Korea’s Vocational Education and Training Policy: Achievements, Limits and Future Challenges

November 2016

Dr. Prof. Young-bum Park, President
(ybpark@hrdkorea.or.kr & ybpark@hansung.ac.kr)
"The best HRD professional organization to raise the value of people and companies"

Major Functions of HRDKorea

Since its establishment, HRDKorea has recognized the importance of having a competence based and highly skilled society.
Introduction to HRD Korea

- **# of staffs (2016)**
  - 1,280 staffs

- **Annual budgets (2016)**
  - 1,345,529 million(KRW) / 1,152 million(USD)

- **Organization:**
  - Head quarters: 3 Vice Presidents, 1 Unit, 12 Bureaus and 43 teams
  - Attached organization: 1 Unit, 1 bureau and 5 teams
  - Agencies: 6 regional headquarters, 18 branch offices, 6 qualification examination centers, 16 EPS Centers
Korea’s Vocational Education and Training Policy: Achievements, Limits and Future Challenges

I. Korea’s Vocational Education and Training (TVET) System

II. Developments of Korea’s Vocational Education and Training

III. Challenges for Korea’s Vocational Education and Training
### Korea’s TVET: Dual Scheme

<table>
<thead>
<tr>
<th>Ministry concerned</th>
<th>Vocational Education</th>
<th>Vocational Training</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Implementing institutions</strong></td>
<td>Ministry of Education</td>
<td>Ministry of Employment and Labor</td>
</tr>
<tr>
<td>Vocational high schools</td>
<td>Public vocational institutes</td>
<td></td>
</tr>
<tr>
<td>Junior technical colleges</td>
<td>In-plant vocational institutes</td>
<td></td>
</tr>
<tr>
<td>Open colleges</td>
<td>Authorized vocational institutes</td>
<td></td>
</tr>
<tr>
<td>Life-long education institutes</td>
<td>Authorized vocational courses</td>
<td></td>
</tr>
<tr>
<td>Authorized vocational courses offered by life-long education institutes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Period of education/training</strong></td>
<td>2 to 3 years</td>
<td>Depending on courses</td>
</tr>
</tbody>
</table>
Formal Education System of Korea

Schooling System (6-3-3-4 pattern)

- Graduate School
- University (4 years)
- General high school (3 years)
- Middle school (3 years)
- Elementary school (6 years)
- kindergarten (3 years)
- Junior college (2~4 years)
- Vocational (Special, Meister) school
# Institutions for Vocational Training (2014)

<table>
<thead>
<tr>
<th>Classification</th>
<th>No.</th>
<th>VTls/Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>2,777</td>
<td></td>
</tr>
<tr>
<td><strong>Public VTls</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-Total</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Public Org.</td>
<td>40</td>
<td>KOPO, KUT, KEPAD (Korea Employment Promotion Agency for the Disabled)</td>
</tr>
<tr>
<td>Local Govern.</td>
<td>8</td>
<td>Seoul, Other Provinces</td>
</tr>
<tr>
<td>Min. of Justice</td>
<td>31</td>
<td>Inmates’ Vocational Competency</td>
</tr>
<tr>
<td><strong>Private VTls</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-Total</td>
<td>2,698</td>
<td></td>
</tr>
<tr>
<td>Trg. Corporation</td>
<td>55</td>
<td>Non-profit Corporations</td>
</tr>
<tr>
<td>WRD Center</td>
<td>51</td>
<td>Women’s Vocational Competency</td>
</tr>
<tr>
<td>MOEL Designated</td>
<td>823</td>
<td>Individual Designated VTls, KCCI (Korea Chamber of Commerce and Industry)</td>
</tr>
<tr>
<td>Others</td>
<td>1,769</td>
<td>Companies of Associations, etc.</td>
</tr>
</tbody>
</table>
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Changes in GDP per Capita since 1960s

Economy developed drastically

- **1965-1995**: 100-times increase in GDP per capita from around US$100 (1965) to US$10,000 (1995), only in 30 years
Factors of the Korean Economic Growth

- Strong intervention of central government in the decision of development path and the allocation of resources including capital and labor
  - Implementing a series of “Five-year Economic Development Plans”

