



HRD for Knowledge Economy

- Reforming the Role of Government -


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In January 2001 the Government expanded the Ministry of Education to **the Ministry of Education and Human Resources Development. Now, HRD, which used to be an issue confined to private organizations or companies has now become a matter of great importance at a national level.**



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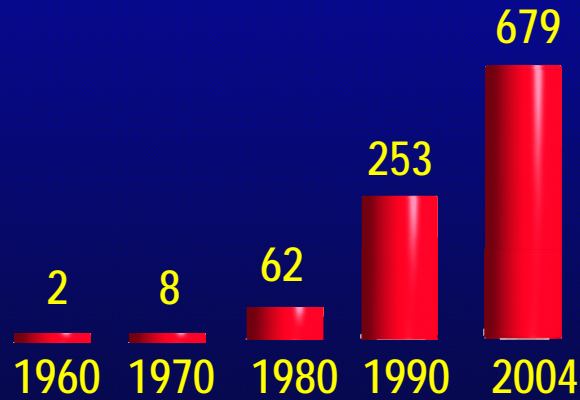
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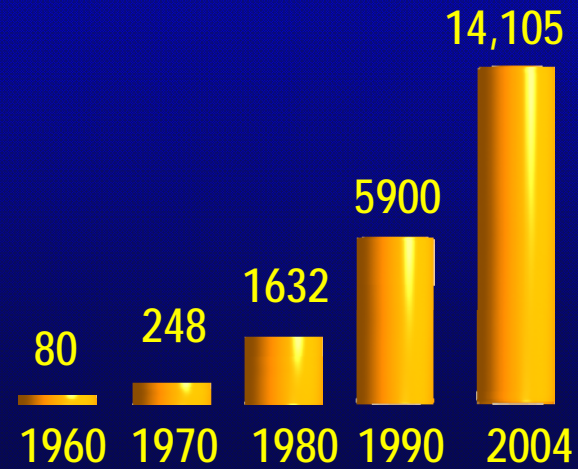
I. HRD & Economy

I-1 Economic Growth

GDP (US\$, Bil.)



GDP per Capita (US\$)

