

# The Challenge of Life Long Learning for Education Finance in China



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# Structure of Presentation

Education and training are Key to China's Increased Competitiveness

- Three Education and Training Challenges for China
- Developing a System of Life Long Learning
- Refining the Role of Government
- Addressing the Financing Challenge of Life Long Learning
  - Increasing public finance
  - Improving allocation of public resources
  - Increasing efficiency in public education spending
- Dealing with the Equity Challenge
- Increasing Co-financing
  - Increased students contribution
  - Increased private provision
- Developing the financial market for education



# Education is Key To China's Competitiveness and Growth

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- Challenges for China
  - **Increasing International Competition**
  - **Limited Natural Resources**
  - **Need for a more knowledge intensive growth strategy**
  - **Increasing Unemployment**
  - **Increasing Inequality**
  - **Need to turn abundant human resources into strategic advantage**
- Education & Training are becoming key strategic elements of international competition

# Stock Challenge in China

Rapid creation and diffusion of knowledge means adults constantly have to learn. China has to upgrade the skills of 770 million workers

- Training millions of rural migrants
- Retraining millions of laid off workers
- Upgrading skills of hundreds of millions of employed persons
- Providing education and training to hundreds of millions of adults outside the labor force
- China needs
  - 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

# Flow Challenge in China

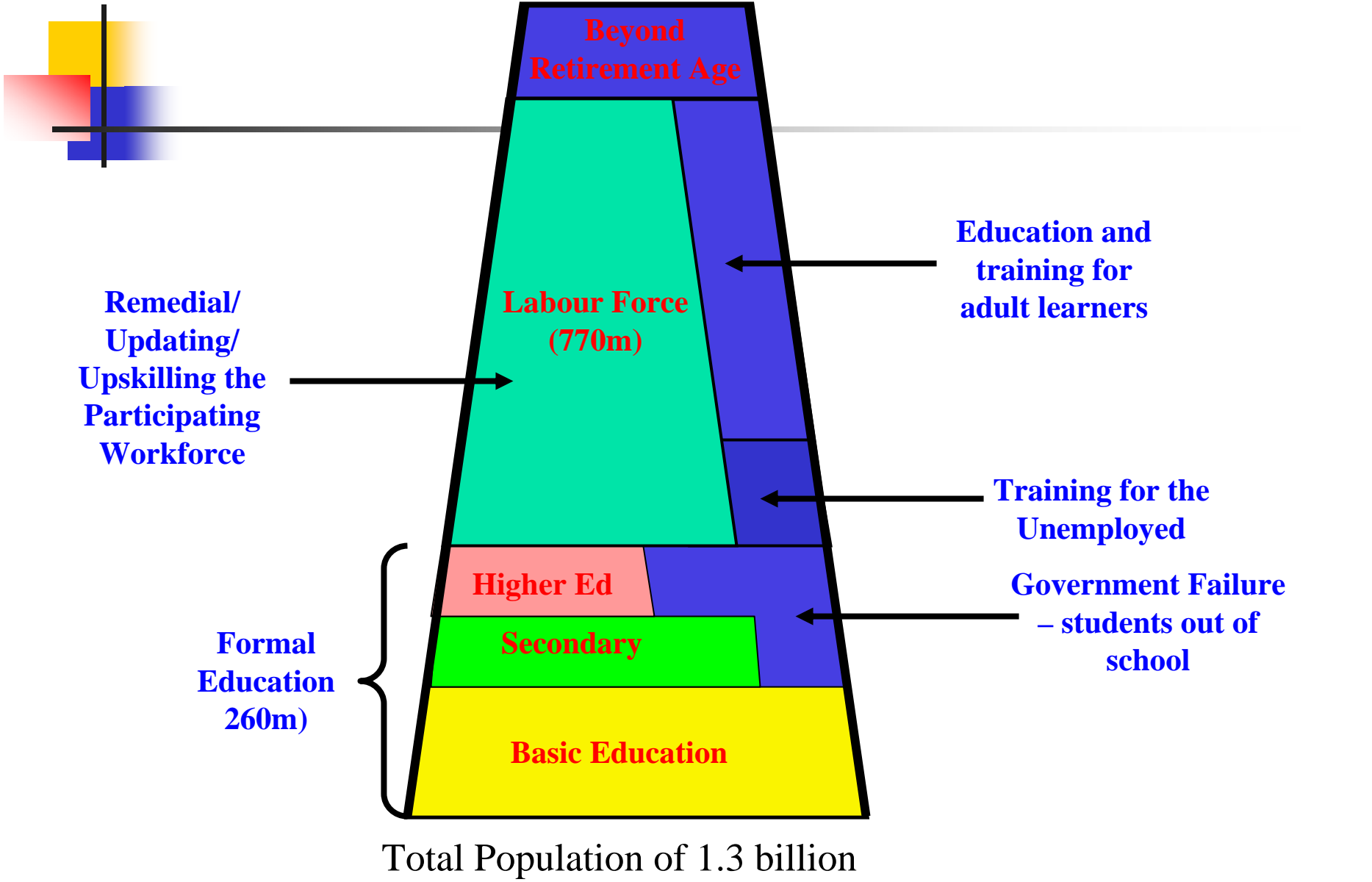


- China needs to continue to expand access and improve the quality of its formal education systems which has more than 260 million students
- Education system must teach students how to learn through their lifetime regardless of when they leave it: implies need for
  - Better teaching and learning pedagogies for core skills
  - Broader interdisciplinary approaches
  - Financing mechanisms to expand access and improve quality
- **China need to address both stock and flow challenges, though severely financially constrained**

