

Inequality, Health and Wellbeing

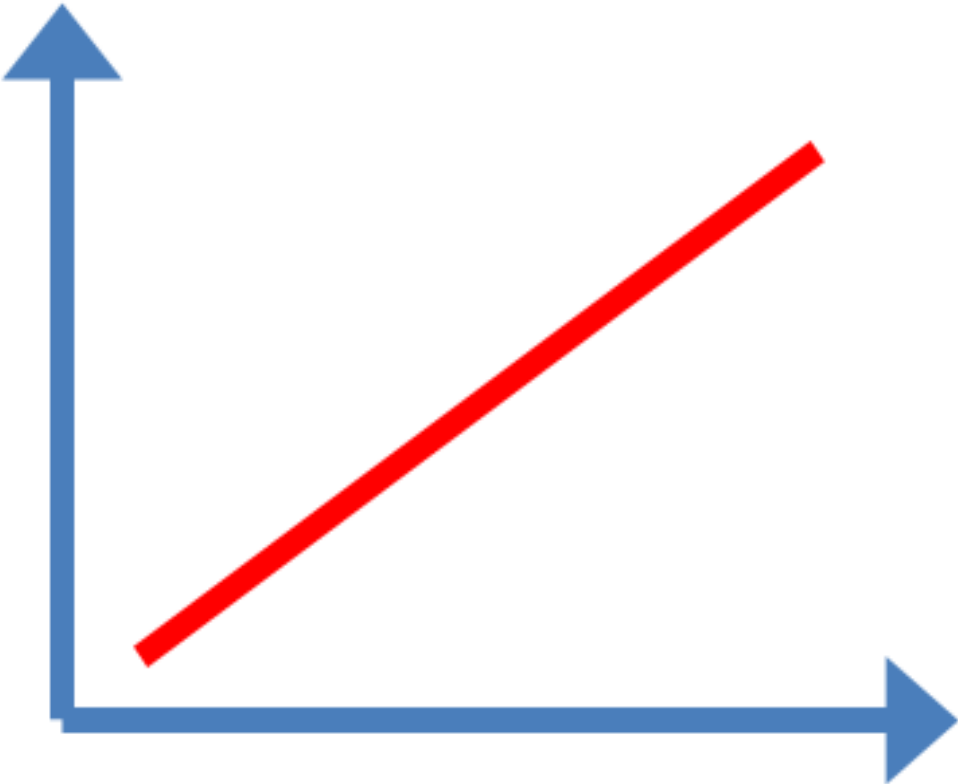
Richard Wilkinson

Emeritus professor of social epidemiology



Photo by kind permission of Matt Stuart

Problems



**Income
inequality**

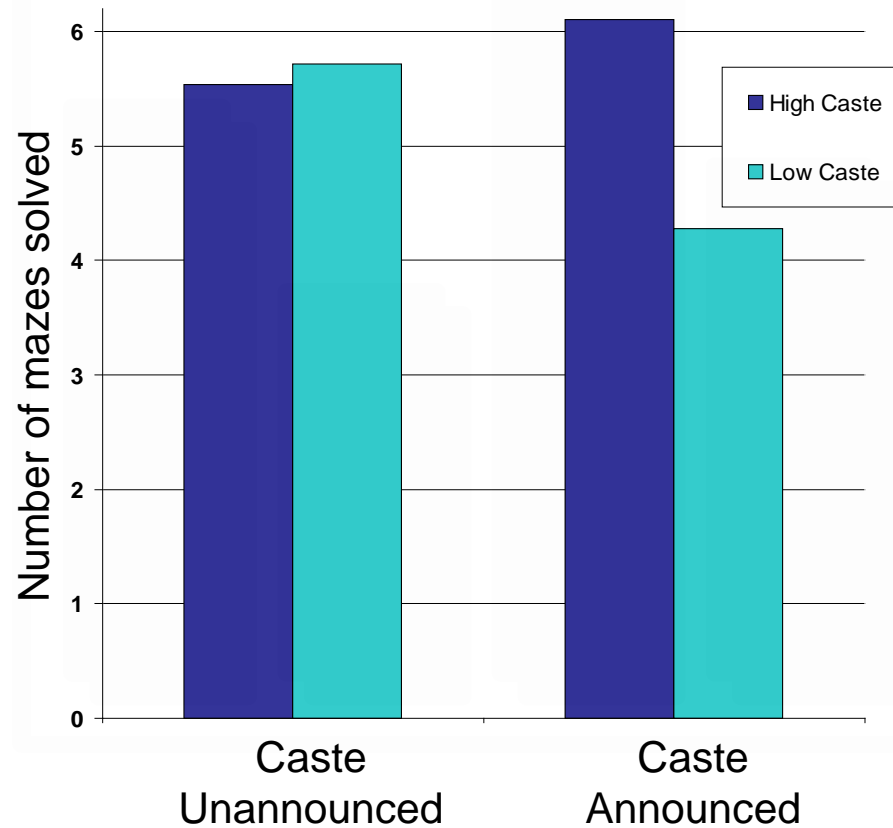
Individual differences will explain who falls, but the height of the hurdles will explain how many fall



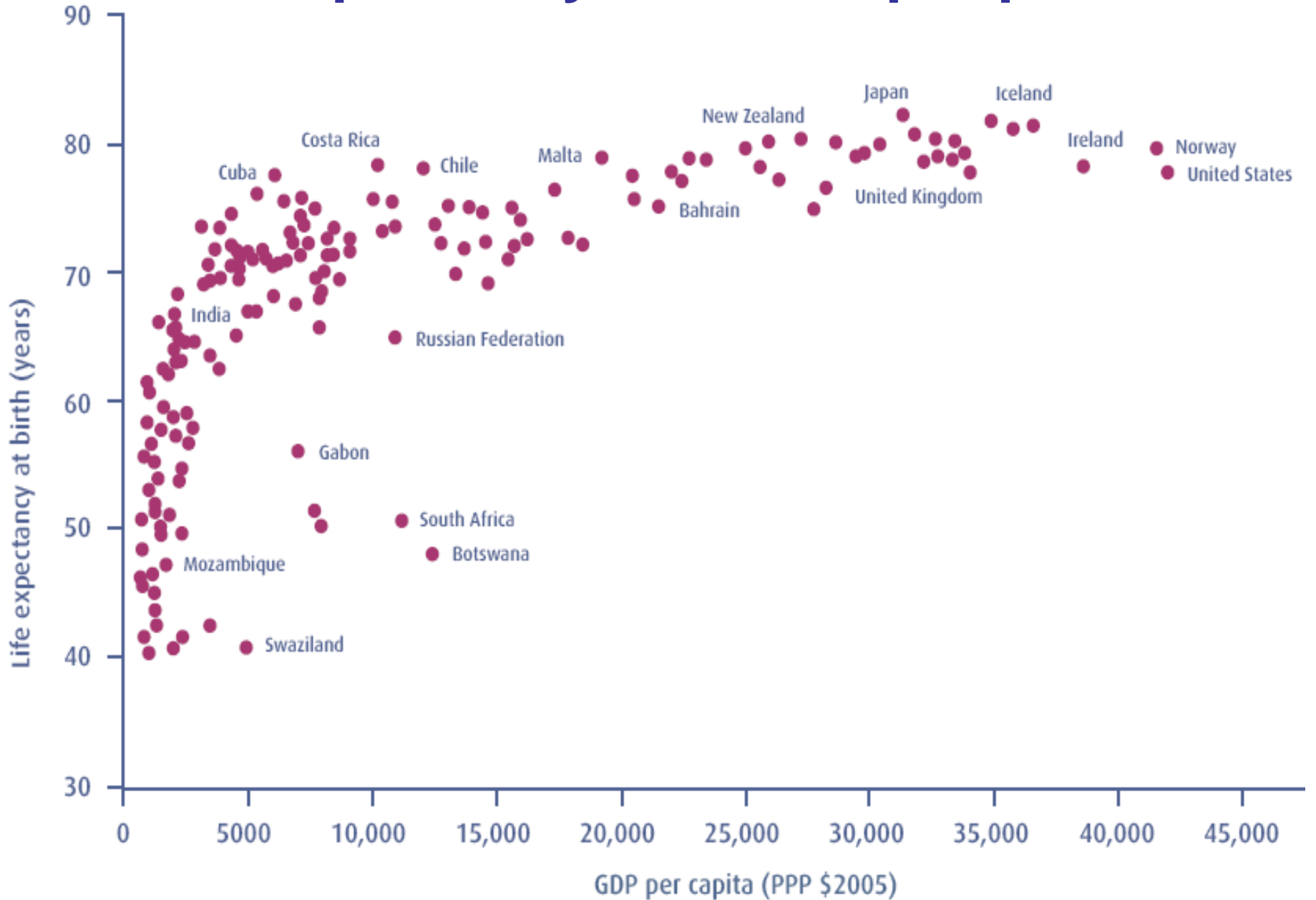
Walker, R. *et al.*
Poverty in global perspective.
***Journal of Social Policy* 2013; 42, 215-233**

Status differentiation effects cognitive performance

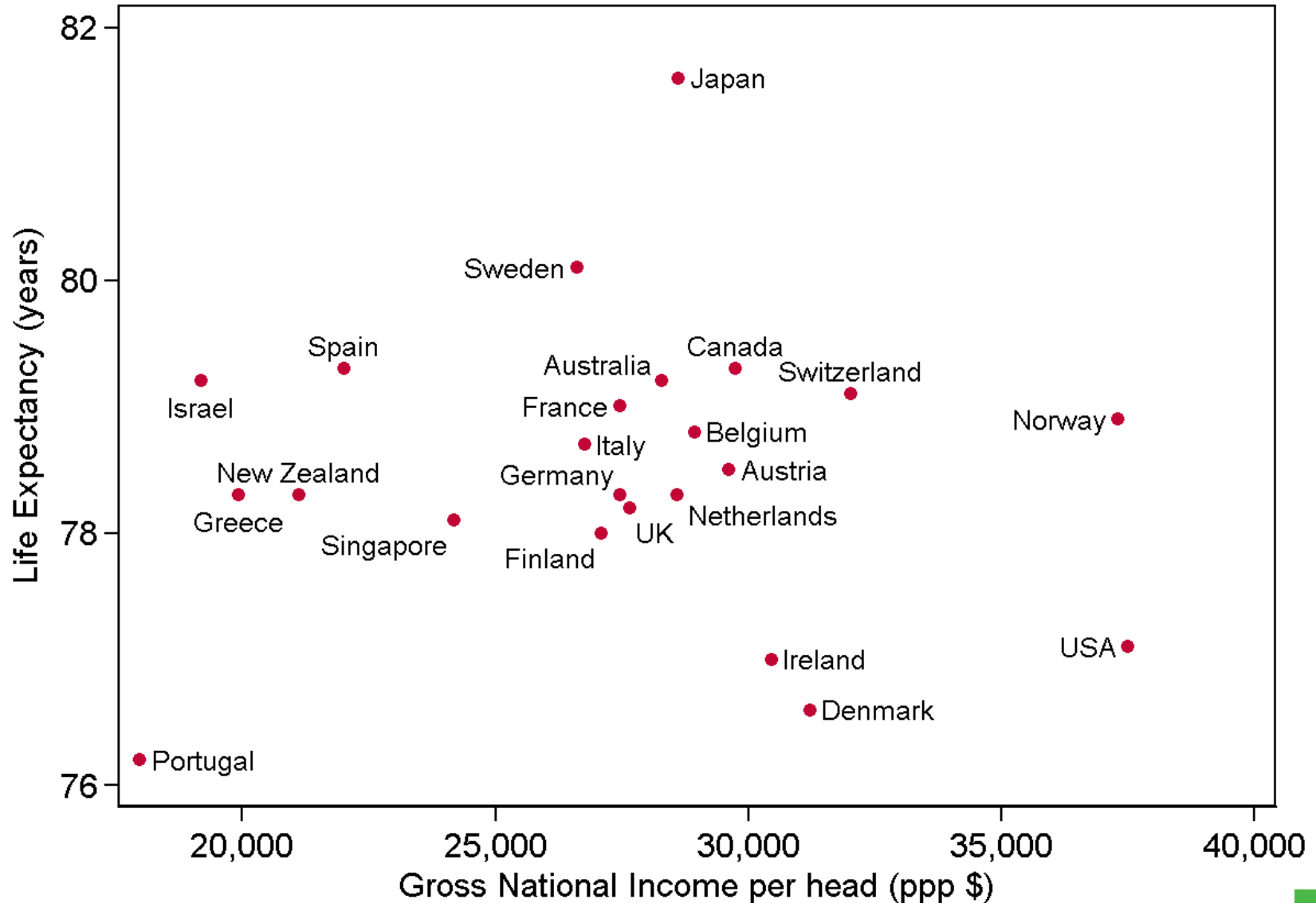
The Effect of Caste Identity on Children's Performance



