

# Meeting increasing demand for top talent: Development of higher education in Asia

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INSTITUTE *for* STATISTICS

# Overview

- Policy context
- Global expansion of higher education
  - Role of private institutions
  - Emphasis on fields of study
  - Outputs
  - Cross-border education
- Next steps

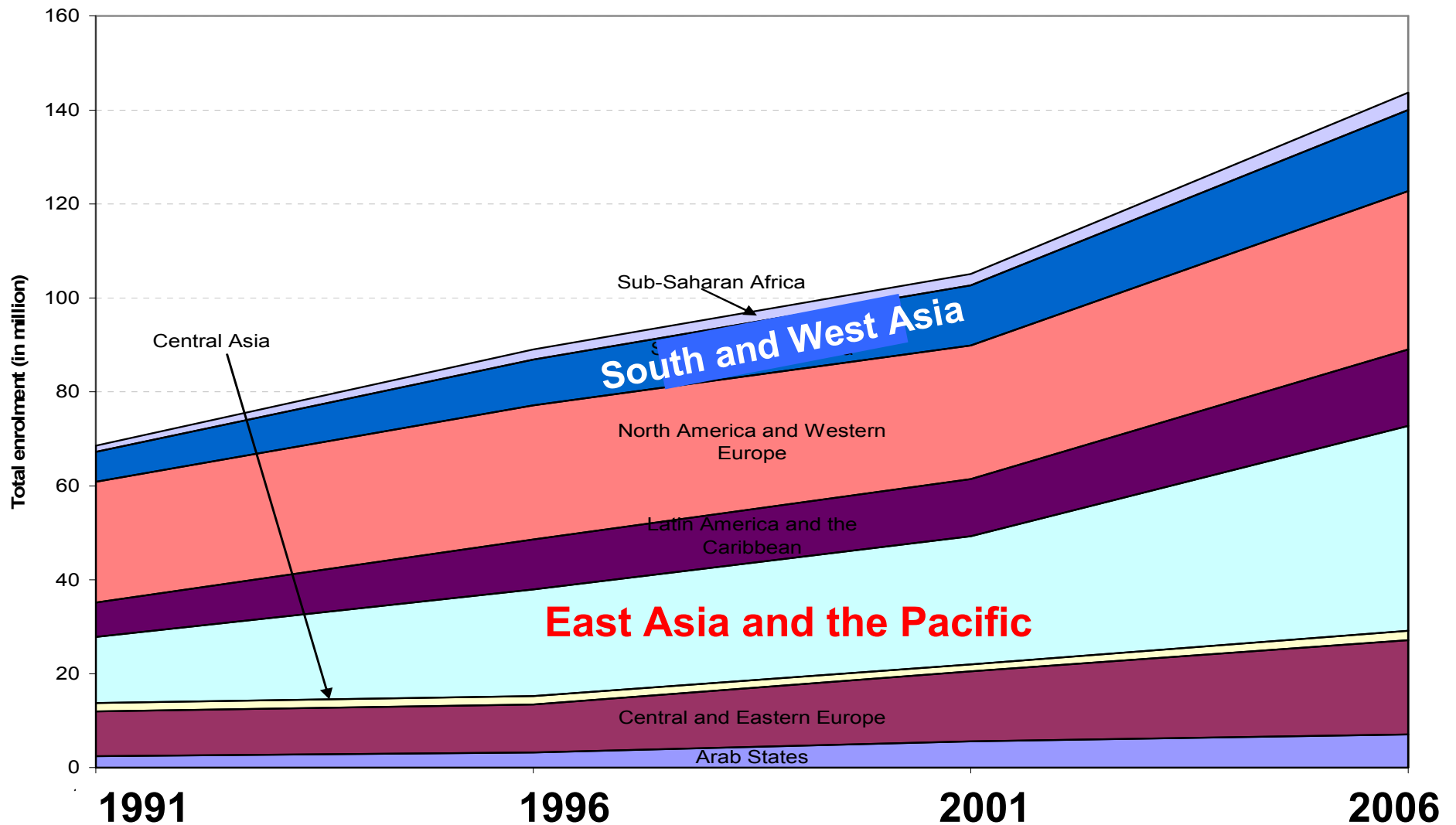
# Policy context

- **Externally**
  - **Societal needs for highly skilled individuals**
  - **Source of innovation**
  - **Knowledge generation**
- **Within educational systems, enhanced demand as a result of widening access to lower levels of schooling**

# Global expansion of higher education

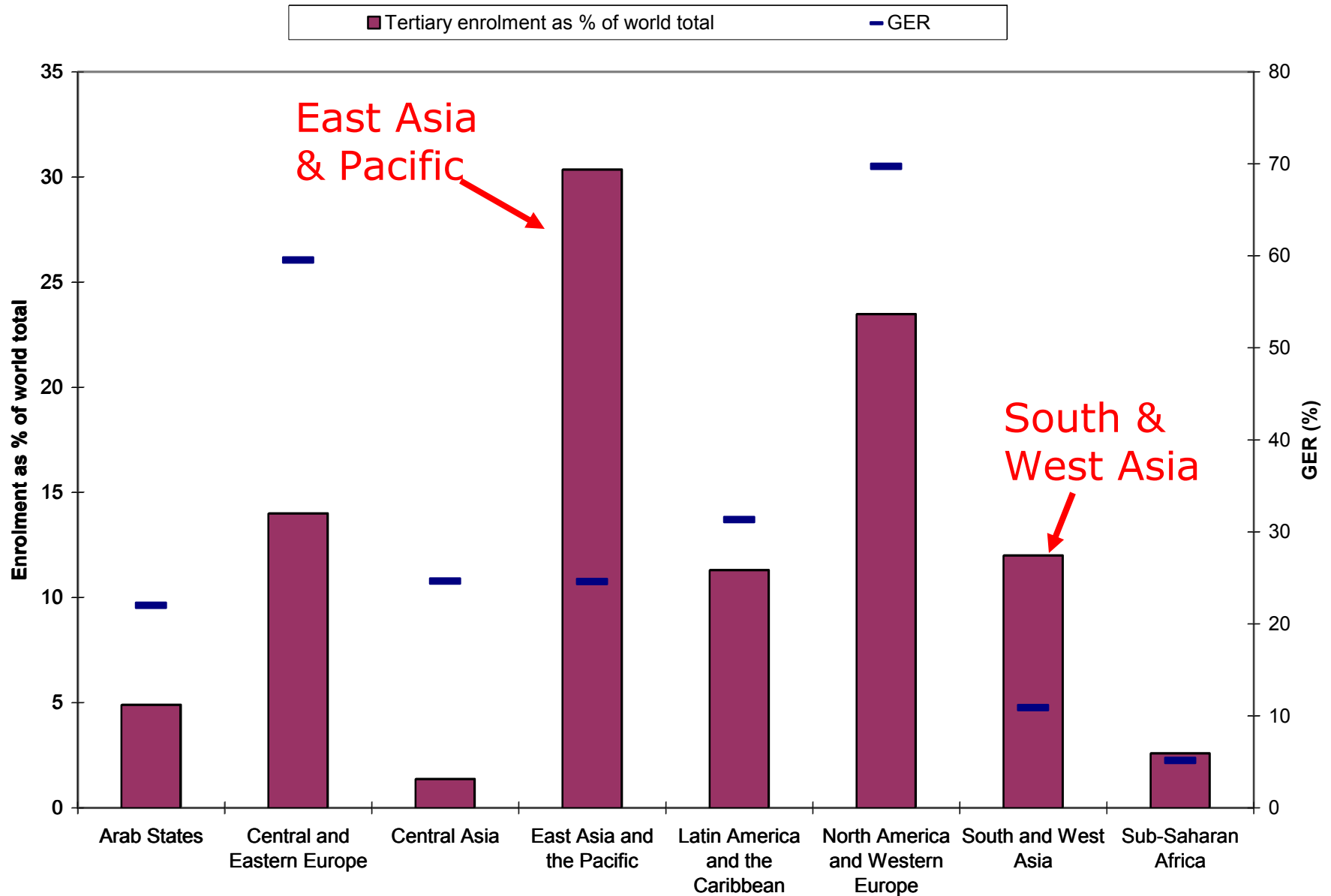
Total enrolment in tertiary institutions, 1991-2006

*Total enrolment in higher education more than doubled over a period of 15 years since 1991*