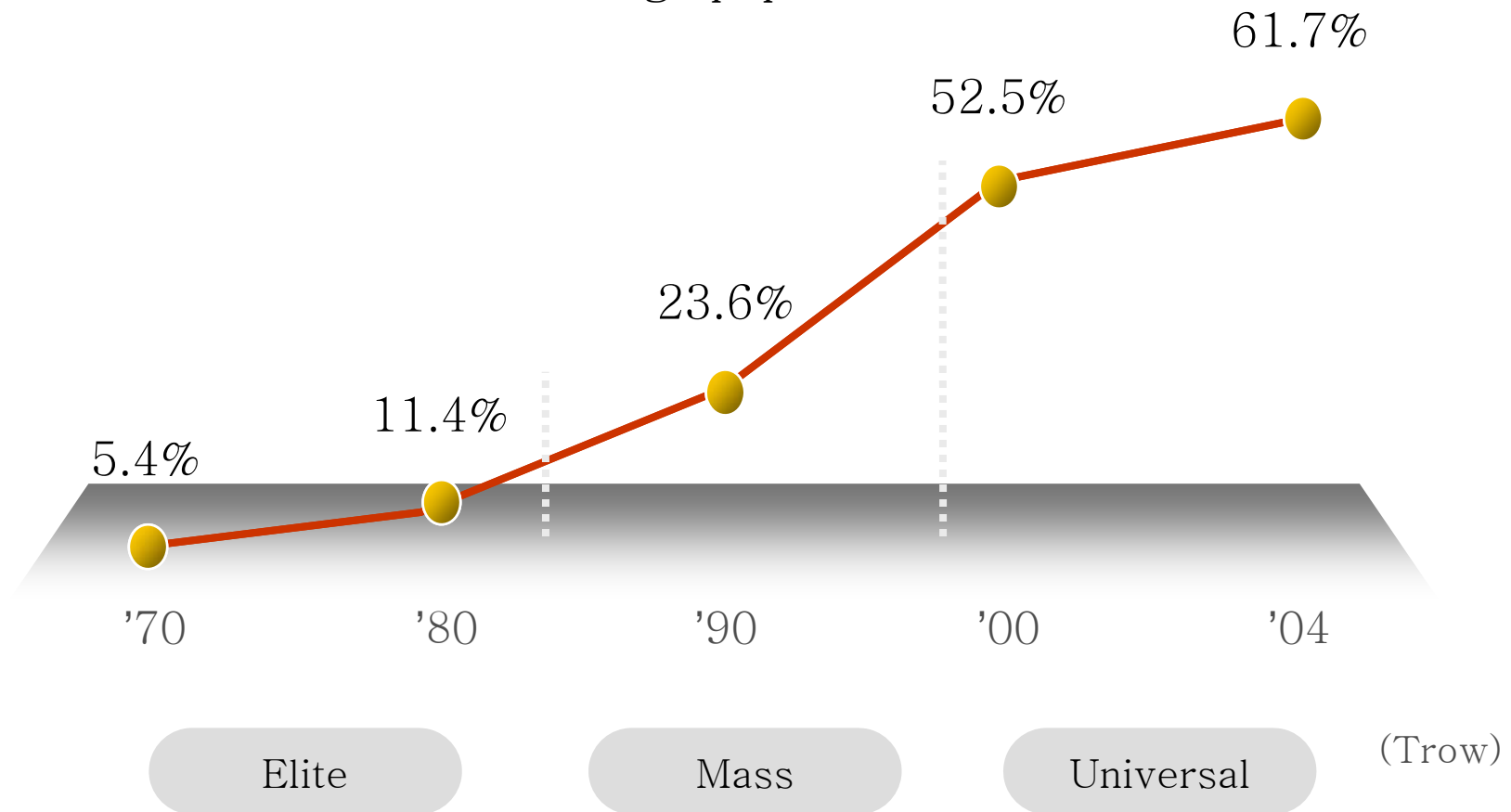


| | 1960 | 1970 | 1980 | 1990 | 2004 |
|------------------|--------|--------|--------|--------|--------|
| Population(1000) | 25,012 | 32,241 | 38,124 | 42,869 | 48,082 |

World Rank: 11th in GDP (US\$679bil.) , 12th in Trade Volume

I-2 Expansion of Higher Education

※ The Percentage of Higher Education Attendance
= (enrolled students/school age population)



I-4 Economy and Education('60s-'70s)

| | 1960s – mid-1970s |
|--------------------------------|---|
| Economy | <ul style="list-style-type: none">• Take-off & export-driven in '60s; export acceleration in early '70s |
| Major Industry/ Exports | <ul style="list-style-type: none">• Light manufacturing goods (clothing, textile, shoes, etc)• Electronic goods (television, radios) |
| General Education | <ul style="list-style-type: none">• Expansion of primary & lower secondary education• School equalization policy |
| VET/HE | <ul style="list-style-type: none">• Emphasis on VET(late '60s)• Separate VET track• Limited access to university education |

I-5 Economy and Education('70s-'80s)

| | mid-1970s – 1980s |
|--------------------------------|--|
| Economy | <ul style="list-style-type: none">• Structural adjustments in late '70s: from imitation to innovation in '80s |
| Major Industry/ Exports | <ul style="list-style-type: none">• Heavy & Chemical industry• Iron industry, shipyard, precision manufacture |
| General Education | <ul style="list-style-type: none">• Expansion of upper secondary education |
| VET/HE | <ul style="list-style-type: none">• Strengthening Junior College & Open University• Expansion of HE (Graduation enrollment quota) |

I-6 Economy and Education('90s ~)

| | 1990s through the present |
|------------------------------------|--|
| Economy | <ul style="list-style-type: none">• National competitiveness in early '90s; Knowledge-based economy in mid-'90s |
| Major Industry/ Exports | <ul style="list-style-type: none">• Semiconductor, Information & communication technology• Computer, Cellular phone, Memory chips |
| General Education | <ul style="list-style-type: none">• Establish life-long learning infra-structure• Promote deregulation & diversity |
| VET/HE | <ul style="list-style-type: none">• Curriculum integration & School diversification• Employment Insurance system• Cyber university, credit bank system, etc. |

II. Why NHRD?

II-1 Demand for Knowledge

- Korean Economy has grown 5.9% per annum for the last 40 yrs
 - ※ GNP per capita: \$87 (1962) → \$14,105(2004)
- Korean Economy has been stagnant for the last 10 yrs
 - ※ GDP growth rate : '80s(8.3%), '90s(6.0%), '00s(4~5%)
 - Source of Growth during the industrial era :
physical capital and labor
 - Engines of growth in a knowledge-based economy :
knowledge, human capital, and social capital

II-2 Leapfrog is needed



※ \$10,000 → \$20,000 : Italy 5 years, Finland 8 years, OECD 9.2 years

II-3 Demand for Change

○ Paradigm Shift

| Then | Now |
|-------------------------|--|
| Physical Capital | Human Capital (Knowledge/Skills) |
| Labor force | Knowledge/Technology |
| Government-led | Led by private Companies/universities |

○ Change in skill composition (US)

| | Professional Workforce | Skilled Workforce | Unskilled Workforce |
|--------------|---------------------------|----------------------|------------------------|
| 1950s | 20% | 20% | 60% |
| 1990s | 20% | 60% | 20% |

*Source: 21st Century Skills for 21st Century Jobs(1999)

II-4 Organizational Change

| | Then | Now |
|-------------------------------|------------------------------------|---|
| Workplace organization | Function/Specialized | Network of multi/cross-functional team |
| | Rigid | Flexible |
| Job Design | Narrow Do one job | Broad Do many jobs |
| Employee Skills | Specialized | Multi/cross-skilled |
| Worker autonomy | Low | High |

*Source: 21st Century Skills for 21st Century Jobs(1999)



II-5 Demand for Educated Workforce

- **New jobs require workforce with enhanced skill and competence.**
 - Basic skills : reading, writing, computation
 - Core skills : analytical, problem-solving skills, creative thinking, self-management
 - Technical skills : computer skills
- **Education and training is part of a positive cycle of benefits for both employers and workers.**
 - Consequently increasing their productivity, and increasing the company's competitiveness and employers' bottom lines.



