

# **Macro Education Policy in the first two Decades of 21st Century in China**

--Focus on Establishing a LLL System and a LLL Society

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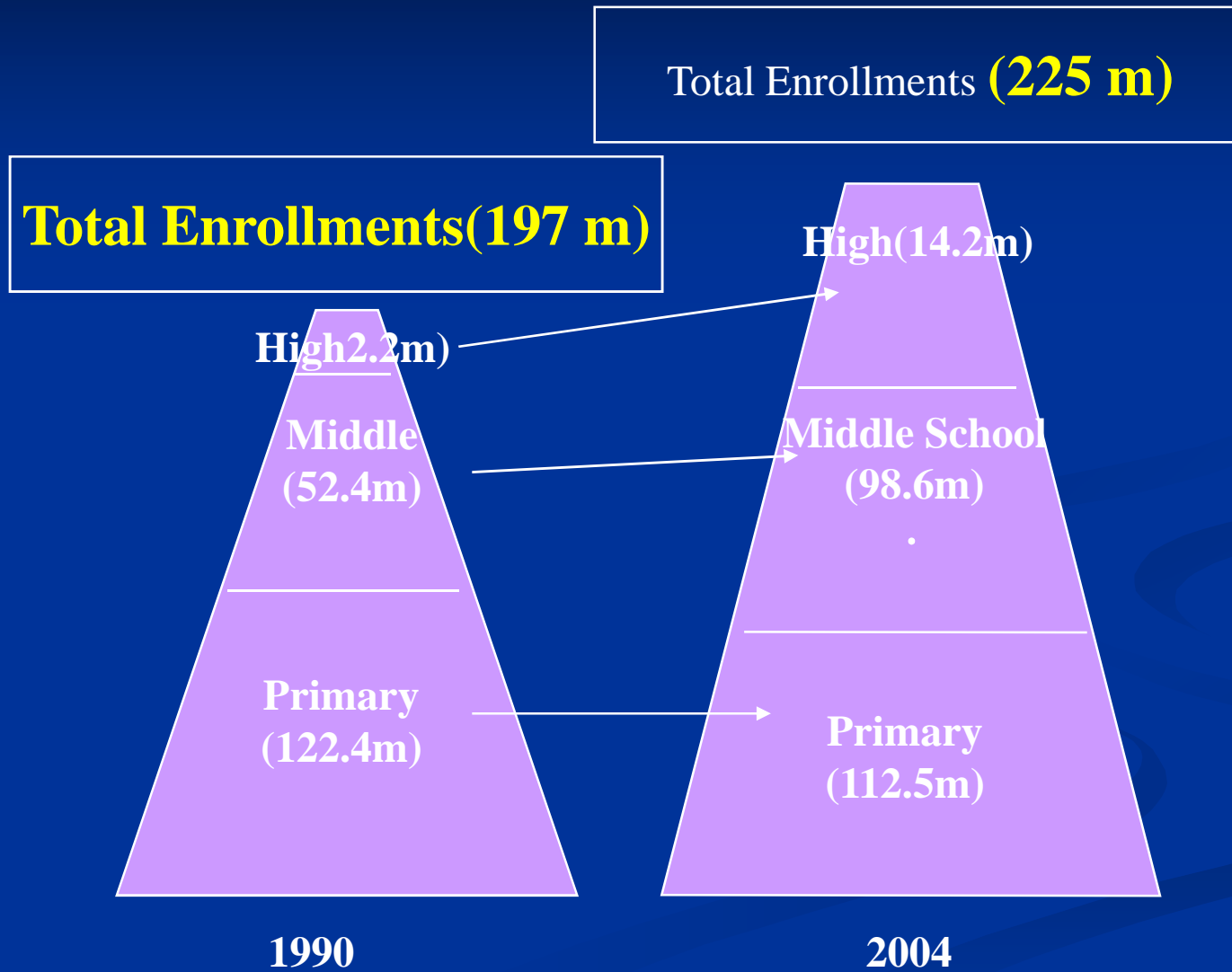
# **Structure of Presentation**

- 1. Overview of China and Its Education Development**
- 2. Education Development and Reform in the Context of Marketization, Urbanization and Globalization.**
- 3. Key Challenges and Problems of Education Reform and Development**
- 4. Perspective of Education Reform and Development.**

# Fact sheet About China

Item	China
Population (million)	1300.00
Labor force (million)	756.00
Percentage of population with at least upper secondary education (%)	17.31
Percentage of population with higher education (%)	4.66
GDP Per capita	US\$ 1705 (2005)
Annual GDP Growth (%)	9.6
Unemployment Rate (%)	5.0-10.0

# Overview of China's Formal Education Development



Data: China National Statistics

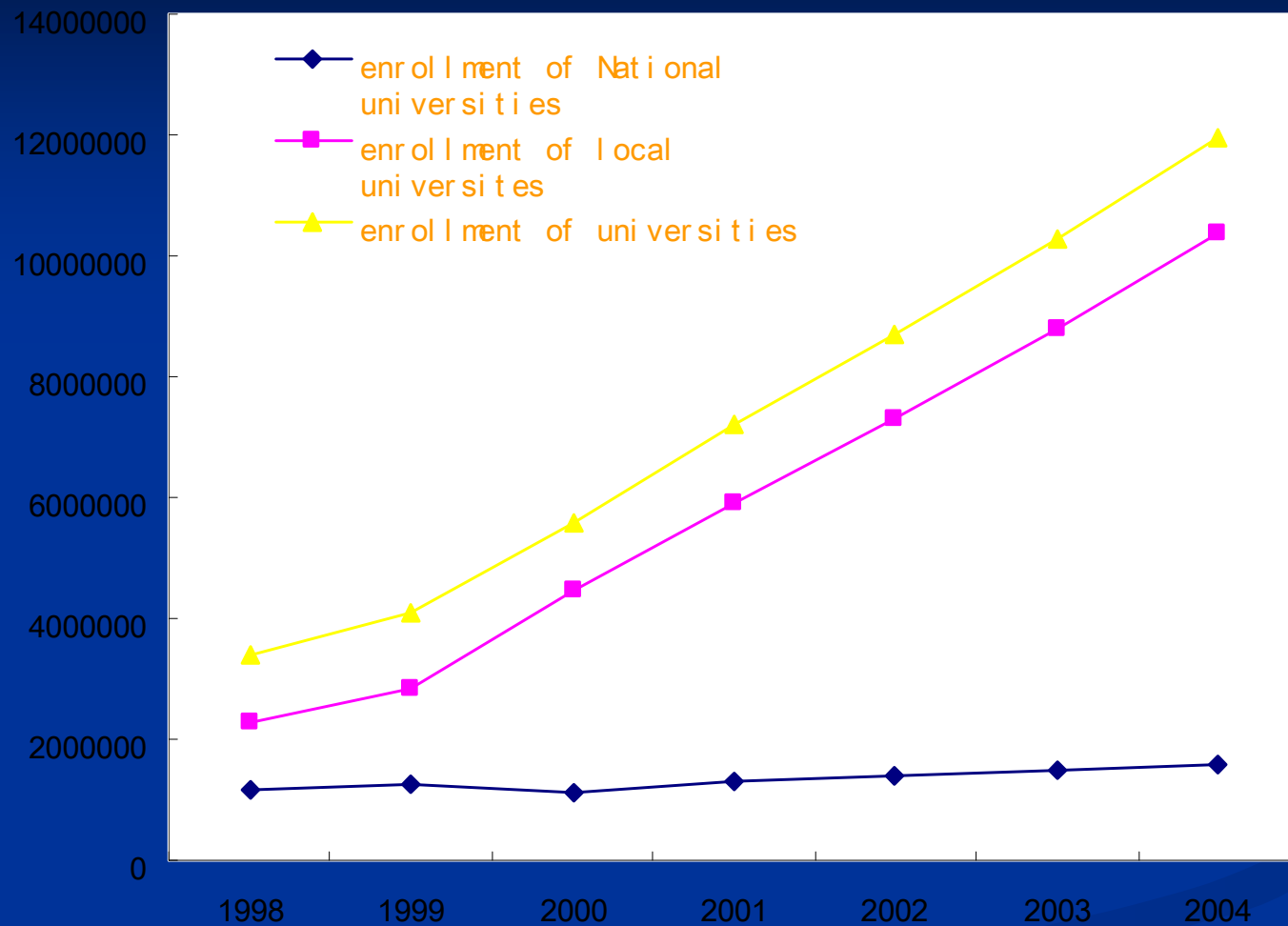
## China's Education Development in past 12 years

