

Translating better skills into better economic and social outcomes

Lisbon Council
15 September 2011

Agenda for this morning

□ Skills matter for individuals...

- because skills have an increasing impact on labour market outcomes and social participation

... and for economies

- because failure to ensure a good skills match has both short- term consequences (skills shortages) and longer-term effects on economic growth and equality of opportunities

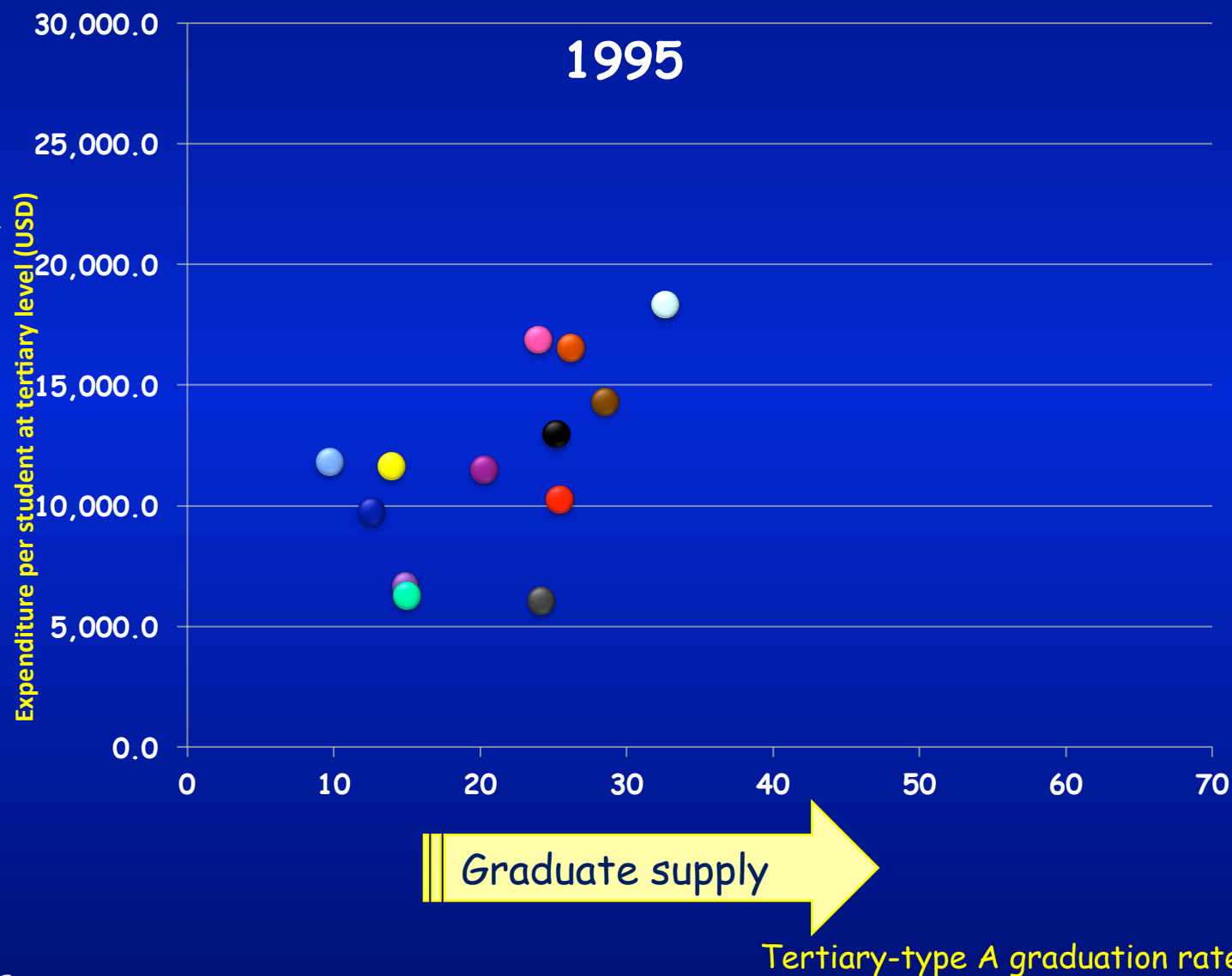
... but better skills do not *automatically* translate into higher incomes and higher productivity

- Success with converting skills into jobs and growth depends on whether
 - we know what those skills are that drive economic outcomes
 - the right mix of skills is being taught and learned in effective, equitable and efficient ways
 - economies and labour-markets fully utilize their skill potential
 - Governments build strong coalitions with the social partners to find sustainable approaches to who should pay for what, when and where .

Many systems have done well in getting
more people to higher qualifications

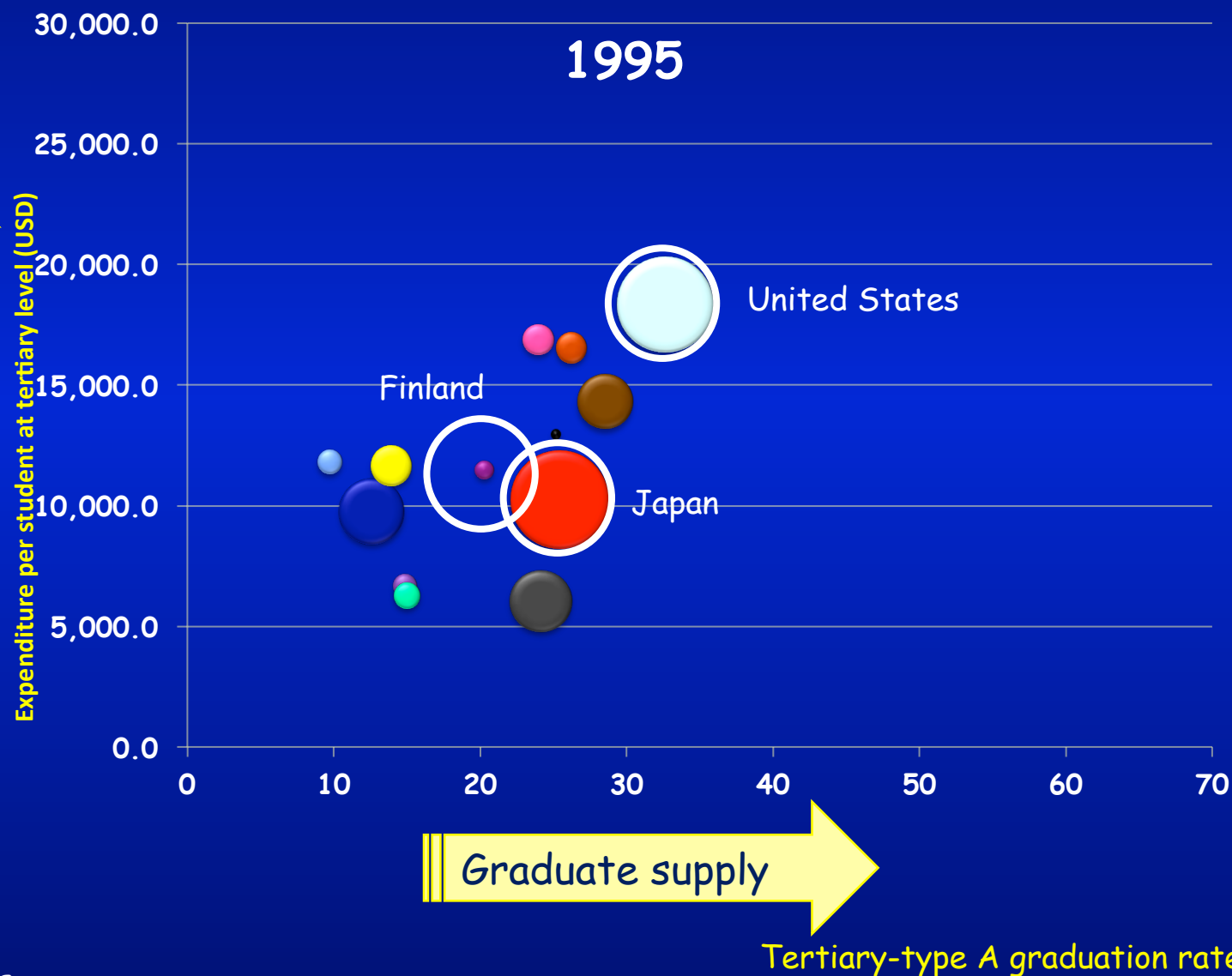
- Australia
- Austria
- Belgium
- Canada
- Chile
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea
- Luxembourg
- Mexico
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

A world of change - higher education



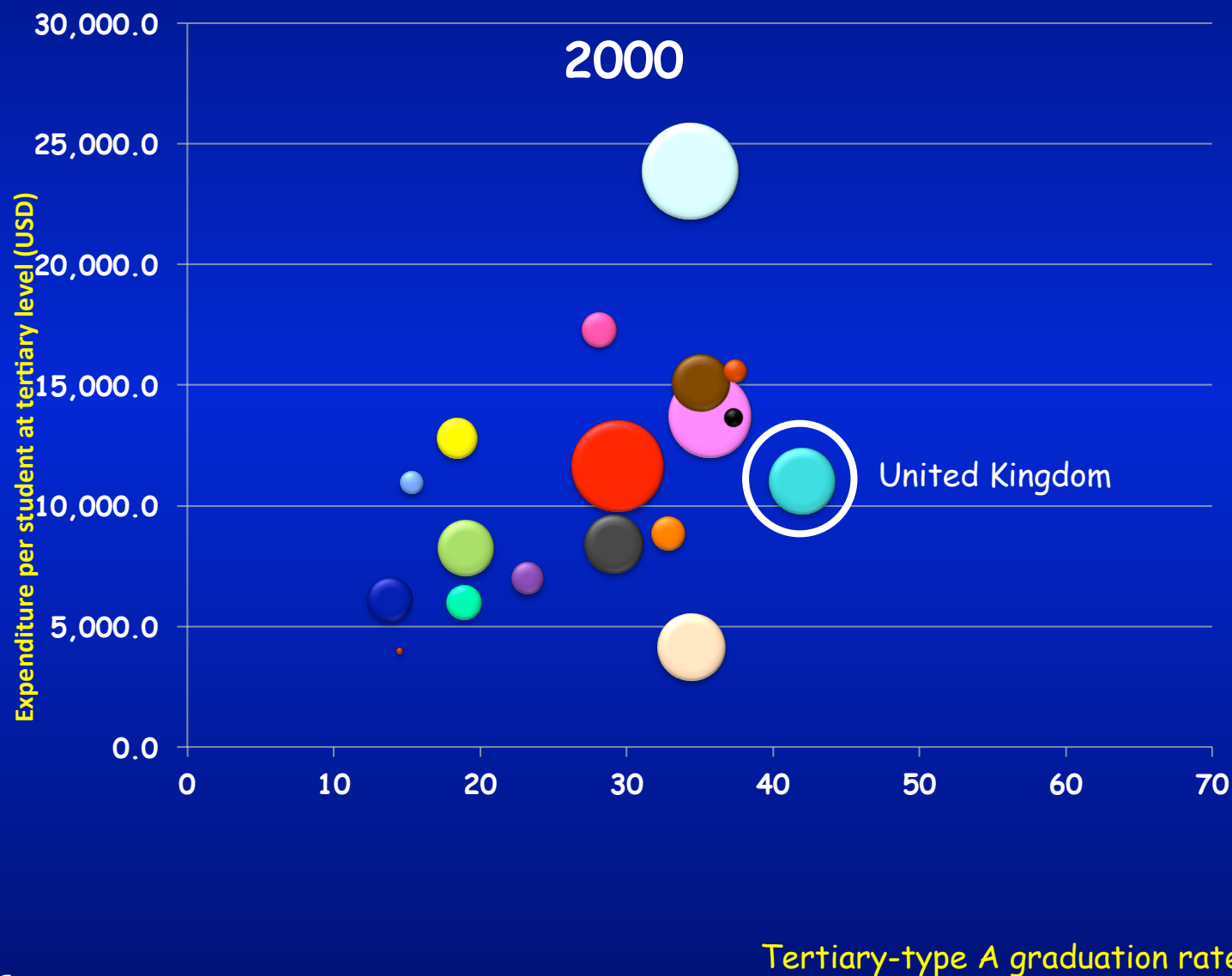
- Australia
- Austria
- Belgium
- Canada
- Chile
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea
- Luxembourg
- Mexico
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Slovak Republic
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

A world of change - higher education



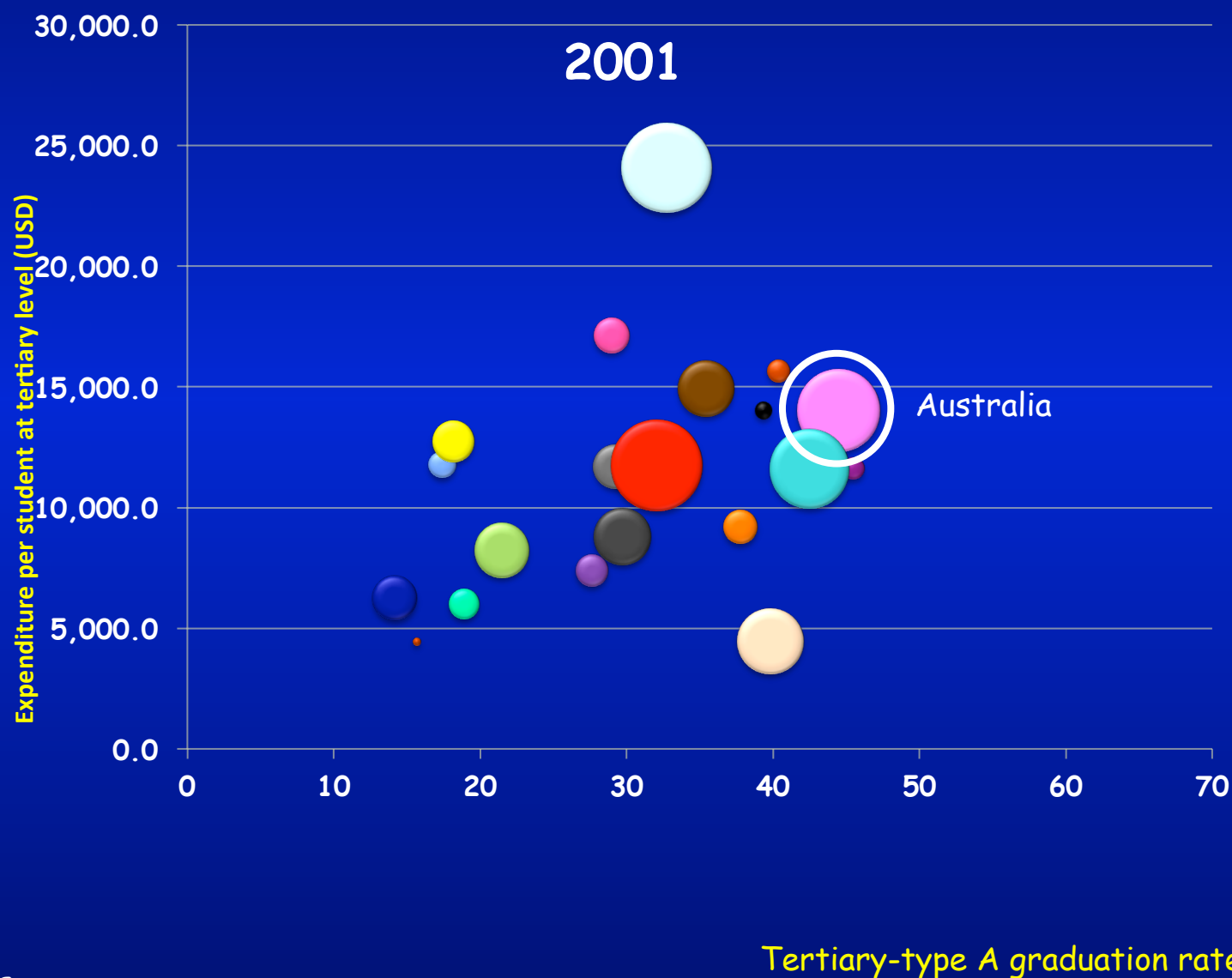
- Australia
- Austria
- Belgium
- Canada
- Chile
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea
- Luxembourg
- Mexico
- Netherland
- New Zealand
- Norway
- Poland
- Portugal
- Slovak
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