# Relatively low level of participation in some parts of Asia

Regional enrolment as % of world total & gross enrolment ratios, 2006



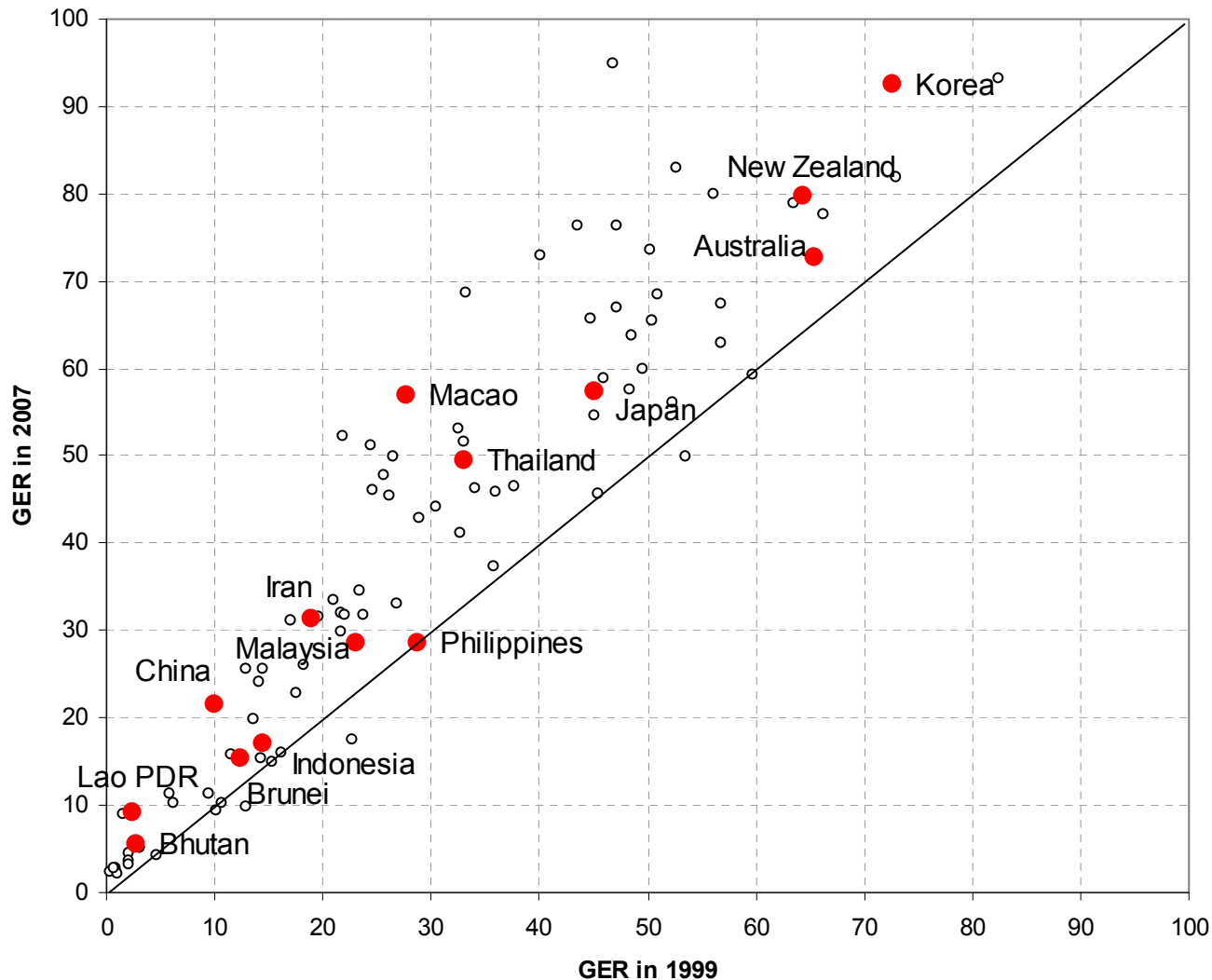
# Gross Enrolment Ratio (GER)

- Definition
  - Tertiary enrolment divided by five-year age cohort following theoretical age of secondary education completion
- Useful in illustrating the extent of participation

# Uneven growth of participation level

Gross enrolment rates, ISCED 5+6, 1999 & 2007

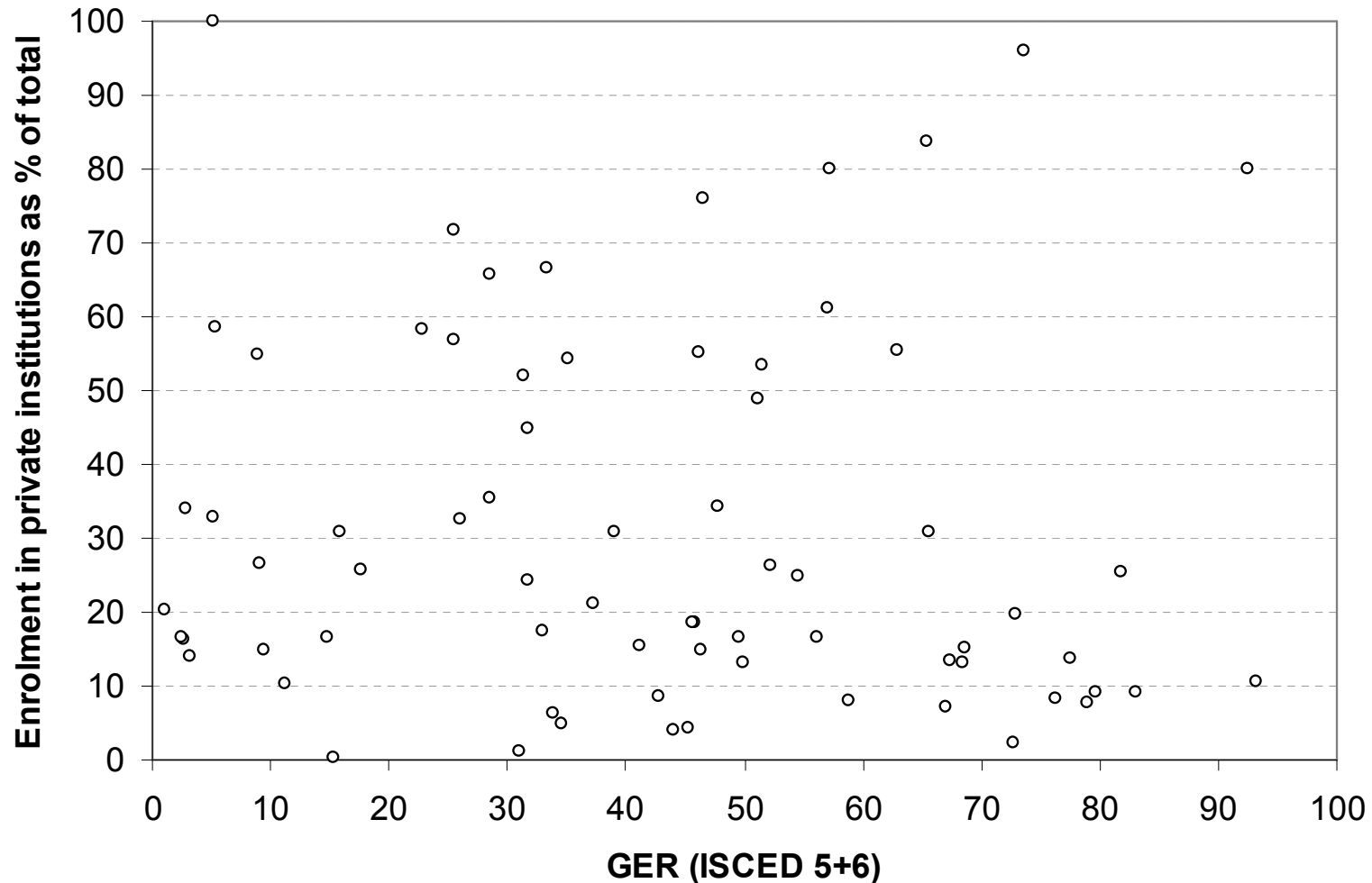
*With a few exceptions, level of participation grew across educational systems, despite at varying rates*



# Level of participation and role of private sector

Enrolment in private institutions as % of total & tertiary GER, 2007

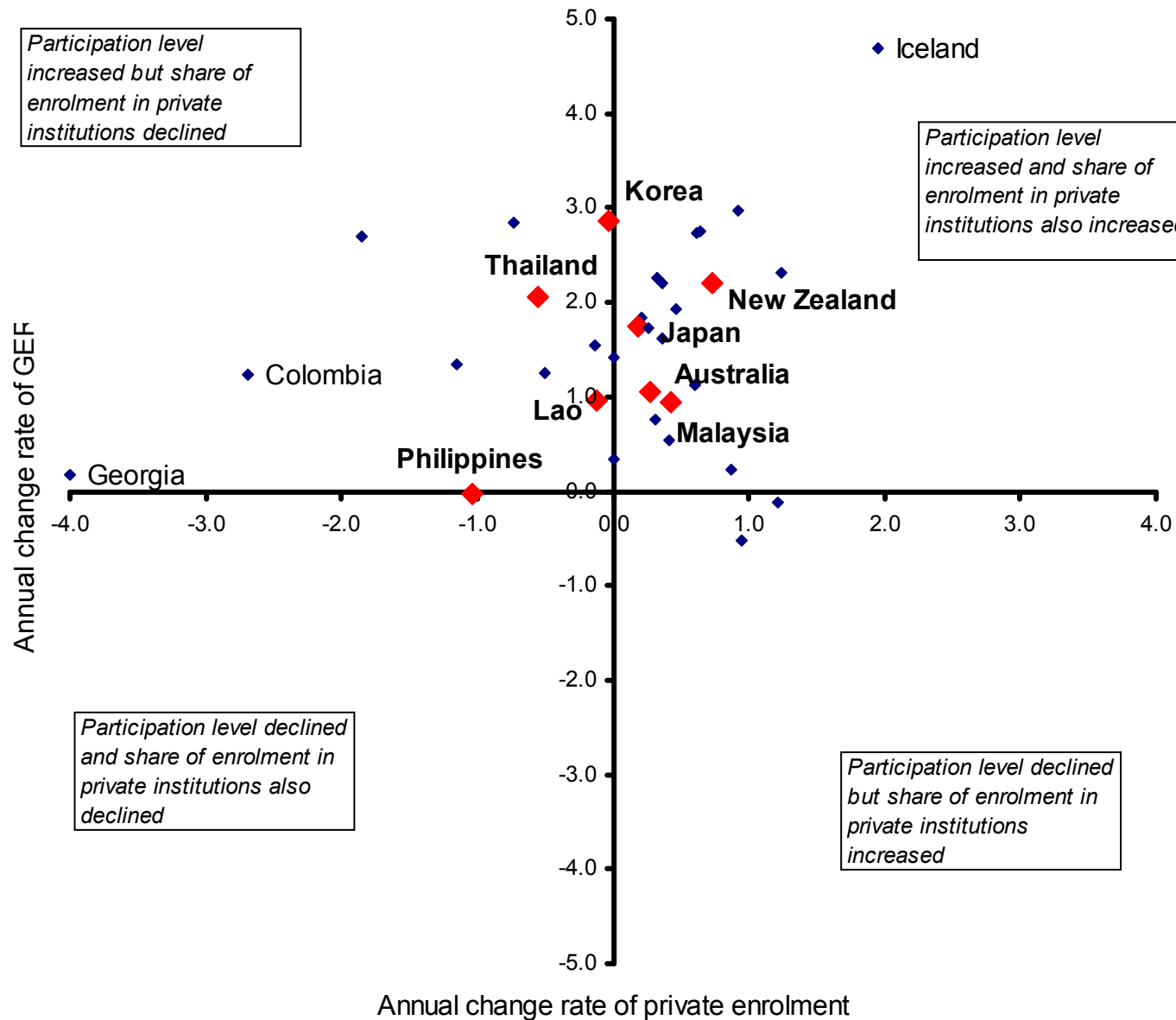
*The importance of private sector varies in promoting participation in tertiary education*





