

**National and global
competition
in higher education:
towards a synthesis**

(theoretical reflections using concepts, data and pictures)

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ASHE International Forum 2004

Coverage

- Assumptions
- National hierarchy: typical system segmentation
- Global competition: Asian demand for US education
- Global domination: distribution of research capacity
- Global unbalance: flows of people and capital
- Global overhang: effects of global competition in national systems (1) in rest of world (2) in USA
- Global hierarchy: world wide system segmentation
- Summing up

National and global competition in higher education: towards a synthesis

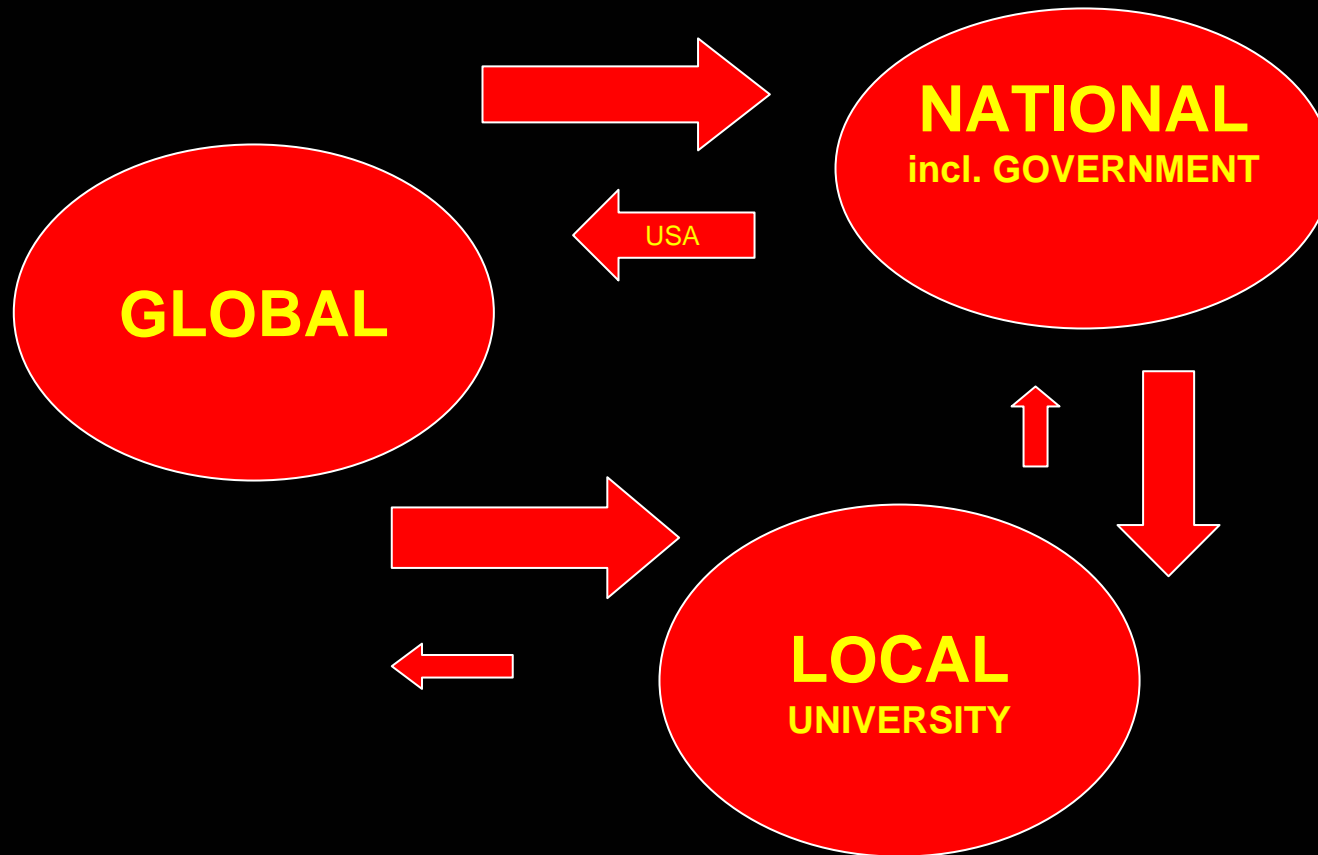
Subterranean themes of paper

- The global higher education environment is comprised by three interacting dimensions – local, national and global – and the flows between the dimensions

Glouacal flows in higher education

glouacal = *global national local*

'flows' include people, finance, ideas, influences



Subterranean themes of paper

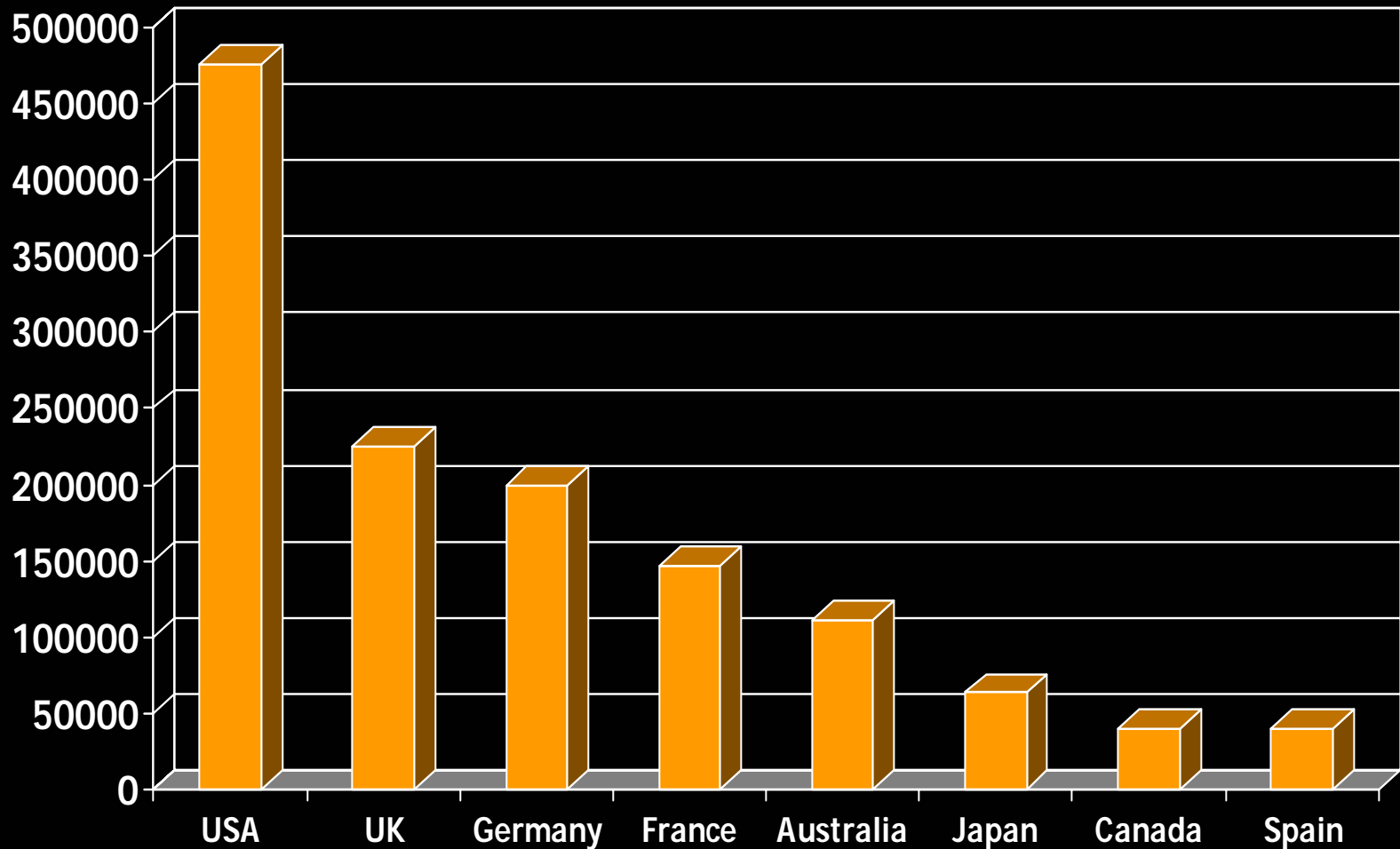
- The global higher education environment is comprised by three interacting dimensions – local, national and global – and the flows between the dimensions
- Higher education produces both private goods and public goods
- Competition in higher education is here understood as social competition, and in terms of relationships of power
- Economic markets are one possible form of social competition
- Distinguish national competition and markets, from global competition and markets in higher education
- Global relations in higher education are uneven, asymmetrical, hierarchical between nations and between institutions
- Global higher education looks different outside/inside the USA