III. Current State and Problems

III-1 Student Ratio going to a higher level of Ed.

- Rate of students advancing to the next level of schooling

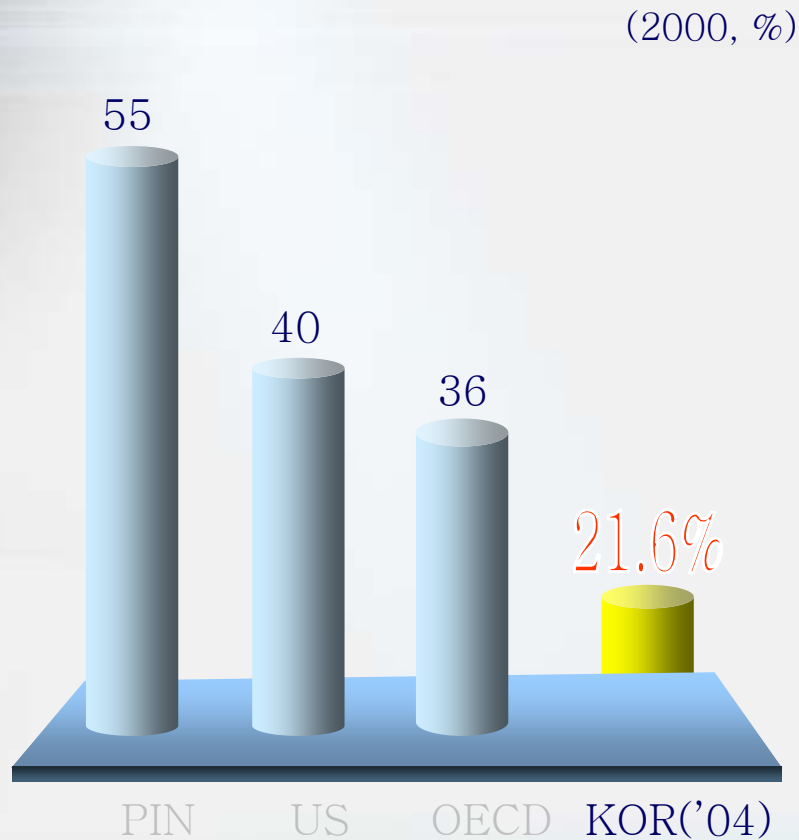
| Year | Elementary S. → Middle S. | Middle S. → High S. | General HS → Higher Ed | Vocational HS → Higher Ed | Higher Ed → Graduate school |
|-------------|--------------------------------------|--------------------------------|---------------------------------------|--|--|
| 1970 | 66.1% | 70.1% | 40.2% | 9.6% | 4.6% |
| 2004 | 99.9% | 98.8% | 89.3% | 61.9% | 11.1% |

- Enrollment Share of Vocational High School

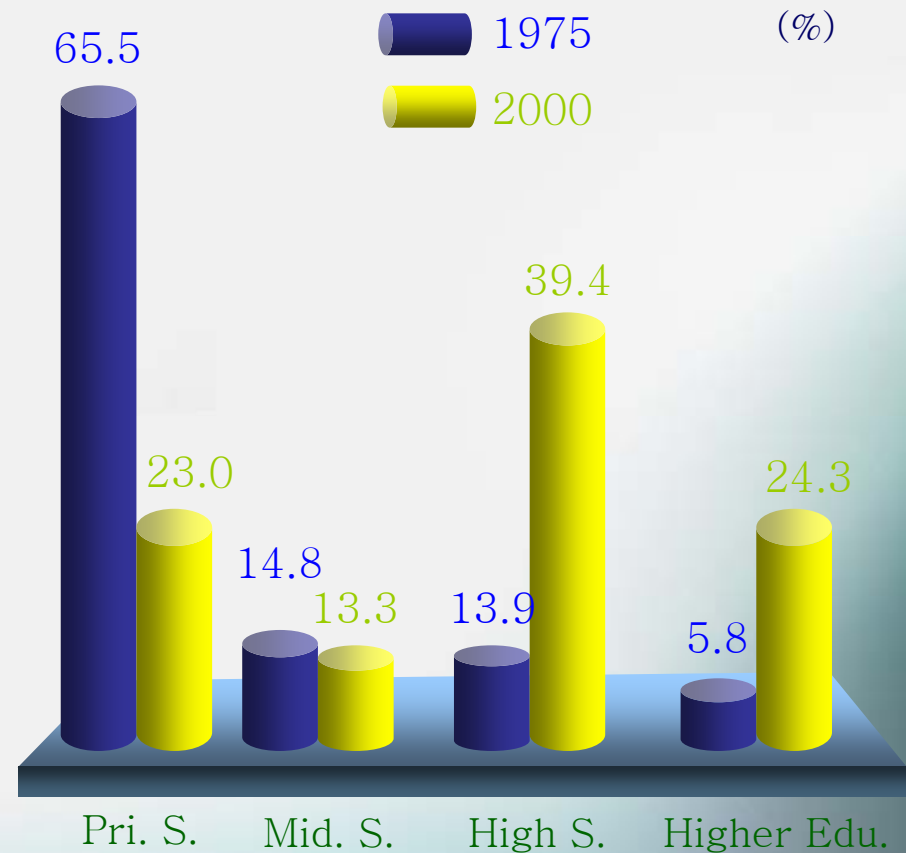
| 1970 | 1980 | 1990 | 2000 | 2003 |
|--------------|--------------|--------------|--------------|--------------|
| 44.6% | 42.1% | 34.0% | 35.6% | 30.3% |

