

Enhancing Competencies and Skills Through Career and Technical Education

By Dr. Dou Xianjin
National Centre for Education Development Research
Ministry of Education
People's Republic of China

Presentation of Structure

1. Knowledge-based Economy and the Competence-based Society
2. Labor Market change and the emerging Competencies and Skills
3. Improving Career and Technical Education to Ensure Basic Competencies and Skills in China
4. Exchanging Practice and Responding Common Challenges in APEC Economy

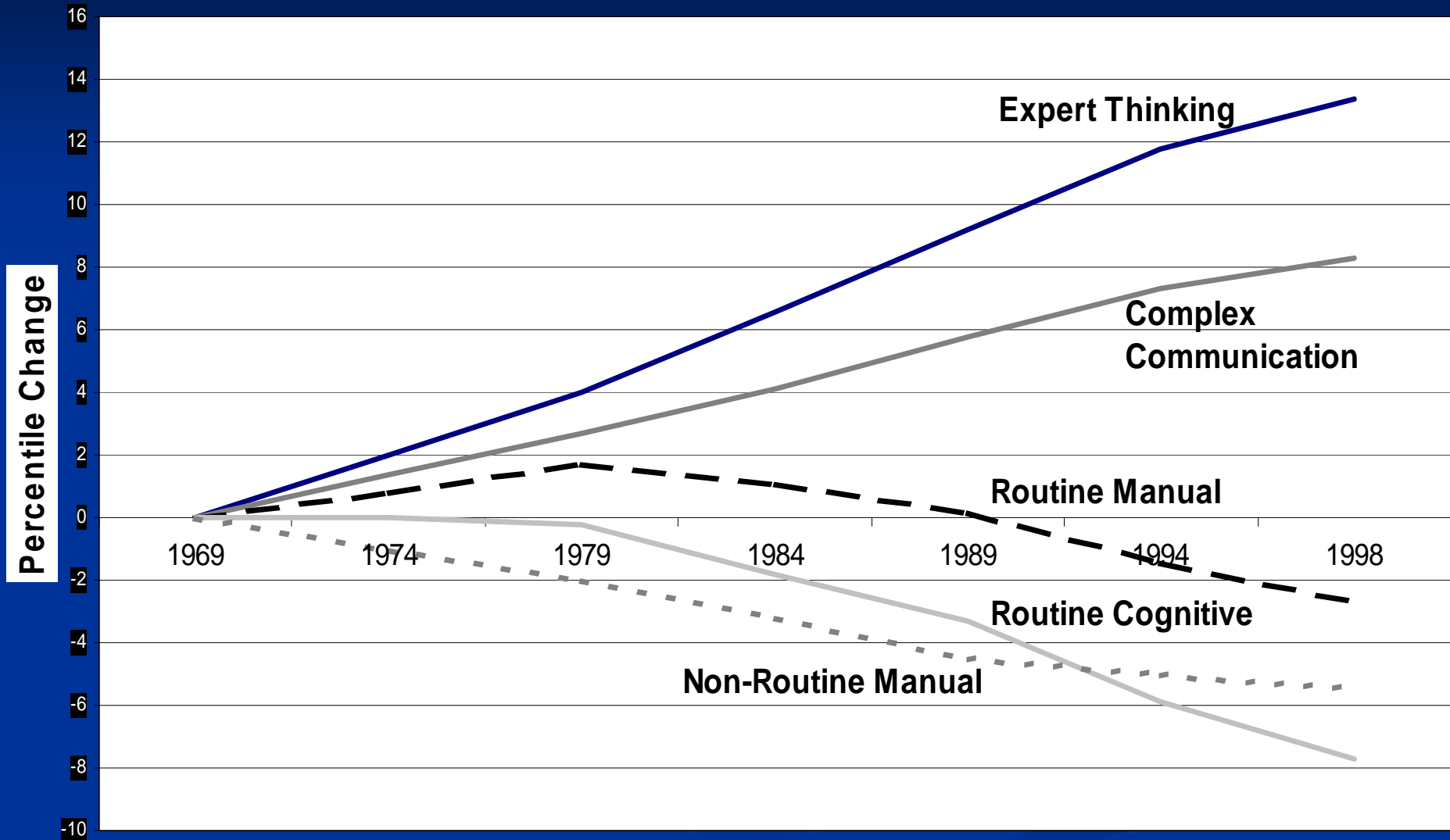
1. China is moving forward to knowledge-based Economy and the Competence-based Society

- Global integration of economy, Market-oriented Economy and Labour market functioning
- New roles of the national state, regional and local authorities----Public Service
- Domains and networks offer new platform for individuals
- Career Development depend on competencies and Skills the individual mastered

