



# MEGA-TRENDS SHAPING SOCIETIES AND IMPACTING ON HIGHER EDUCATION

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# Mega-trends...

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*Lower voter turnout*

**Migration and  
mobility**

*International  
inequality*

*Ageing Populations*

**Global Economic Integration**

**Knowledge-intensive Economies**

**A digital society**

**More satisfied with life?**

*More diverse families,  
generally smaller and with  
older parents*

**Women in the labour market  
and childbirth**

*Changing balance of global power*

**Almost ubiquitous access and use of computing and the Internet**

*Intergenerational Transmission of Disadvantage*

**Skills mismatch**

**Urban life**

**Obesity epidemic**



# GLOBALISATION



### Question:

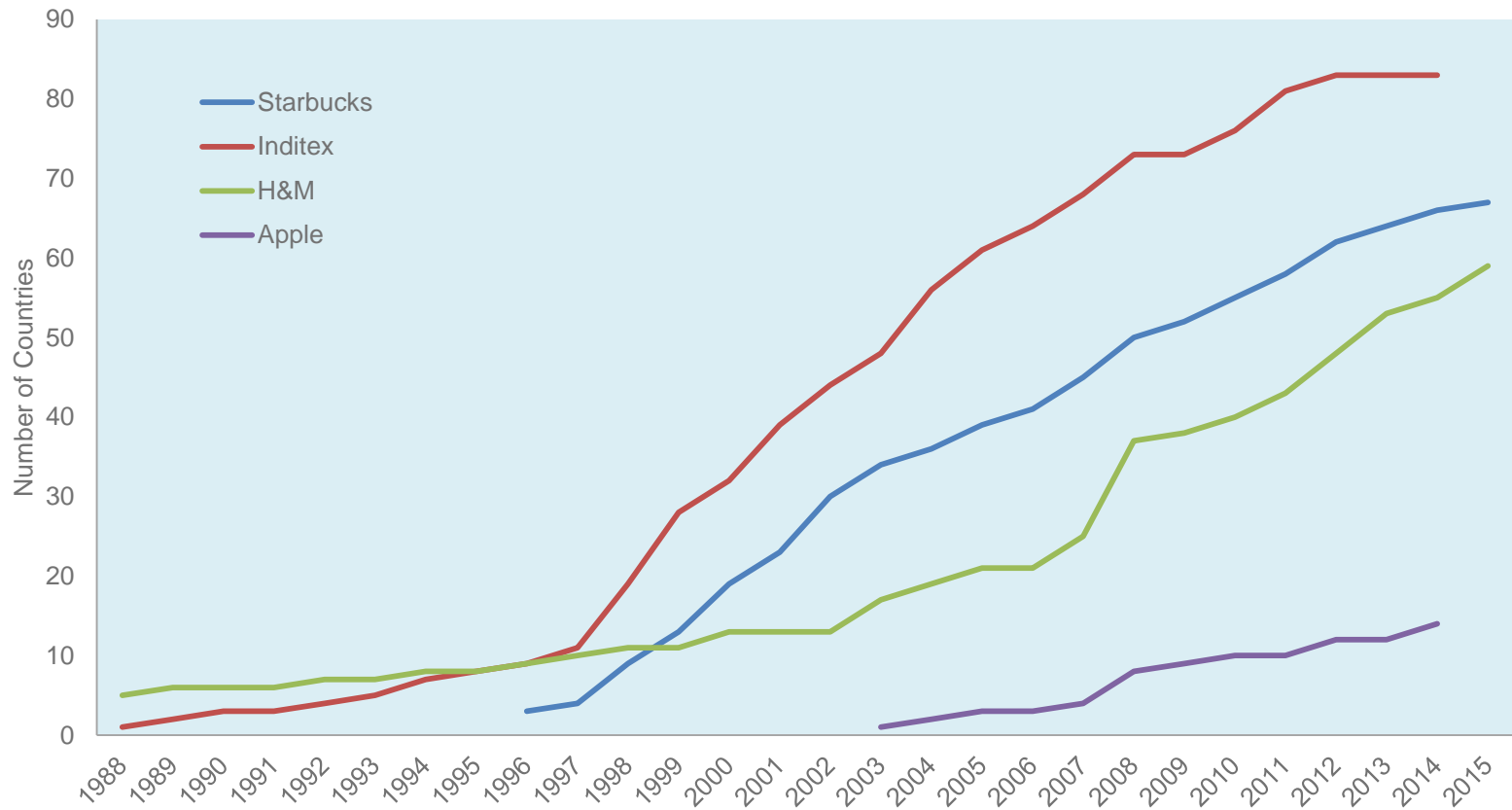
*Starbucks was launched in 1971 in Pike Place Market in Seattle. It has since grown into a major multinational. How many countries does Starbucks currently operate in?*

- a. 35
- b. 52
- c. 67



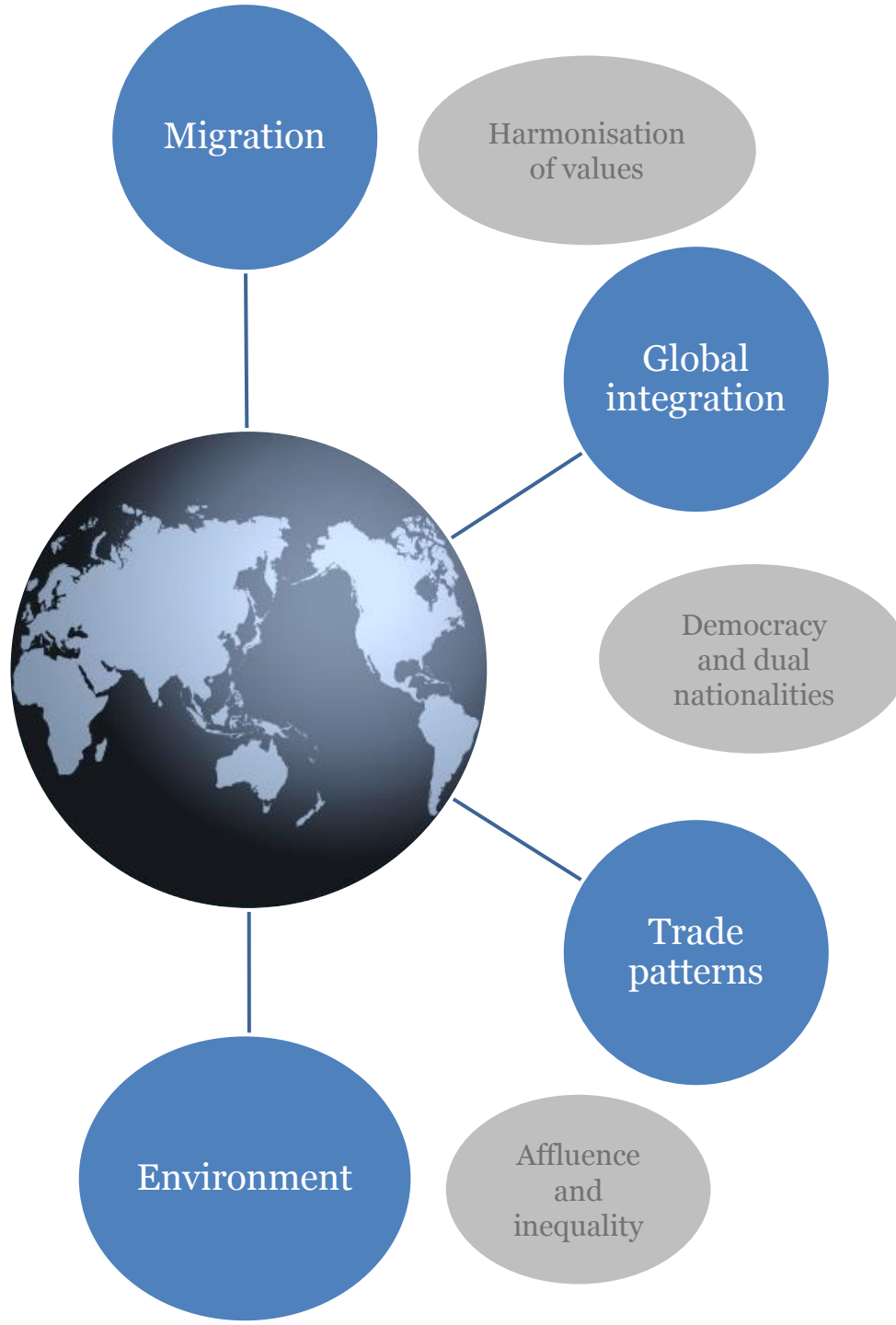
# Global expansion of multinational companies

The global reach of five companies in food services, garments, banking, and technology, 1988-2015



Sources: H&M (2015), *H&M Worldwide website*; Inditex (2015), *Our History*, Inditex website; Tarzian, JoanMarie (2015), *Santander Corporate Communication – International Media Relations*; Starbucks (2015), *Company Information*, Starbucks website; Hoover, Joan (2015), *Apple Investor Relations*; Spencer, Graham (2015), *Contributor*, Macstories.

# GLOBALISATION



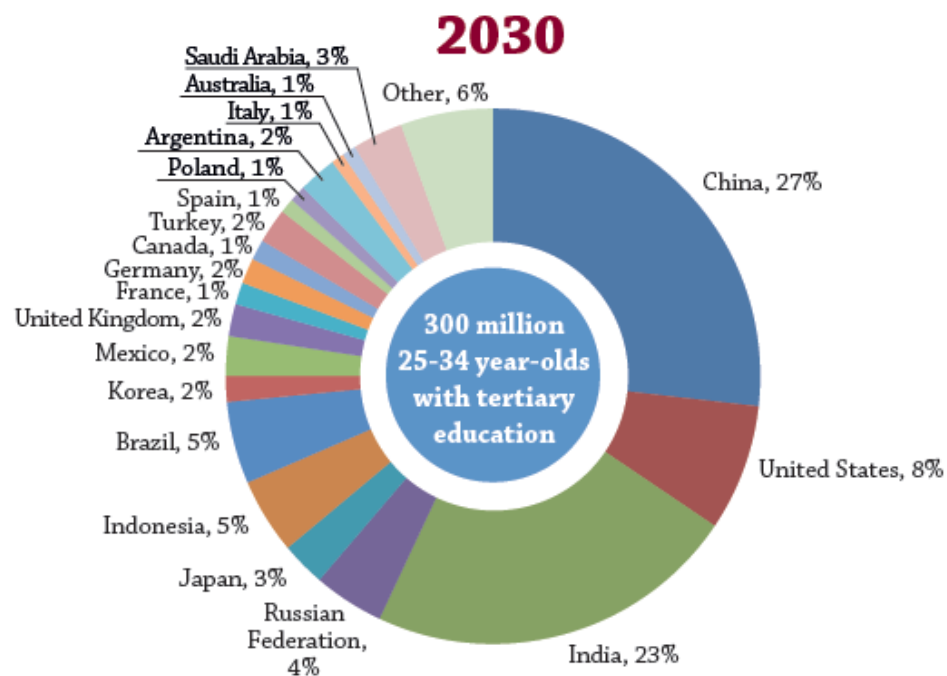
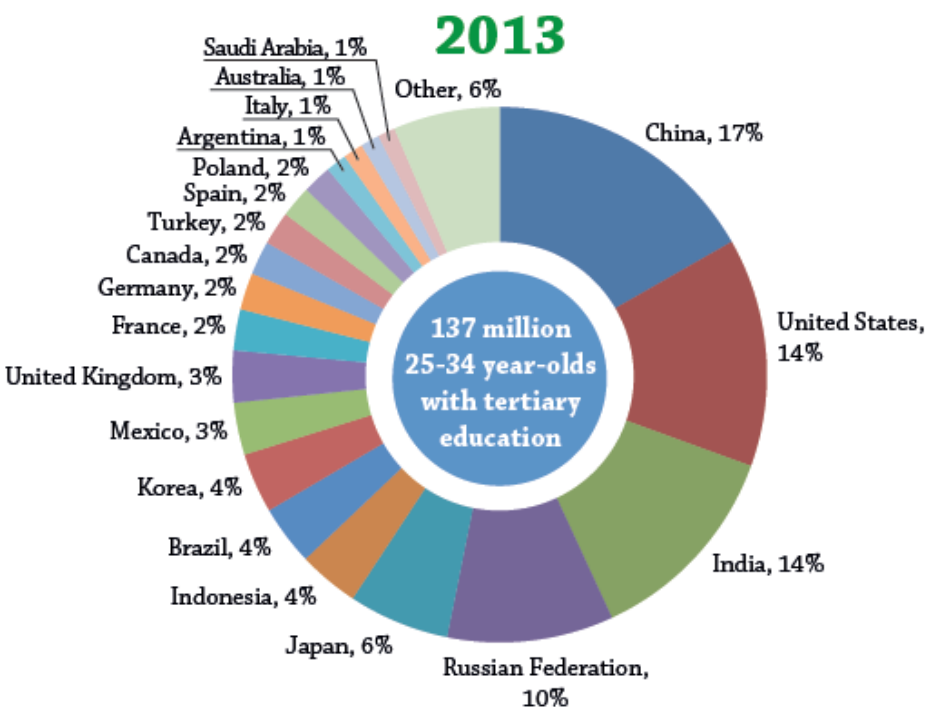
Globalisation also generates inequalities and exclusion.  
*How strong is the backlash against globalisation among the excluded?*