A world of change - higher education



- Australia
- Austria
- Belgium
- Canada
- Chile
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea
- Luxembourg
- Mexico
- Netherland
- New Zealand
- Norway
- Poland
- Portugal
- Slovak
- Republic of Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

A world of change - higher education





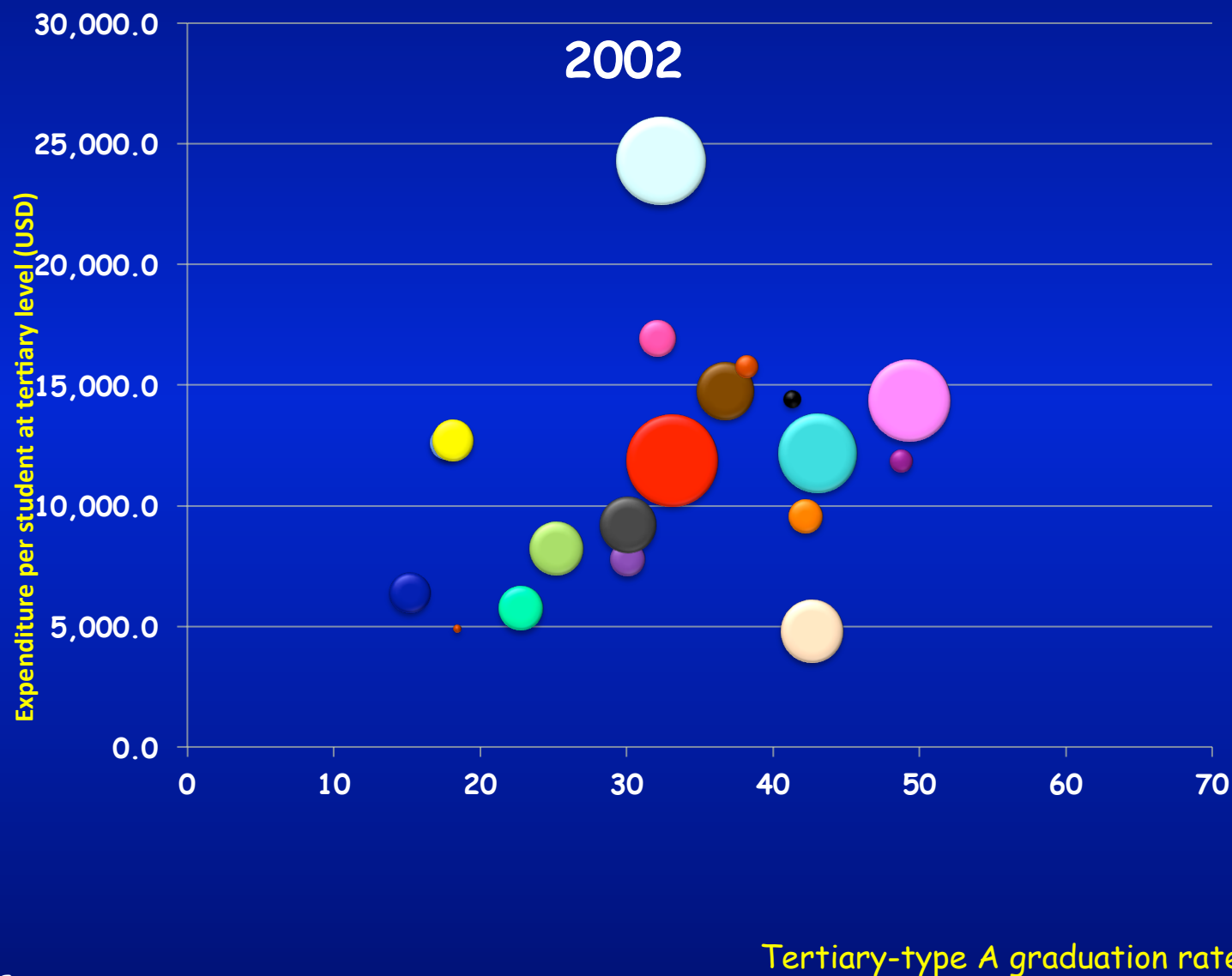
Lisbon Council
15 September 2011
Andreas Schleicher

PIAAC
OECD Programme for the international
assessment of adult competencies



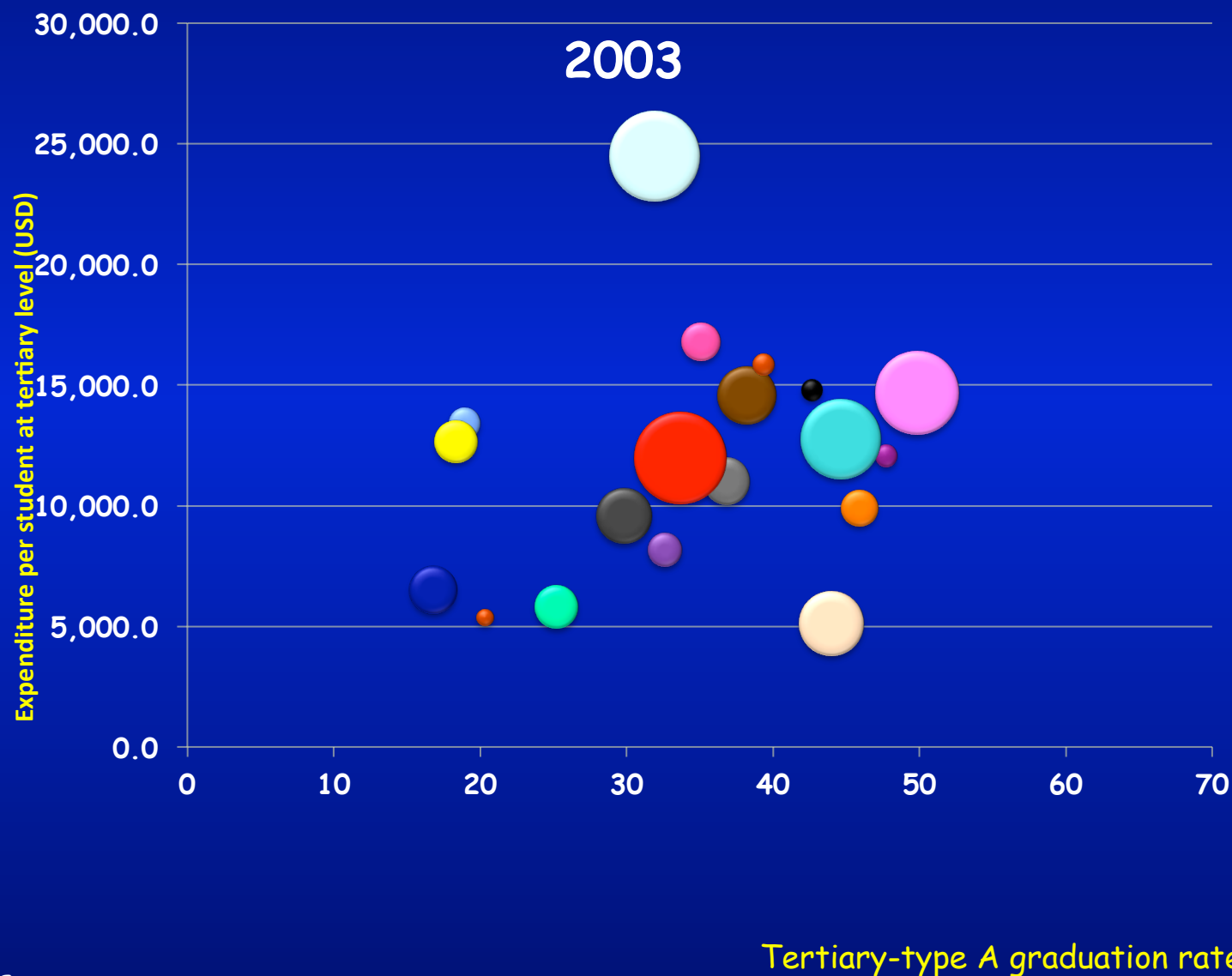
- Australia
- Austria
- Belgium
- Canada
- Chile
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea
- Luxembourg
- Mexico
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

A world of change - higher education



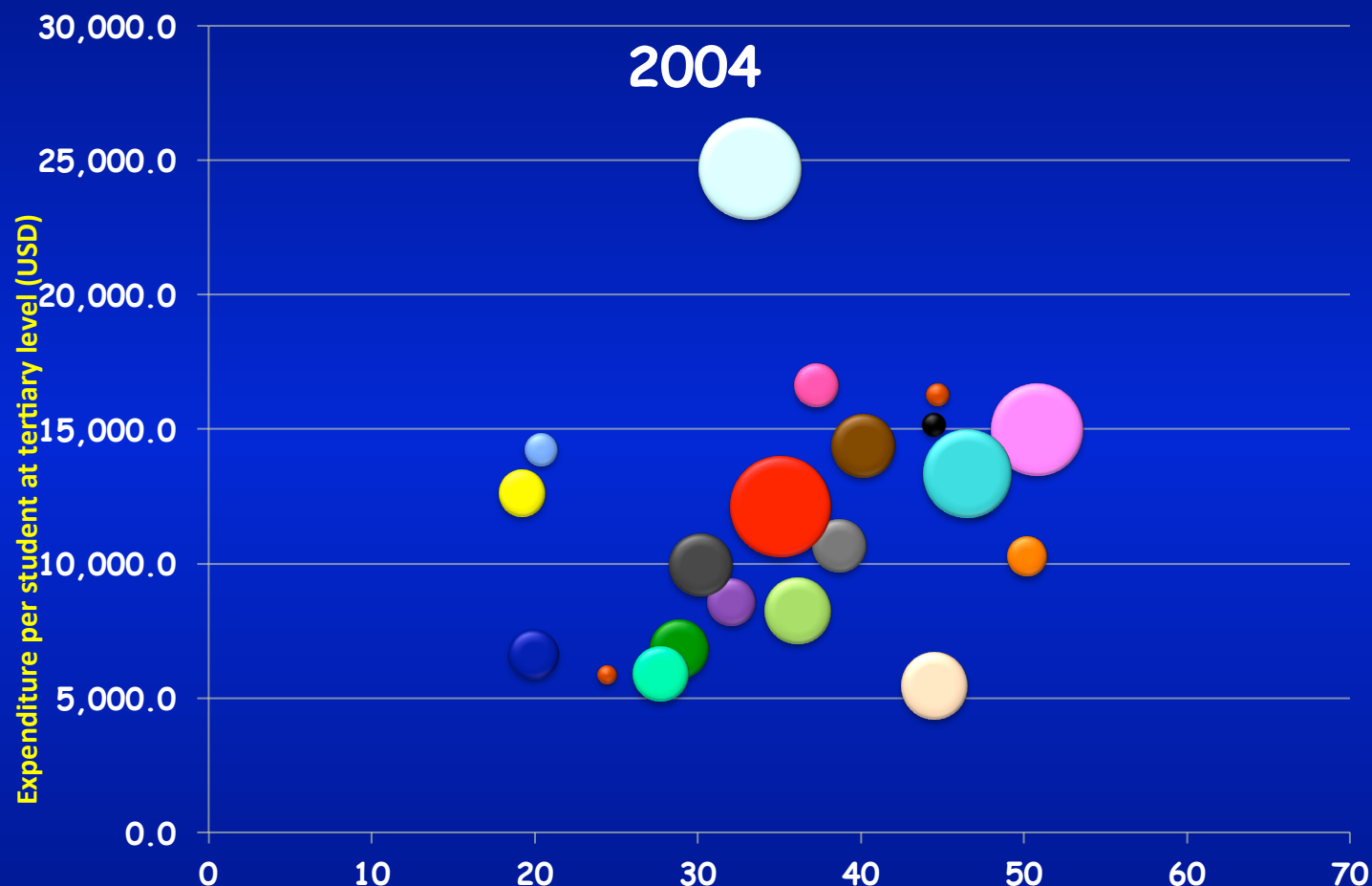
- Australia
- Austria
- Belgium
- Canada
- Chile
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea
- Luxembourg
- Mexico
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Slovak Republic
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

A world of change - higher education



- Australia
- Austria
- Belgium
- Canada
- Chile
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea
- Luxembourg
- Mexico
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Slovak Republic
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