2.Labor Market Change and the emerging key competencies and skills

- Unemployed graduates and shortage of skilled workers.
- Continuous job transfer
- Ability to learn continuously
- Flexibility to adapt to change

Changes in Job Task-Skill Demands (USA, 1960 – 1998)



The emerging key competencies and skills

Basic Competencies and Skills:

Reading, writing and basic math, Sciences, technology, informatics, foreign languages

The Emerging Competencies and skills

Ability to learn and think autonomously

Analytical thinking and problem solving

Creativity

Communication

Teamwork and ability to work within heterogeneous groups

Structured Shortage of Skilled Workers in China

- Skilled workers have become a scarce resource in the labor market. The ratios of number of skilled workers needed and the number of those available are 2.59 for advanced technicians; 1.93 for advanced engineers; and 1.84 for technicians (wang, 2005, By report of China labor market information survey).
- The number of unemployed graduates is rising in recent years. In 2002 among 1.45 million college graduate ,440,000(30%) could not find jobs; in 2003, of 2.1 million graduates, 630.000(30%)aree still unemployed in September in terms of articles by (Bengali 2004).

Therefore, education should adapt to the structural change and signals in the labor market.

3. Improving Career and Technical Education to Ensure Basic Competencies and Skills—China's Strategic Priority

China is the largest developing country. It has been thirties years since China started a transition to an internationally open market economy and the economy has been growing at more than 9 percent a year changing the economy structure.

By 2020 China will be a more industry- and service-oriented economy, requiring a labor force with new competencies and skills geared to a knowledge-based economy.

Technical workers now account for only one-third of the total industrial workers, most of them junior technicians. High-level skilled workers account for 4% and resulted in a bottleneck for China's industrial upgrading.

Improving Career and Technical Education to Ensure Basic Competencies and Skills in China

CTE/TVET has been defined as the strategy priority by 2020. The blueprint of CTE/TVET is to establish more flexible and autonomy linking to the labor market and enterprises for development with Chinese characteristics.

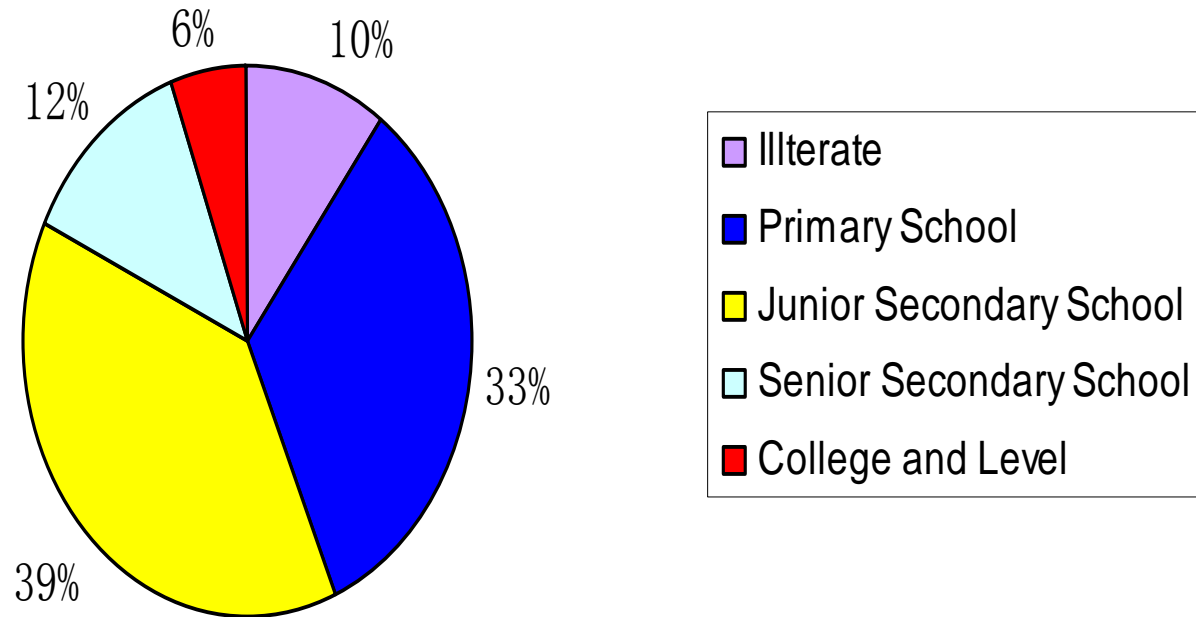
The basic development modality is “government taking leading roles, depending on the enterprises, involving industries, encouraging the participation of society, and promoting both the public and private sectors”.