# Global expansion & redistribution of qualifications

## Global distribution of tertiary educated 25-34 y-olds in 2013 and 2030

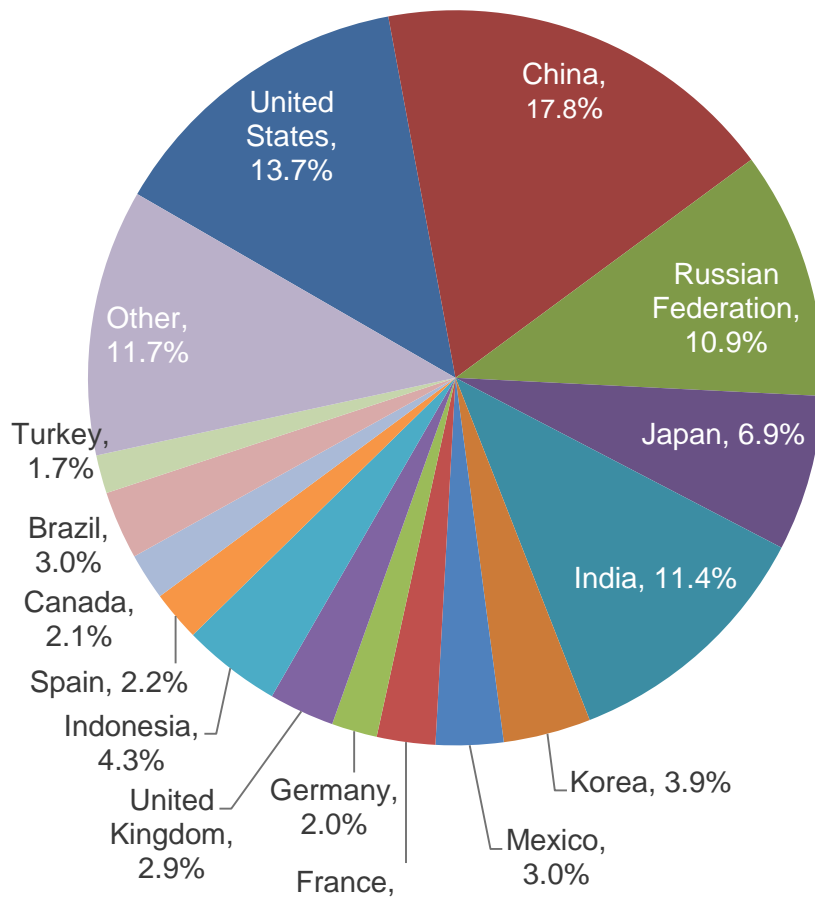




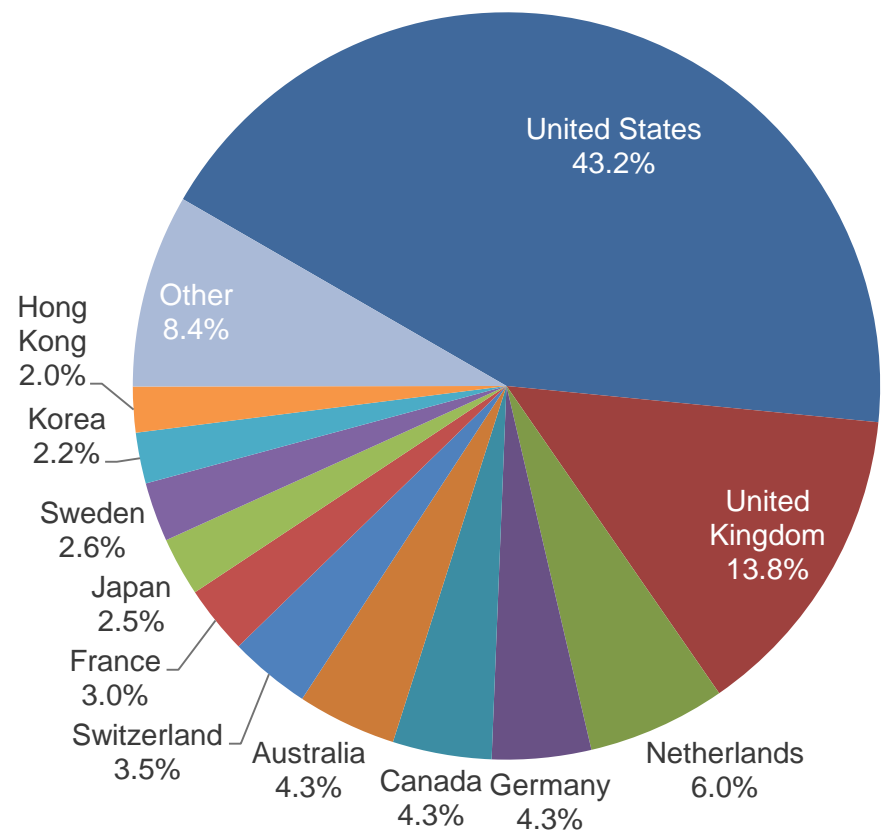


# Global distribution of academic graduates and academic excellence

Share in academic *graduates* 2010



Share in academic *excellence*  
THEWUR 2012





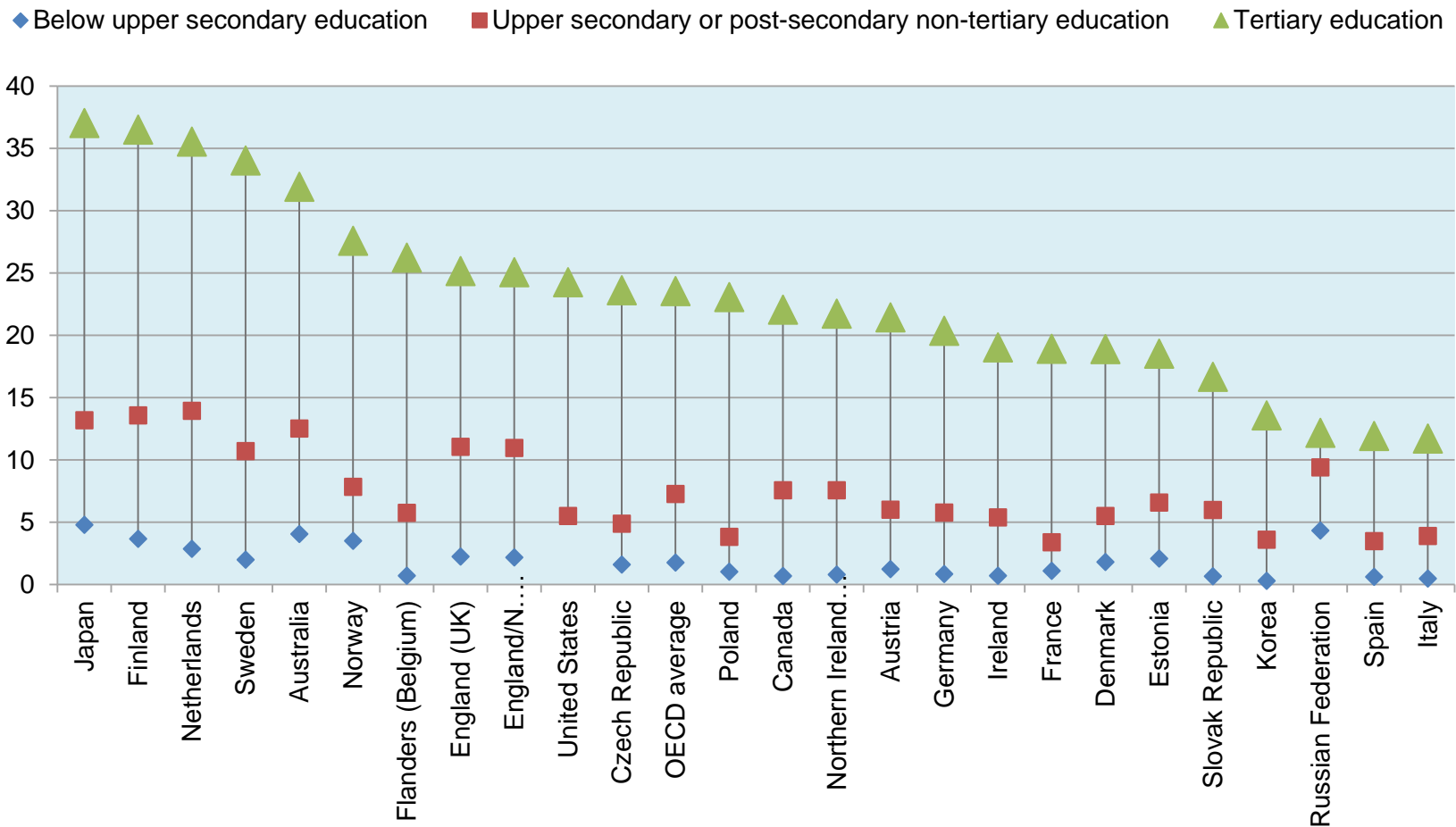
# Globally connected networks in research





# Global integration of qualifications?

Proportion of 25-64 year-olds scoring at PIAAC numeracy level 4 and 5, by educational attainment of the population (2012)

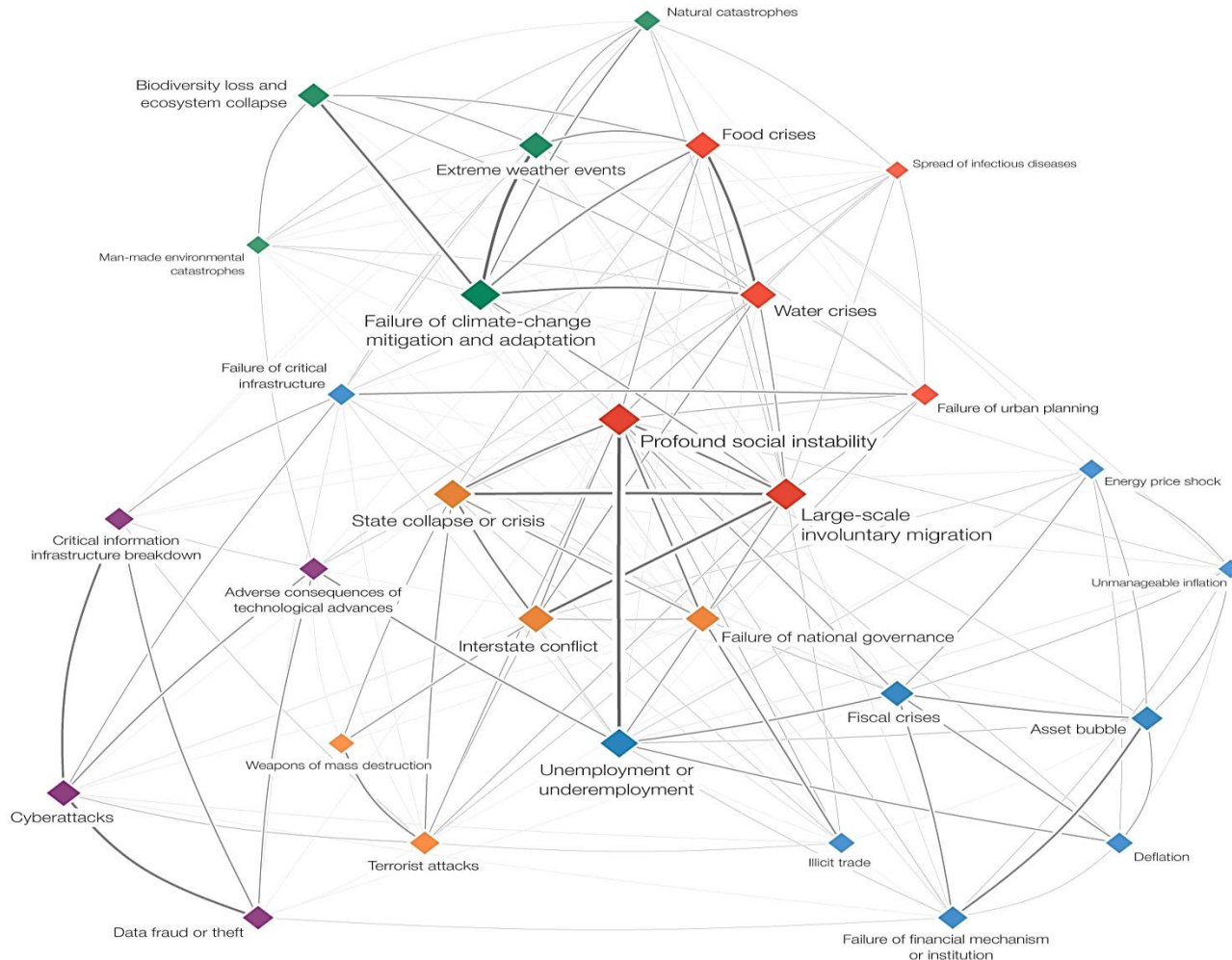




# DECREASING SECURITY INCREASING RISKS



# Global risks interconnections map



Source: The Global Risks Report (2016), World Economic Forum (WEF)  
([https://www.zurich.com/\\_/media/dbe/corporate/docs/whitepapers/the-global-risks-report-2016.pdf?la=en&hash=B7353DFDED43A3CCFFBE286F65EC259F37473D91](https://www.zurich.com/_/media/dbe/corporate/docs/whitepapers/the-global-risks-report-2016.pdf?la=en&hash=B7353DFDED43A3CCFFBE286F65EC259F37473D91))