# Dynamic Challenge in China

- In designing system need to 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 but also increase quality
  - And need to plan for different mix of students—more adult learners at higher level
- Need to take into account changing economic structure resulting from rapid growth
  - 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
- Need to update the content of curriculum and training to be relevant to changing needs

# China's Learning Needs Beyond Formal Education



# Overview of Components of LLL System

## GOVERNANCE/ AND MANAGEMENT OF SYSTEM

Implies new role for government. Requires:

- Cooperation with non-government partners
- Building bridges across different components of system

### **FORMAL EDUCATION**

- (K-12 + Adult Learners)
- Public
- Private
- Non-government

- Accreditation, Certification,
- Vocational Qualifications
- Credit transfer
- Information
- Finance

### **SOCIAL NEEDS**

- National Identity
- Public Goods

### **PROVIDERS (SUPPLY)**

=/=

### **NEEDS (DEMAND)**

### **TRAINING**

- Public
- Private Sector/Corporate (credentials & qualifications)
- Industry training ('certified')
- Career Development
- Non-Formal
- Other

### **MARKET NEEDS**

- Literacy/numeracy
- New skills:
  - Critical thinking
  - Communications
  - Working in groups
  - Learning to learn
- Increased productivity
- Mass/Scaleable models of just in time learning
- Occupations/ Career Pathways

# Key Issues that Need to be Addressed for An Effective System of Life Long Learning



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- **Assessment of peoples education and skills**
  - Not just years of education or raw ability scores
  - Also functional ability such as measures by OECD adult literacy tests, PISA
  - Plus specific job related skills
- **Certification and accreditation**
  - Not just in countries but also across borders
  - And not just for physically present universities, but also for distance learning programs
- **Information on**
  - Needs of market,
  - Quality of different providers,
  - Quality and skills of students/workers
- **Financing education and training**
  - Government, vs firm, vs. individual
  - Full market vs. grants and loans
- **Effective use of information technologies in general and distance education**
  - In classrooms: computer based instruction, internet materials, video, etc
  - Radio, TV, Interactive video, internet based courseware and simulations, etc.

# Refining the Role of Government in Education and Training



Key government role as architect and coordinator of life long learning system

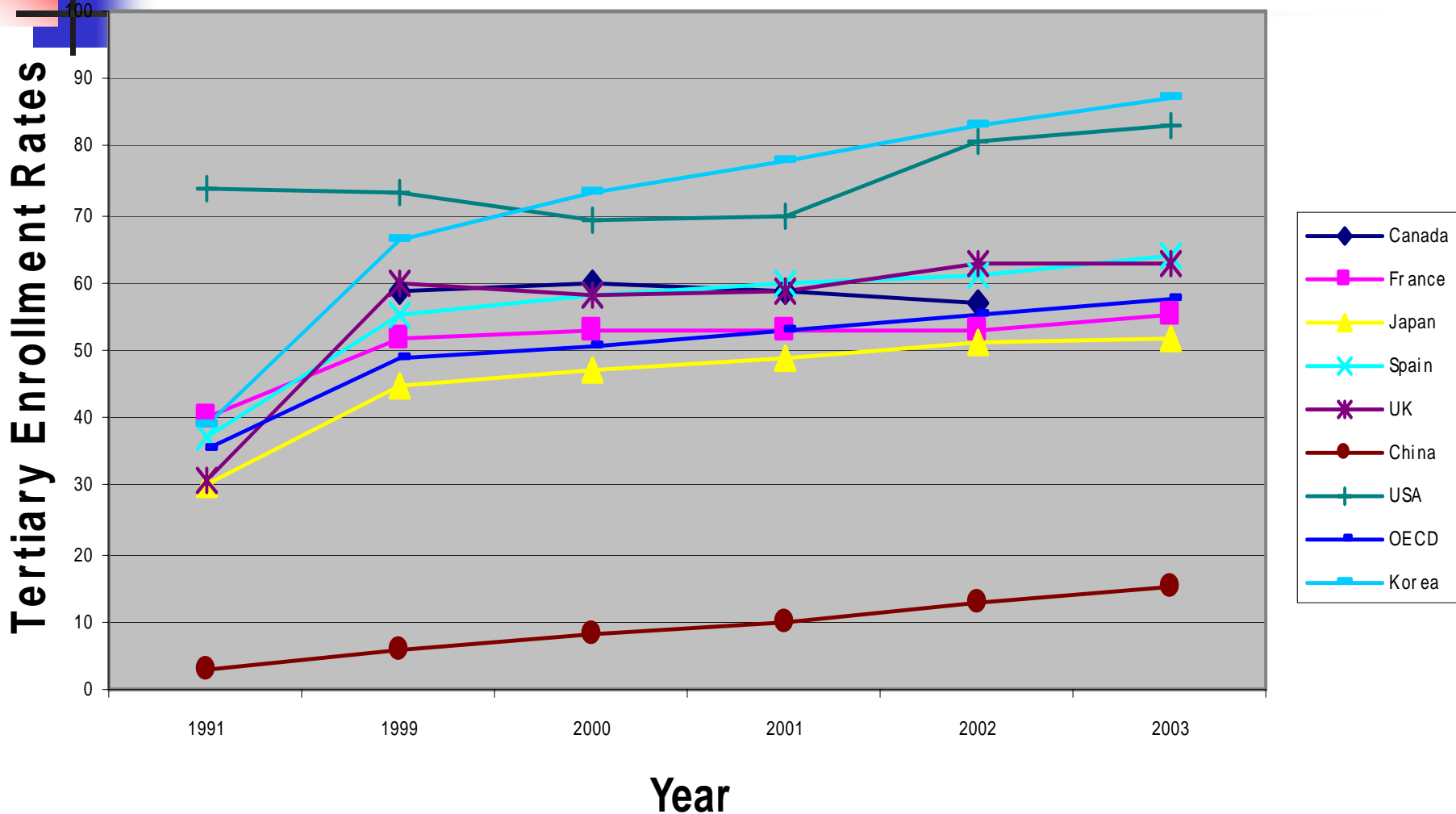
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- Legislation
- Regulations and standards
- Quality assurance
- Equity
- Finance
- Information on needs of dynamic and rapidly growing system  
quality of different education and training providers, and  
qualifications and competencies of people
- Four key functional roles
  - Substituting for the market-basic education
  - Regulating the market-standards, accreditation, certification
  - Complementing the market-grants for equity, special educ.
  - Developing the market—student loans, finance, information