The Specific Goals of CTE/TVET are the following:

- By 2010 enrollment in secondary vocational education will reach about 8 million, and tertiary vocational college enrollment will account for half of the tertiary education.
- Enhancing the training institute capacities and the number of the trained labor force will reach more than 100 million, the qualities of the labor force will be improved.
- The conditions of vocational education will be updated, overall quality of teachers will be strengthened, and effective and efficiency of CTE will be improved.

Source:China State Council 2005a; Wen 2005a;

Percentage of the Educated People in the National Total

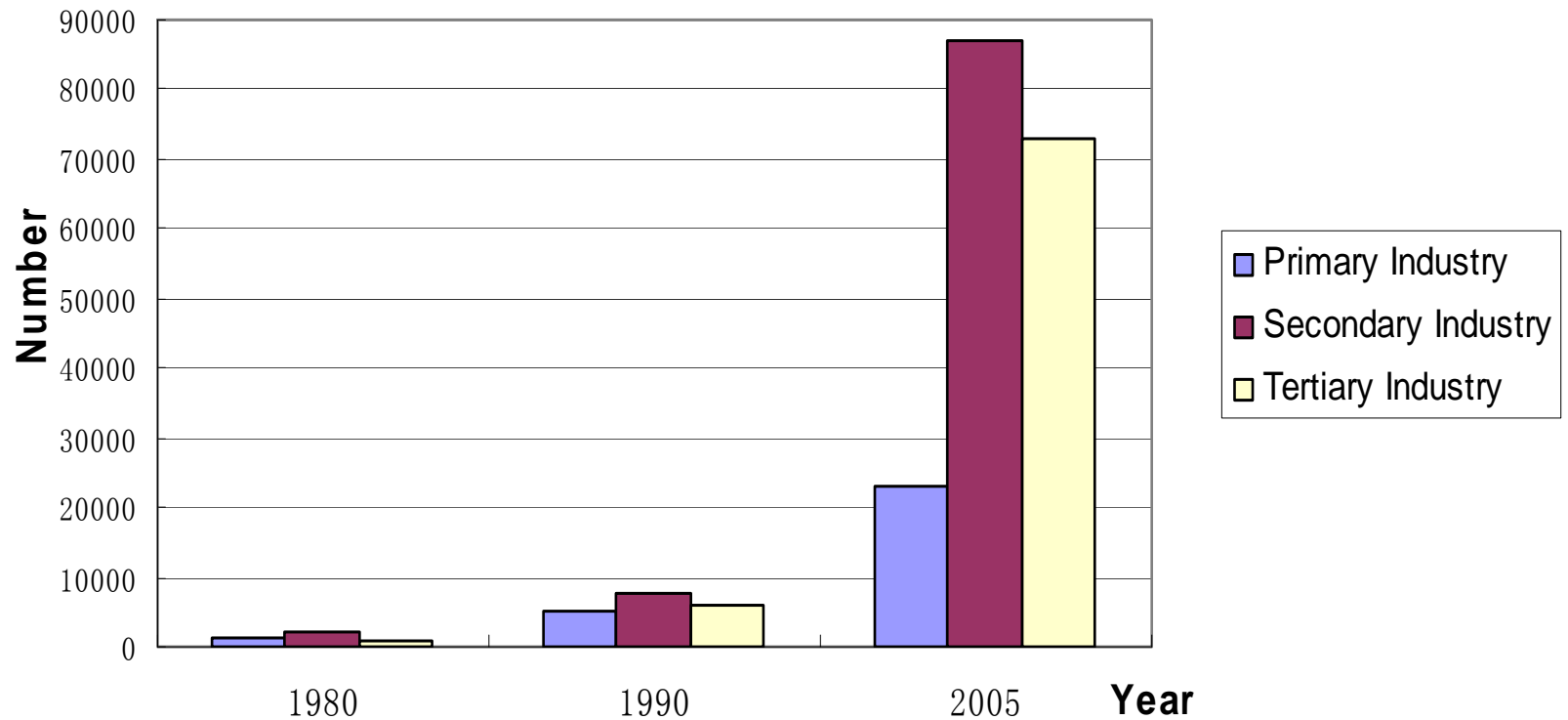