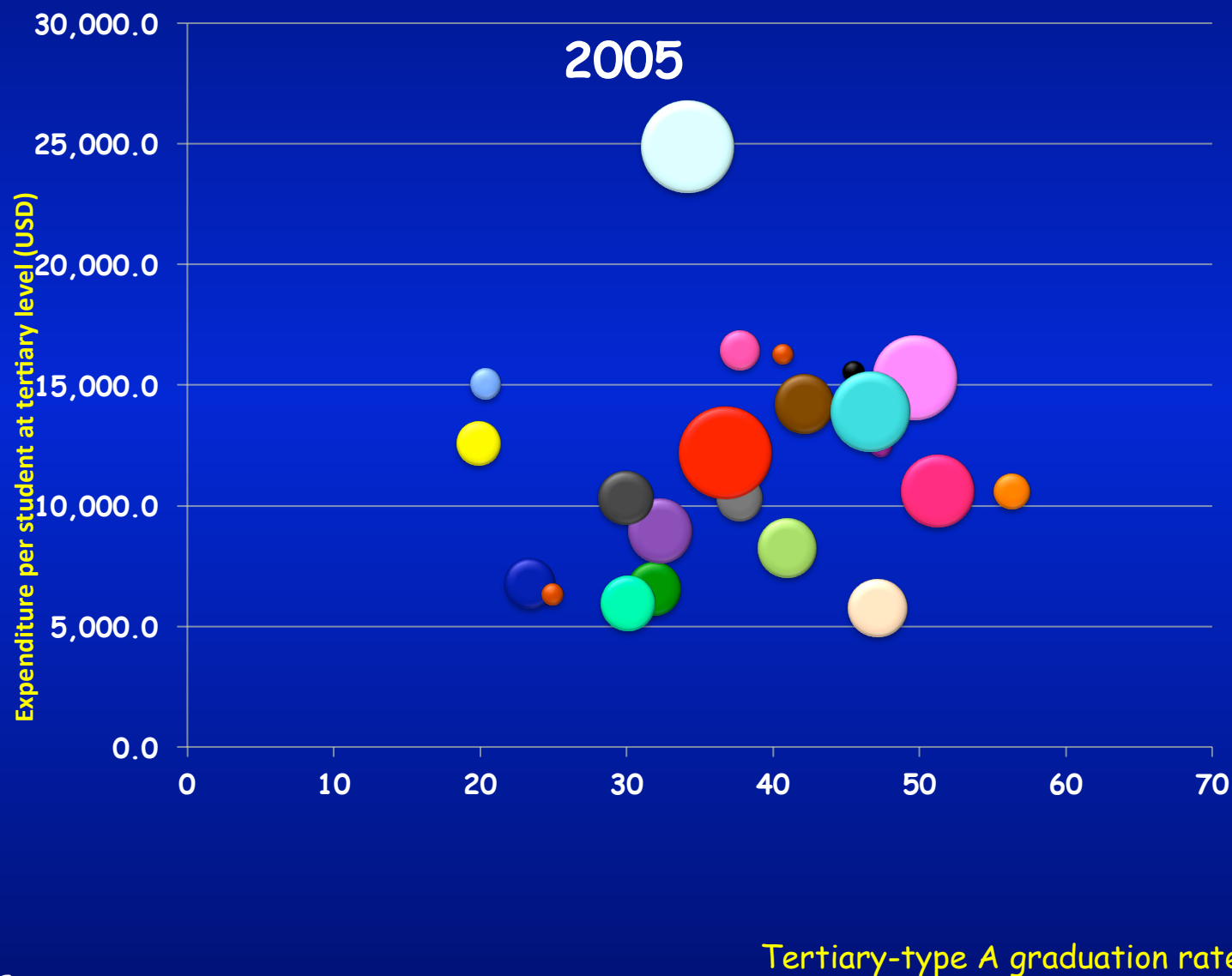
A world of change - higher education



Tertiary-type A graduation rate

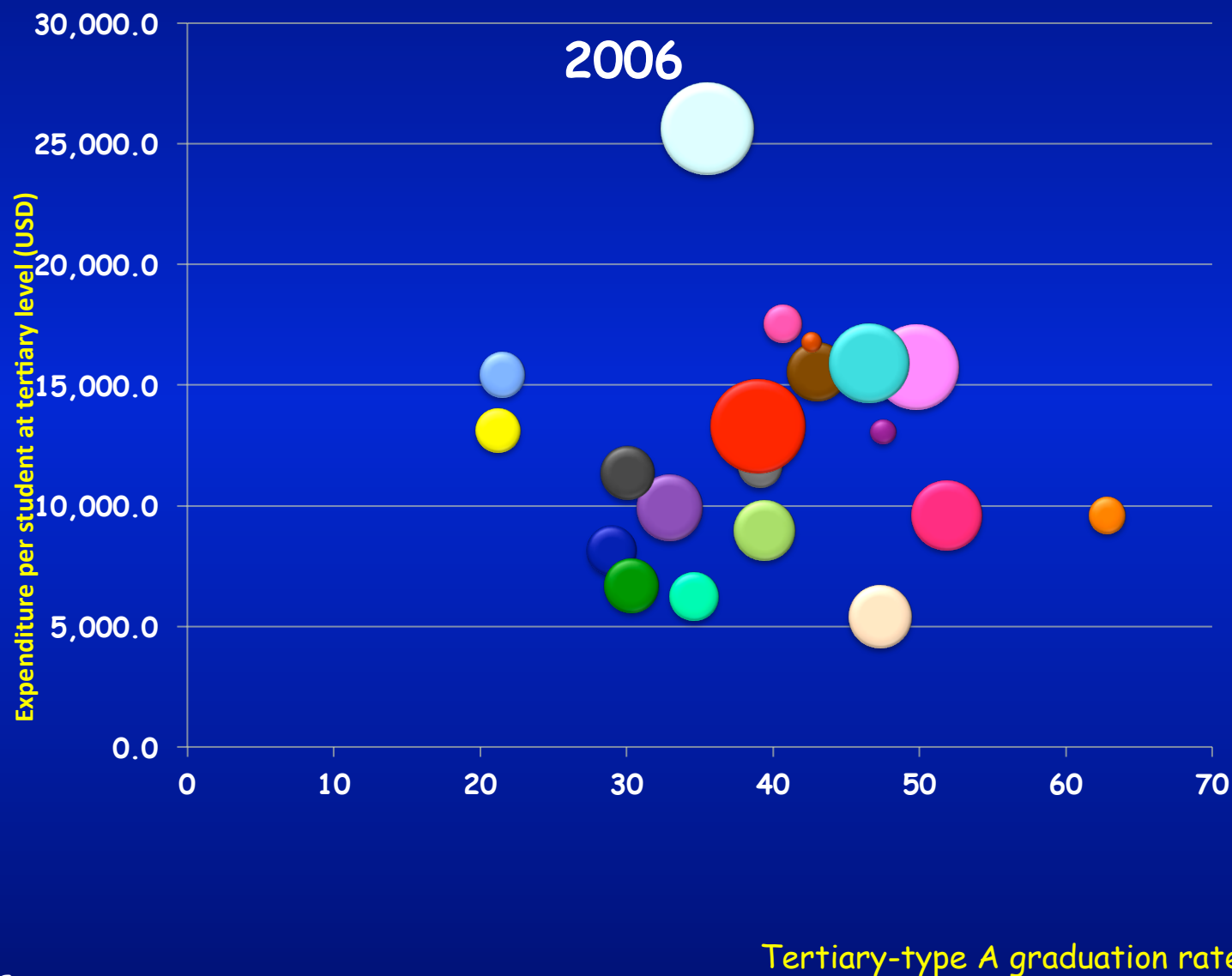
- Australia
- Austria
- Belgium
- Canada
- Chile
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea
- Luxembourg
- Mexico
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Slovak Republic
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

A world of change - higher education



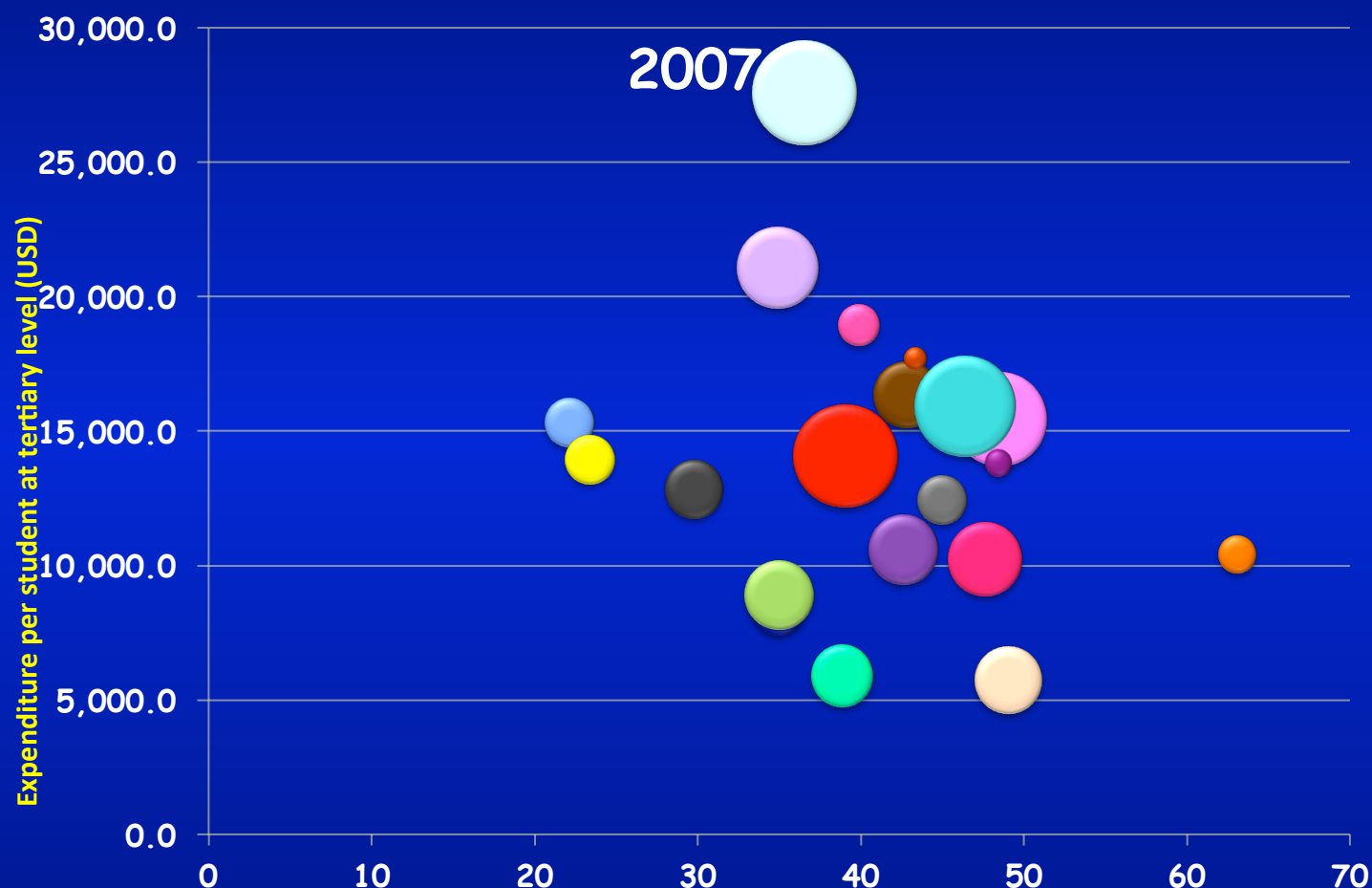
- Australia
- Austria
- Belgium
- Canada
- Chile
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea
- Luxembourg
- Mexico
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Slovak Republic
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

A world of change - higher education



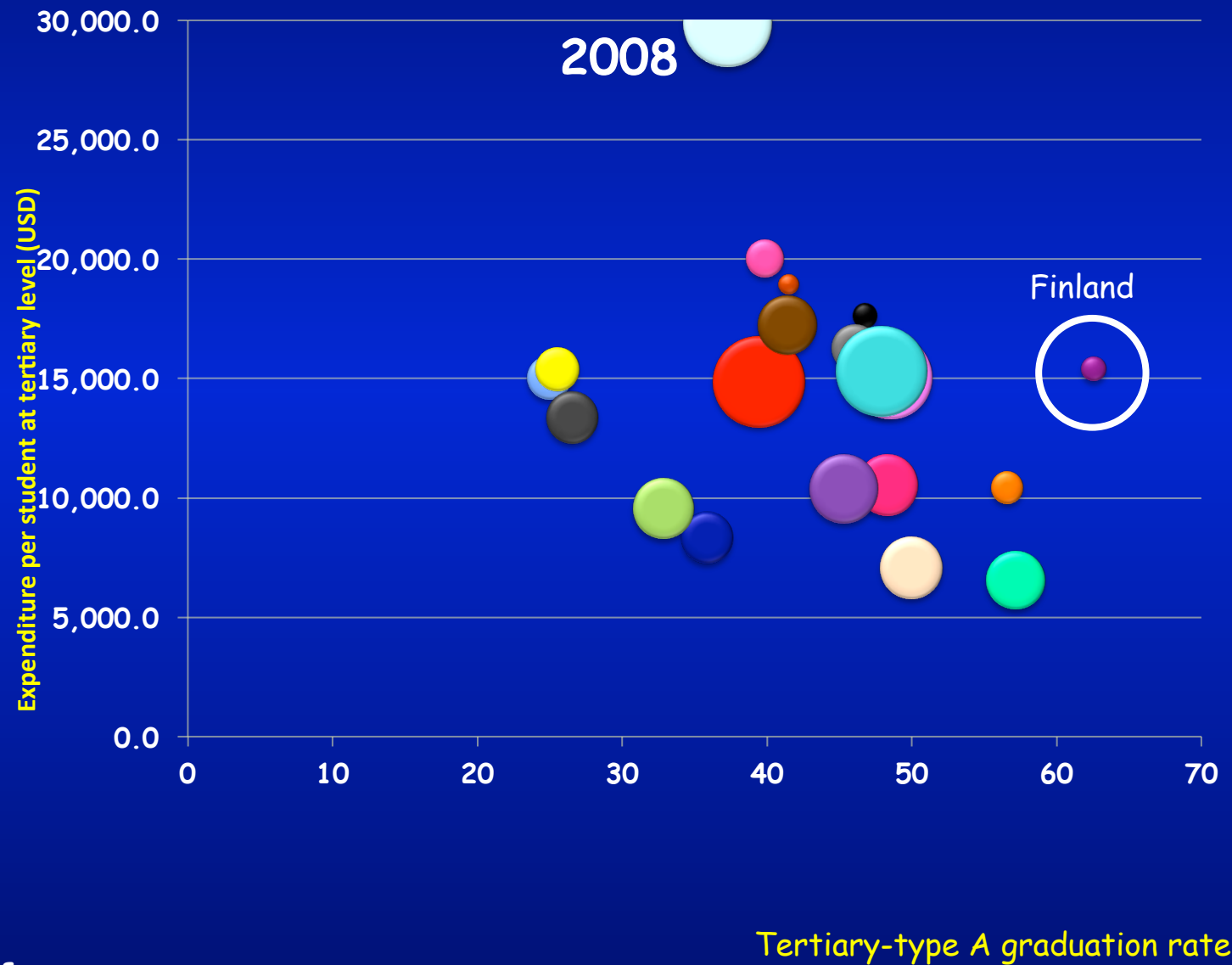
- Australia
- Austria
- Belgium
- Canada
- Chile
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea
- Luxembourg
- Mexico
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Slovak Republic
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

A world of change - higher education



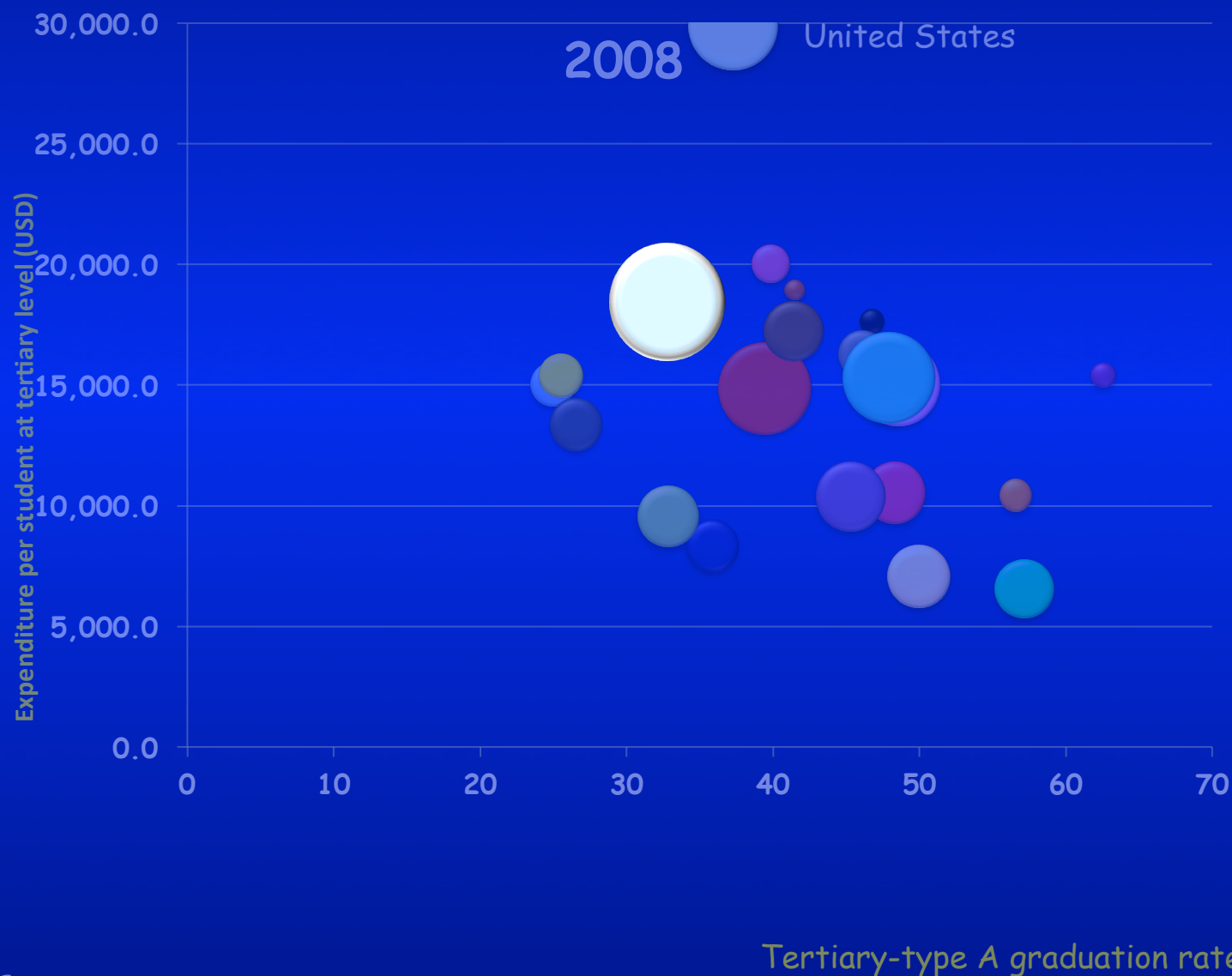
- Australia
- Austria
- Belgium
- Canada
- Chile
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea
- Luxembourg
- Mexico
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Slovak Republic
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

A world of change - higher education



- Australia
- Austria
- Belgium
- Canada
- Chile
- Czech
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea
- Luxembourg
- Mexico
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal
- Slovak
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

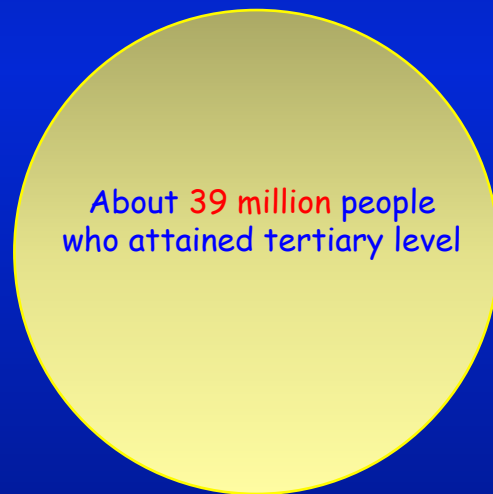
A world of change - higher education



The composition of the global talent pool has changed...

