

Organisation for Economic Co-operation and Development (OECD)

Education at a Glance 2008

Key results

Under embargo until 9 September 2008, 11:00 Paris time



EAG 2008: Three main findings

- r **A rising tide in the demand for high-level qualifications**
 - 8 million more students in tertiary systems than back in 1995 (share of age cohort moving into university level education rose from 37% to 57%)
 - Strong labour-market incentives suggest further expansion
 - Large and often growing earnings and employment differentials
 - Growth in skilled jobs
- r **Current approaches to the financing of higher education under pressure**
 - In spite of recent and considerable increases in spending levels, expenditure in some countries could not keep up with rising demand, particularly in countries finding difficulties mobilising private resources
- r **Spending patterns can be explained by policy choices**
 - Link between spending levels and outcomes tenuous



A rising tide in the demand for high-level qualifications

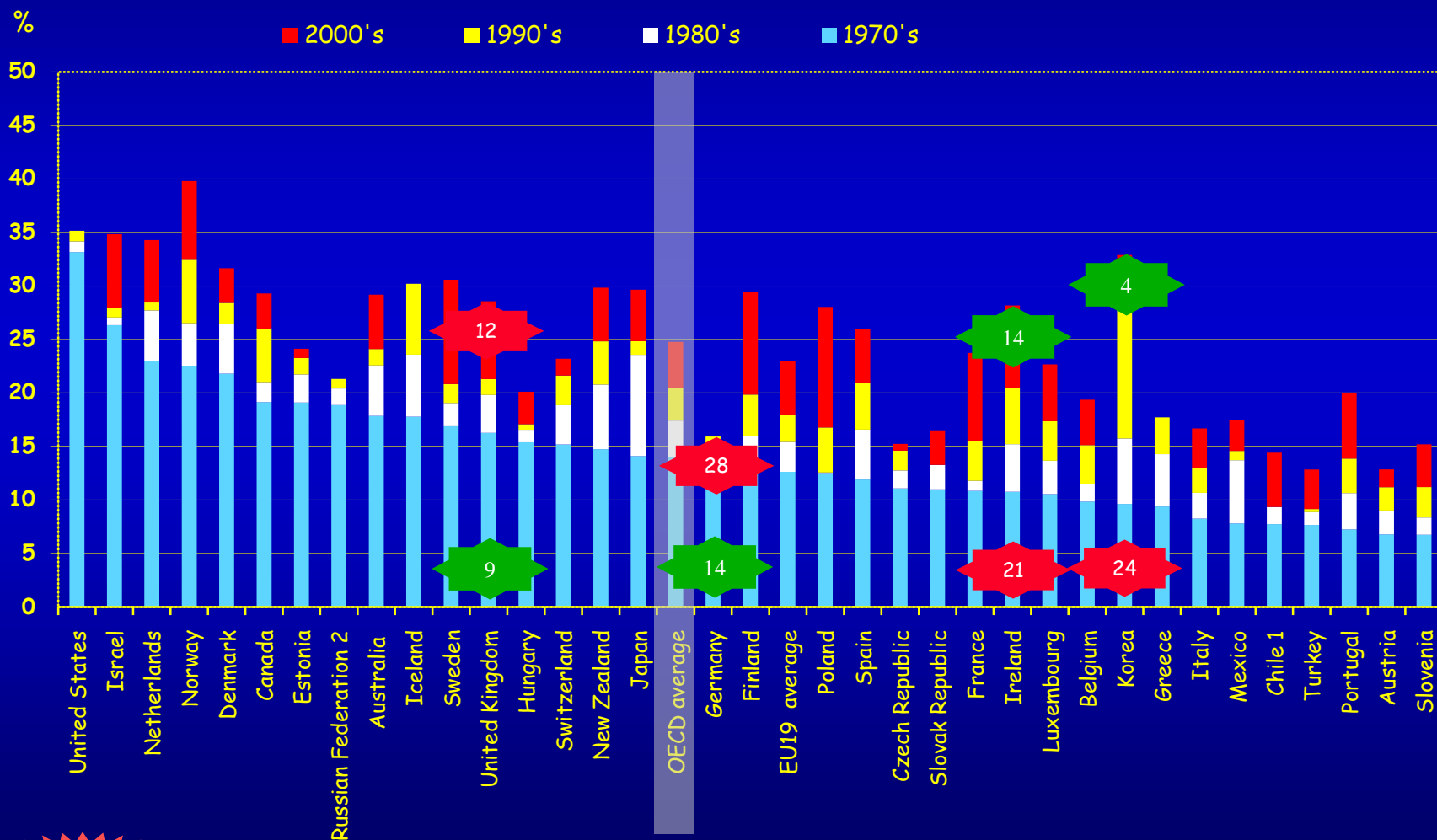
Changes in qualification levels (the past)

Changes in graduation rates (the present)

Changes in entry rates (best guess for the future)

Growth in university-level qualifications

Approximated by the percentage of the population that has attained tertiary-type A education in the age groups 25-34 years, 35-44 years, 45-54 years and 55-64 years) (2006)



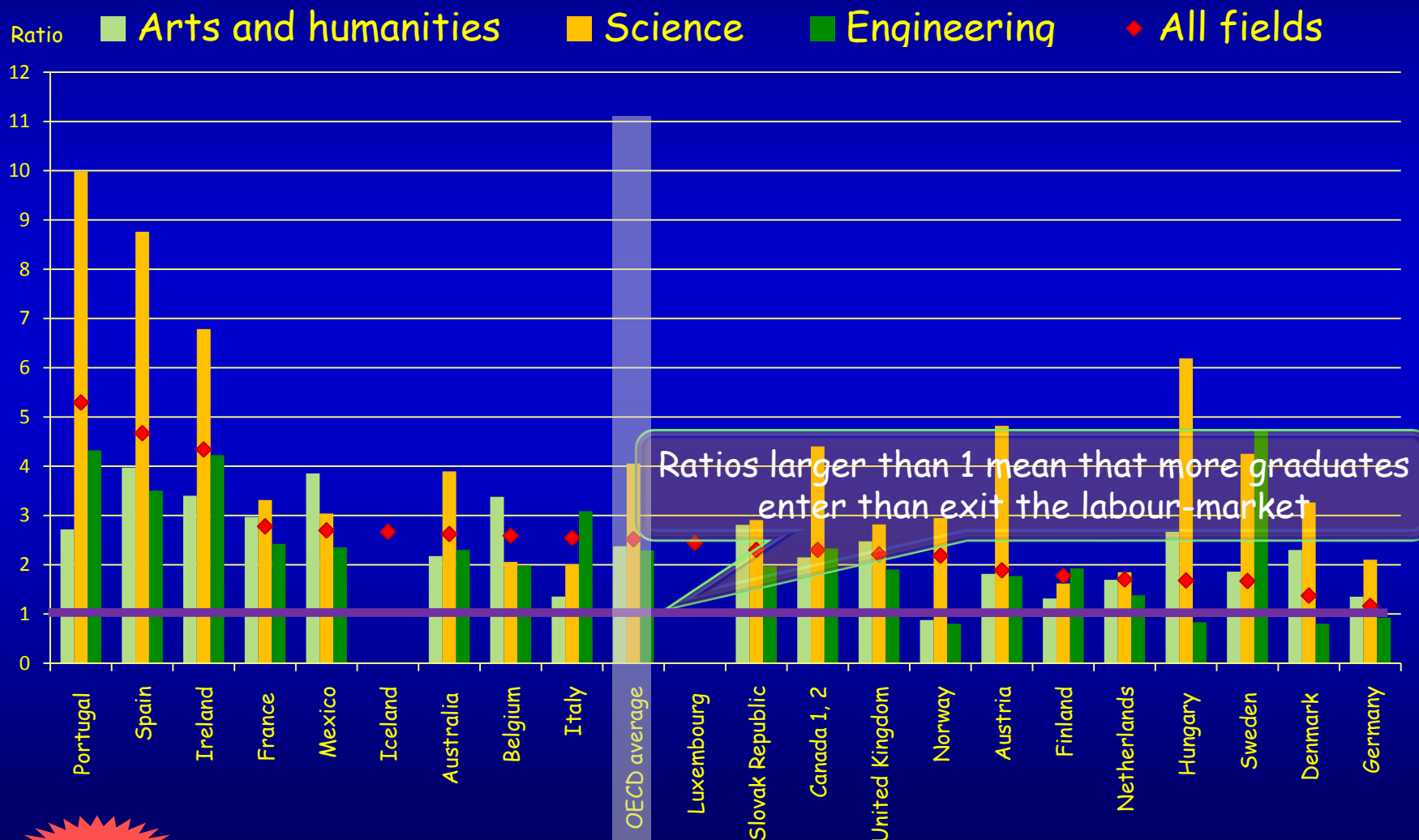
A1.3a

1. Year of reference 2004.
2. Year of reference 2002.



Science has benefited most from the expansion

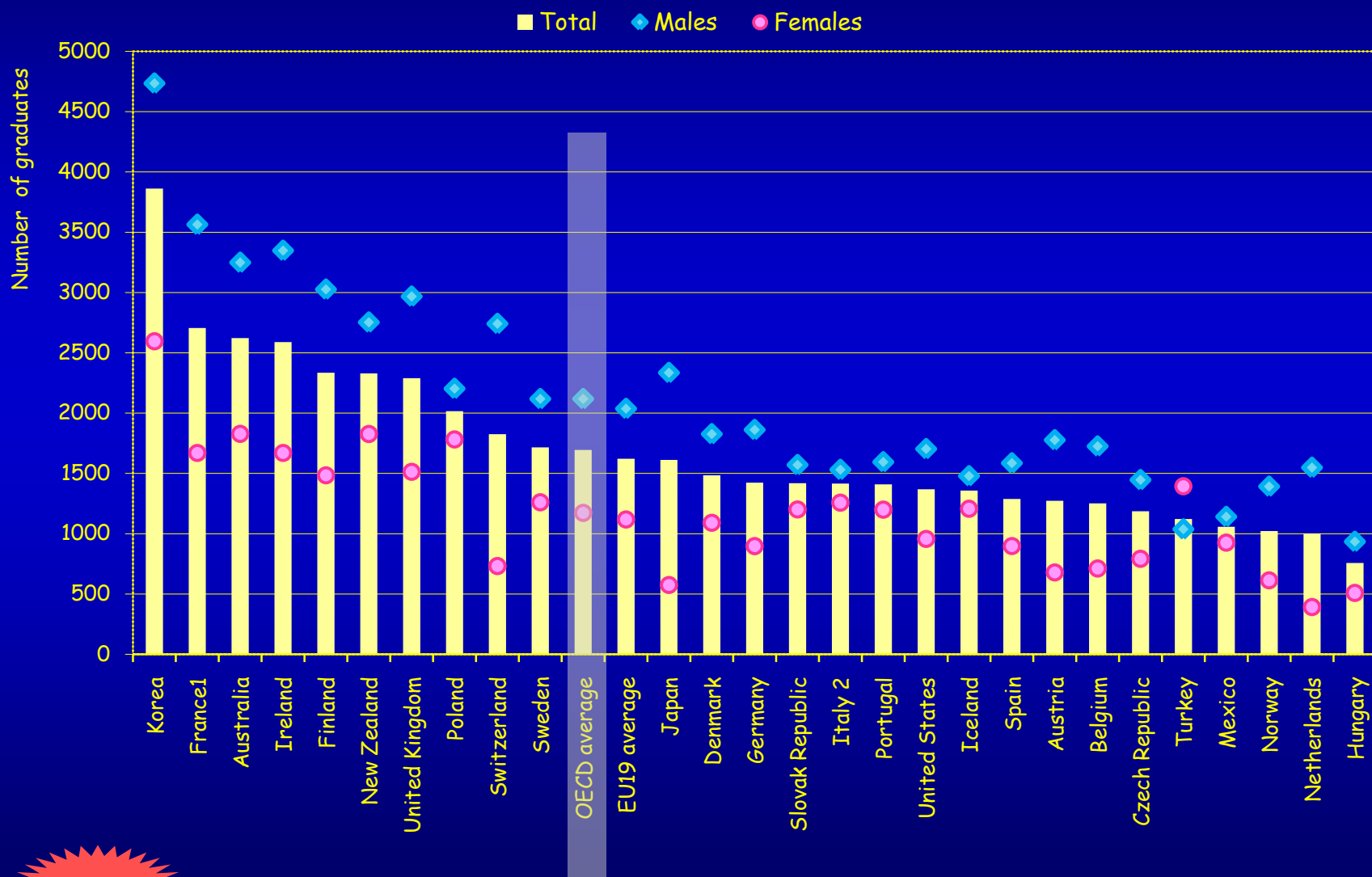
Ratio of 25-to-34-year-olds with ISCED 5A and 30-to-39-year-olds with ISCED 6 levels of education to 55-to-64-year-olds with ISCED 5A and 6 levels of education, by fields of education (2004)



A1.4

1. Year of reference 2001. Only ISCED 5A of educational attainment.
2. Average of ratios, not as a whole as in EAG 2007.

Number of tertiary science graduates per 100 000 employed 25-to-34-year-olds (2006)

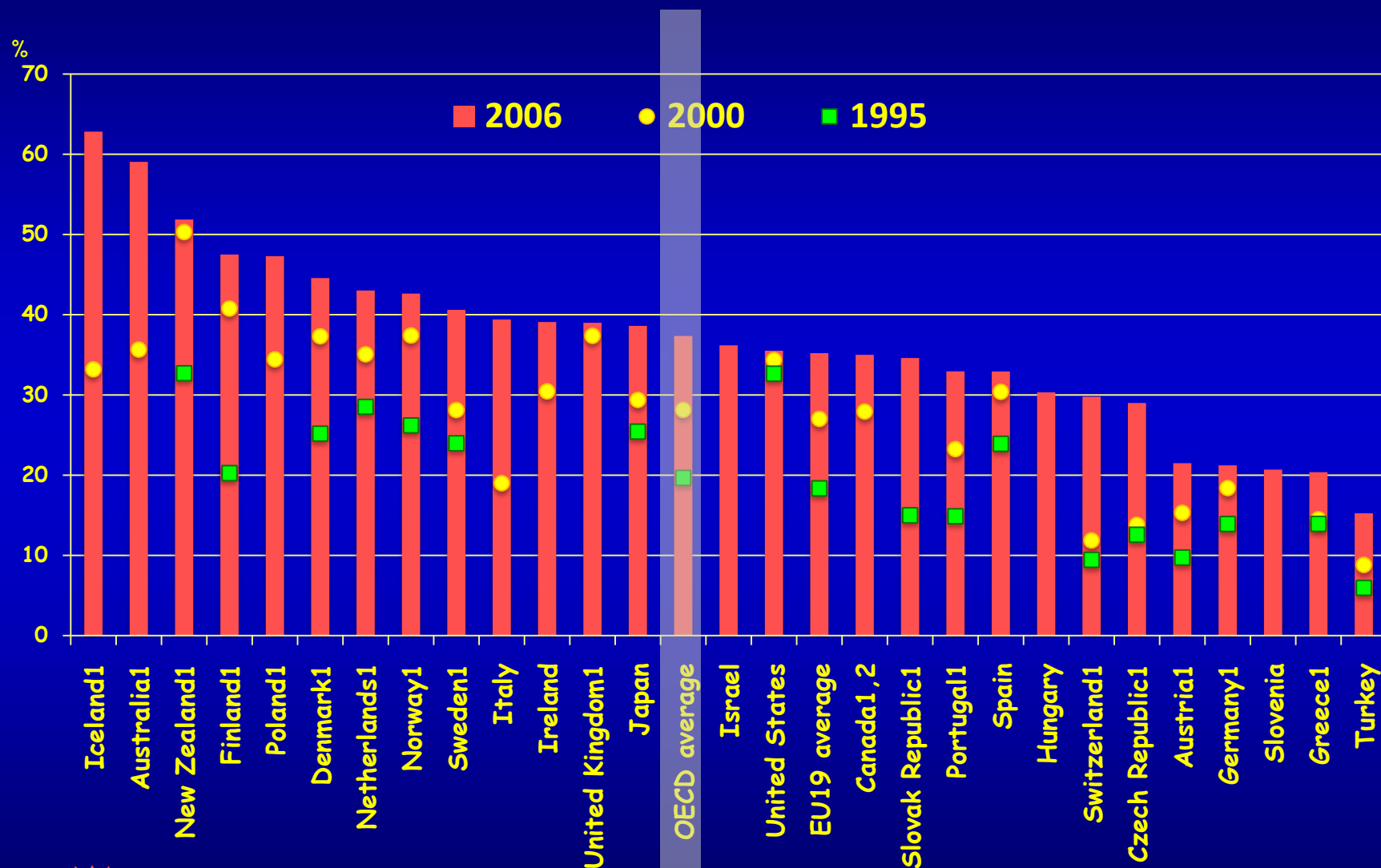


A3.6

1. Year of reference 2005.
2. Advanced research programmes refer to 2005.

Trends in university-level graduation output

First-time graduation rate at the tertiary-type A level



A3.2

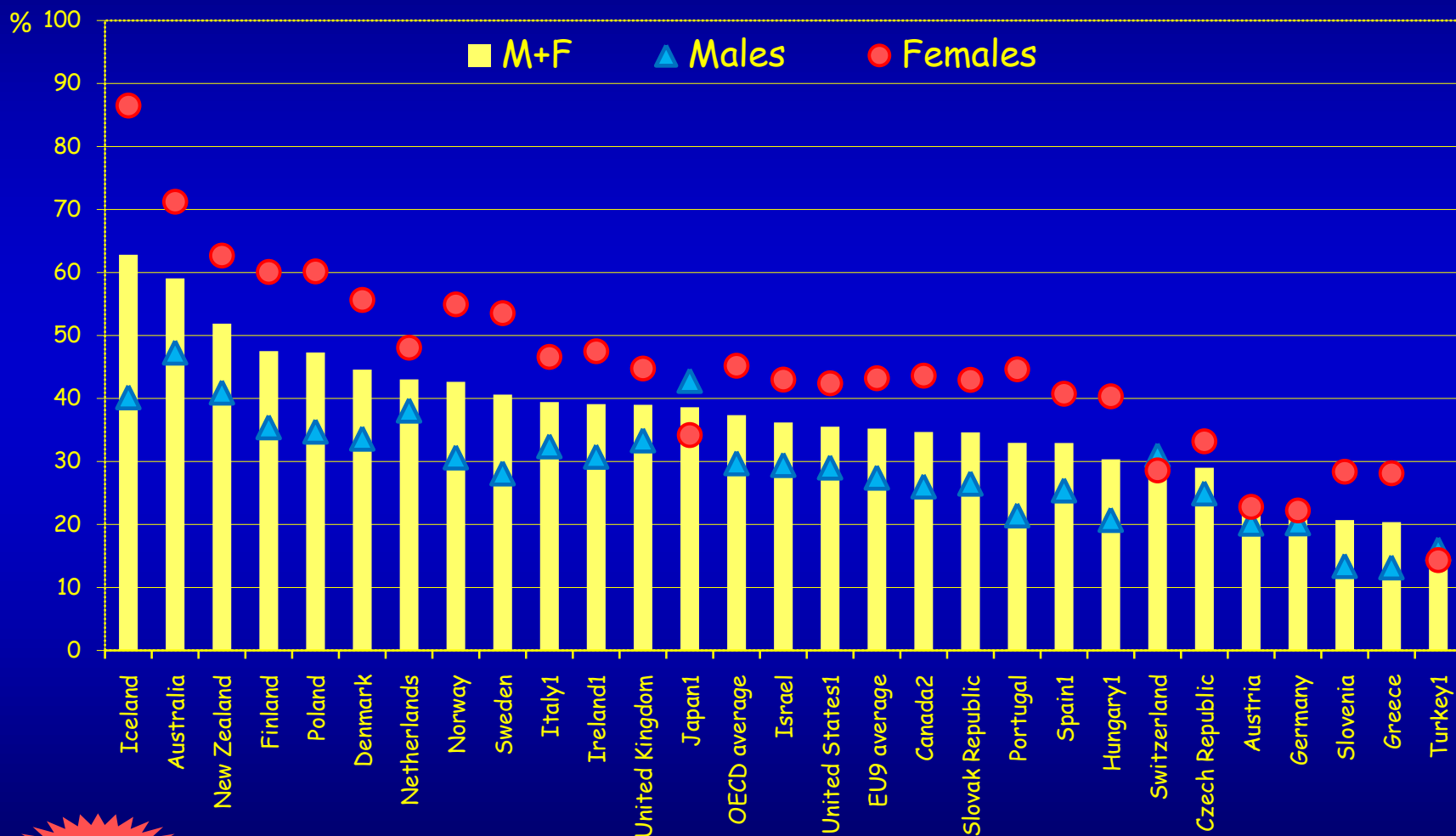
1. Net graduation rate is calculated by summing the graduation rates by single year of age in 2006.

2. Year of reference 2005.

Countries are ranked in descending order of the graduation rates for tertiary-type A education in 2006.

Source: OECD. Table A3.2. See Annex 3 for notes (www.oecd.org/edu/eag2008)

Tertiary-type A graduation rates by gender in 2006 (first time graduation)



A3.1

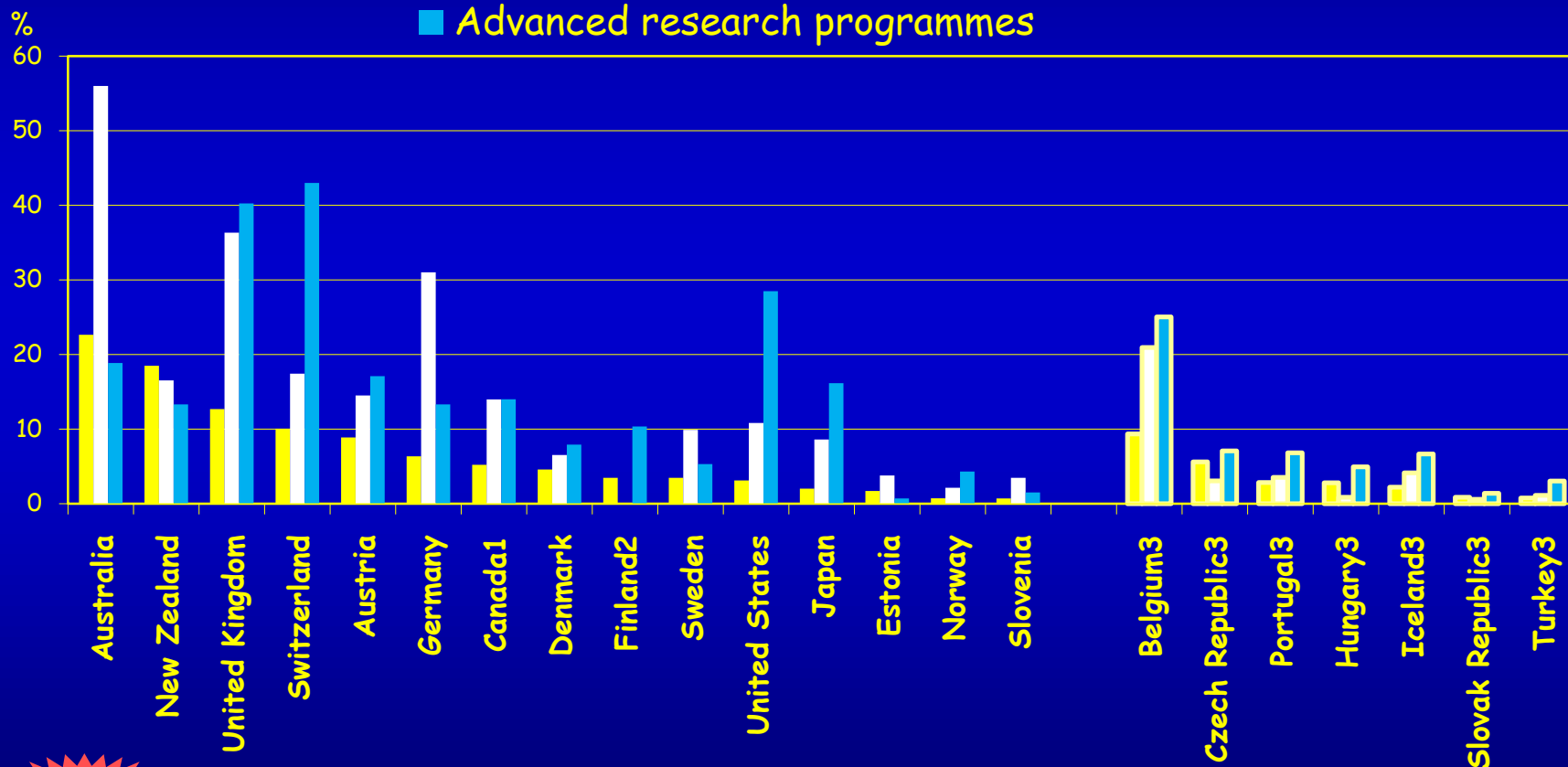
1. Entry rate for tertiary type A programmes is calculated as gross entry rate in 2006.