Career and Technical Education in China

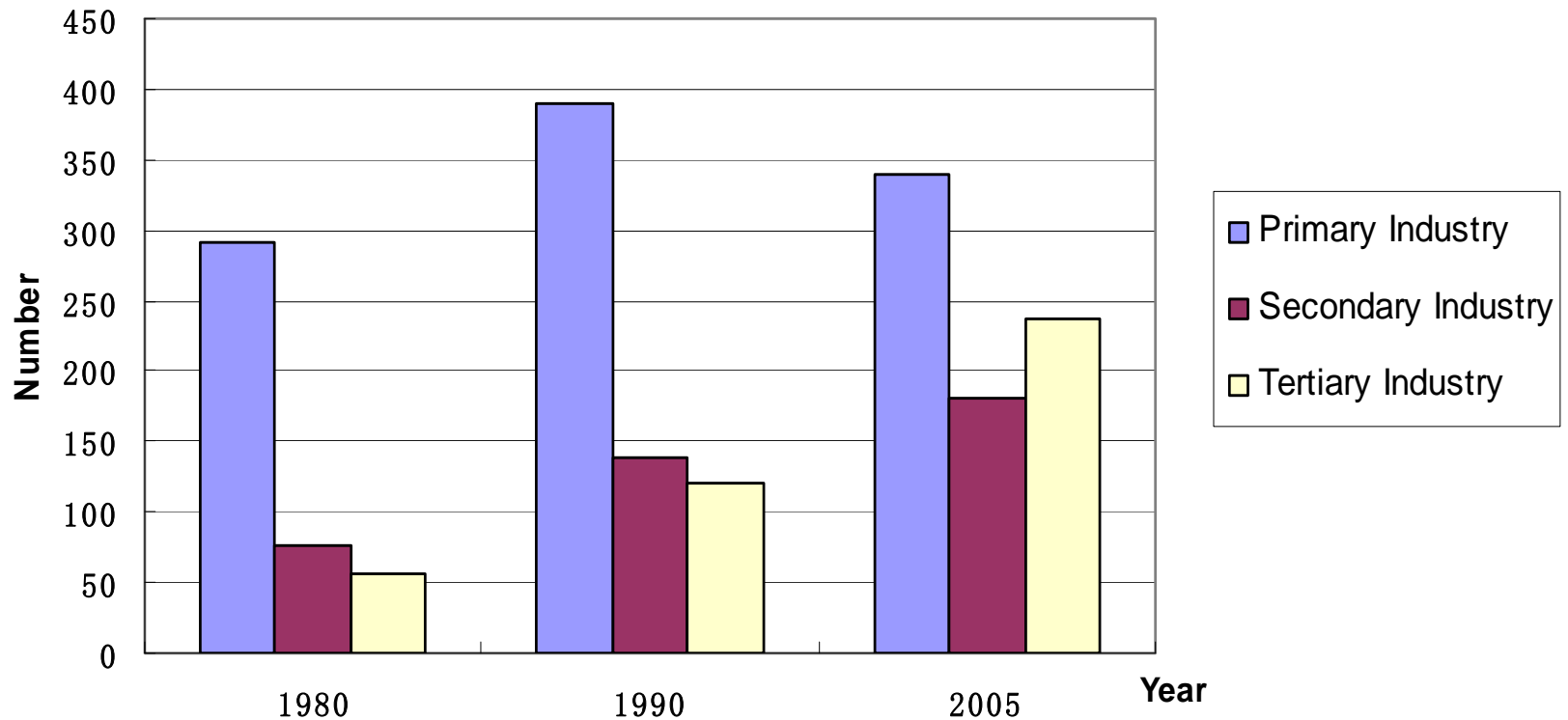
- China's career and technical education are keeping pace with eco-social development and supported by Central Government in the context of general education dominated country.
- In the past 20 years, China Government have taken a series of policies and measures to support career and technical education with development of eco-social development.
- China's education system needs to adapt to the economy structure change. Career and Technical Education have listed as one of China's Priorities in addition to universalizing 9-years compulsory education and improving quality of higher education.

