training Consultation Program for each Employee

Currently, Naeil-Baeum Card system is providing training consultation for employees in the process of determining the need for training or selecting training. Understanding the trainee's training demands through consultation, the trainee's interest, level, and aptitude, which are the key procedures to secure the training effects. In addition, training consultation plays an important role in managing the training supply that is appropriate for the industry demands. When the function of training consultation becomes weak, the possibility to provide the correct training for the individual also decreases, and managing the training supply for the industry demands is also limited. For the in-service training, the training consultation functions well although it is weaker than that of the unemployed. It especially shows that training and occupation consultation are necessary for some In-Service trainees (Oh Kyetaek, 2012).

Therefore, in order for practical training and occupational counseling to take place, career counselors' professionalism and capability development are essential, and owning extensive knowledge on relevant training is necessary. Individual training system for workers also needs to provide not only the simple training programs, but also various services for trainings and environments through training consultation at the same time.

## 6. Implications for Developing Countries

Generally, the employee-directed in-service training can be discussed in countries where industrialization has already been completed or ongoing, and the proportion of wage workers is high enough among the population. In this regard, the governments of less-developed or low-income countries that do not have enough industrial infrastructures may have difficulties establishing employee-directed in-service training system. Moreover, a number of things should be taken into account in developing employee-directed in-service training programs, such as personal preference of trainees and skill demands of companies. Thus, employees' own wills to participate in the programs, the government's support policy, and a partnership between the public sector and business corporations may be required to provide appropriate employee-directed in-service training programs for employees.

In terms of policy implications for developing countries, first, the employee-directed in-service training programs tend to be successful in middle- or high-income countries where

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the government is able to pay attention to the In-Service workers' skills development and skill demands of companies. It means that the likelihood of program success is directly related to the country's industrial structure and its development phase. Therefore, in countries in an early stage of industrial growth, like low-income countries, the employee-directed in-service training system should be developed from a long-term perspective in consideration of the country's industrial development phase. Also, when establishing it, in-depth pre-review of the system is recommended, such as a policy piloting at the national level.

Second, there is a need to raise awareness among business owners about the necessity of employees' job skills development. In other words, the government should make employers realize that investment in human capital ultimately leads to an increase in the companies' productivity and profits. Furthermore, the government should consider designing policies supporting companies that provide many vocational training programs for their own employees.

Third, the Korean government currently operates a variety of programs for the employee-directed in-service training system, such as the vocational ability improvement fund, the Naeil-Baeum Card program, the student loan for workers, the loan for vocational training fee, the short-term job skills support program, and among others. However, it is highly likely that all these programs will not have similar impacts on every developing country as it has different national conditions. Therefore, more detailed program models, which are based on all employee-directed in-service training programs that the Korean government has so far executed, need to be provided to developing countries in order for them to adopt programs suited to their domestic circumstances more easily and quickly.

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