Contribution of international students to university graduate output

Percentage of tertiary qualifications awarded to international students (2005)

- Tertiary-type A programmes, first degree
- Tertiary-type A programmes, second degree
- Advanced research programmes

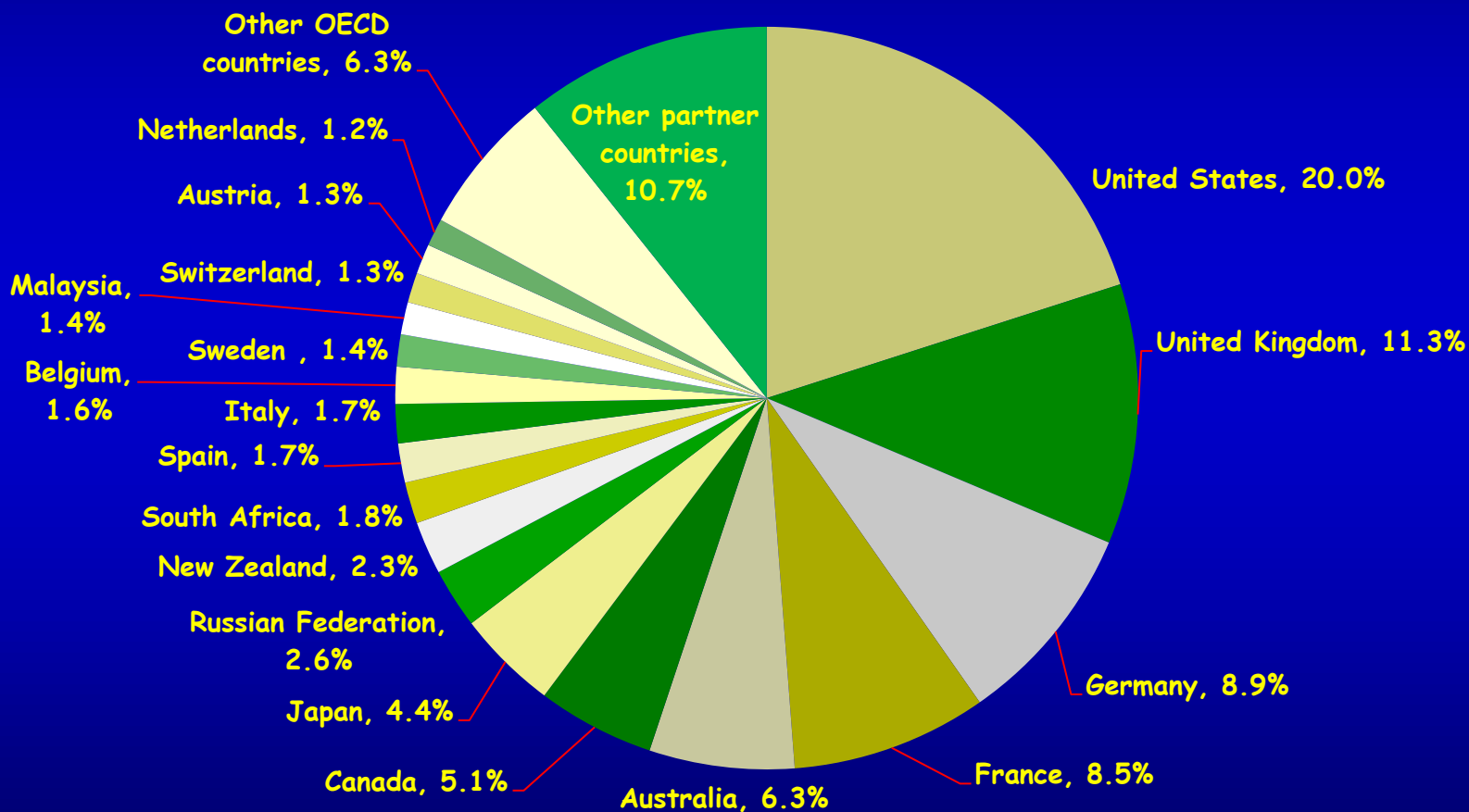


A3.4

1. Year of reference 2005.
2. First degrees programmes include second degrees.
3. Proportion of foreign graduates in tertiary graduate output. These data are not comparable with data in international graduates and are therefore presented separately.

Distribution of foreign students by country of destination

Percentage of foreign tertiary students reported to the OECD
who are enrolled in each country of destination (2006)

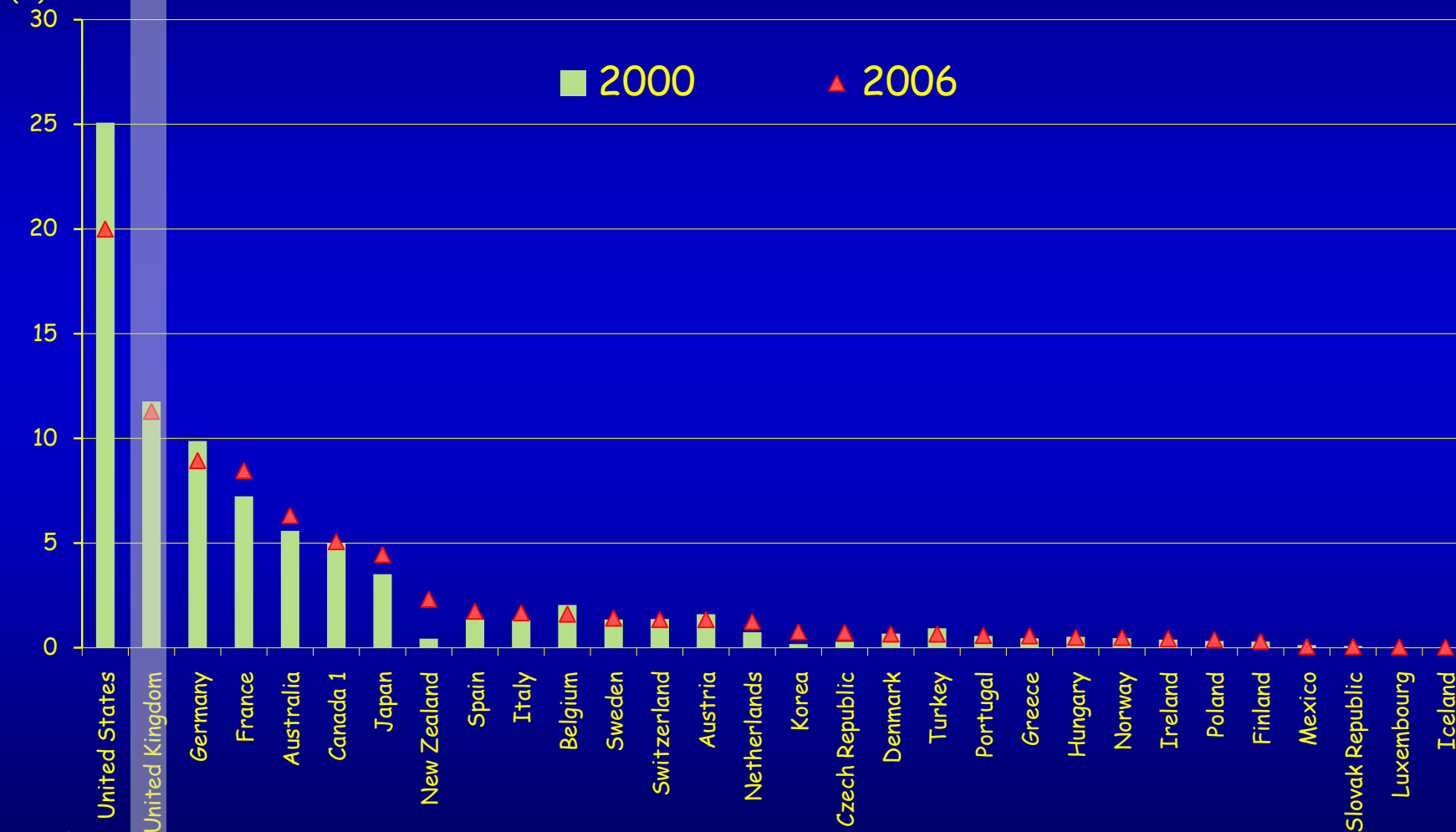


C3.2

Trends in international education market shares

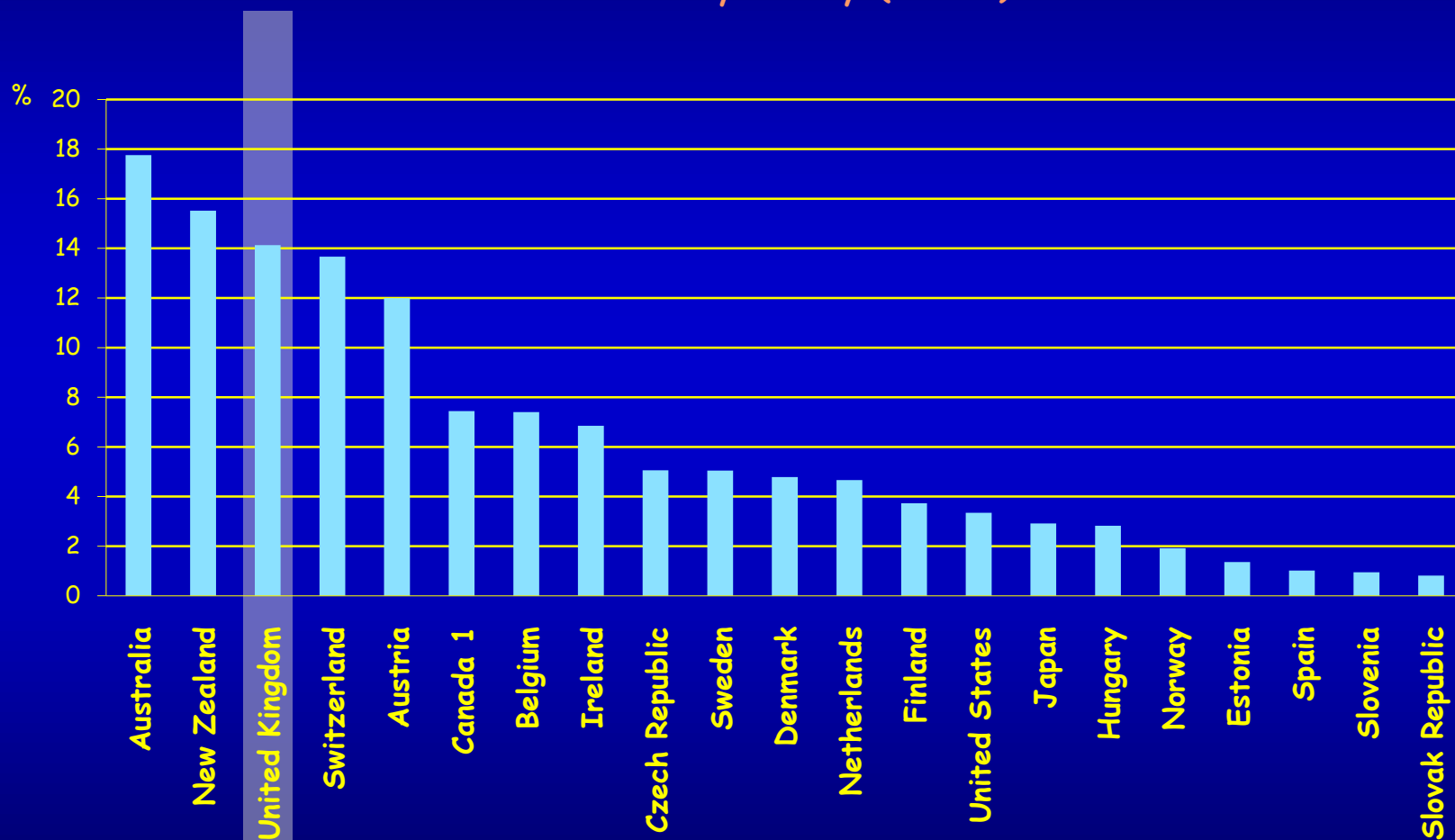
Percentage of all foreign tertiary students enrolled by destination

Market share
(%)



Percentage of international students enrolled in tertiary education

International students who travelled to a different country for the purpose of tertiary study (2006)



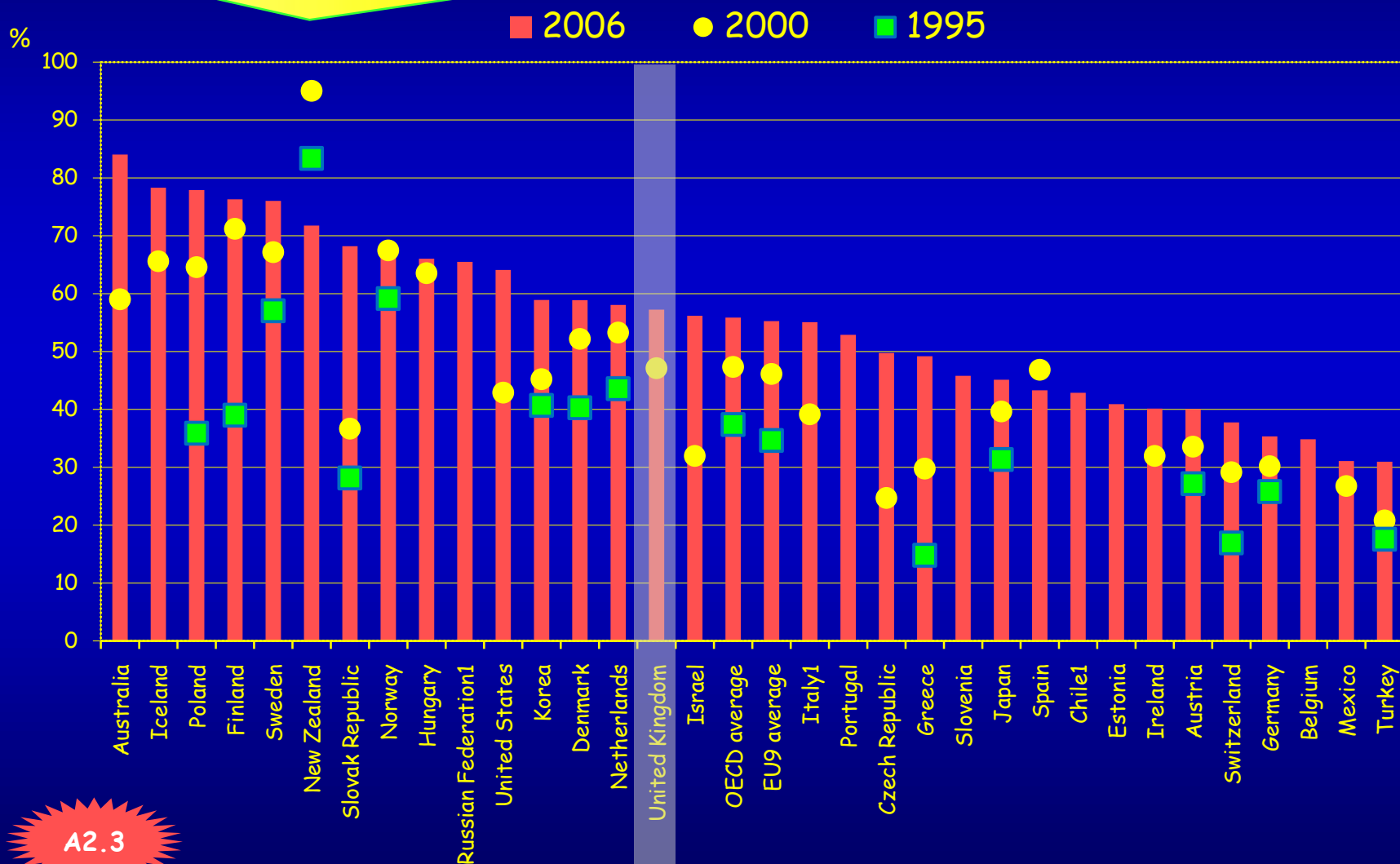
C3.1

Note: The data on the mobility of international students presented are not comparable with data on foreign students in tertiary education (defined on the basis of citizenship) presented in pre-2006 editions of Education at a Glance.

1. Year of reference 2005.

Entry rates into tertiary-type A education

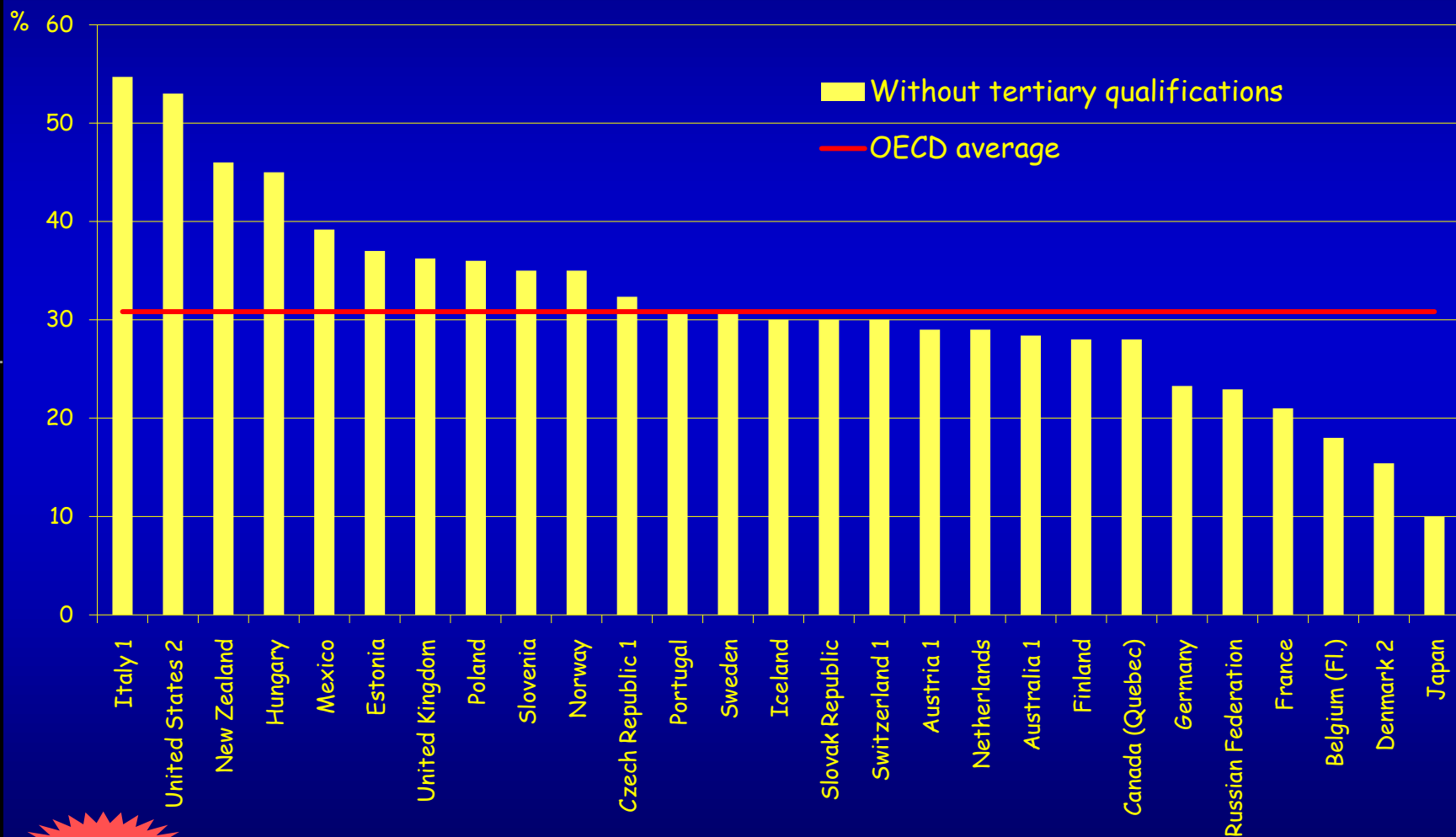
Across OECD countries tertiary systems are now providing for around 8 million more students than back in 1995



A2.3

1. Entry rate for tertiary type A programmes is calculated as gross entry rate in 2006.

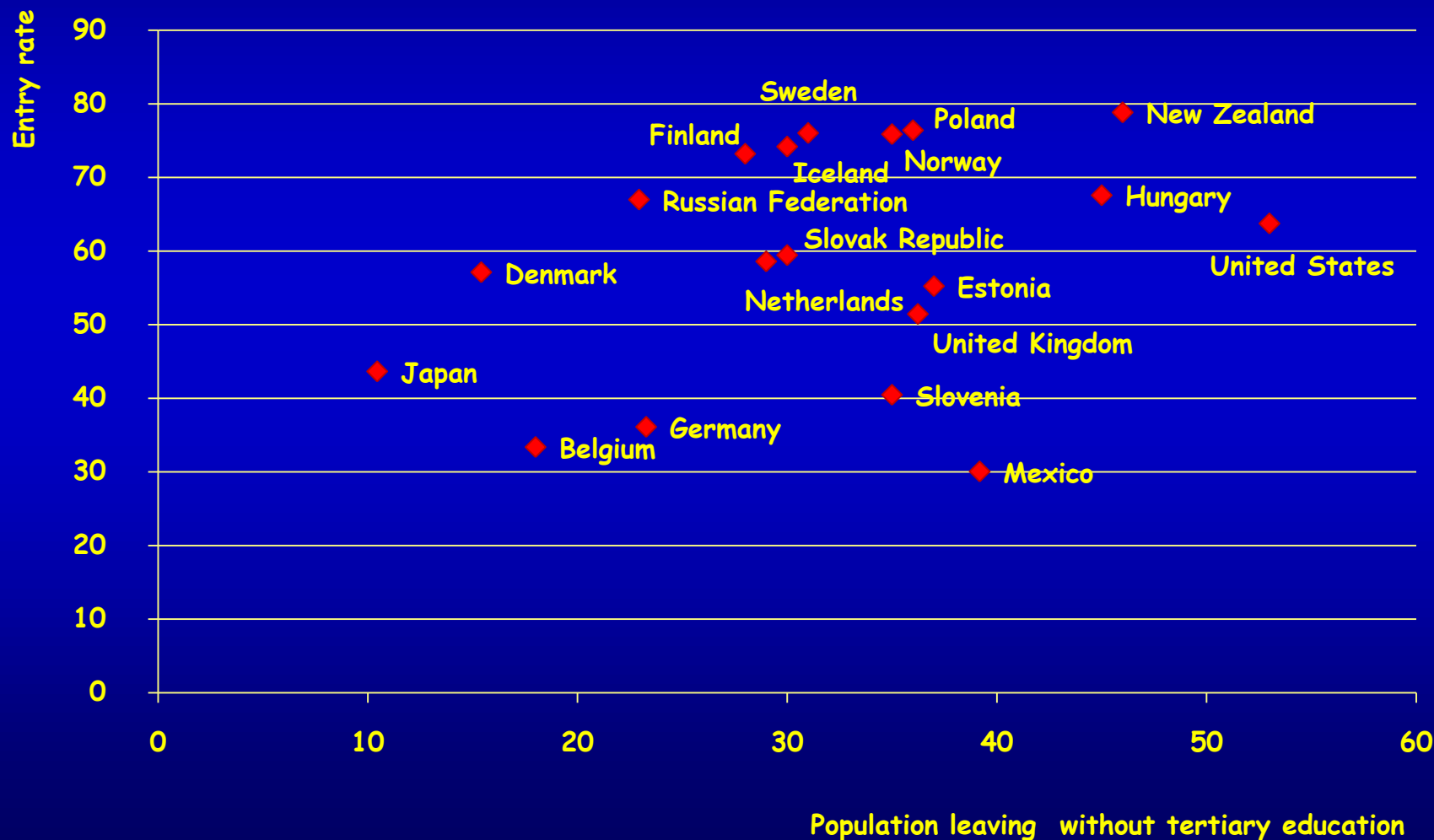
Proportion of students who enter a tertiary programme but leave without at least a first tertiary degree (2005)



A4.1

1. Response rate too low to ensure comparability.
2. Only full-time students.

Entry rates at tertiary education compared to population leaving without completing tertiary education (2005)



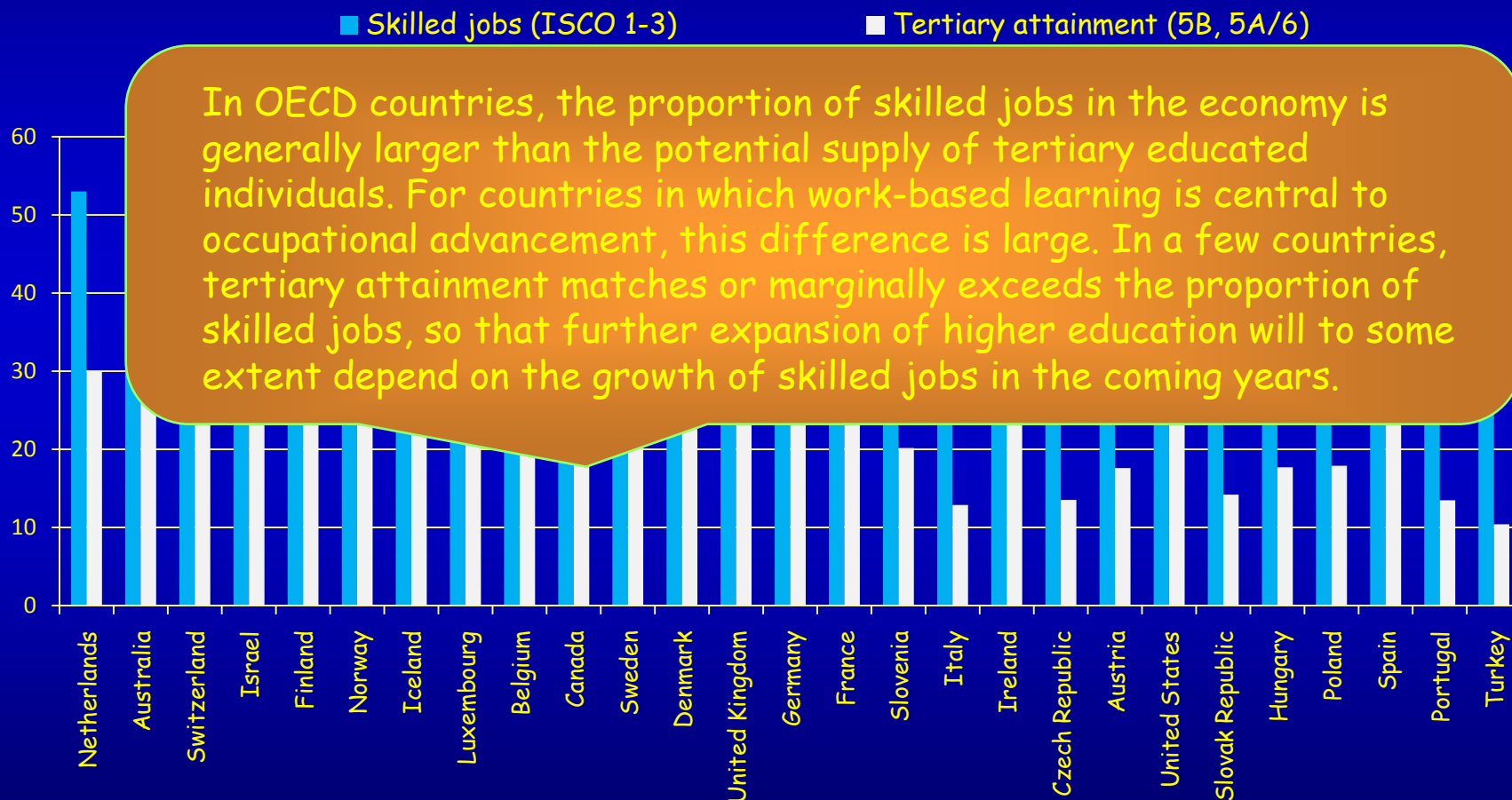


So what?