Gross Domestic Pruduct by Three Industry

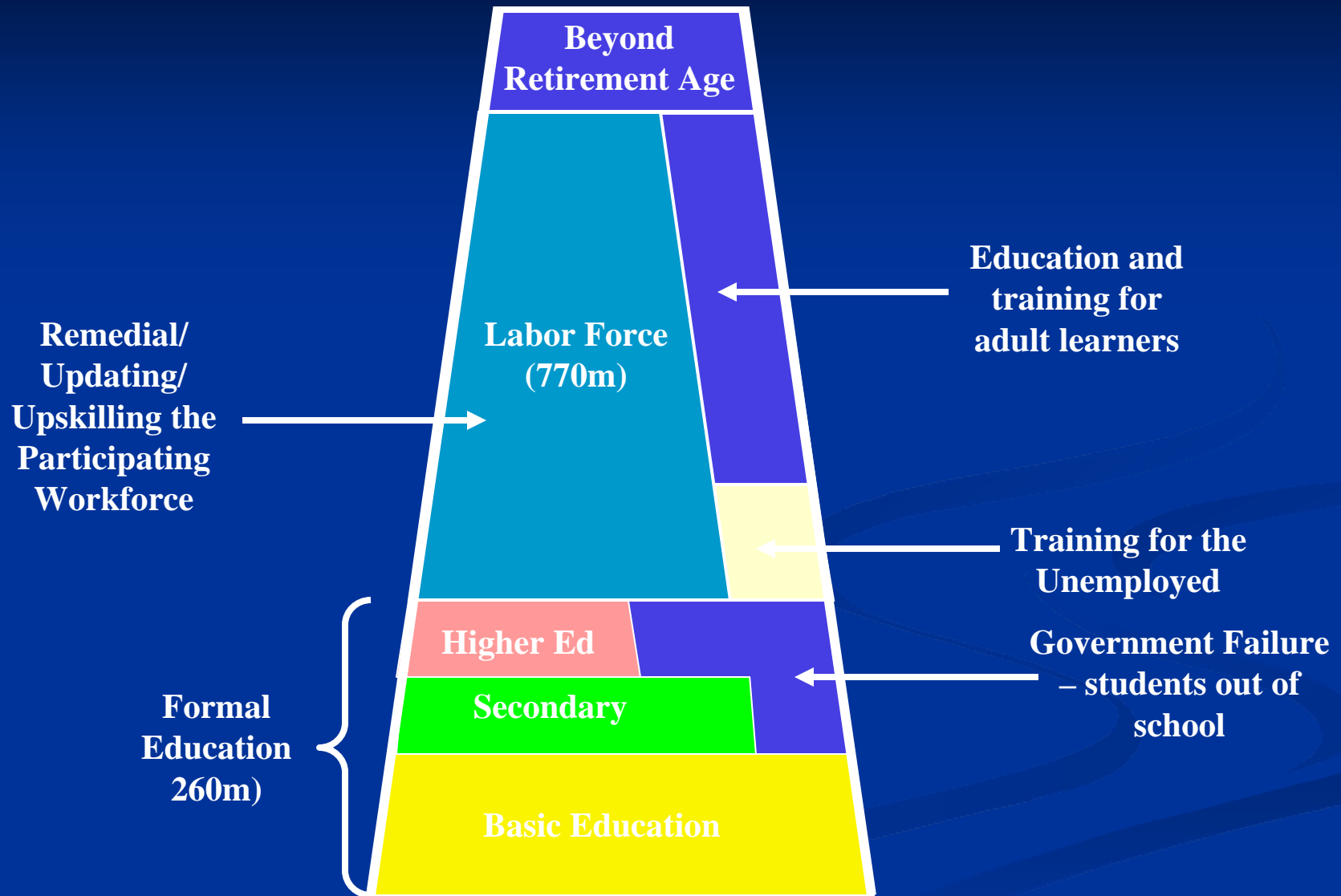
(Unit: in 100 Million Yuan)



Number of Employed Persons in Three Industries (Million)



China's Learning Needs Beyond Formal Education



Total Population of 1.3 billion

Career Education in China

- Career Courses covered from primary to university education.
- Career guidance for the secondary vocational education and tertiary education
- Career guidance and job service centre located in the local communities around China.

Technical Education in China

China's Technical Education included:

Secondary Technical Education:

- Secondary specialized schools;
- Secondary Vocational Schools;
- Secondary worker's Schools;

Tertiary Technical Education:

Tertiary Vocational and Technical college.

The main Policies related to CTE

Year	Title	Contents
1995	Education Law (NPC)	Legitimate status of china's adult education
1996	Vocational Education Law (NPC)	Legitimate status of China's vocational education
1999	Action Scheme for Invigorating Education Towards the 21st Century (State Council)	Development strategy for China's vocational & adult education
1999	In-depth Education Reform and Quality Education Development (State Council)	Development strategy for China's vocational education
2000	Direction on development & Reform for Vocational Education in Ethnic Minority Areas (MOE & State Ethnic Affairs Commission)	Training ethnic minority people
2001	Direction on Improving Teacher Quality for Secondary Vocational Education (MOE)	Teacher qualification