# Level of participation and role of private sector

Rate of change in tertiary GER and that of relative share of enrolment in private institutions between 1999 and 2007



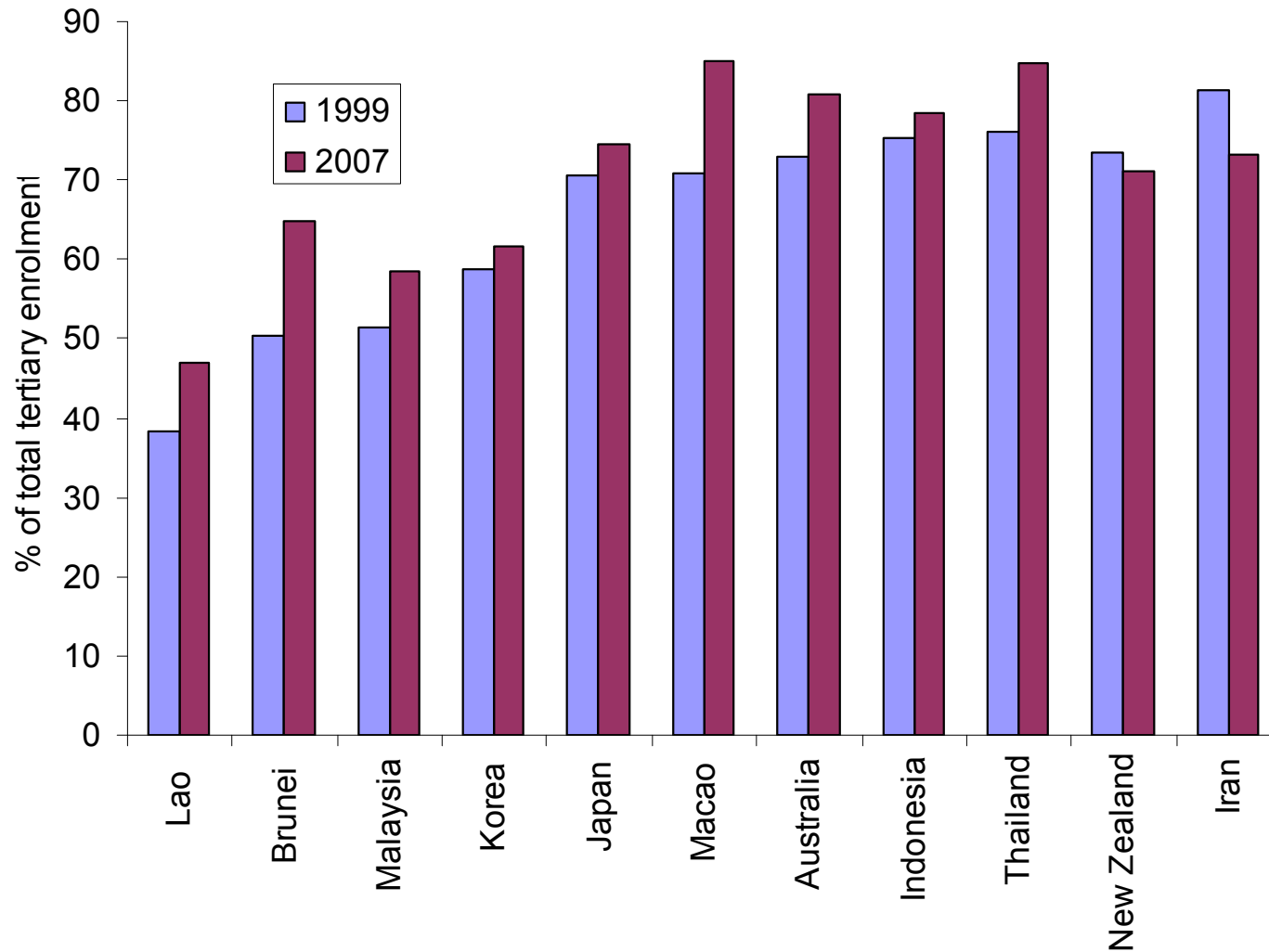
# Enrolment by level

- Definition
  - ISCED 5A
    - Intended to provide sufficient qualifications for gaining entry into advanced research programmes and profession with high skills requirements.
  - ISCED 5B
    - Practically oriented or occupationally specific
    - Provides participants with a labour-market relevant qualification.
  - ISCED 6
    - Lead to the award of an advanced research qualification.

# Growing emphasis on ISCED 5A programmes

Enrolment in ISCED 5A programmes as share of total tertiary enrolment, 1999 & 2007

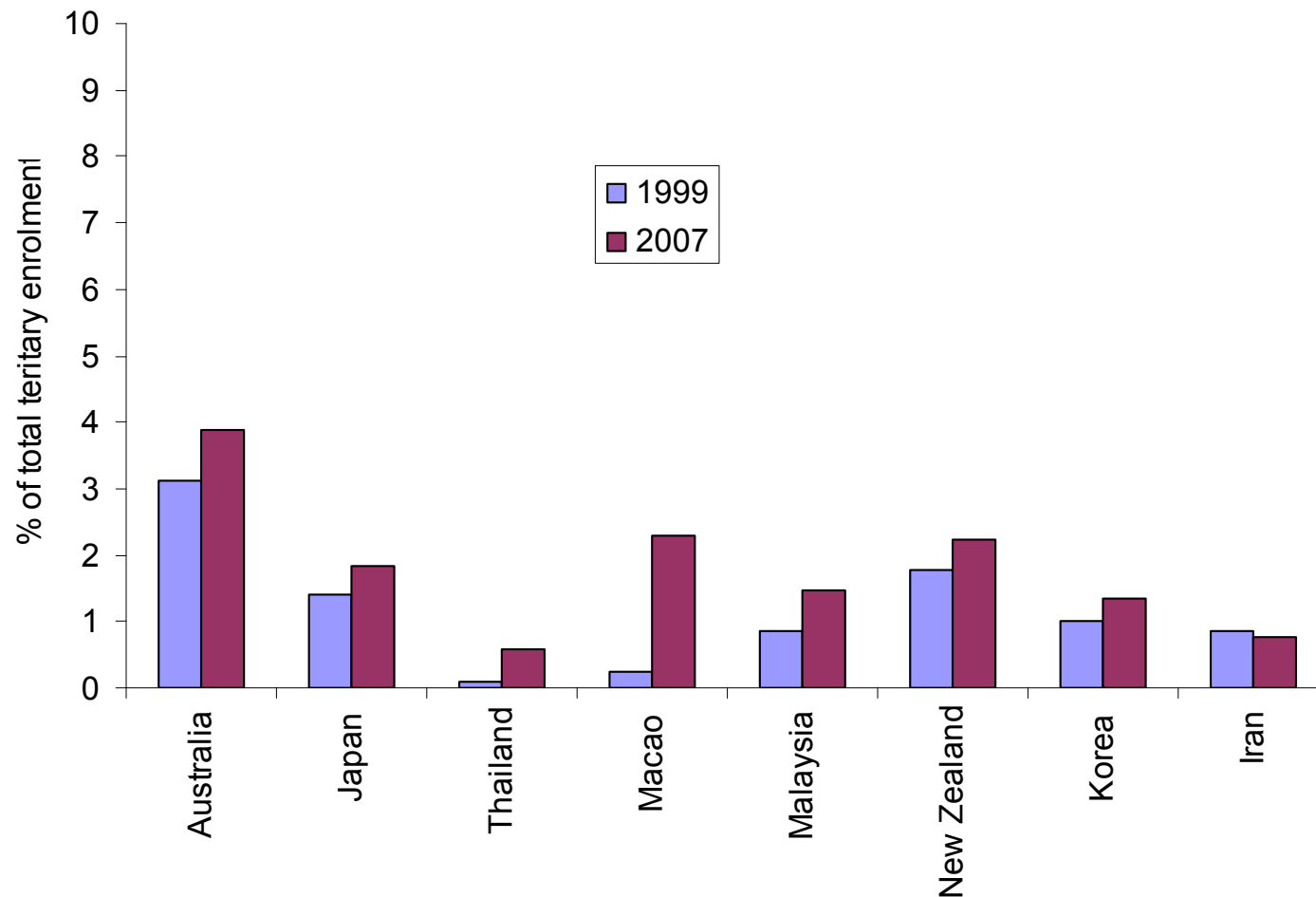
*Enrolment in ISCED 5A as share of total tertiary programmes grew between 1999 and 2007 in most school systems in Asia.*



# Growing emphasis of ISCED 6 programmes

Enrolment in ISCED 6 programmes as share of total tertiary enrolment, 1999 & 2007