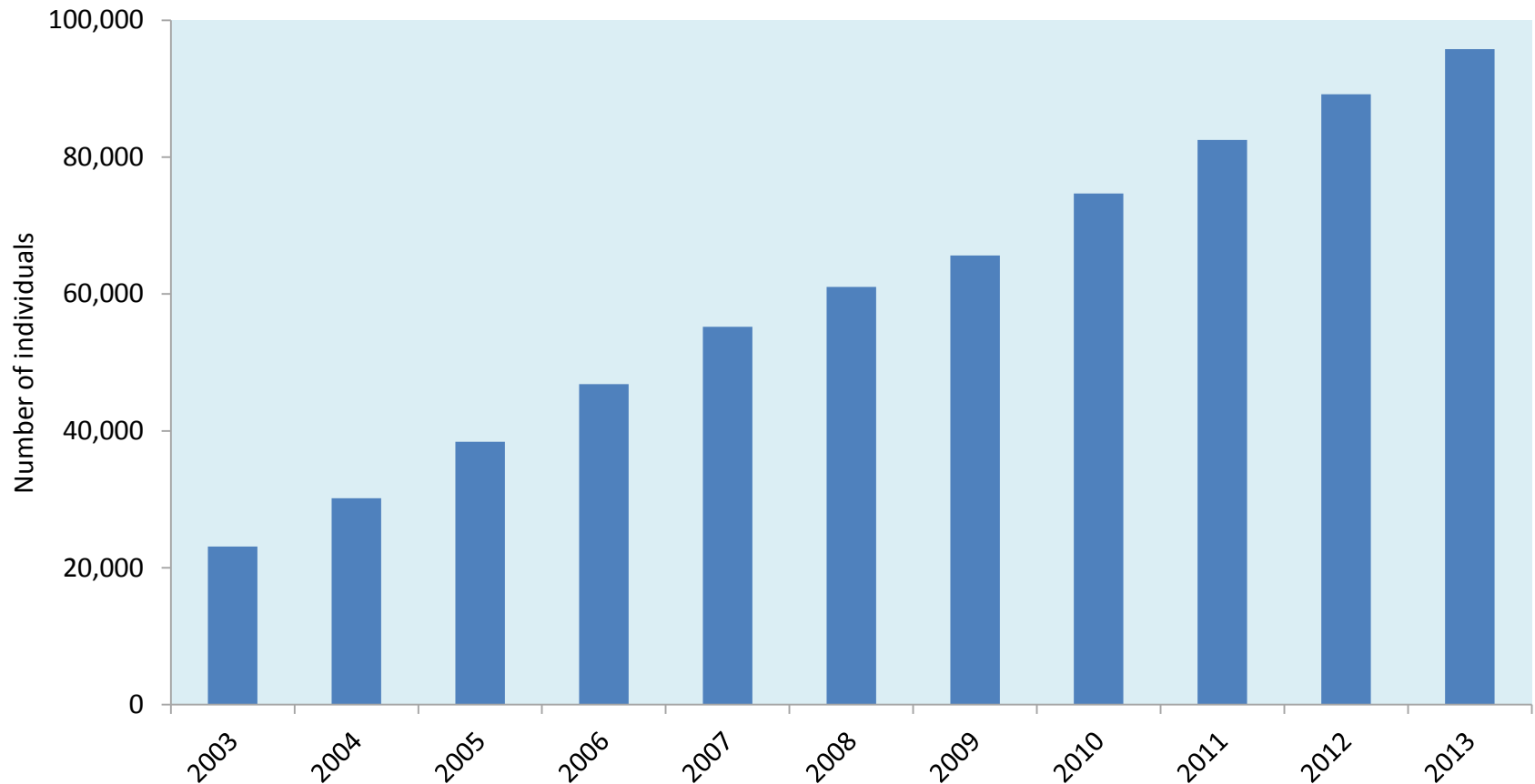
## Question:

*Cybersecurity is perceived as an increasing threat and risk, but is also a booming business. How many certified cybersecurity professionals are there in the world?*

- a. 40,000
- b. 80,000
- c. 100,000



# Number of certified individuals in cybersecurity worldwide



Source: OECD (2015) *Digital Economy Outlook 2015* cited in OECD (2016), *Trends Shaping Education 2016*, OECD Publishing, Paris doi: [http://dx.doi.org/10.1787/trends\\_edu-2016-en](http://dx.doi.org/10.1787/trends_edu-2016-en)

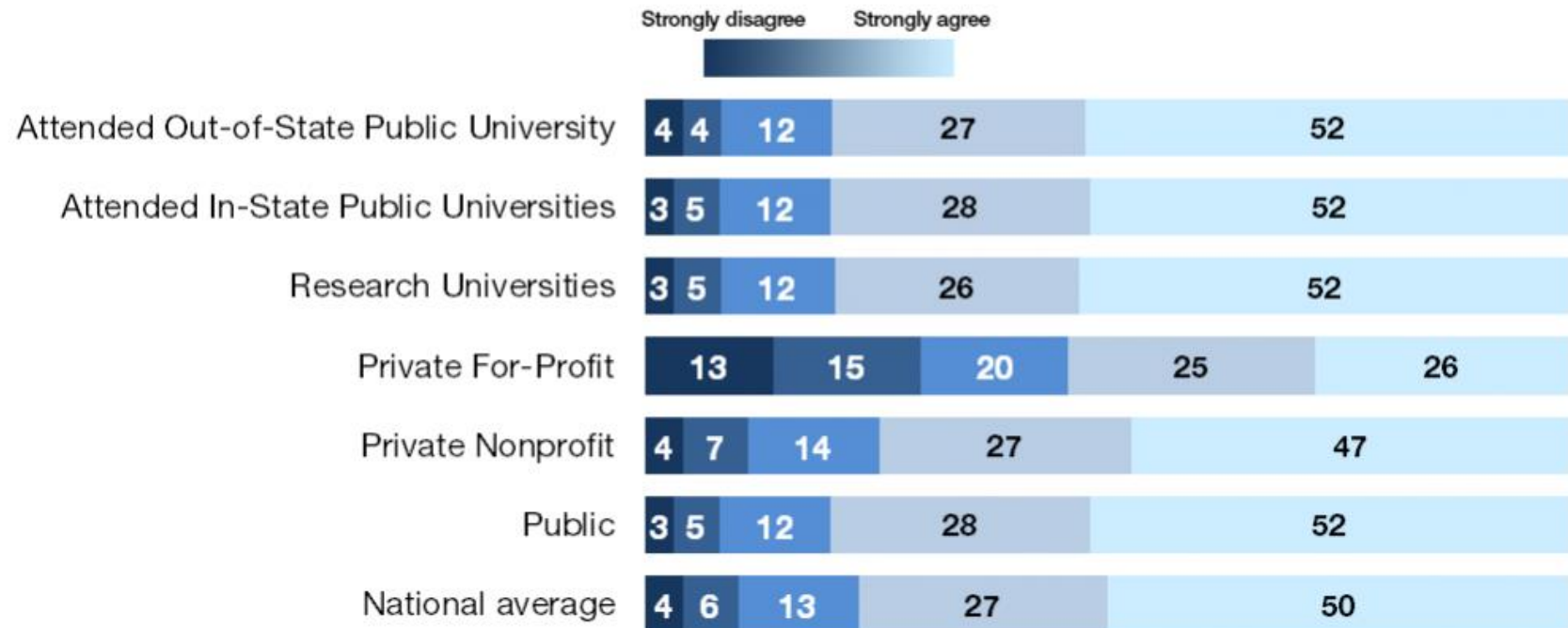
Note: The International Information Systems Security Certification Consortium, otherwise known as (ISC)2, issues a range of cybersecurity certifications



# Commodification of higher education as a risk

## “My education from university was worth the cost”

Percentage of 30,000 US graduates answering the question “My education from (University name) was worth the cost”

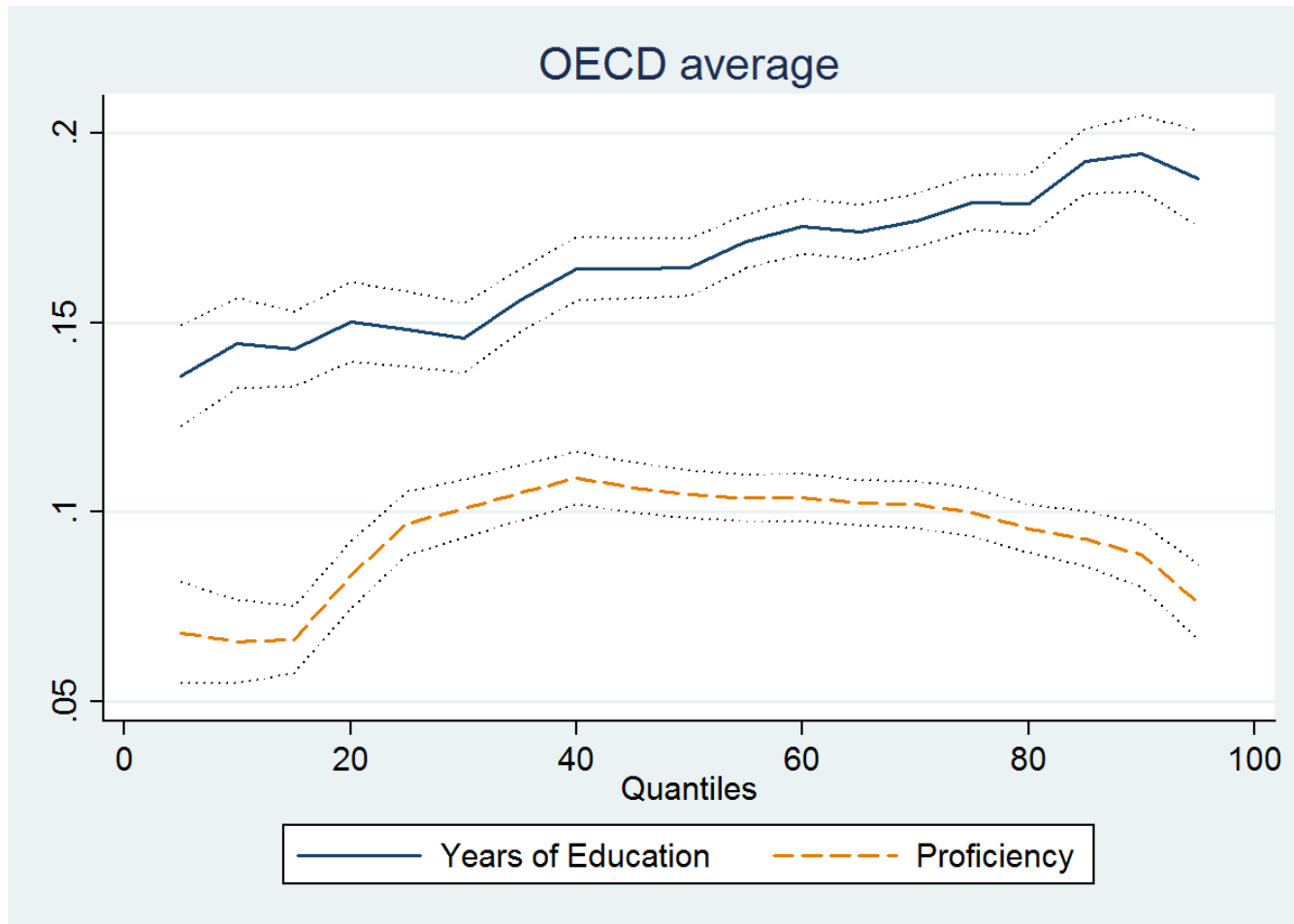


Source: Gallup-Purdue Index 2015 Report





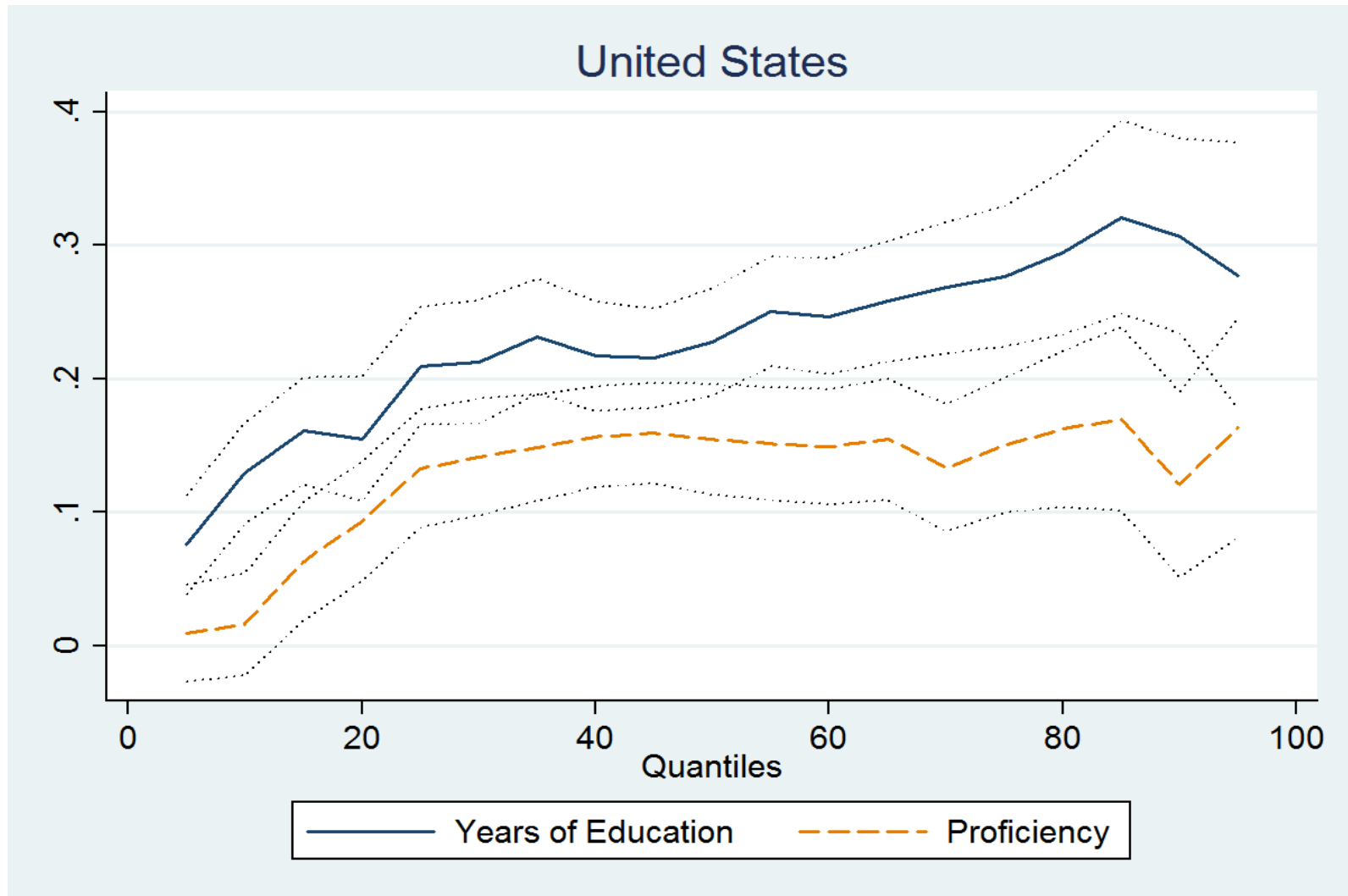
# End of credentialism?