III-2 Lifelong Learning

Participation rate in LLL
(age 20~)



Educational attainment of
adult population (age25~)



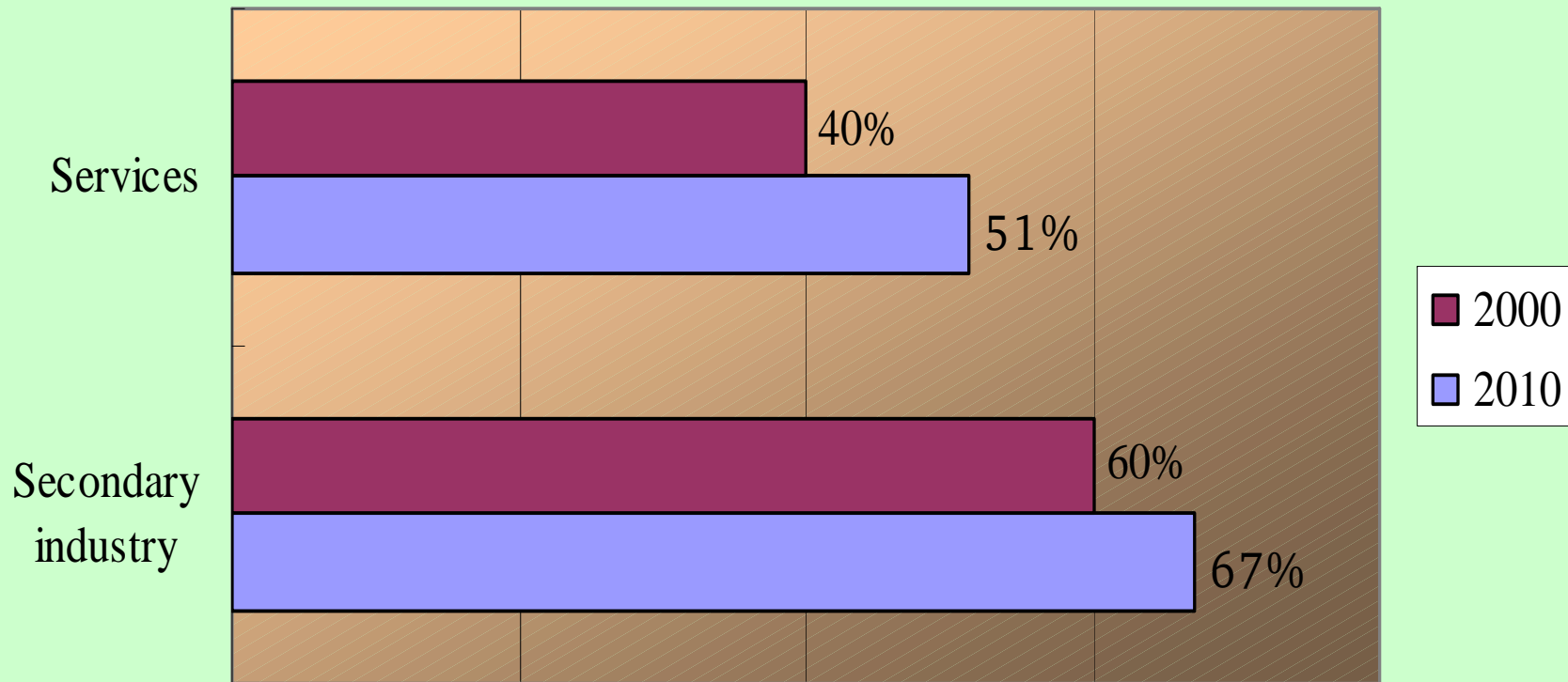
III-3 Employment Share by Industry Sector

| Year | Agricultural /Fishery | Mining/ Manufacturing | Services/ SOC |
|-------------|----------------------------------|----------------------------------|--------------------------|
| 1970 | 50.4%(31.3%) | 14.3%(16.9%) | 35.3%(51.9%) |
| 2002 | 9.3%(5.0%) | 19.2%(36.3%) | 71.5%(58.7%) |