Has the increasing supply of well-educated labour been matched by the creation of high-paying jobs?

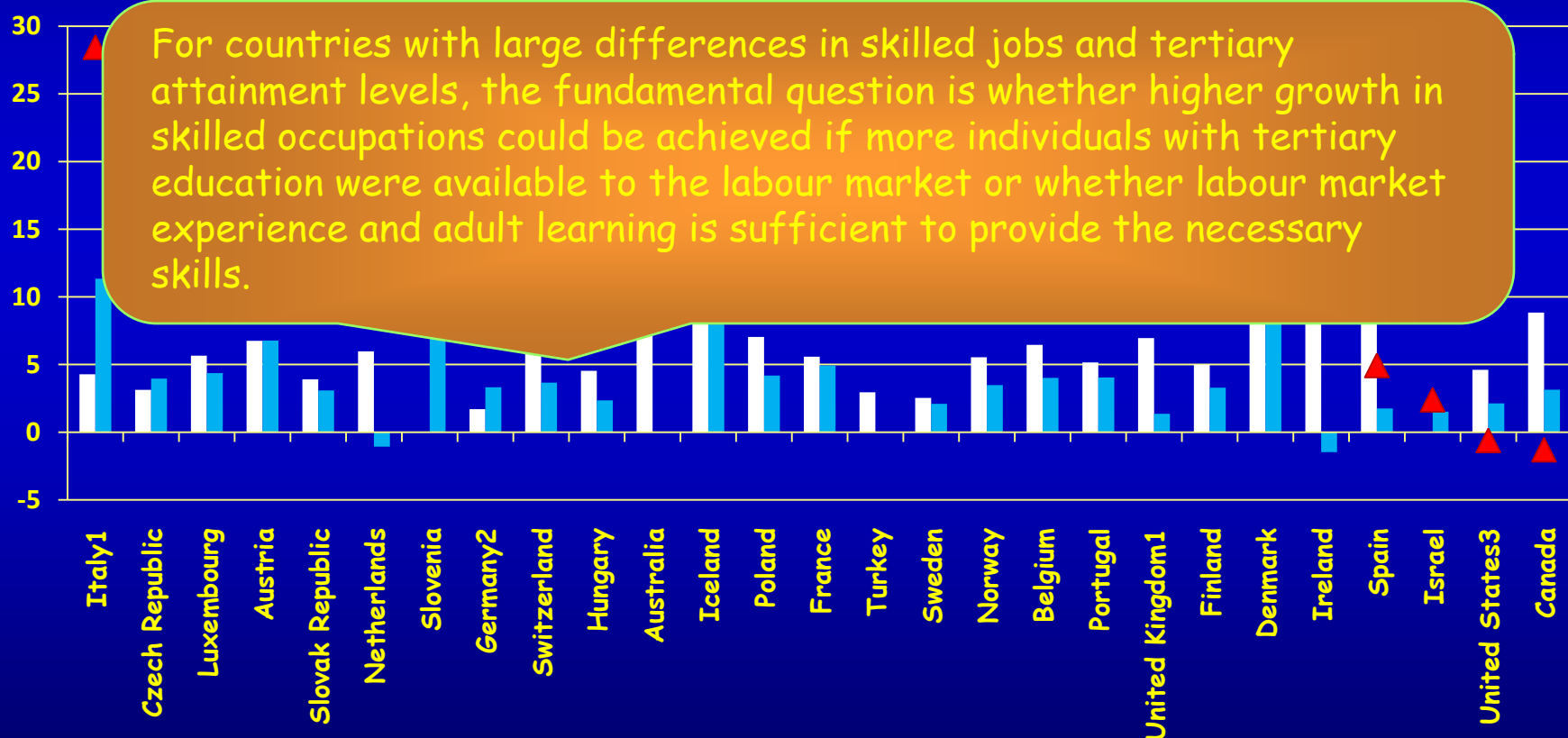
Will one day everyone have a university degree but work for the minimum wage?

Proportion of the population in skilled jobs and proportion with tertiary qualifications (2006)



Changes in skilled jobs and tertiary attainment between 1998-2006

- Change in tertiary attainment (ISCED 5/6) in the 25-to-64-year-old population between 1998 and 2006
- Change in skilled occupations (ISCO 1-3) in the 25-to-64-year-old population between 1998 and 2006
- ▲ Difference between skilled jobs and tertiary educated in the 25-to-64-year-old population (2006)



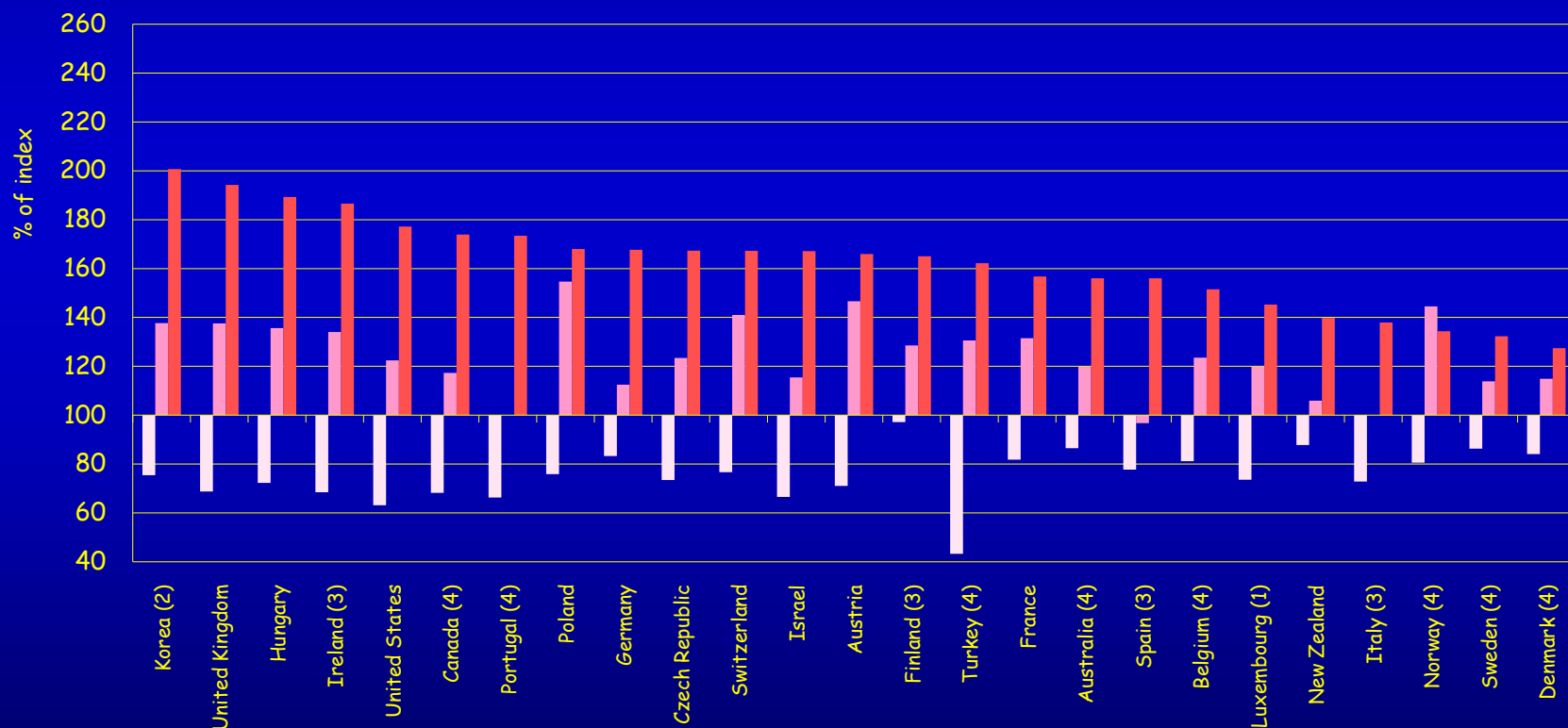
1. Change in survey methodology between 1998 and 2006 influences the comparability.
2. The year of reference is 1999, not 1998.
3. ISCO groupings 3 and 9 are not separated and thus distributed among remaining ISCO categories.

Relative earnings from employment for females

By level of educational attainment and gender for 25-to-64-year-olds (upper secondary and post-secondary non-tertiary education=100)
(latest available year)

Females

■ Below upper secondary education ■ Tertiary-type B education ■ Tertiary-type A and advanced research programmes



A9.2a

1. Year of reference 2002.
2. Year of reference 2003.

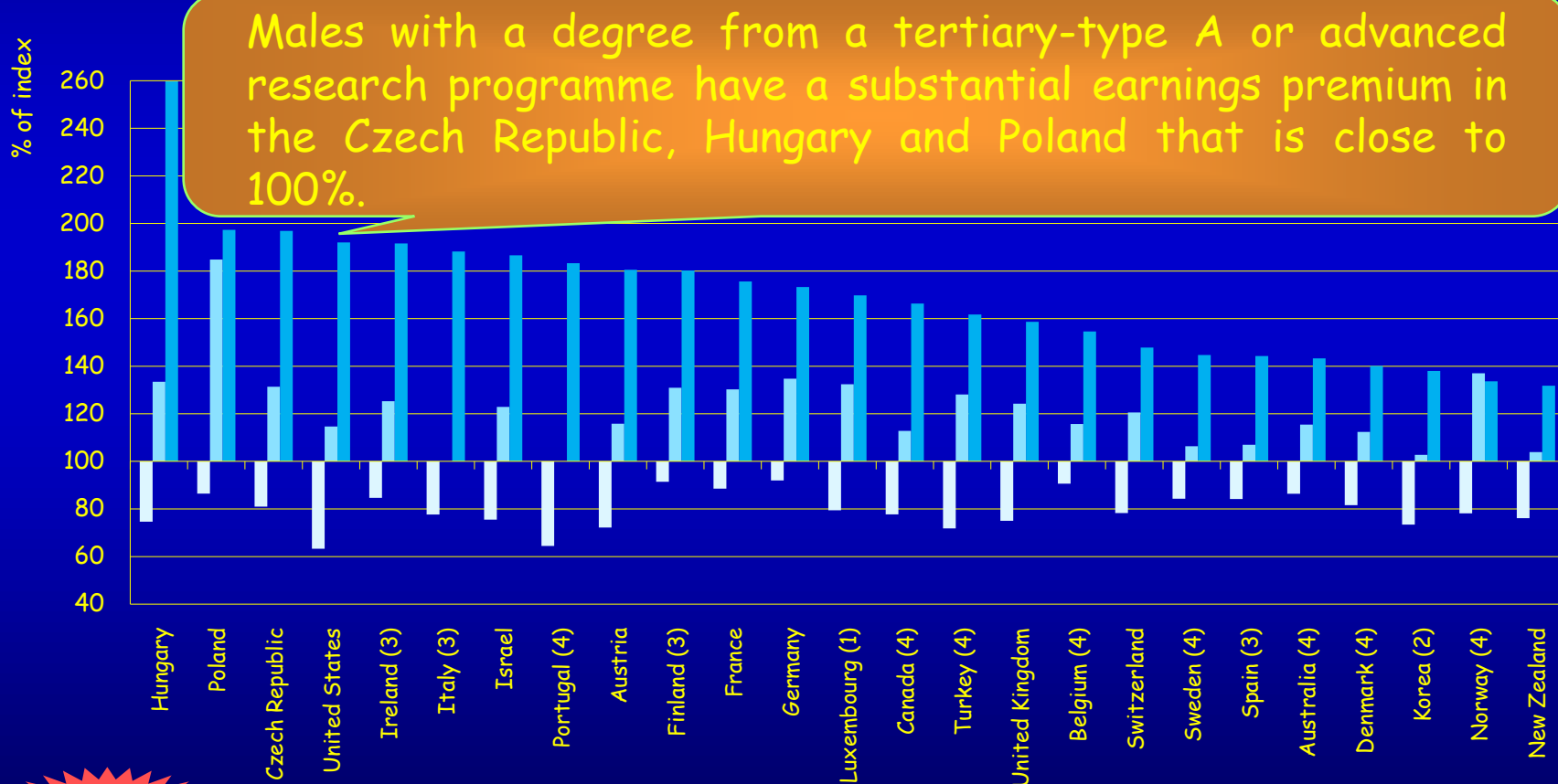
3. Year of reference 2004.
4. Year of reference 2005.

Relative earnings from employment for males

By level of educational attainment and gender for 25-to-64-year-olds (upper secondary and post-secondary non-tertiary education= 100) latest available year

Males

■ Below upper secondary education ■ Tertiary-type B education ■ Tertiary-type A and advanced research programmes

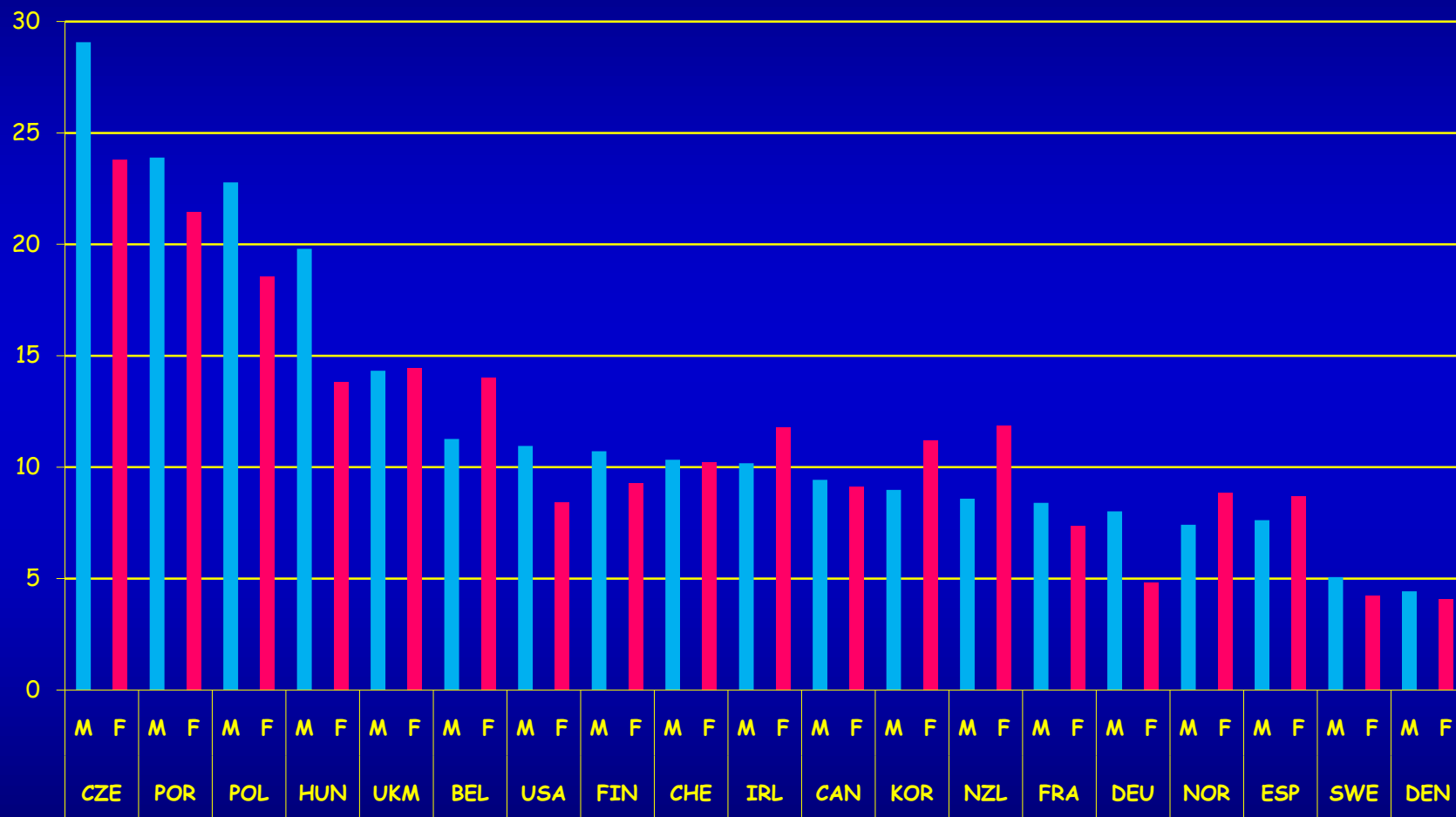


A9.2b

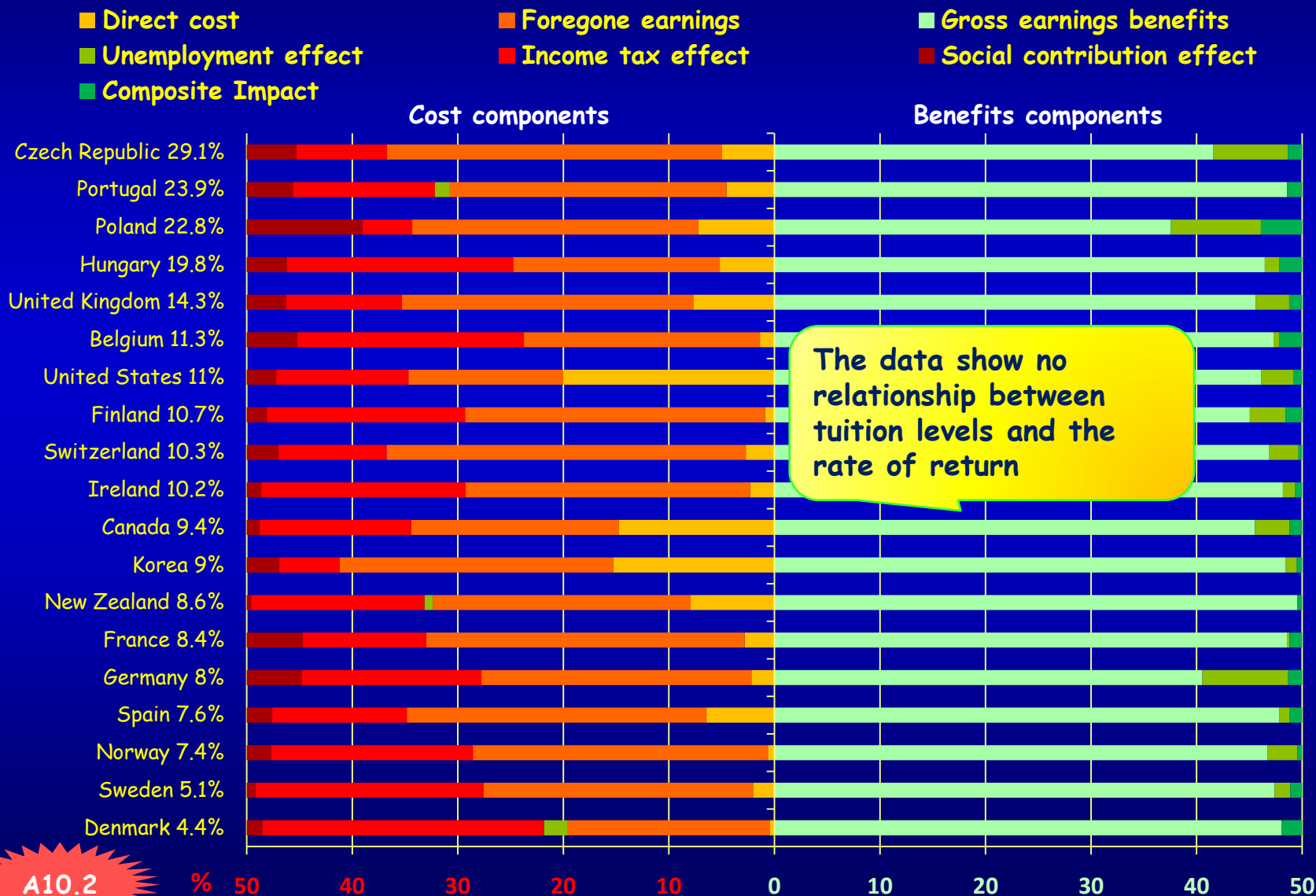
1. Year of reference 2002.
2. Year of reference 2003.

3. Year of reference 2004.
4. Year of reference 2005.

Private internal rates of return for an individual obtaining a university-level degree, ISCED 5/6 (2004)



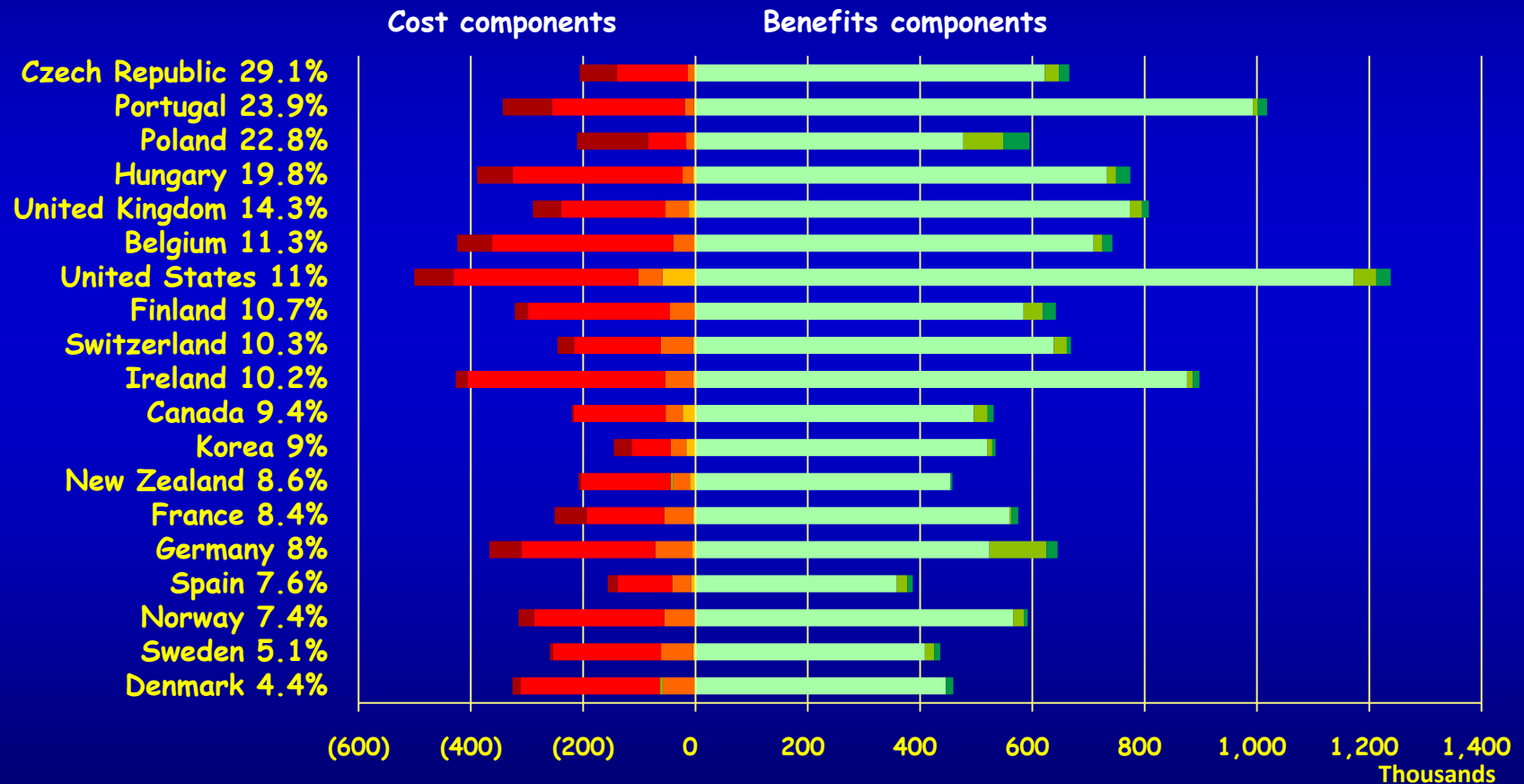
Components of the internal rate of return for a male obtaining tertiary education, ISCED 5/6 (2004)



Cumulated streams of assumed costs and benefits

The IRR is the discount rate at which the Net Present Value=0. Given a stream of assumed costs and benefits over 25-to-64-years-old, the IRR represents the rate of return on investment expressed as an interest rate.

■ Direct cost ■ Foregone earnings ■ Gross earnings benefits ■ Unemployment effect
■ Income tax effect ■ Social contribution effect ■ Composite Impact



Note: Those amounts (in USD equivalents) are not discounted by the IRR and then differ from the amounts upon which Chart A10.2 is based. Chart A10.2 gives a more accurate picture of the components weight.

The effects of tertiary expansion: A high calibre workforce or the overqualified crowding out the lesser qualified?

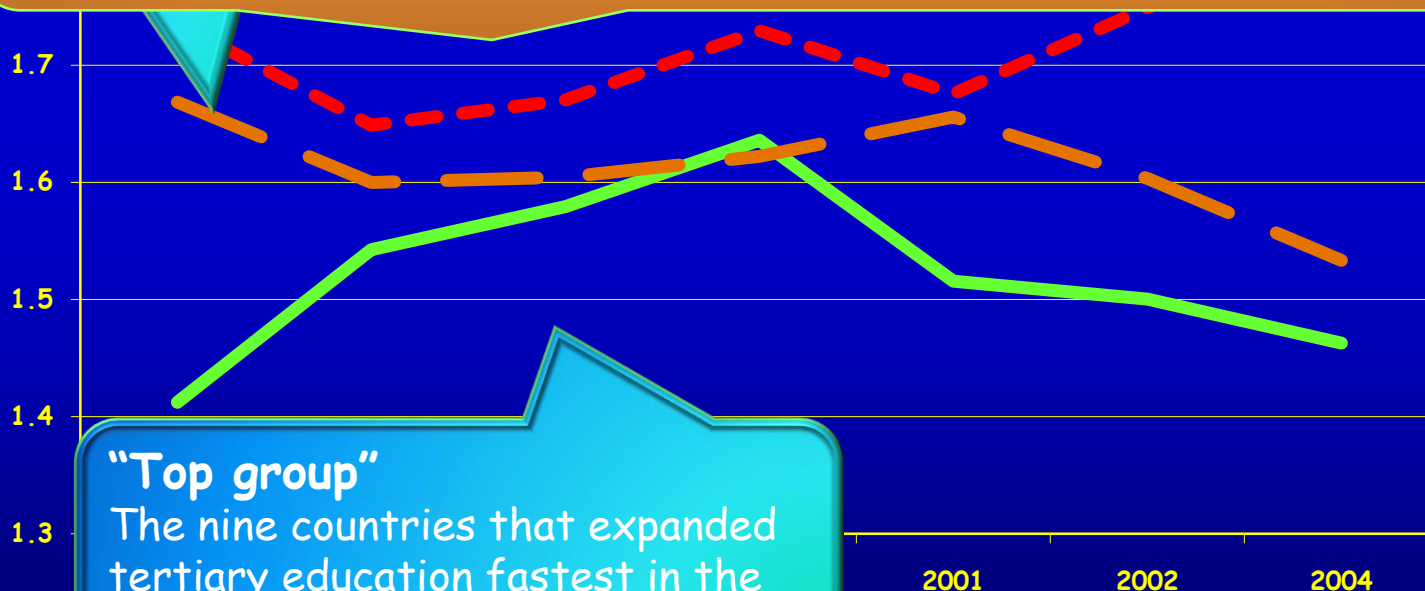
"Middle group"

The eight countries with the fastest increase in tertiary education (2.4% on average)

employment rate as a ratio of

"Bottom group"

In those countries that did not expand tertiary education (the bottom group), failure to complete upper secondary education is now associated with an 80% greater probability of being unemployed, compared to less than 50% in the top group.