Source: Survey of Adult Skills (PIAAC) (2012)

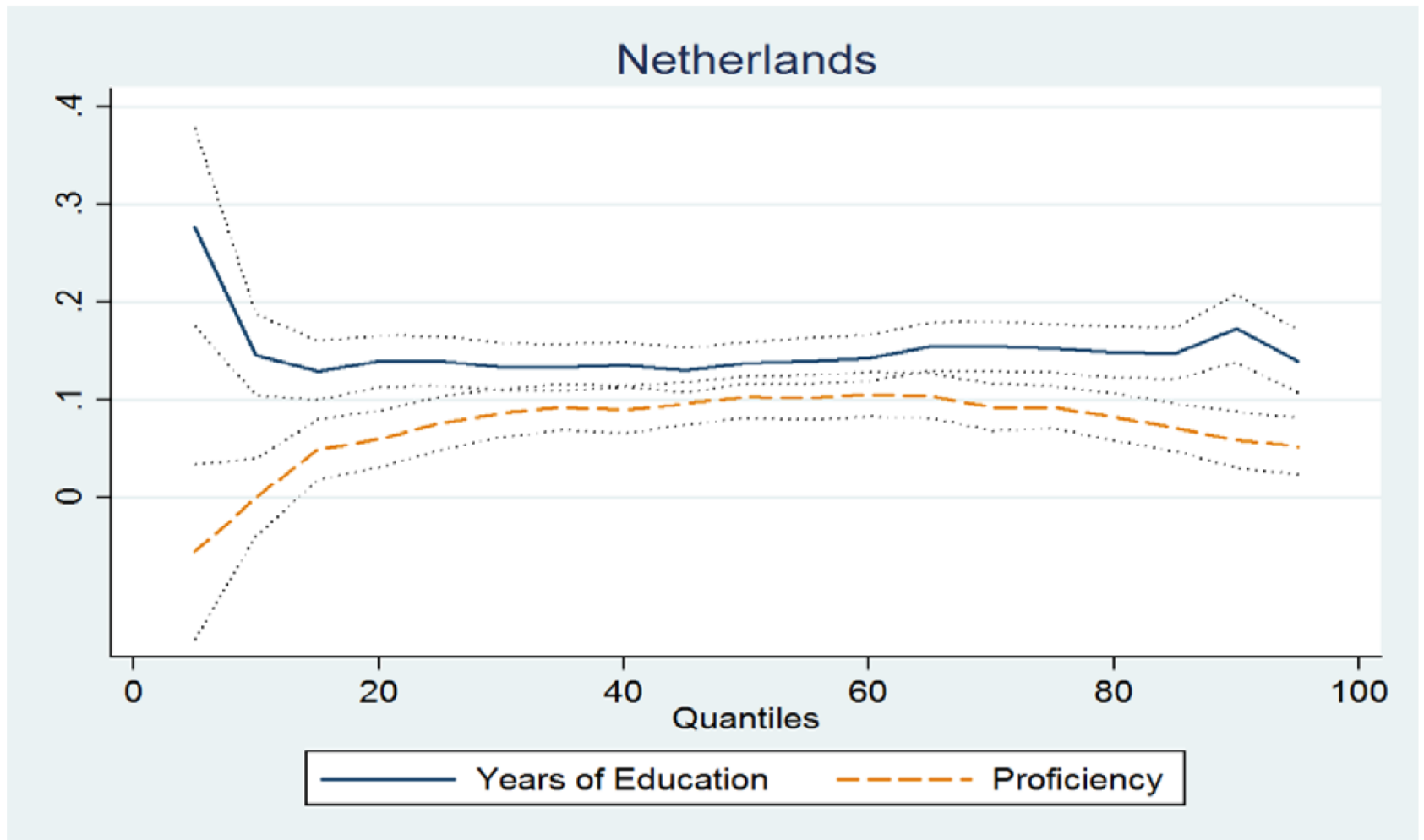


## Formal education vs skills





## Formal education vs skills





# Credentialism as social security?

## Ernst & Young Removes Degree Classification From Entry Criteria As There's 'No Evidence' University Equals Success

The Huffington Post UK | By Lucy Sherriff

Posted: 04/08/2015 14:55 BST | Updated: 21/09/2015 09:59 BST



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Ernst & Young, one of the UK's biggest graduate recruiters, has announced it will be removing the degree classification from its entry criteria, saying there is "no evidence" success at university correlates with achievement in later life.

The accountancy firm is scrapping its policy of requiring a 2:1 and the equivalent of three B grades at A-level in order to open opportunities for talented individuals "regardless of their background".

Maggie Stilwell, EY's managing partner for talent, said the company would use online assessments to judge the potential of applicants.

"Academic qualifications will still be taken into account and indeed remain an

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# New credentials: open badges, nano-degrees, micro-credentials, etc.