* () : % of GDP

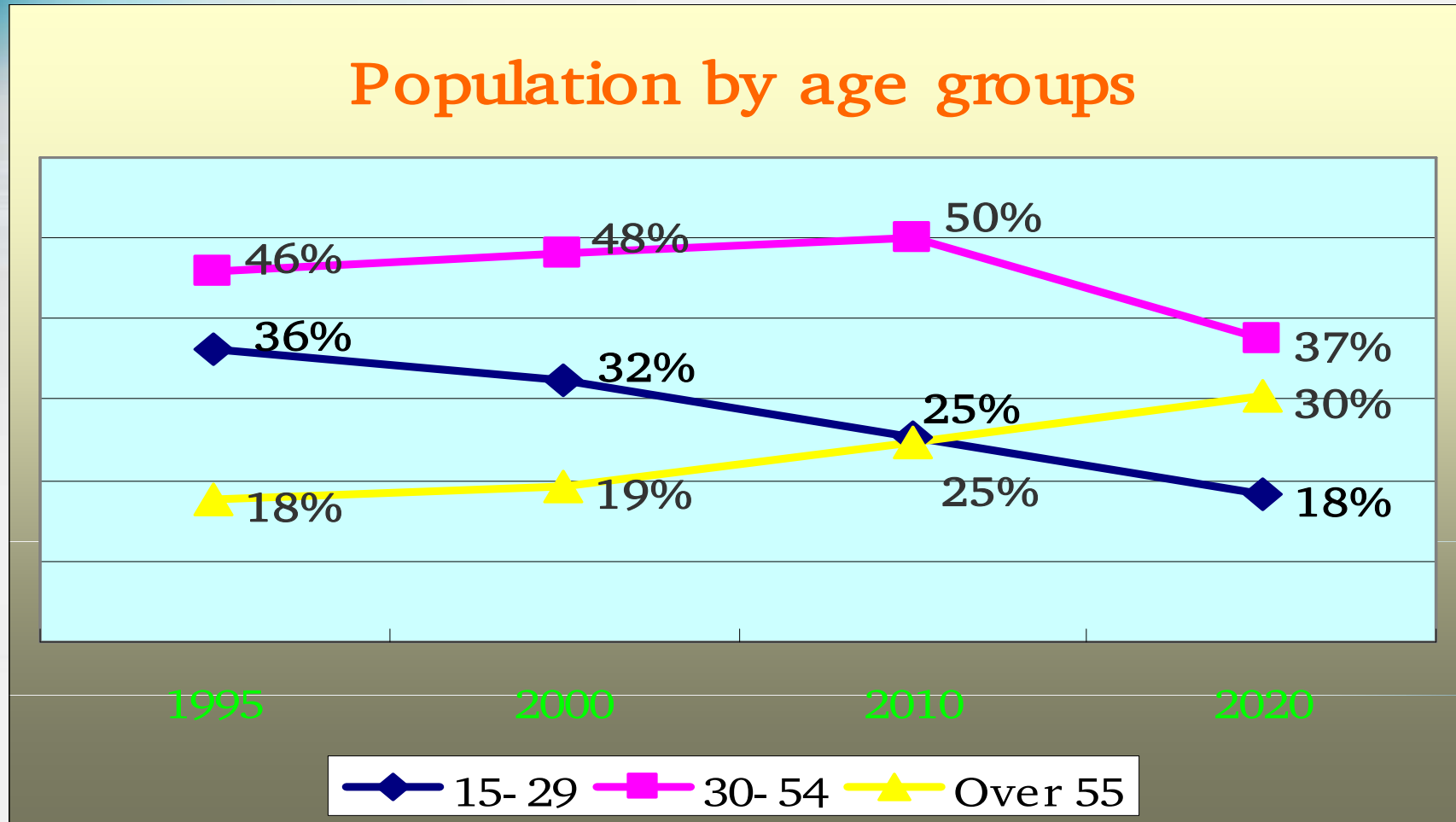
III-4 Knowledge-based economy is accelerating