Year	1993	2005	2005--1993
<b>I. Universalization of 9 year compulsory education</b>			
population coverage ( % )	45	95	+50 (%)
Net Enrollment Rate (P.S.) ( % )	97.7	99.2	+1.5 (%)
Net Enrollment Rate (J.S.) ( % )	73.1	95	+21.9(%)
<b>II. Development of senior secondary education</b>			
Entrants(10000)	656.9	2409.1	+2.7(times)
Enrolments10000)	762.4	1559.2	+1.1(times)
Net Enrollment Rate (H.E) ( % )	28.4	52.7	+24.3(%)
<b>III. Leapfrogged Development of Higher Education</b>			
Entrant(10000)	92.4	504.5	+4.5(times)
VTE enrolment(10000)	500	2300	+3.6(times)
Net Enrollment Rate (S.S)	5	21	+16(%)

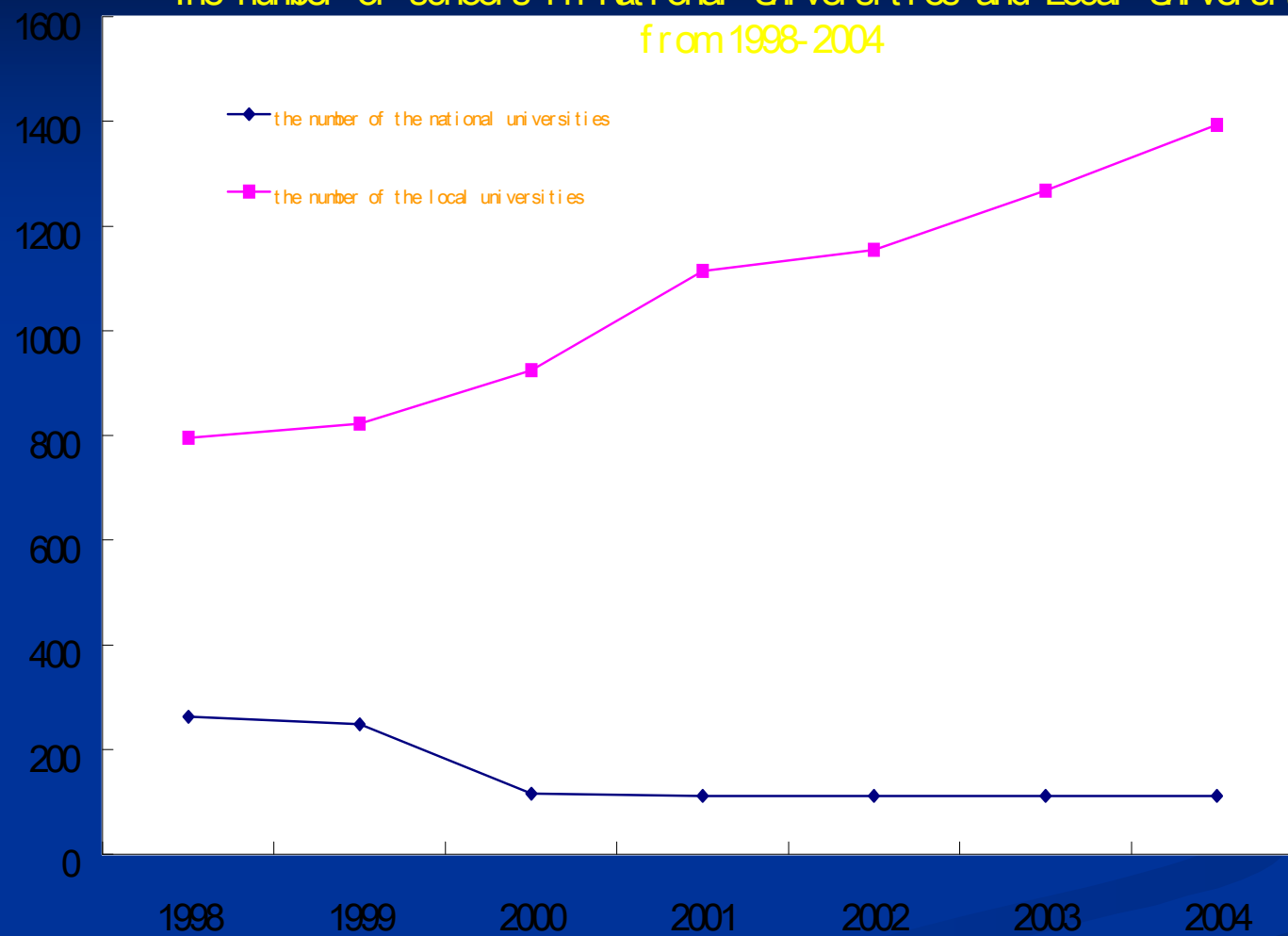
**Table: The Number of Schools and Enrollments in National Universities and Local Universities from 1998-2004**

Years	National University				Local Universities and collage			
	school	Number of Enrollment			Schools	Number of Enrollment		
		Total	Bachelor	collage		Total	Bachelor	collage
1998	263	1150876	974613	176263	795	2257888	1260034	997854
1999	248	1242943	1073438	169505	823	2842931	1650983	1191948
2000	116	1105765	975676	130089	925	4455135	2424505	2030630
2001	111	1280041	1120388	159633	1114	5910617	3123356	2787261
2002	111	1404879	1260607	144272	1154	7311299	3981715	3329584
2003	111	1502345	1365215	137130	1268	8771582	4607134	4164448
2004	111	1567794	1443839	123955	1394	10369095	5302911	5066184