Typical national segmentation

| | |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Segment 1 Elite research universities | Sustained by combining research performance, with student quality/ degree status. Self-reproducing. Wealthy. Relatively closed |
| Segment 2 Aspirant research universities | Aspire to elite status but unable to break in. Brain drain of best students and researchers to Segment 1. Resource scarcity. Semi-open |
| Segment 3 Teaching-focused (university or other) | Driven by (in commercial institutions expansion of) student volumes. High resource scarcity. Shave costs/quality. Open Note: in national systems with large private sectors, the teaching-only Segment 3 is normally relatively large, with a corresponding shrinkage in the coverage of Segments 1&2 |

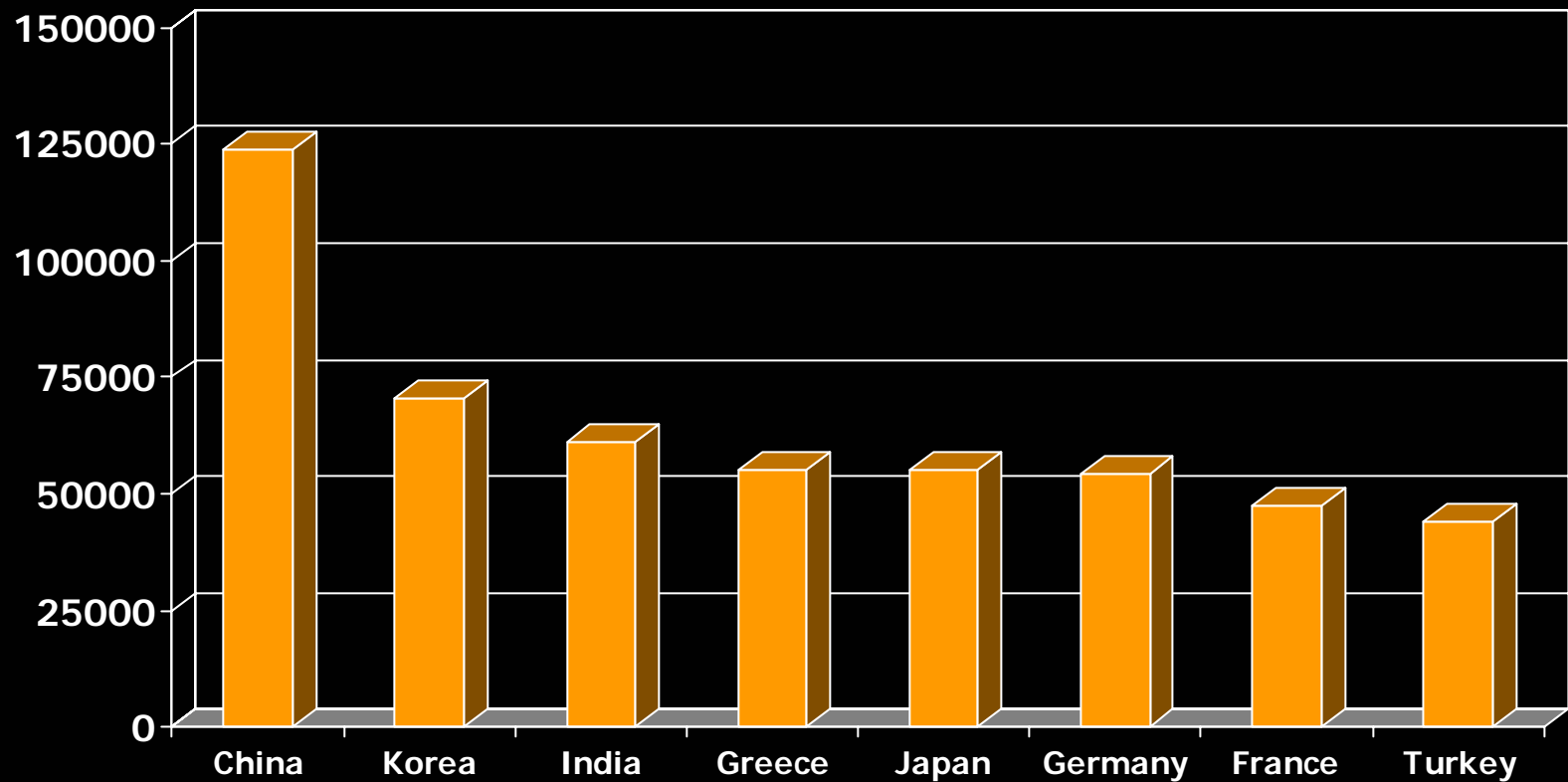
Exporters of tertiary education

2001 OECD data

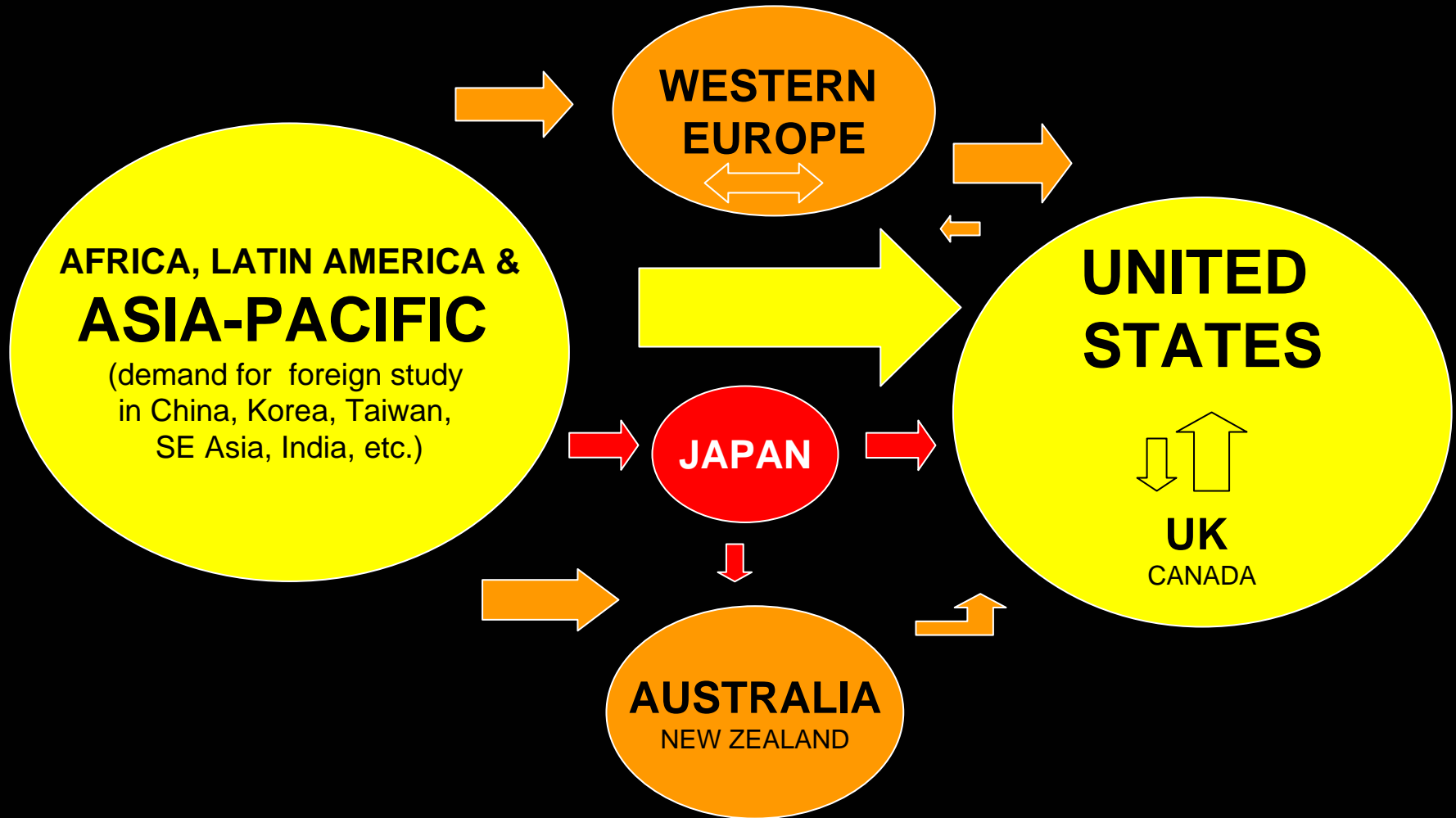


Importers of tertiary education

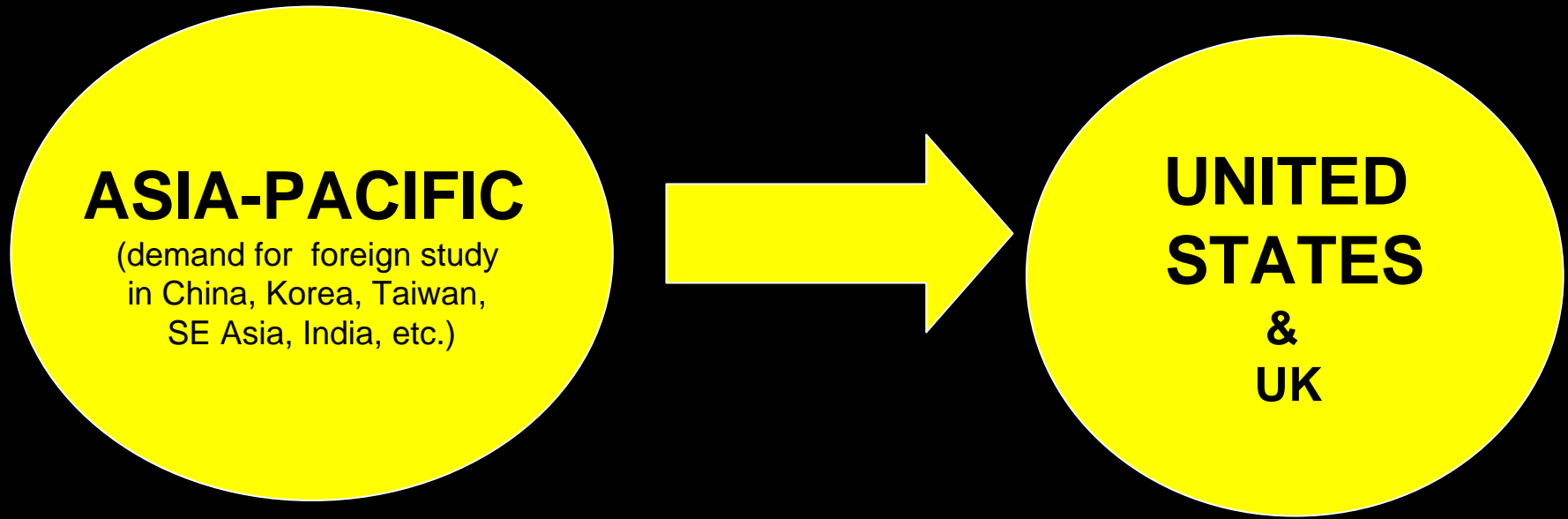
2001 OECD data



Student flows in the global higher education environment

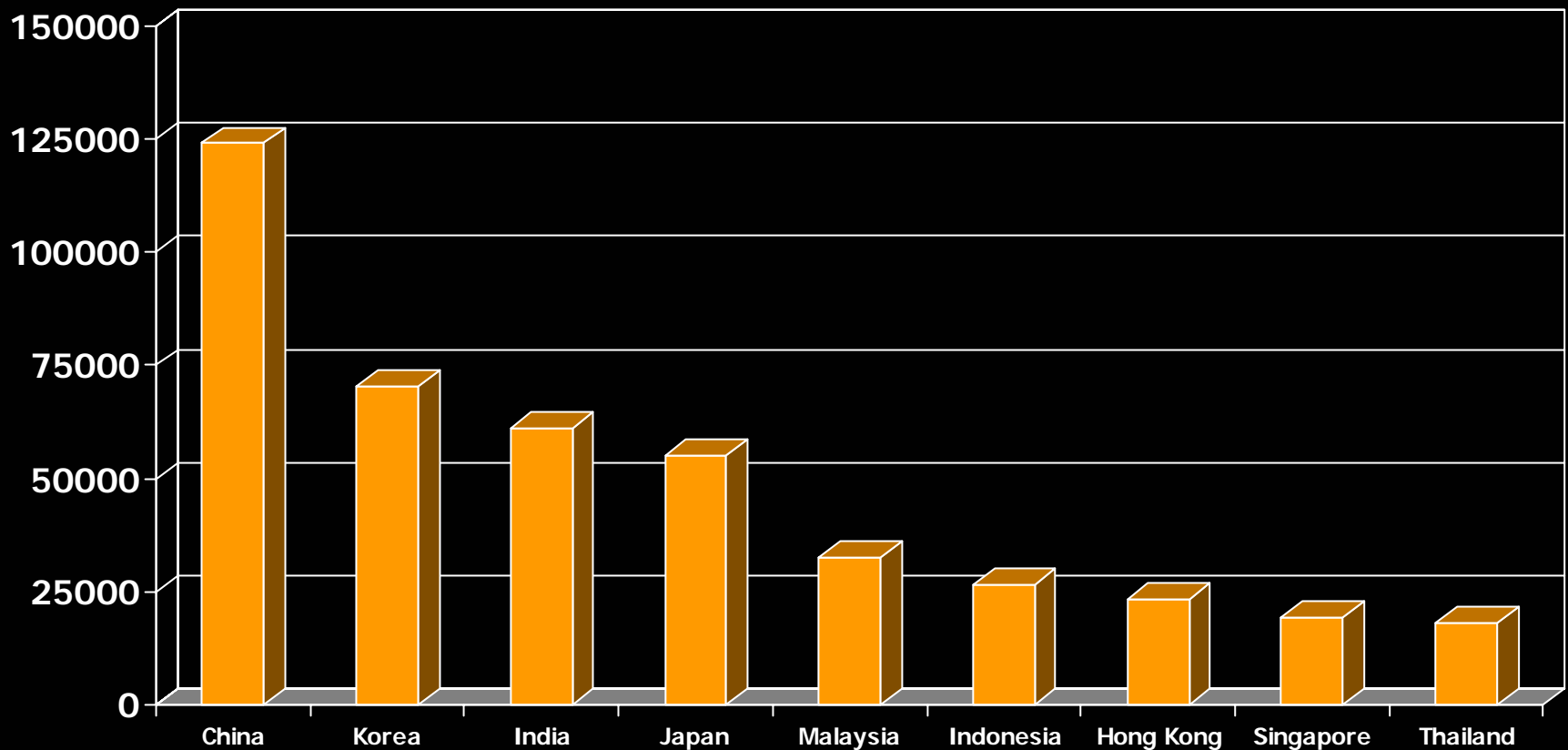


Principal student flows in the global environment



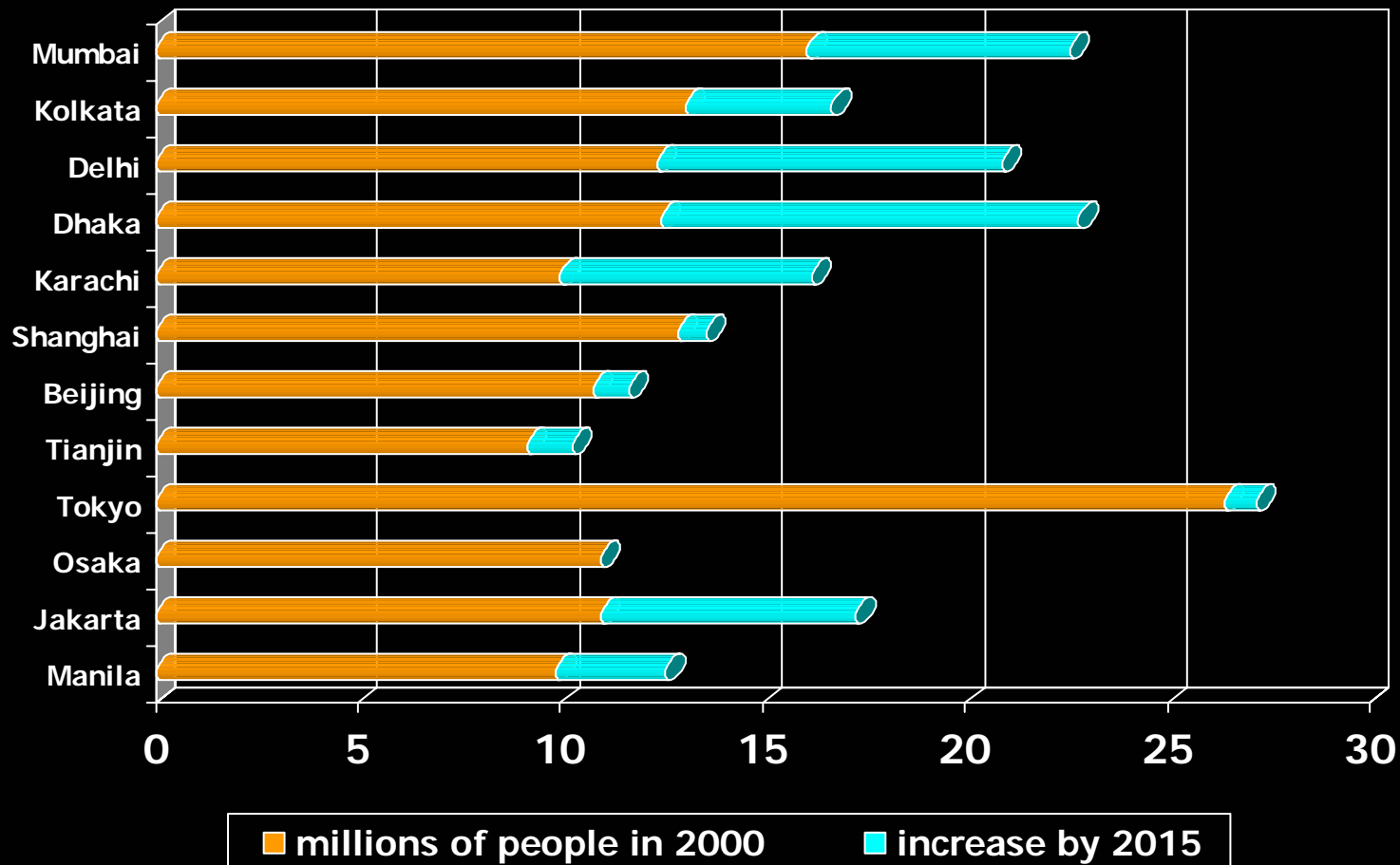