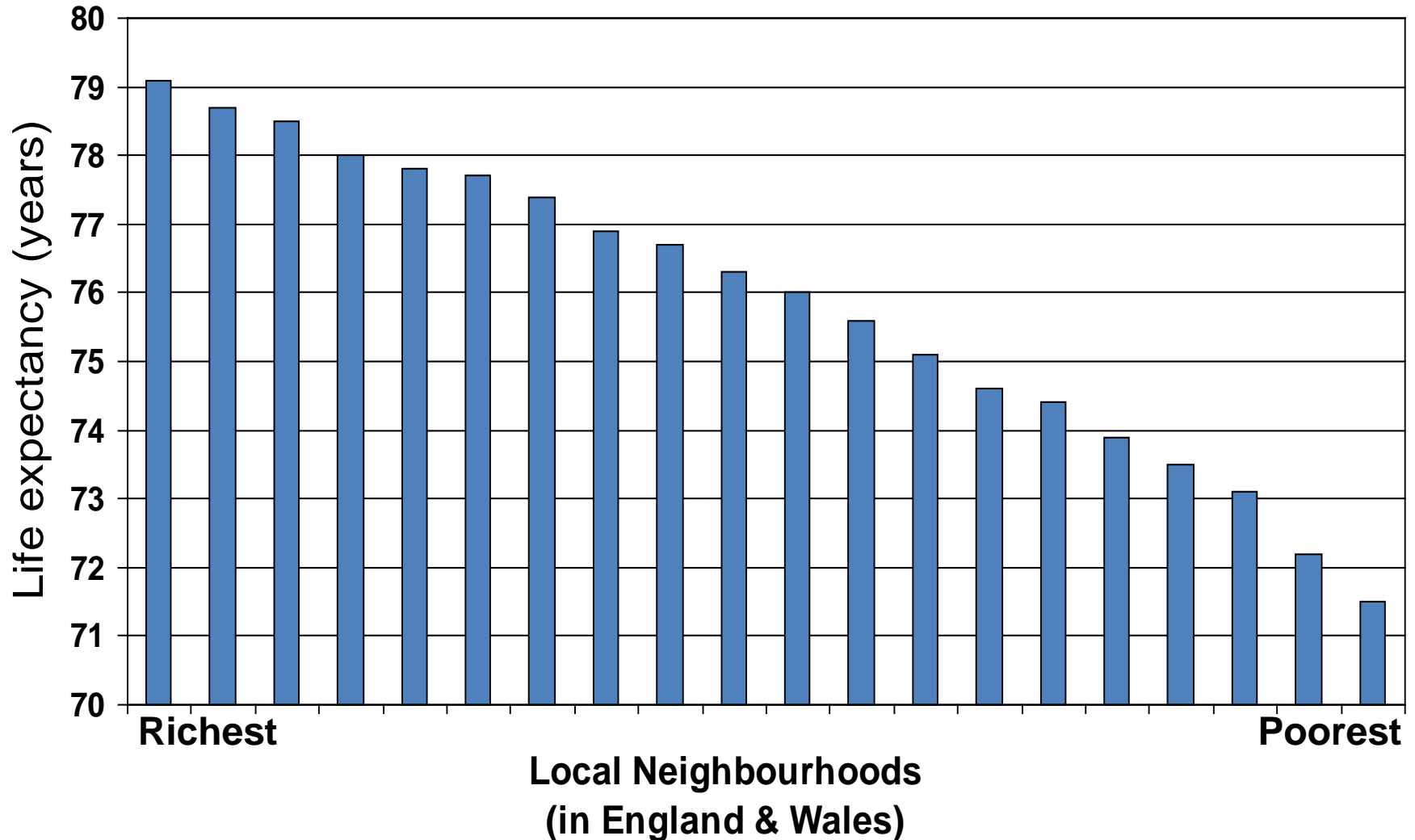
Life expectancy and GDP per person



Life expectancy in rich countries is no longer related to National Income per head



Life expectancy is strongly related to income within rich countries

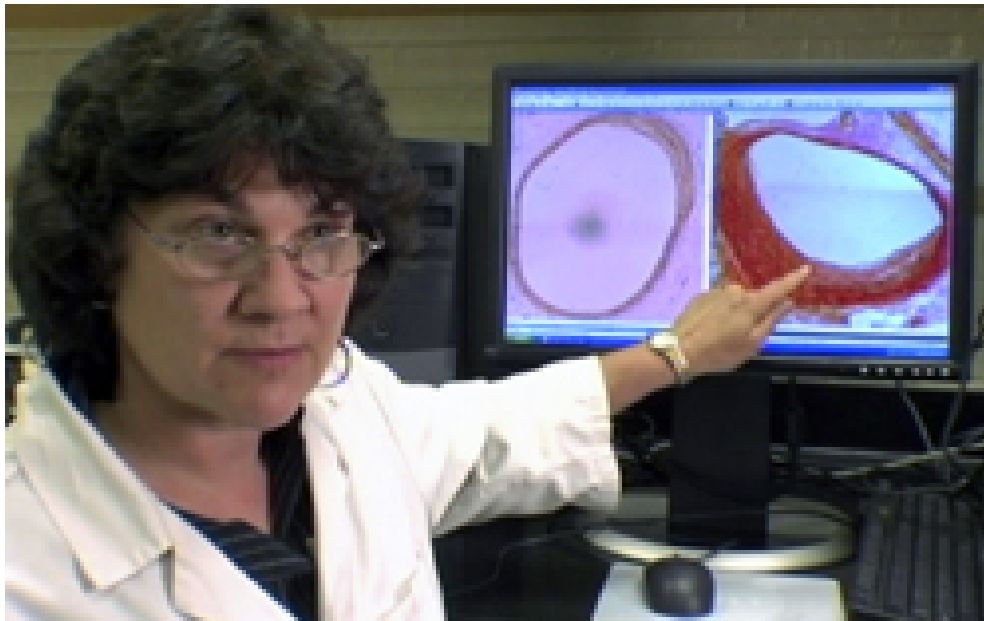


Social hierarchy in non-human primates

**Robert Sapolsky studies
baboons in the wild**

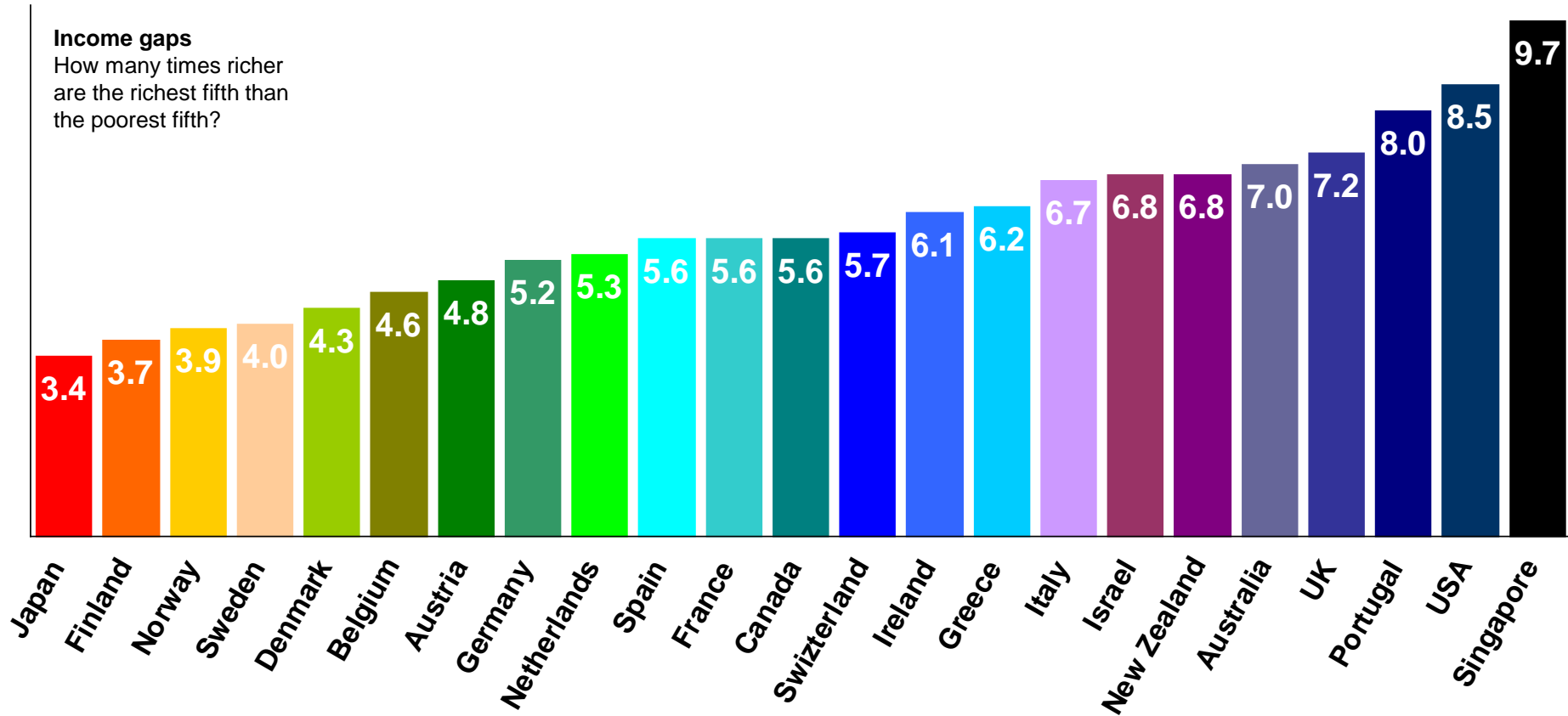


**Carol Shively studies
macaques in captivity**



Inequality...