Enrolments of universities from 1998-2004

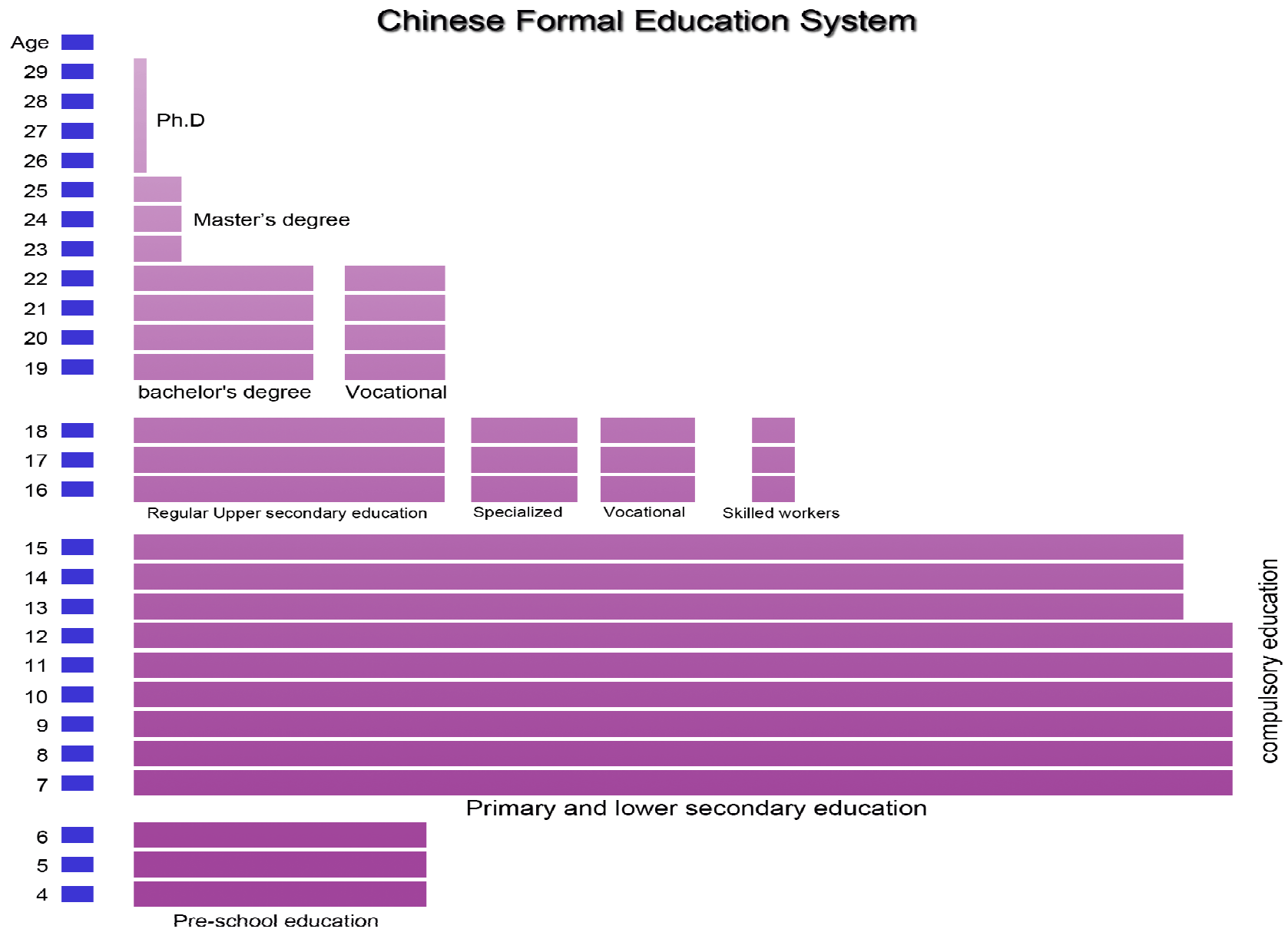


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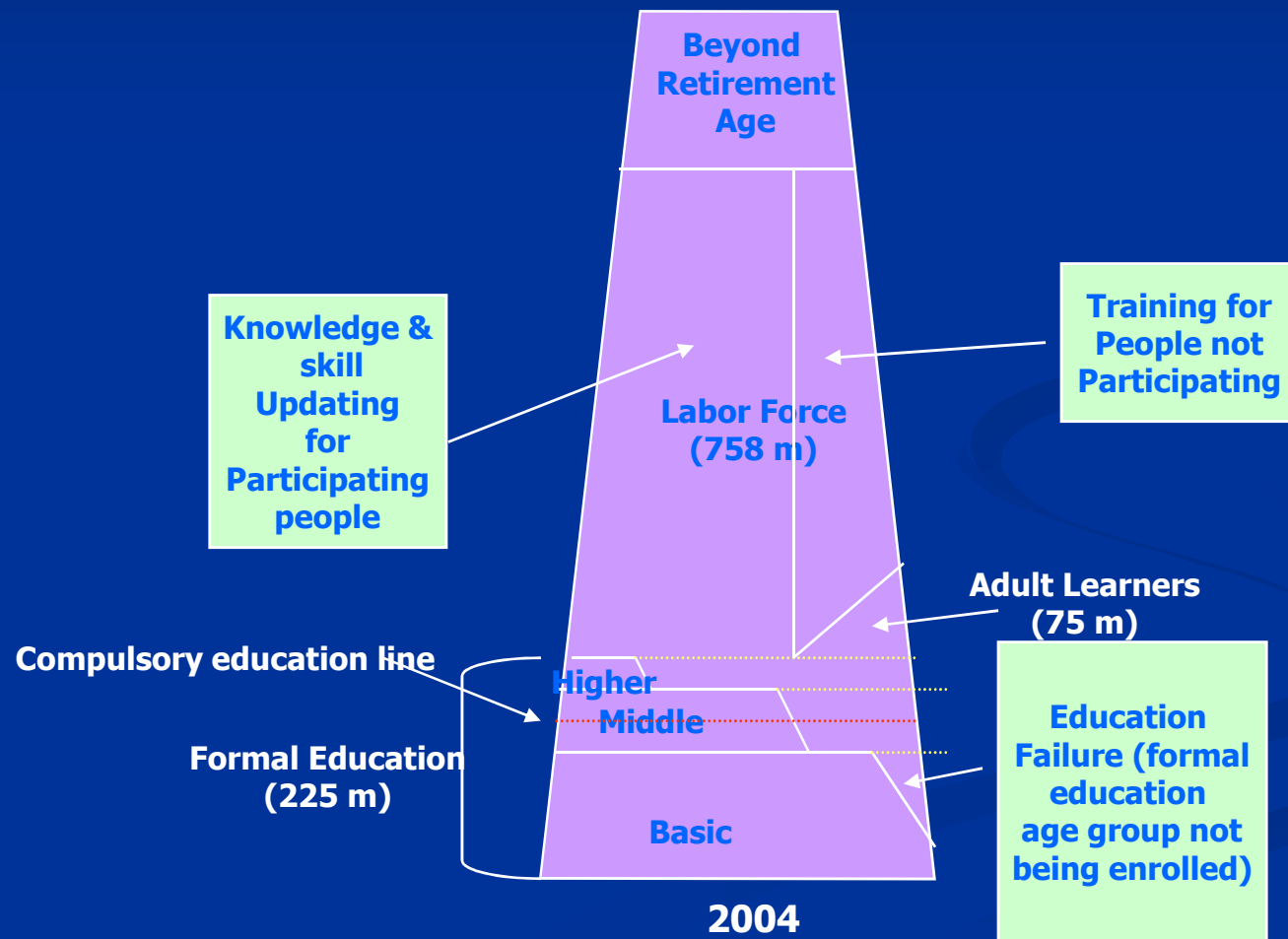