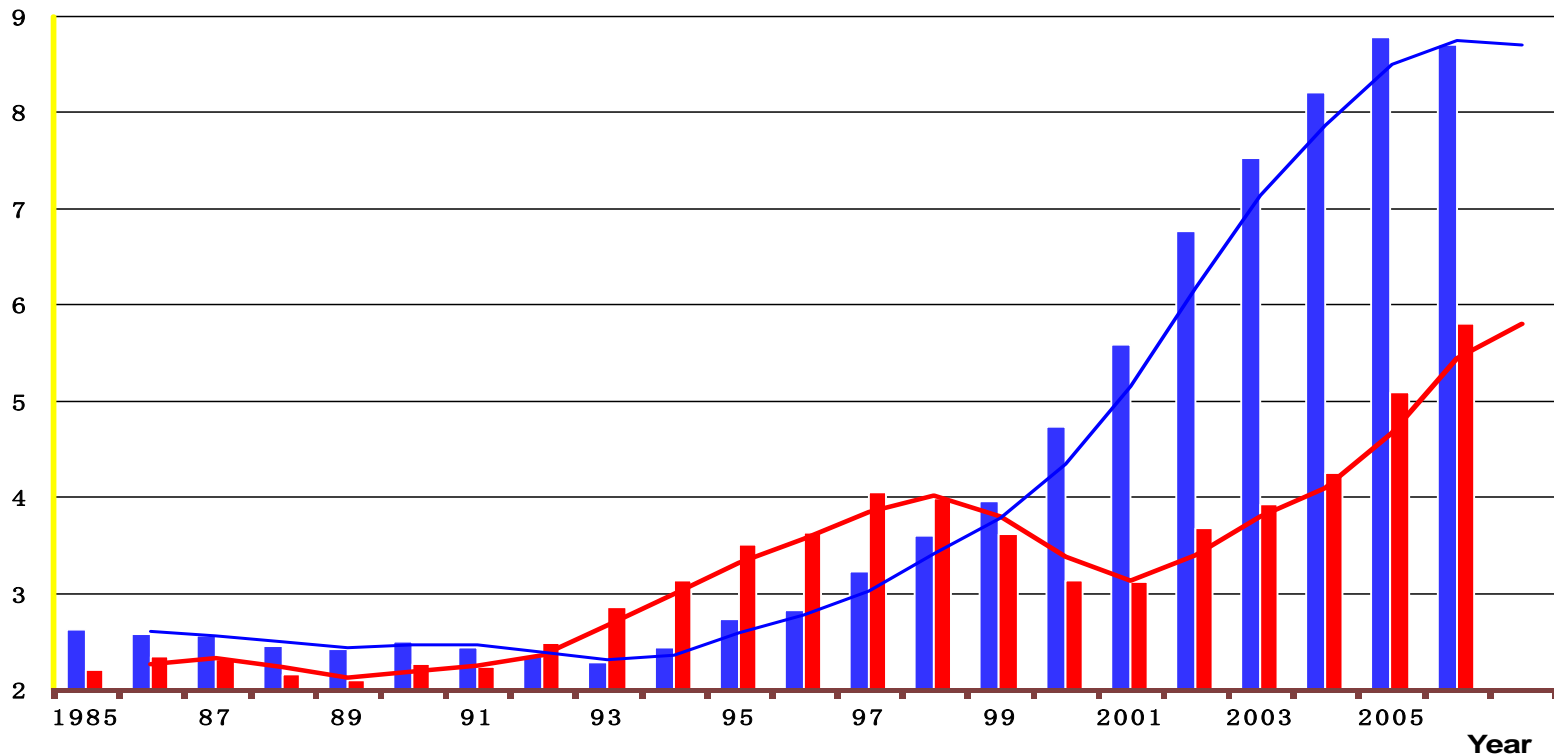
The main Policies related to CTE

Year	Title	Contents
2001	Regulation on Vocational Education & Training for Migrant Rural Labor Force (MOE)	Training migrant rural labor
2001	Verification Regulation on Secondary Vocational Education Schools Establishment (MOE)	Regulation for China's vocational education providers
2002	Decision on Great Efforts to Provide Re-employment Training for Redundant Worker (MOE)	Training urban redundant workers
2002	Direction on Positive Impact of Industry and Enterprise on Vocational Education (MOE, MOLSS & State Economic & Trade Commission)	Responsibility of industry and enterprise for vocational education
2004	The guidance of improving vocational education further (issued by Multi-ministries, such as MOE ,MOF ,MOSL ,etc	Vocational institute capacities, curriculum reform project.
2005	Decision on Great Efforts to Develop and Reform Vocational Education (State Council)	CTE listed to be the strategic priority of education by 2020. The specific goals: By 2010, enrollment in secondary and tertiary vocational education will account for about half of the secondary and tertiary education.