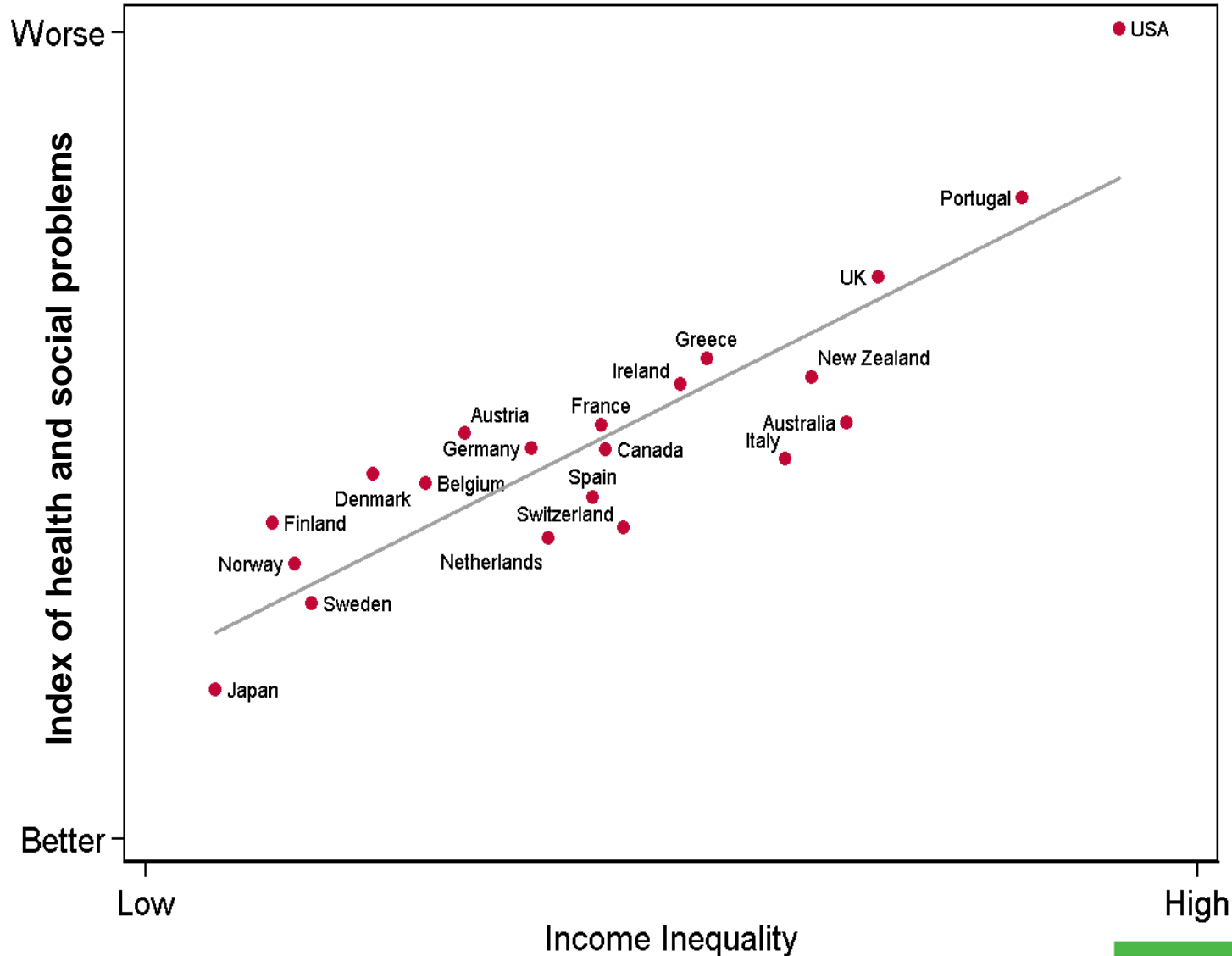
How much richer are the richest 20% in each country than the poorest 20%?



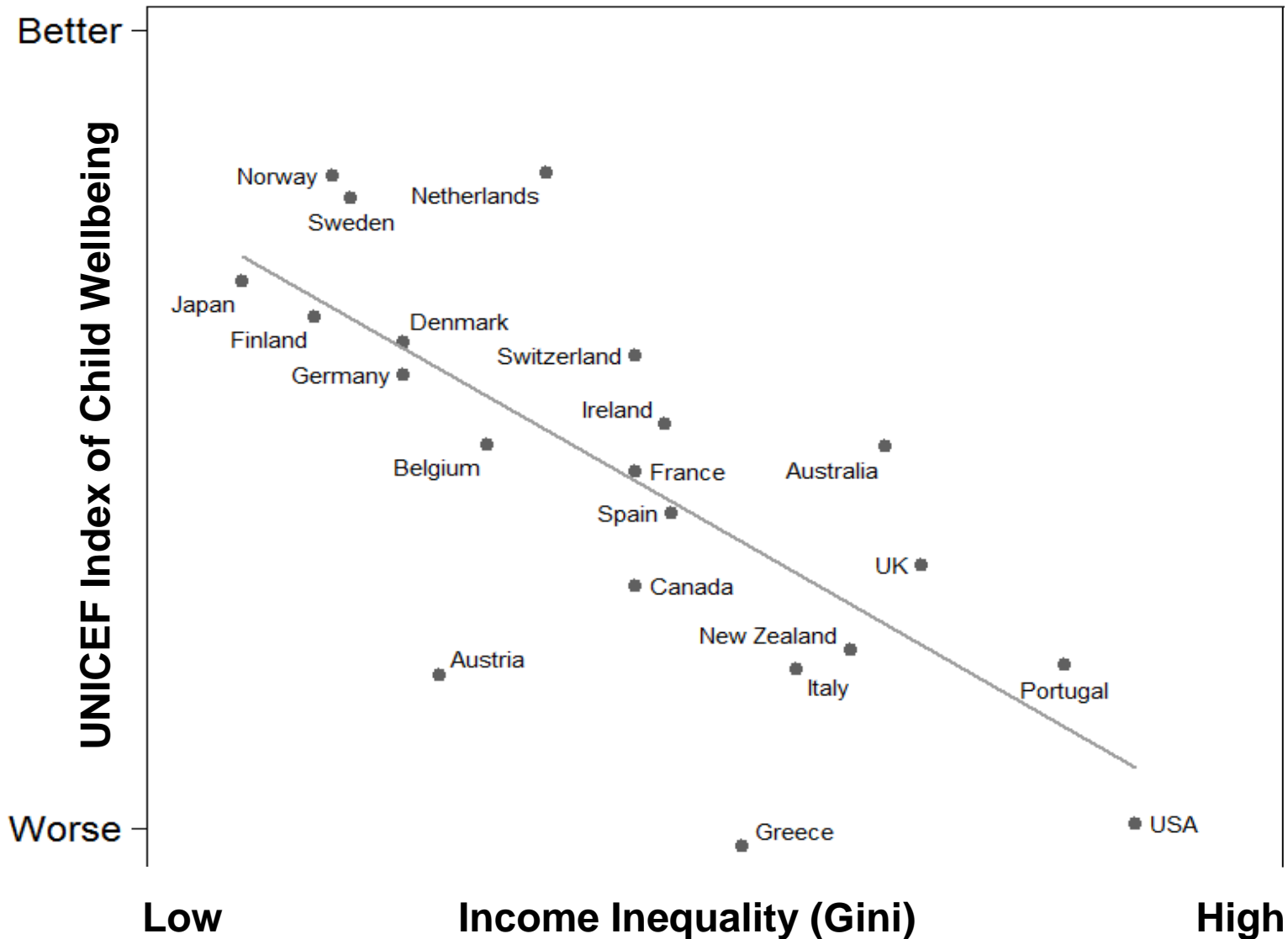
Health and social problems are worse in more unequal countries

Index of:

- Life expectancy
- Math & Literacy
- Infant mortality
- Homicides
- Imprisonment
- Teenage births
- Trust
- Obesity
- Mental illness – incl. drug & alcohol addiction
- Social mobility