- Emphasis on Human Resource Development
  - Rapid decrease of illiteracy (over age 12): 78% (1945) → 28% (1960)
    - Based on national movement led by the ministry of Education
  - Rapid expansion of Enrollment Rate
    - Enrollment rate to primary school: Under 30% (pre-1945) → 95% (1959)
    - Enrollment rate to upper-secondary school: 3% (1951) → 20% (1959)

- Even during the war, Establishment of national public universities and the promulgation of the "Wartime Emergency Education Act".
Factors of the Korean Economic Growth

- Close alignment of TVET with changing skills needs
  
  - **Industrialization period:** Expansion of initial VET through secondary vocational education and compulsory vocational training
  
  - **Post-industrialization:** More emphasis on higher-level and continuous VET through vocational colleges and Vocational Ability Development scheme

![Bar chart showing the change in percentage of vocat.high, junior college, and vocat.train from 1965 to 2008.]

<table>
<thead>
<tr>
<th>Year</th>
<th>vocat.high</th>
<th>junior college</th>
<th>vocat.train</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>5.2</td>
<td>11.2</td>
<td>83.6</td>
</tr>
<tr>
<td>2008</td>
<td>74.9</td>
<td>15.4</td>
<td>9.7</td>
</tr>
</tbody>
</table>
Factors of the Korean Economic Growth

Rapid and incremental expansion of Enrolment Rate

- Primary
- Lower Secondary
- Upper Secondary
- Tertiary
Comparison of the High School Completion Rates in OECD Countries by Ages

## Rapid expansion of TVET

### Changes in TVET Participation (1965 - 2008)

<table>
<thead>
<tr>
<th>Category</th>
<th>Types of TVET</th>
<th>1965</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of VET participants</strong></td>
<td>Vocational schools</td>
<td>172,436</td>
<td>487,492</td>
</tr>
<tr>
<td></td>
<td>Junior colleges</td>
<td>23,159</td>
<td>771,854</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>195,595</td>
<td>1,259,346</td>
</tr>
<tr>
<td><strong>Vocational Training</strong></td>
<td>Pre-job training Seoul, Other Provinces</td>
<td>156,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vocational training of the employed</td>
<td>0</td>
<td>3,601,000</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>10,738</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>206,333</td>
<td>5,016,346</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proportion of VET participants (%)</th>
<th>Among aged over 15yrs</th>
<th>0.5</th>
<th>12.5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Among those aged 15-64 yrs</td>
<td>6.1</td>
<td>14.6</td>
</tr>
</tbody>
</table>
Number of Trainees who underwent Vocational Training During the 2nd to 7th National Economic Development Plans

<table>
<thead>
<tr>
<th>Plan</th>
<th>Total</th>
<th>In-plant Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>48,225</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>177,350</td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td>337,388</td>
<td></td>
</tr>
<tr>
<td>5th</td>
<td>114,773</td>
<td></td>
</tr>
<tr>
<td>6th</td>
<td>116,389</td>
<td></td>
</tr>
<tr>
<td>7th</td>
<td>708,354</td>
<td></td>
</tr>
</tbody>
</table>
Vocational Training and Government

- ‘Vocational Training Act’ (1967)
- ‘Act on Special Measures for Vocational Training’ (1976)
- ‘Vocational Training Promotion Act’ (1999)

✓ **Employment Insurance Scheme** under the authority of the Ministry of Employment and Labor (MOEL)

✓ Three pillars: 1) Job Skills Development Program
  2) Employment Stabilization Program
  3) Unemployment Benefits
## TVET and Economic Development

<table>
<thead>
<tr>
<th>Economic development and labor market</th>
<th>Vocational education</th>
<th>Vocational training</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Take-off phase (1961-72)</strong></td>
<td>Development of VE (1960s-70s)</td>
<td>Before enactment of the Vocational Training Act (until 1967)</td>
</tr>
<tr>
<td><strong>Heavy-chemical industry Promotion phase (1972-79)</strong></td>
<td>Stagnation of VE at high Schools, and restructuring and quality improvement of junior colleges (1980s)</td>
<td>Introduction of the VT system: since the enactment of the Vocational Training Act until the enactment of the Act on Special Measures for Vocational Training (1967-74)</td>
</tr>
<tr>
<td><strong>Early stage of globalization (1980-86)</strong></td>
<td>Revival of VE (early 1990s)</td>
<td>Implementation of the mandatory VT system: since the enactment of the Act on Special Measures for Vocational Training until the introduction of the Employment Insurance Act and the Vocational Training Promotion Act (1975-98)</td>
</tr>
<tr>
<td><strong>Asian Financial Crisis, IMF Bail-out program and the Korean economy (since 1998)</strong></td>
<td>Introduction of the employment First-Advancement to university Later policy and VE (since 2009)</td>
<td>After the introduction of the Vocational Training Promotion Act Changed role of the Public sector-providing support for private VT (since 1999)</td>
</tr>
</tbody>
</table>
Advance rate for Higher Education Institutions (1970~2015)
Lifetime Wages by Educational Attainment