Secondary vocational and technical schools

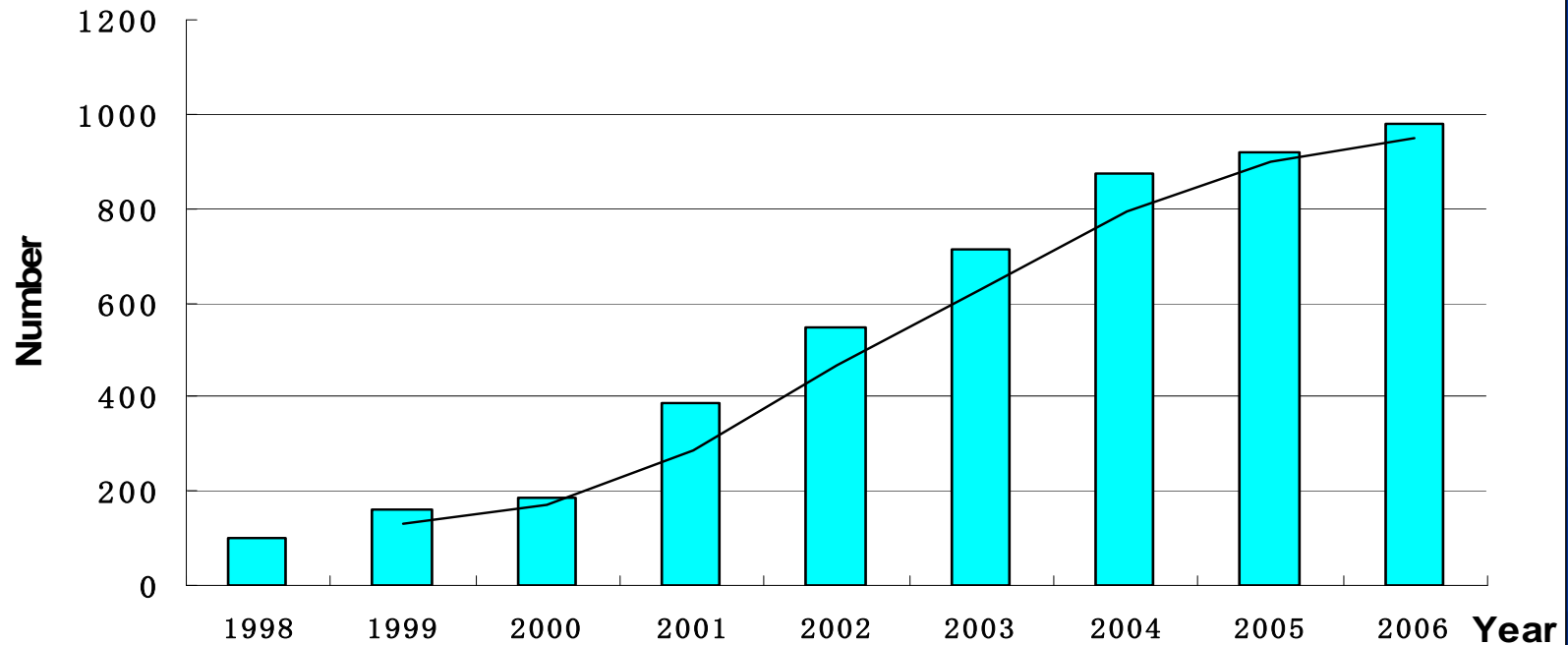
Comparative Analyse (Million)

■ Secondary General School ■ Secondary Vocational School



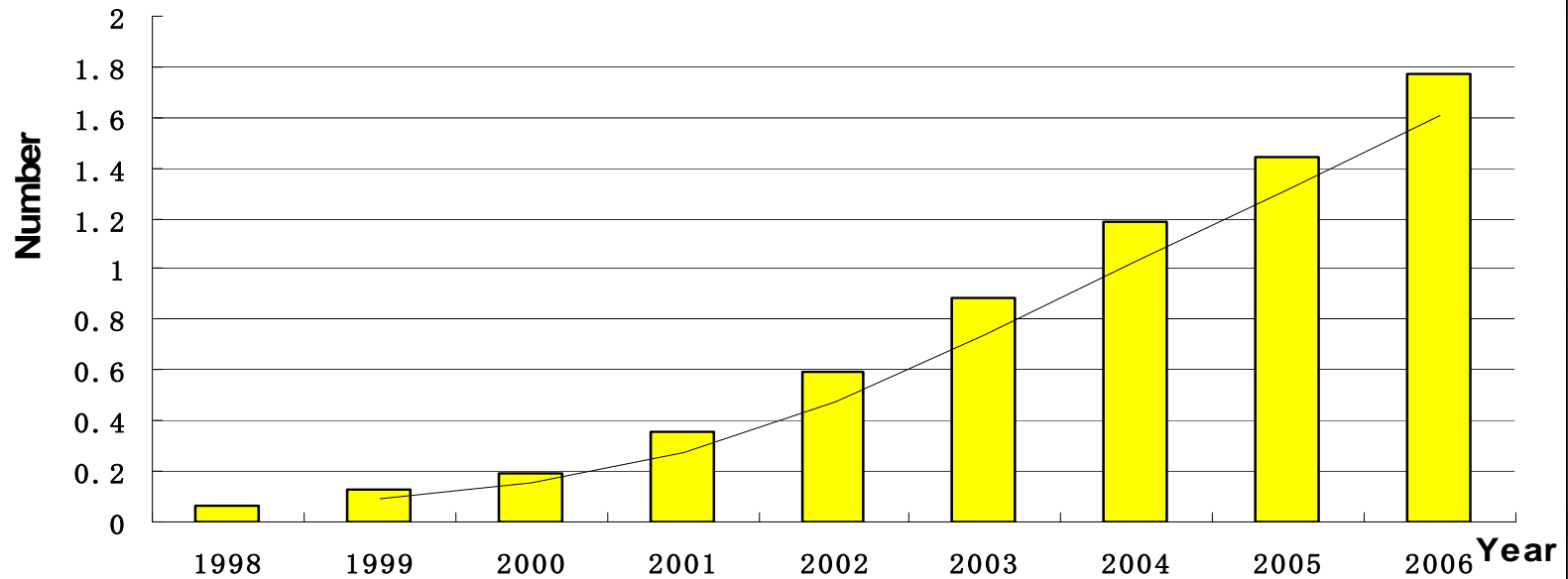
Tertiary vocational and technical schools