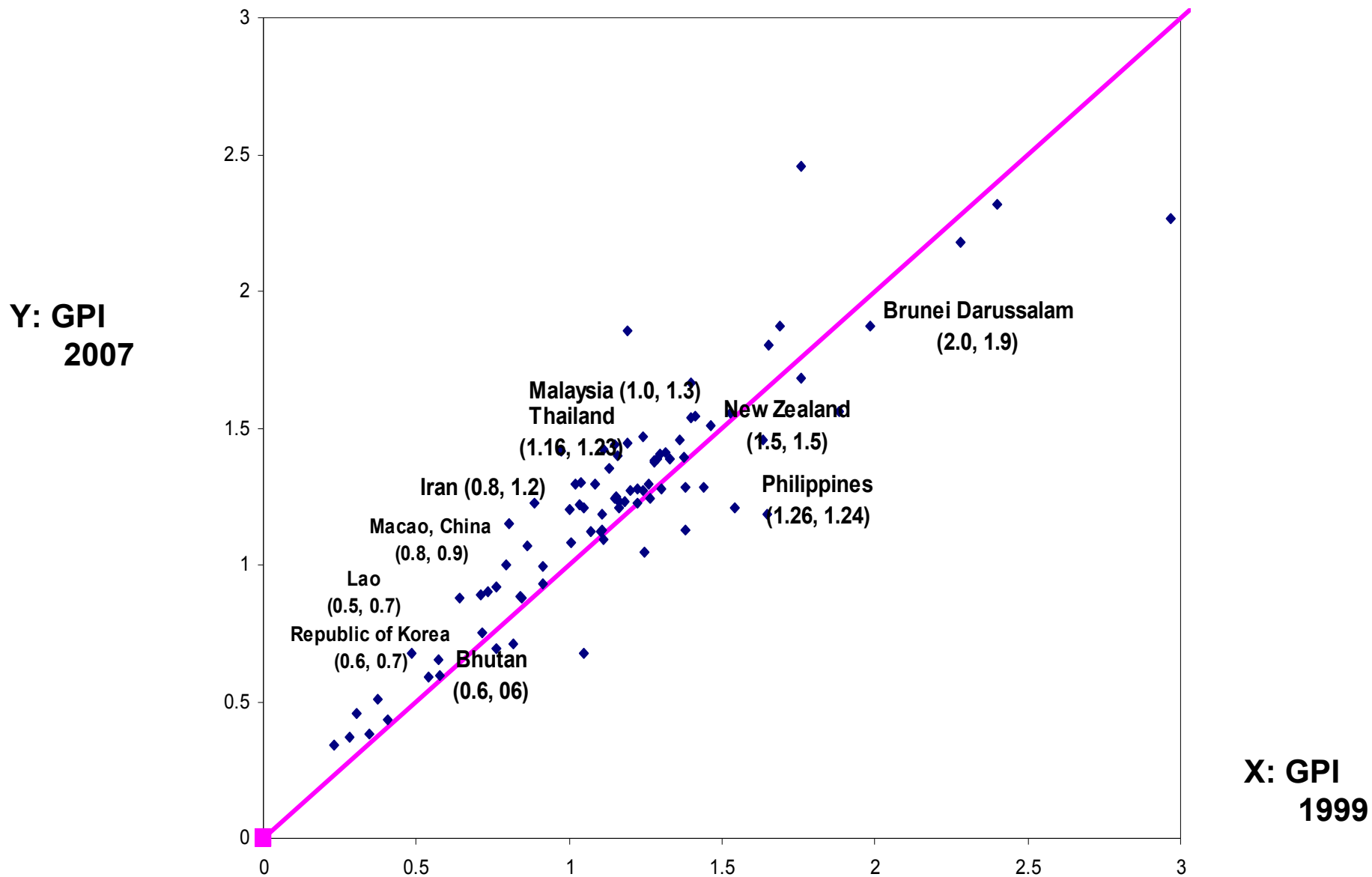
*Enrolment in ISCED 6 also increased between 1999 and 2007.*



# Gender parity index (GPI)

- Definition:
  - Ratio of female to male values of a given indicator.
- A GPI of 1 indicates parity between sexes

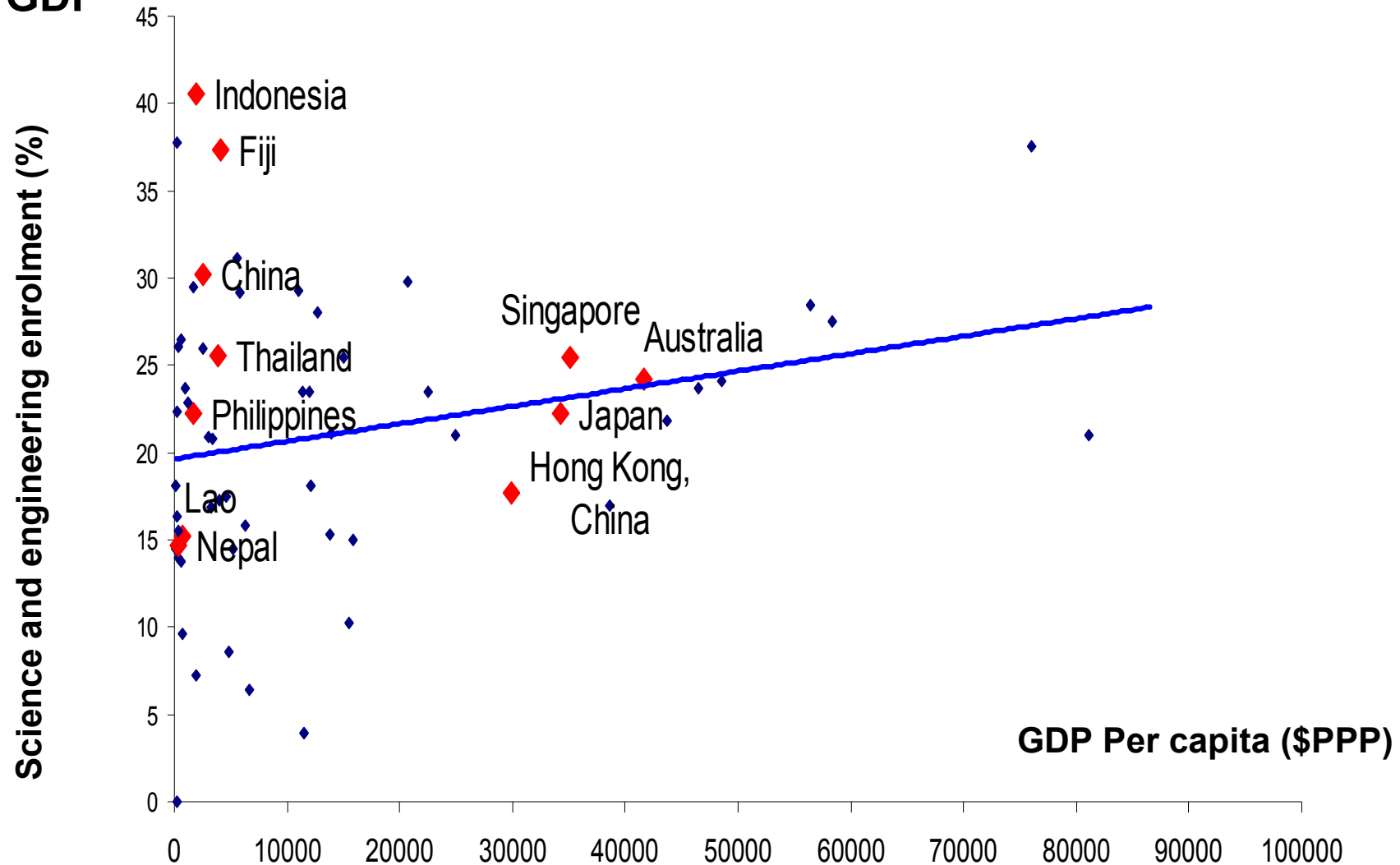
# How has gender parity changed?



# Emphasis on sciences and engineering

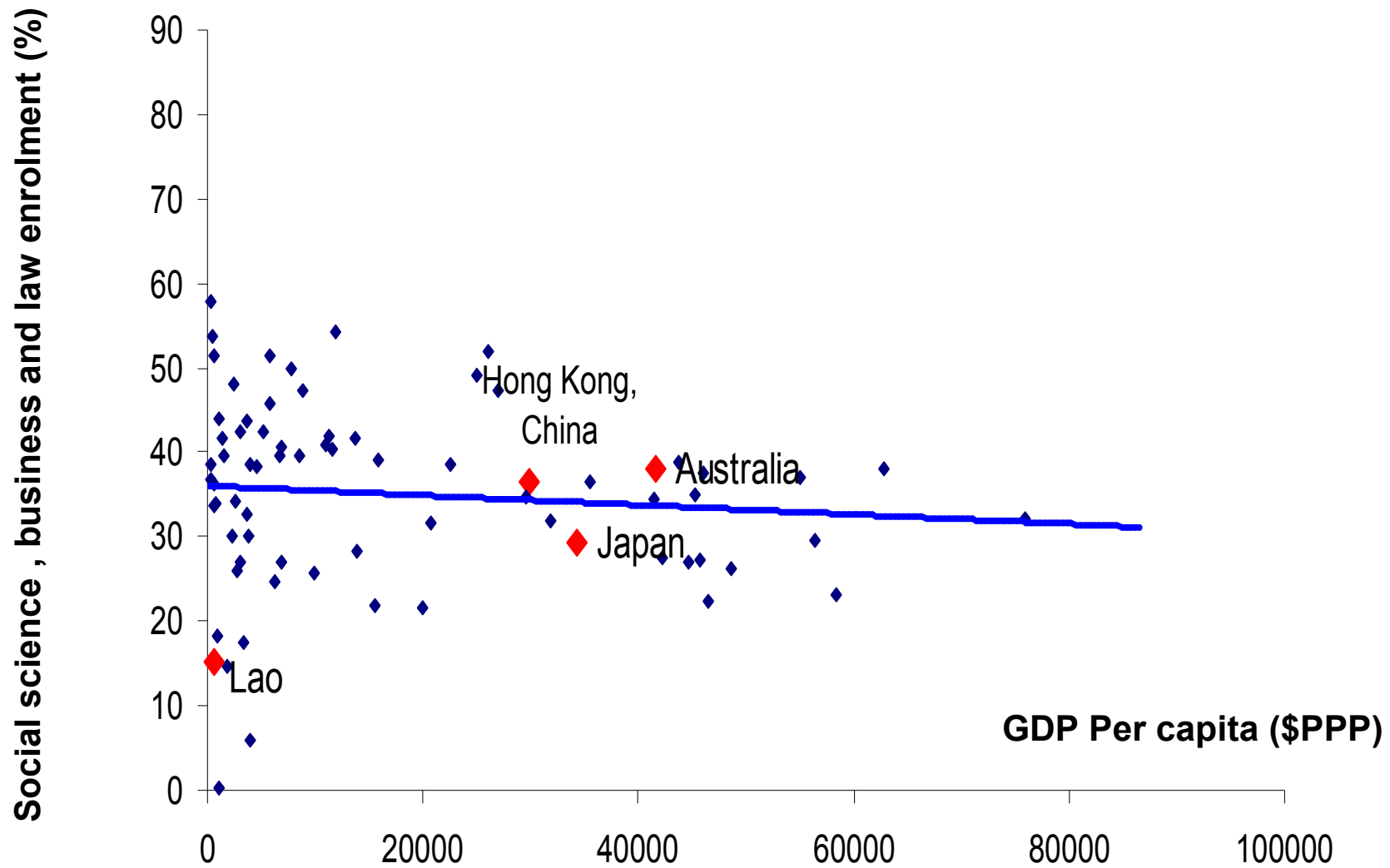
Enrolment in sciences and engineering programmes as % of total, 2007