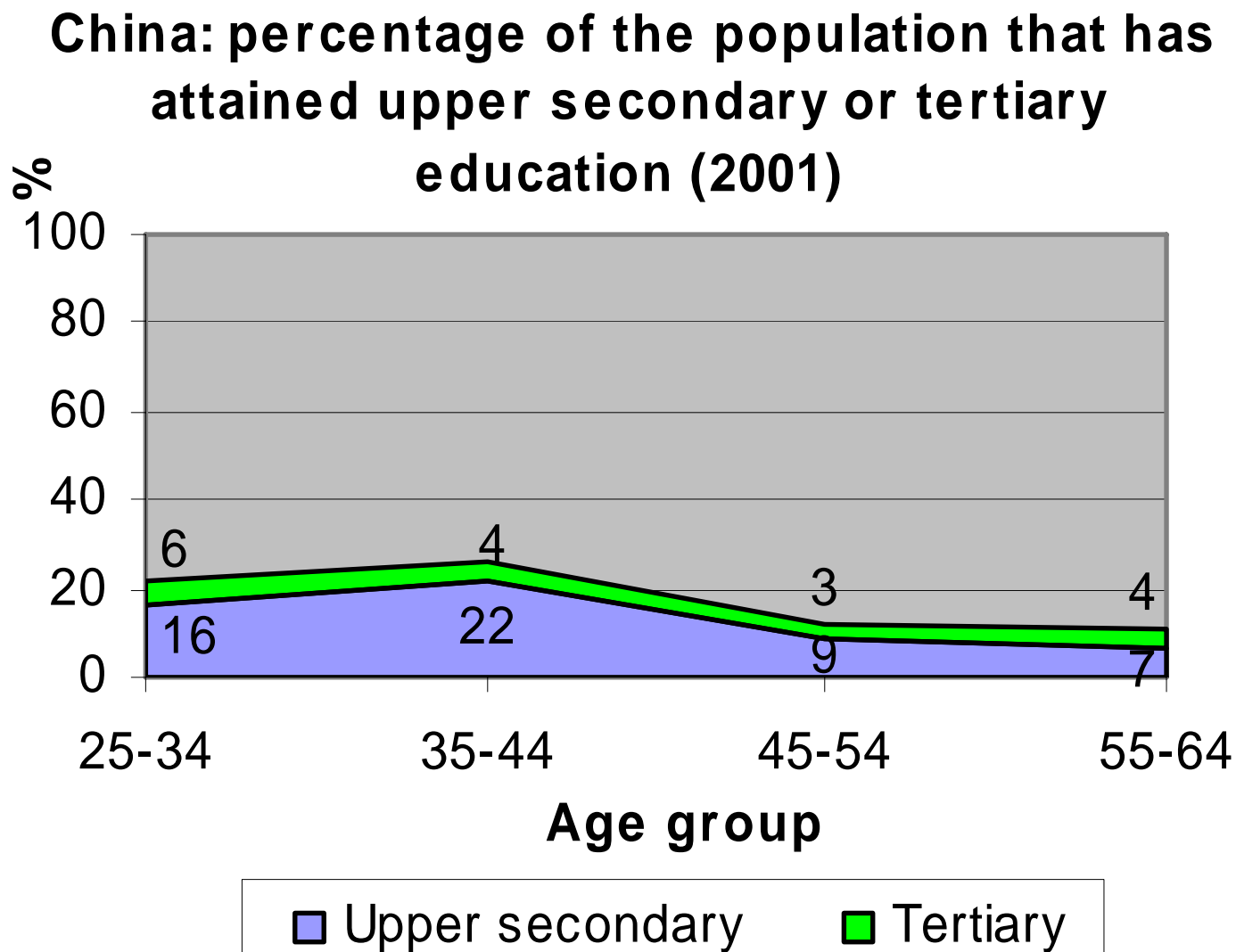
# Gross Enrollment Rates (2004)