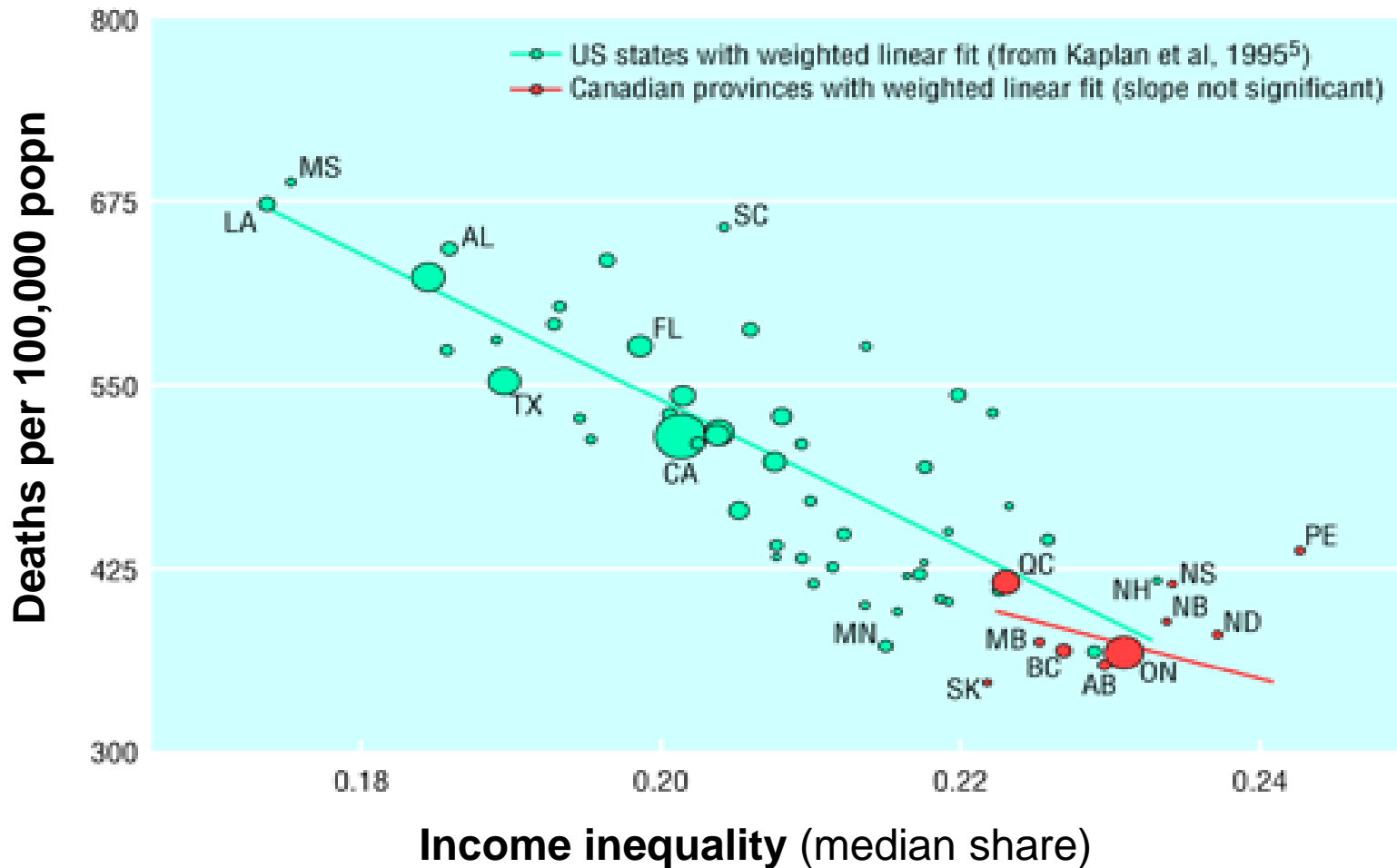


Child Wellbeing is lower in more unequal countries



Death rates of men 25-64yrs & income inequality

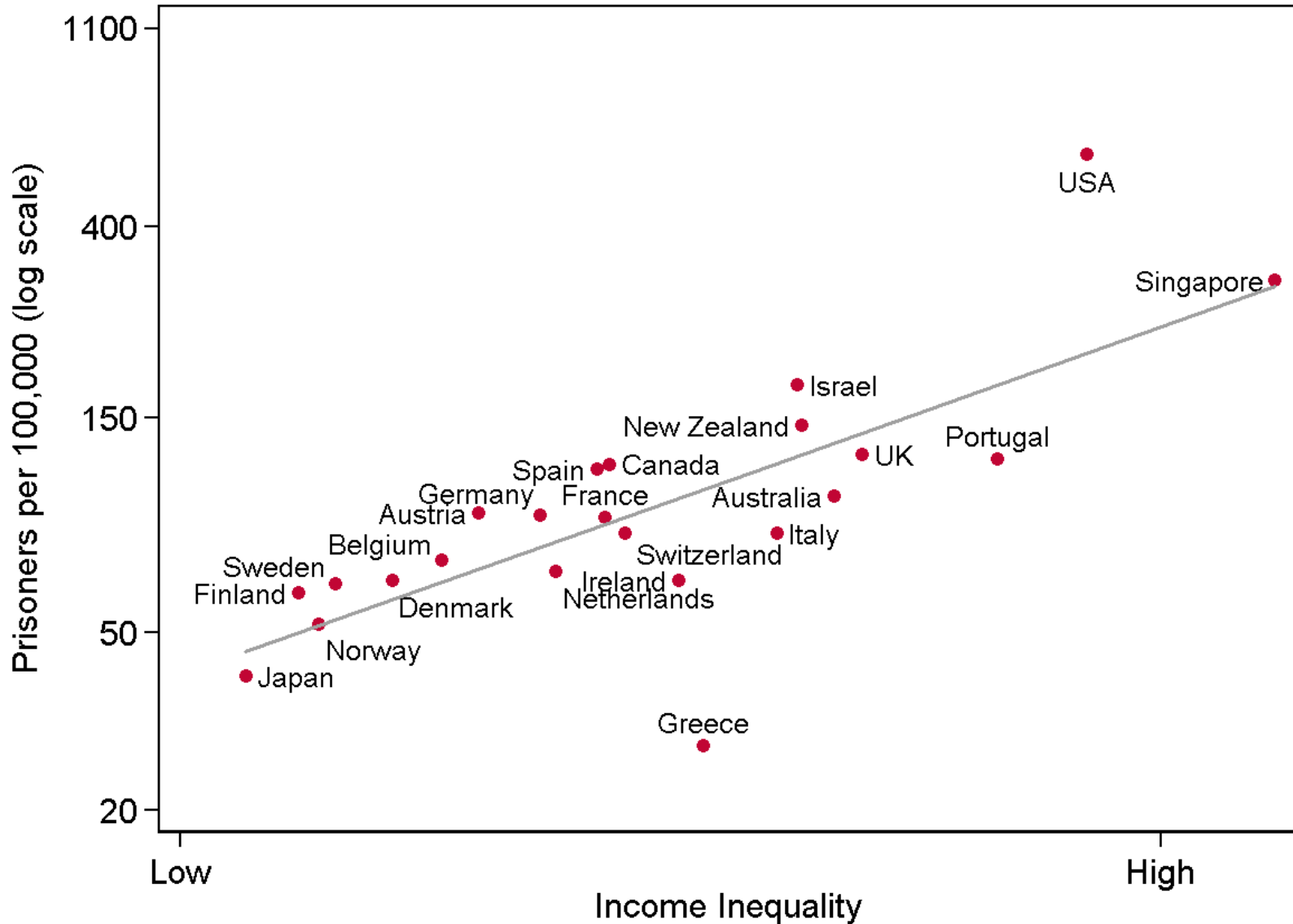
US states and Canadian provinces



Mental illness is more common in more unequal societies



Imprisonment rates are higher in more unequal countries



The Relationship between Income Inequality and Social Mobility

Around the world, high income inequality is associated with low social mobility.

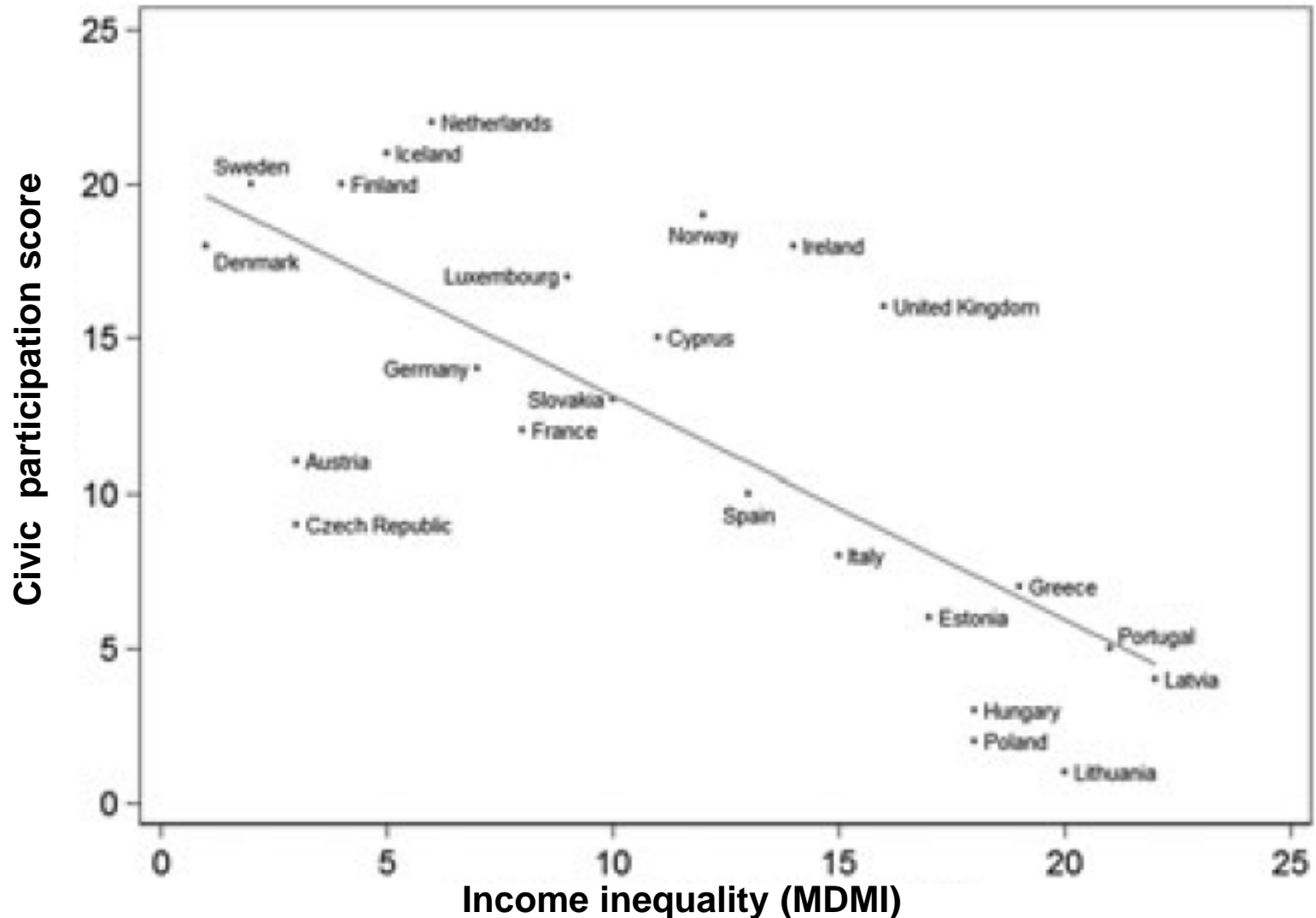


Data from Corak (2013), World Bank (2013)



BROOKINGS

Participation in local groups and voluntary organisations is lower in more unequal societies.

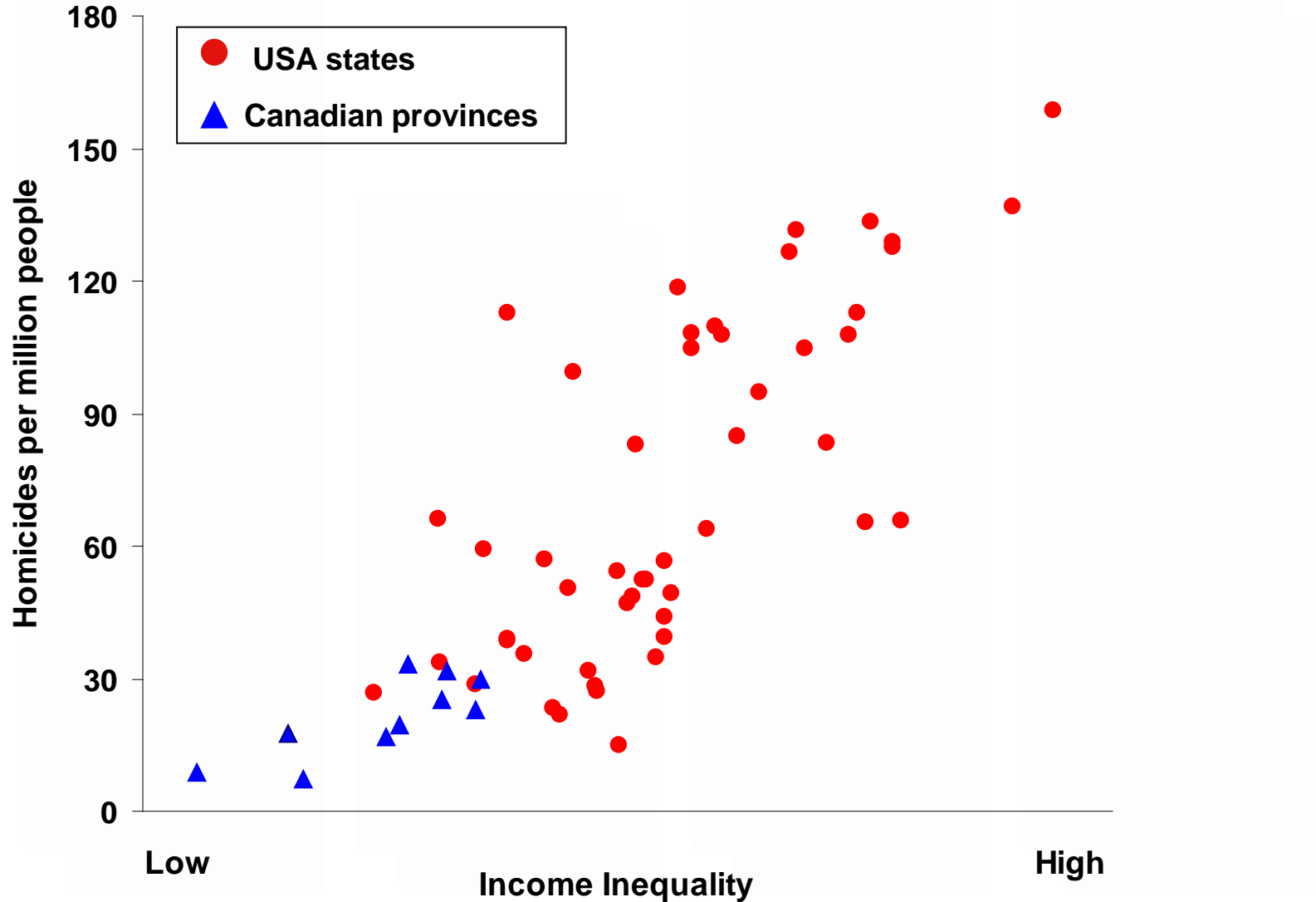


Lancee B, Van de Werfhorst HG. Income inequality and participation: A comparison of 24 European countries. *Social Science Research*. 2012; 41(5):1166-78.