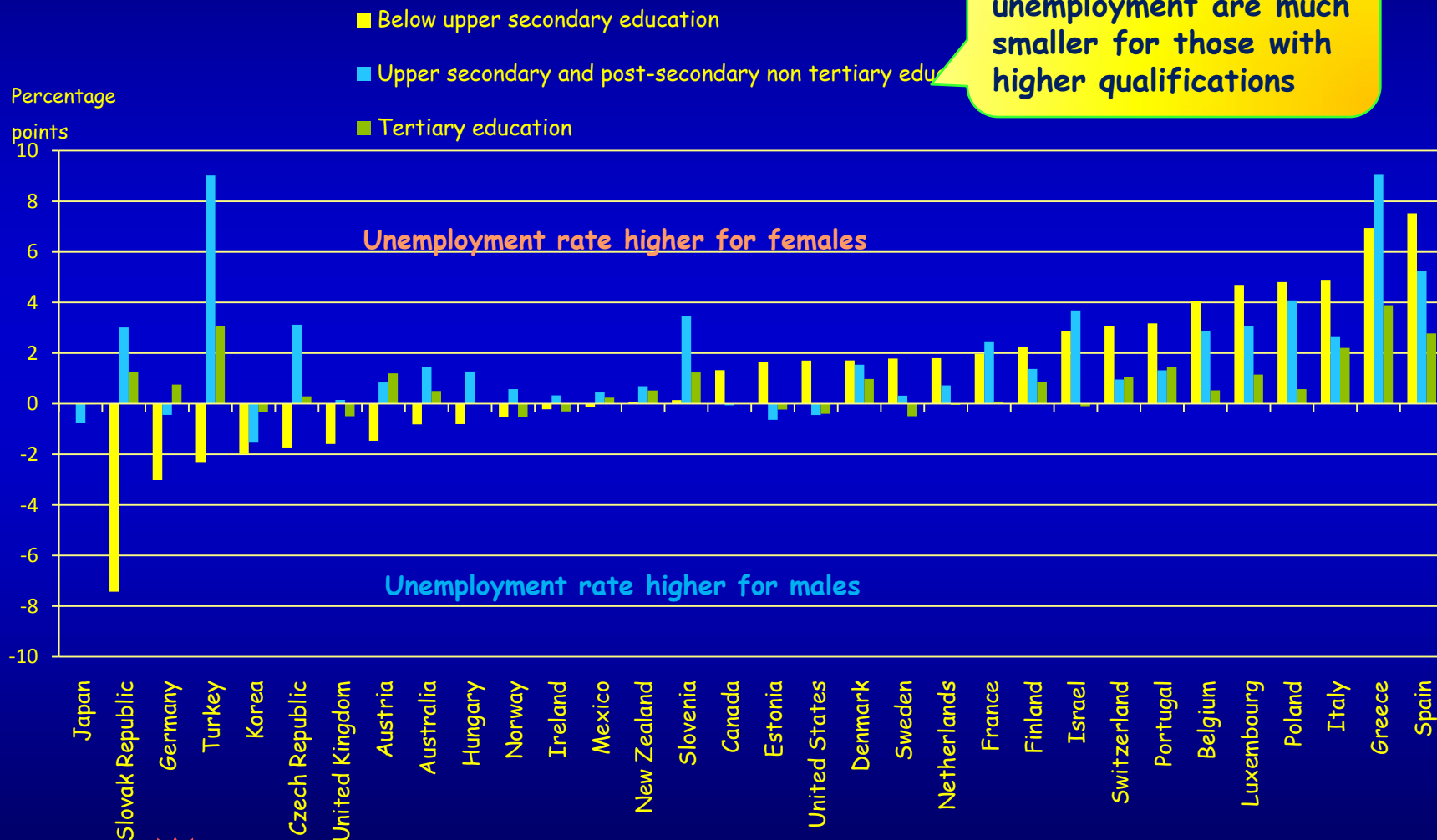
"Top group"

The nine countries that expanded tertiary education fastest in the 1990s (5.9% on average)

A1.4 2007

Difference between unemployment rates of females and males, by level of education attainment (2006)

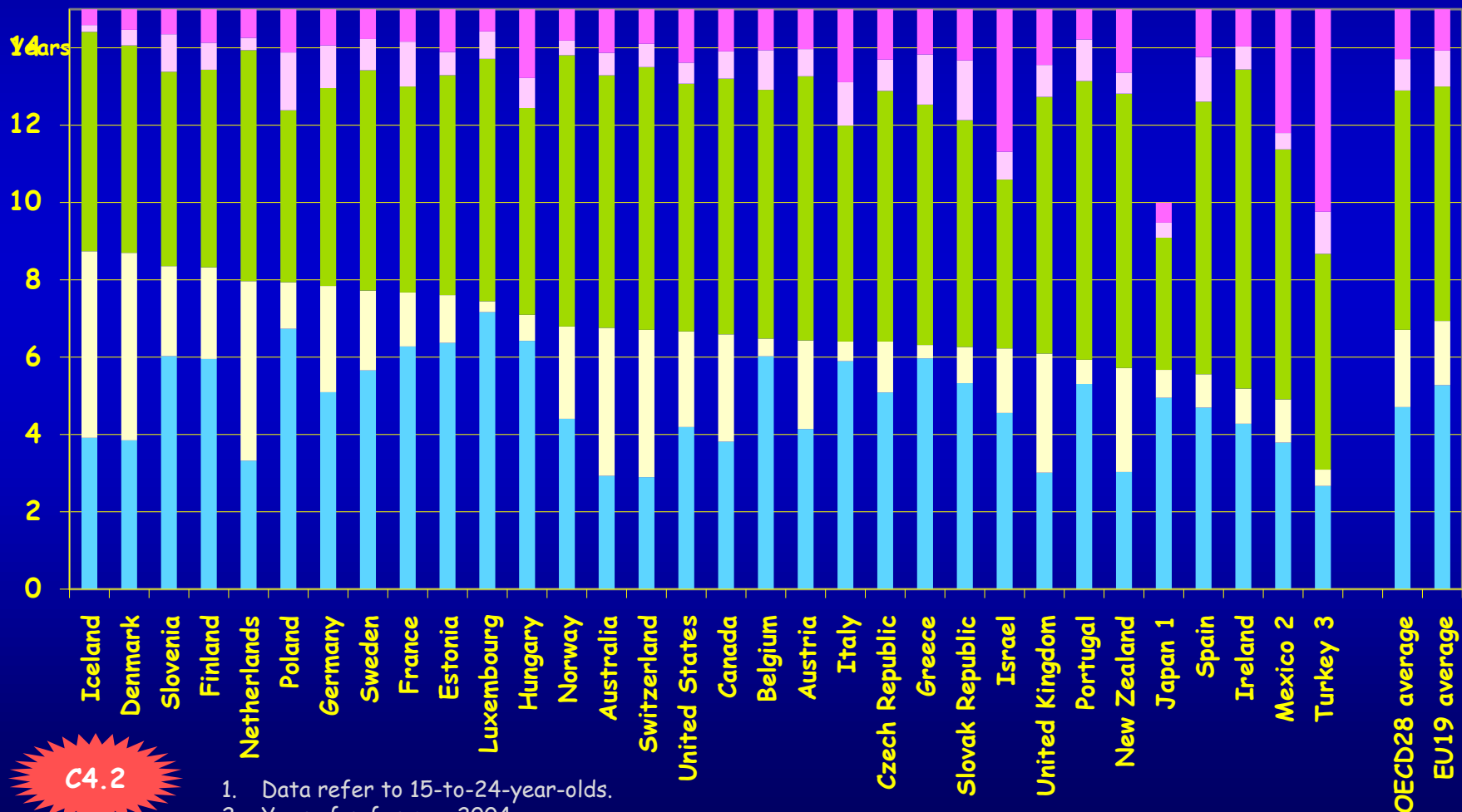
Gender differences in unemployment are much smaller for those with higher qualifications



Expected years in education and not in education for 15-to-29-year-olds (2006)

■ Not in education, not in the labour force
 ■ Not in education, employed
 ■ In education, not employed

■ Not in education, unemployed
 ■ In education, employed (including work/study)



C4.2

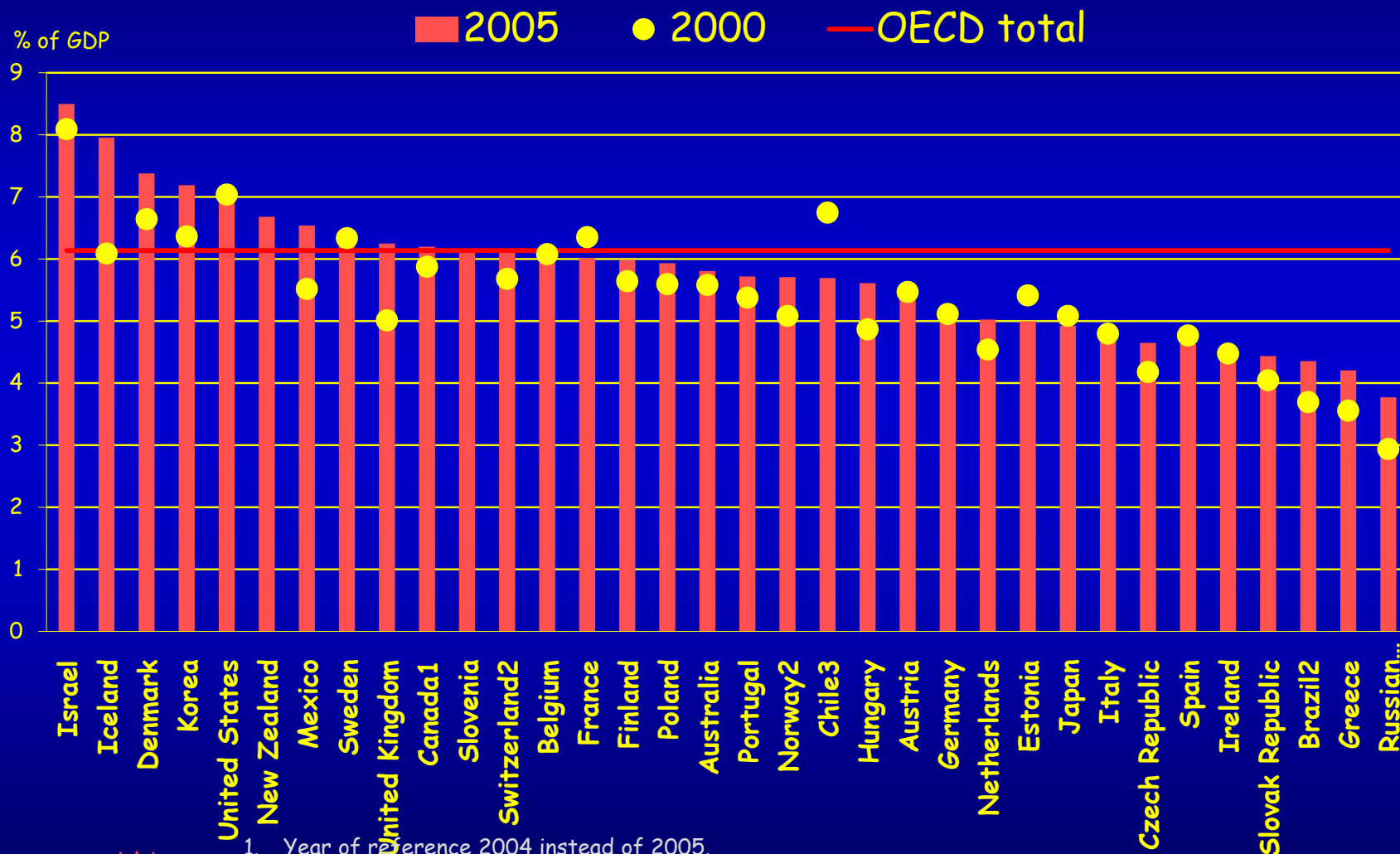
1. Data refer to 15-to-24-year-olds.
2. Year of reference 2004.
3. Year of reference 2005.



Current approaches to the financing of higher education under pressure

*

Expenditure on educational institutions as a percentage of GDP for all levels of education



1. Year of reference 2004 instead of 2005.
2. Expenditure from public sources only (for Switzerland, in tertiary education only).
3. Year of reference 2006 instead of 2005.

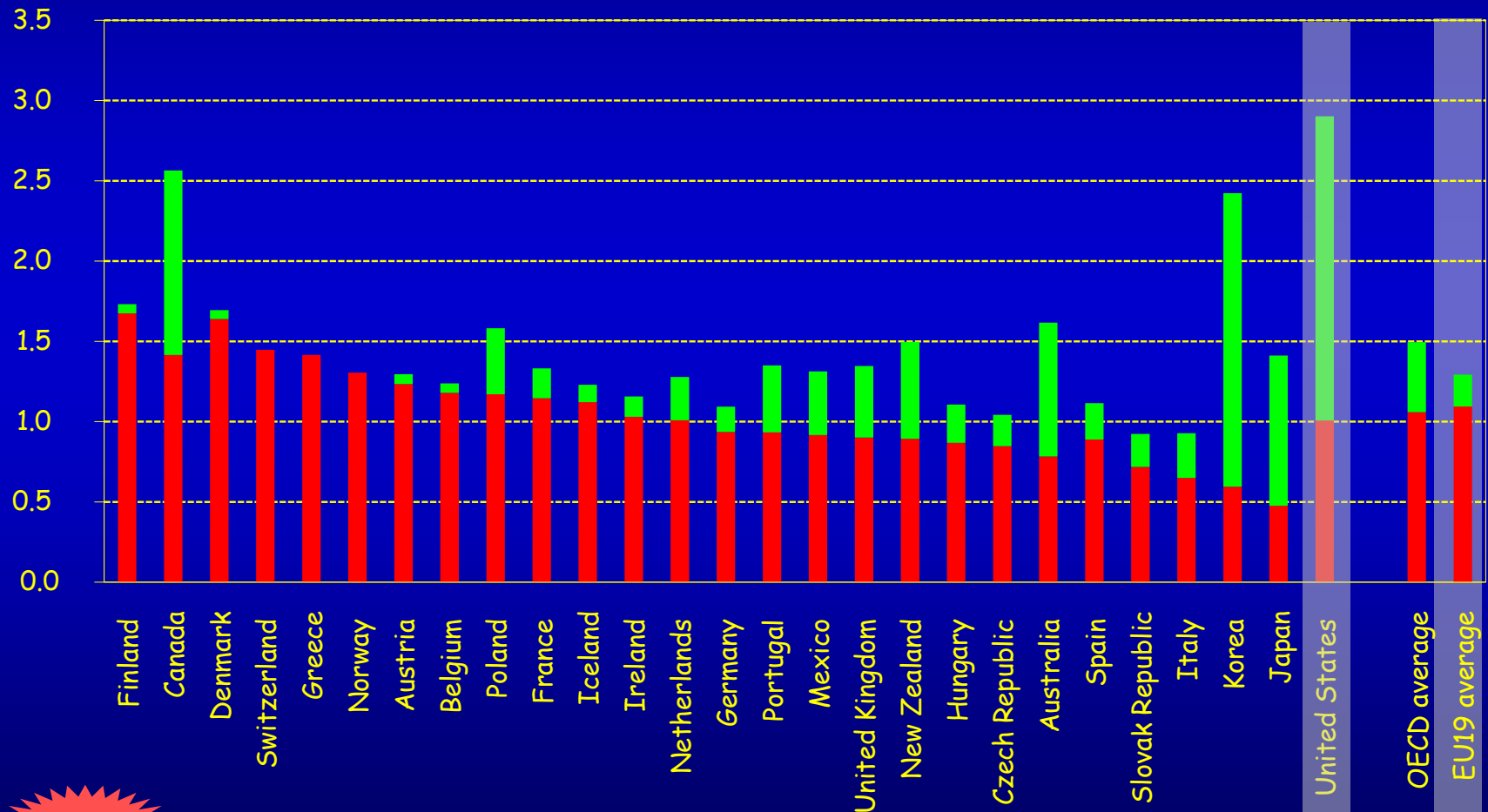
Who pays for high-level qualifications

Expenditure on tertiary educational institutions
as a percentage of GDP (2005)

% of GDP

■ Private

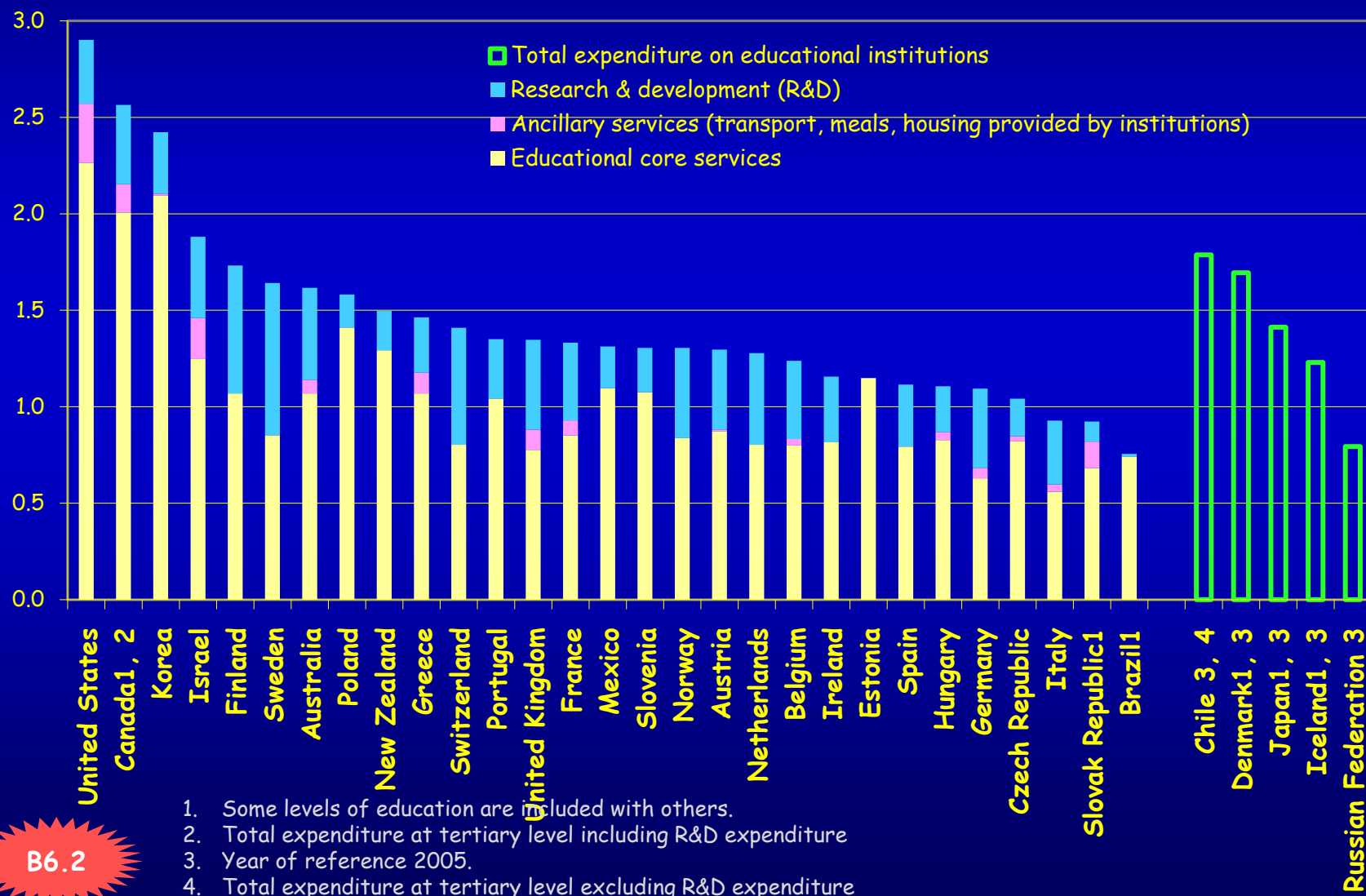
■ Public



B2.4

Expenditure on educational core services, R&D and ancillary services in tertiary educational institutions as a percentage of GDP (2005)

% of GDP

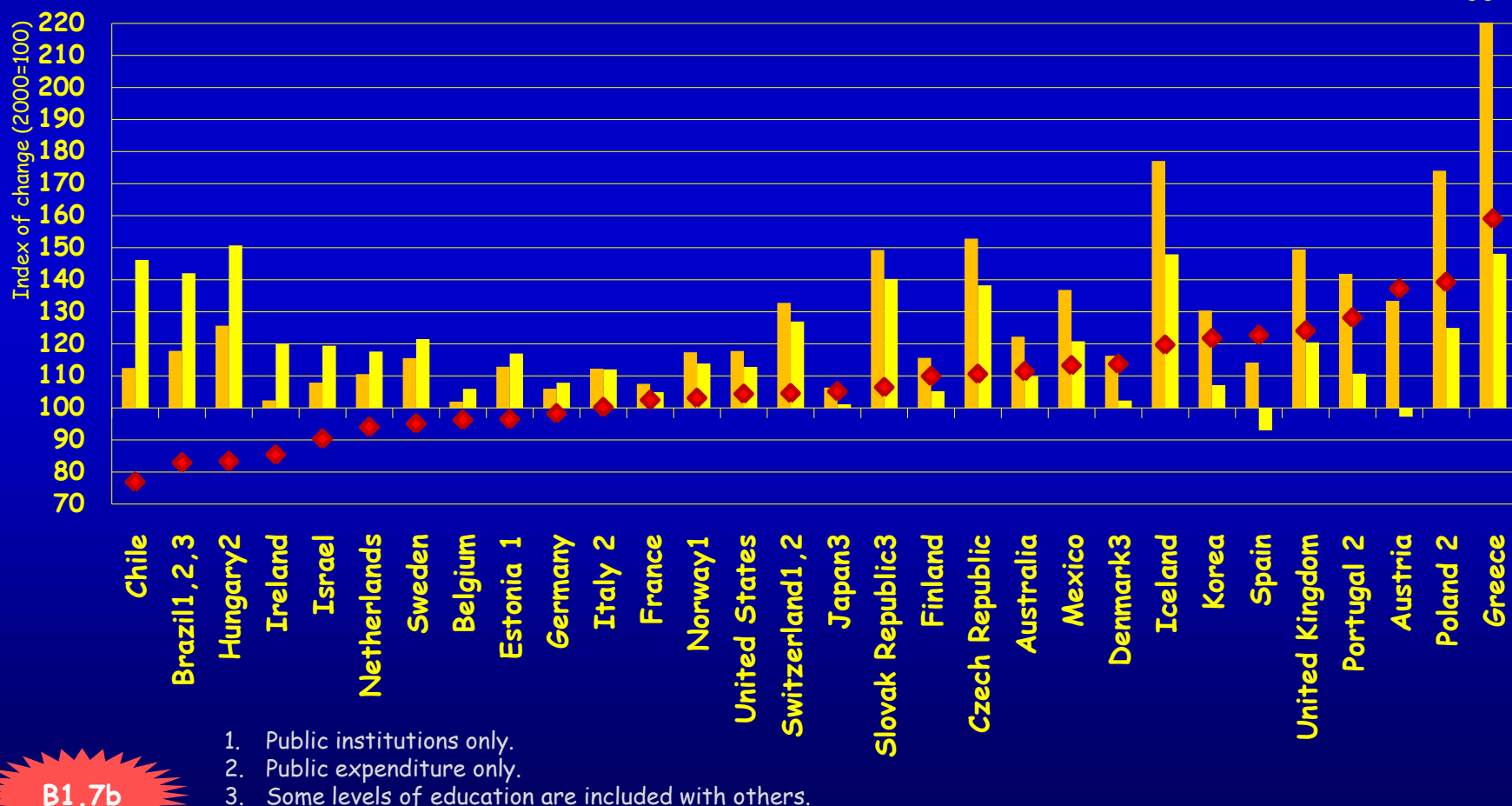


1. Some levels of education are included with others.
2. Total expenditure at tertiary level including R&D expenditure
3. Year of reference 2005.
4. Total expenditure at tertiary level excluding R&D expenditure

Changes in student numbers and expenditure for tertiary education

Index of change between 2000 and 2005 (2000=100, 2005 constant prices)

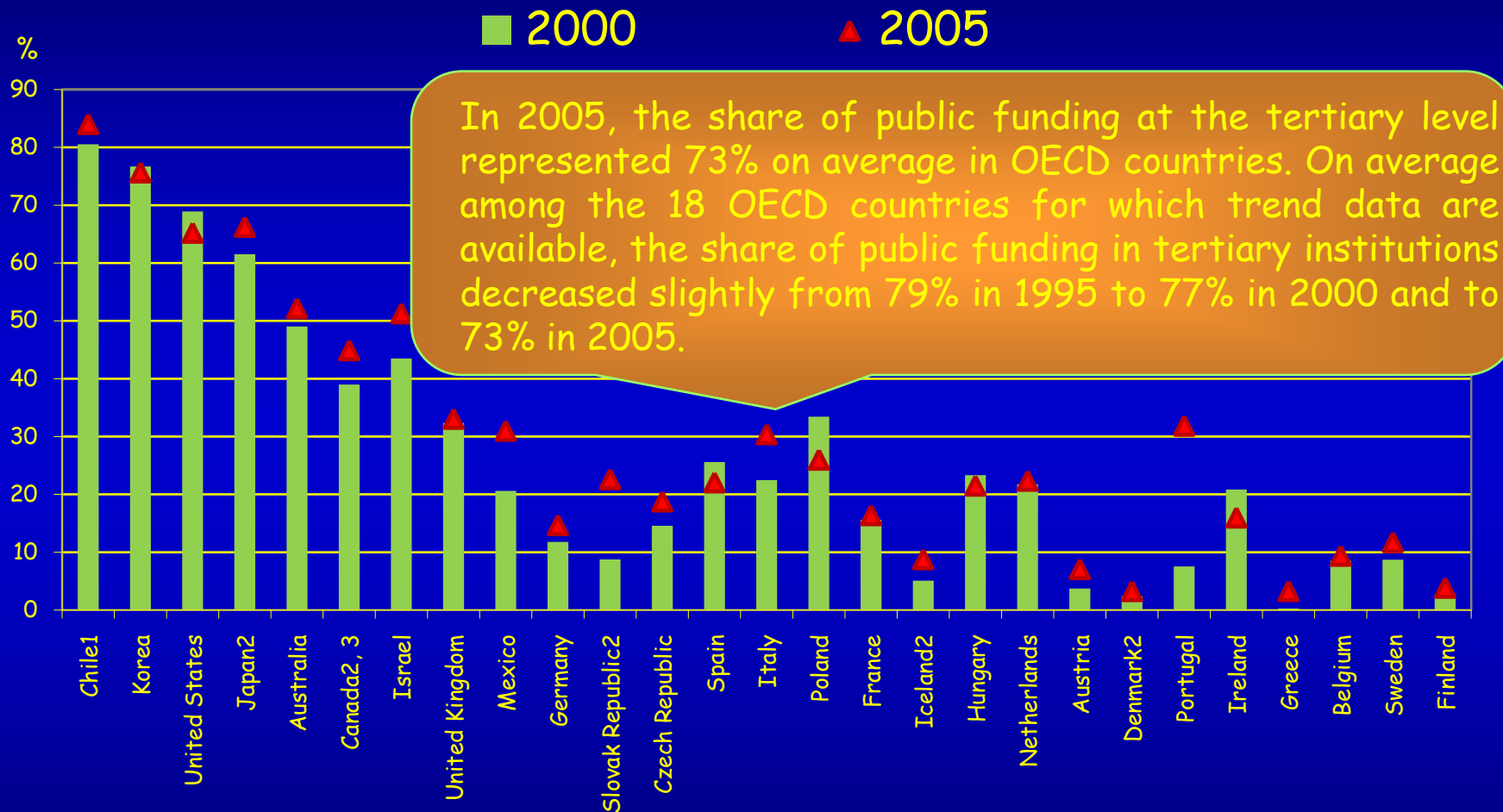
- Change in expenditure
- Change in the number of students (in full-time equivalents)
- ◆ Change in expenditure per student



B1.7b

1. Public institutions only.
2. Public expenditure only.
3. Some levels of education are included with others.

Share of private expenditure on tertiary institutions



1. Year of reference 2006 instead of 2005.
2. Some levels of education are included with others.
3. Year of reference 2004 instead of 2005.