Countries' share in the population with tertiary education, for 25-34 and 55-64 year-old age groups, percentage (2009)

55-64-year-old population



25-34-year-old population

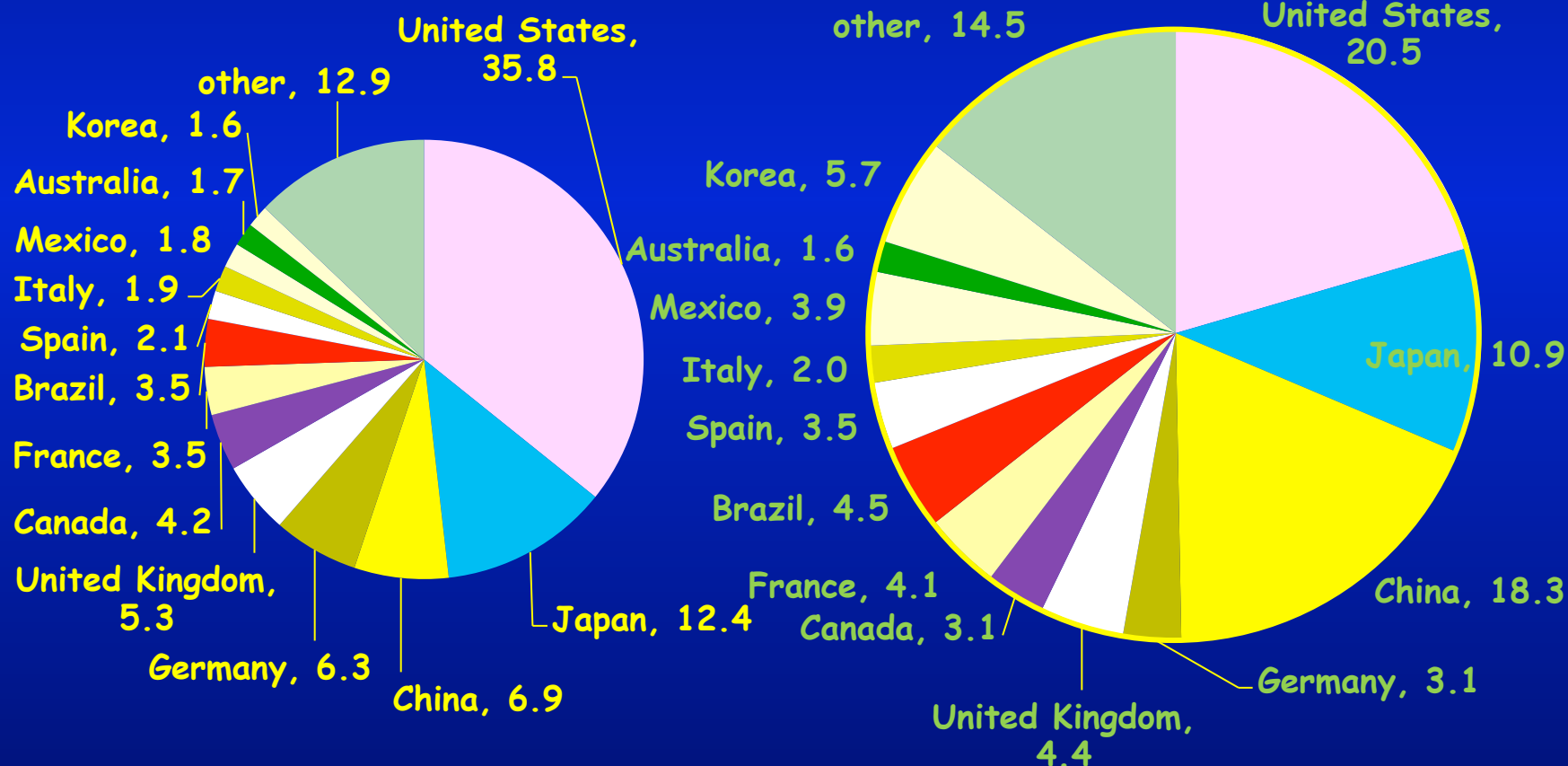


The composition of the global talent pool has changed...

Countries' share in the population with tertiary education, for 25-34 and 55-64 year-old age groups, percentage (2009)

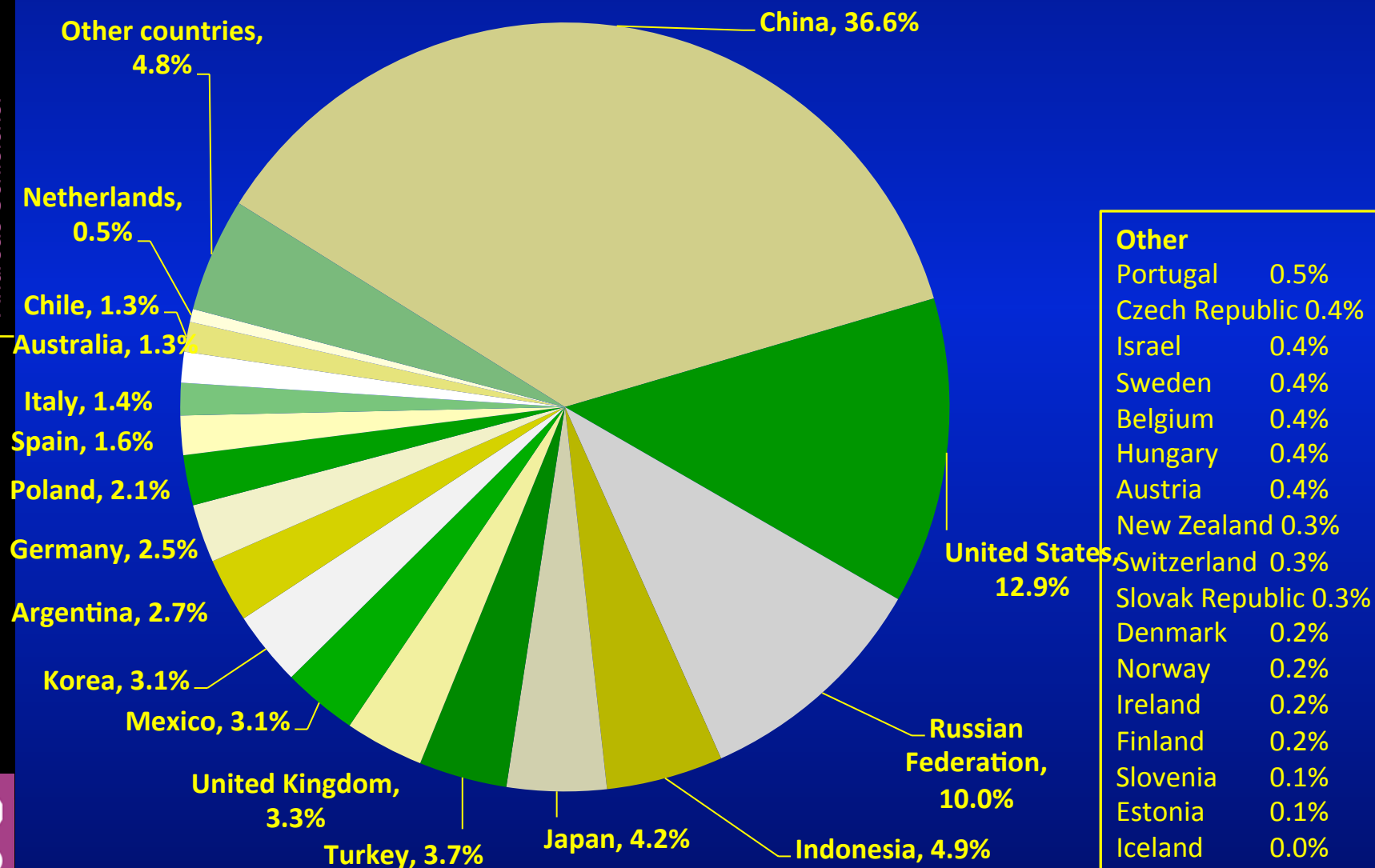
55-64-year-old population

25-34-year-old population



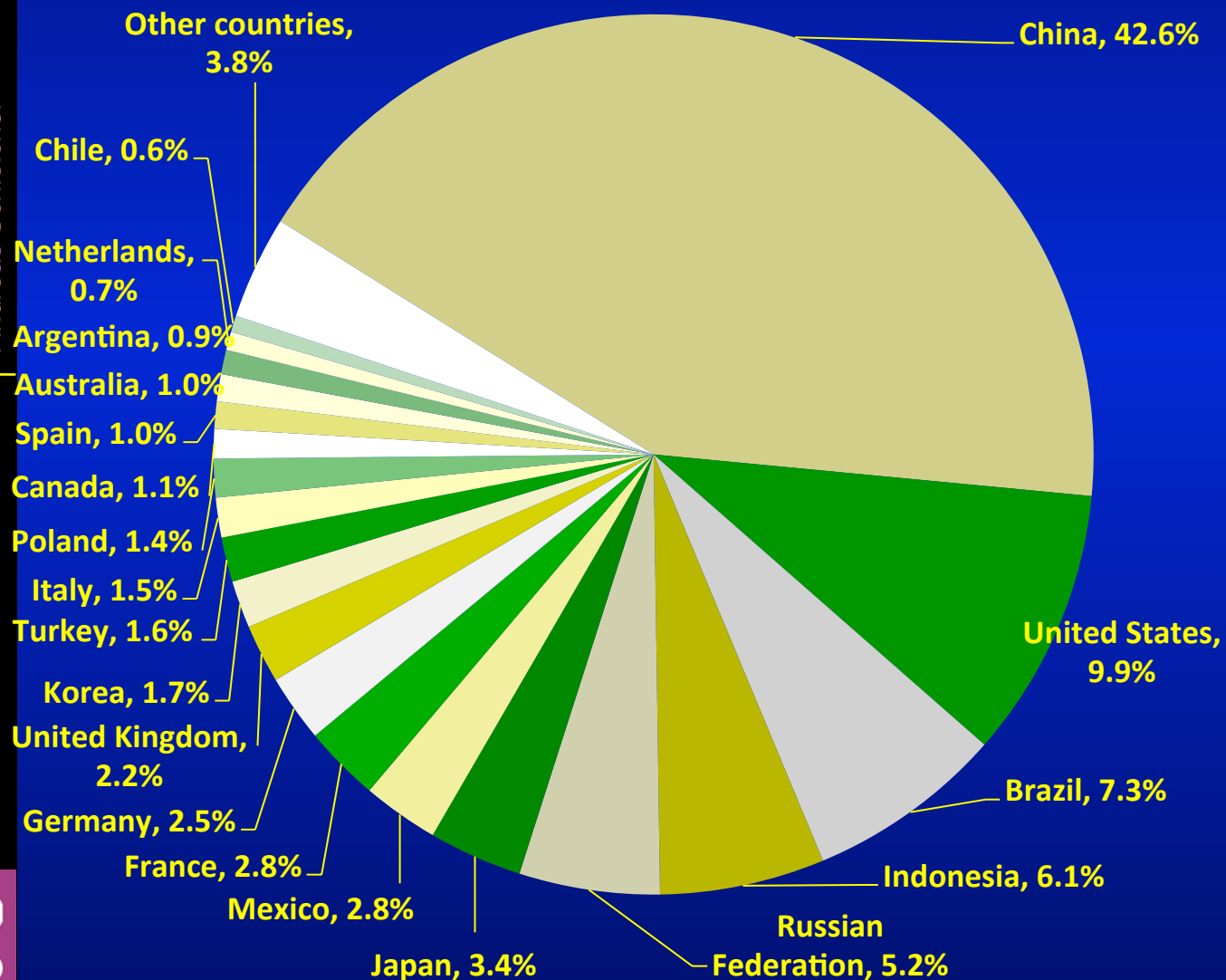
...and will continue to change

Share of new **entrants into tertiary education** in 2009 (all OECD and G20 countries)



...as also visible in the current output of schools

Share of **upper secondary graduates** in 2009
(all OECD and G20 countries)



Other

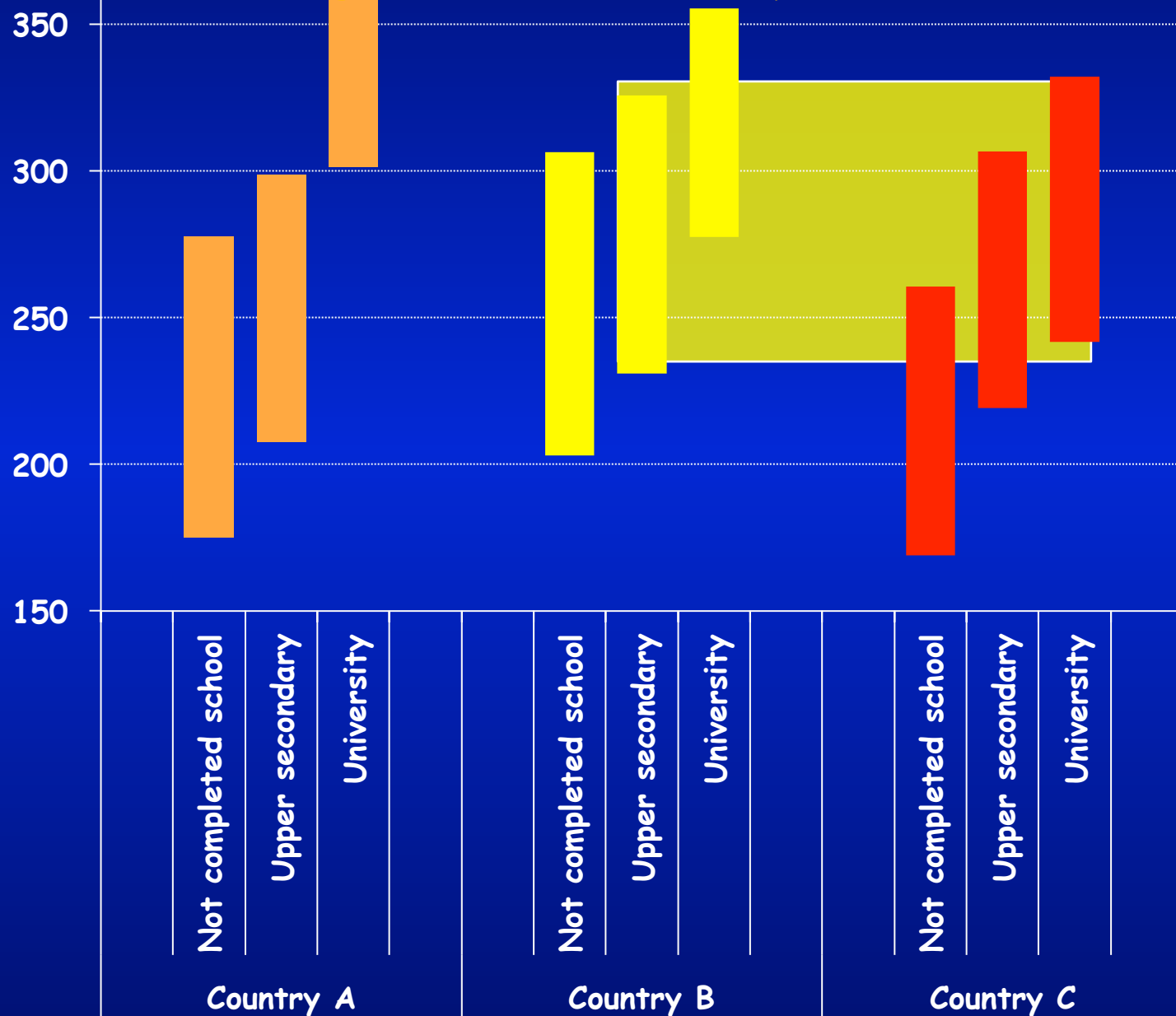
Belgium	0.4%
Portugal	0.4%
Czech Republic	0.3%
Hungary	0.3%
Israel	0.3%
Sweden	0.3%
Austria	0.3%
Switzerland	0.2%
Slovak Republic	0.2%
Finland	0.2%
Norway	0.2%
New Zealand	0.2%
Denmark	0.2%
Ireland	0.2%
Slovenia	0.1%
Estonia	0.0%
Iceland	0.0%
Luxembourg	0.0%

...but qualifications
are not the same as skills...