The Number of Tertiary Vocational-technical Colleges



Tertiary vocational and technical schools

Enrolment of the Tertiary Vocational-technical College (Million)



4. Exchanging Practice and Responding to the Common Challenges in APEC Economy

In order to respond to the knowledge-based economy and enhancing competencies and skills of the labor force, many regions in APEC Economy are implementing career and technical strategy.

In terms of APEC Survey related to policies and reforms on CTE/TVET co-organized by China and Philippines, we found many regions have initiated career and technical program, such as China's programme of financing the disadvantaged group to receive secondary vocational education, Australian Apprenticeships Incentive Programme, etc.

Later, Madame wang will make presentation related to the survey in details

Exchanging Practice of Career and Technical Education in APEC Economy

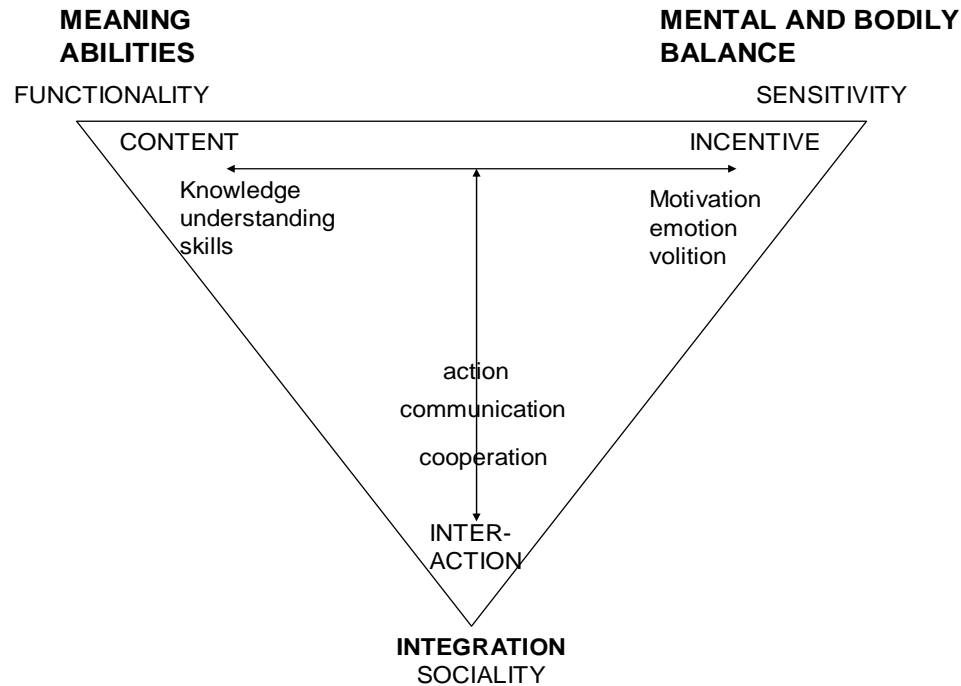
Each region's CTE was developed in the respective situation. But it will be definitely improved when we exchange practice of developing CTE.

- Understanding the CTE in the framework of education system.
- Understanding the curriculum of CTE among different regions, such as reading, math, ICT, language, etc.
- CTE/TVET teachers' career development and training.
- CTE/TVET and qualification system.

Responding to the Challenges of CTE in APEC Economy

- Understanding employer's views on the competencies and skills.
- How to validate competencies and skills scientifically by qualification systems.
- Embedding curriculum development and teachers' training to improve competence-based and skills-oriented career and technical education.
- Realizing learning and competencies development.

Mastering Competencies and Skills Through Career and Technical Education



Competence Development Through Career and Technical Education

Concluding Remarks

China's career and technical education are at the across-road to adapt to development of restructuring economy and the competence-based society. We would like to exchange and share ideas and experiences among APEC region and enhance citizen's competencies and skills to satisfy the progress of knowledge-based society.

Thank You !

Dxj@moe.edu.cn