Importers of tertiary education in East, South & Southeast Asia

2001 OECD data



Growth of Asian megacities

2000-2015 Asian Development Bank data

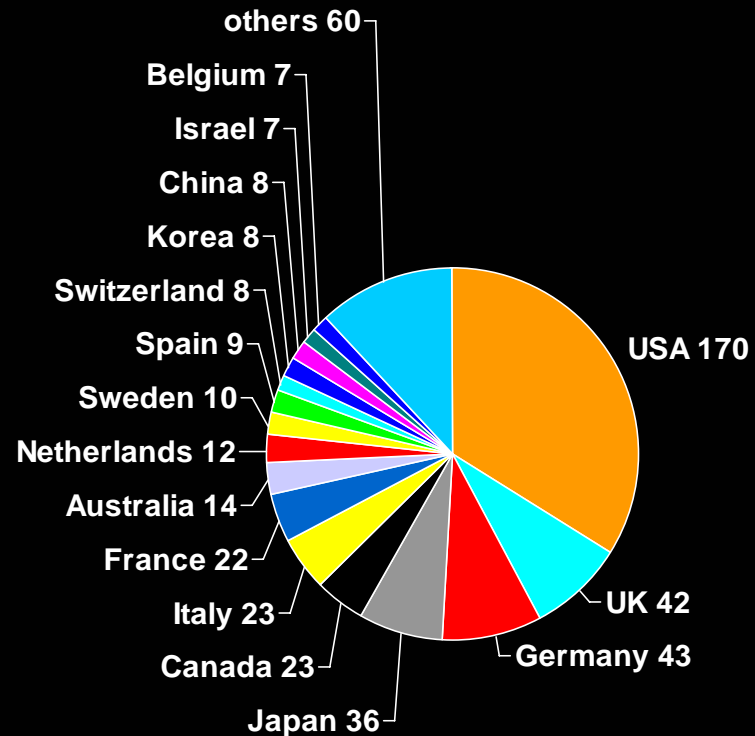


Top 500 research universities

2004 data compiled by Shanghai Jiao Tong University Institute of Higher Education

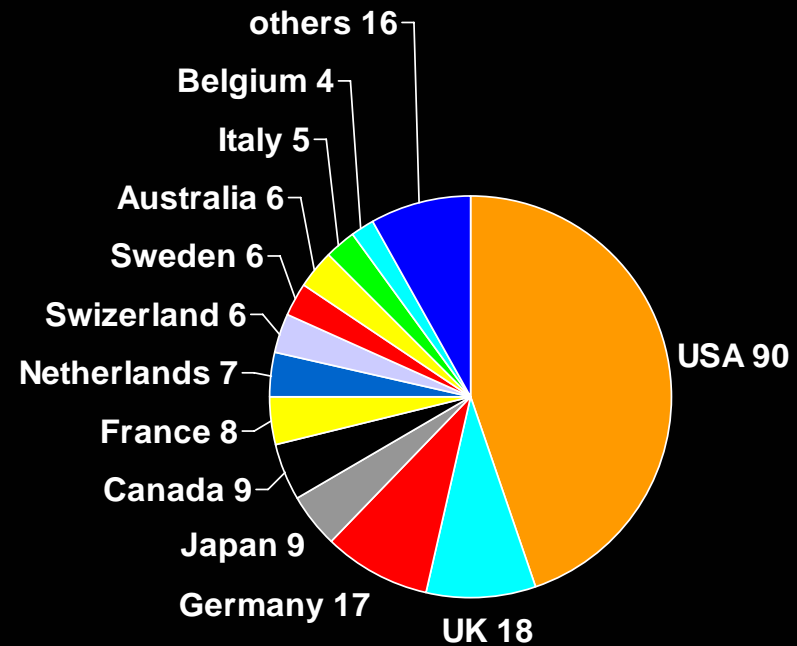
'others' includes Denmark, Finland, Austria, Hong Kong (each 5), Norway, Brazil, South Africa (each 4), Taiwan, India, Ireland, New Zealand, Hungary (each 3), Singapore, Russia, Poland, Greece (each 2), Argentina, Mexico, Czech Republic, Chile, Portugal (each 1)