## Example Open Badges

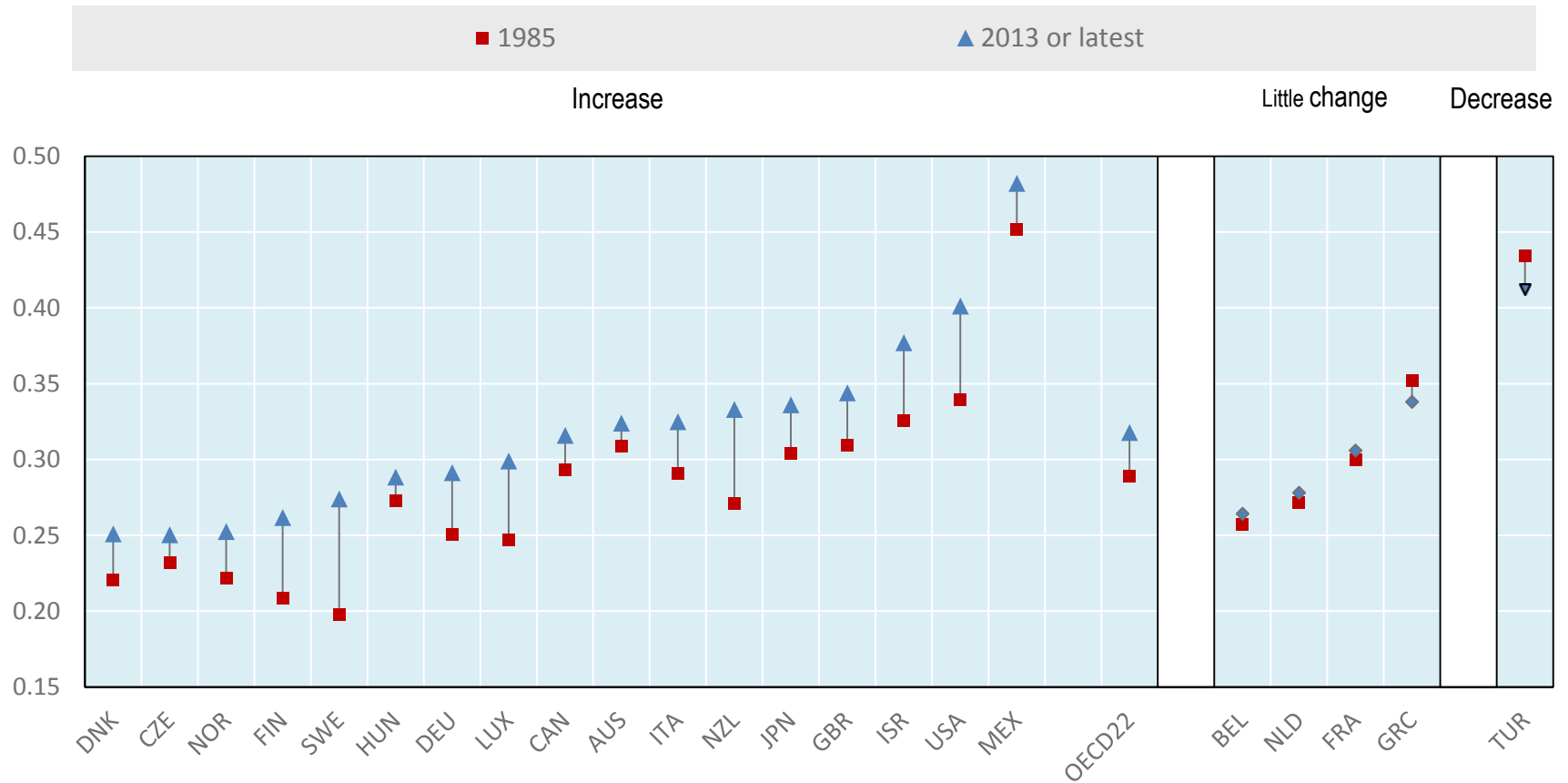




# **SOCIAL INEQUALITIES SOCIAL EXCLUSION**

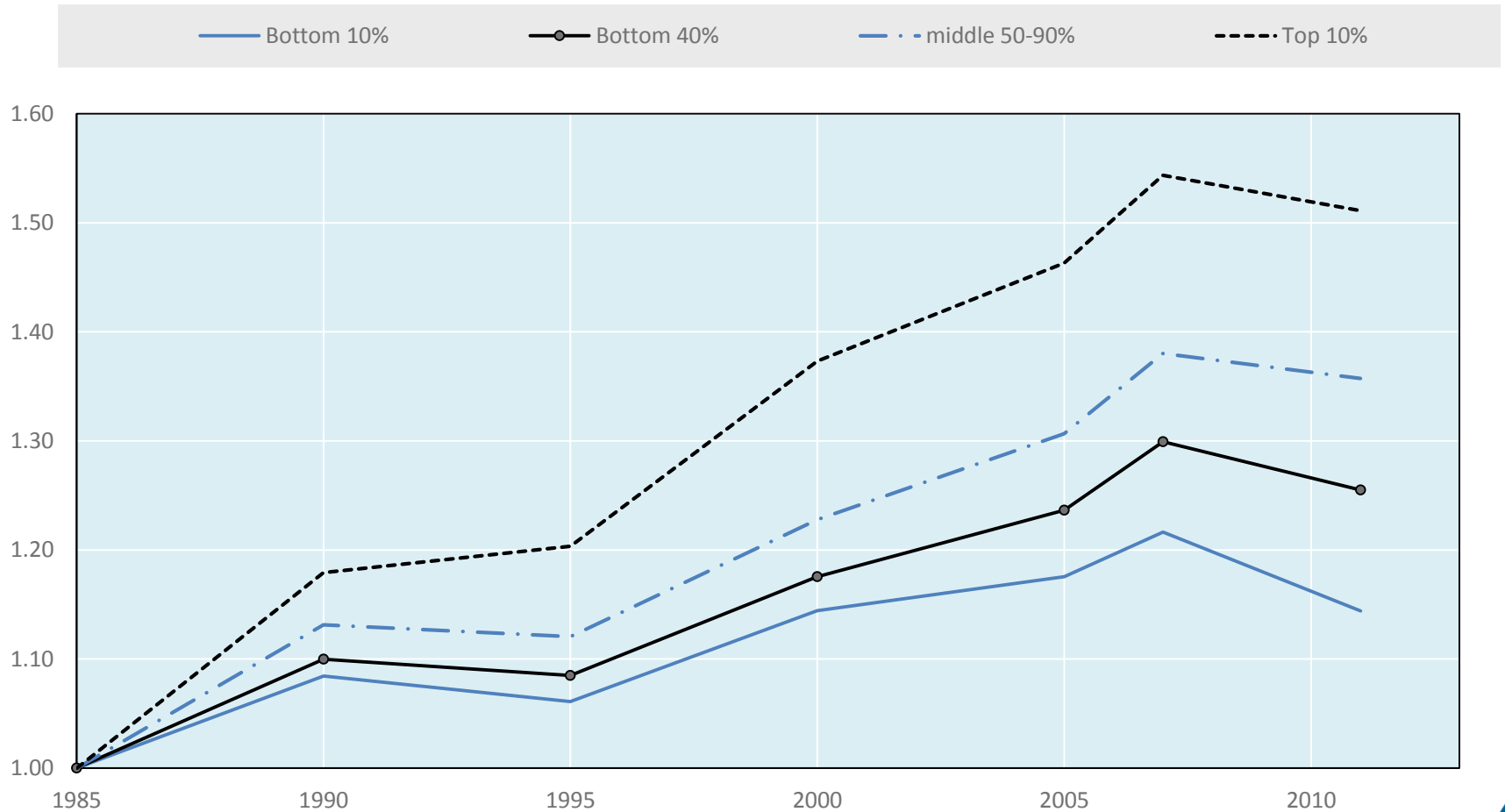


# Gini coefficients of income inequality, mid-1980s and 2013, or latest date available





# Trends in real household incomes at the bottom, the middle and the top, OECD average, 1985 = 1







# Globalization and global redistribution of income (Branko Milanovic's "elephant chart")

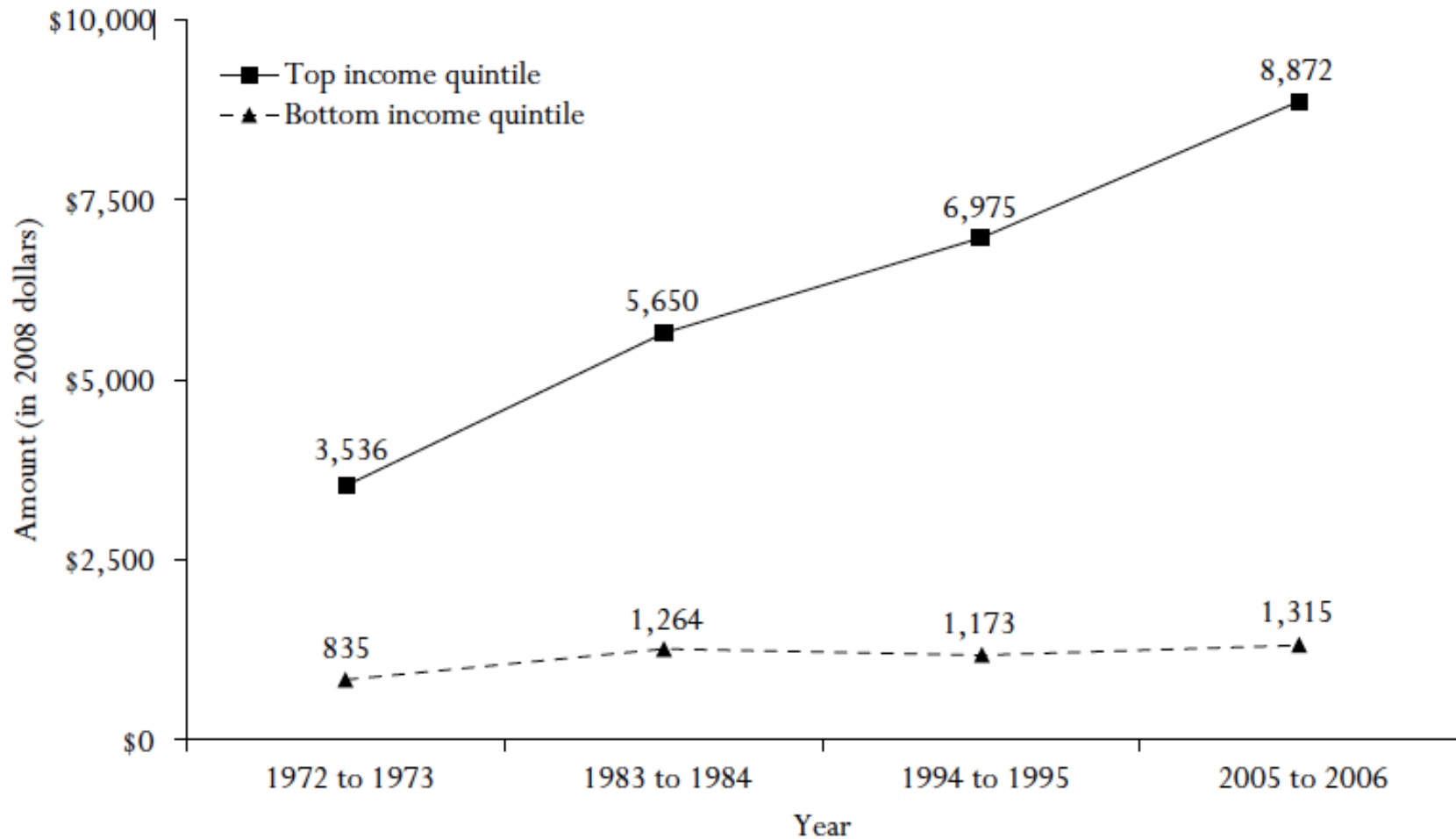
Figure 4. Change in real income between 1988 and 2008 at various percentiles of global income distribution (calculated in 2005 international dollars)



Note: The vertical axis shows the percentage change in real income, measured in constant international dollars. The horizontal axis shows the percentile position in the global income distribution. The percentile positions run from 5 to 95, in increments of five, while the top 5% are divided into two groups: the top 1%, and those between 95<sup>th</sup> and 99<sup>th</sup> percentiles.

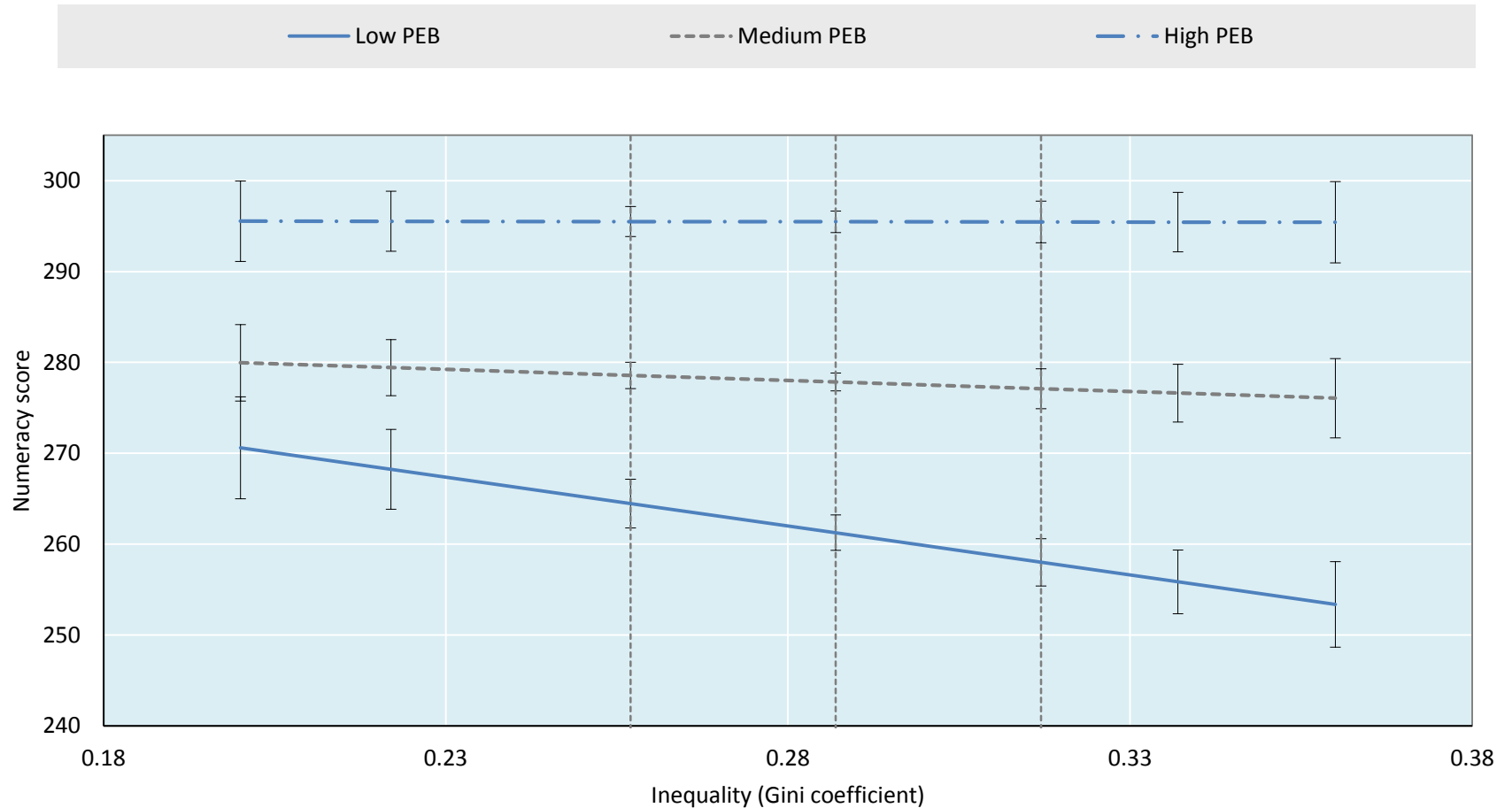


## Amount of money spent by US households on child development



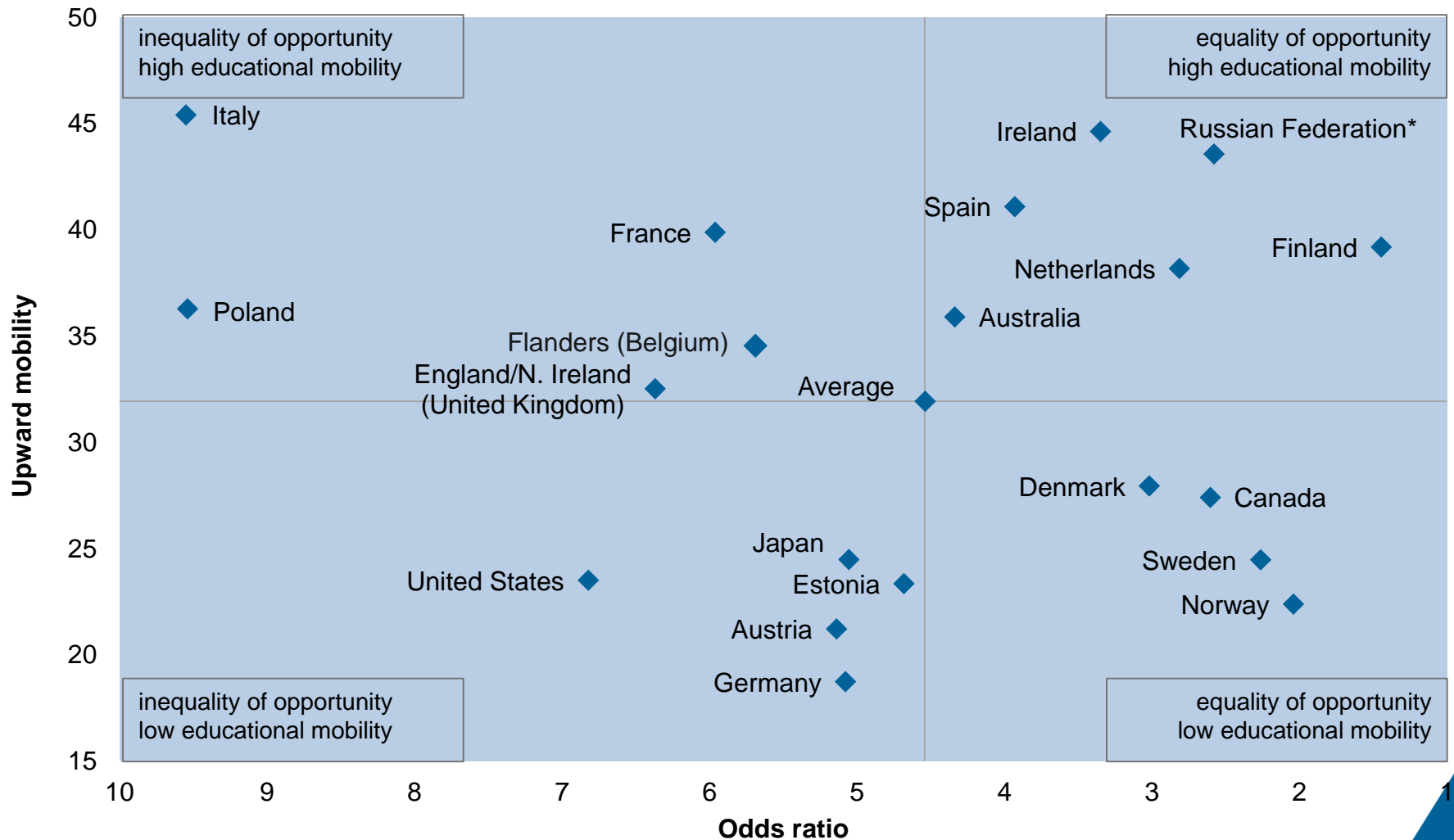


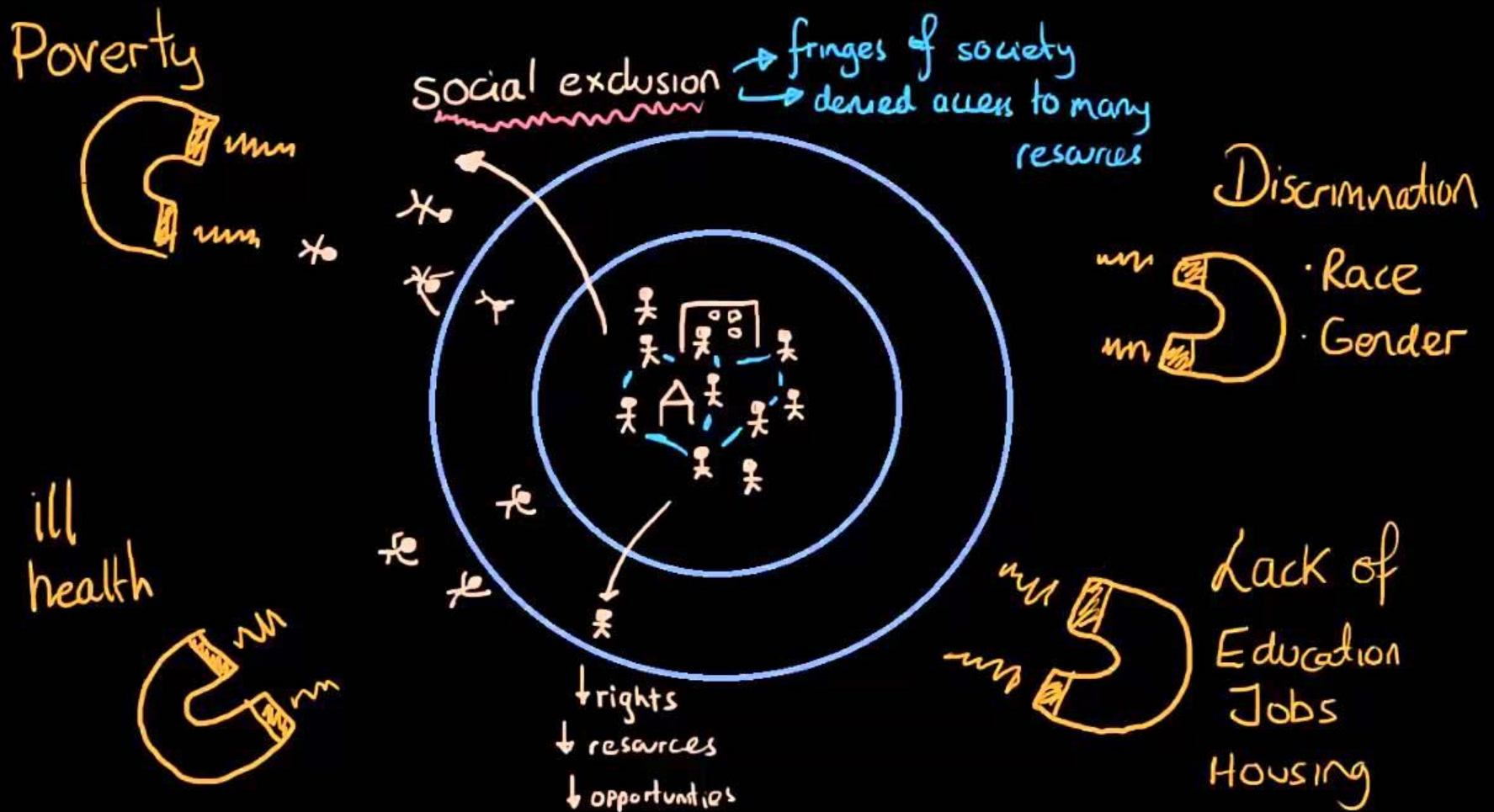
# Average numeracy score by parent educational background (PEB) and inequality