People in more unequal countries trust each other less



Homicide rates are higher in more unequal US states and Canadian provinces



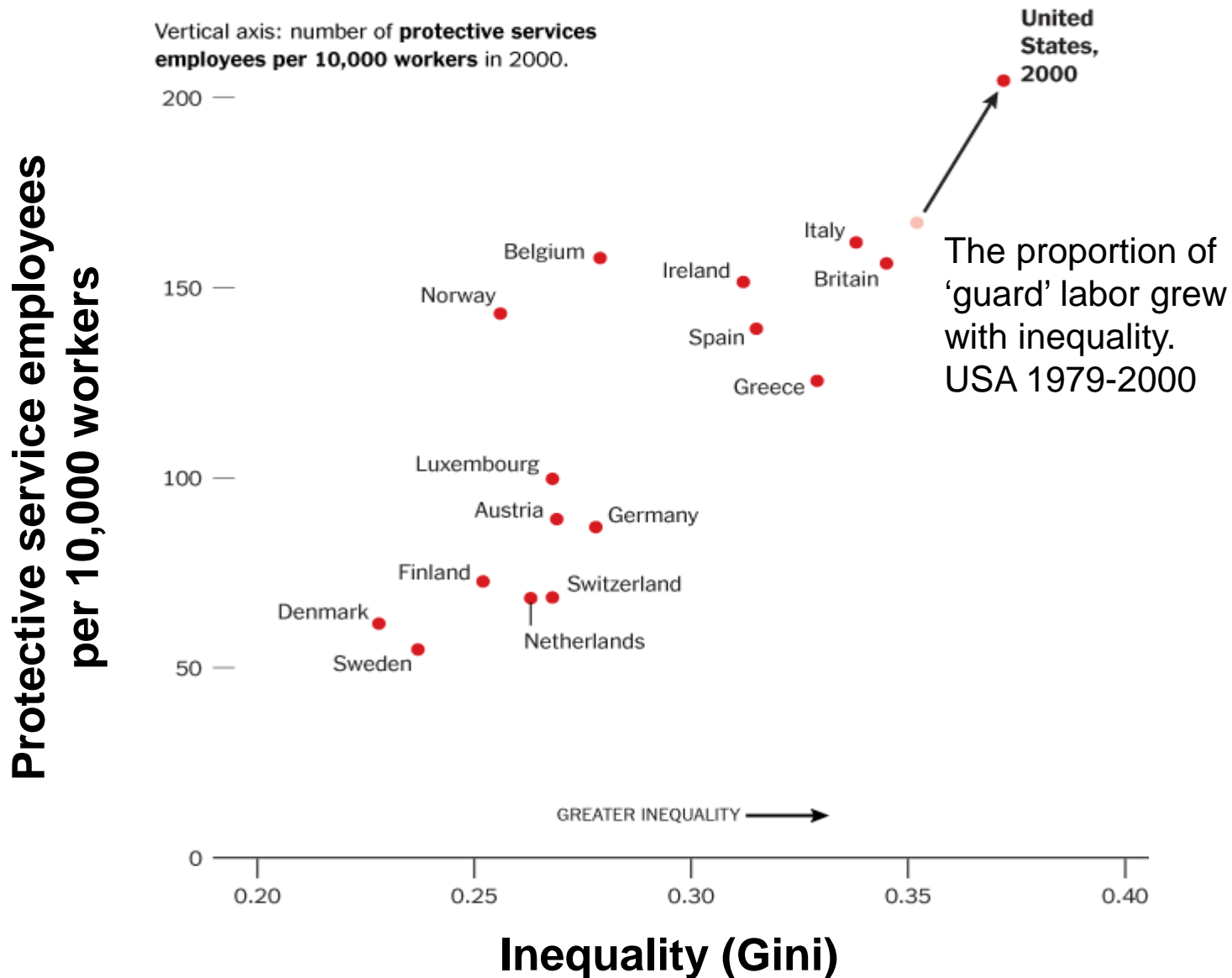
Cuernavaca, Mexico



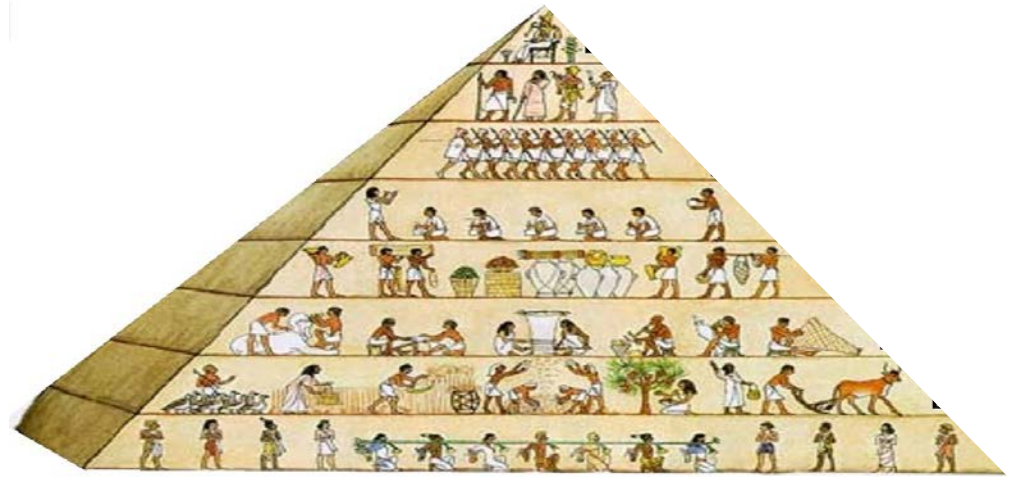
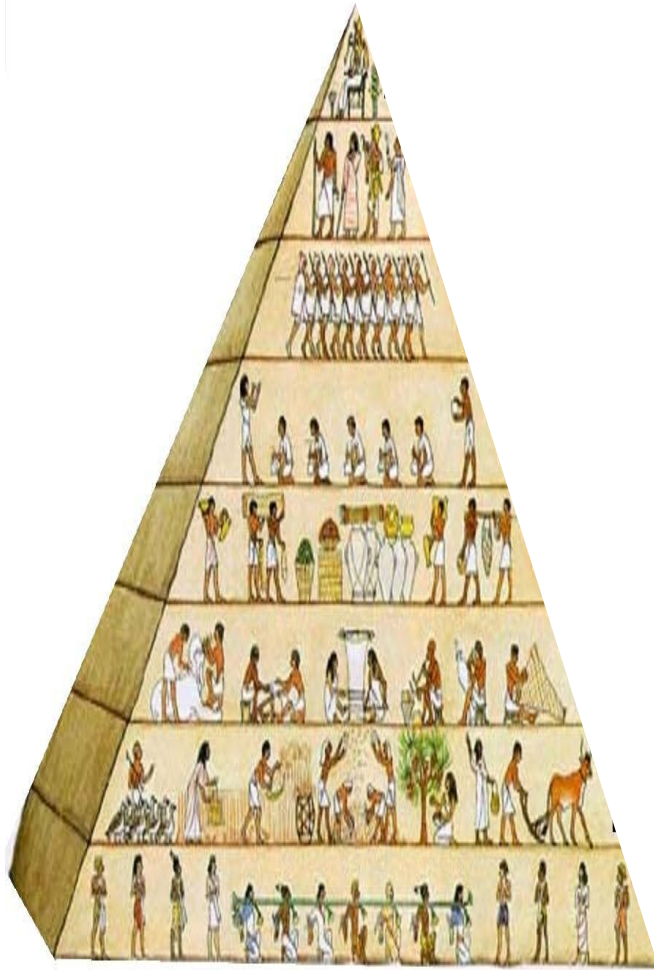
'Armed Response' - Pretoria, South Africa.



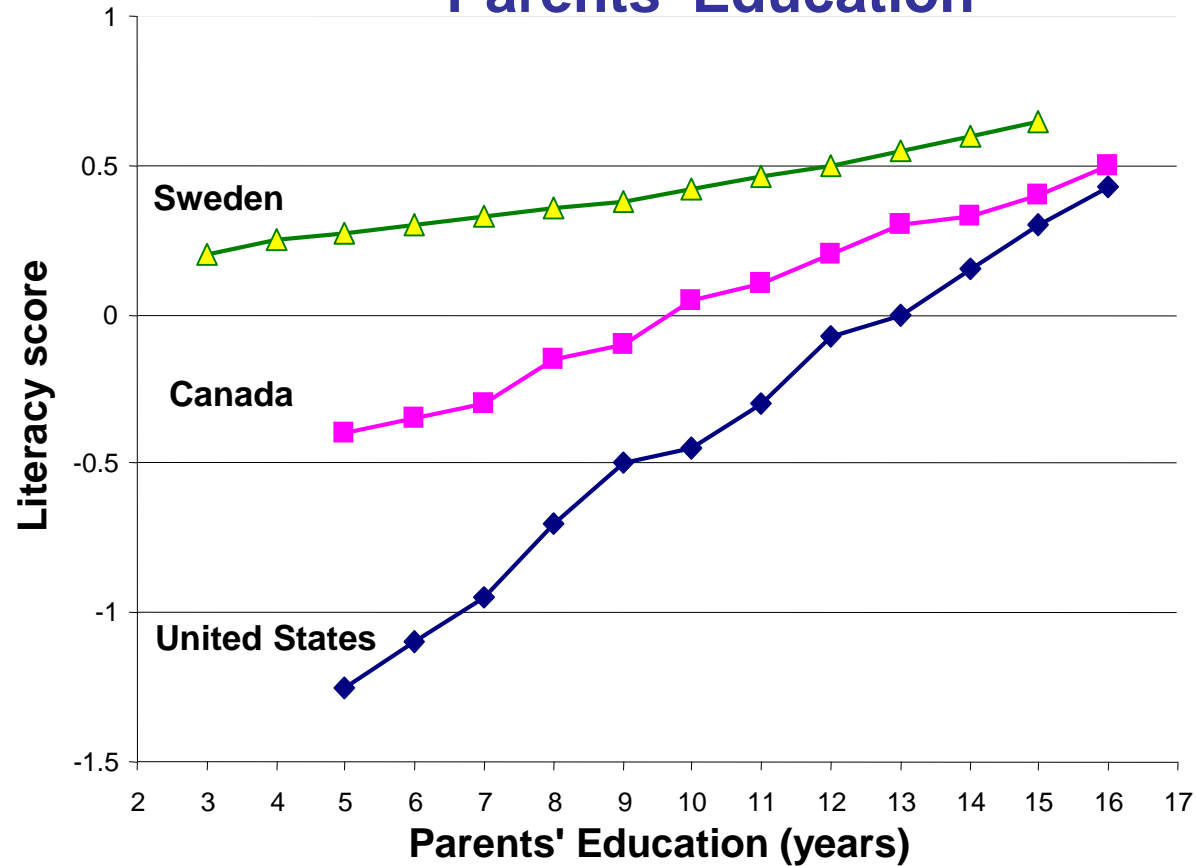
Societies with wider Income differences need more “guard labor”