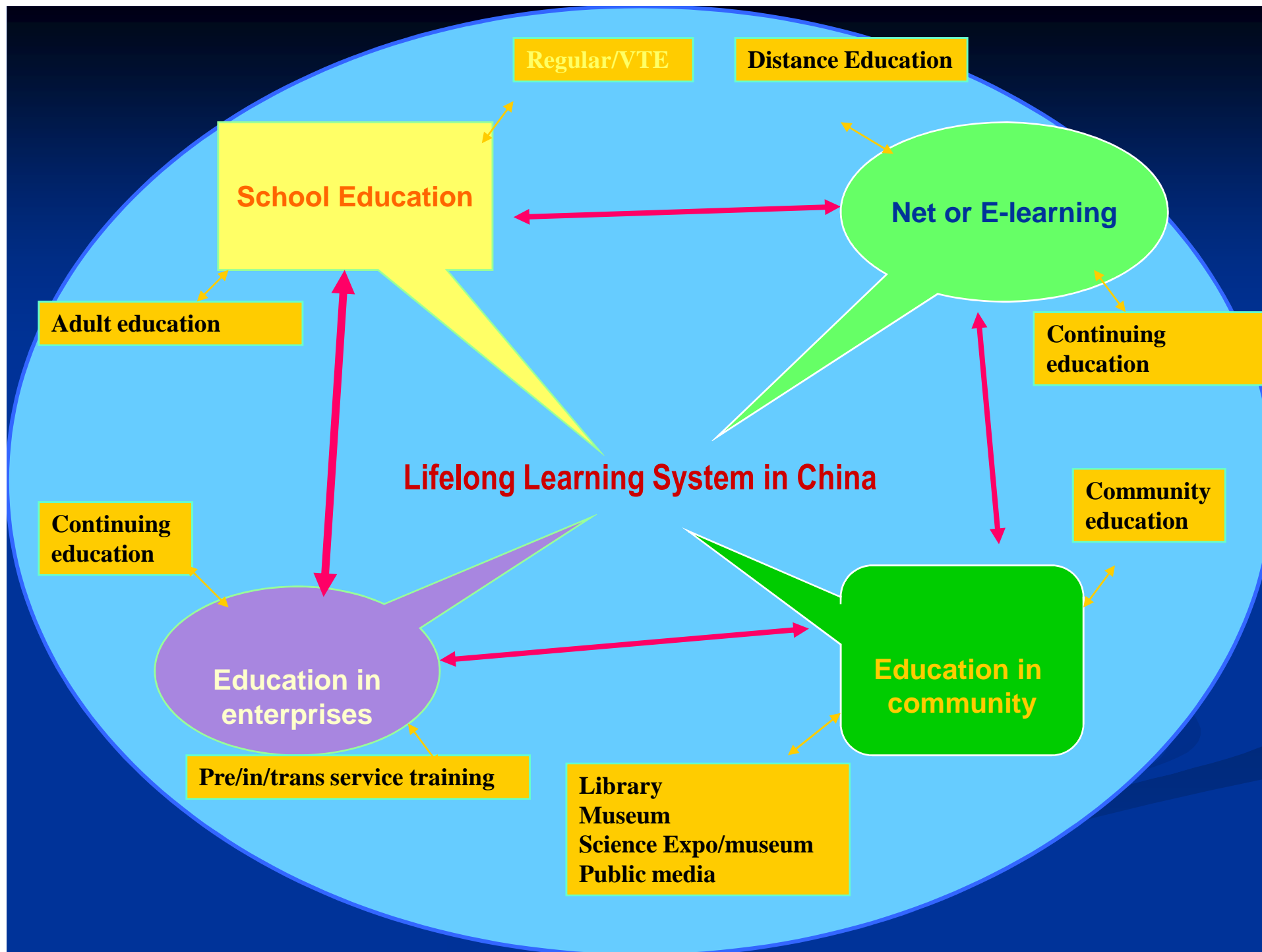
# Chinese Formal Education



# China's Learning Needs Beyond Formal Education

Total Population (1.3 b)





## 2. Education Reform and Development in Context of Marketization, Urbanization and Globalization.

- Marketization: it's market play basic roles of allocating educational resource. Government complement the market failure by offering grants for the underprivileged group.
- Urbanization: Migrants from Agriculture Industry to Industrial industry; from rural regions to town or cities.
- Globalization: China's share of world exports has increased from 1% to almost 6% from 1980 to 2003. The export or import/GDP ratio has increased from 5% to 25% at the same time.

## **Driving forces of promoting education reform and development in the context of MUG.**

- Knowledge Explosion: The total knowledge and skill human being created is growing rapidly.
- Organization Reform: From state-owned Enterprises to Diversified Enterprises.
- Employment Restructuring: From Agriculture Industry to Industrial industry.
- Social Cohesion: From attaching importance of Efficiency to Equality.
- Curriculum Reform.