	<b>Primary</b>	<b>Secondary</b>	<b>Tertiary</b>
<b>Low Income</b>	<b>100</b>	<b>46</b>	<b>9</b>
<b>Lower Middle Income</b>	<b>112</b>	<b>72</b>	<b>20</b>
China	115	70	15
<b>Upper Middle Income</b>	<b>106</b>	<b>87</b>	<b>40</b>
<b>High Income</b>	<b>100</b>	<b>105</b>	<b>67</b>
Korea	105	91	89
USA	100	95	83
<b>World Average</b>	<b>104</b>	<b>66</b>	<b>24</b>

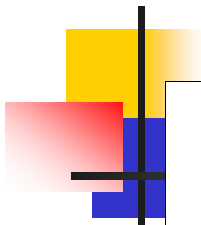
# China Still Has Long Way to Go to Catch Up



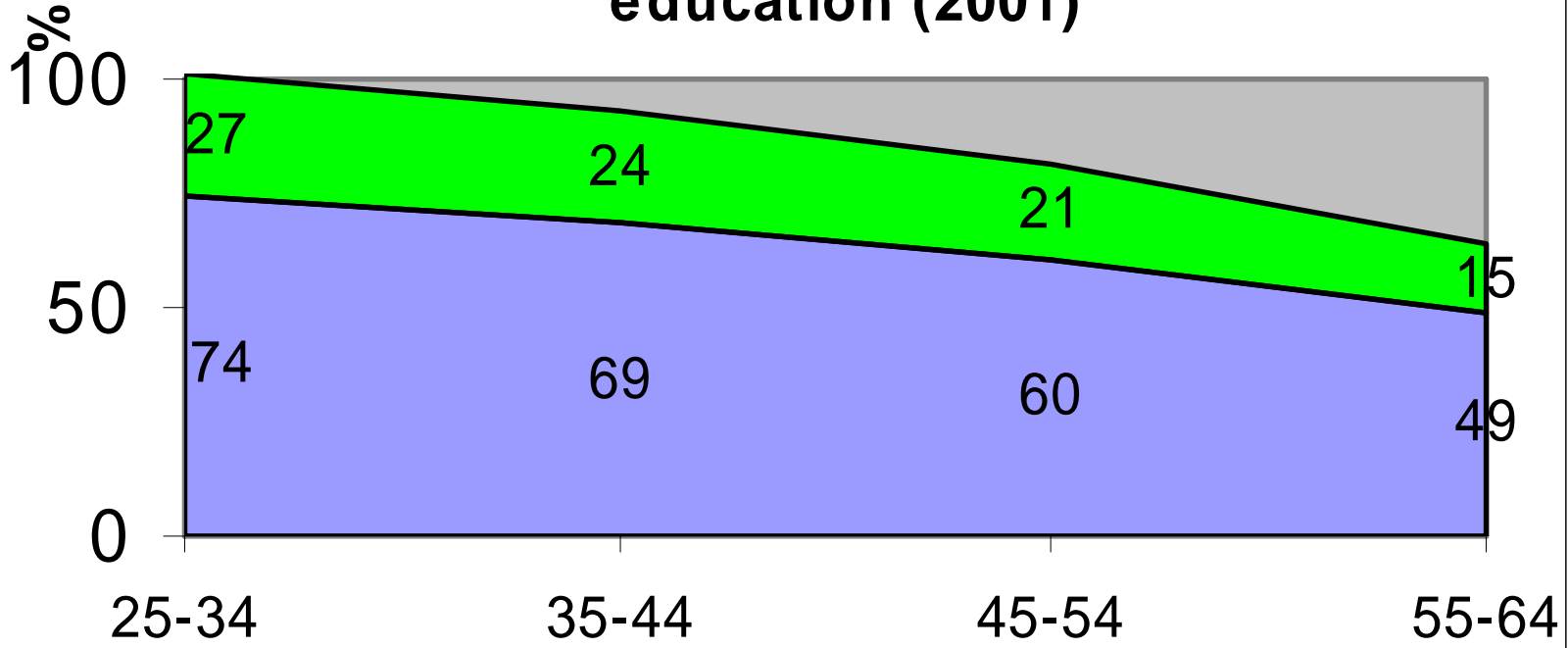
# Low Upper Secondary & Tertiary Attainment in China



# Upper Secondary & Tertiary Attainment in OECD



OECD: percentage of the population that has attained upper secondary or tertiary education (2001)