Average annual tuition fees

charged by tertiary
students, in US

In eight OECD countries, public institutions charge no fees, but in one-third of countries public institutions charge annual tuition fees for national students in excess of USD 1 500. Among the EU19 countries, only the Netherlands and the United Kingdom have annual tuition fees that represent more than USED 1000 per full-time student; these relate to government-dependent institutions.

USD

5000

4000

3000

2000

1000

500

0

Australia (82%), **Japan** (44%), **Korea** (51%)

Canada (m)

Israel¹ (55%)

New Zealand (79%)

United Kingdom¹ (51%)

Netherlands¹ (59%)

Italy (56%)

Austria (37%), Spain (43%),

Belgium (Fr. and Fl.) (33%)

Turkey (27%), France (m)

Czech Republic (41%), Denmark (57%), Finland (73%),

Ireland (45%), Iceland (74%), Norway (76%),

Poland (76%), Sweden (76%)

This chart does not take into account grants, subsidies or loans that partially or fully offset the students' tuition fees

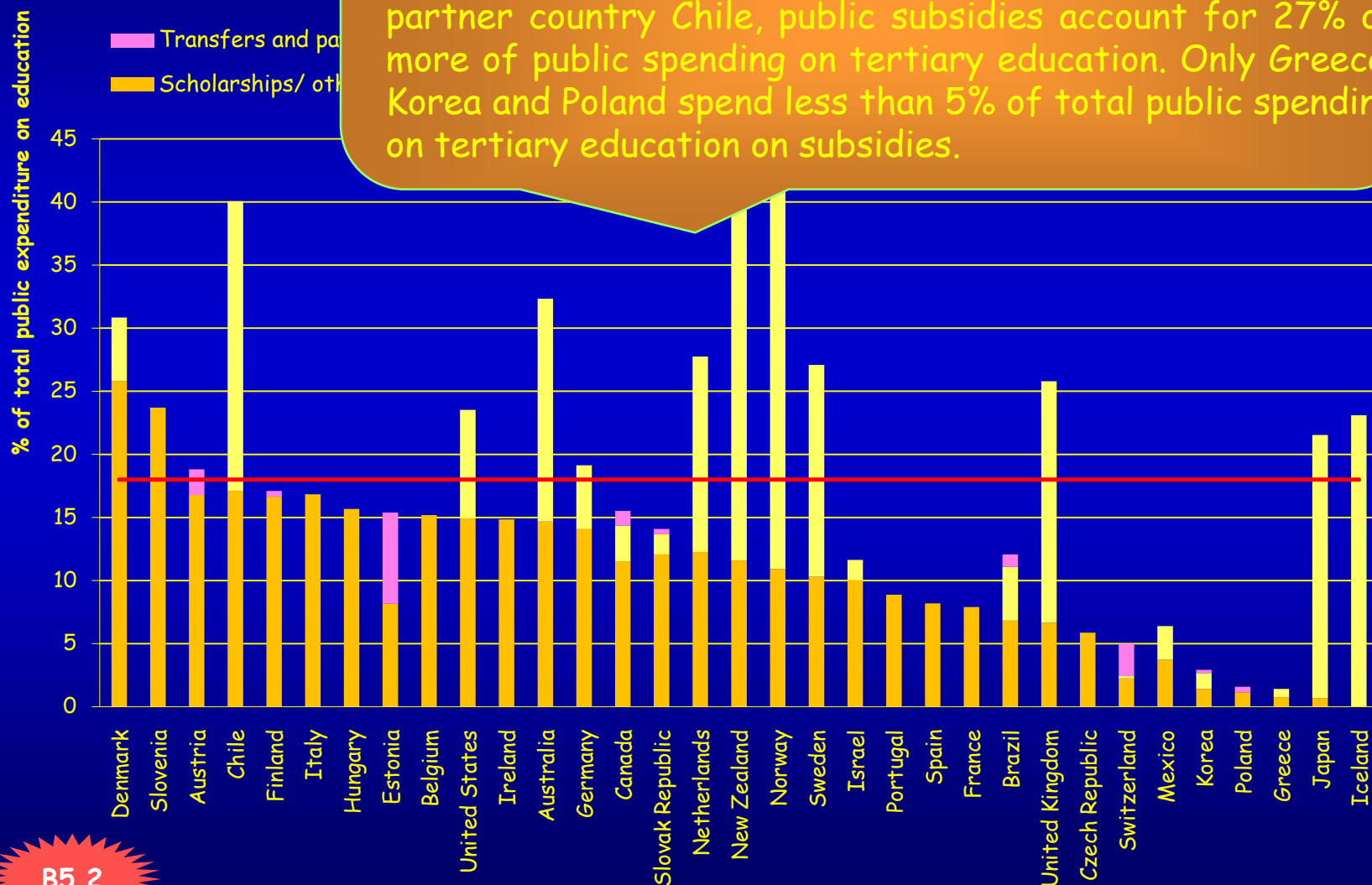
B5.1

1. Public institutions do not exist at this level of education and most of the students are enrolled in government dependent institutions.

Public subsidies for education in tertiary

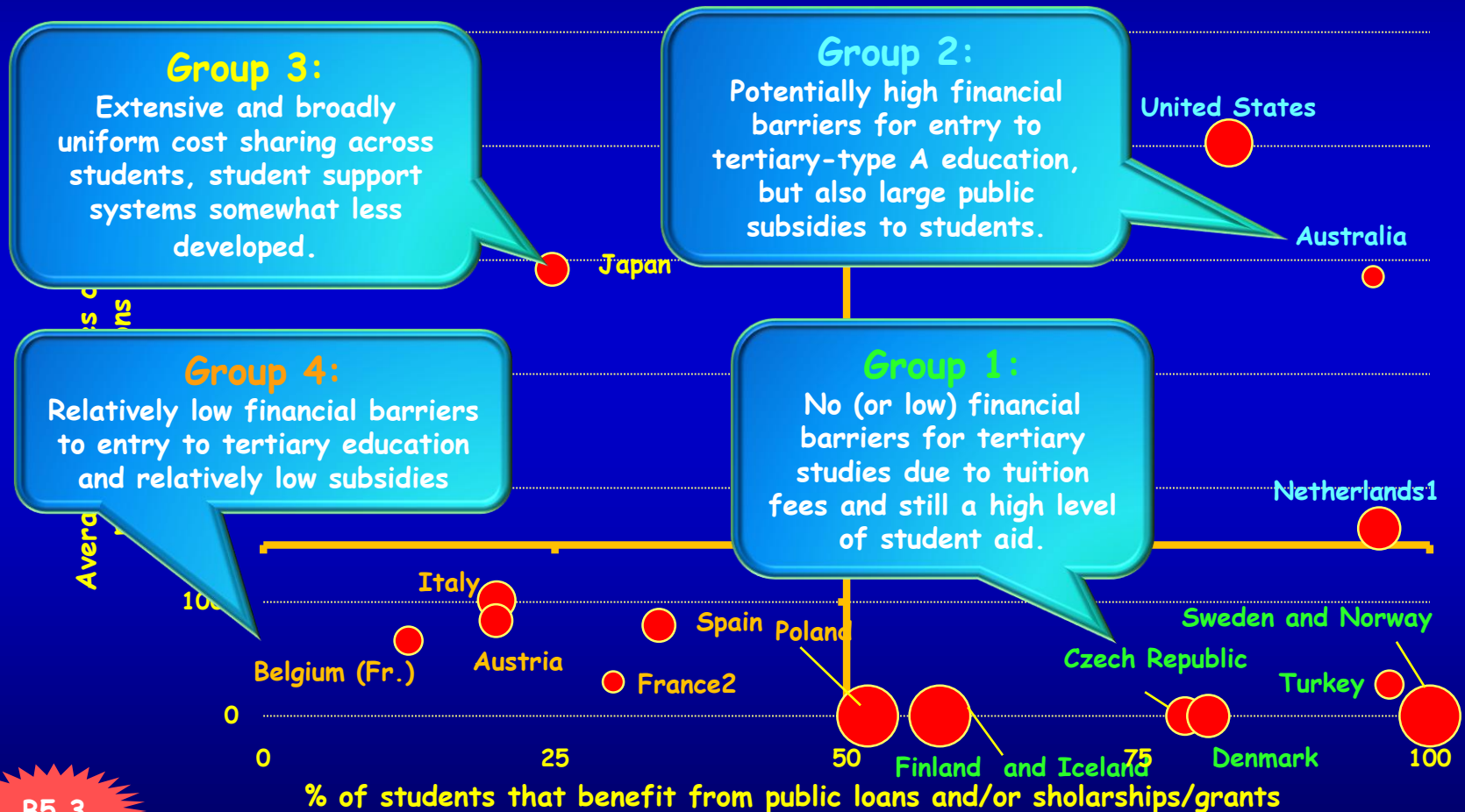
Public subsidies for tertiary education as a percentage of total public expenditure on education

OECD countries spend, on average, 18% of their public budgets for tertiary education on subsidies to households and other private entities. In Australia, Denmark, the Netherlands, New Zealand, Norway and Sweden and the partner country Chile, public subsidies account for 27% or more of public spending on tertiary education. Only Greece, Korea and Poland spend less than 5% of total public spending on tertiary education on subsidies.



Relationships between average tuition fees and proportion of students who benefit from public loans and/or scholarships/grants

Tertiary-type A, public institutions, academic year 2004/05, national full-time students



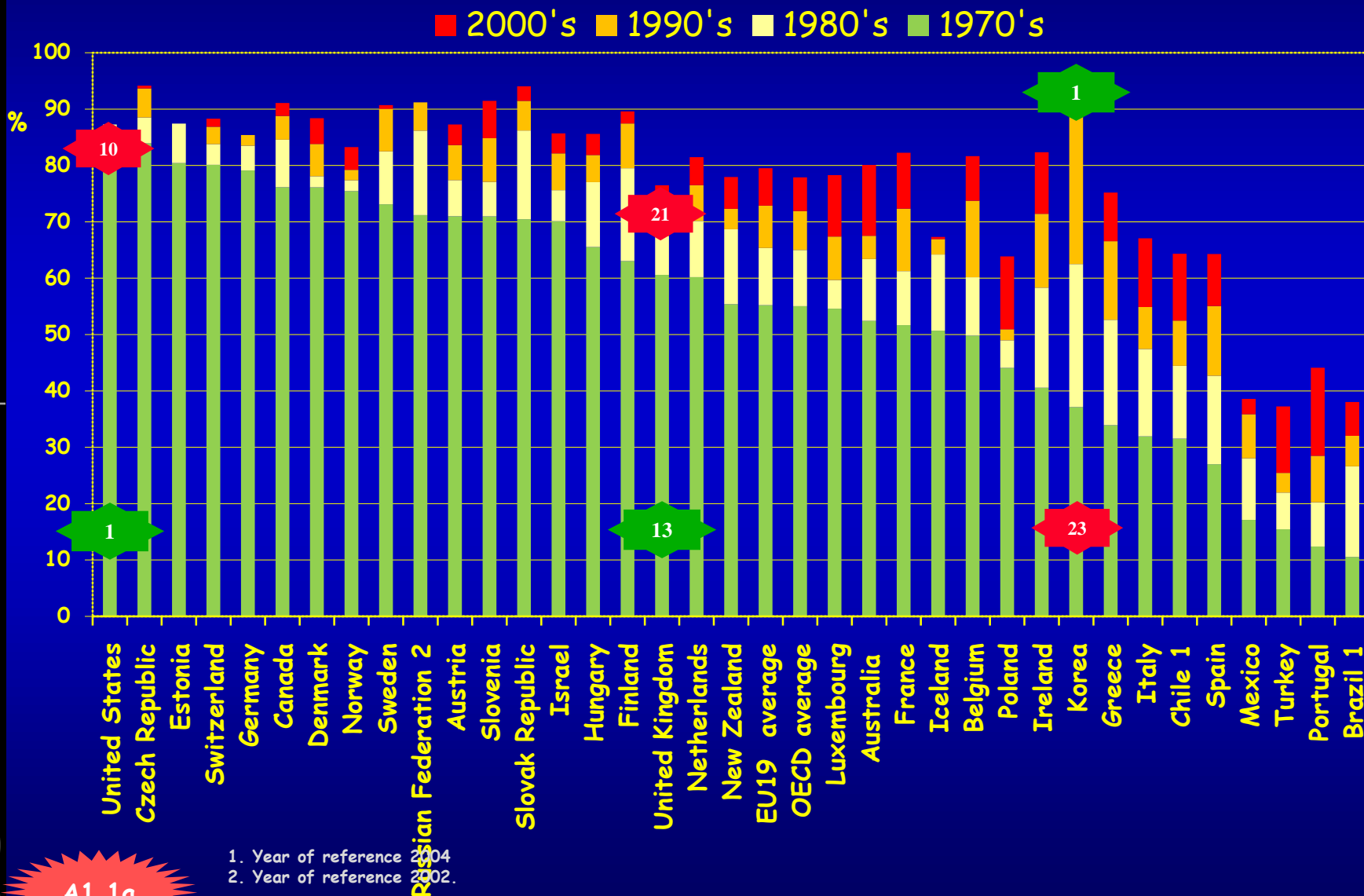
B5.3



School education

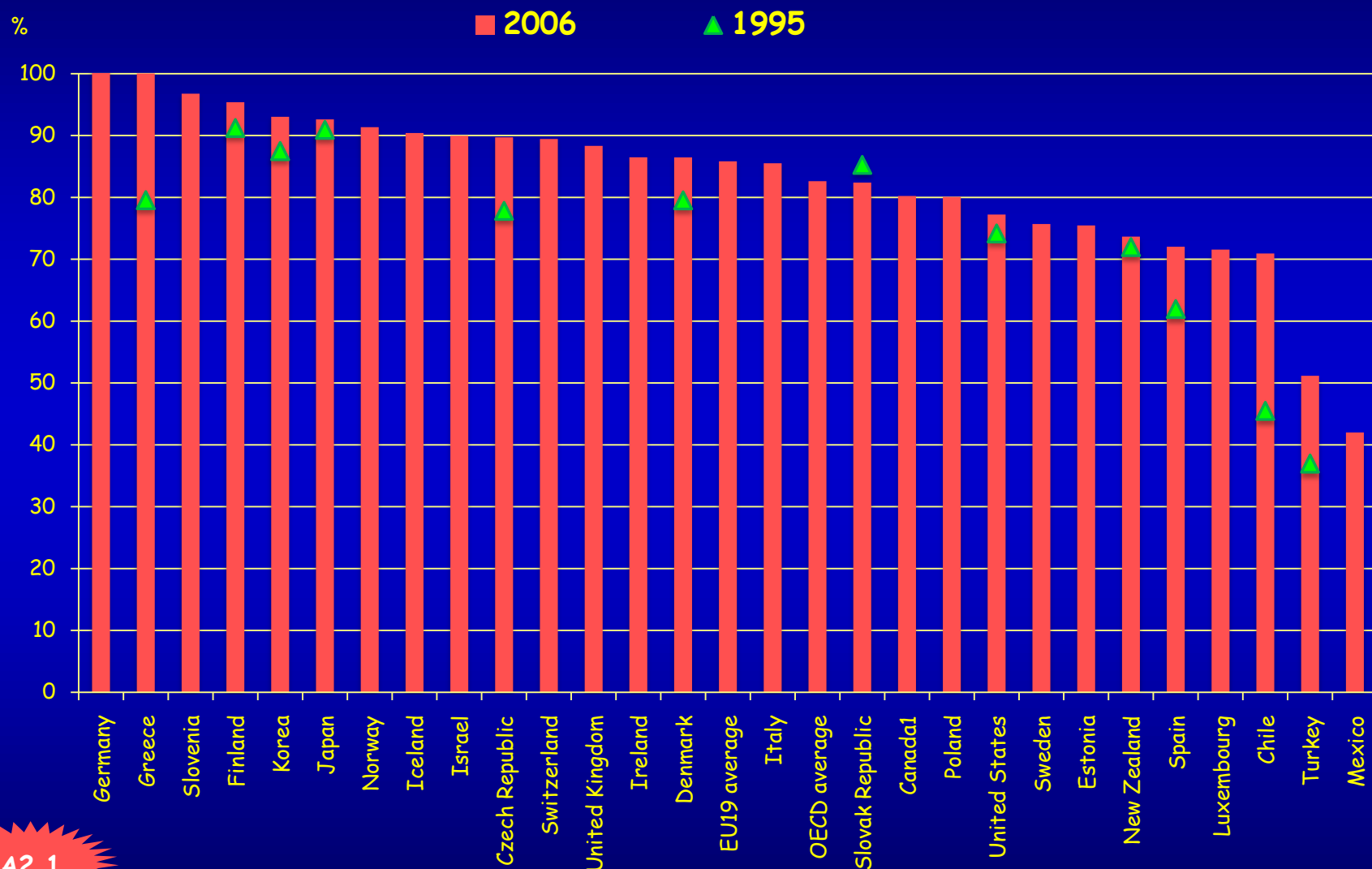
Growth in baseline qualifications

Approximated by percentage of persons with upper secondary or equivalent qualifications in the age groups 55-64, 45-55, 45-44 und 25-34 years



Upper secondary graduation rates

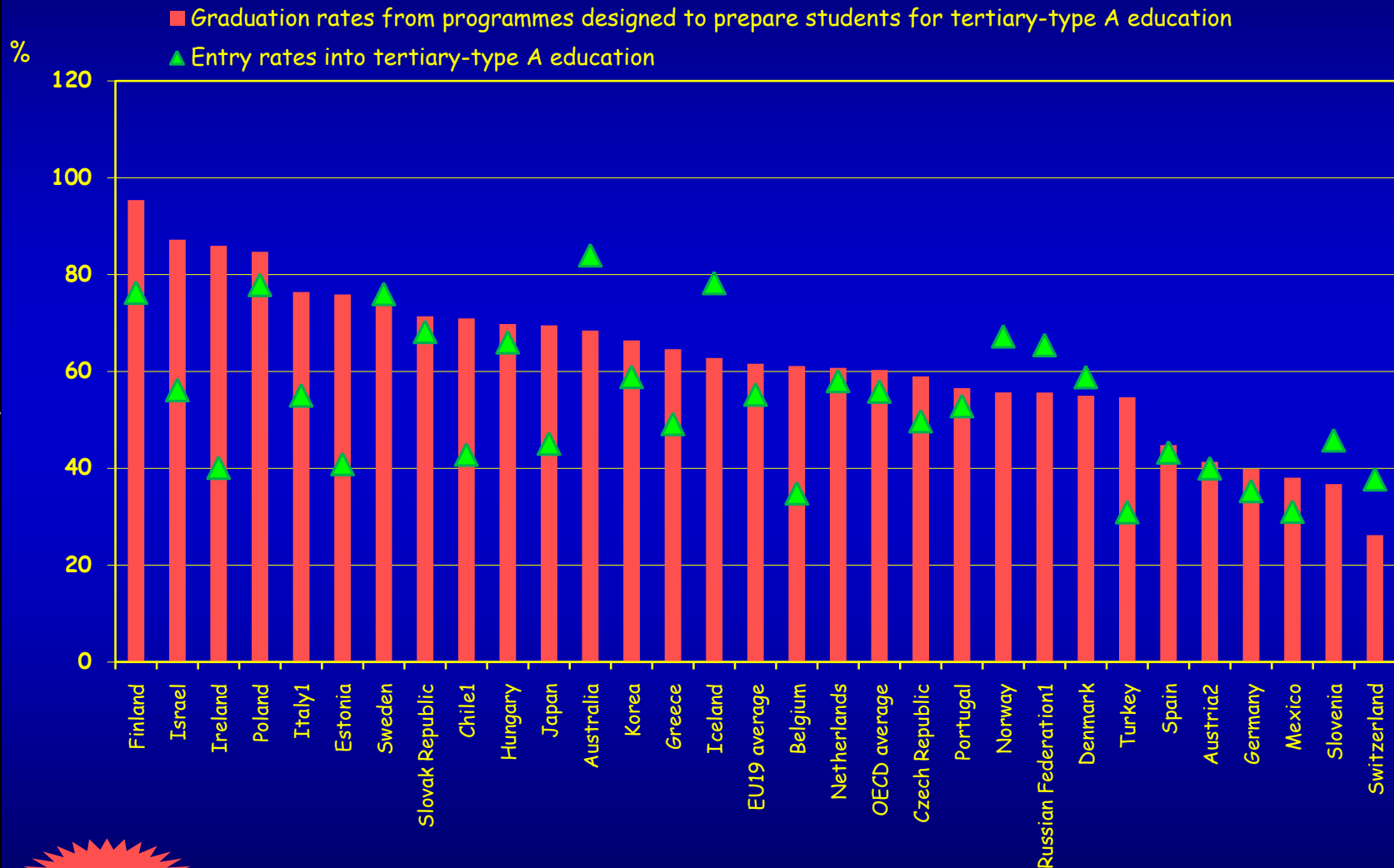
Percentage of graduates to the population at the typical age of graduation (unduplicated count)



A2.1

1. Year of reference 2005.

Access to tertiary-type A education for upper secondary graduates (2006)



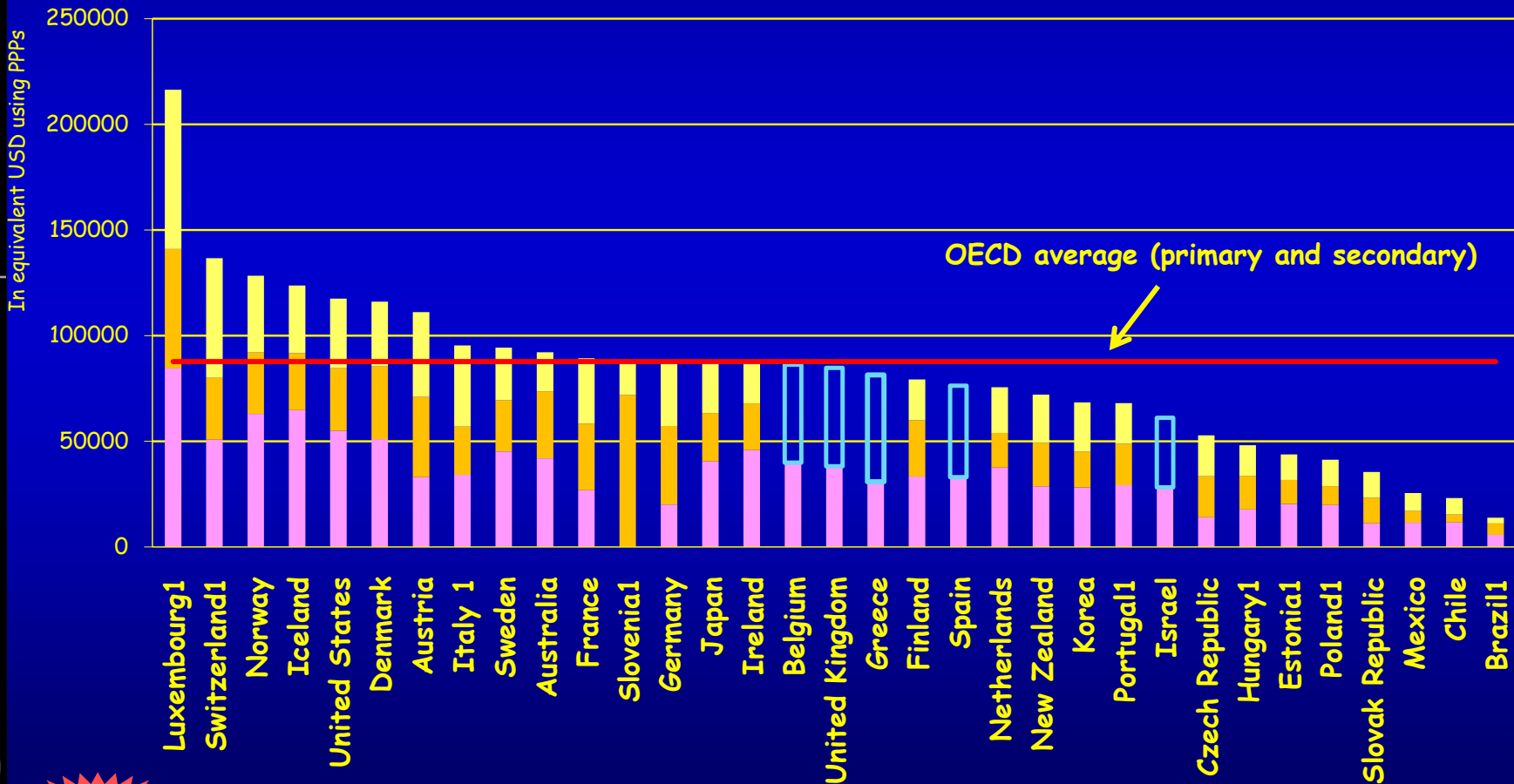
A2.2

1. Entry-rate for tertiary-type A programmes is calculated as gross entry rate.
2. Includes ISCED 4A programmes (Berufsbildende Höhere Schulen).