## Science and engineering enrolment (% of total enrolment) as related to GDP



# Emphasis on social sciences, business and law

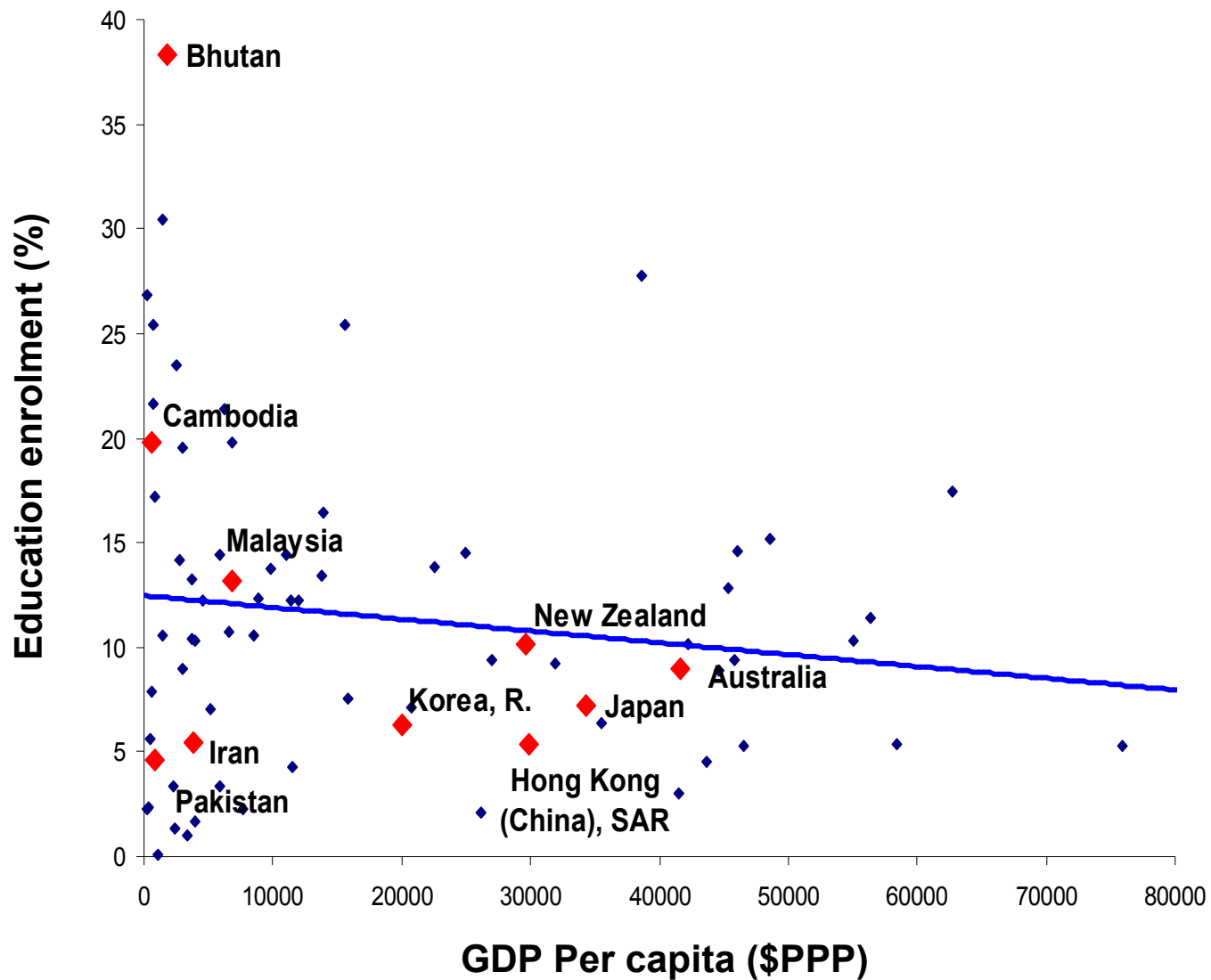
Enrolment in social sciences, business & law programmes as % of total, 2007





# Emphasis on education

Enrolment in Education programmes as % of total, 2007

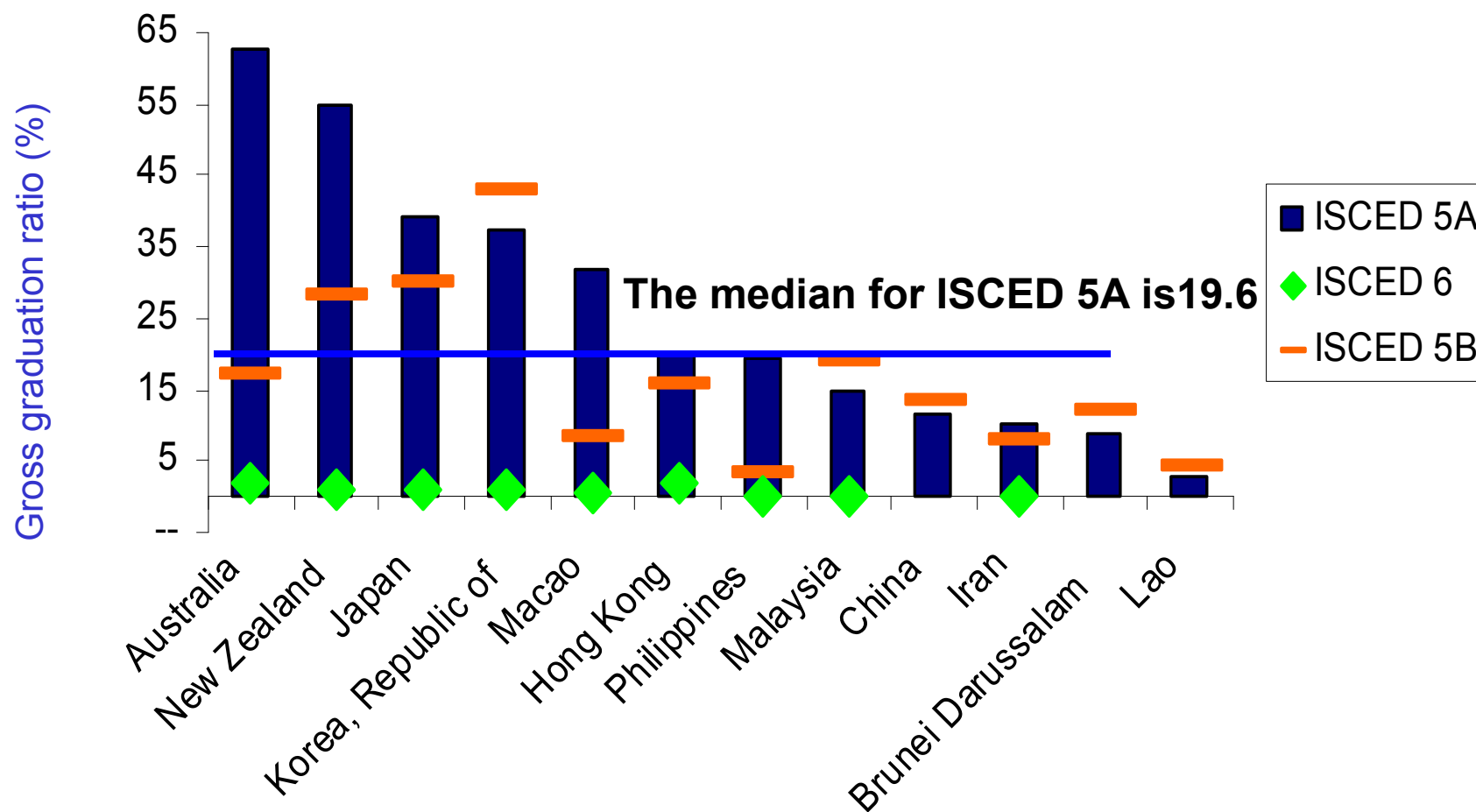


# Tertiary Completion: Gross Graduation Ratio

- Definition
  - Number of graduates in a given level or programme expressed as a percentage of the population at the theoretical graduation age for that level or programme.
- An important indicator of educational output.