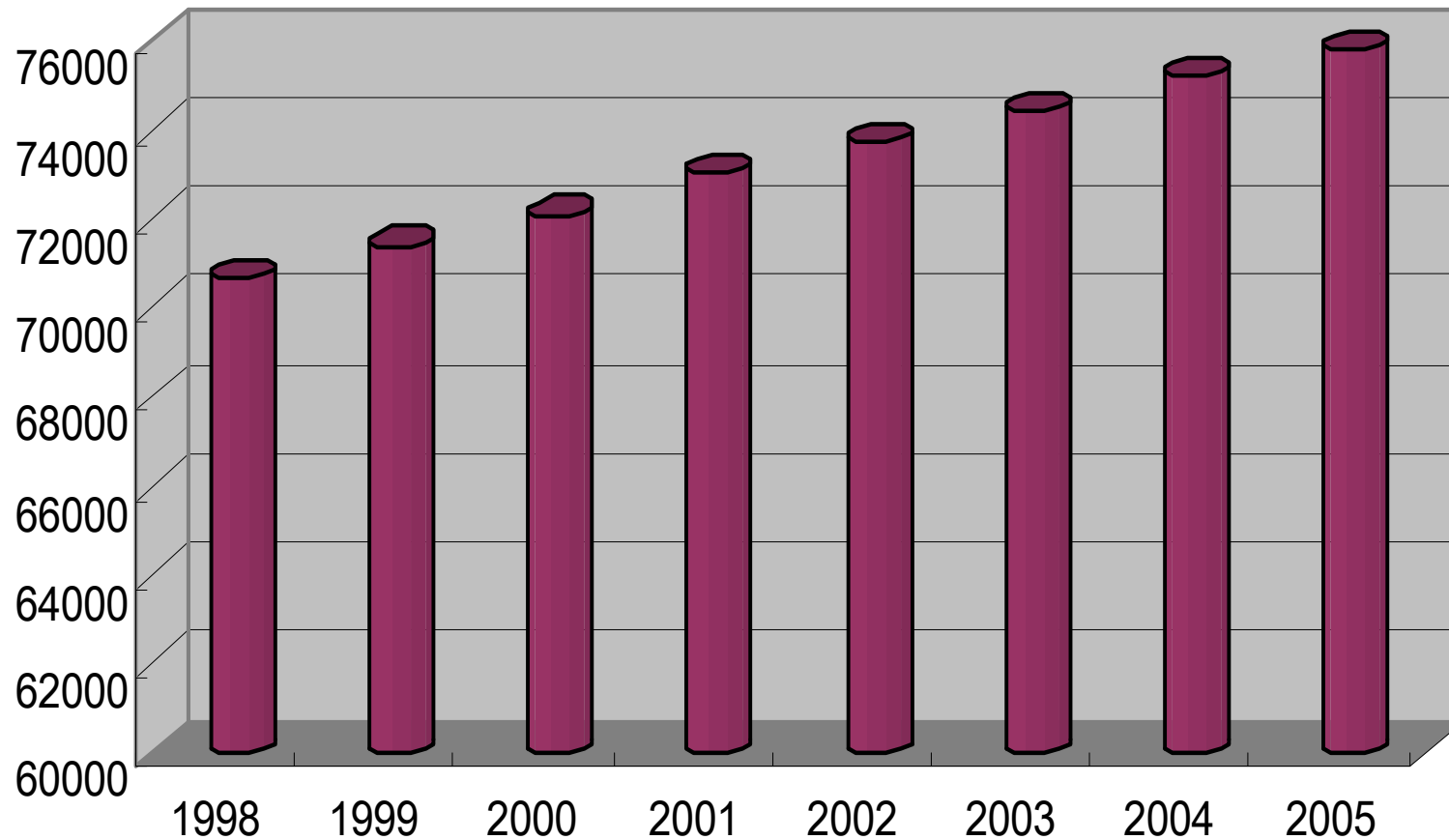
# Knowledge Explosion

- In term of Agriculture-based Economy, It is estimated that person needs education from age 7-14 to deal with 40 years work.
- In term of Industry-based Economy, It is estimates that person needs education from age 5-22.
- In term of Knowledge-based Economy, person need lifelong learning adapting to the changing environments. The total amount of knowledge and skill human being created is growing rapidly. It is estimated that knowledge and skills a graduate grasped account for only 10% that he/she needs during lifetime.

# Organization Reforming

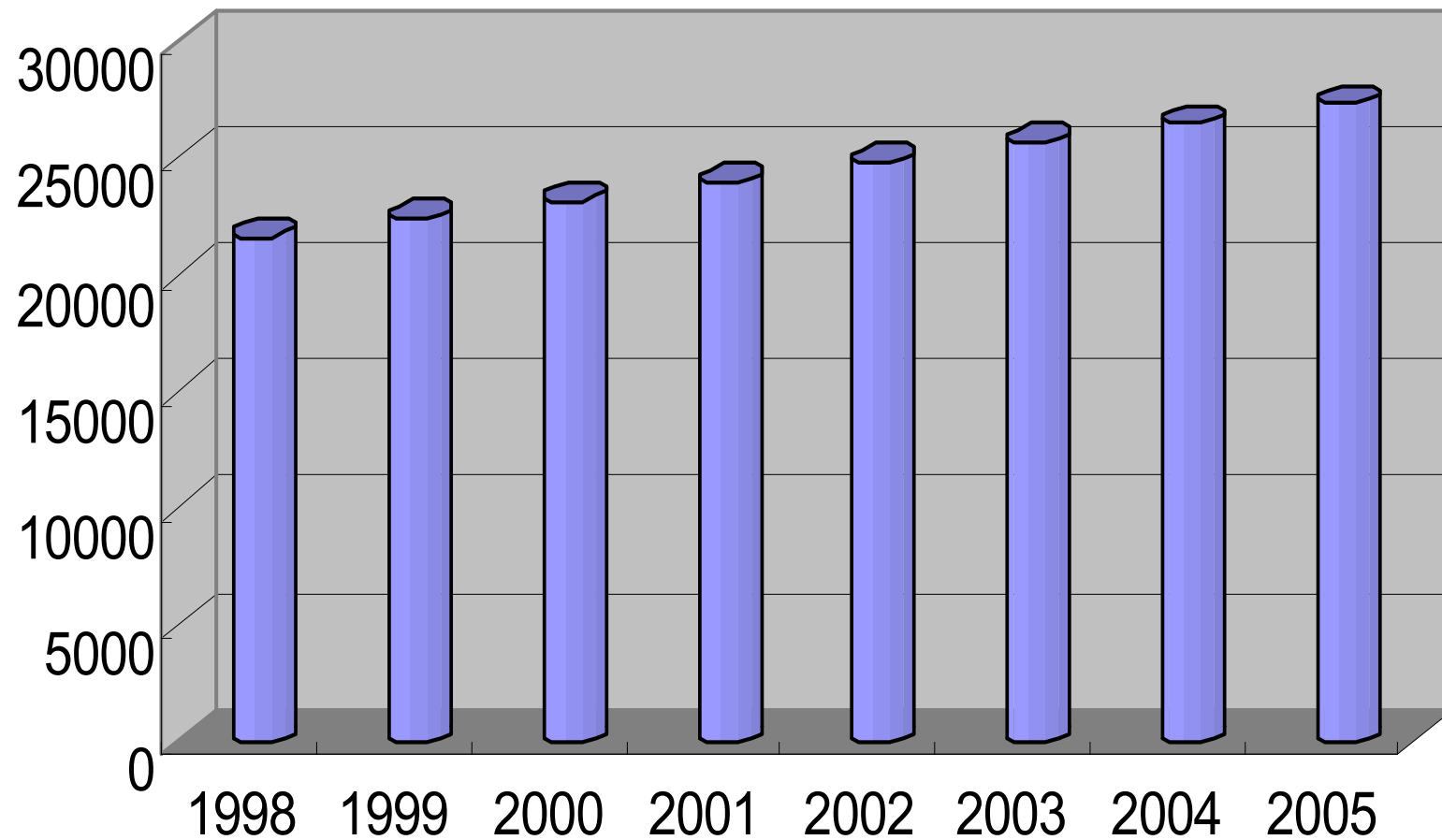
- **From state-owned enterprises to diversified-owned enterprises.**
- **From Large & Pyramidal to Small & Flat;**
- **From Procedures, rules & regulations to Communications & relations;**
- **From lifelong careers to Multiple careers; From lifelong qualification to On-demand, just in time learning.**
- **This is resulting in frequent change of jobs, frequent change of careers, frequent change of partners .....**