Measuring the value of qualifications

Skill score

Interquartile range in skill distribution by educational qualification



□ PIAAC will

- in each country interview 5000 adults aged 16-65 in their homes and testing their skills
- collect information on the antecedents, outcomes and contexts of skill development and use

... in order to...

- provide a comprehensive assessment of the human capital stock
- show to what extent skills held by individuals are actually used at work and identify the role skills play in improving labour market prospects
- improve understanding of the labour market and social returns to education and training
- help governments better understand how education and training systems can nurture these skills
- help countries prioritise investment of scarce resources in education
- contribute to building strategic partnerships for policy implementation .

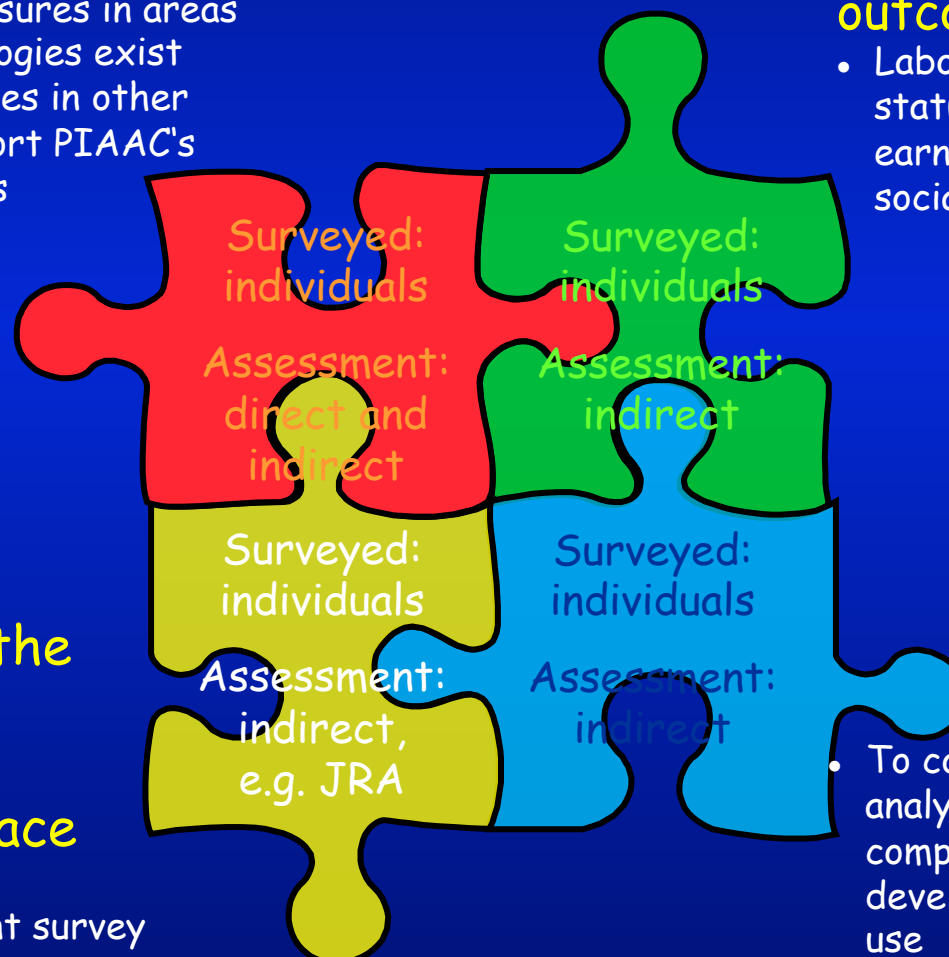
Key elements of PIAAC

Measures of adult competencies

- Test-based measures in areas where methodologies exist
- Indirect measures in other areas that support PIAAC's policy objectives

Measures of the utilisation of competencies at the workplace

- Through a job-requirement survey



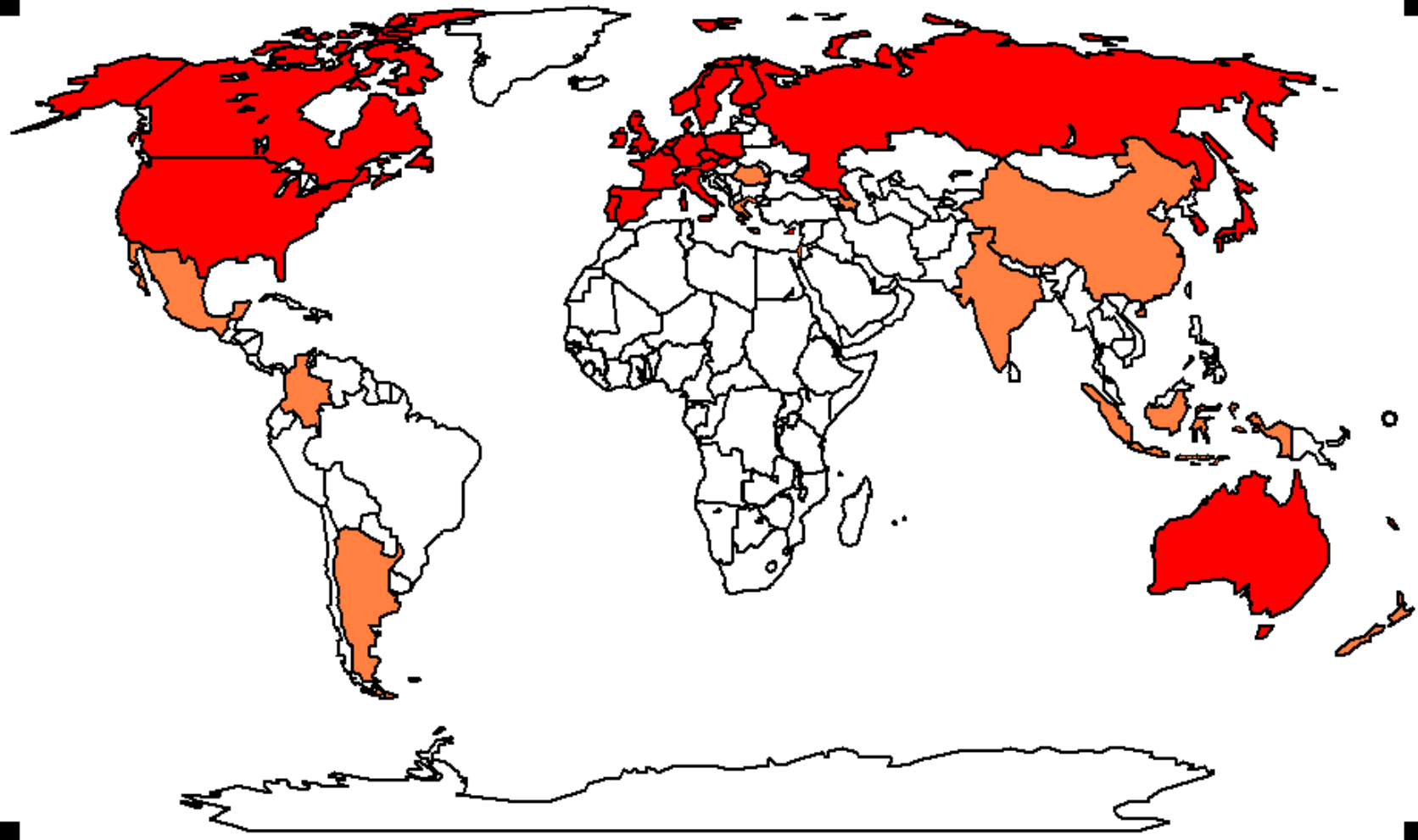
Measures of key social and economic outcomes

- Labour-market experience, status and transitions, earnings, adult learning, social outcomes

A background questionnaire

- To contextualise and analyse determinants of competencies, their development, and their use

PIAAC participating countries Round 2



- Description of the population with low skills, or special population groups such as immigrants, and interrelationships with labour-market outcomes.

- What is the role of skills in explaining differences in labour-market

- Labour force skills and the price of these skills are crucial to understand in the perspective of increasing global competition for jobs higher up in the skill hierarchy. PIAAC can tell us more about which cognitive and non-cognitive skills are important in particular.

- PIAAC can provide systematic insights into the risks and rewards for skills in the labour market, for individuals and economies, as well as for specific subgroups such as immigrants

important and does it translate into large earnings penalties? Have education and training systems in OECD countries shown sufficient adaptability in the face of changing skill demands or are skills mismatches endemic? How do task-based learning (JRA) and job-related training relate to the length of the working life? (but keep in mind that labour-market outcomes and training are snapshots in time whereas the measured skills are accumulated over the lifespan)

these relate to educational attainment?

Money pits

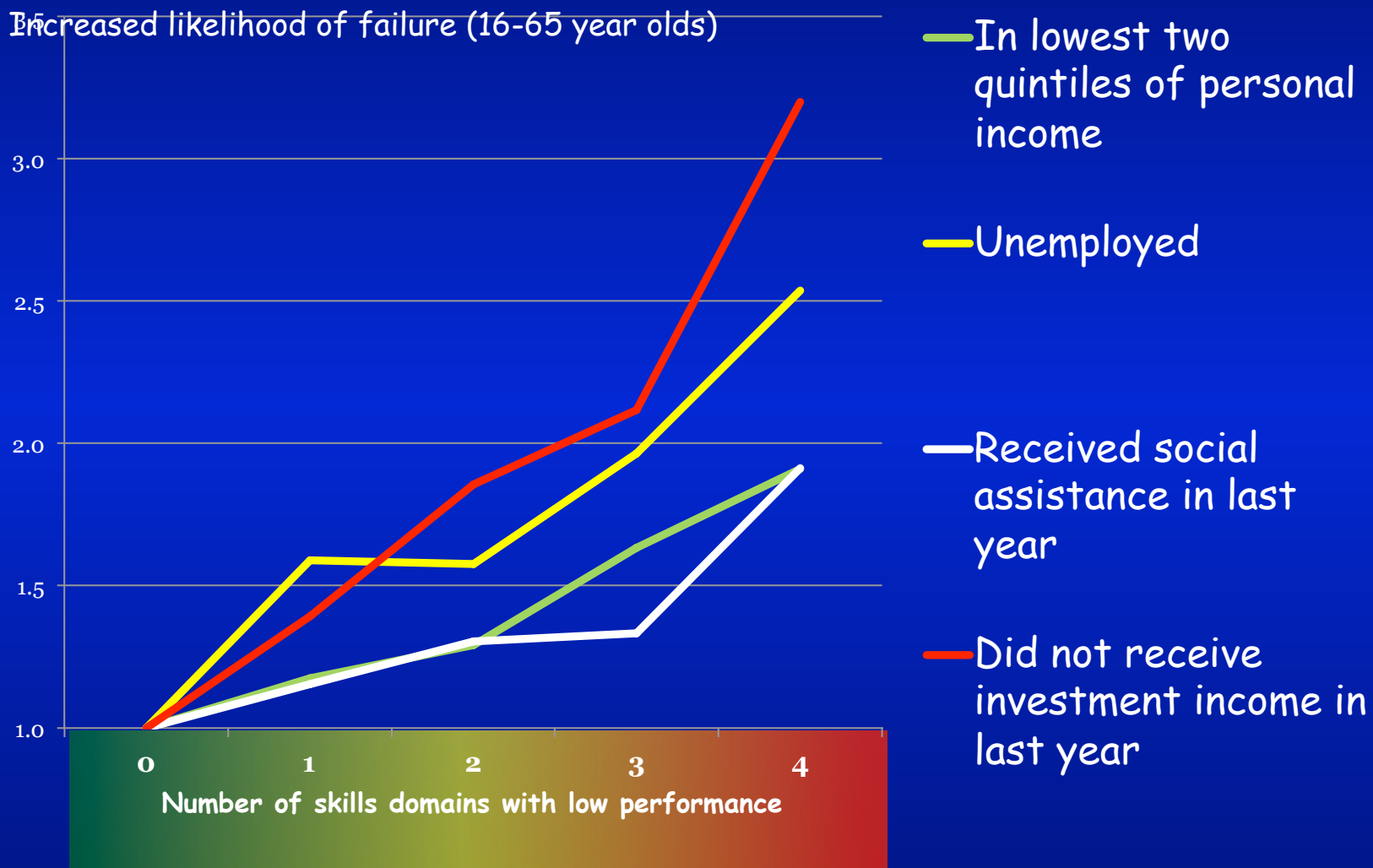
Low-hanging fruits

Skills matter for individuals...