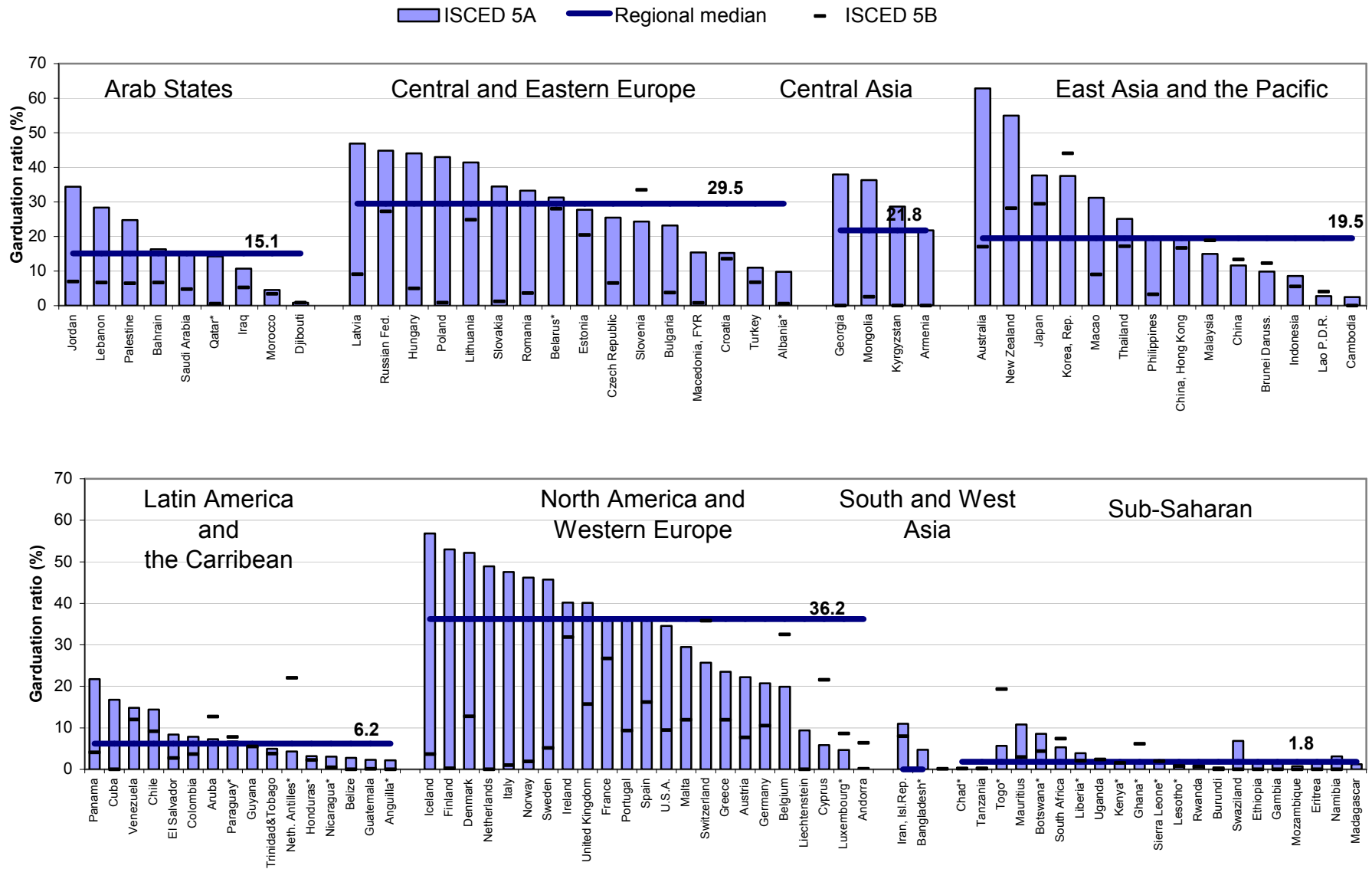
# Gross Graduation Ratio

The gross graduation ratios by levels of study, 2007



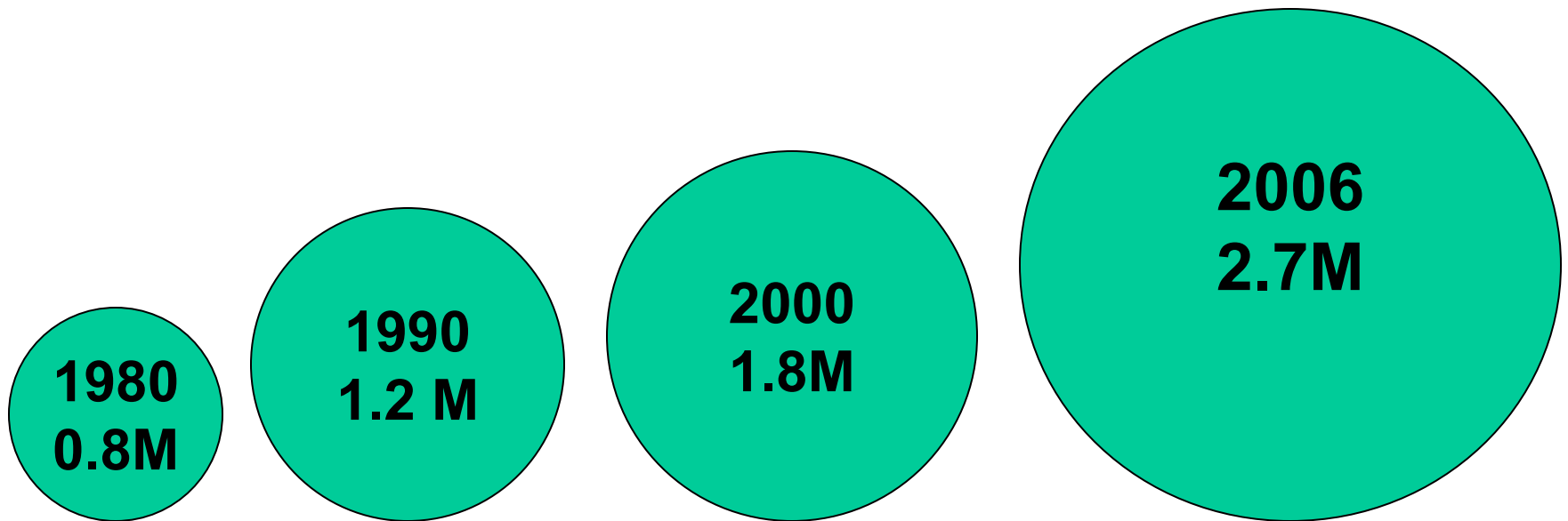
# Output of higher education

## Gross graduation rate by tertiary programme, 2007



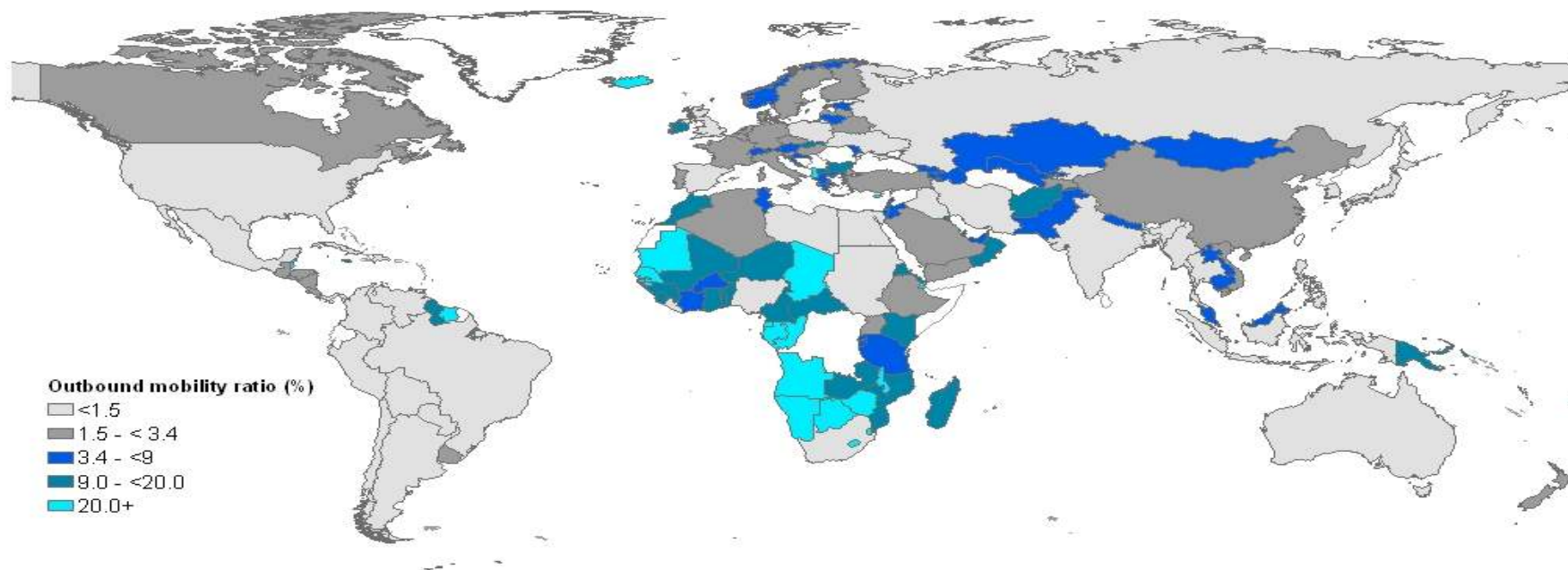
# Growing demand for overseas tertiary education

Long term growth in the number of students enrolled in tertiary educational programs outside their country of citizenship, 1980- 2006.