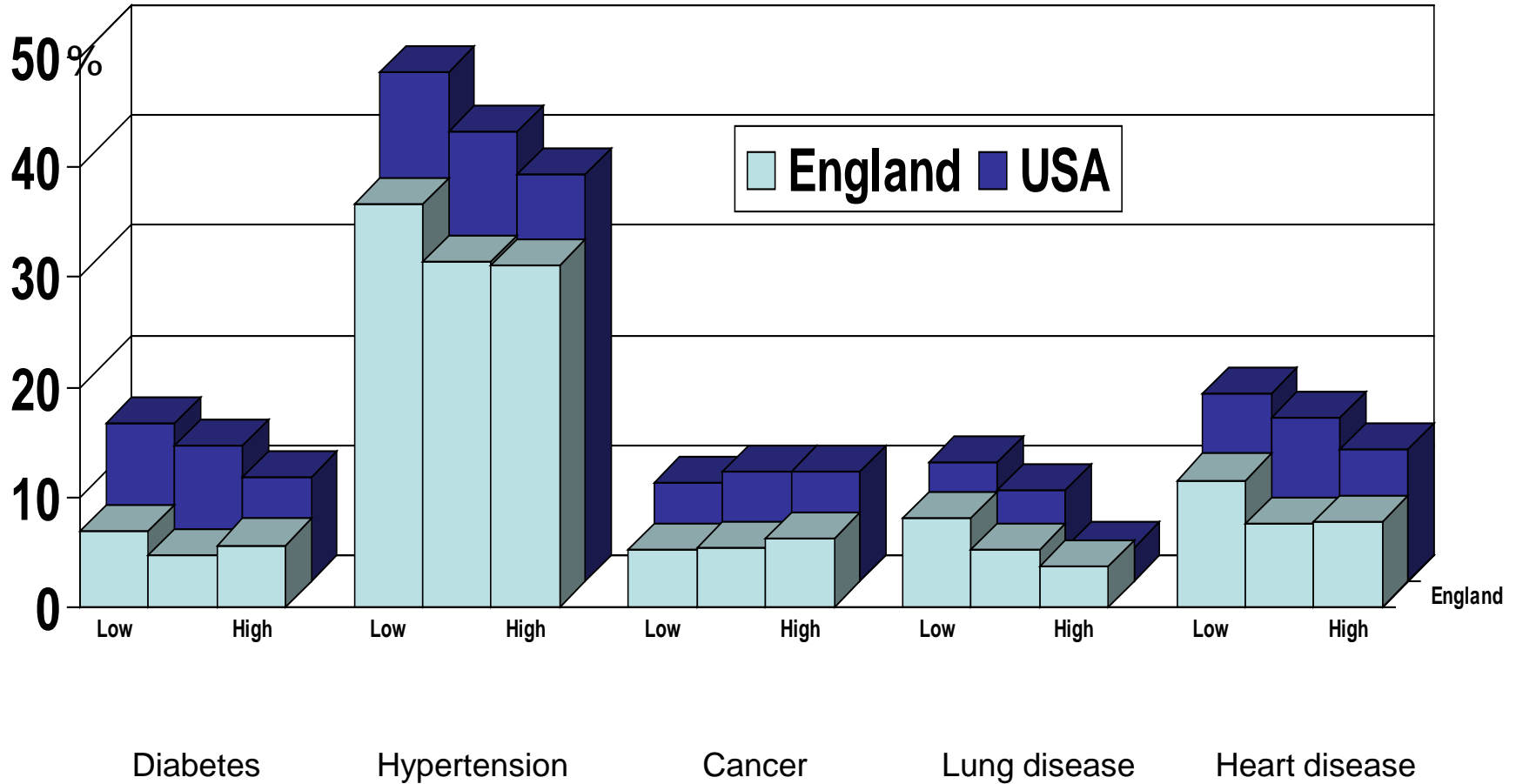
Bigger material differences create bigger social distances and increase social class differentiation



Literacy Scores of 16-25 year olds by Parents' Education



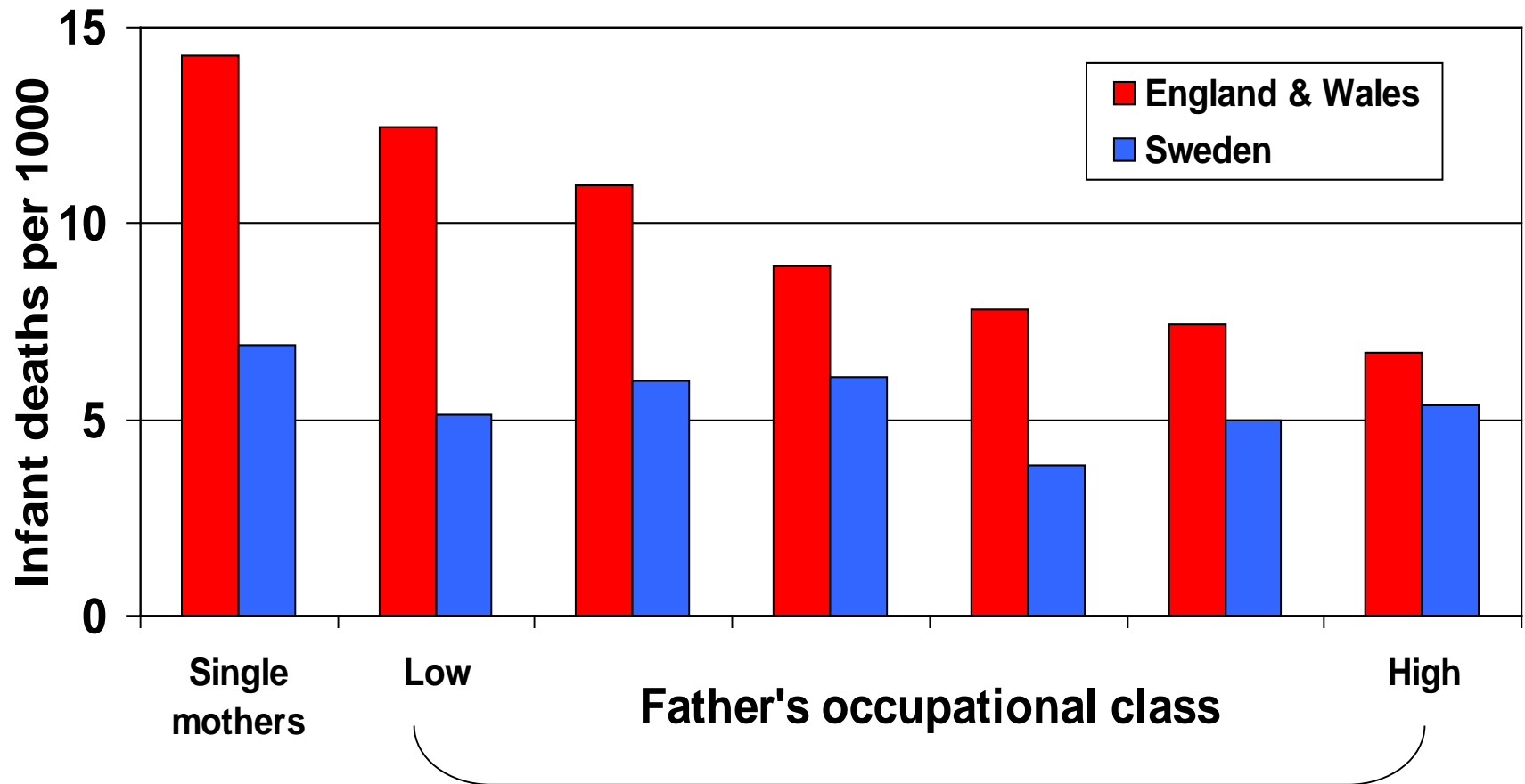
Self-reported prevalence of illness by education



Source: Banks et al. JAMA 2006; 295: 2037-2045

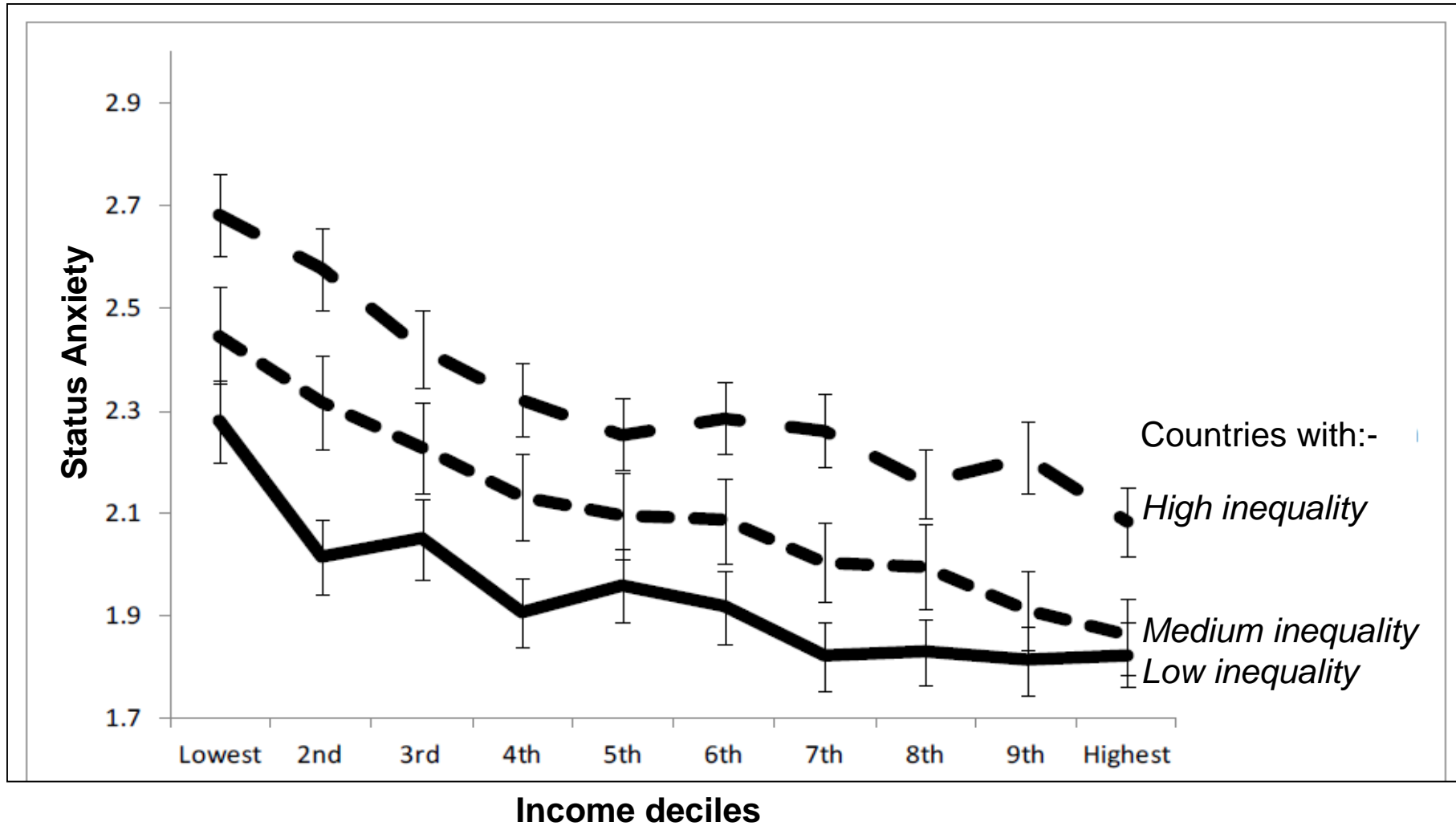
The benefits of greater equality are not confined to the poor but extend to all social classes