Age group



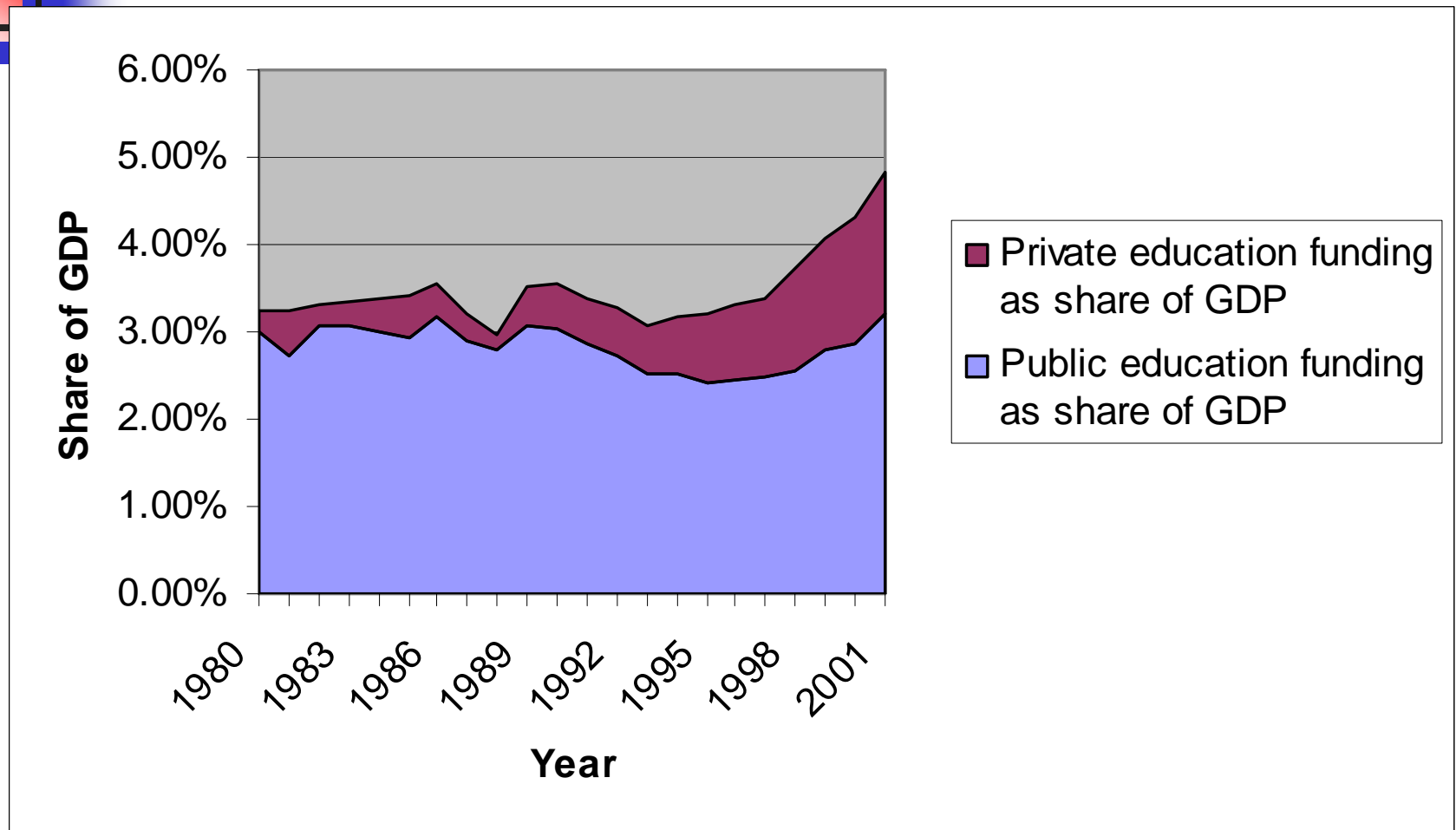


# Financing Needs Are Beyond Capacity of Public Finance

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- Historical trends
- Comparison with other countries
- Projection of formal education needs

# Education expenditures from public and private sources as share of GDP (1980-2001)



Source: Angang Hu 2003

# Funding Comparatives

*... the most populous examples*

	India	China	S&E Asia *	LAC	UK	USA
<b>Total Population</b> approx	<b>1000</b>	<b>1260</b>	<b>600</b>	<b>520</b>	<b>60</b>	<b>280</b>
<b>Public Expenditure on Education (\$B)</b>	<b>16</b>	<b>45</b>	<b>18</b>	<b>94</b>	<b>72</b>	<b>480</b>
<b>% Global Budget</b>	<b>0.7%</b>	<b>2.0%</b>	<b>0.8 %</b>	<b>4.2%</b>	<b>3.2 %</b>	<b>22%</b>
<b>Billions Per 10 million people</b>	<b>0.16</b>	<b>\$0.36</b>	<b>\$0.3</b>	<b>\$1.8</b>	<b>\$12</b>	<b>\$17</b>

Sources: UNESCO 1999 & 2000; World Bank 2001; US Department of Education 2001; Department of Education & Skills UK, 2002; China National Center for Education, 2002/3; OECD 2002