# The engine of social mobility falters





# MULTIDIMENSIONAL EXCLUSION



# TECHNOLOGY AND SKILLS



## A Brave New World

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### Question:

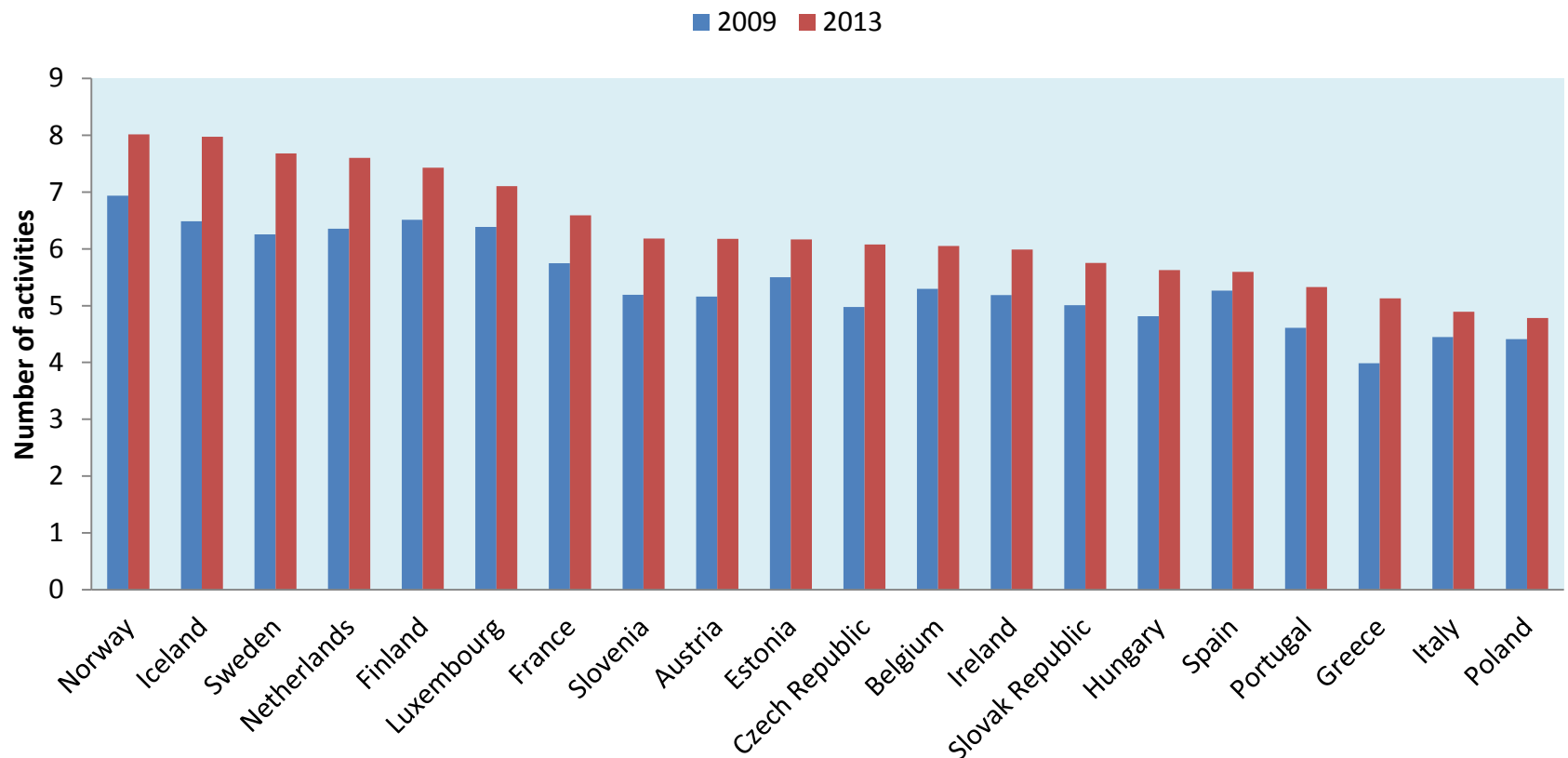
*We have now become adept multi-taskers, capable of doing many things online at the same time. On average, how many things do we tend to do online at once?*

- a. 6
- b. 8
- c. 10



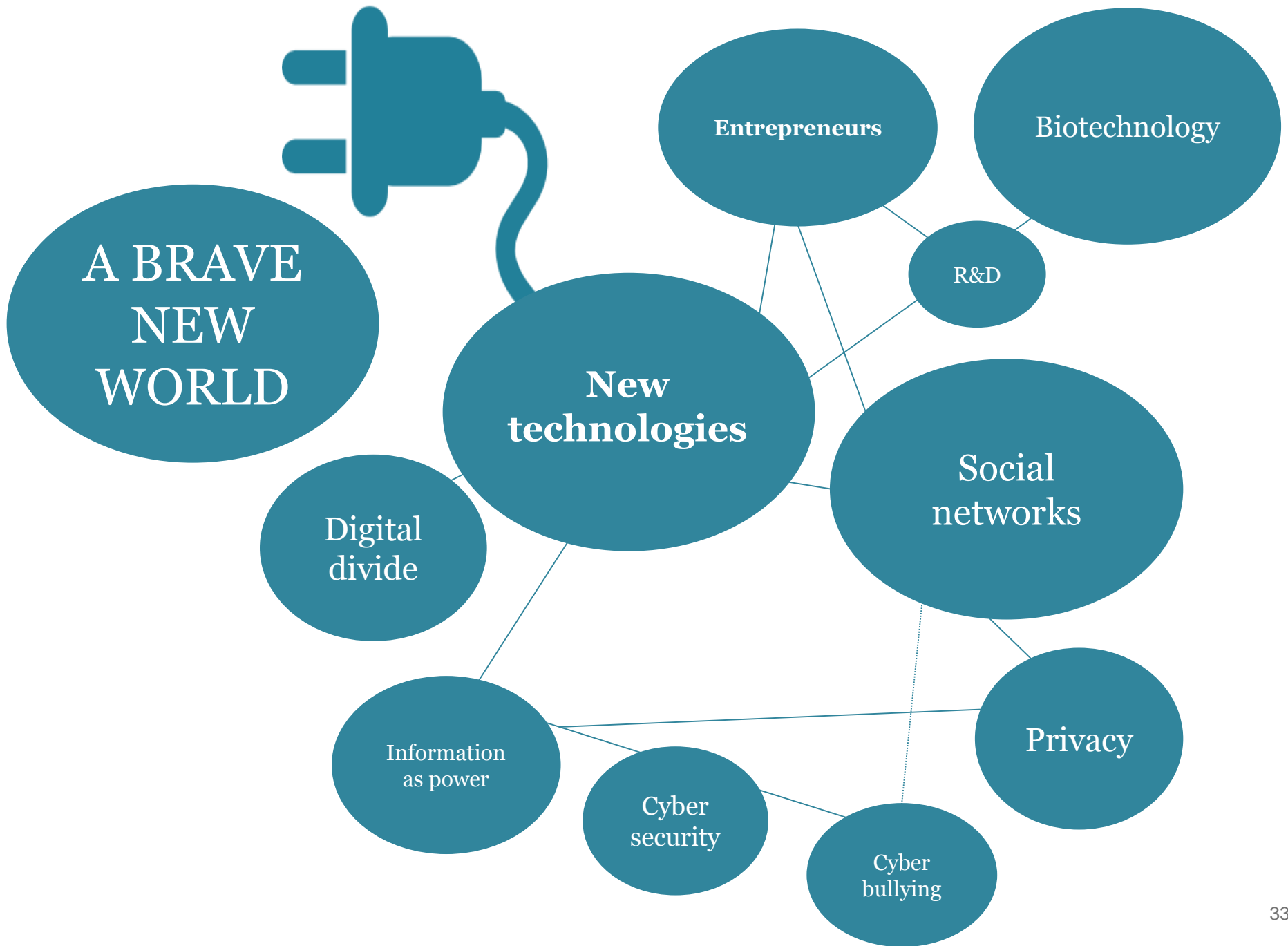
# Online multi-tasking: more efficient or more distracted?

Average number of activities being performed online at the same time per Internet user, 2009 and 2013.



Source: OECD (2014), *Measuring the Digital Economy: A New Perspective*.

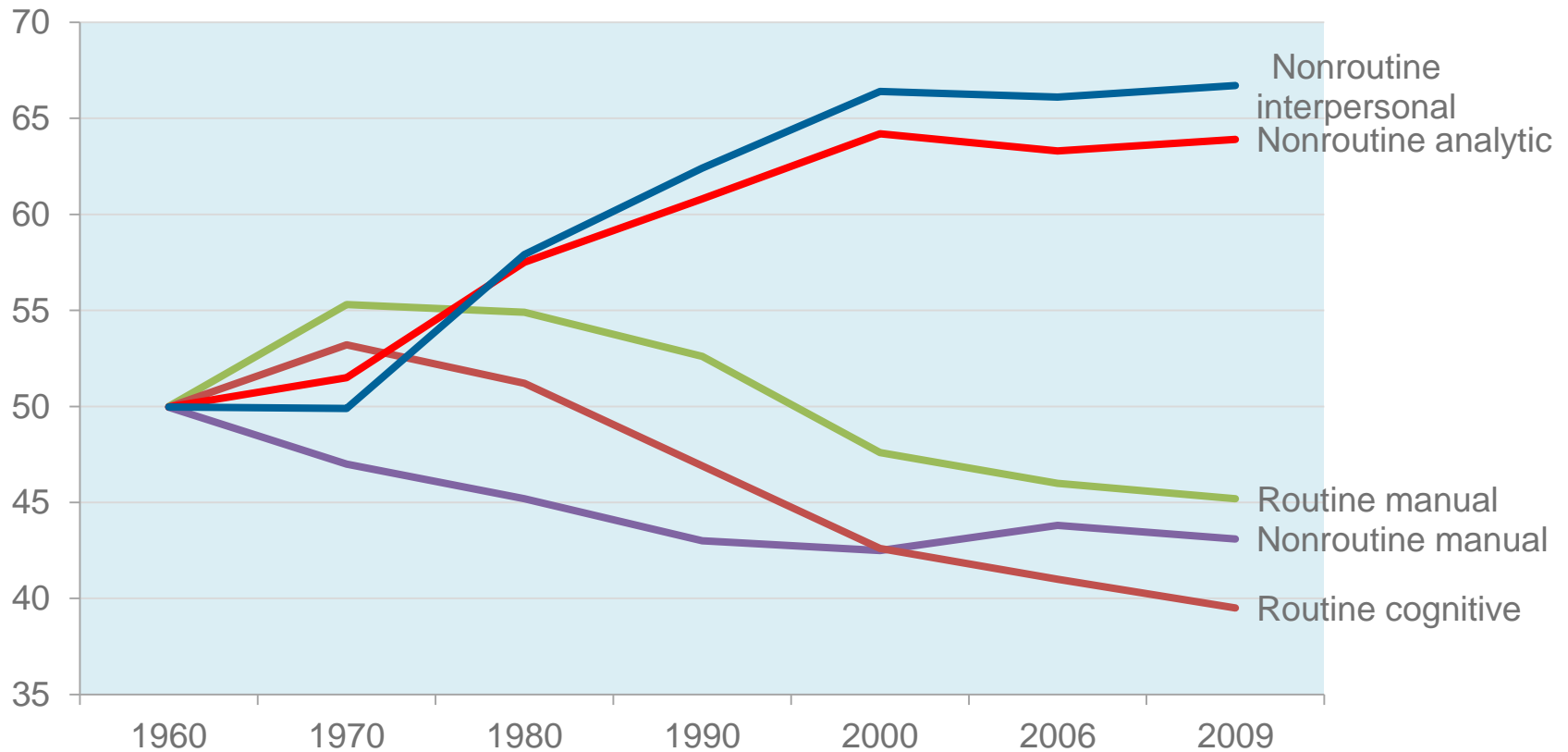






# Qualitative changes in skills demand

Mean task input in percentiles of 1960 task distribution (US)





# Mismatch between skills supply and demand

**Figure 9: The hardest skills to find are those that can't be performed by machines**

Q: How difficult, if at all, is it for your organisation to recruit people with these skills or characteristics?