Cumulative expenditure on educational institutions per student over primary and secondary studies (2005)

Annual expenditure on educational institutions per student multiplied by the theoretical duration of studies, in equivalent USD converted using PPPs

- Primary education
- Lower secondary
- Upper secondary education
- All secondary education

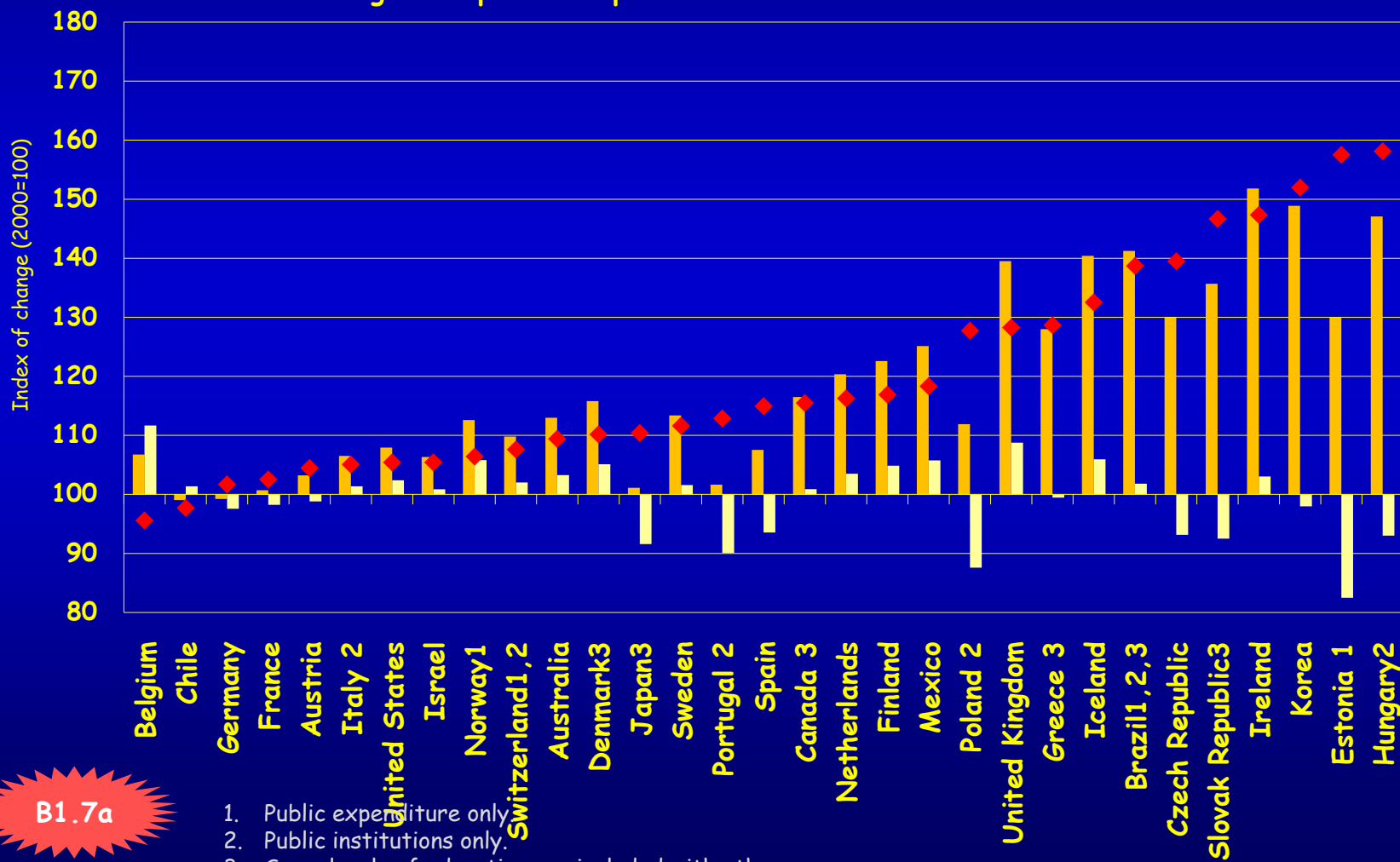


Changes in student numbers and expenditure

Primary, secondary and post-secondary non-tertiary education

Index of change between 2000 and 2005 (2000=100, 2005 constant prices)

- Change in expenditure
- Change in the number of students (in full-time equivalents)
- ◆ Change in expenditure per student

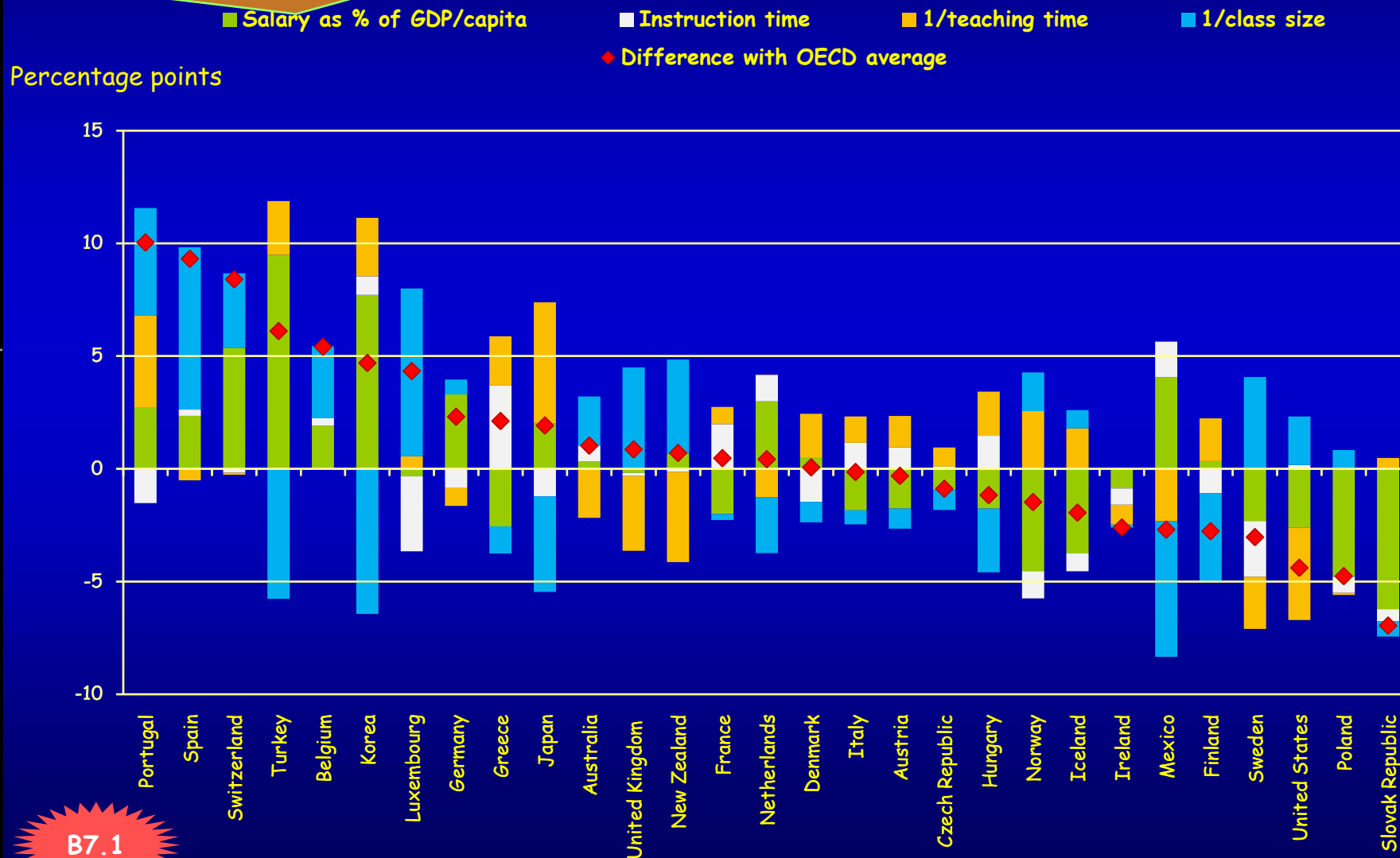


B1.7a

1. Public expenditure only.
2. Public institutions only.
3. Some levels of education are included with others.

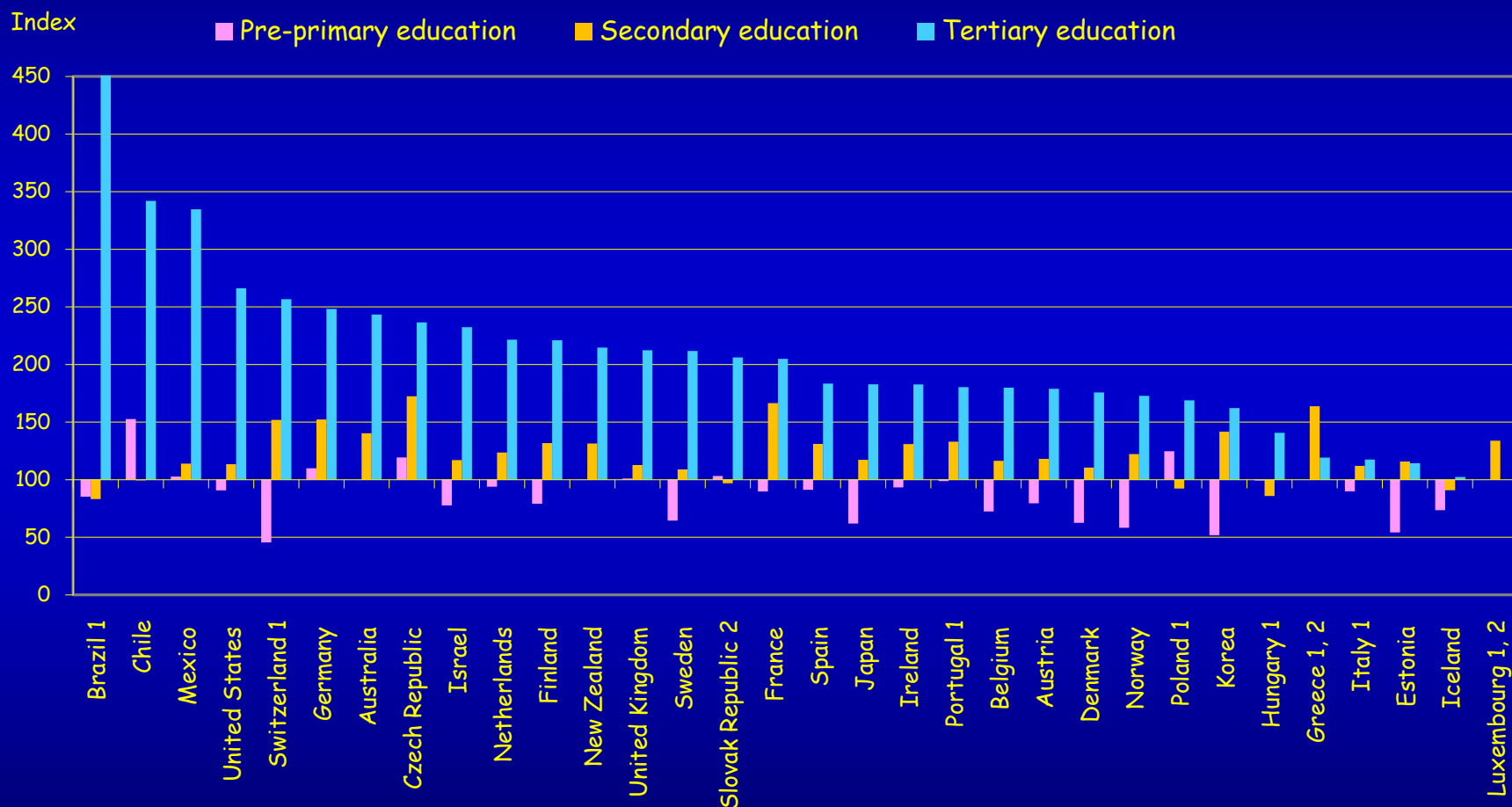
Teacher compensation cost per student varies from 3.9% of GDP per capita in the Slovak Republic (less than half the OECD average rate of 10.9%) to over five times that rate in Portugal (20.9%, nearly twice the OECD average). Four factors influence these trends - salary level, instruction time for students, teaching time of teachers and average class size - so that a given level of compensation cost per student can result from quite different combinations of the four factors.

to
on costs
(2004)



Expenditure on educational institutions per student at various levels of education for all services relative to primary education (2005)

Primary education = 100

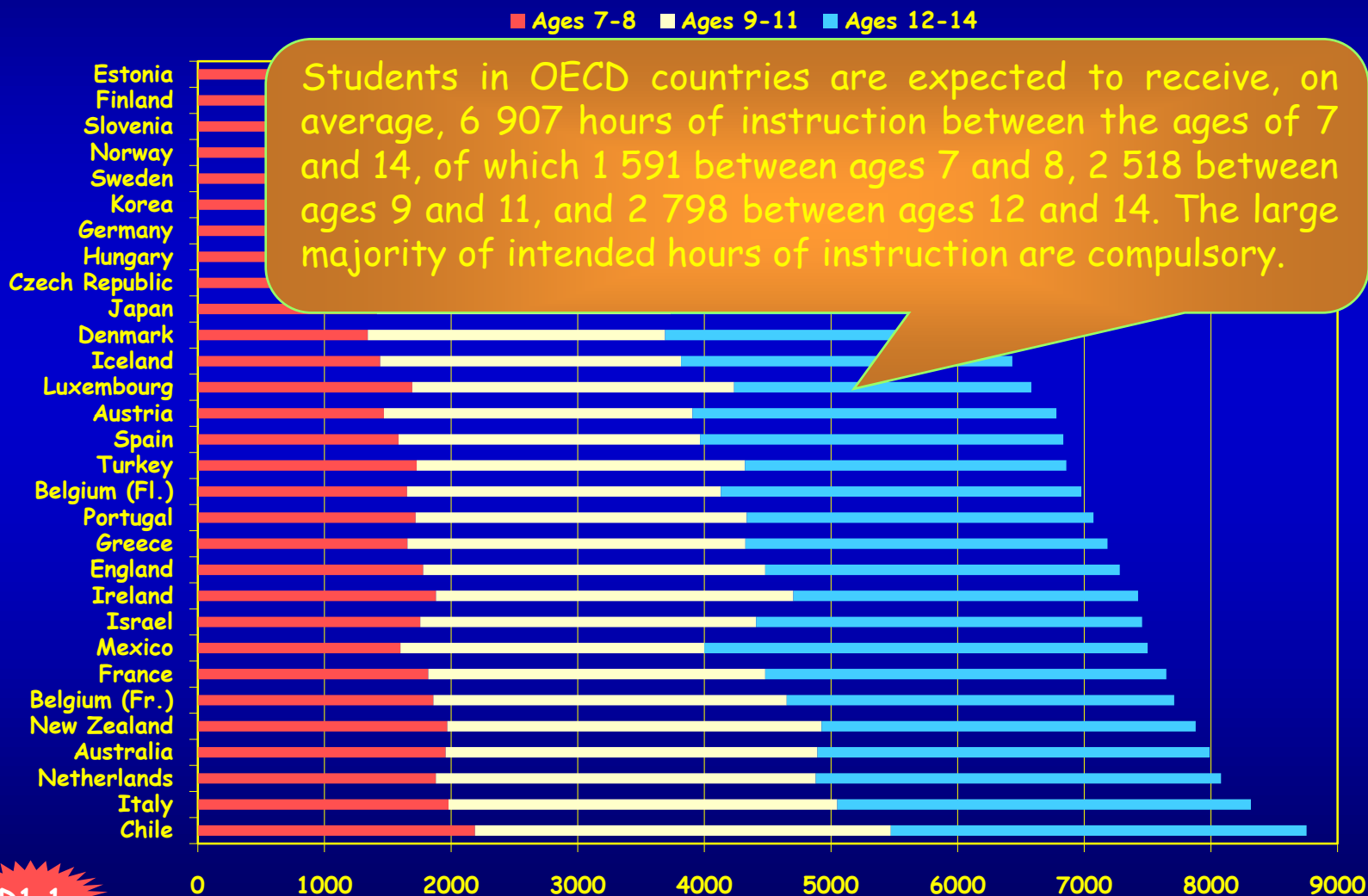


Note: A ratio of 300 for tertiary education means that the expenditure on educational institutions per tertiary student is three times the expenditure on educational institutions per primary student. A ratio of 50 for pre-primary education means that expenditure on educational institutions per pre-primary student is half the expenditure on educational institutions per primary student.

1. Public institutions only.
2. Some levels of education are included with others..

B1.3

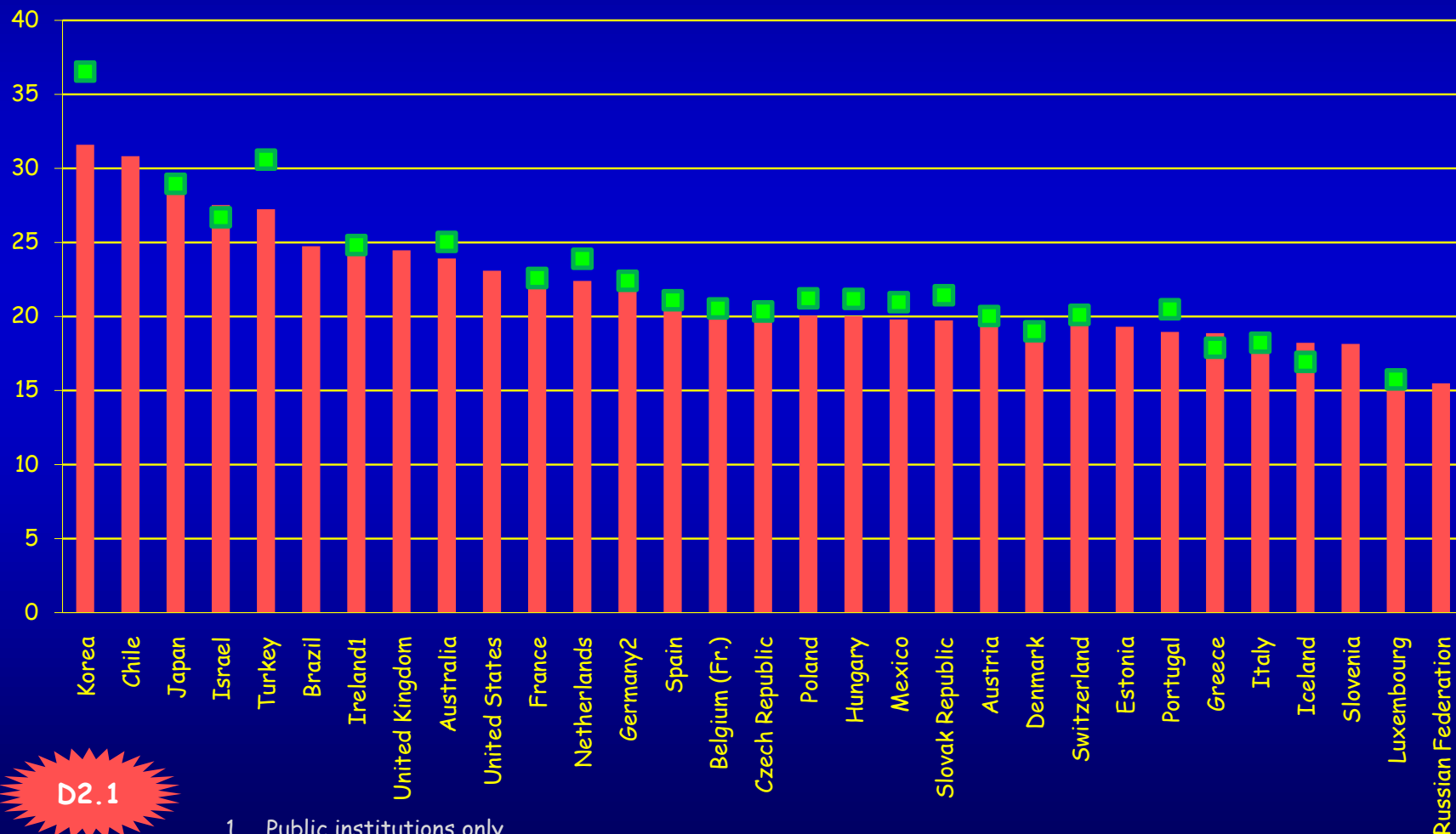
Total number of intended instruction hours in public institutions between the ages of 7 and 14 (2006)



Average class size in primary education

Number of students
per class

■ 2006 ■ 2000



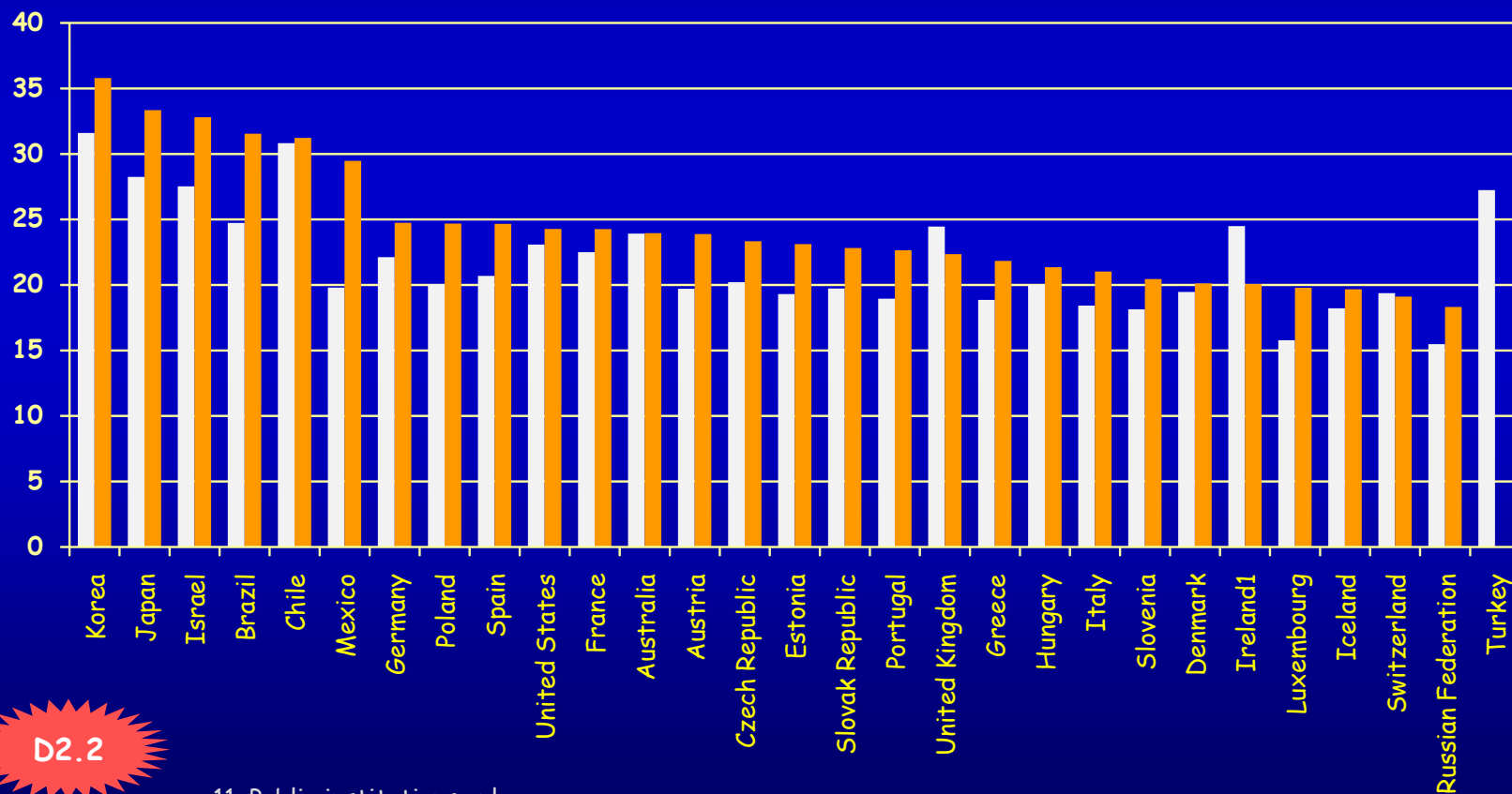
D2.1

1. Public institutions only
2. Years of reference 2001 and 2006.

Average class size (2006)