# Varying demands for overseas tertiary education

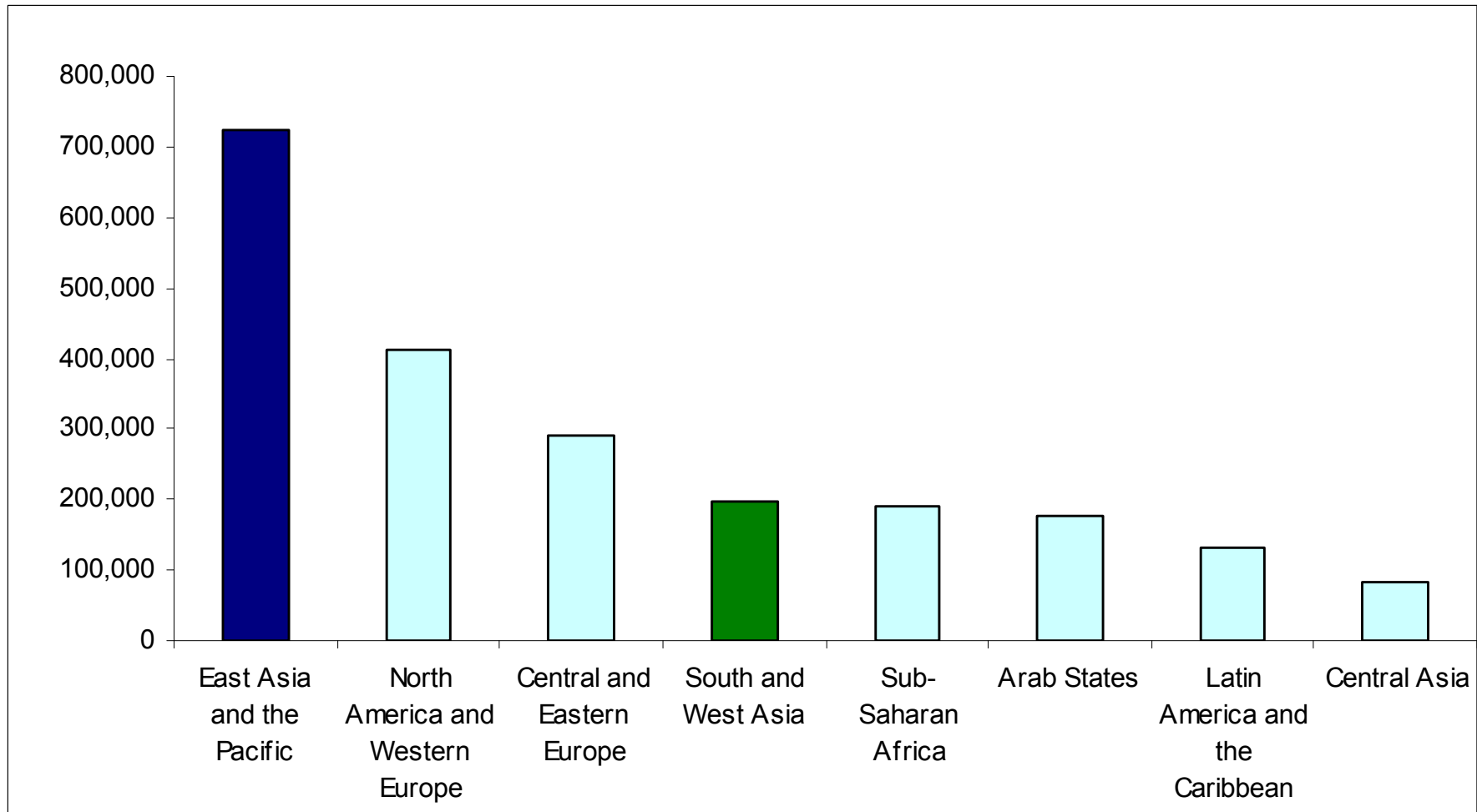
**Outbound mobility ratio: Mobile students from a given country as a percentage of tertiary students enrolled in that country, 2005**



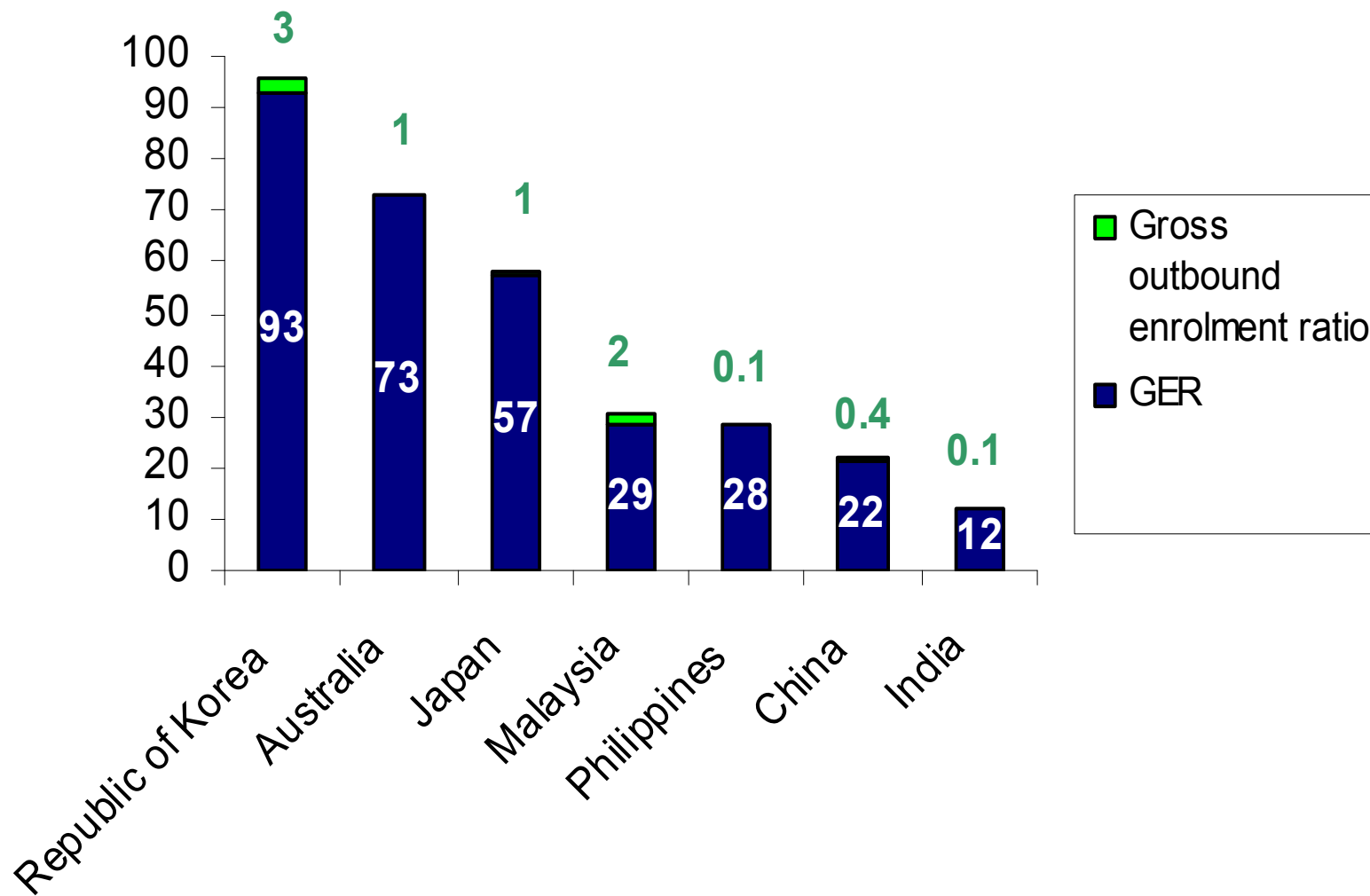
Coverage: 173 out of 207 countries.  
Source: UNESCO Institute for Statistics, Statistical Table 10.