actually top 502 universities due to tie for last place



Top 200 research universities

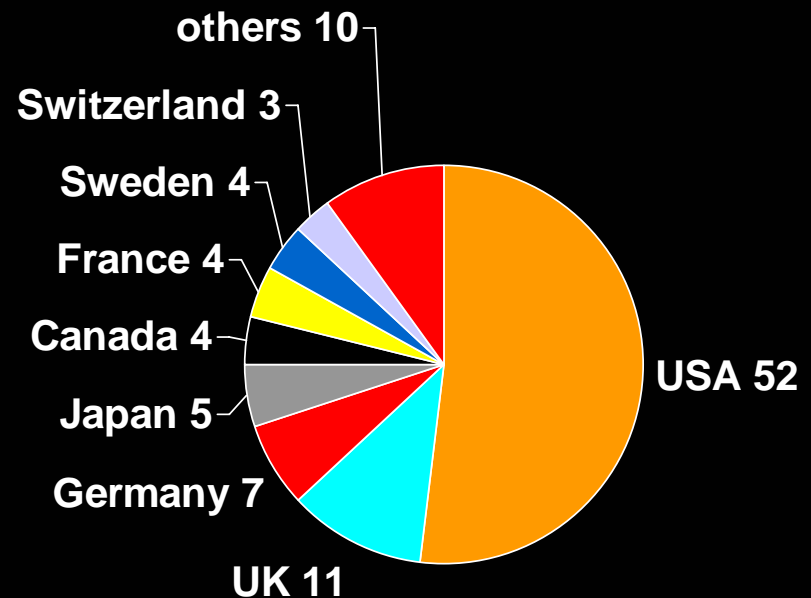
2004 data compiled by Shanghai Jiao Tong University Institute of Higher Education



actually top 201 universities due to tie for last place

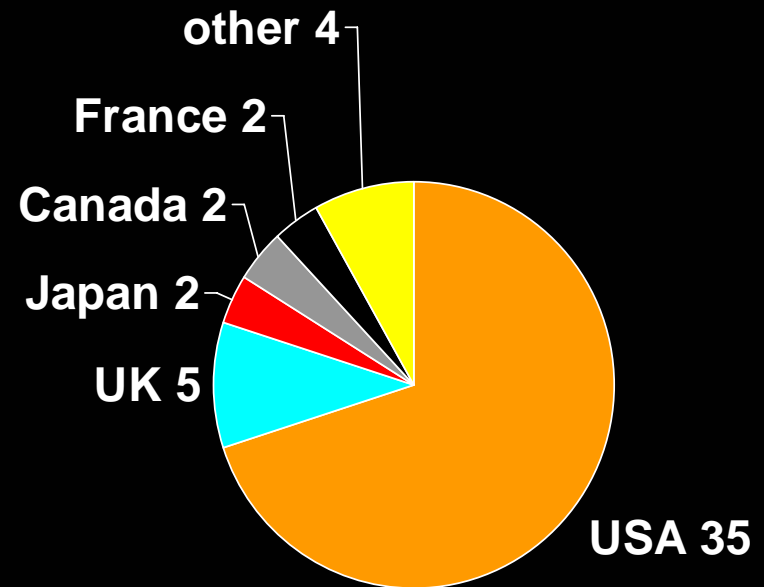
Top 100 research universities

2004 data compiled by Shanghai Jiao Tong University Institute of Higher Education



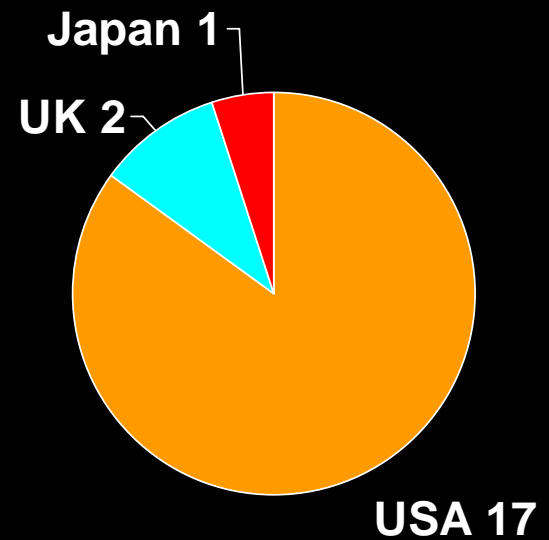
Top 50 research universities

2004 data compiled by Shanghai Jiao Tong University Institute of Higher Education



Top 20 research universities

2004 data compiled by Shanghai Jiao Tong University Institute of Higher Education



Top 20 research universities 2004

| | | | |
|----|---------------------|----|--------------------------|
| 1 | Harvard USA | 11 | Yale USA |
| 2 | Stanford USA | 12 | Cornell USA |
| 3 | Cambridge UK | 13 | UC San Diego USA |
| 4 | UC Berkeley USA | 14 | Tokyo Japan |
| 5 | MIT USA | 15 | Pennsylvania USA |
| 6 | Caltech USA | 16 | UC Los Angeles USA |
| 7 | Princeton USA | 17 | UC San Francisco USA |
| 8 | Oxford UK | 18 | Wisconsin-Madison USA |
| 9 | Columbia USA | 19 | Michigan-Ann Arbor USA |
| 10 | Chicago USA | 20 | Washington (Seattle) USA |

Annual per capita income in USA \$37,500, UK \$27,650, Japan \$28,620

15 (3%) of top 500 universities are in nations with per capita GDP below world average (\$8200 p.a.)

| | | | |
|---------|---------------------------|---------|----------------------------|
| 153-201 | Sao Paulo, Brazil | 302-403 | Science & Tech., China |
| 202-301 | Peking, China | 302-403 | Zhejiang, China |
| 202-301 | Tsing Hua, China | 404-502 | In. Tech. Kharagpur, India |
| 202-301 | Indian In. Science, India | 404-502 | Jilin, China |
| 302-403 | Fudan, China | 404-502 | Shanghai Jiao Tong, China |
| 302-403 | Nanjing, China | 404-502 | Estadual Paulista, Brazil |
| 302-403 | Estadual Camp, Brazil | 404-502 | Kolkata, India |
| 302-403 | F. Rio de Janeiro, Brazil | | |

Annual per capita GDP in Brazil \$7480, China \$6436, India \$2880.

Universities from nations with per capita GDP of less than \$15,000, in top 500

- China (8): Peking, Tsinghua, Fudan, Nanjing, Science and Technology, Zhejiang, Jilin, Shanghai Jiao Tong
- Brazil (4): Sao Paulo, Estadual Campinas, Rio de Janeiro, Estadual Paulista
- South Africa (4): Cape Town, Witwatersrand, KwaZulu Natal, Pretoria
- India (3): Indian Instit Science, Indian IT Kharagpur, Kolkata
- Hungary (3): Szeged, Budapest UT, Eotvos Lorand
- Russia (2): Moscow State, St Petersburg State
- Poland (2): Jagiellonian, Warsaw
- Argentina (1): Buenos Aires
- Mexico (1): UNAM
- Chile (1): Chile