\* All South & East Asian countries without China & India

# China – Projected Enrollments 2000 to 2020

Millions

Projected Enrollments	2000	2005	2010	2020
宽口径高等教育 Higher	11	20	25	> 30
其中：研究生 Postgraduates	0.3	0.6	1.0	> 1.0
高中阶段 Senior	22.5	40	43	~ 46
初中阶段 Junior	62	63	63	~ 63
小学 Primary	130	~ 130	~ 130	~ 130

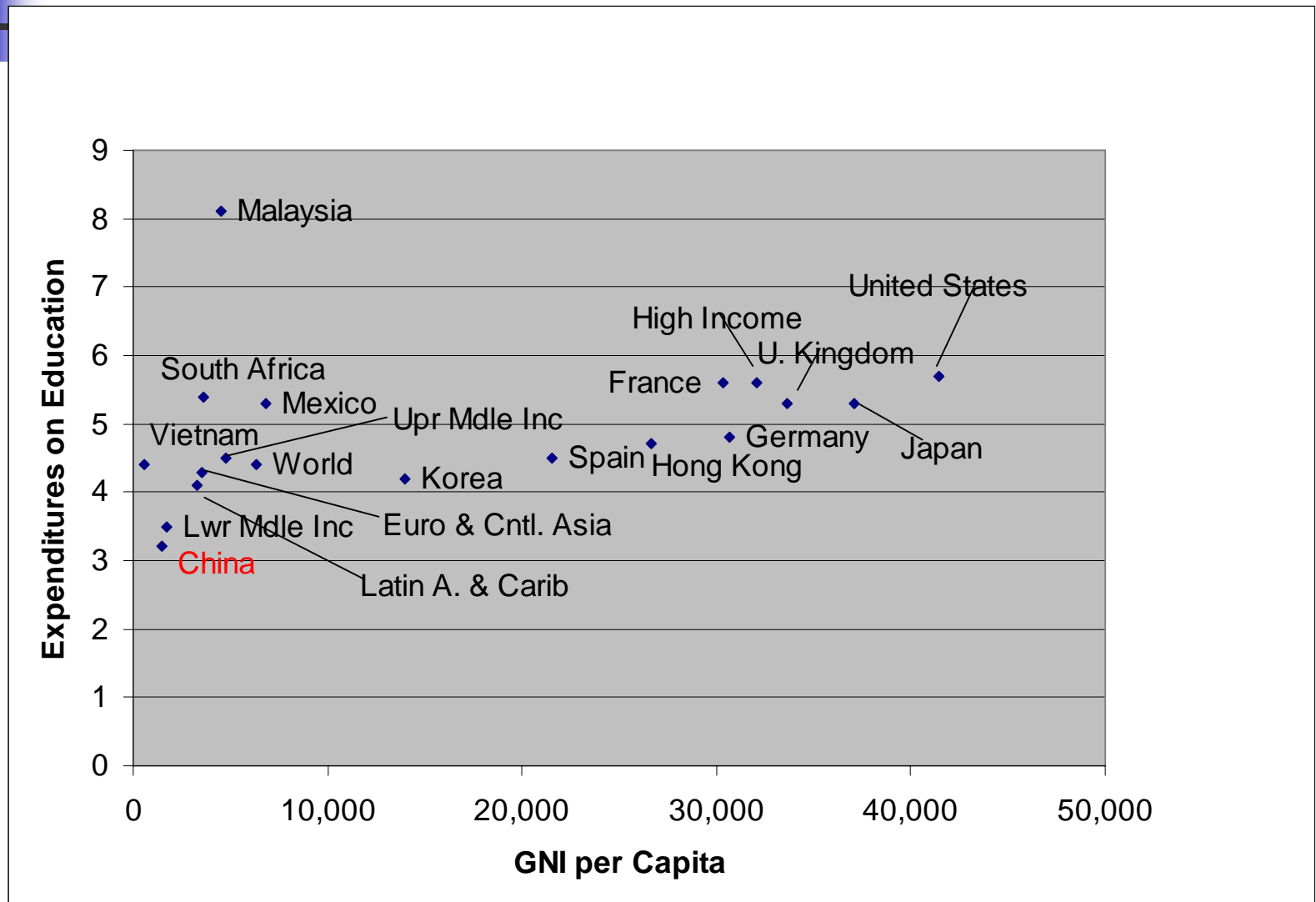
# Addressing the Financing Challenge of LLL: Increasing Resources for Education



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- Increase public resources for education
- Improve allocation of public spending
- Increase the productivity of education
- Increase students' contributions to cost of delivering public education, including loans
- Increase private provision of education and training
- Address the equity challenge
- Develop student loan and education finance market

# Public Educational Expenditure as Percent of GDP (2004)



# Education Expenditure Comparatives - 2003



## Average

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Public education spending = 5.6% of GDP in high income countries

## China

Total Public Expenditure 3.2% of GDP

Current Private Expenditure 1.6% of GDP

**Total (Public & Private) 4.8% of GDP**

**China needs around 50% increase on current public expenditure to meet average**

# Improve Allocation Of Public Spending



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- Decentralization went too far (see table)
- Government is taking corrective steps
- Good start, but are all input changes
- Need to move to output and performance evaluations and adjustments
- Also need to consider
  - Relative costs of different levels of education
  - How best to co-finance life long learning