# Major source of international students

The number of students studying abroad, by region, 2005



# Total Tertiary Enrolment: Gross outbound and Domestic Gross Enrolment

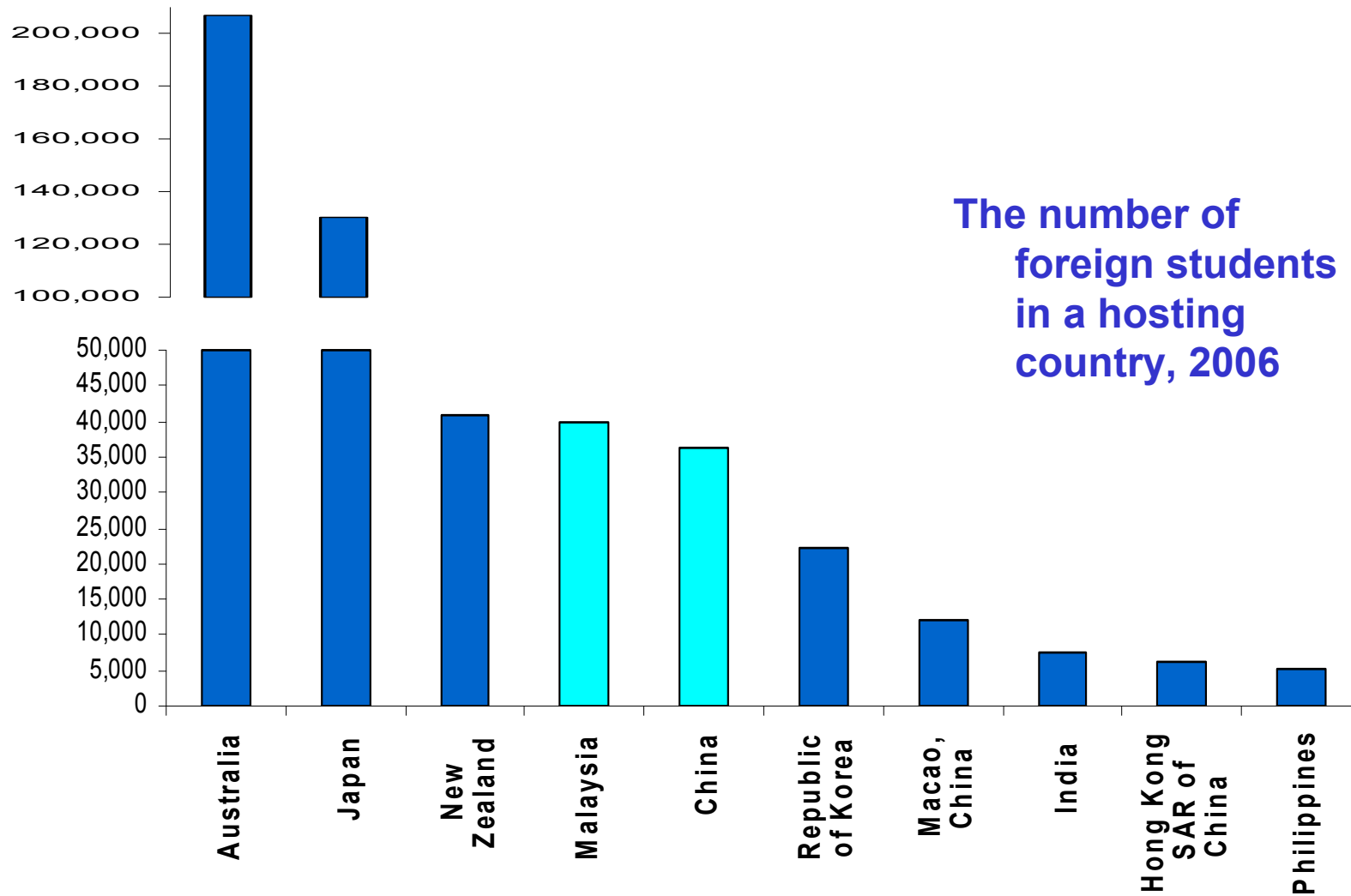




# Current Major Hosting Countries

1. **The United States (22%)**
2. **The United Kingdom (12%)**
3. **Germany (10%)**
4. **France (9%)**
5. **Australia (6%)**
6. **Japan (5%)**

# Emerging hosting countries in the region



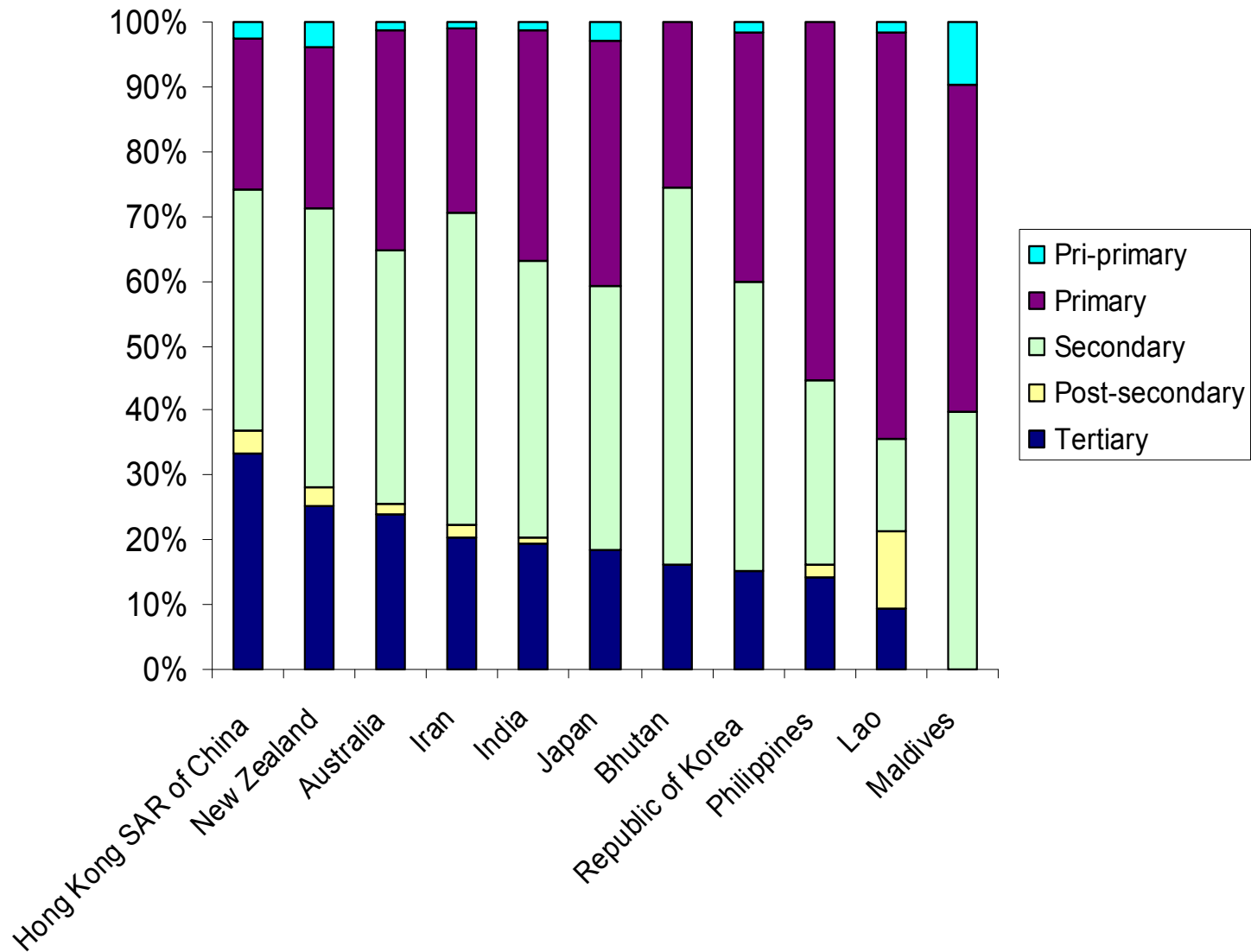
# The Indicators of Finance

- Public expenditure on education % of GNP
- Education expenditure as % of government expenditure
- Total public educational expenditure per pupil as a percentage of GDP per capita: Tertiary
- Personnel wages as % of current educational expenditure

# Public funding of tertiary education

Distribution of public education expenditure across education levels, 2006

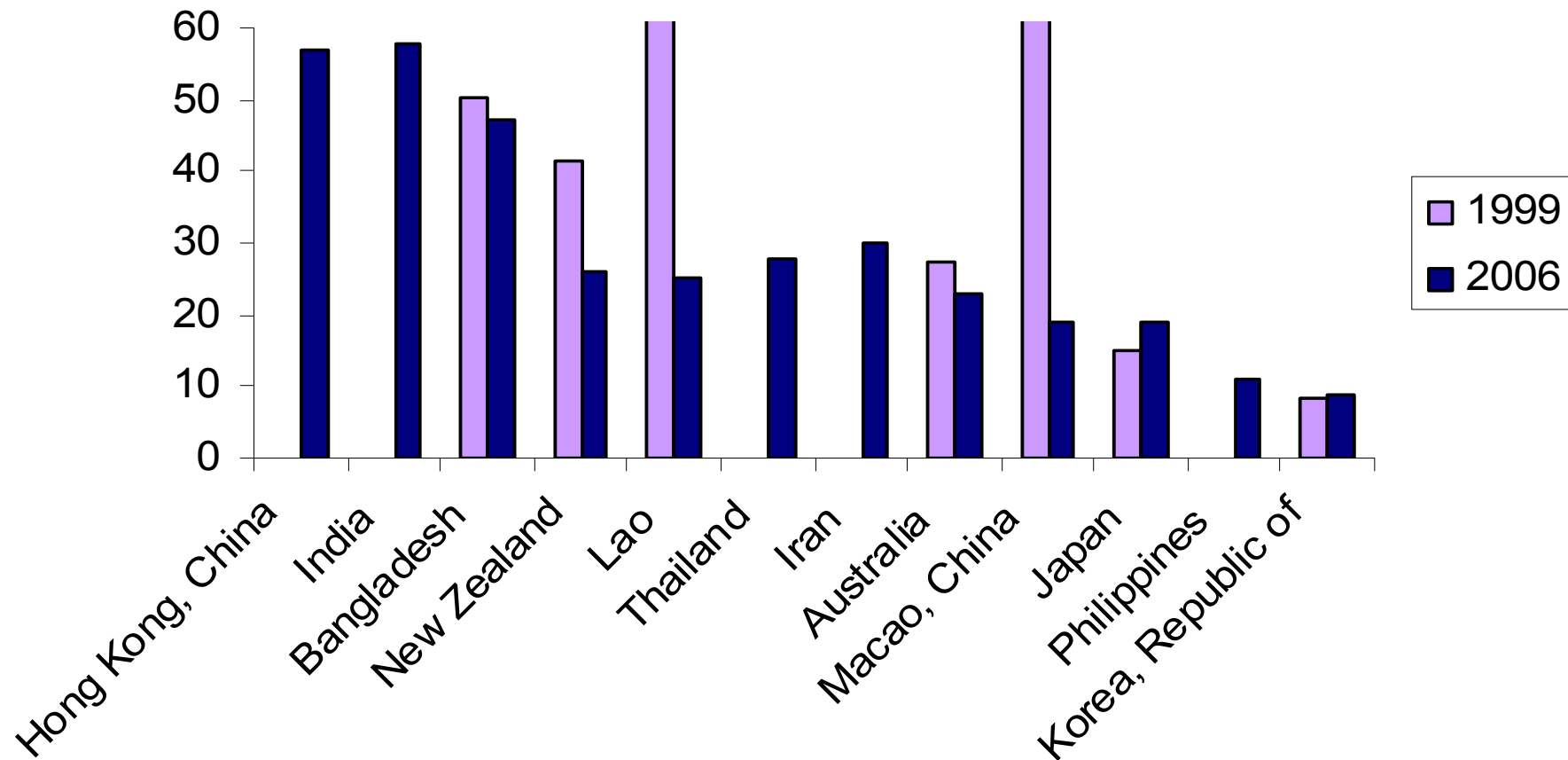
*Funding priorities of governments vary across educational systems*



# Public funding of tertiary education

Public expenditure per tertiary student as a % of GDP per capita, 1999 & 2006

*Level of public funding of tertiary education varies by educational system and changing across time*



# Next steps

- 2009 World Conference on Higher Education
- Regional profile
- Low response rates show in the graphs
- Graduates/enrolment by field of study