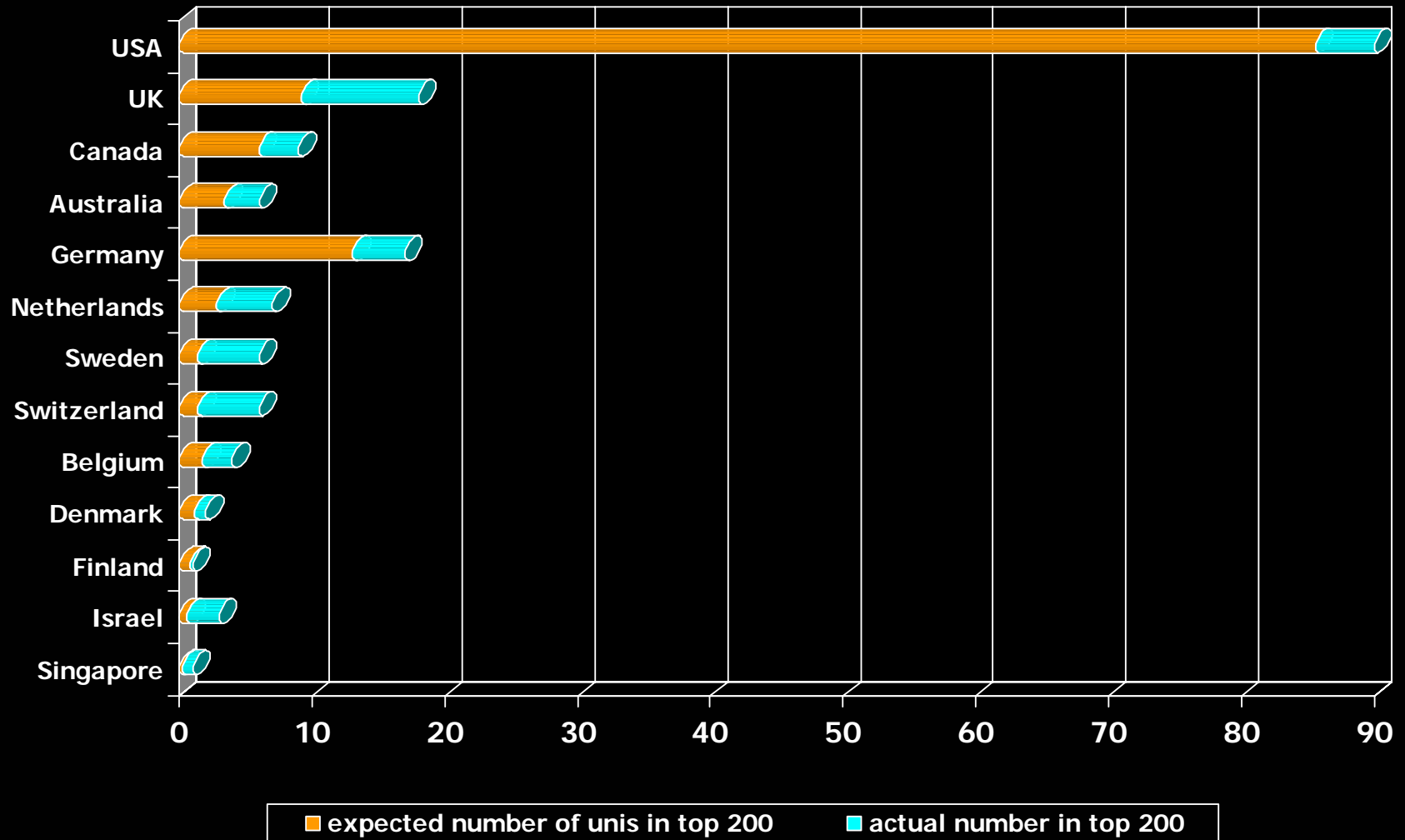
There are 29 universities in nations with per capita GDP of less than \$15,000 p.a. included in the world's top 500 (actually 502) research universities. That is 5.8% of the top 502 universities.

National research capacity compared to economic capacity

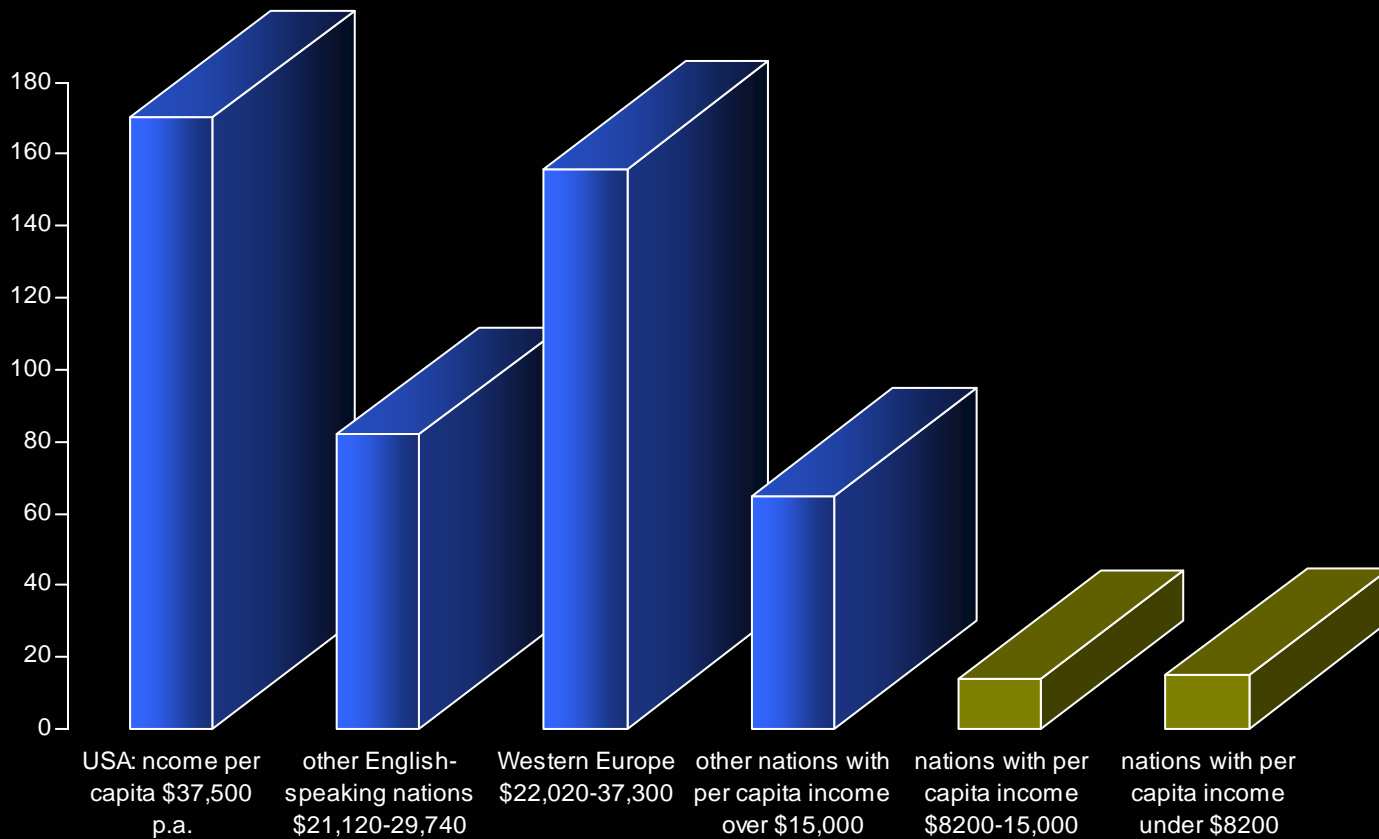
| | |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Nations with research capacity greater than their economic wealth suggests | Israel, Sweden, Switzerland, UK, Netherlands, Canada, Finland, <i>USA</i> , Denmark, Singapore, Australia, Germany, New Zealand, Hungary, Belgium |
| Nations with research capacity about on par with their economic wealth | Austria, Norway, <i>Chile</i> , France, Hong Kong, South Africa |
| Nations with research capacity less than their economic wealth suggests | Ireland, <i>Brazil, Japan, India, Portugal, Czech Republic, Russia, Italy, Korea, Spain, Poland, Greece, China, Argentina, Mexico</i> |