# Per Student Education Spending 1989-2003

	Primary level			Lower secondary level		
	1989	1997	2003	1989	1997	2003
<b>Highest spending province</b>	<b>393</b>	<b>2,351</b>	<b>7,030</b>	<b>788</b>	<b>3,425</b>	<b>7,798</b>
<b>Lowest spending province</b>	<b>75</b>	<b>255</b>	<b>677</b>	<b>174</b>	<b>491</b>	<b>929</b>
<b>Ratio of highest to lowest spending provinces</b>	<b>5.2</b>	<b>9.2</b>	<b>10.4</b>	<b>4.5</b>	<b>7.0</b>	<b>8.4</b>
<b>Mean</b>	<b>166</b>	<b>593</b>	<b>1295</b>	<b>353</b>	<b>1,096</b>	<b>1,668</b>

*Note:* Data pertain to total education expenditures by province. 2003 data reflect increased spending by the private sector and individuals.

*Source:* MOE and NBS 2004a; Tsang 2002.



# Financing Challenge of LLL: Increasing Efficiency of Public Education

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- Improve the incentive regime and management of education systems
- Reduce the time it takes to get different levels of education
- Use new ICT technologies more extensively



# Increase Private Provision

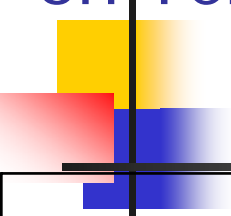
## Tuition Charges for Public Education

- China started charging tuition for public education in 1980
- Should eliminate all charges for compulsory education
- May be able to increase tuition for higher education as incomes rise and student loan market is strengthened(see table)

## ■ Private Provision of Education

- Private education has been increasing, especially at pre-primary and tertiary level
- Government should encourage greater provision of
  - Private tertiary education
  - Specialized training and retraining demanded by market

# Shares of Public, Private, and Household Expenditures on Tertiary Education Various Countries (2002)



Country	Expenditure on tertiary education by source		Share of total household expenditure
	Public	Private	
Australia	48.7	51.3	33.7
Japan	41.5	58.5	58.5
Korea	14.9	85.1	63.8
New Zealand	62.5	37.5	37.5
United States	45.1	54.9	38.9
China <sup>a</sup>	53.4	46.6	30.8
India	77.8	22.2	22.2
Indonesia	43.8	56.2	49.4
OECD mean	78.1	21.9	18.5

# Facing the Equity Challenge



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- Share of private financing of education in developing countries is already higher than in developed, especially in China
- It is likely to have to increase because of limited government budgets
- As more toward more private financing already serious problems of inequality will be increased
- Government will have to
  - Give more attention to addressing the equity problem
    - Across regions
    - Across individuals-support for capable poor students
  - Expand system of grants and scholarships



# Strengthen the Student Loan Market

- China has a small but growing student loan market
  - Covers small share of students and small share of their costs
  - Poor screening criteria, excludes qualified poor students
  - Poor repayment record—requires large subsidies
  - Inequities across provincial, institutional, and individual levels
- Needs to be considerably expanded to cover rapidly increasing needs
  - For formal upper secondary and tertiary education
  - To cover specialized shorter duration specialized training
- Key improvements include
  - Developing clear objectives, eligibility and screening mechanisms
  - Develop sound information base for evaluation, appraisal and collection
  - Avoid heavy repayment burden to avoid default
  - Penalize repayment evasion to reduce default



# Develop an Education Finance Market

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- Given the rapidly rising education financing needs, beyond expanding loan market, China needs to develop a multi-faced education finance market
- This should include:
  - Secondary market for student loan portfolios
  - Bond market to finance educational institutions
  - Innovative financial mechanisms for sharing education financing risks such as structured finance programs
  - An equity market for investment in private for profit education and training programs



# Conclusion

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- Education and training are increasingly important for China's development
- There is a need for a considerable expansion of size and quality of education and training system
- Financing requirements are beyond the capacity of the government.
- Government will have to
  - Allocate more resources
  - Improve allocation and management of resources
  - Improve productivity of public and private resources
- Government will also have to
  - develop additional co-financing mechanisms
    - Strengthen student loan market
    - Develop financial market for education
  - Give more attention to equity issues