Infant mortality by class: Sweden compared with England & Wales



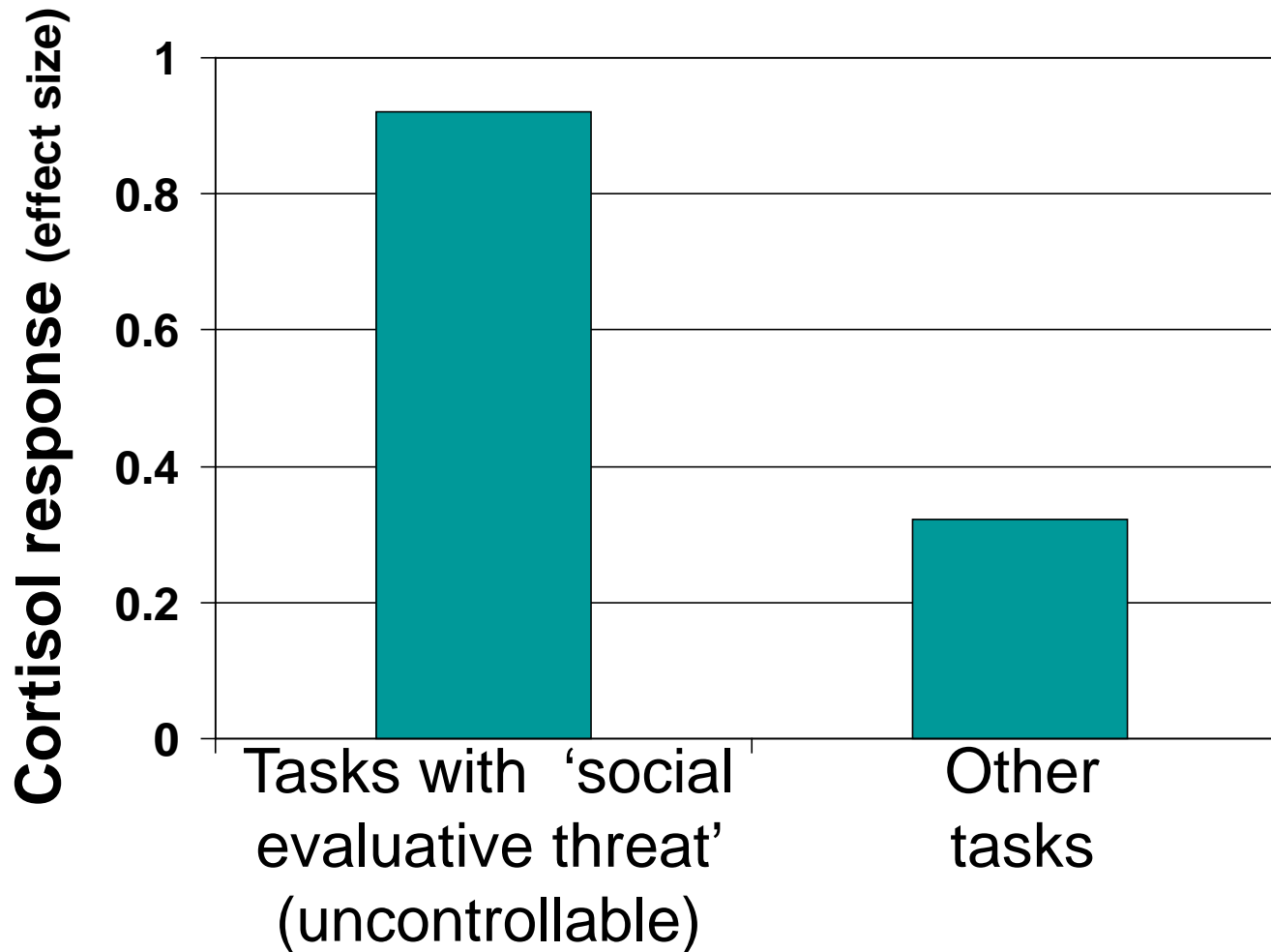
Leon, D. A., D. Vagero, et al. (1992). "Social class differences in infant mortality in Sweden: comparison with England and Wales." Brit Med J 305(6855): 687-91.

Status Anxiety across income deciles for high, medium and low inequality countries



Layte R, Whelan CT. Who Feels Inferior? A Test of the Status Anxiety Hypothesis of Social Inequalities in Health. *European Sociological Review*, 2014.

What kind of stress cause the biggest rise in stress hormones?



Dickerson SS, Kemeny ME. Acute stressors and cortisol responses. *Psychological Bulletin* 2004; 130(3): 355-91.

The Dominance Behavioural System

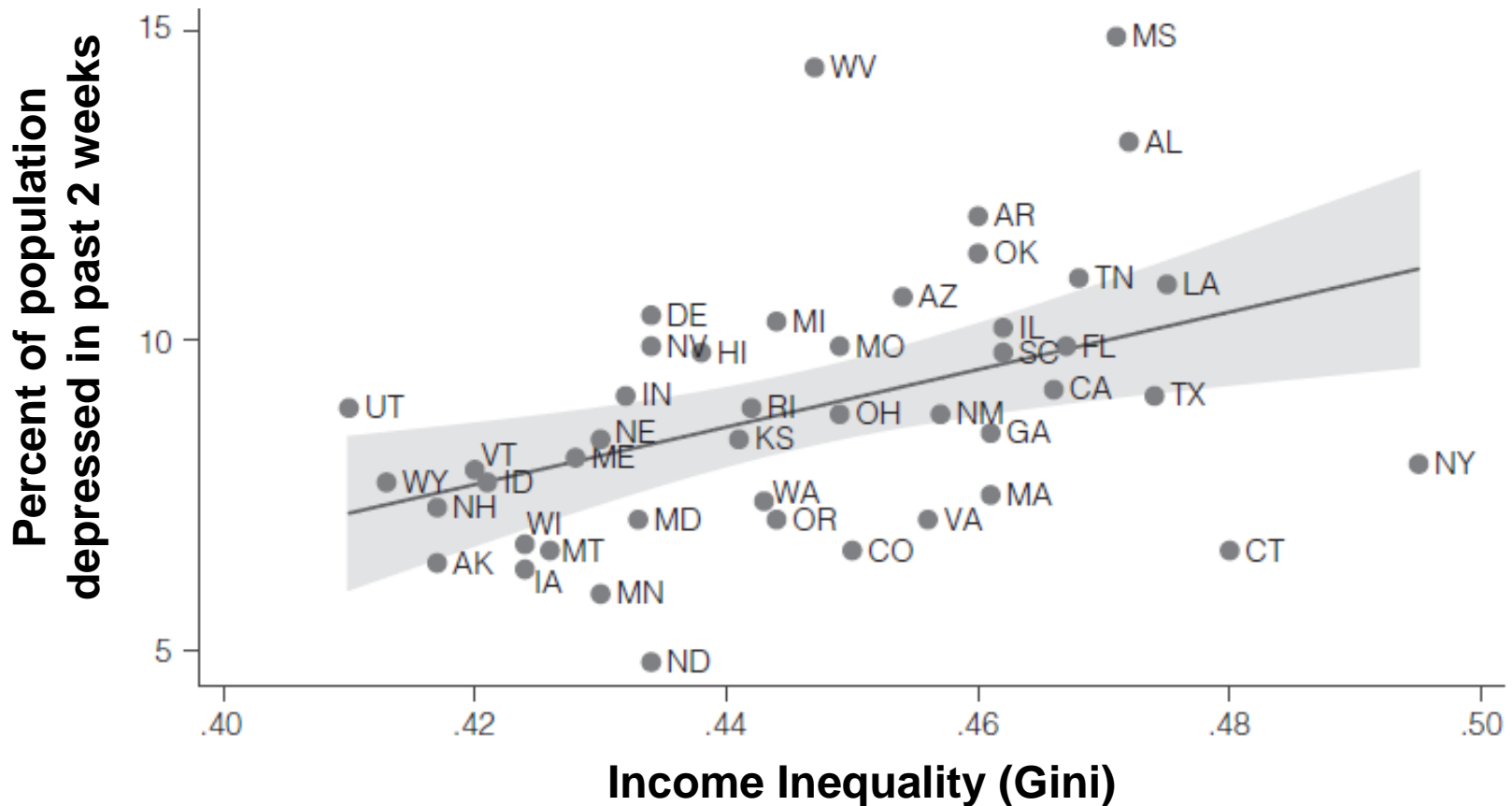
Johnson SL, Leedom LJ, Muhtadie L.

The Dominance Behavioral System and Psychopathology.
Psychological Bulletin, 2012; 138(4): 692-743.

Findings:-

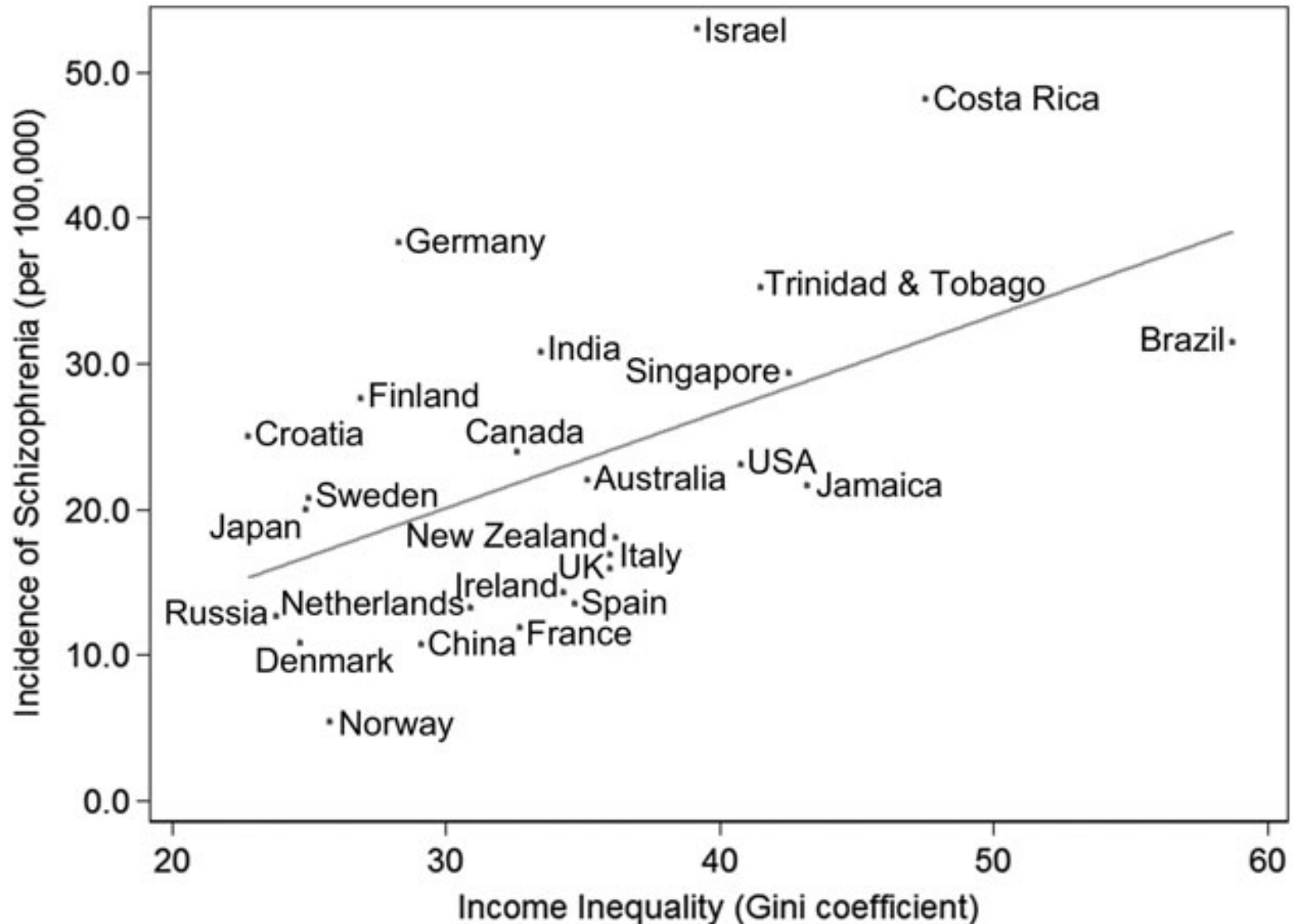
- **Anxiety and depression are related to subordination, to submissiveness and to the desire to avoid subordination.**
- **Mania and narcissistic traits are related to inflated self-perceptions of power.**
- **Externalizing disorders, mania proneness, and narcissistic traits are related to heightened dominance motivation and behaviour.**