Italics: over 20% of students in independent private sector

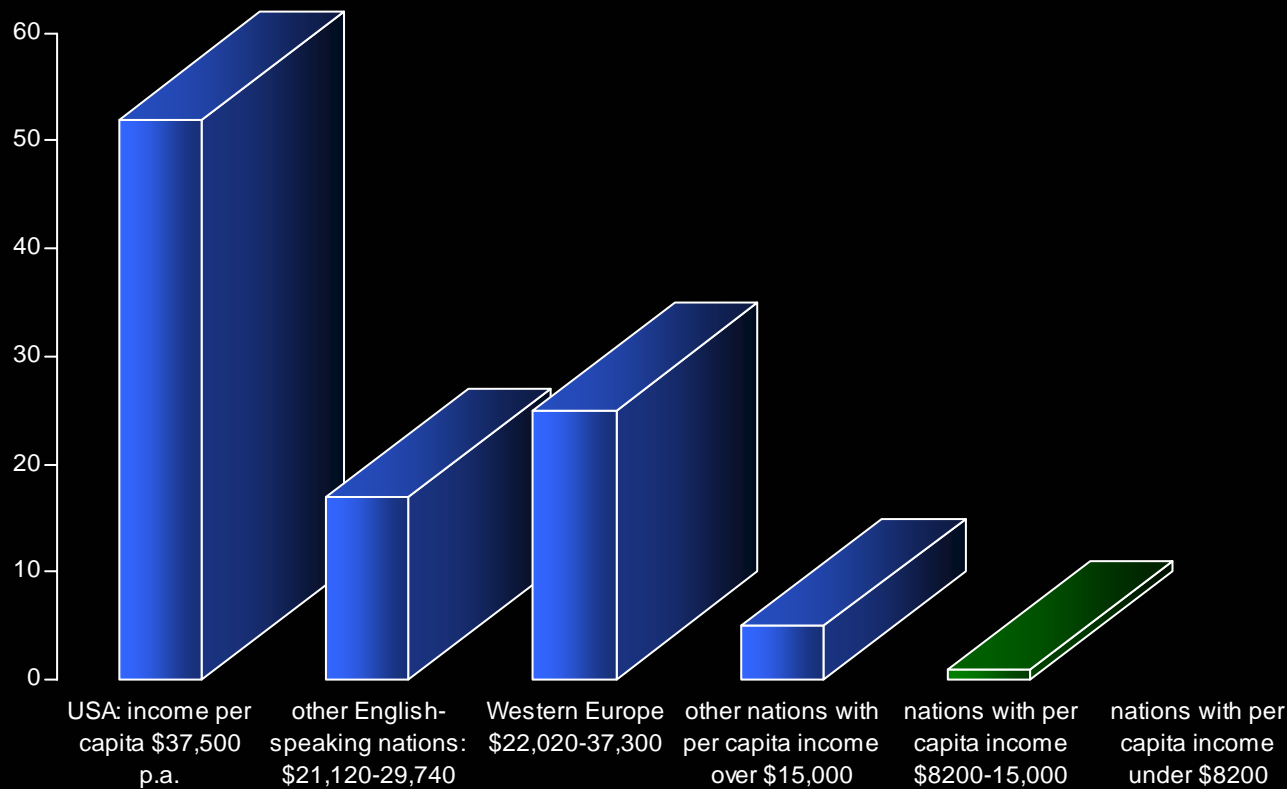
Research capacity greater than economic capacity suggests



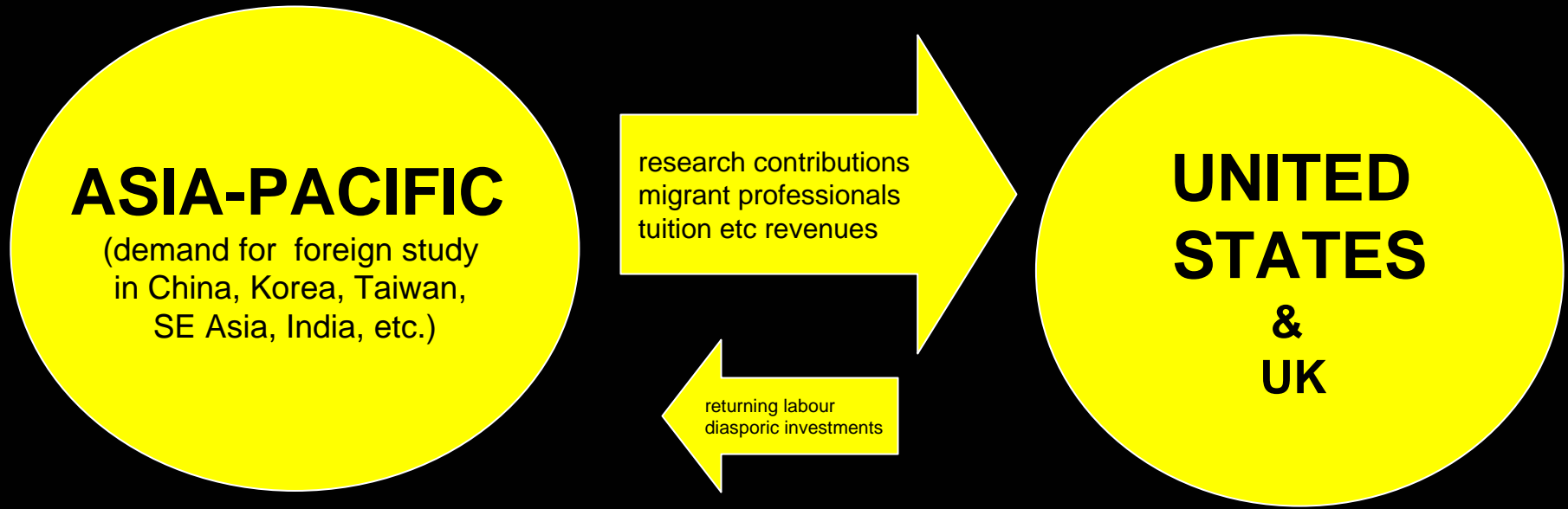
Global share of top 500 universities according to national wealth, 2004



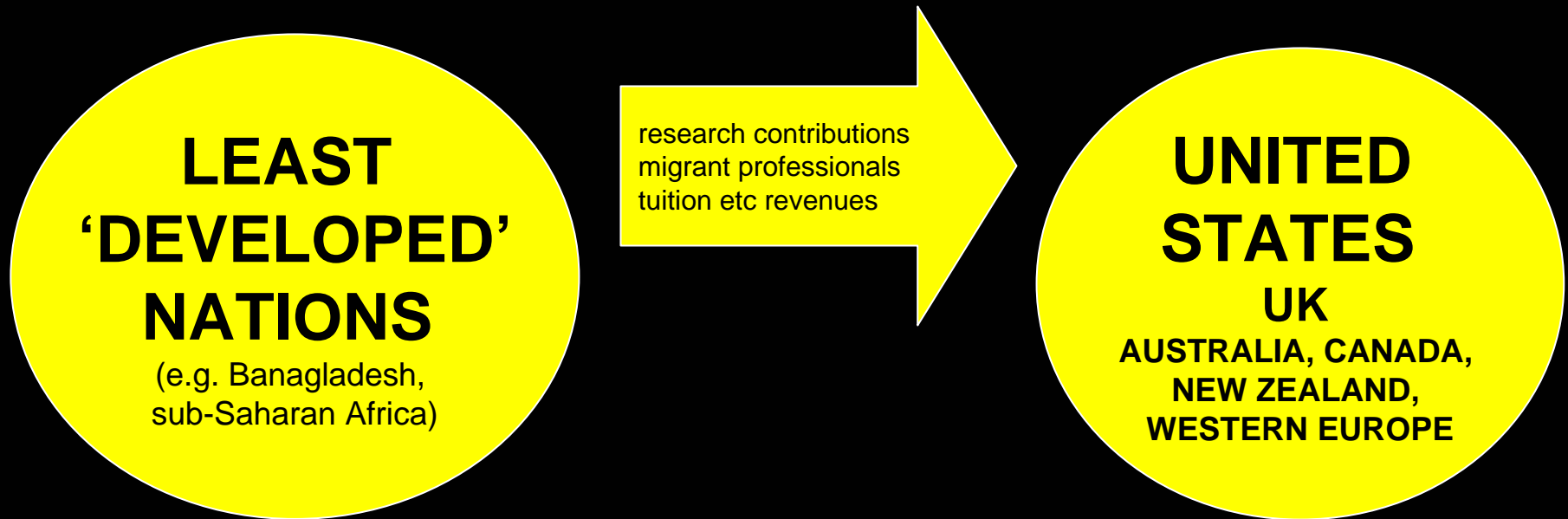
Global share of top 100 universities according to national wealth, 2004