The Portion of knowledge-intensive industry



III-5 Entering Aging Society Era

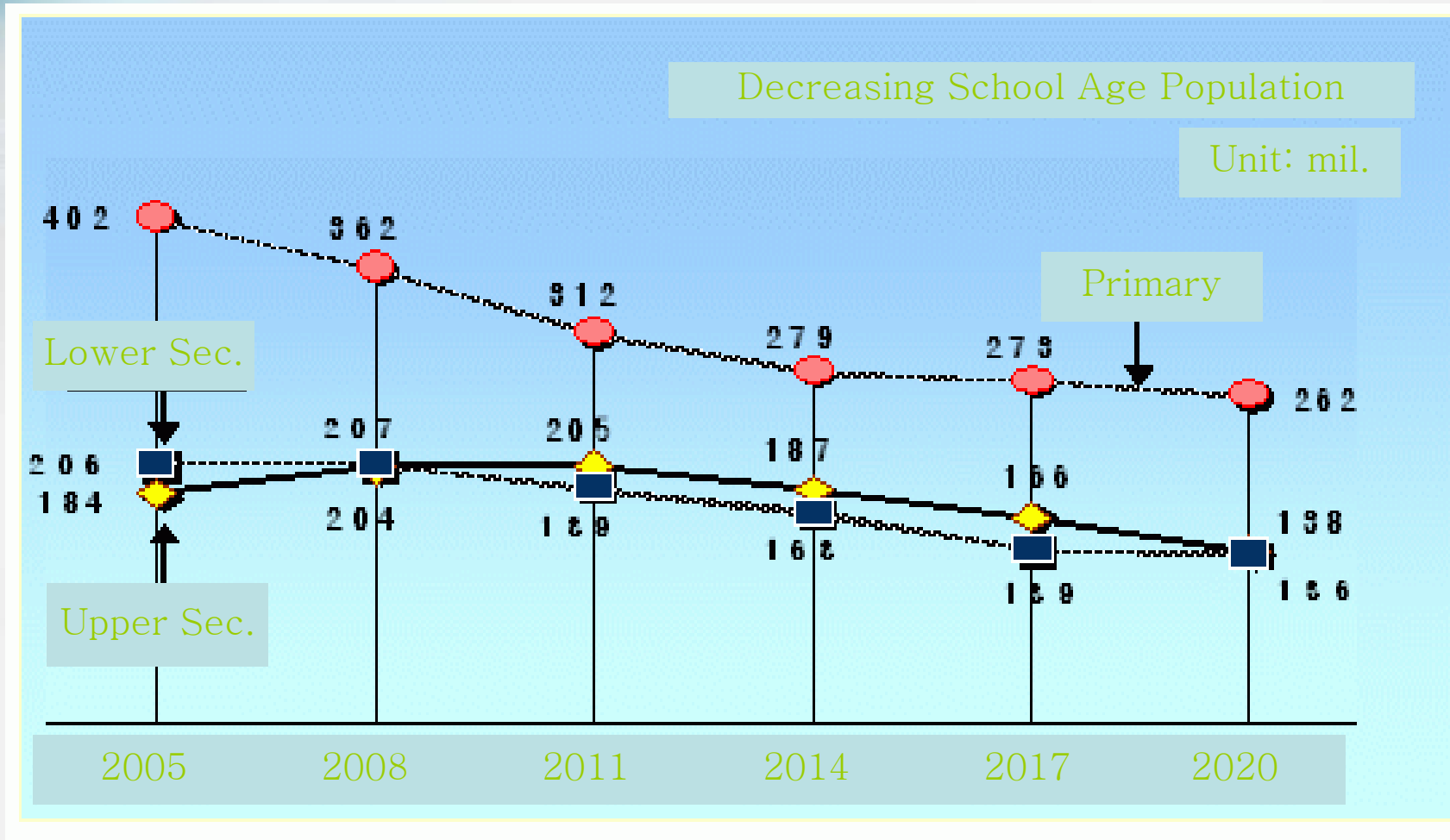
<Source : National Statistical Office>



※ Birthrate('04) : USA 2.04('03), Japan 1.29, UK 1.79, Korea 1.16

III-6 Decreasing School Age Population

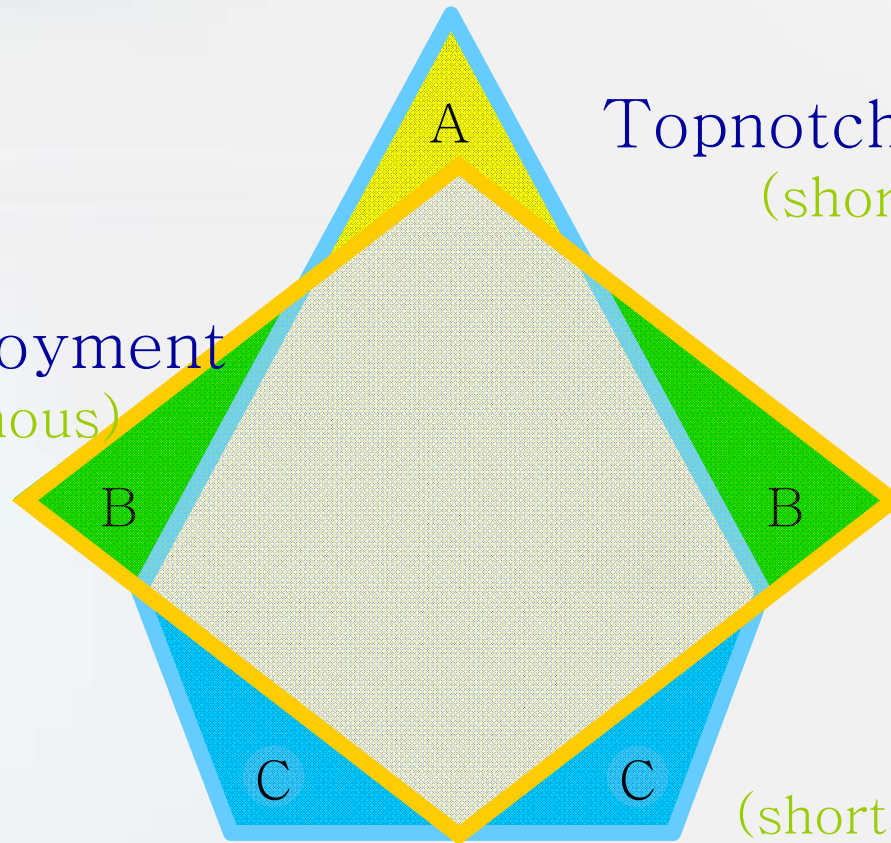
<Source : National Statistical Office>



III-7 Structural Problem in Workforce

<2004>

Youth Unemployment
(Over : 385 thous)



Topnotch Technician
(shortage : ?)

SMEs
(shortage : 129 thous.)

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IV. Change in HRD Governance



IV-1 Legal Definition of HRD in NHRD

Human Resources

“Human Resources” mean competencies and attributes, i.e., knowledge, skill, and attitudes, required for development of individuals, society and nation.
(HRD Law § 2)

Human Resources Development

“HRD” means formation, allocation, and utilization of Human Resources along with related activities to formulate social norms and networks rendered by state, local government, educational institutions, research institutes, private companies, and others. (HRD Law § 2)



IV-2 Goals of HRD

- Strengthening the capacity of individuals by nurturing lifelong learning and creative thinking of all citizens
- Building social trust and cohesion that is on a par with the social capital of the advanced countries.
- Creating a new engine for economic growth by securing high-quality workforces



IV-3 Strategies of HRD

- Open System and Networking
- Adapting to the Information Age
- Deregulation and Greater Autonomy
- Maximizing the National Human Resources Potential
- Promoting Participation of related Government Agencies and Private Sector
 - ※ the 2nd NHRD Strategy Plan('06-'10): 5-year National plan

IV-4 MOE&HRD

Change of the government system(2001)

| | Before | Now |
|--------------|---------------------------------------|--|
| Name | MOE | MOE&HRD |
| Head | Minister | Deputy Prime Minister(DPM) |
| Scope | Education, Adult Education | Education, LLL, Coordinating HRD Policy |

- Coordinate HRD/VET policies among different line Ministries
 - Ministerial Committee on HRD (chairperson : DPM)
- The Committee is composed of 14 Ministers