# Thank You!

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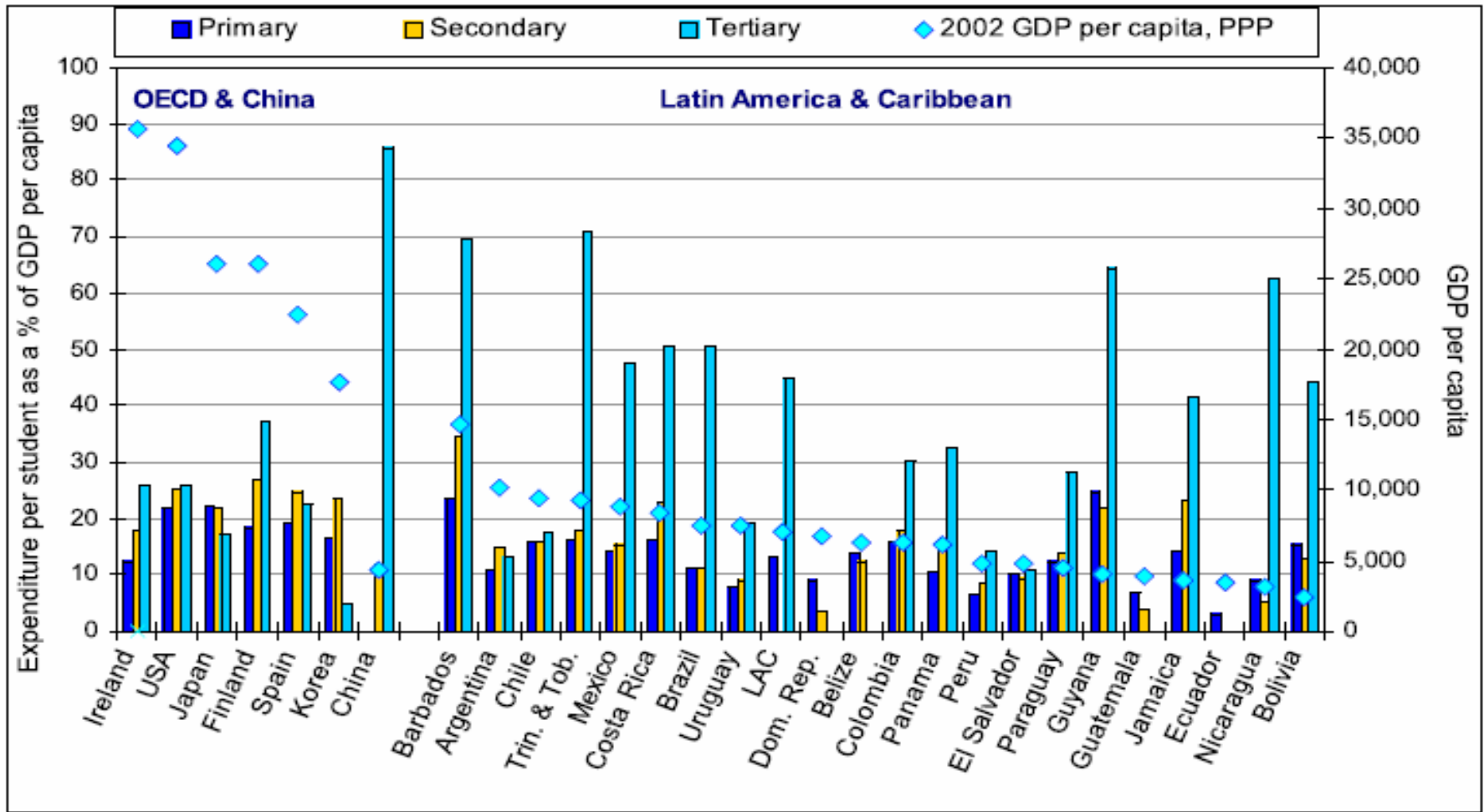
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# Requires Changed Role of Government

Policy Issue	Current Role	Role in the Knowledge Economy
Integration/coordination at the national level	Compartmentalized in different ministries including education, labor, personnel and various line ministries such as agriculture, post and communications, etc.	Need a coordinated multi-sectoral approach where have multiple pathways to learning and flexible system of recognizing learning and linking to labor market needs.
Administration and regulation	Provides rules and regulations. Controls number of students who can receive degrees.	Creates incentives; facilitates diverse providers, encourages more self regulation by fostering more timely and transparent information on changing needs, performance of students and education and training providers, career counseling; and accountability to parents, students, employers, and society.
Coordination across vertical levels	One way control and regulation form top-down, little flexibility for experimentation	Two way mutual support and partnerships. Willingness to pilot and experiment with new approaches.
Government as an enabler	Control and regulator. Strong bias towards being the main provider of formal education and training, little recognition of private providers.	Create choices, provide information and incentives, facilitate cooperation and provision including by non-governmental partners.
Linkage between education and the labor market/society	Supply is institution driven, little adjustment by the public sector to changing demands, some adjustment by spontaneous rise of private providers. Major preoccupation with training millions of agricultural migrants and re-training workers laid off from SOE, much less focus on gigantic task of re-skilling employed workers for new skill requirements.	Demand is market and learner driven. Moving towards a new tri-modal system. <ul style="list-style-type: none"> <li>• Strong basic public education and core skills, including learning how to learn throughout life-time,</li> <li>• Diversified public and private upper secondary and higher education institutions</li> <li>• Just in time specialized learning depending on changing needs.</li> </ul>
Qualifications assurance system	National standards linked with curriculum and student assessments. Not sufficient linkage to market and social needs.	Diverse system of recognition and quality control including linkages between different levels of vocational and academic qualifications that recognize formal and informal education and training; and integrate learning, qualifications and labor market needs.

Source: Adapted and expanded from WB, LLL, 2003, table 4.2 p.59

# Expenditure Per Student as a Percentage of Per Capita GDP by Level (2002)



Data for 1999 are used for the secondary and tertiary levels in LAC, and for all levels in China.

Source: IADB (2006): Education, Science and Technology in Latin America and the Caribbean. A Statistical Compendium of Indicators