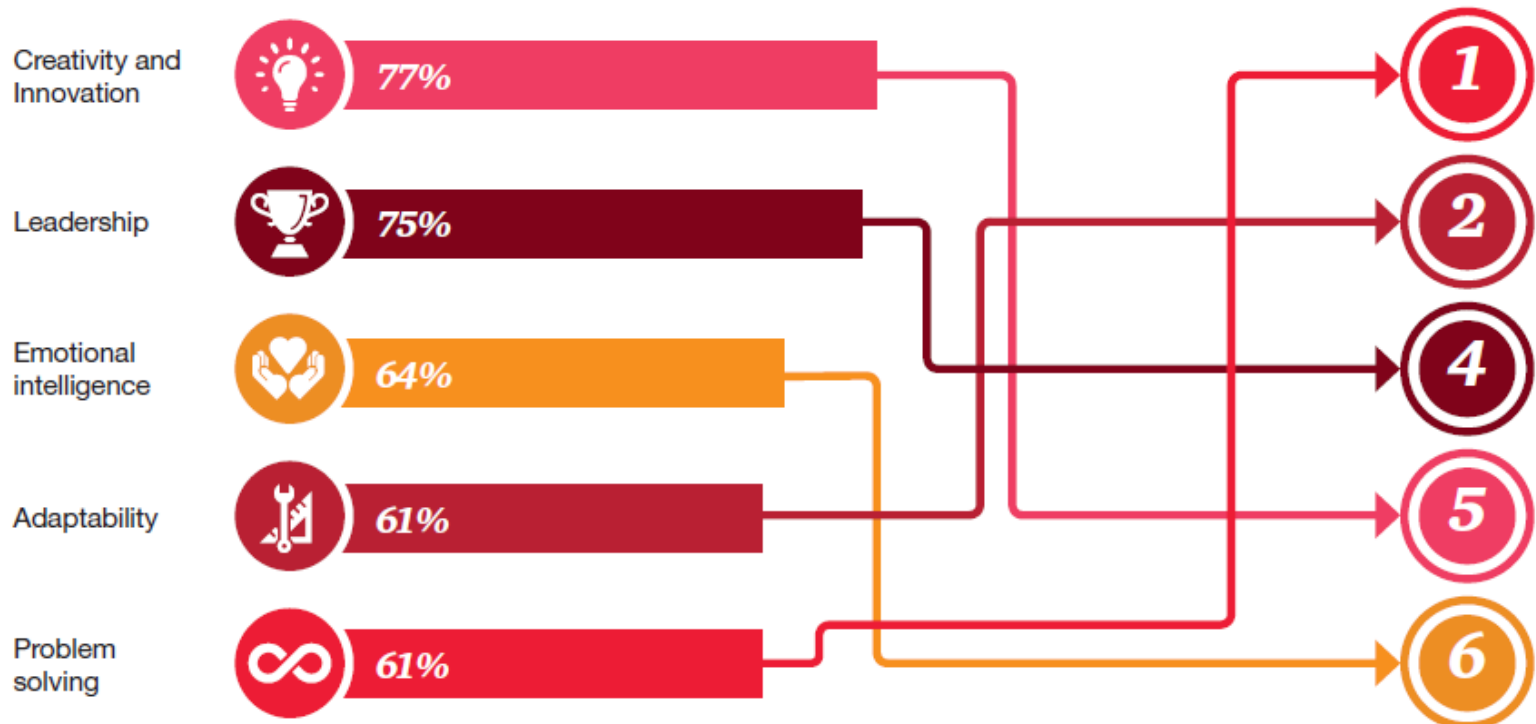
Q: In addition to technical business expertise, how important are the following skills to your organisation?

## Difficulty in recruiting people with skill

Respondents who answered somewhat difficult or very difficult

## Importance of skill

Respondents who answered somewhat important or very important





# WOMEN'S EMANCIPATION



### Question:

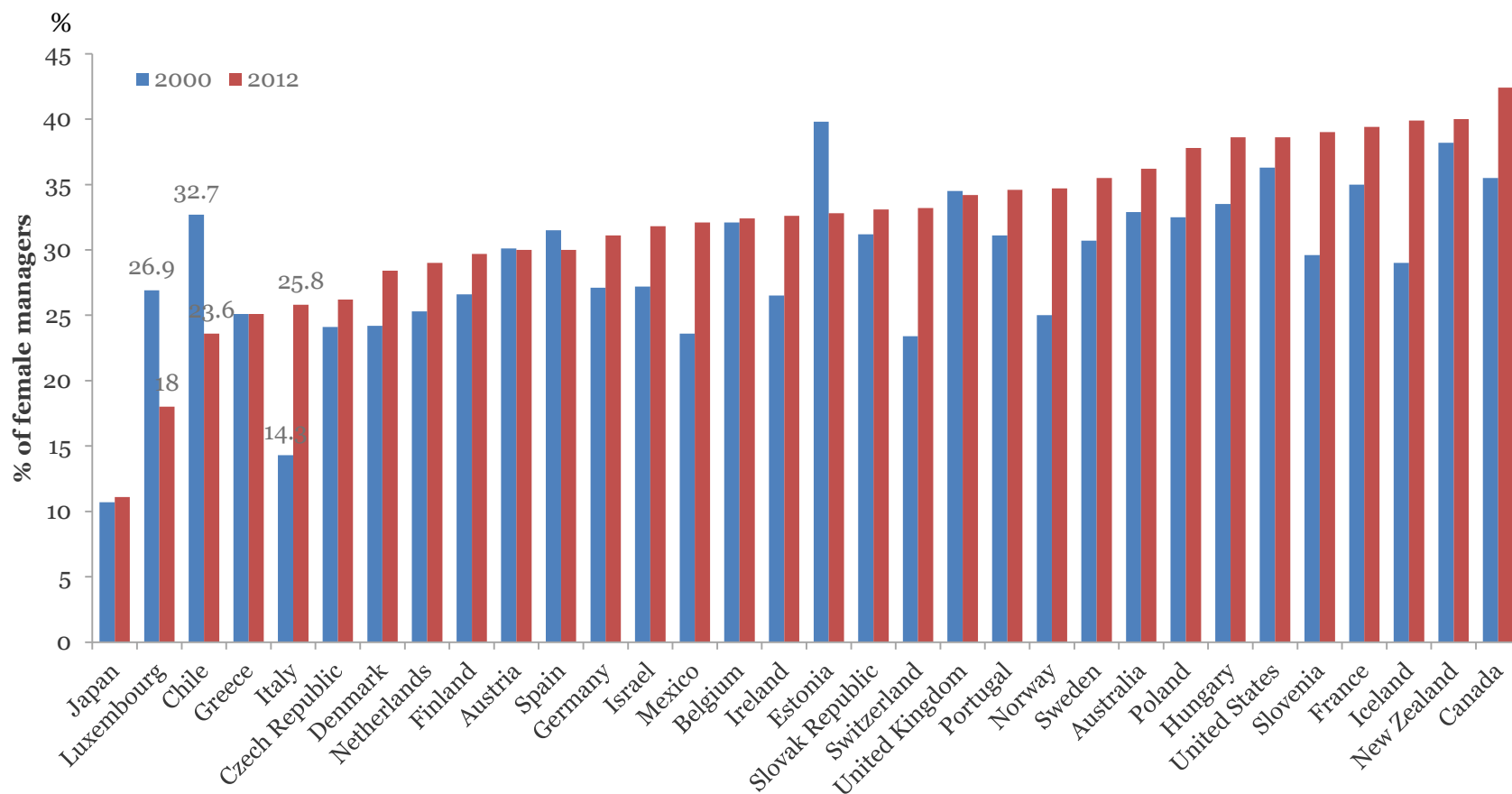
*On average across OECD countries, the number of managerial positions held by women has increased by 11% between 2000-2012. In which country has it increased most?*

- a. Italy
- b. Chile
- c. Luxembourg



## More female managers

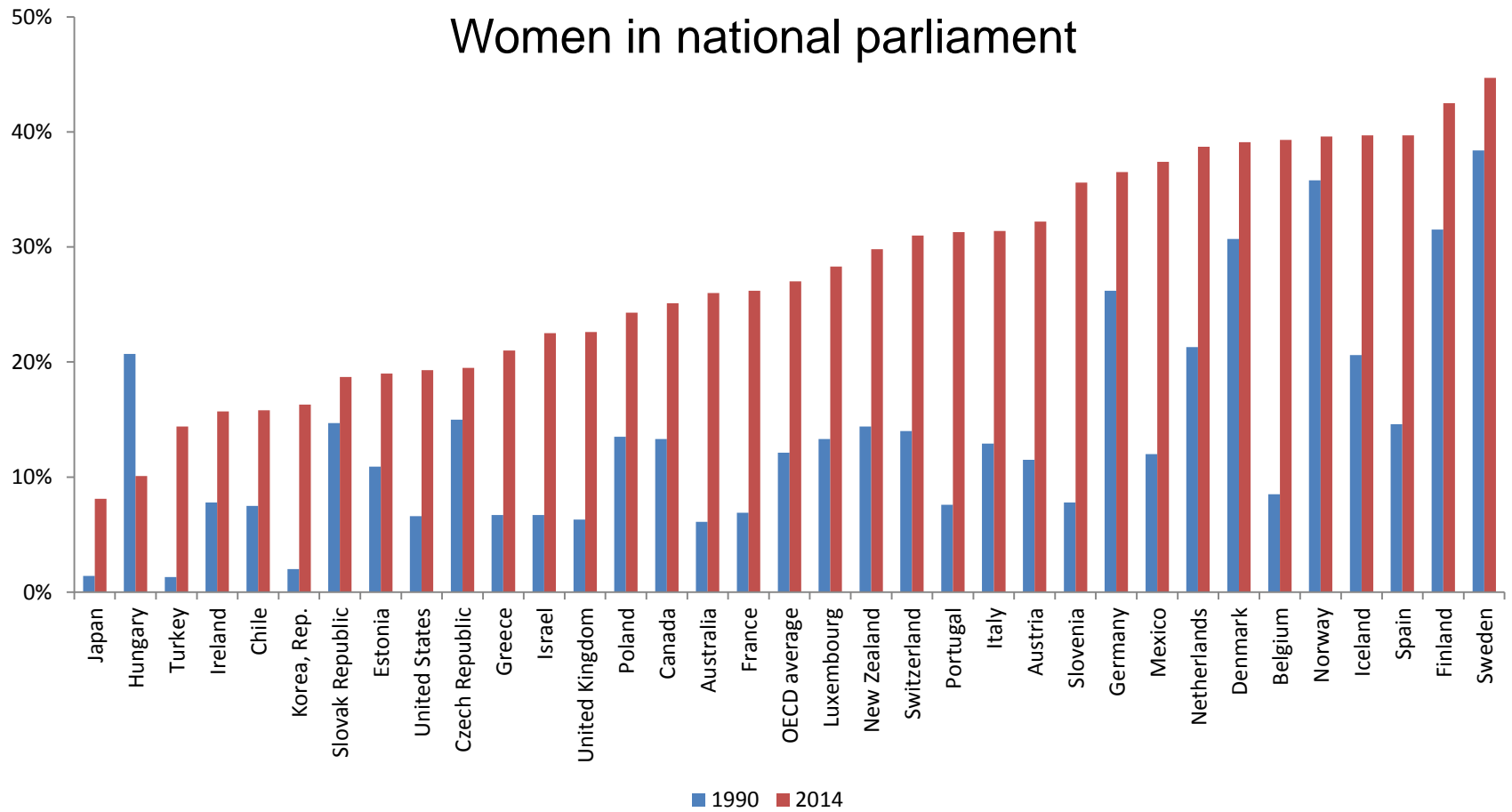
Percentage of managerial positions held by women in private and public sectors, 2000-2012



Source: International Labour Organization (2015), Global Report, Women in Business and Management Gaining Momentum.



# Female leadership



Source: World Bank and Inter-Parliamentary Union (2015).



## Women's first marriage

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Question:

*In 1990, the average age for women's first marriage was 25. What is the average age now?*

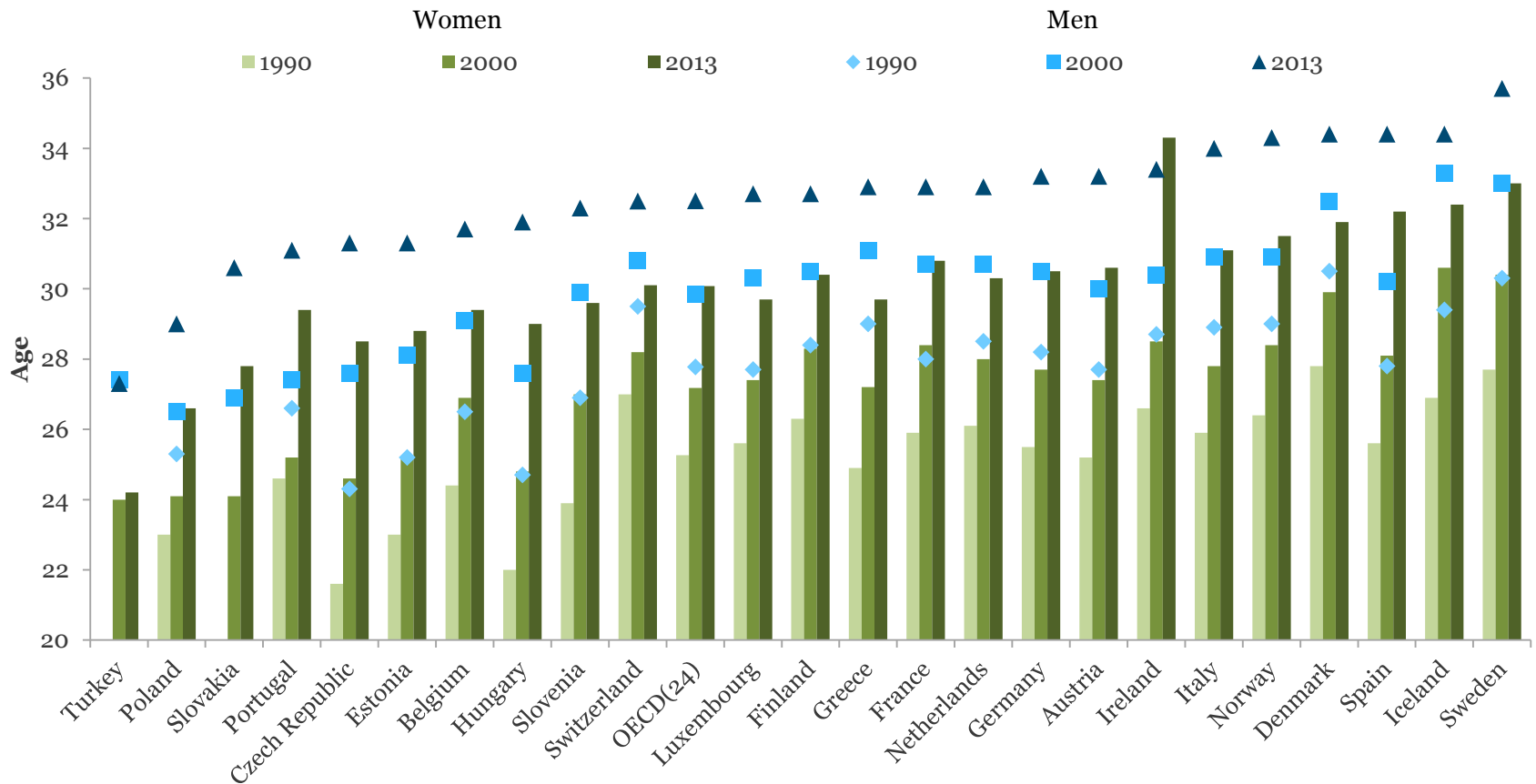
- a. 28
- b. 30
- c. 32





# Marriage age is rising

Mean age at first marriage for men and women, 1990, 2000, and 2013.