...because skills have an increasing impact on labour market outcomes and social participation

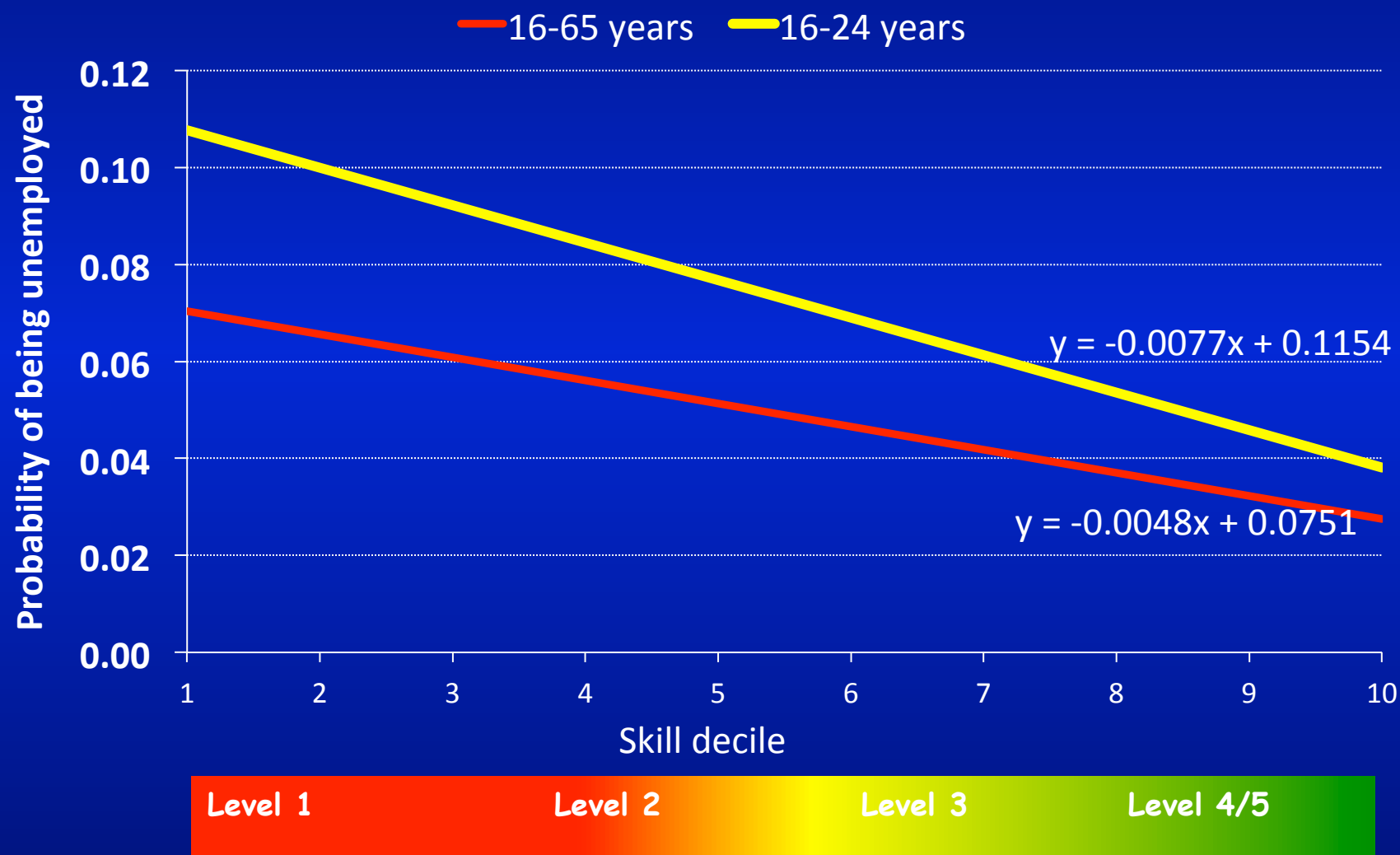
Low skills and economic outcomes

Increased likelihood of failure (16-65 year olds)



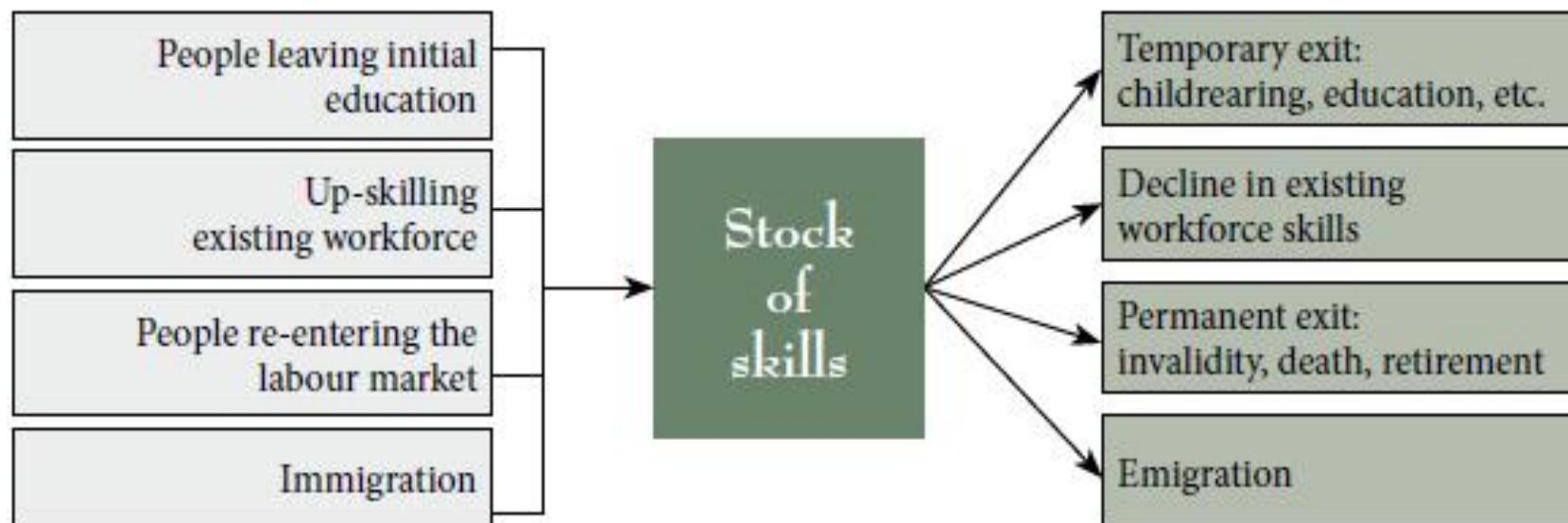
Odds are adjusted for age, gender and immigration status.

Marginal probability of being unemployed by skill decile



Adjusted for age, gender, foreign language status, and country.

Producing an effective skill mix



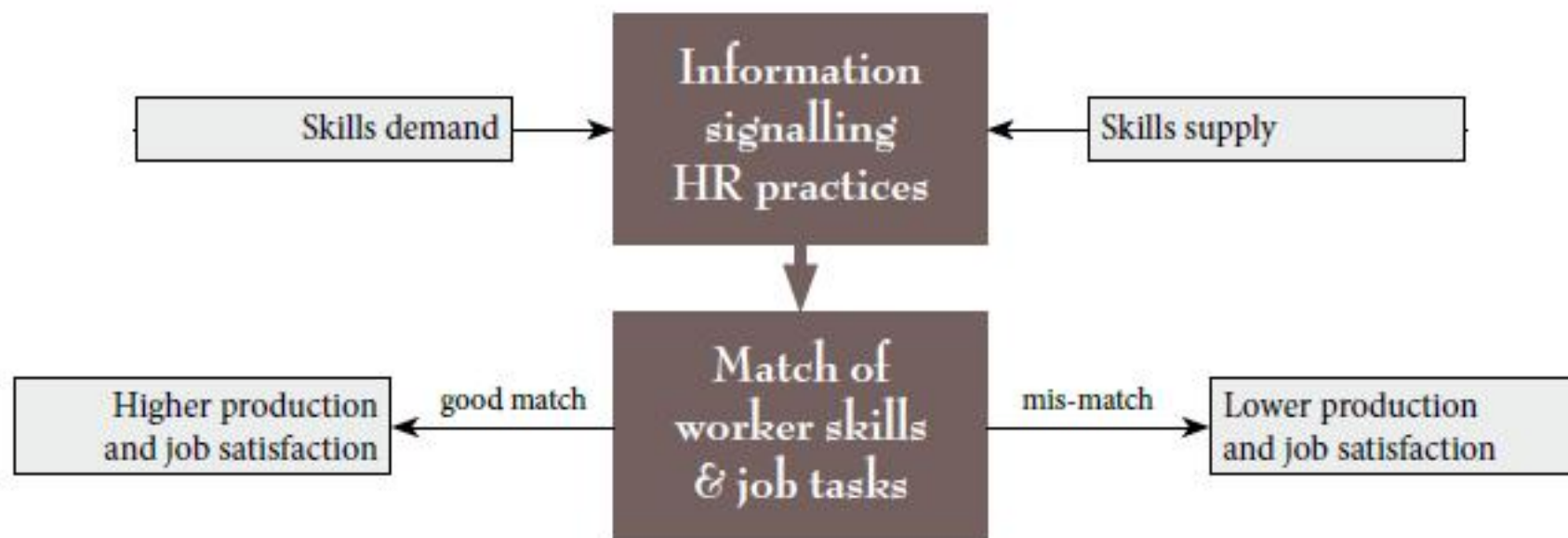
Drivers of current and future demand of skills

Instruments to ensure responsiveness
of education provision to labour demand

Optimising access to education and training throughout life

Impact of migration and international labour mobility on skill
formation systems

Optimising the use of skills



Which measures help optimise the utilisation of skills on the job?

How can workforce participation be boosted?

Which tools facilitate the recognition of skills?

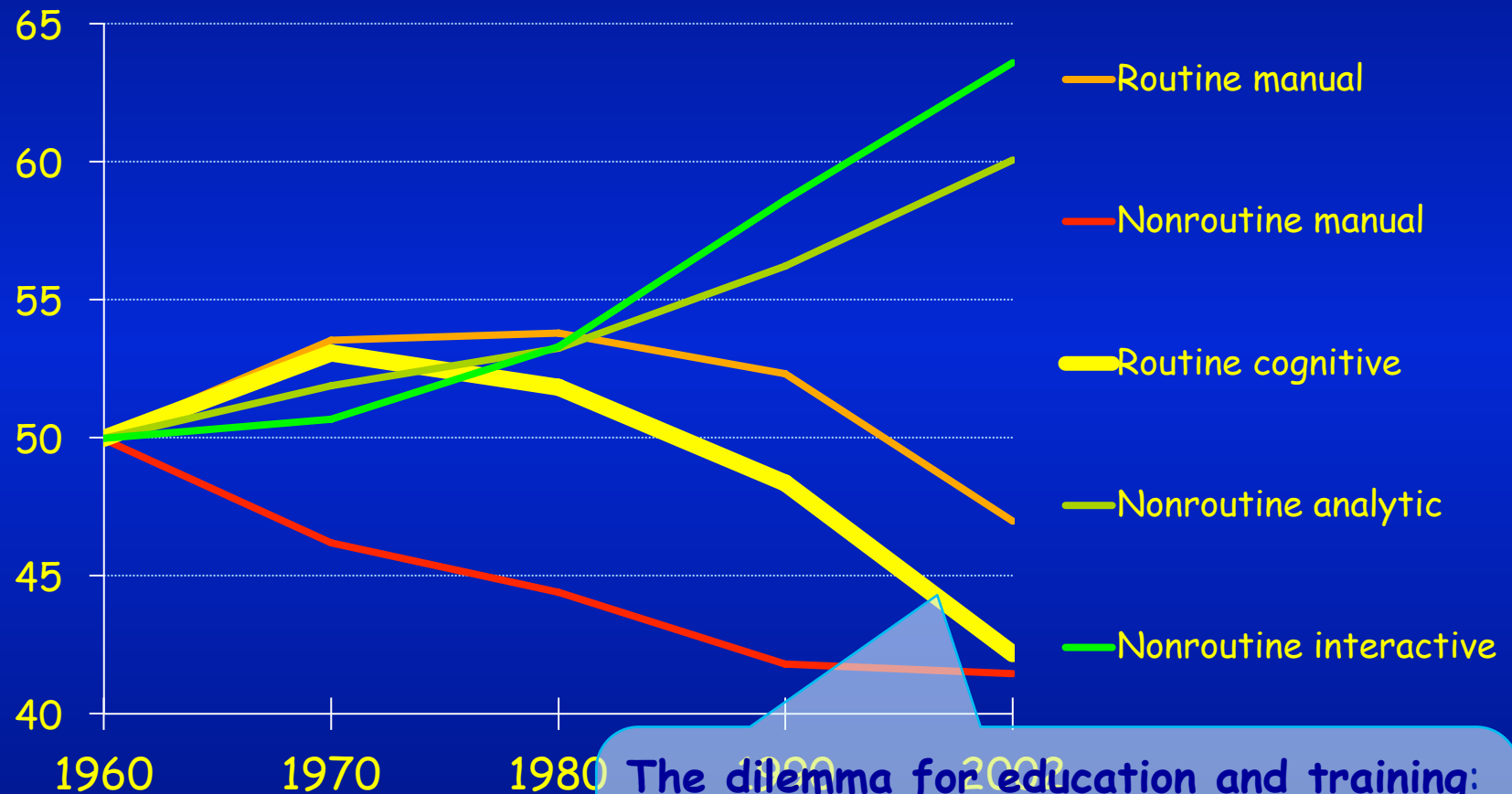
How can transparency of skills systems be ensured?

What information is necessary to facilitate matching of skills?

Mean task input as percentiles of the 1960 task distribution

How the demand for skills has changed

Economy-wide measures of routine and non-routine task input (US)



(Levy and Murnane)

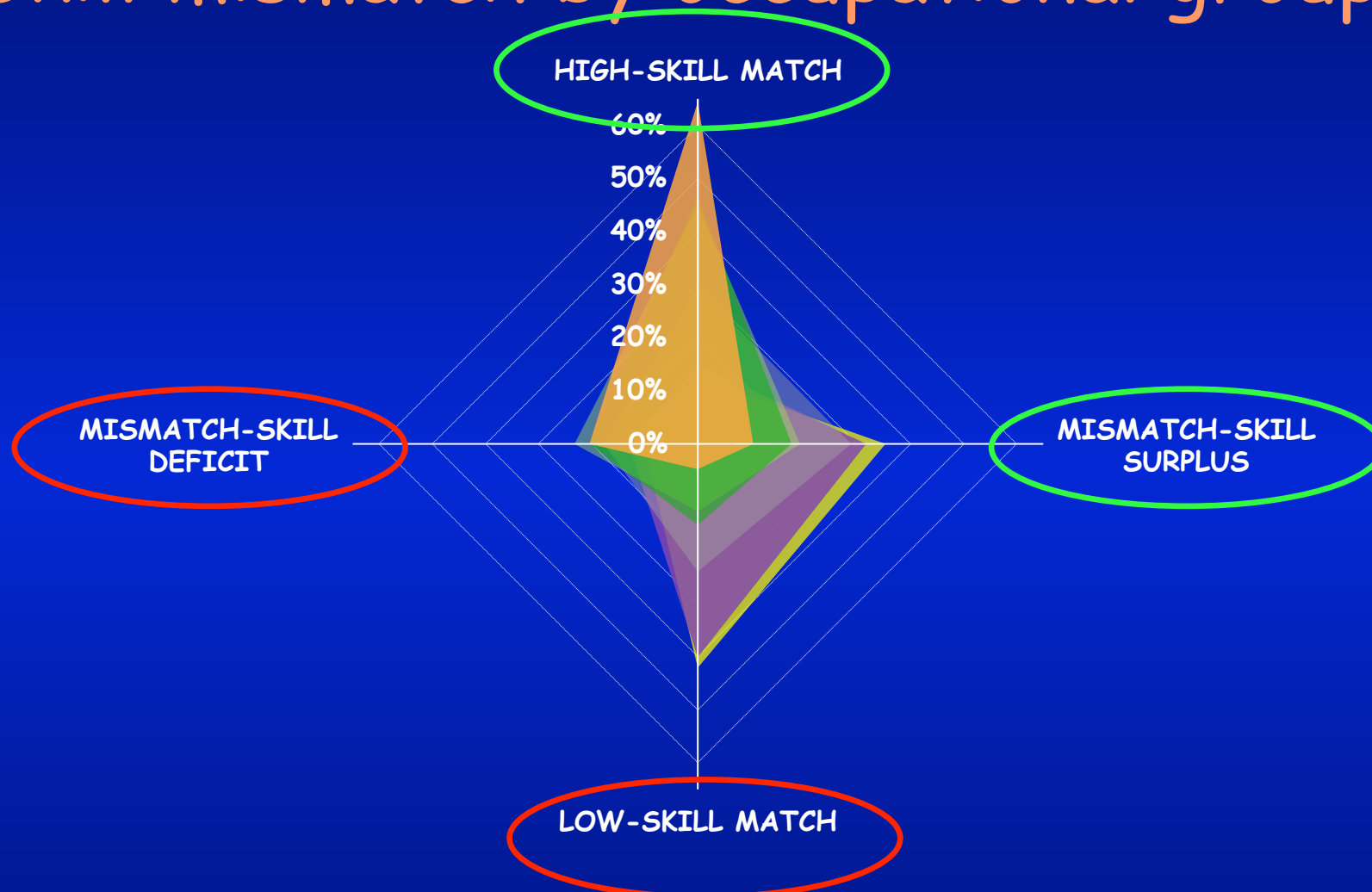
The dilemma for education and training:
The skills that are easiest to teach and test are also the ones that are easiest to digitise, automate and outsource

Changes in employment shares by occupation 1960-2009, selected OECD countries



Australia, Austria, Belgium, Canada, Chile, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Korea, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom and United States.