- Specialized (vocational) high school graduates
- Vocational college graduates
- Graduates from general universities
- Graduates from the top ten universities

(Unit: ten thousand won)
The Forecast of the Enrollment Rate for Junior Colleges and 4-Year Universities
In the early stages of industrialization, it helped to supply abundant high-quality labor in a timely manner which leads the rapid economic growth. Under the framework of employment insurance system, all the firms, workers and unemployed persons were absorbed as a subject of vocational skills development policies.

Conduction of large-scale training for the unemployed during the 1997’s Asian financial crisis played a role as a social safety net.

Since the 2000s participation in vocational skills development increased drastically.
Korea’s higher education enrollment rate or its growth rate is one of the highest in the world.

→ High unemployment rates vs. labor shortages of SMEs.

By contrast, Korea’s adults’ participation rate in education and training is lowly ranked among OECD countries

Little interests in human resource development of own employees: Employers so accustomed to government-provided human resources

→ Supply-initiated vocational education and training: lack of teachers with actual workplace experiences

Inequality of participation opportunities in vocational skills development

→ One thirds of workers are irregular and many of them are not covered by the Employment Insurance System
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Comparison of Elderly and Youth Employment Rate

- △ % proportion of employed person aged 50 years and above
- ○ % proportion of employed person aged 29 years and below
Size and Share of Non-regular Workers


Wage workers Non-regular workers Share

(1,000 of people)

Size and Share of Non-regular Workers


Wage workers Non-regular workers Share

(1,000 of people)

Size and Share of Non-regular Workers


Wage workers Non-regular workers Share

(1,000 of people)

Size and Share of Non-regular Workers


Wage workers Non-regular workers Share

(1,000 of people)

Size and Share of Non-regular Workers


Wage workers Non-regular workers Share

(1,000 of people)
Reform of VE system for sustainable development

- Change of the name of vocational high school
  - Technical high school
    - Industrial development image
  - Commercial high school
    - Post-industrial image
  - Special high school
    - Emphasis on professionalism & specialization

  ✓ Together with change of name came changes in curriculum

- Establishment of Meister High School system
  ✓ Improved image of vocational education through establishment of quality vocational high schools
    : Full financial support from gov’t., a select few of elite schools (42 Meister high schools in the country: distribution by region) providing employment first-university later vocational education

‘Employment first-University later’ Policy and Meister schools (Lee Myung-bak Administration)
‘Employment first-University later’ Policy Support System

**In school**
- Special high school scholarships
- Strengthening of on-the-job training
- Expansion of customized curricular
- Global Competency Development Program
- Core competency test/Task-oriented qualifications
- Industry experts as instructors
- Special high school-industry-junior college linkage
- Establishment of employment support system in Office of Education and school
- Reform of information disclosure system, etc.

**Employment**
- Skilled manpower recommendation system
- Youth internship program
- Employment target system in public organizations
- Delay of enlistment (24 yr. old), industrial technician system (7,000 persons), technician soldier system
- Basic livelihood security
- Corporate tax benefit system
- Strengthening of job placement function

**Continuing education**
- In-firm/Technology university
- Cyber university/Open university
- Cyber university in technical fields (under discussion, KCCI)
- Special selection for workers
- Contract-based, industry commissioned education
- Academic Credit Bank System
- Skills development and training
- Scholarship for outstanding students from low-income families
- Loans and aids for school expenses, etc.
Meister High Schools (special vocational high school)

- Opened in 2010
- The Ministry provides the graduates with the opportunities to be in stable employment after graduation, to serve in the army beneficial for career, and to enter college and workforce with 3-year work experience.