## Employment Pressure and restructure ---Changes in numbers of employees in urban and rural areas (Unit:10,000 people)

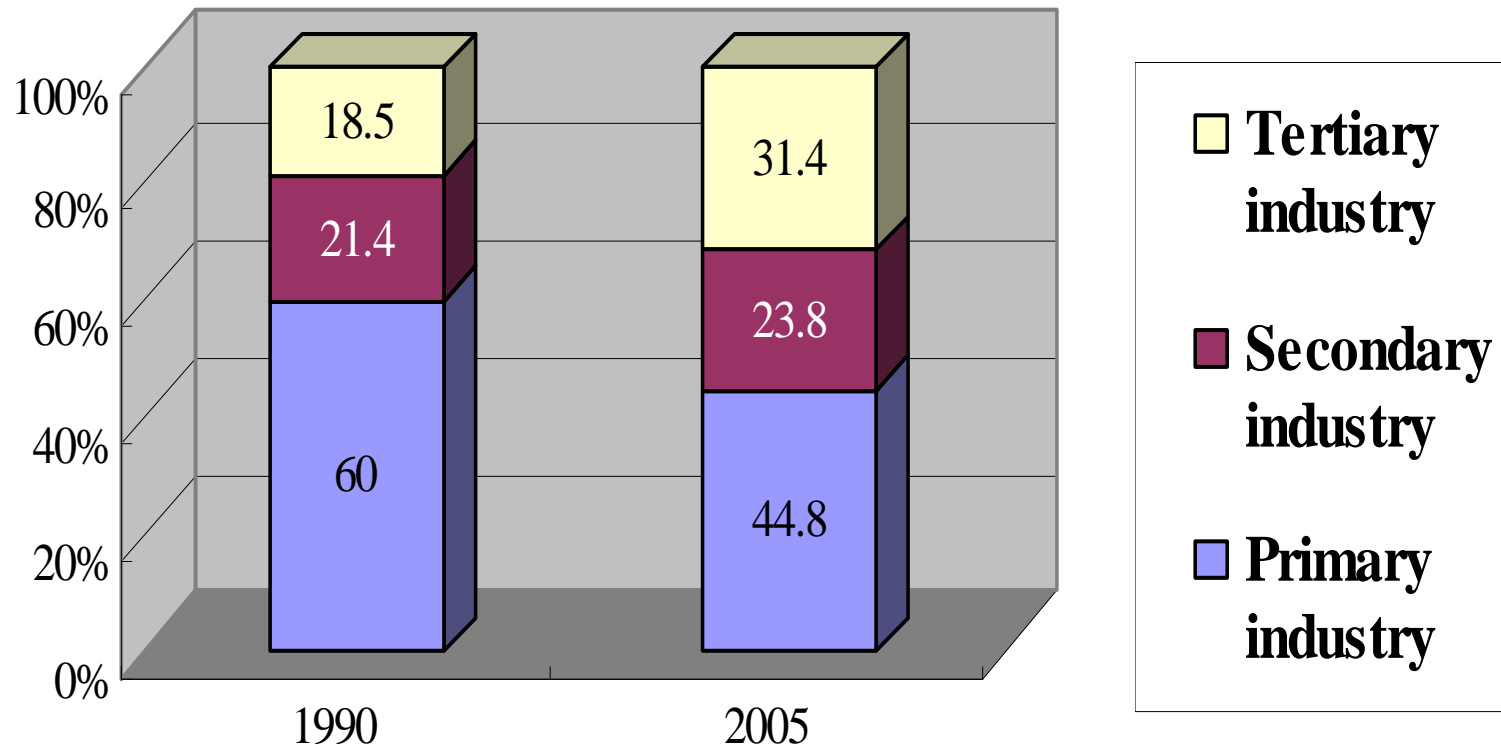




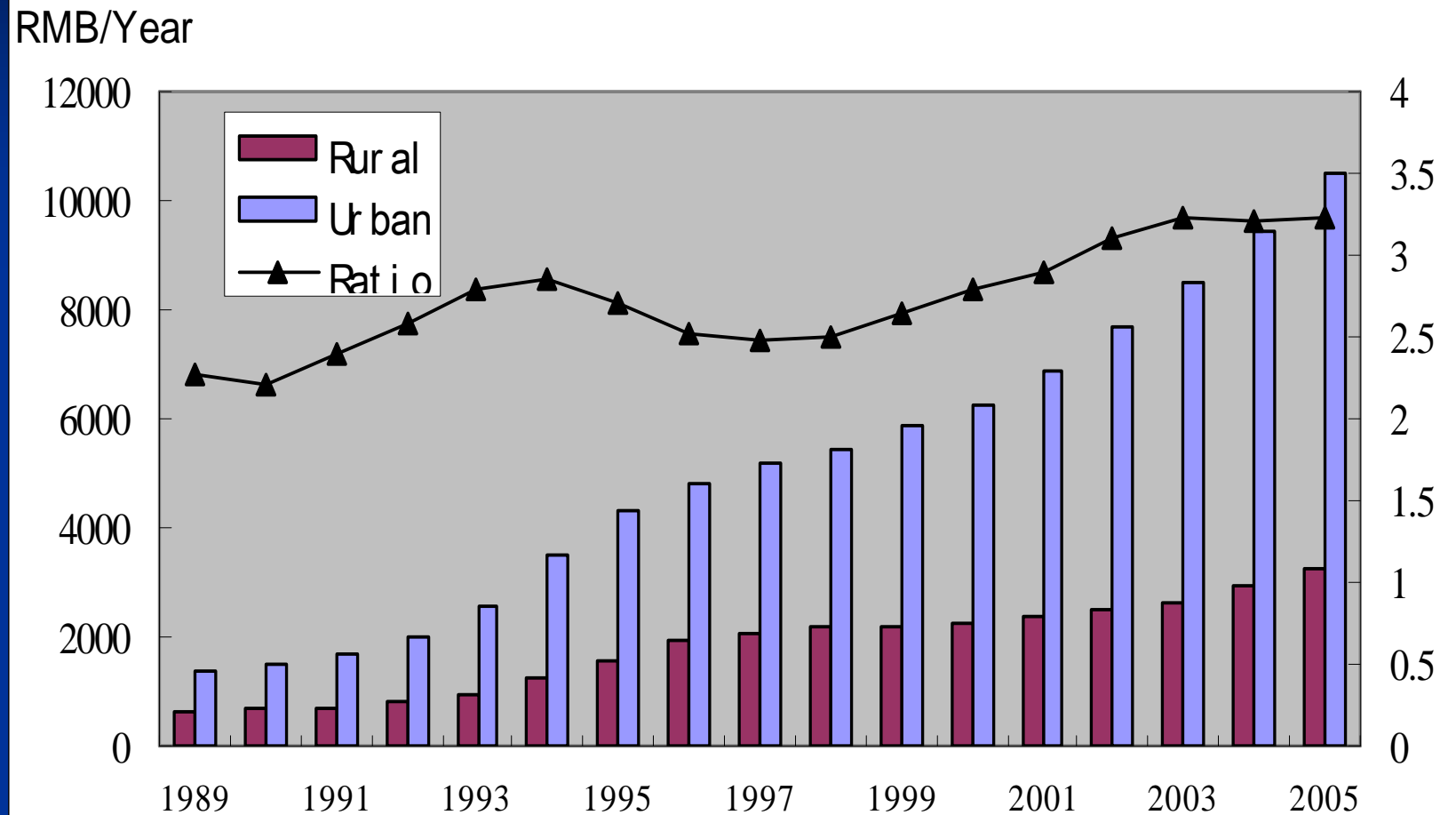
## Employment Pressure and restructure--- Changes in the number of employees in urban areas (Unit: 10,000 people)



## Employment Pressure and restructure—Job Structure Change



# Social Cohesion—Income change curve



## **Curriculum Reform to meet change of paradigm and knowledge upgrading**

- From teaching to learning;
- From self sufficient teachers to team of teachers and from teachers centered to students centered;
- From knowledge-based learning to problem-based learning
- From homogenous classes to multicultural classes.