■ Primary education ■ Lower secondary education

Number of students
per classroom

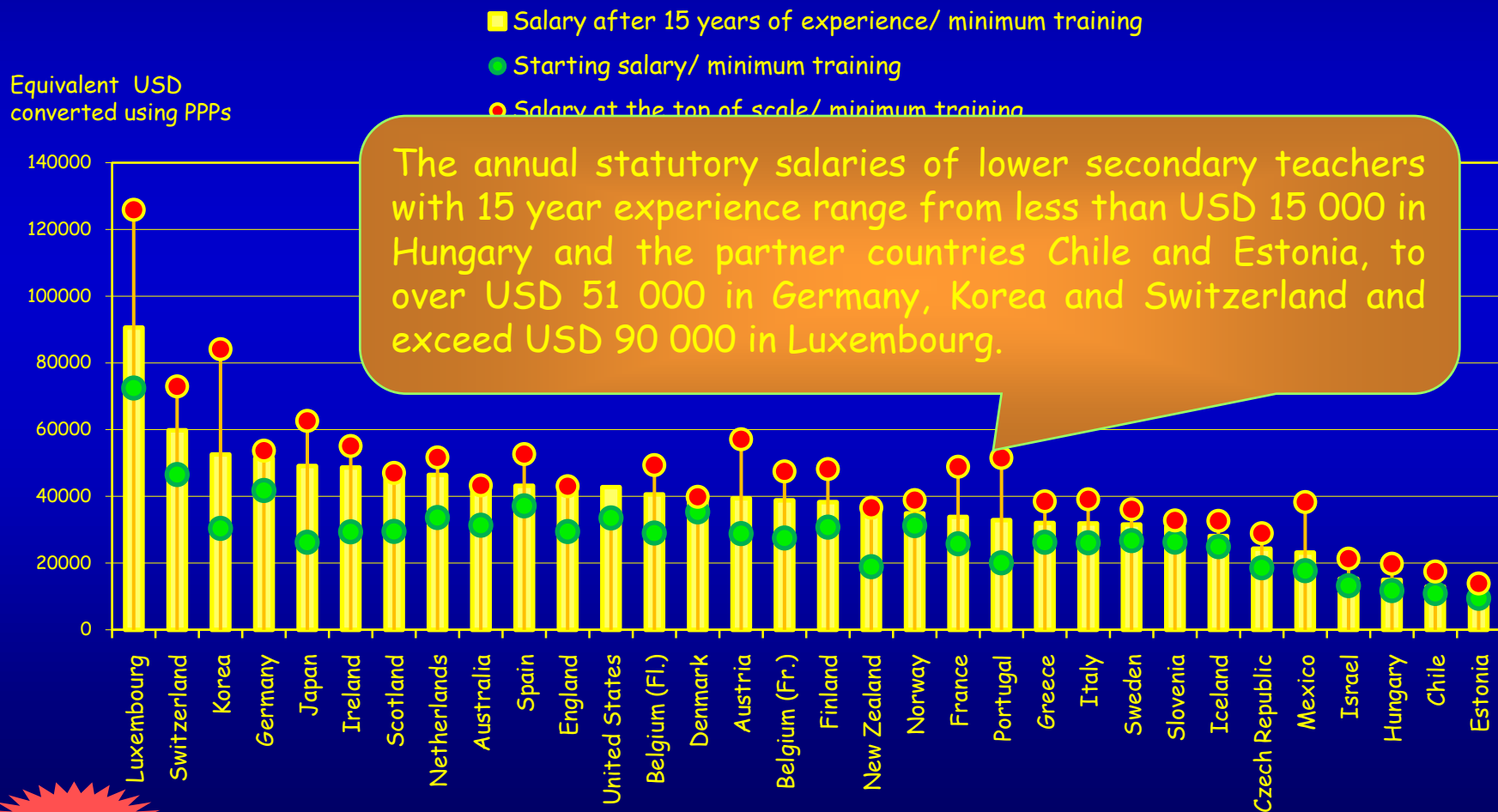


D2.2

11. Public institutions only

Teachers' salaries (minimum, after 15 years experience, and maximum) in lower secondary education (2006)

Annual statutory teachers' salaries in public institutions in lower secondary education, in equivalent USD converted using PPPs, and the ratio of salary of 15 years of experience to GDP per capita



Changes in teachers' salaries in lower secondary education, by point in the salary scale (1996,2006)

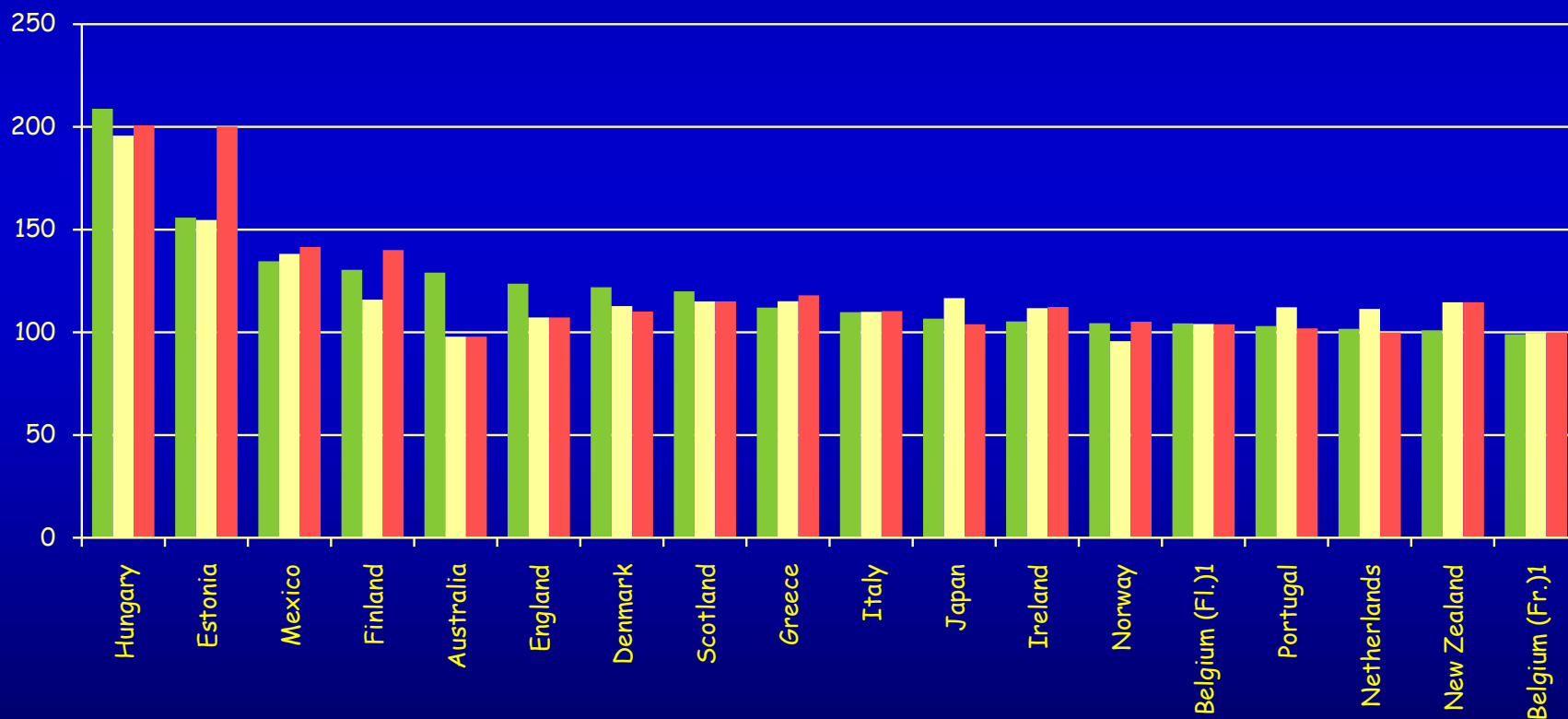
Index of change between 1996 and 2006
(1996=100, 2006 price levels using GDP deflators)

■ Starting salary/minimum training

■ Salary after 15 years of experience/ minimum training

■ Salary at top of scale/minimum training

Index of change



D3.3

1. The data for Belgium in 1996 are based on Belgium as a whole.

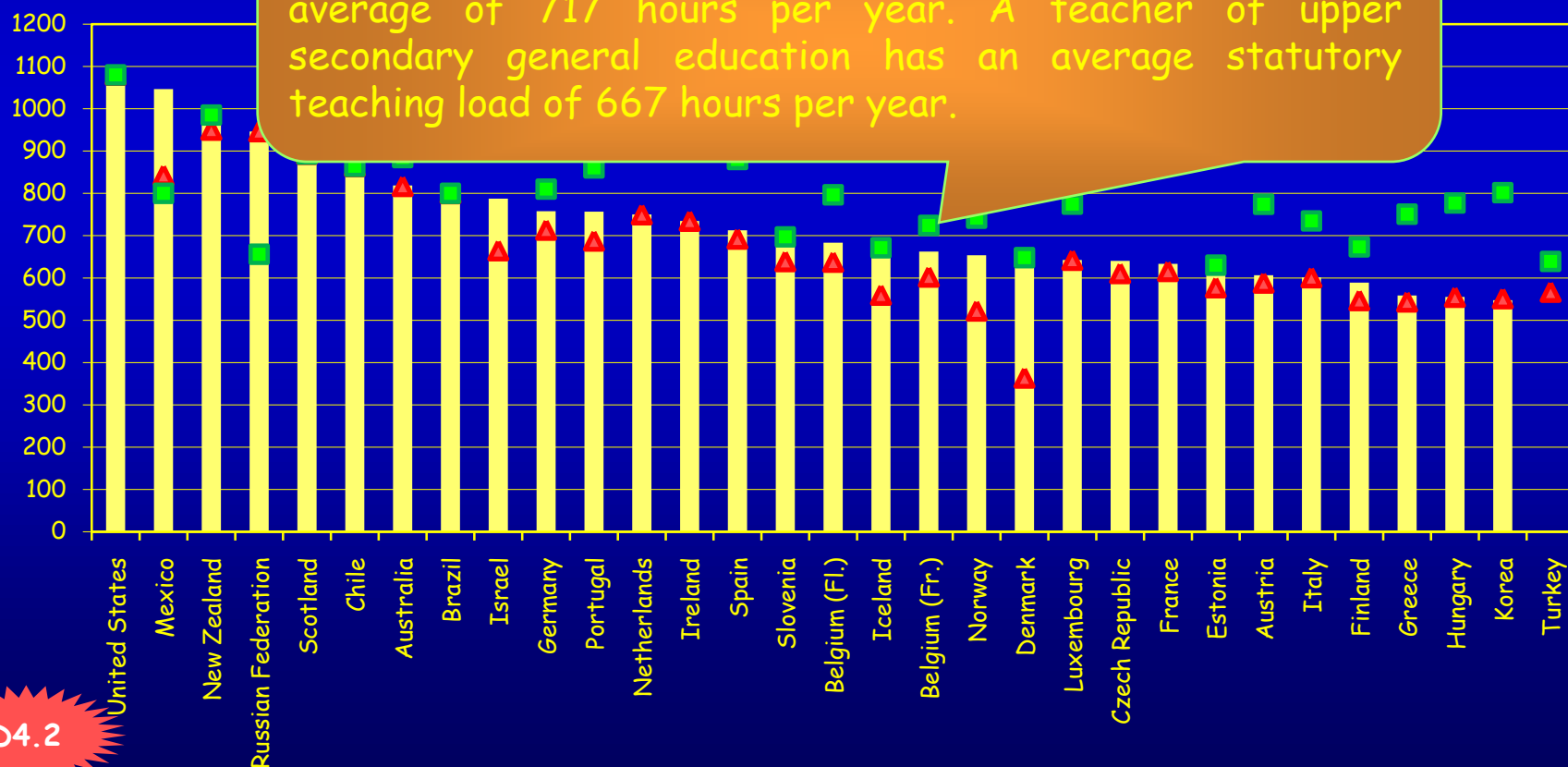
Number of teaching hours per year, by level of education (2006)

Net contact time in hours per year in public institutions

- Lower secondary education
- ▲ Upper secondary education, general programmes
- Primary education

A primary school teacher teaches an average of 812 hours per year. Lower secondary education teachers teach an average of 717 hours per year. A teacher of upper secondary general education has an average statutory teaching load of 667 hours per year.

Hours per year



Parents' reports of child's past science reading and student performance on the PISA science scale (2006)

■ Performance difference before accounting for social background
■ Performance difference after accounting for social background

Statistically significant differences are marked in darker tone.

Score point difference

70

60

50

40

30

20

10

0

Compared with 15-year-old students who had not, at the age of 10, read books on scientific discoveries, students who had done so performed, on average, 45 score points higher in the PISA 2006 science assessment, more than the equivalent of a school year, and this advantage remained significant, at 35 score points, even after taking into account socio-economic factors (one school year corresponds to an average of 38 score points on the PISA science scale).

New Zealand

Iceland

Denmark

Luxembourg

Croatia

Bulgaria

Germany

Korea

Italy

Hong Kong-
China

Portugal

Macao-China

Qatar

Turkey

Colombia

A6.1

Source: OECD PISA 2006.

Parents' view of their child's school and socio-economic background (PISA 2006)

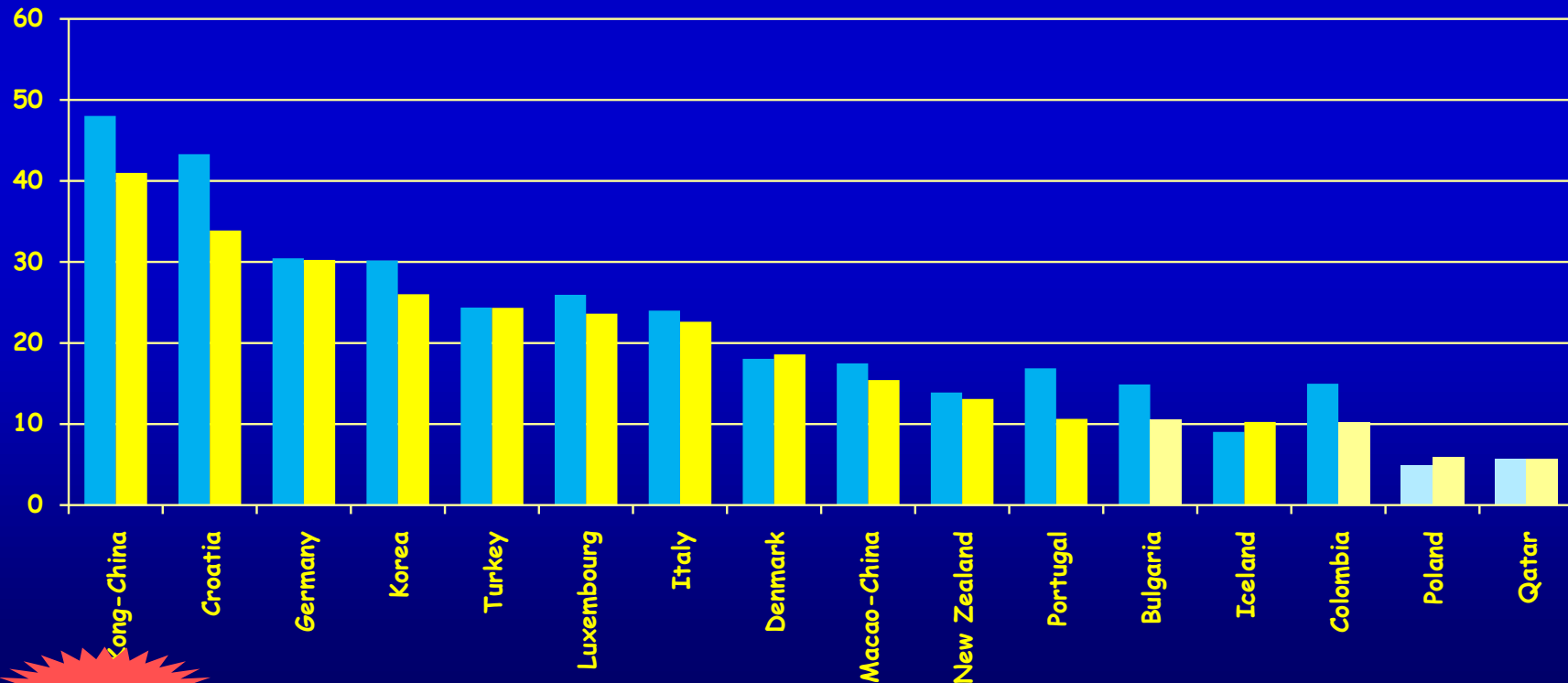
■ Difference in score before accounting for ESCS1

■ Difference in score after accounting for ESCS

Statistically significant differences are marked in darker tone.

Score point
difference

a. "Standards of achievement are high in the school"



A6.2a

Source: OECD PISA 2006.

Parents' view of their child's school and socio-economic background (PISA 2006)

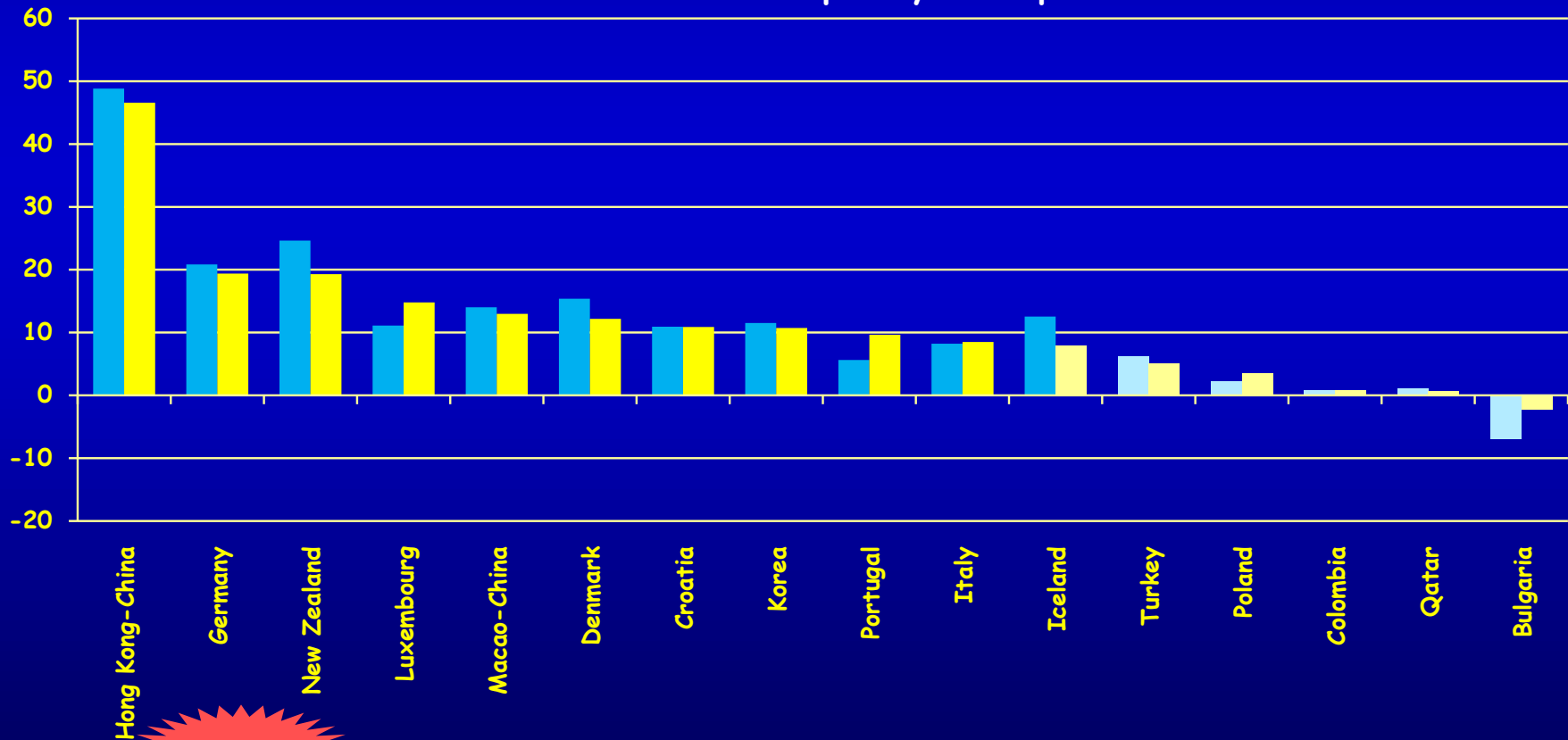
■ Difference in score before accounting for ESCS1

■ Difference in score after accounting for ESCS

Statistically significant differences are marked in darker tone.

Score point difference

b. "I am satisfied with the disciplinary atmosphere in the school"



A6.2b

Source: OECD PISA 2006.

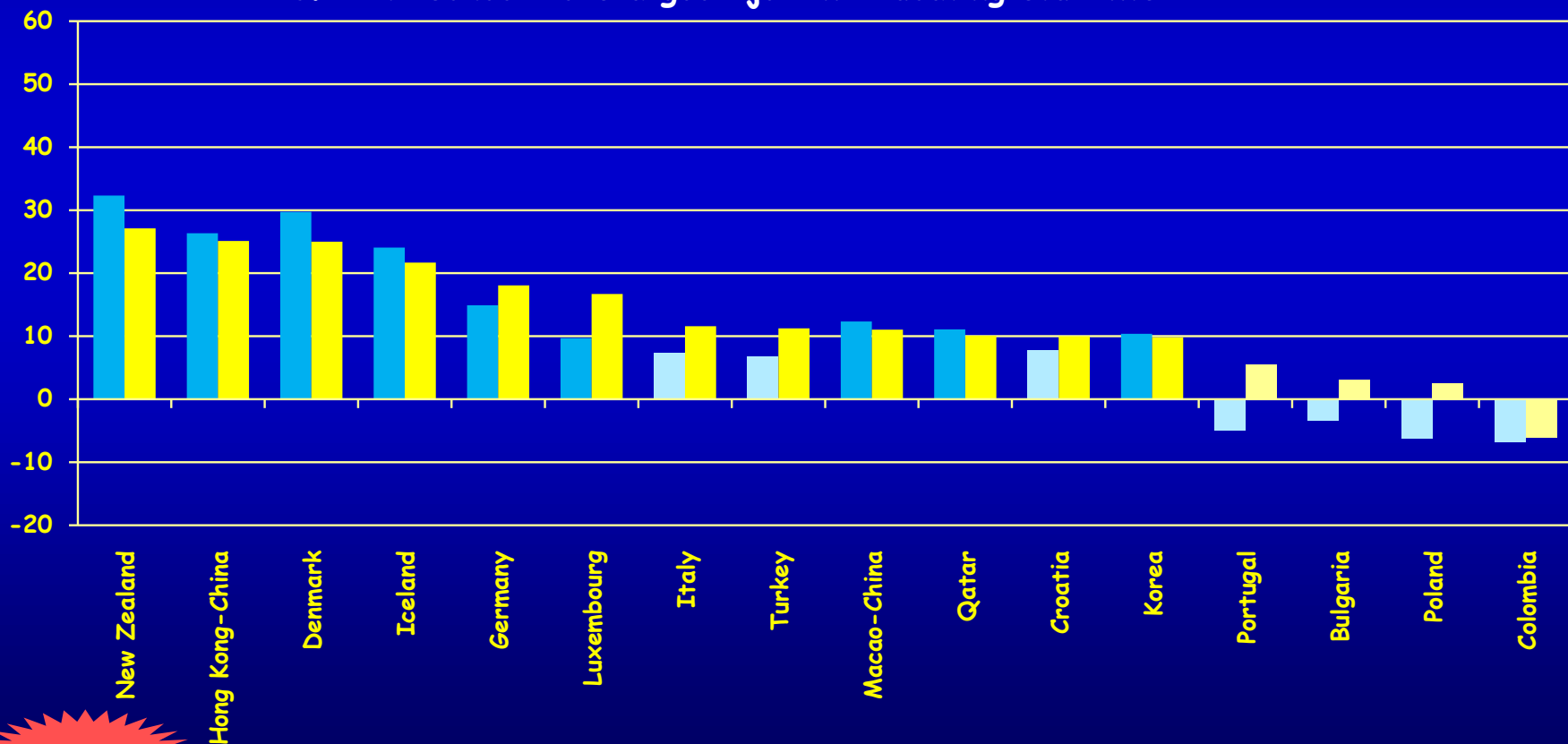
Parents' view of their child's school and socio-economic background (PISA 2006)

■ Difference in score before accounting for ESCS1
■ Difference in score after accounting for ESCS

Statistically significant differences are marked in darker tone.

Score point difference

c. "The school does a good job in educating students"



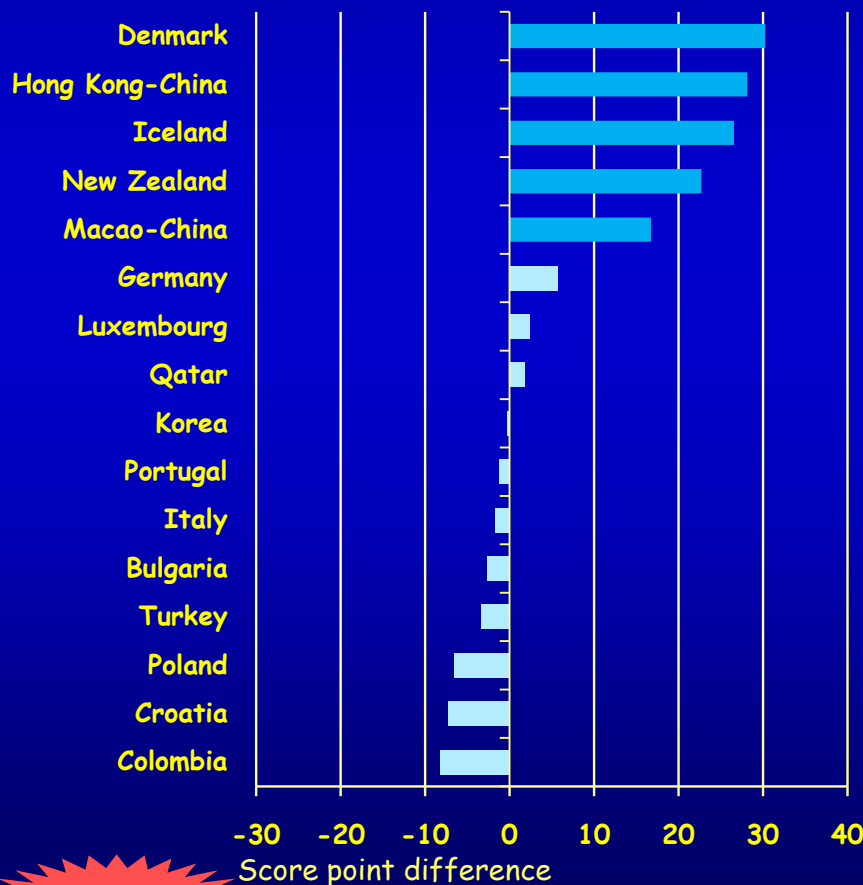
A6.2c

Source: OECD PISA 2006.