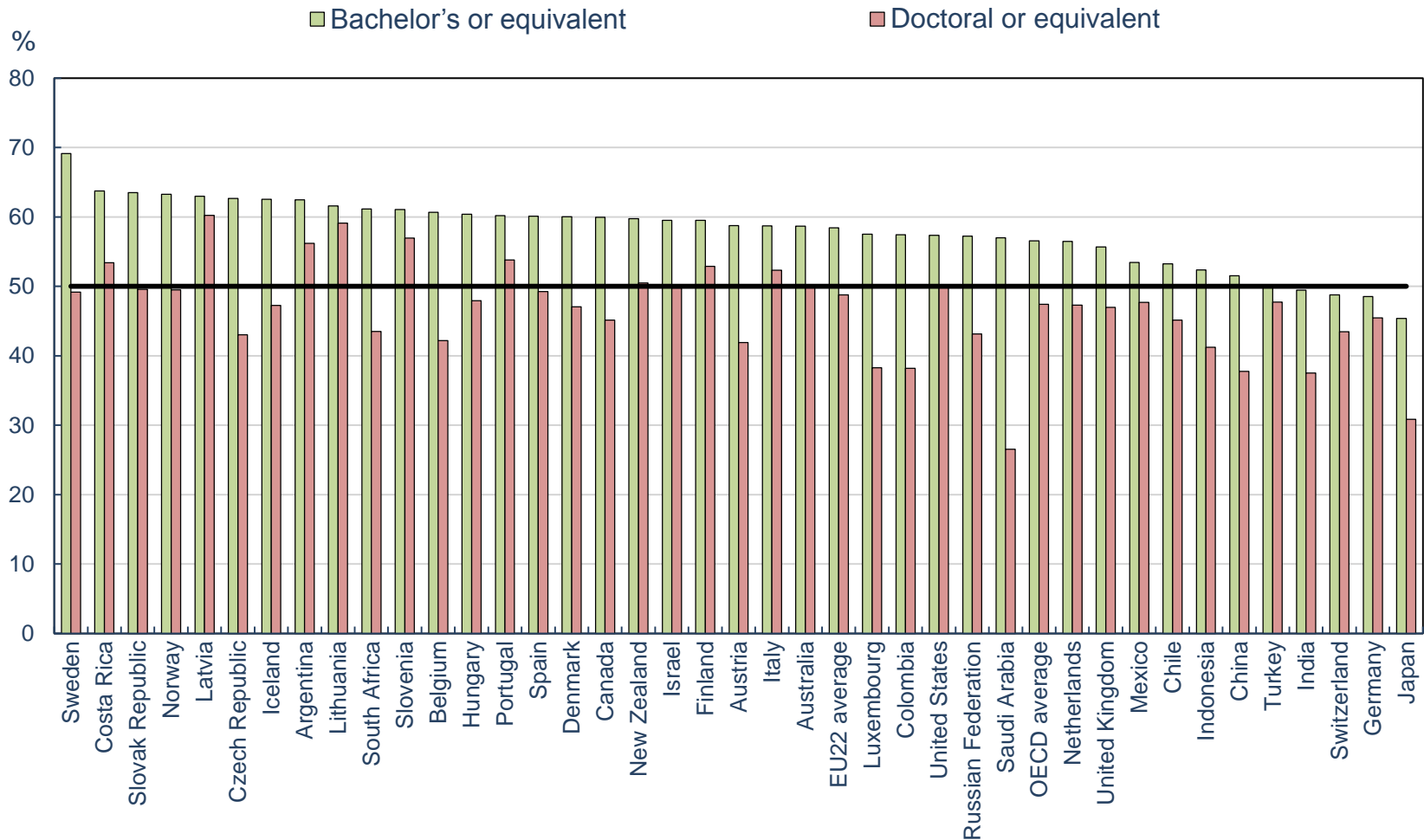


Source: Eurostat (2015), *Marriage and divorces data*.



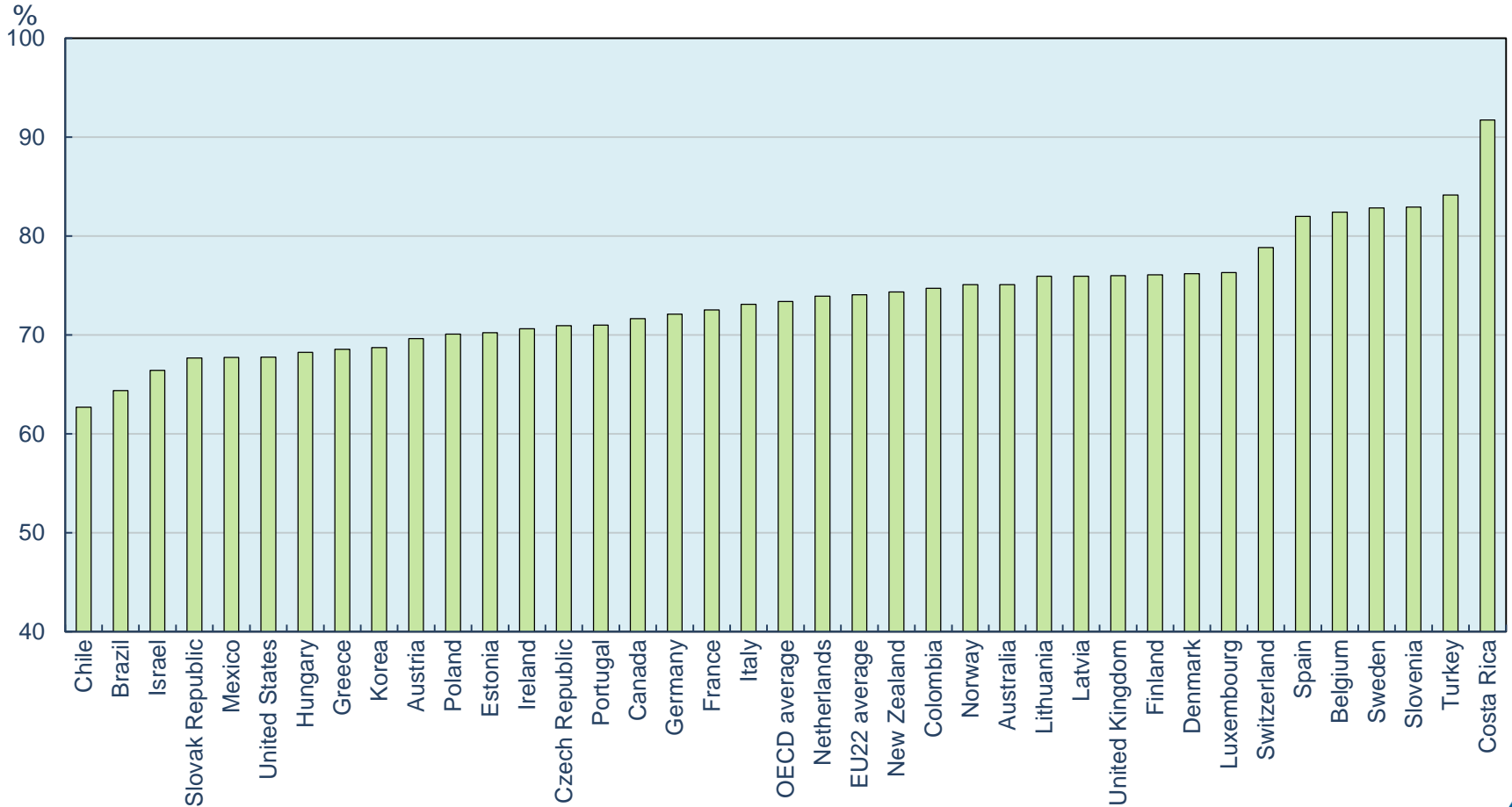
# Female graduation rates

Percentage of female graduates in tertiary levels of education (2014)





# Women's earnings as a percentage of men's earnings, tertiary graduates (2014)





# WHAT DO THESE MEGA-TRENDS IMPLY FOR SKILLS IN THE FUTURE WORKPLACE?



# Trends Affecting Future Skills Demand

## Future Work Skills 2020

While all six drivers are important in shaping the landscape in which each skill emerges, the color-coding and placement here indicate which drivers have particular relevance to the development of each of the skills.

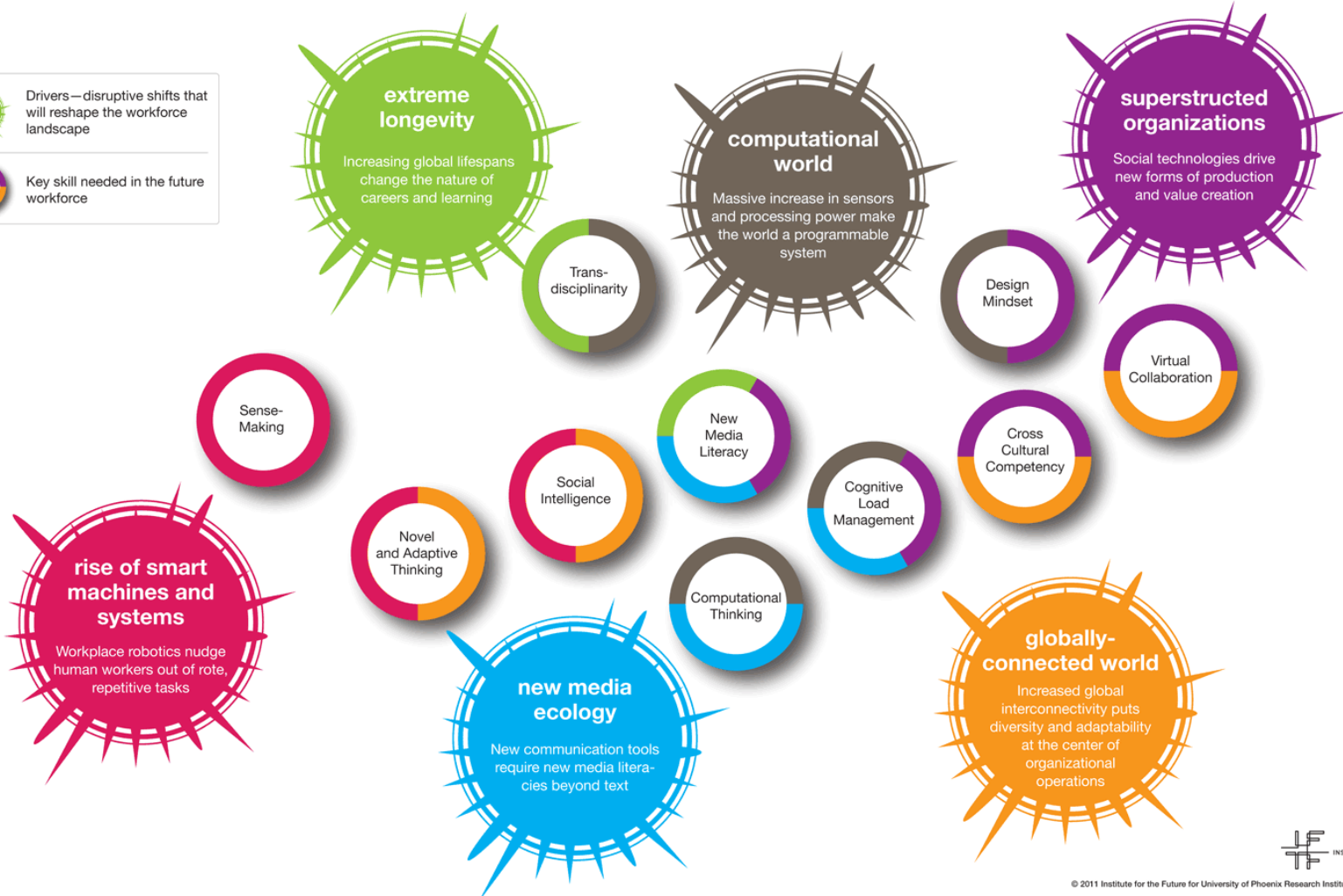
### KEY



Drivers—disruptive shifts that will reshape the workforce landscape



Key skill needed in the future workforce





# Thank you!

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