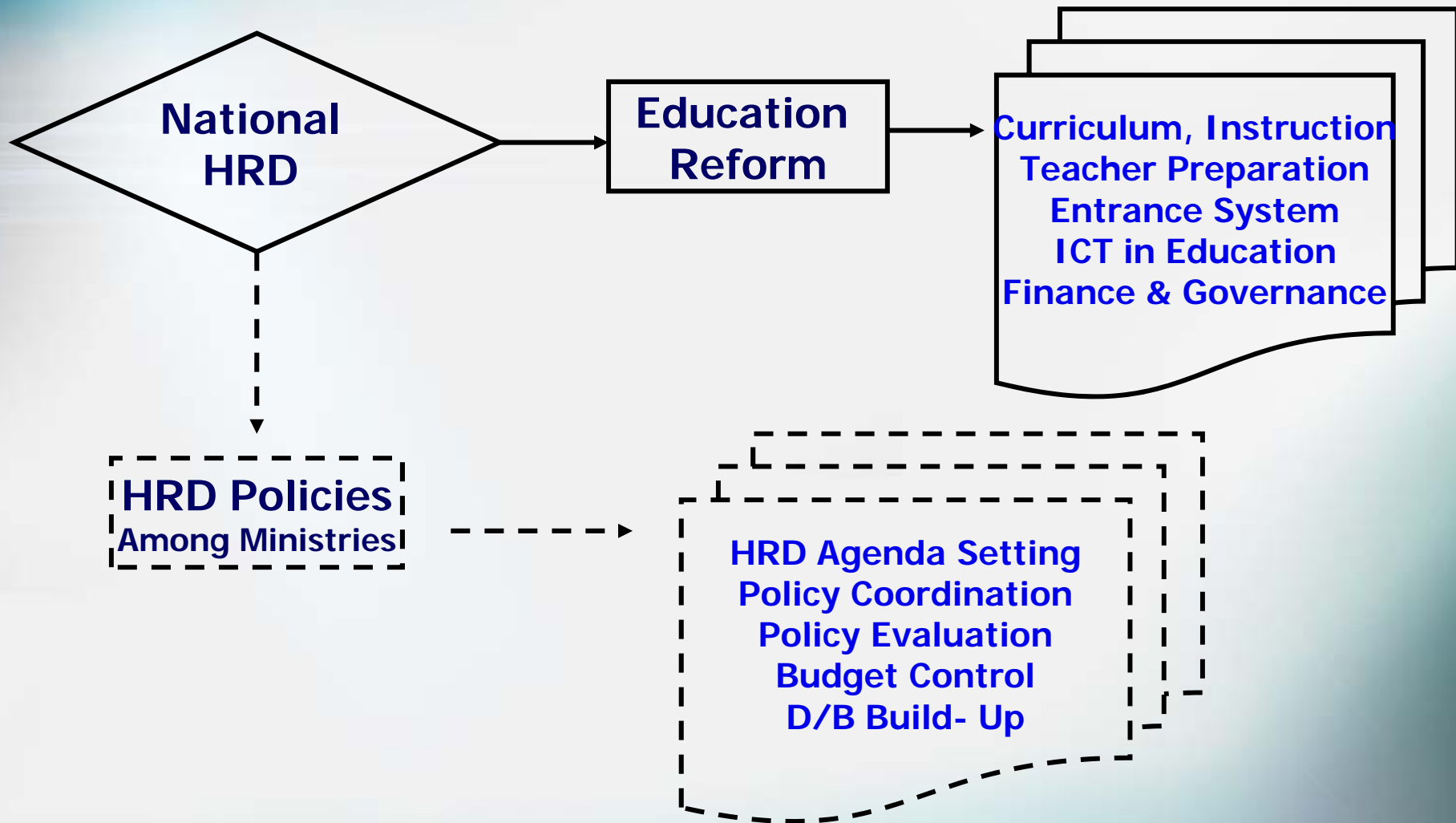
IV-5 Governance of HRD

- MOE&HRD
 - Overall education and national policies
 - Responsible for VE : vocational high schools, colleges and universities
- Ministry of Labor
 - Responsible for VT : vocational training institutions
- Local education authorities(LEA)
 - ➔ Cross-ministerial approach
 - Policy coordination through the Committee

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V. Policy Coordination (Examples)

V-1 Creation of NHRD Policy Area



V-2 Coordination Process

Policy Issues → Task Forces(TF) → Planning → Implementation

- One and more Ministries raise HRD/VET issues
- DPM suggest TF to related Ministries
- The Committee accept the suggestion
- Ministry with major responsibility takes charge of TF
- Related Ministries engage early by participating in TF
- The Commission make a decision TF's plan
- If accepted, the plan is implemented by all members

V-3 Example - Sector Councils

- Purpose
 - Bring employers more center stage in articulating their skill needs and in delivering 'industry-oriented programs
- Activities
 - Develop industry-specific skills
 - Define key sector occupational skills & qualifications
 - Facilitate partnerships a/m industries, college/univ., RI
- Composition
 - Representatives from industries, academia, research institutes



V-4 How Changed?

| Before | Now |
|--|---|
| Sector Councils | |
| 3 Ministries separately tried to set up SCs | ONE SCs(10 sectors) based on 3 Minister's MOU |
| Education for serviceman in the Army | |
| Very few Opportunity of Education/Training | Introducing the Accrediting system for Credits obtained during Military Service, MOU b/w MOE, MOD and others |

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VI. Future Issues

VI-1 HRD Reforms (1)

- Enhance and evaluate teacher's ability
 - Promote autonomy and accountability in the school system
- Strengthen the support system to promote LLL
 - Set up ubiquitous learning system (e-Learning)
 - Support LLL by financial aids(Loan, Tax Credits)
- Enhance quality of higher ed. up to global level
 - Innovate role and function of universities as new engine for sustainable economic growth
 - Expand cooperative system among industries, universities, and research institutes



VI-2 HRD Reforms(2)

● Innovate Vocational HS

- Expand 'Specialized HS' providing customized VET programs
- Reform Vocational HS curriculum emphasizing core competencies
- Introduce 'Comprehensive HS' providing both General and Vocational Programs

● Work-to-School

- Reorganize colleges and universities as 'LLL Centers' for the community
- Innovate higher ed. system to help workers learn anytime, any where(ubiquitous learning system)

● School-to-Work

- Enhance career guidance in HS
- Help students' ready-to-work through 'apprenticeship and internship'



VI-3 Revamp the Role of Government

- Deregulation
 - Input Control \Rightarrow Performance Control
 - Decentralization
 - Gov't-driven \Rightarrow School-based Management
 - Dissemination
 - No Choice \Rightarrow Choice with information
 - Quality Assurance
 - Set up Quality Assurance System with School Improvement Planning and Performance Evaluation
- ➔ Reshape Ministerial Committee on HRD**
- Role as a “Prosumer” in HRD Policies
 - Enhance the efficiency of HRD programs through evaluation



Thank You !

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