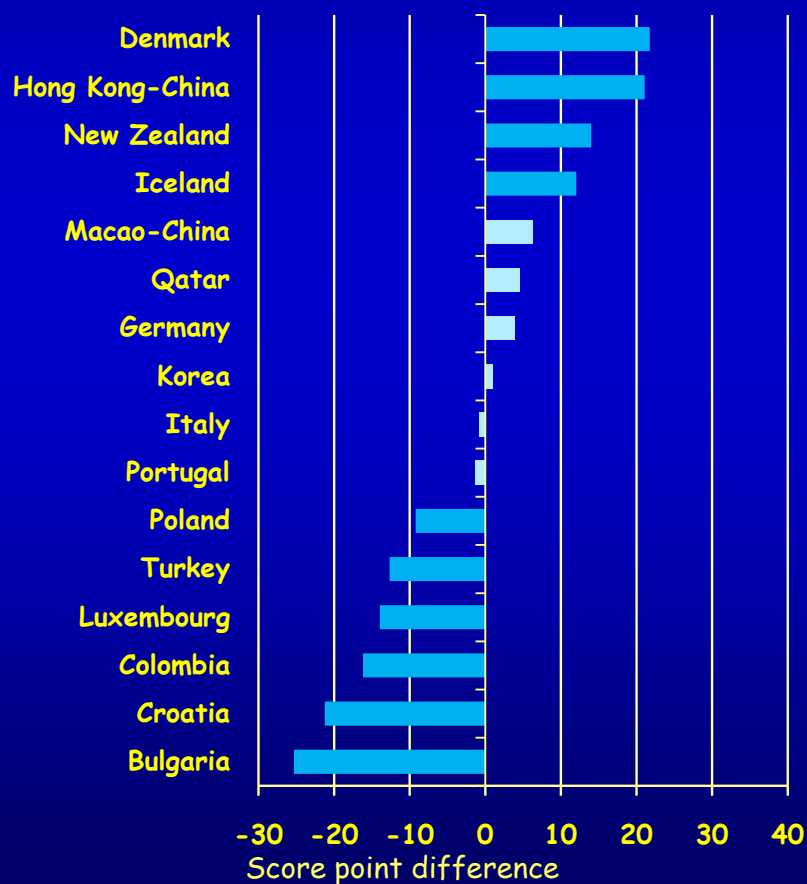
Parents' perceptions of instructional quality (PISA 2006)

Statistically significant differences are marked in darker tone

a. "Most of my child's school teachers seem competent and dedicated"



b. "I am happy with the content taught and the instructional methods used in my child's school"



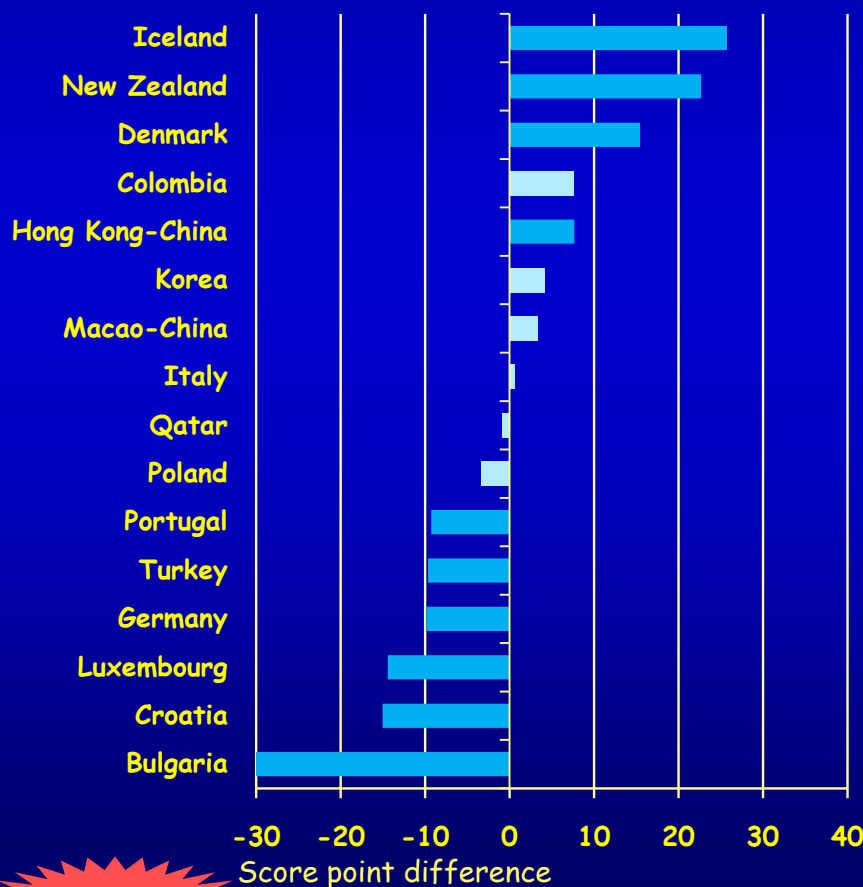
A6.3ab

Source: OECD PISA 2006.

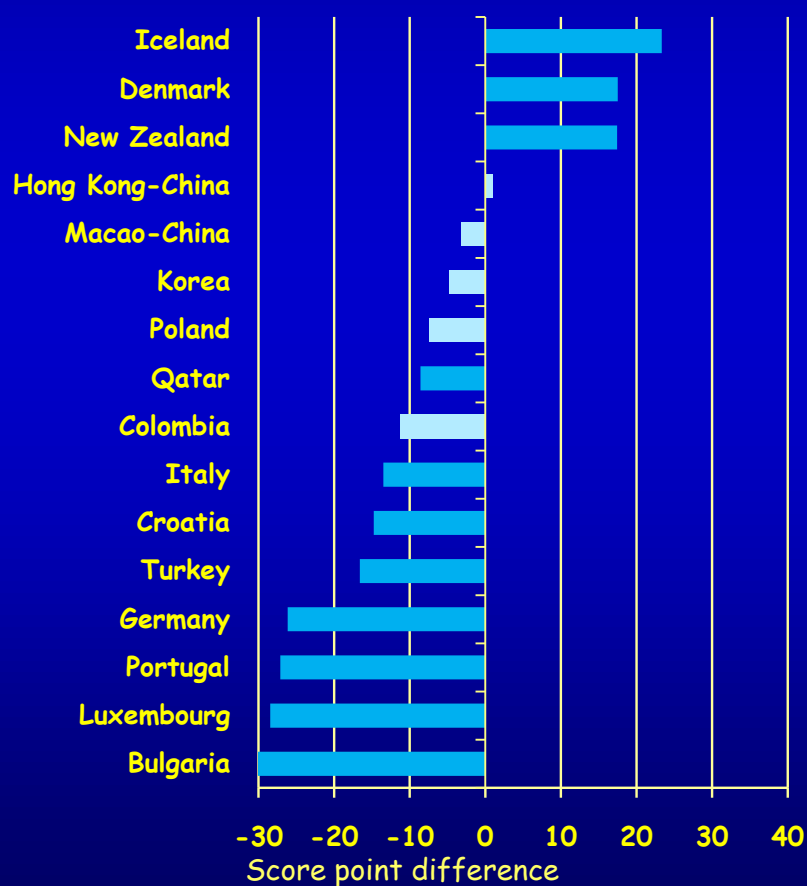
Parents' perceptions of instructional quality (PISA 2006)

Statistically significant differences are marked in darker tone

c. "My child's progress is carefully monitored at school"



d. "My child's school provides regular and useful information on my child's progress"





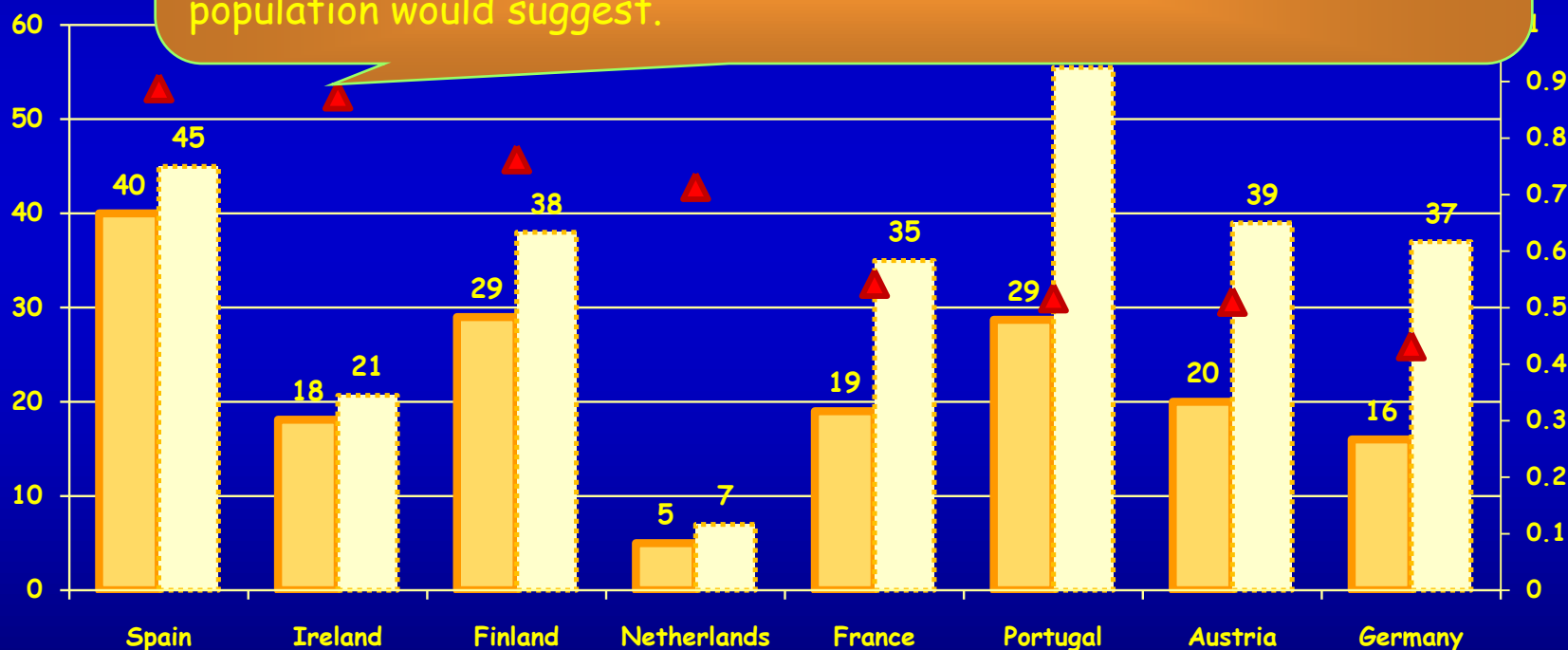
Equity challenges

How well are countries using their potential to generate future human capital by providing equitable learning opportunities?

Occupational status of higher education students' fathers

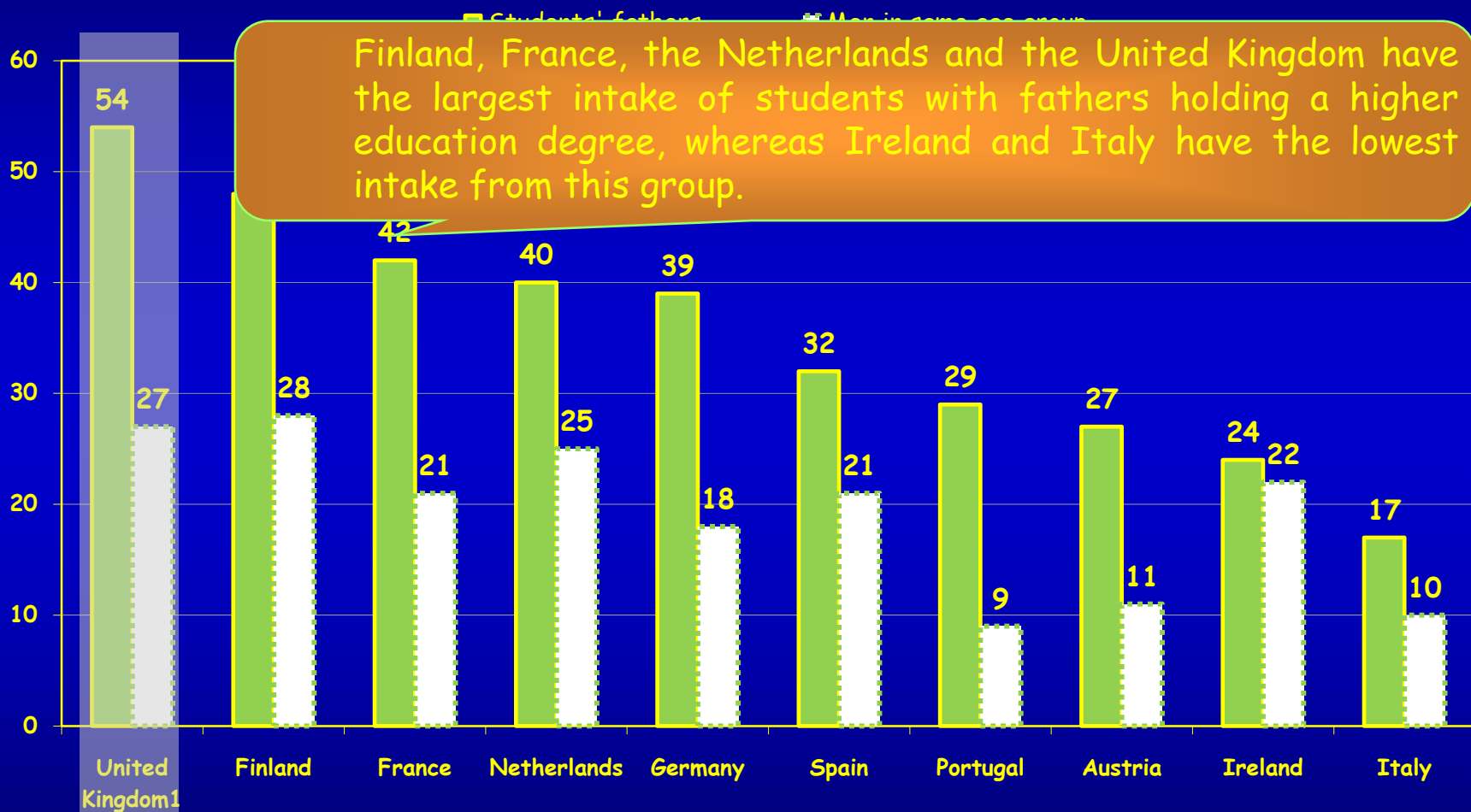
Proportion of students with fathers from a blue-collar background compared with men of corresponding age group as students'

Ireland and Spain stand out as providing the most equitable access to higher education, whereas students from blue-collar background in Austria, France, Germany, Portugal are about one-half as likely to be in higher education as their proportion in the population would suggest.



Educational status of students' fathers

Proportion of students' fathers with higher education compared with men of corresponding age group as students' fathers with higher education



A7.2a

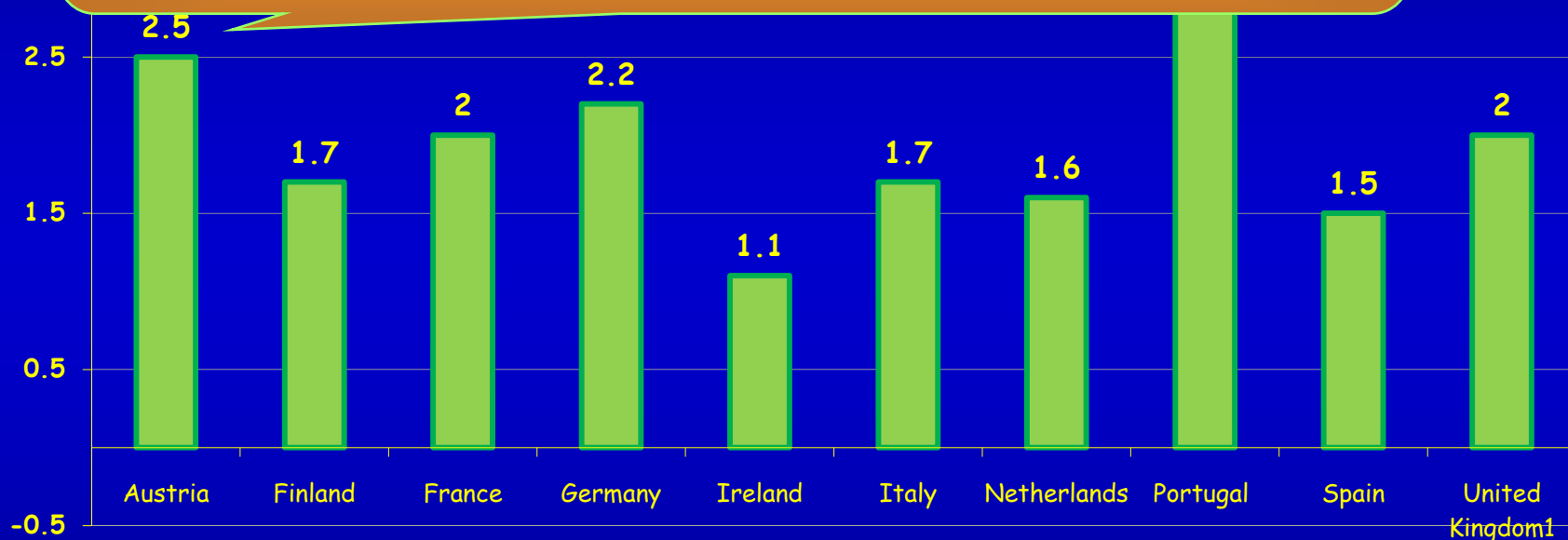
1. England and Wales. Data refer to the parent (male or female) with the highest income.

Source: EUROSTUDENT 2005.

Educational status of students' fathers (2004)

Ratio of the proportion of students' fathers with higher education to the proportion of men of the corresponding age group as students' fathers with higher education

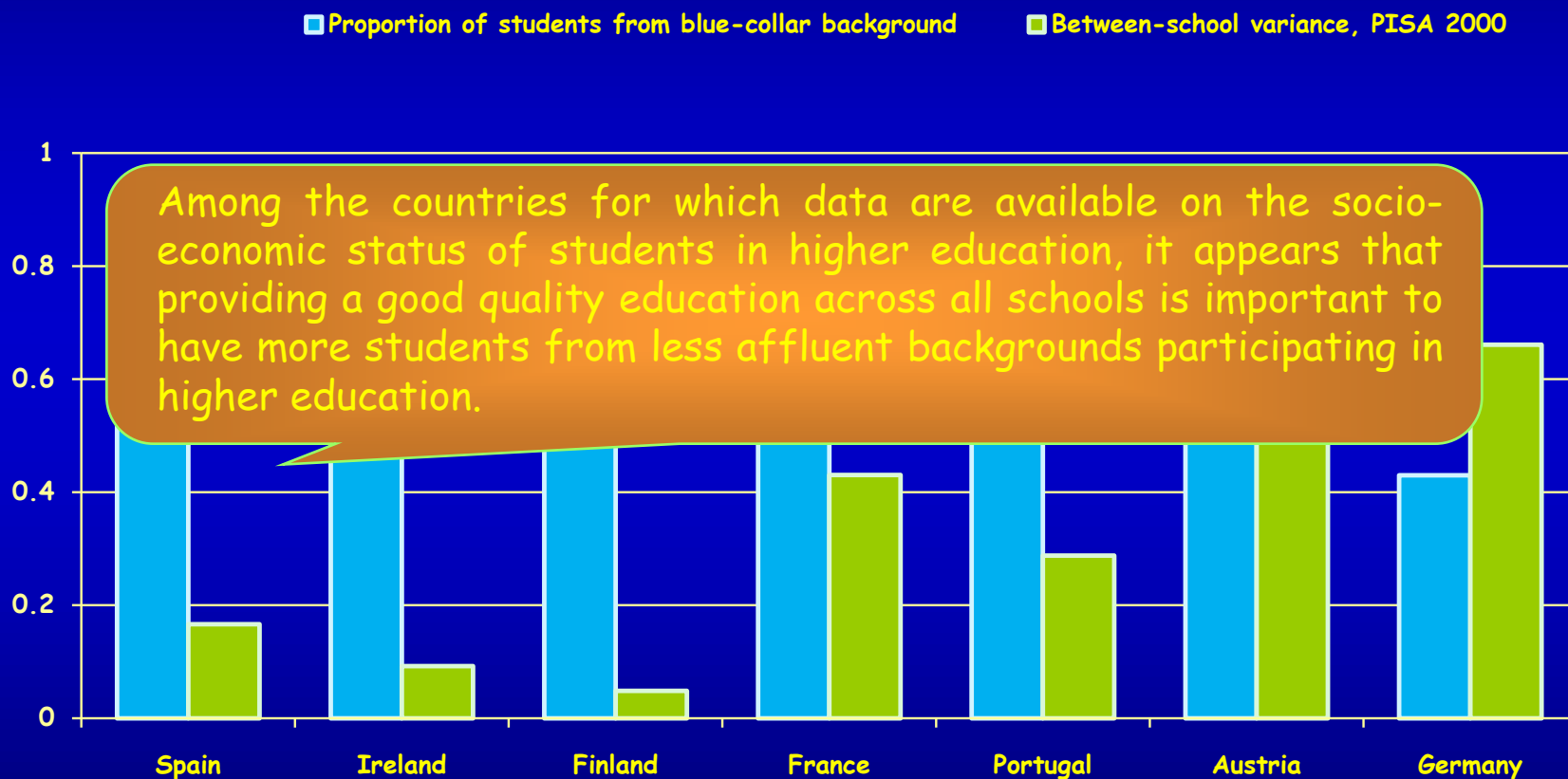
In Austria, France, Germany, Portugal and the United Kingdom, students are at least about twice as likely to be in higher education if their fathers hold a university degree as their proportion in the population would suggest.



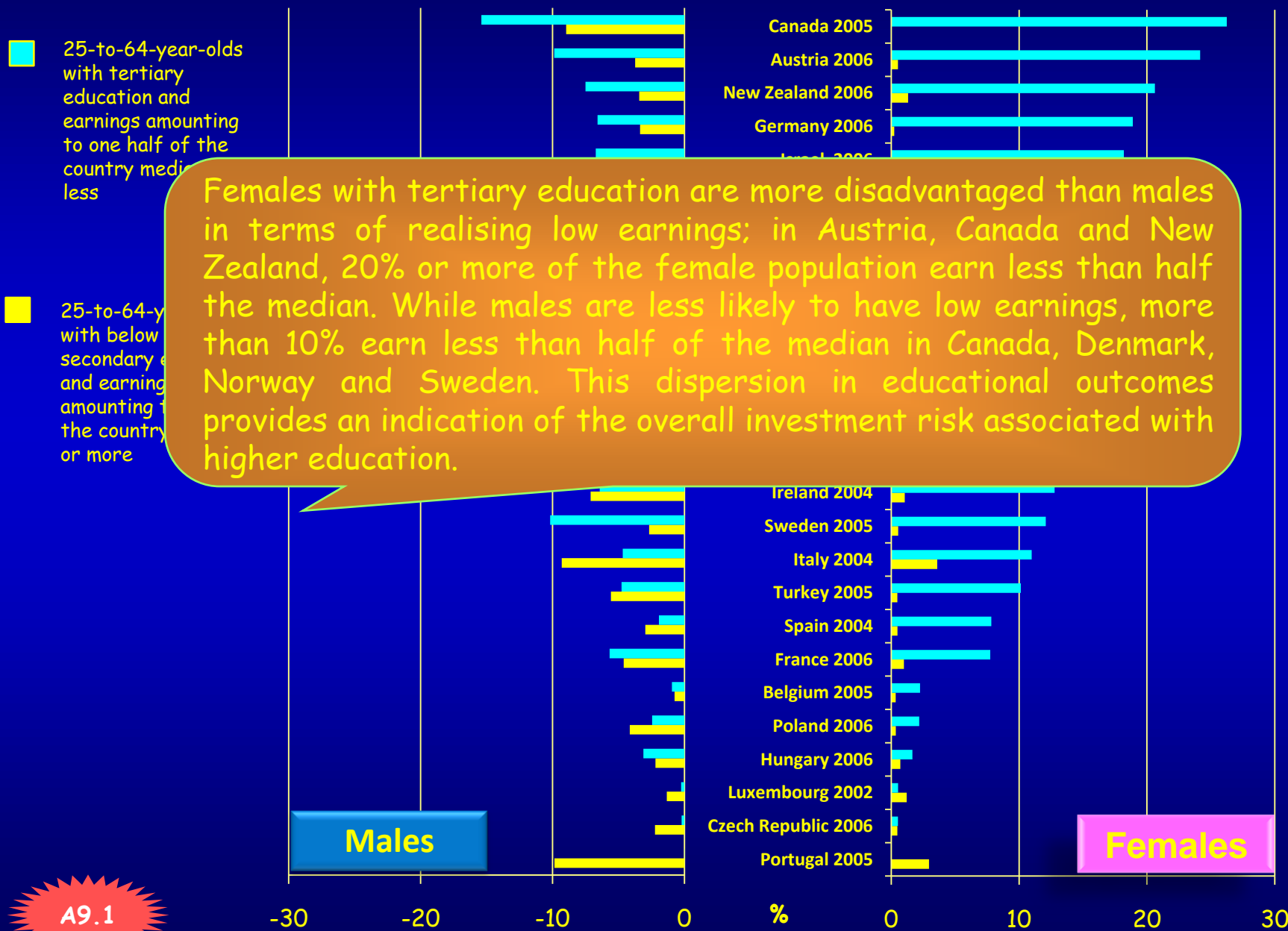
1. England and Wales. Data refer to the parent (male or female) with the highest income.

Source: EUROSTUDENT 2005.

Proportion of students in higher education (2003-2005) from a blue-collar background and between school variance in PISA 2000



Share of 25-to-64-year-olds with lower education and high earnings and vice versa (2006 or latest available year)



- www.oecd.org
 - All national and international publications
 - The complete micro-level database
- Email: Andreas.Schleicher@OECD.org

Thank you !

... and remember:

Without data, you are just another person
with an opinion