- Number of Meister High Schools: 40 (2016)
- Number of Meister High School students: 17,781 (2016)

Meister High School provides free education to produce young meisters (masters)
Establish agreement and cooperative system between meister high school and industry

- 28 meister high schools made an agreement with 1,928 businesses (as of Feb. 2013) to establish cooperative network for education, technical support and employment.
  
  - MOU with Samsung Electronics (Dec. 2010) - employed 113 students
  
  - MOU with Hyundai Motors (Mar. 2011) - plans to employee 1,000 students for ten years
  
  - MOU between KITECH, Korea Craftsman Association and MEST (May. 2011)
    - KITECH: support for root industries (molding, casting, welding and plating)
    - Korea Craftsman Association : provide on-site experience and knowhow.
Meister High Schools: Outcomes

| The Leading Model for TVE at Secondary Level |

- Shows successful school to work transition
- 90.3% of the first graduates are employed, 99.0% of them are regular employees, 59.2% of them are employed by cooperative business
- More than 80% finding jobs through school recommendations or open competition, proving that enterprise-need-based education is useful
- 82.5% planning for further studies; 78.4% of them planning to study while working
- 71.4% being satisfied with school education; 70.1% finding the school education useful for work
- Change in perception toward the vocational high schools
  - Spillover effect
Outcomes of the reform of secondary VE

Changing transition patterns of VHS graduates

- Share of graduates entered higher education
- Share of graduates employed
Park Geun-hye Administration’s Policies on TVET(I): MOEL-initiated Skills Development Measures

- Development of industry demand-based National Competency Standards (NCS)
  - Development of NCS for all fields to be completed during 2014 to constitute the DNA of industry demand-centered skills development
  - Construction & operation of industry-led NCS maintenance and management system (2015~)

- Promotion of NCS-based National Qualifications Framework & skills development
  - Reform of the National Technical Qualifications system
  - Strengthening of the supporting function of the public sector & provision of incentives to the private sector in order to develop NCS-based skills development programs
  - Assistance & consulting provided to companies to help expand NCS-based human resources management in private companies

- Establishment of a Korean dual system of work and learning
  - Development & implementation of work and learning dual programs at upper and post-secondary levels
  - Enactment of laws related to the dual system of work and learning, operation of joint training centers, development of on-site corporate instructors & competency development, etc.

- Establishment of industry demand-oriented skills development system
  - Industry demand-oriented skills development by region through regional HRD Committees (4 regional committees formed in 2013)
  - Reform of the qualifications system & establishment of the dual system of work and learning of Sector Council–led NCS
Park Geun-hye Administration’s Policies on TVET(II): Specialized High Schools

- Development of specialized high schools linked to related ministries, local gov’t & industry

- Development & implementation of curriculum oriented towards National Competency Standards (NCS)
  - Development of NCS & learning modules based on cooperative work system between Ministry of Education & Ministry of Employment & Labor
    → Development of 254 NCS & 55 NCS learning modules for 2013 and more development for following years
  - Reform of curricula in specialized high schools and junior colleges based on NCS

- Expansion of vocational education opportunities for students with talent, aptitude & willingness to work
  - School transfers between general high schools & specialized high schools for career change
  - Increased VE opportunities for general high school students
    → Expansion of commissioned VE providers, and designation & operation of VE-centered schools

- Continued expansion of employment among high school graduates & establishment of degree-earning system for workers
  - Expansion of univ. with special admission system for workers, and designation of univ. for late entrance into specialized·uncommon fields
    → Special selection for specialized high school students opting for work: 2.1% of the quota (2013) → 10.9% (2014)
    → 7 schools and 4 fields, including agriculture and horse farm
  - National scholarship-supported overseas study & training system for specialized high school graduates working in industry as skilled technicians and craftsmen
Park Geun-hye Administration’s Policies on TVET(III): Junior Colleges

- **Development of 100 specialized junior colleges**
  - Generation of 150,000 core industrial manpower per annum for knowledge-based industry & creative economy

- **Diversification of study years & degree programs in junior colleges**
  - Diversification of terms of study to 1~4 years in junior colleges based on NCS and industry demand