Uneven global flows between Asia-Pacific nations and USA/UK

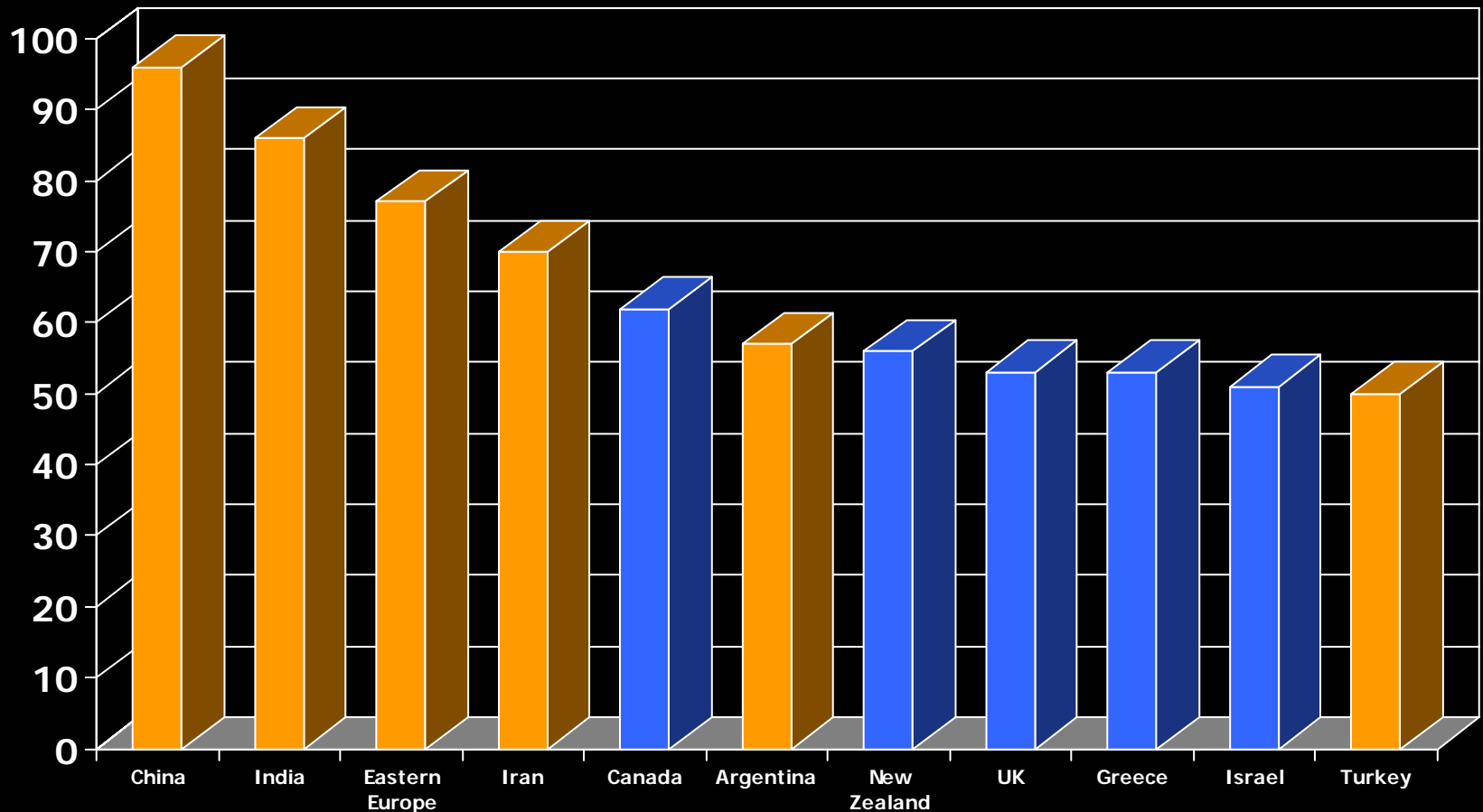


One-way global flows between LDNs and education exporters



% of 1996 Science/ Engineering graduates still in USA in 2001

from OECD 2004



Unequal global capital flows

(\$s million 2001, data from OECD 2004)

| | Income from foreign students | Outlays by own students abroad | Aid for post-sec education | Net capital flows |
|------------------|------------------------------|--------------------------------|----------------------------|-------------------|
| USA | 11,490 | 2380 | 111 | + 8999 |
| UK | 11,141 | 1396 <small>(1997)</small> | 3 | n.a. |
| Australia | 2145 | 368 | 13 | + 1764 |
| Canada | 727 | 529 | 50 | + 148 |
| Mexico | 31 | 81 | 0 | - 50 |

Effects of global competition in national competition

- **Outside the USA** global competition and cooperation provide some institutions with enhanced strategic opportunities,, including opportunities to move up the national hierarchy
- But global 'relativization' – the growing impact on status of global referencing, e.g. in research performance – often undermines leading national universities outside USA/UK
- Commercial market in cross-border education spreads market practices within national systems, e.g. Australia & UK
- English-language teaching and research become more influential in non-English speaking nations
- US models of system/university become more influential
- **In the USA** global competition can strengthen individual institutions, but has little overall effect on national competition

The Yin & Yan of globalization

| | Rest of World | USA |
|---------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------|
| Models of Higher Ed | American models often shape local practices in rest of world | Foreign models have no identifiable influence in US education |
| Strong private sector means... | Mostly teaching only. Associated with weaker research nations | Associated with highest (& lowest) status degrees. Research leaders |
| Language of use | In non-English nations, role of English grows inexorably | No challenge to language of use (despite growth of Spanish) |
| Brain drain/gain | Universal brain drain to USA. Strong nations gain from others | No significant brain drain. Brain gain from all other nations |
| Revenue flows | Flow away from importers and donors, flow to exporters | To USA as exporter, from USA as donor. First greatly exceeds second |
| Local importance | Cross-border influences vital, people flows vary in importance | Cross-border influences minor, typical outward engagement marginal |
| Overall - | Globalization in higher education is what USA does to the world... | ... not what rest of world does to American higher education |

Global segmentation in degree markets

| | |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Segment 1 Global elite USA/ UK universities | A world market of high prestige universities. Prestige not profit-driven. Prestige rests on research reputation and global power of degree |
| Segment 2 Exporting national research universities | Research universities in the UK, Canada, Australia, Europe, Japan. Many see foreign degrees as a profit-making business |
| Segment 3 Teaching-focused export institutions | Lesser status institutions in export nations, operating commercially in global market, catering to lower cost/ lower quality foreign education |
| Segment 4 Nationally-bound research universities | Prestige providers within a single nation, normally research intensive universities. Nationally competitive with Segment 2 (not 1), minor cross-border role |
| Segment 5 Lesser national/local institutions | Confined to national competition and local demand. No cross-border role. The largest group of institutions, especially outside export nations. |

Summary 1

- ❏ Social competition in higher education (students competing for places, universities for status and revenues) is pervasive. Economic markets are just one form of competition.
- ❏ In elite universities, in both national and global competition, the degree status is underpinned by research reputation; and research capacity maximises status, resources, options
- ❏ At the global level the key developments are:
 1. a world-market in elite English-language education and research, dominated by US universities, and
 2. below the top tier, the growth of commercial education for foreign students, especially in the UK, and Australia
- ❏ The global market in higher education is segmented along the same lines as most national markets. At the top are elite research universities, non-commercial in character
- ❏ But the world-wide distribution of research capacity is grossly unequal. It is US and English-language dominated.

Summary 2

- ❏ And global competition and global hierarchy increasingly overshadow national hierarchies outside the USA
- ❏ Economic market competition reinforces elite closure. It reduces equality of opportunity at national level. Globally, market growth is associated with a reduction in aid to poorer nations. Trade/Aid are increasingly out of balance
- ❏ Globalization provides opportunities for individual institutions to climb the national hierarchy, and flourish beyond it
- ❏ Nevertheless globalization is grossly asymmetrical and uni-directional. Globalization in higher education is what the USA does to the world, not what the world does to the US
- ❏ Globalization is associated not just with competition and markets but an enhanced potential for public goods
- ❏ **In the long term, not markets but global public goods will determine whether globalization in higher education is opportunity or threat (but that's another paper...)**