# **MUG's Influences on Education and Training**

- **Drastic decrease of manual workers; Challenge to occupational identity; Demand for more flexible learning modes and paths; Expanded need for lifelong learning.**
- **Education and training are becoming increasingly important in the process of knowledge-based development and promoting policy change toward establishment of lifelong learning.**
- **Risk of knowledge divide countryside and city .**
- **Constant need for new skills for people out of school and in labor market**
- **Curriculum reform to use, adapt, and create new knowledge**

### 3.Challenges and Problems of Education Development and Reform

- **Flow Challenge**-- expanding formal educational enrolments and increasing quality
- **Dynamic Challenge**—reforming education and training to adapt to the rapidly and constantly changing needs
- **Stock Challenge**— upgrading skills of people(750m) already out of the formal school system
- **Administration Challenge**—Governance Reform
- **Finance Challenge**—Ensuring equity and social cohesion

# Flow Challenge:

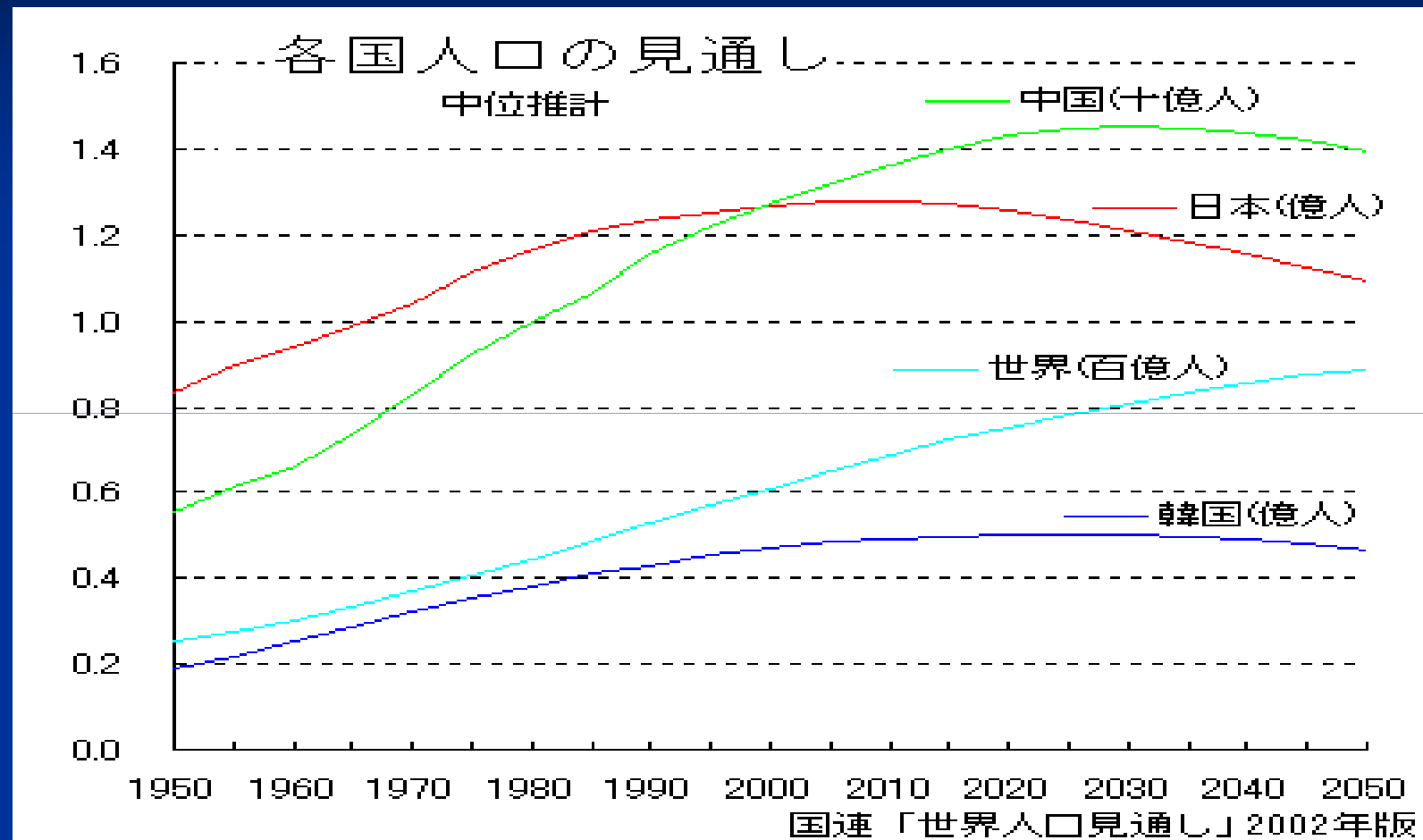
- **China needs to continue to expand access and improve the quality of its formal education systems which has more than 225 million students**
- **Education system must teach students how to learn through their lifetime regardless of when they leave it. It indicates China need for**
  - Better teaching and learning pedagogies for core skills, such as PBL.
  - Broader interdisciplinary approaches
  - Financing mechanisms to expand access and improve quality

# Dynamic Challenge:

- **We should take into account the changing population structure**
  - Because of one child policy, school age population is already starting to decrease at primary school level
  - But still need to expand enrollments at higher level
  - And need to plan for different mix of students—more adult learners at higher level
- **We should take into account changing economic structure**
  - Decrease in agriculture, increase in industry and especially in services
  - Changing occupational structure and skill requirements—especially of higher value knowledge skills in service sector
- **We should update the content of curriculum and training to be relevant to changing needs**



## Demographic change and anticipation



( 国連2002年人口推計より / Aging in Japan ホームページ[<http://www.nihonkaigaku.org/>]より転載 )

# Stock Challenge:

- **Rapid creation and diffusion of knowledge promote adults to learn constantly. It's a great task for China to ensure basic skills of 758 million workers**
  - Improve training to millions of rural migrants
  - Retrain millions of laid off workers
  - Upgrade skills of employed persons
  
- **What China demands**
  - Multiple mechanisms for continuous training beyond formal education system
  - Effective system for skills assessment and certification
  - To exploit potential of information and communications technologies to expand training opportunities
  - Effective teaching methods, such as PBL.