- **Establishment & development of meister graduate schools for industrial technology**
  - Establishment of special graduate schools for highly skilled persons in specialized fields including World Skills Competition winners & meisters
    → Establishment & authorization of 1 school in each of 4 regions (25 persons/school, 100 graduates/annum)

- **Development of lifelong vocational education university**
  - Development of lifelong VE univ. providing NCS-based module-type curricula for adults, workers & the unemployed
    → Development of 16 schools in total, including 8 schools (2014) & 8 schools (2015)

- **Promotion of globalization project**
  - Reinforcement of global employability of junior college students & development and supply of talented manpower for Korean industry in overseas markets
    → Target of 600 or more persons per annum sent abroad from 20 projects
National Competency Standards (NCS): System reform for sustainable development

NCS defines skills a person should be able to demonstrate at work by occupation at national level

- Improvement in TVET system in response to environmental changes: Introduction of NCS in curriculum

  Transforming theory- & process-oriented education & training system into job- & result-oriented education and training system

* Conceptual model of National Competency Standards (NCS)
National Competency Standards (NCS): Why NCS?

- improving suitability of education, training and qualification for work
- improving employability of learners (education, training)
- link between education, training and qualification
  - prevents overlapping investment
- promotes work-based life-long learning
- promotes globalization of qualification (compatibility)
Skills mismatch due to over-education of the youth

→ difficulties for job-seekers, firms need to **re-train** workers

→ lowers GDP growth rate

Need to benchmark successful practices of OECD countries in work-based learning

Introduce **Korean version of Work-Learning Dual System**

→ teach the skills required at work in workplace and evaluate & accredit

→ compatible in labor market

→ improve the existing practical training

Encourages participation of firms, employer association in creating practical training programs (subsidies)
A new paradigm of TVET
“Apprenticeship customized for Korea”

Training program based on NCS

**OJT** Work + training on site

**Off-JT** Theory based in school, training institutes, etc. on demand of a company

**Certificates**
A new TVET program based on NCS lead by companies
In-company trainers train learning workers in a company instead of school or vocational training institutes; and the workers will be given certification by government and industry.
(training duration: 0.5~4 yrs)
Improvement in TVET system in response to environmental changes: Introduction of job-oriented education system through dual system of work & learning

- Companies select high caliber workers, education and training curricula combine OJT and Off-JT
- Academic achievement or qualification is granted upon evaluation of results following completion of education and training
- **Companies**: Manpower utilization
  **Individuals**: Income earning through employment + Possibility of acquiring both academic achievement & qualification
- Similar to apprenticeship system in Europe, wage is partially supported by the government
Work-Learning Dual System: Major features

- **Target group: job seekers aged 15-29**
  (including seniors of high schools and colleges)

- **Target company: more than 50 employees (Joint VTC type : 20↑)**

- **Duration: 6 months - 4 years, depending on job (300~1,000 hours per year)**
  (Minimum condition : OJT 50%, Off-JT 20%)

- For manufacturing industries (mechanic, engineering, electric, etc.) and service industries, where low and medium skilled workers are required

- **Training program is developed with National vocational qualification based on NCS relating level**

- **Internal and external assessment to verify the program for learning workers**
Work-Learning Dual System: Expected Outcomes

- **Labor Market**
  - A quick solution for Skill Deficit
  - Improvement in Education and Training to rely on labor market needs
  - Improvement on signal for the selection of manpower needed at the field

- **Employers (Company)**
  - Selection and preoccupancy of the superior manpower
  - Cost reduction of OJT and Settlement in current work

- **Employees (Job-seekers)**
  - Ensuring opportunities to learn while working
  - Improvement in Job skills and Work adaptability
Future Challenges: Realization of competency-based society

NQF (National Qualification Framework) / School = Qualification = Work experience

Before entering the labor market

After entering the labor market

Recruitment

HR management such as promotion and reward system

Education system (school)

Qualification system

Recruitment focusing on NCS-based competency

Type I: Basic job competency
Type II: Job performance competency for each occupational group
Type III: Detailed job performance competency

Assessment based on job competency

System of work and learning

Job training

National Competency Standards (NCS)

Raise social awareness of recognizing the importance of competency

Competency-based society
Thank you
"Better Skills, Better World"

HRD Korea

Dr. Prof. Young-bum Park, President
(ybpark@hrdkorea.or.kr & ybpark@hansung.ac.kr)