Skill mismatch by occupational groups



■ Goods

■ Information (high-skill)

■ Service (low-skill)

■ Managers

■ Information (low-skill)

■ Knowledge (expert)

Making investment in skill development and utilisation more efficient

Who should pay for what, when and how?

Which is the right level of intervention
(regional and local dimension)?

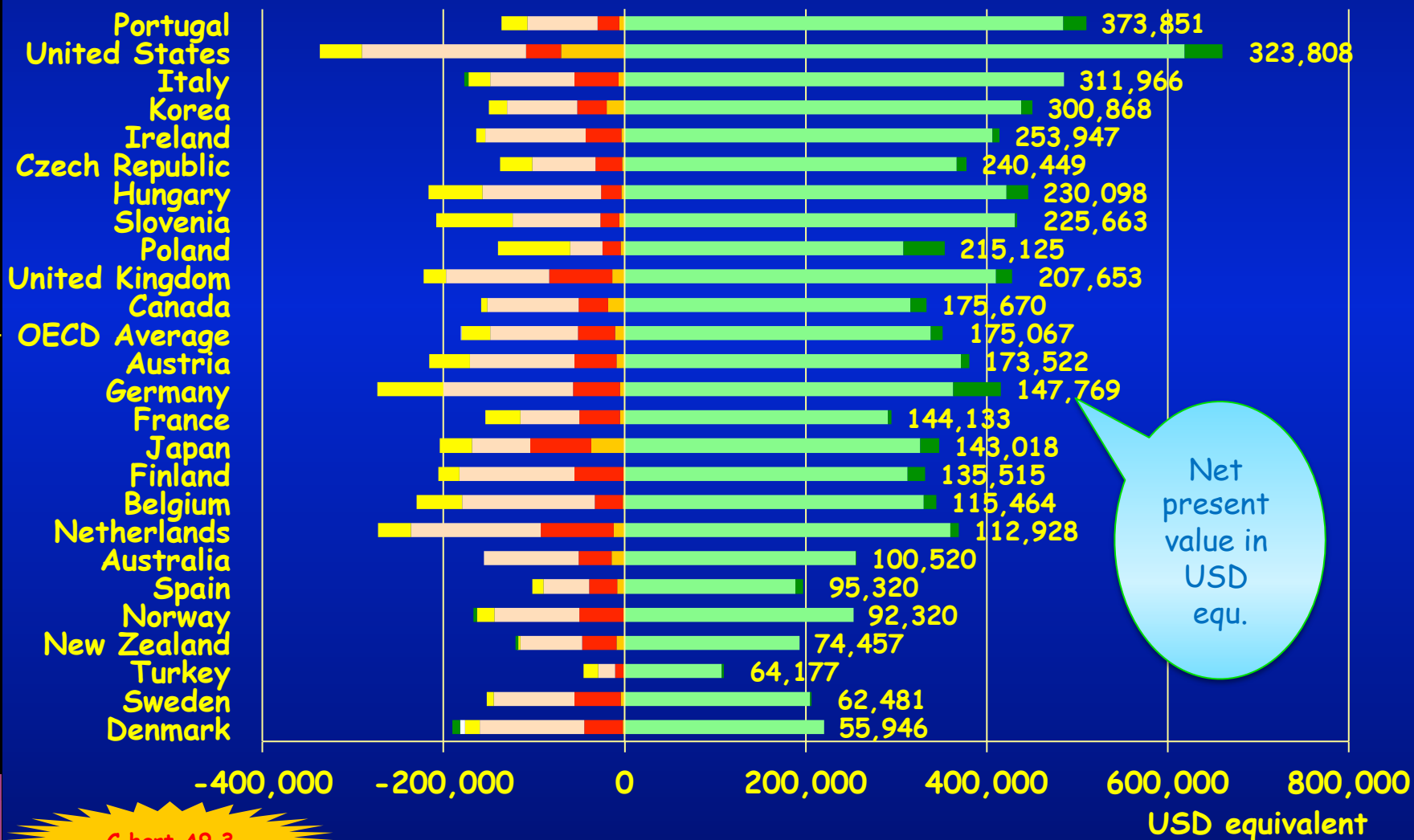
How should financing and incentives (to employers and individuals)
be structured?

What are good models of policy evaluation to ensure efficiency/
continuity of skills policies?

Individuals are getting a good return...

Components of the private net present value for a man with higher education (2007 or latest available year)

- Direct cost
- Social contribution effect
- Unemployment effect
- Foregone earnings
- Transfers effect
- Income tax effect
- Gross earnings benefits



C hart A9.3

Percentage-point change in relative earnings 25-64 year-olds (1998-2008 or latest available years)

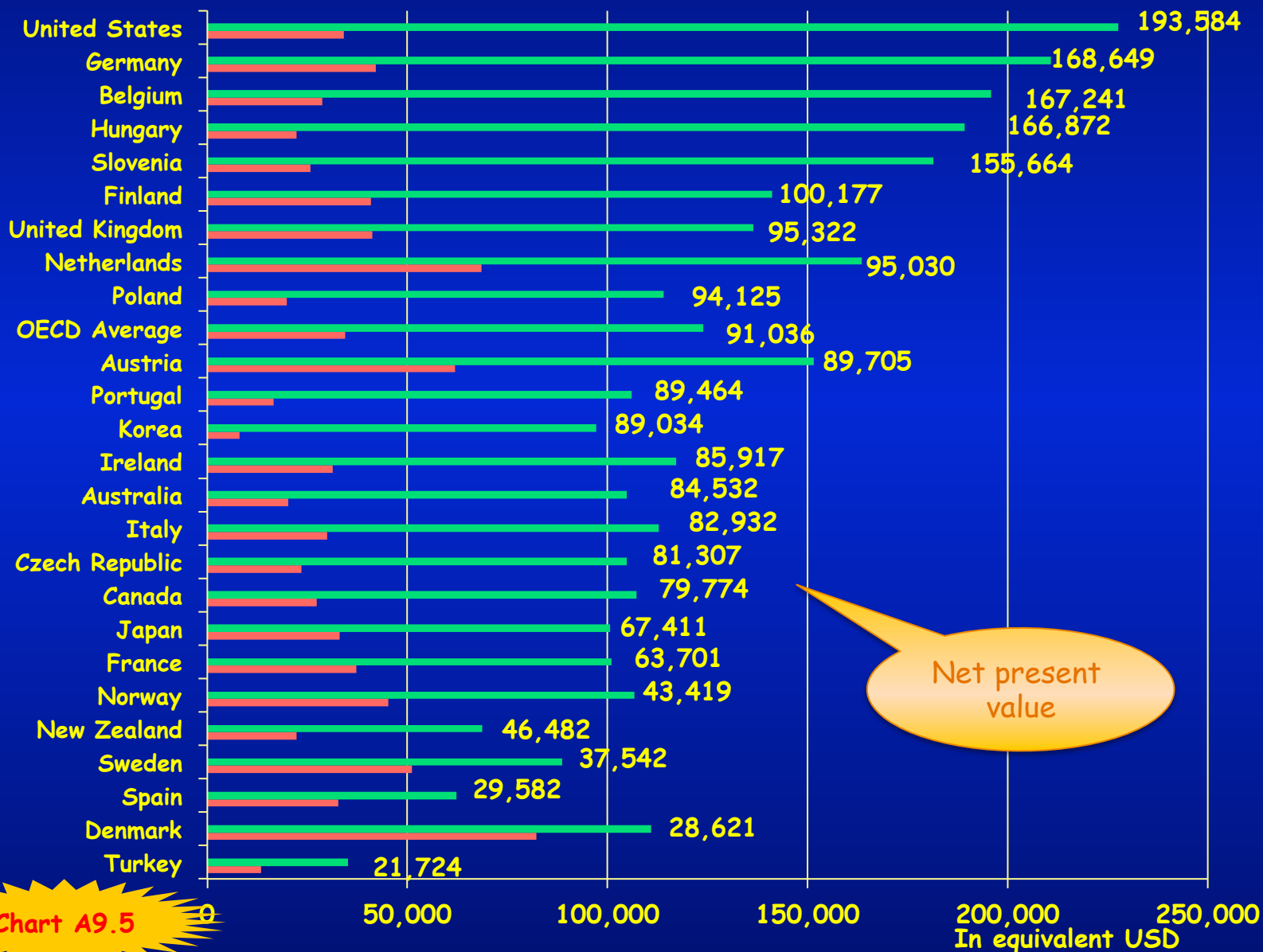
OECD countries	Tertiary	
Australia	1.6	
Austria*	2.8	
Belgium*	3.7	
Canada*	0.0	
Czech Republic	9.1	
Denmark	3.2	
Finland*	-6.2	
France	-3.6	
Germany	21.6	
Hungary	11.1	
Ireland*	10.9	
Israel*	2.7	
Italy*	11.7	
Korea*	-9.7	
Luxembourg*	16.8	
Netherlands*	10.8	
New Zealand	-2.1	
Norway*	-5.5	
Poland*	6.1	
Portugal	-8.7	
Slovenia*	-7.4	
Spain*	12.5	
Sweden	-5.2	
Switzerland	1.2	
United Kingdom	-3.2	
United States	13.0	

* Limited years; Other notes: Yellow within +/- 3%; Red > -3%; Green > +3%

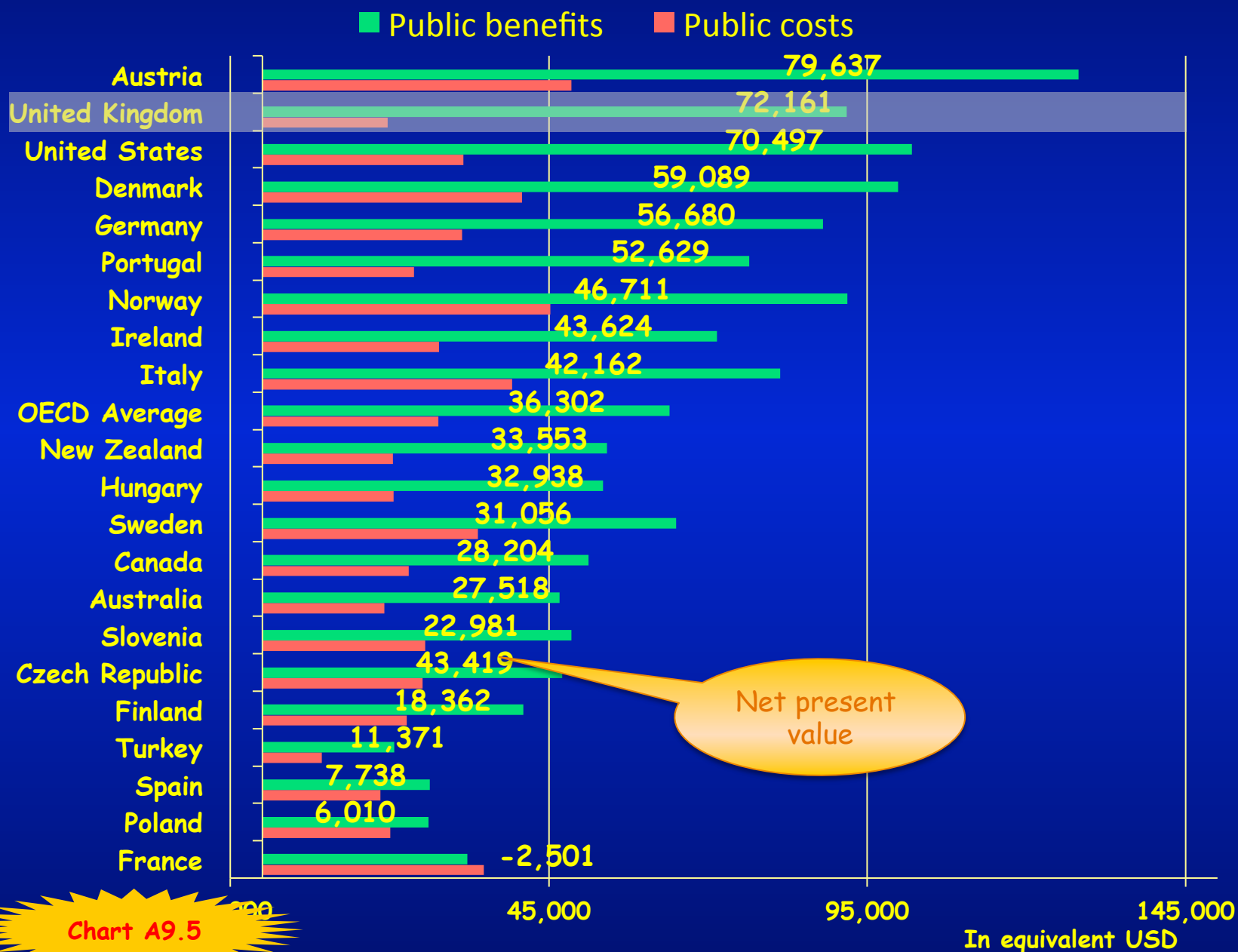
...Taxpayers are getting a good return too

Public cost and benefits for a man obtaining tertiary education (2007 or latest available year)

■ Public benefits ■ Public costs



Public cost and benefits for a man obtaining upper secondary or post-secondary non-tertiary education (2007 or latest available year)



The crisis hit the least educated hardest

Lack of relevant skills/experience brings higher
unemployment risk for recent entrants
to the labour force