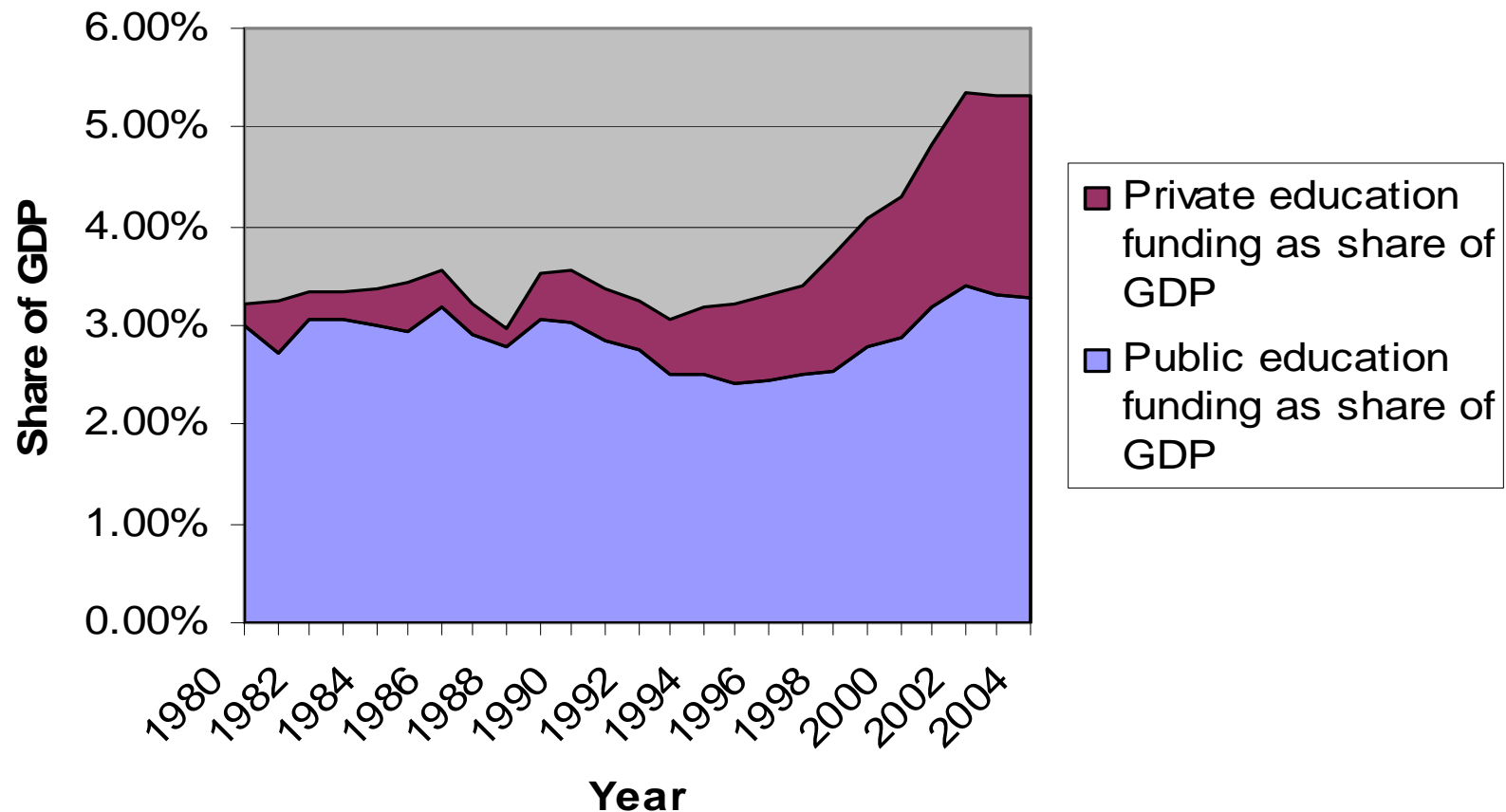
# Administration Challenge

- **Fragmentation and Lack of Coordination of System**
  - Many ministries involved controlling different parts
  - Growing private universities and training programs
- **Need for a More Integrated and Coordinated Approach**
  - Need system that allows for multiple providers and multiple pathways to different levels of education and skills
  - Requires broad set of general rules and standards and coordination and mutual recognition among multiple systems
- **Great Needs, Limited Finance, We Need for Innovative Approaches**
  - Government cannot afford to finance increase in access and quality
  - Need to encourage private financing

# Financing Challenge

- Increase public resources for education
- Increase students contributions to cost of delivering public education, including loans
- Increase private provision of education and training
- Develop student loan and education finance market
- Improve the productivity of education system
  - Improve the incentive regime and management of education systems
  - Improve knowledge management in the education sector
  - Reduce the time it takes to get different levels of education
  - Improve the pedagogy of education—Promote Problem-based Learning.
  - Use new ICT technologies more extensively

# China Public and Private Education Expenditures as share of GDP (1980-2004)



Source: National bureau of statistics of China

# Key Problems:

- **Poor Demand Supply Links of Education and Training to Labor Market**
  - Mismatch between skills supplied and needs of market
  - Poor information on career options, income streams, quality of different providers
- **Need for Massive Upgrading of Skills**
  - Require innovative ways to reduce skills gaps of population already in labor force
  - Need to upgrade skills continuously
- **Need to Improve Quality and Content**
  - Quality at all levels.
  - Need to improve assessments
  - Need to curriculum reform

# Key Problems:

- **Need to Realize Potential of ICT Technologies to Expand Access and Quality of education and training**
  - Need to develop more providers—a new kind of learning industry is emerging.
  - Need to help create more content
- **Need for Accreditation, Vocational Qualification and Certification**
  - Need better accreditation of education and training providers
  - Need effective system for assessing and certifying vocational qualifications (and not necessarily just by government)

## 4. Perspective of Education Development and Reform

- Ensuring Education for ALL—Universalizing 9 years compulsory education continuously.
- Ensuring Basic Skill for All—Developing TVET Greatly.
- Improving Quality for Higher Education—Implementing 985 Project and 211 Project.
- Creating Laws and Culture related to Lifelong learning



# Ensuring education for all

- Improving the level and quality of 9 years compulsory education.
- Implementing National Compulsory Education Project for Poverty-stricken Areas and Ensure all the students of the compulsory education age group from poor families across the country enjoy the “two exemptions and one allowance” (exemption from paying miscellaneous fees, exemption from textbook fees, and the provision of a living allowance for boarding students, it's nearly free education)
- Implementing “Modern Distance Education Program for Rural Primary and Secondary School” and ensure all the school are available the computers, TV programs, VCD courseware or Internet

# Ensuring Basic Skill for All

- **Developing TVET greatly--** Universalizing upper secondary education by 2020.
- **Improve the tertiary education more flexible.**
- **Community learning centre—** Ministry of Education and local government have initiated about 200 pilot community learning centre.
- **Workplace learning and learning organization—** sharing the responsibility between employer and employee.
- **Improving Efficiency and Effectiveness of National Qualification System.** Need better accreditation of education and training providers; Need effective system for assessing and certifying vocational qualifications (and not necessarily just by government).
- **Formulating lifelong learning law to allocate the responsibility among Governments, Unions, Enterprises and Individuals.** The Direction of Governance Reform is changing the government's function to be Coordinator of life long learning system.
- **financing lifelong learning for the underprivileged.** such as finance 8 million migrant's workers in 2006 by Ministry of Labor and Security, finance 100 million farmers in 11th Five-Year Plan(2006—2010) by Ministry of Agriculture, etc.

# Improving quality of high education

- **Implementing 985 Project** and promote a dozen universities to be world-top or internationally renowned, high-level research universities.
- **Implementing 211 Project** and focus on finance a hundred selected academic disciplines or fields of study or a hundred universities to be innovation base of science and technology.
- **Implementing Topnotch Creative Talent Program** to invite world-top scientist or scholar to be teacher or team leader in Chinese University.
- **Implementing HEI science and technology innovation program** and promote universities to be important part of the national innovation system.
- **Implementing Plan for the Flourishing of HEI-based social science and philosophy** and establishing a number of philosophy and social science research centers in universities.

# Integrating learning resources to create learning culture

- Museums, Televisions, Video, Newspapers, etc, should integrate together to promote learning communities and cities.
- Developing Education by Internet. Today, 1500 universities and institutions connected China Education and Research Network (CERNET) with about 20 million end users, 3 million registered student in 66 tertiary education institute. By 2020, we are planning to connect every school to Internet and promote every classroom in the city and every school in the rural region have access to online educational resources.

## In summary:

**In 2002, China Government have set forth the strategic goals of building a well-off society in an all-round way. To establish a learning system and a learning society is one of important components in the national strategy. Responding to it, we are formulating the Education Strategy toward 2020. Ensure Basic Education for All and Ensure Basic Skill for All(750m) and Promote top universities to be centre of innovation in science and technology are important tasks we are facing.**

**Developing a lifelong learning system and Establishing a learning society in the 21th century will be the greatest innovation through the long Chinese history. In order to achieve it, we would like to study, to practice and cooperate with the international world, to move forward step by step.**

Thank you!