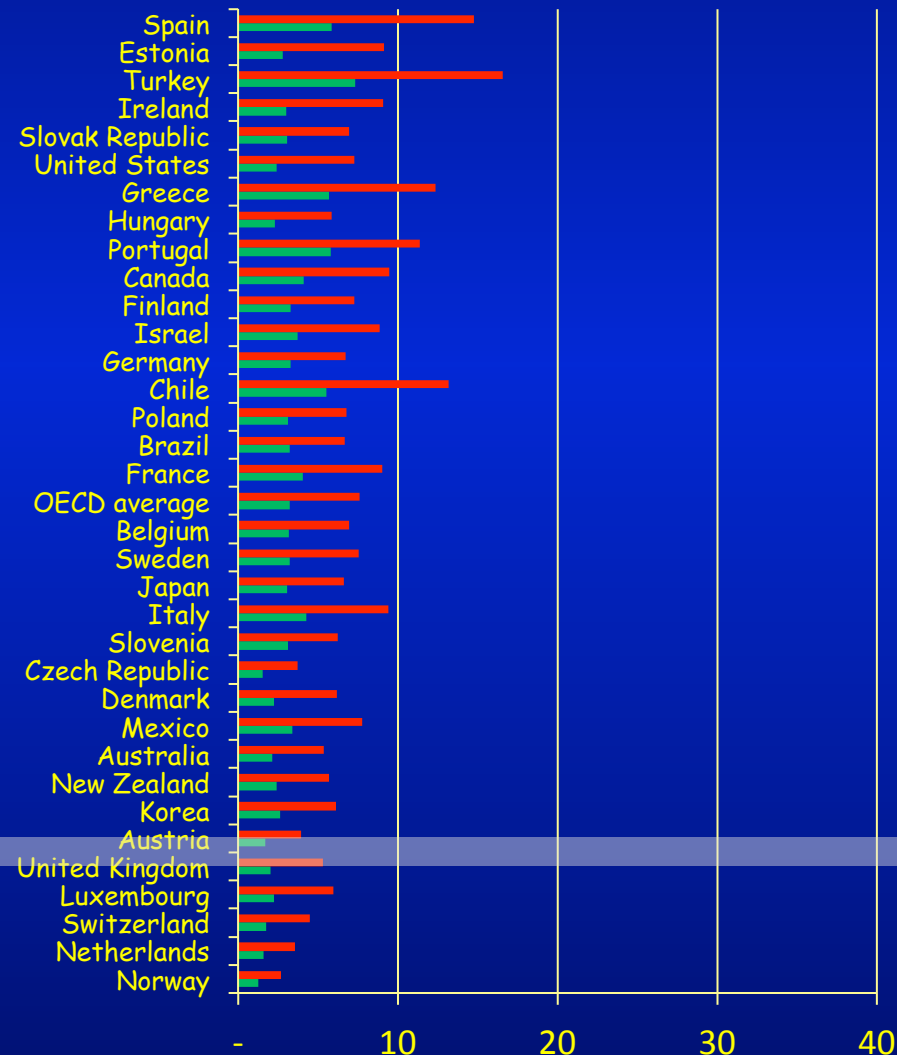
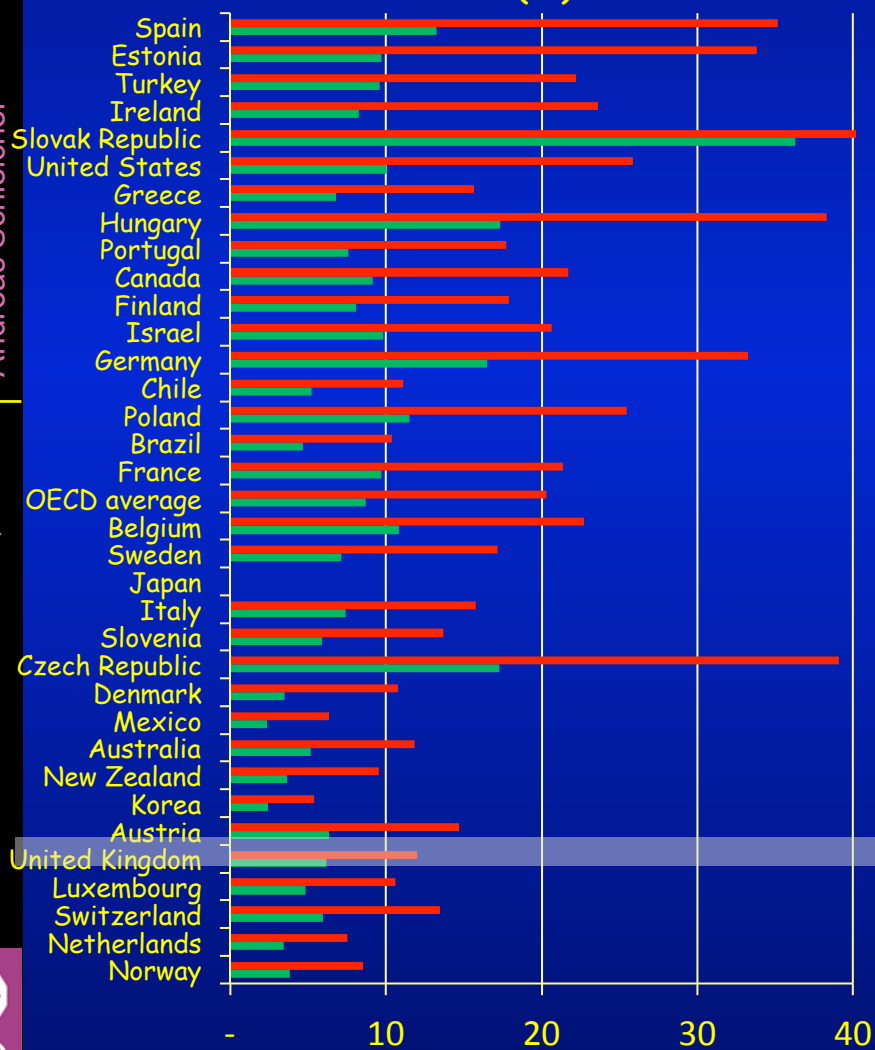
When the crisis hit

Percentage-point change between 2008-09 in unemployment rate for 15-29 year-olds

2008 2009

Below upper secondary
education (%)

Tertiary education (%)



Lisbon Council
15 September 2011
Andreas Schleicher

PIAAC
OECD Programme for the international
assessment of adult competencies

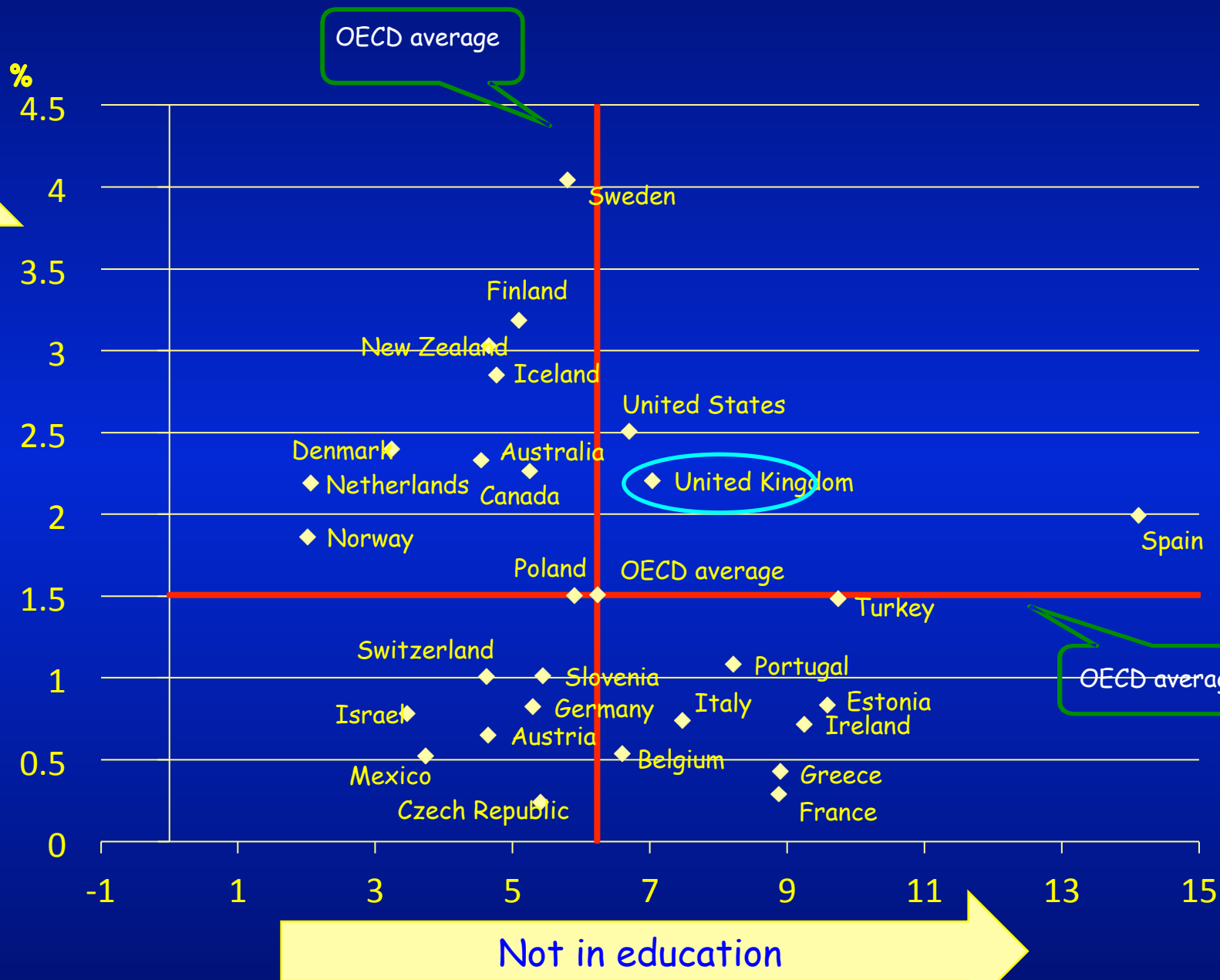
Proportion of 15-29 year-olds unemployed (2009)

Lisbon Council
15 September 2011
Andreas Schleicher

PIAAC
OECD Programme for the international
assessment of adult competencies



In education



Proportion of 15-29 year-olds unemployed, by duration of unemployment (2009)

Not in education

In education

■ Unemployed less than 6 months
■ Unemployed more than 6 months

■ Unemployed less than 6 months
■ Unemployed more than 6 months

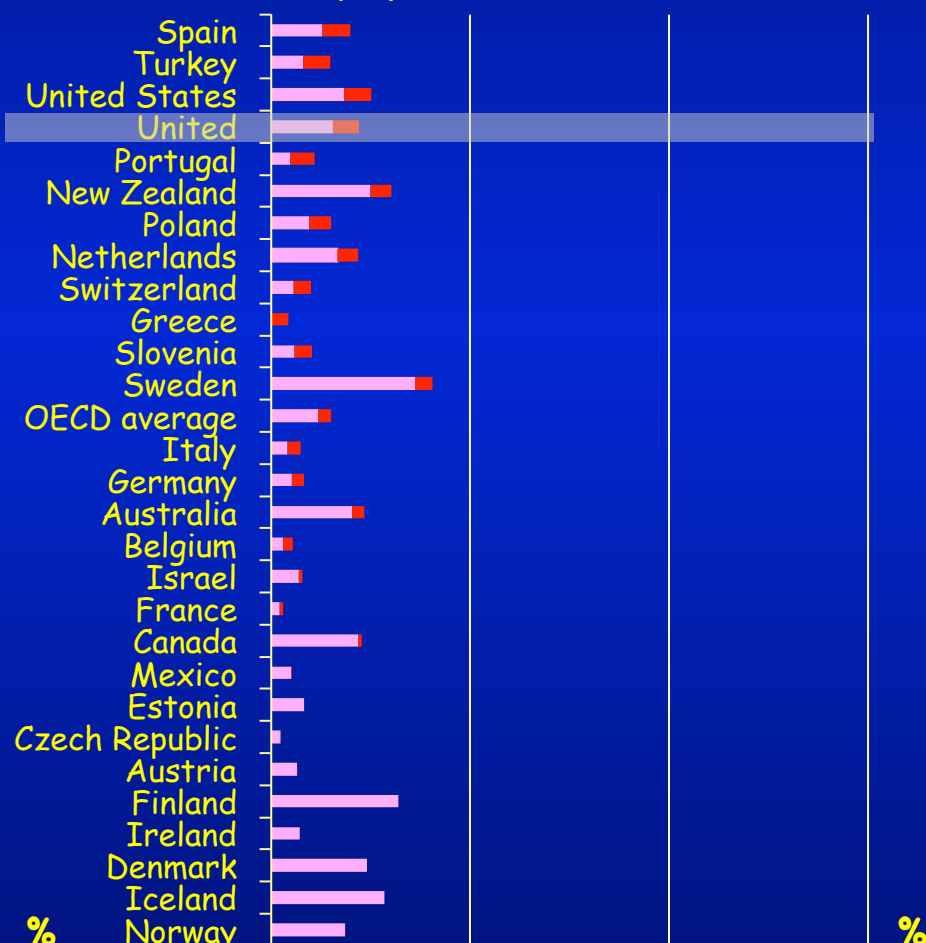
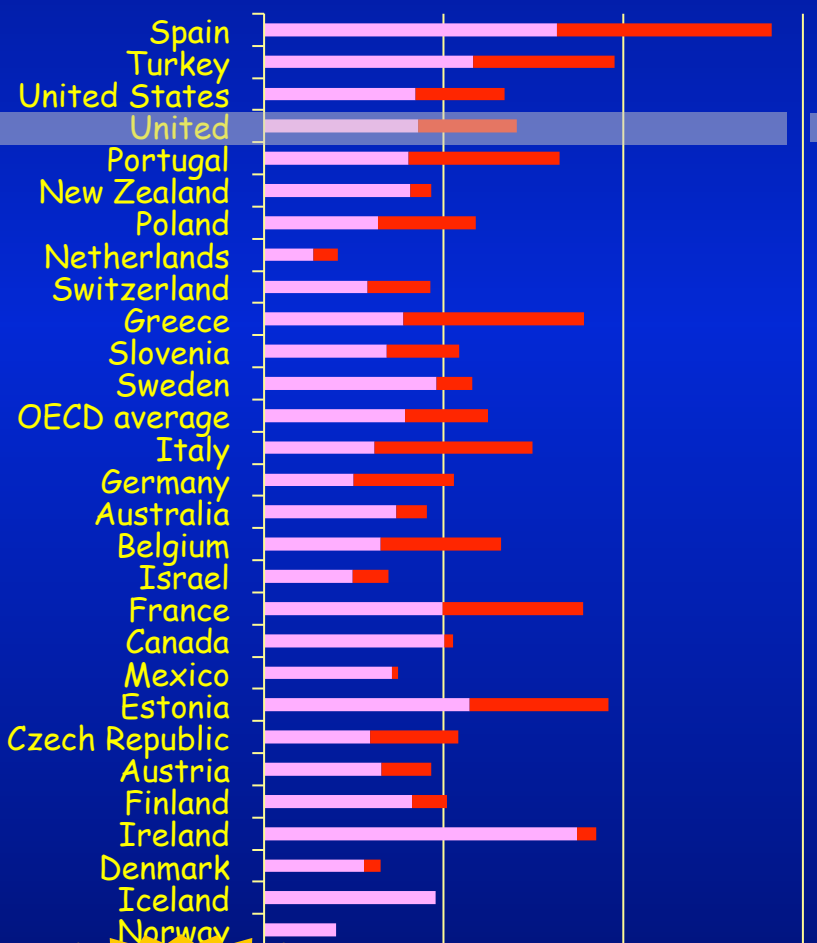


Chart C4.4

We can do better
(probably a lot)

What we need to resolve...

- ❑ Some people have poor foundation skills
- ❑ Shortages, skills gaps exist
- ❑ Skills are underutilised (unemployment, low rates of labour market participation)
- ❑ There is evidence of mismatch
- ❑ Are we skilling for future jobs (quantity and quality)?

What we can do

- ❑ Mobilise and develop comparative intelligence on skills and skill utilisation
- ❑ Prioritise investment of scarce resources in skills development
- ❑ Foster peer learning and look at skills beyond the nation state
- ❑ Contribute to building strategic partnerships for policy implementation .

In Conclusion

Pillar 1: ***Labour market responsiveness***

- Curricula and provision is informed by labour market needs
- Education systems are flexible and responsive
- Preparing for future labour market needs

Pillar 2: ***Attention to quality***

- Setting high performance standards
- Quality assurance at all levels of education
- Preparing, attracting and retaining good quality teachers

Pillar 3: ***Adequate skills use***

- Good quality career guidance
- Transparent skills systems (recognition, assessment, qualification frameworks)
- Effective HRM in firms
- High demand

Pillar 4: ***Open/equal access***

- No barriers to participation in education
- easy re-entry and second chance options
- Labour market participation (including marginalised groups)

Pillar 5: ***Effective partnerships***

- Co-ordination at all levels of government
- Engagement of social partners and education stakeholders
- Co-ordinating policy fields (skills, labour, family, migration)



Thank you !