Depression is more common in more unequal states

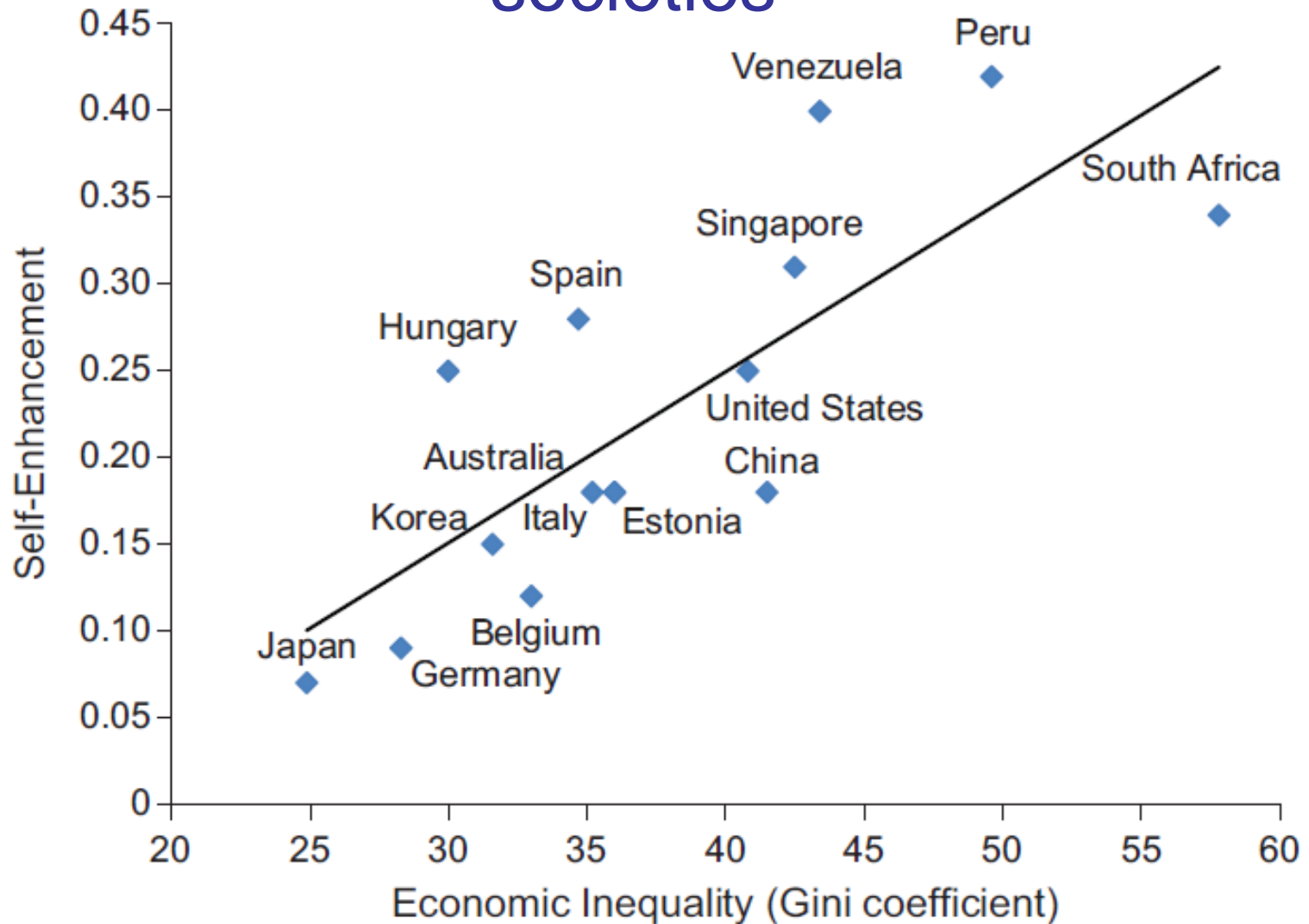


Messias E, Eaton WW, et al. . Economic grand rounds: Income inequality and depression across the United States: an ecological study." Psychiatric Services, 2011; 62(7): 710-2.

Income inequality and schizophrenia



Self enhancement increases in more unequal societies

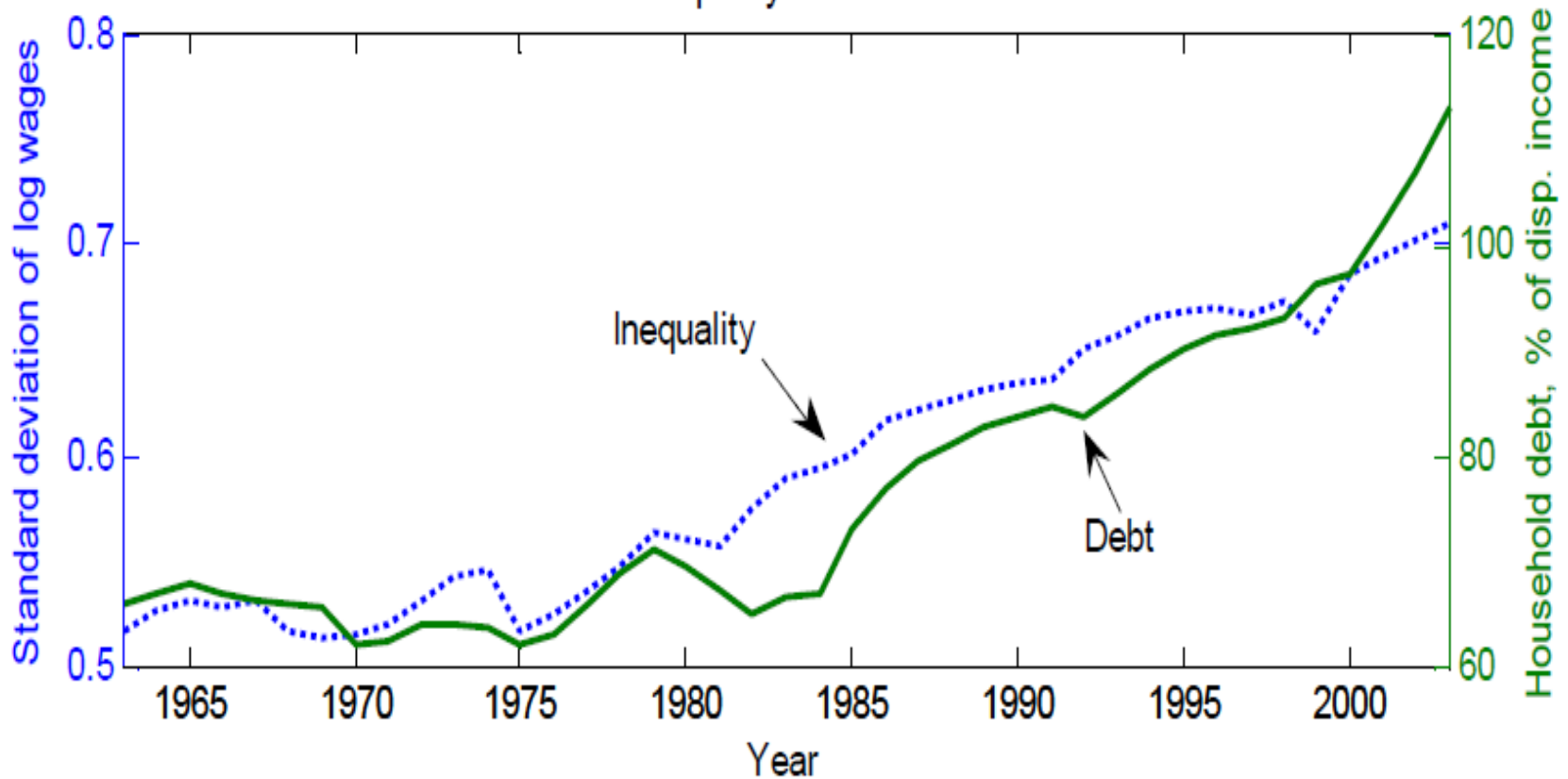


Loughnan S, et al. Economic Inequality is linked to biased self-perception.
Psychological Science, 2011; 22: 1254

Two recent studies show that inequality increases conspicuous consumption and consumerism

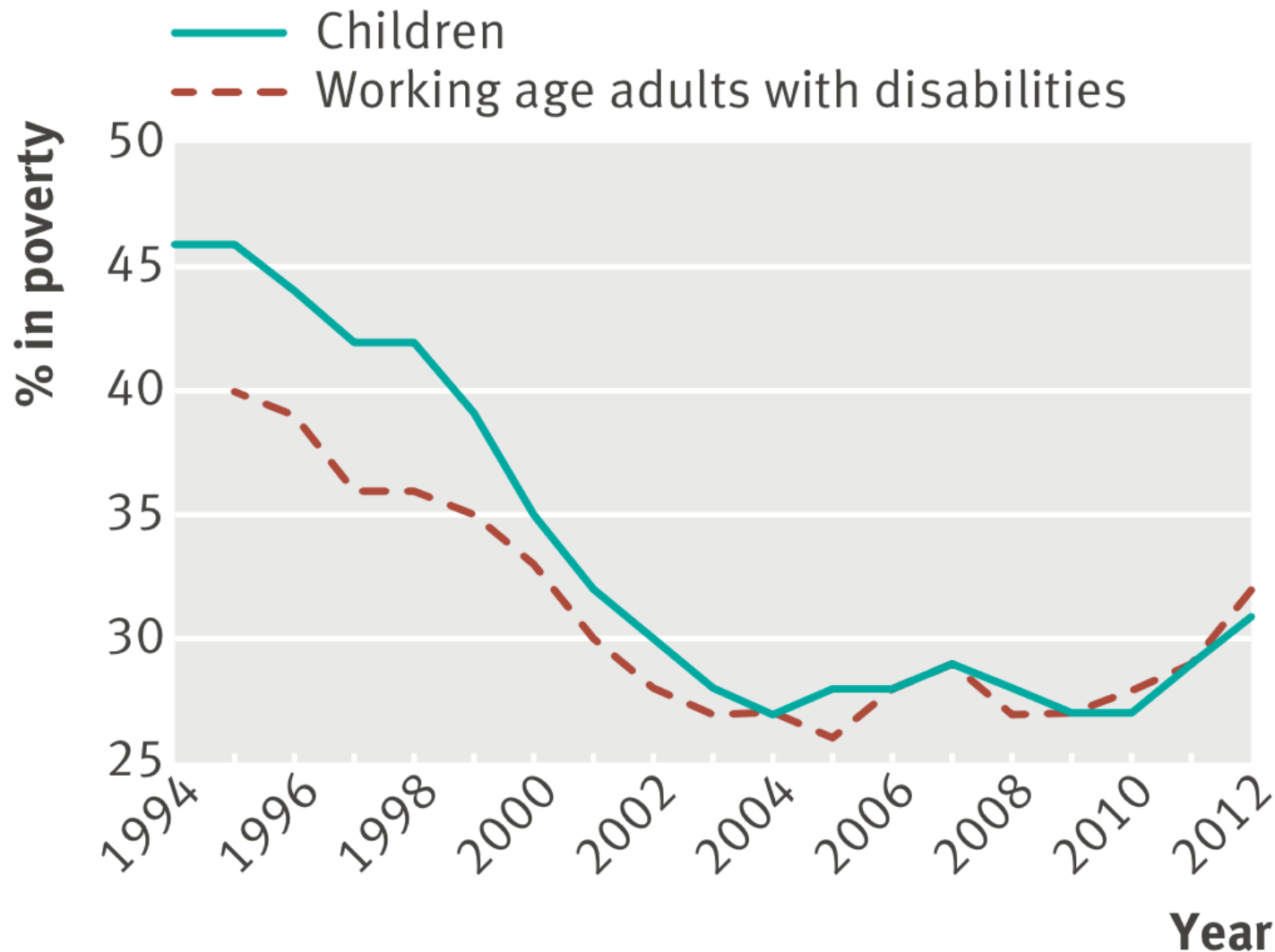
- People in more unequal areas of the USA are more likely to buy high status cars
- Data from internet searches shows that people in more unequal states are more likely to search for status goods

Household Debt and Income Inequality USA



Iacoviello M. Household Debt and Income Inequality, 1963–2003. *Journal of Money, Credit and Banking* 2008;40(5):929-65.

Gains of the past are being undone





Changes in death rates of pensioners aged over 85 by local authority 2011-12

Loopstra R, et al..
Austerity and old-age mortality in England: a longitudinal cross-local area analysis, 2007–2013.
Journal of the Royal Society of Medicine
2016;109.3: 109-116.

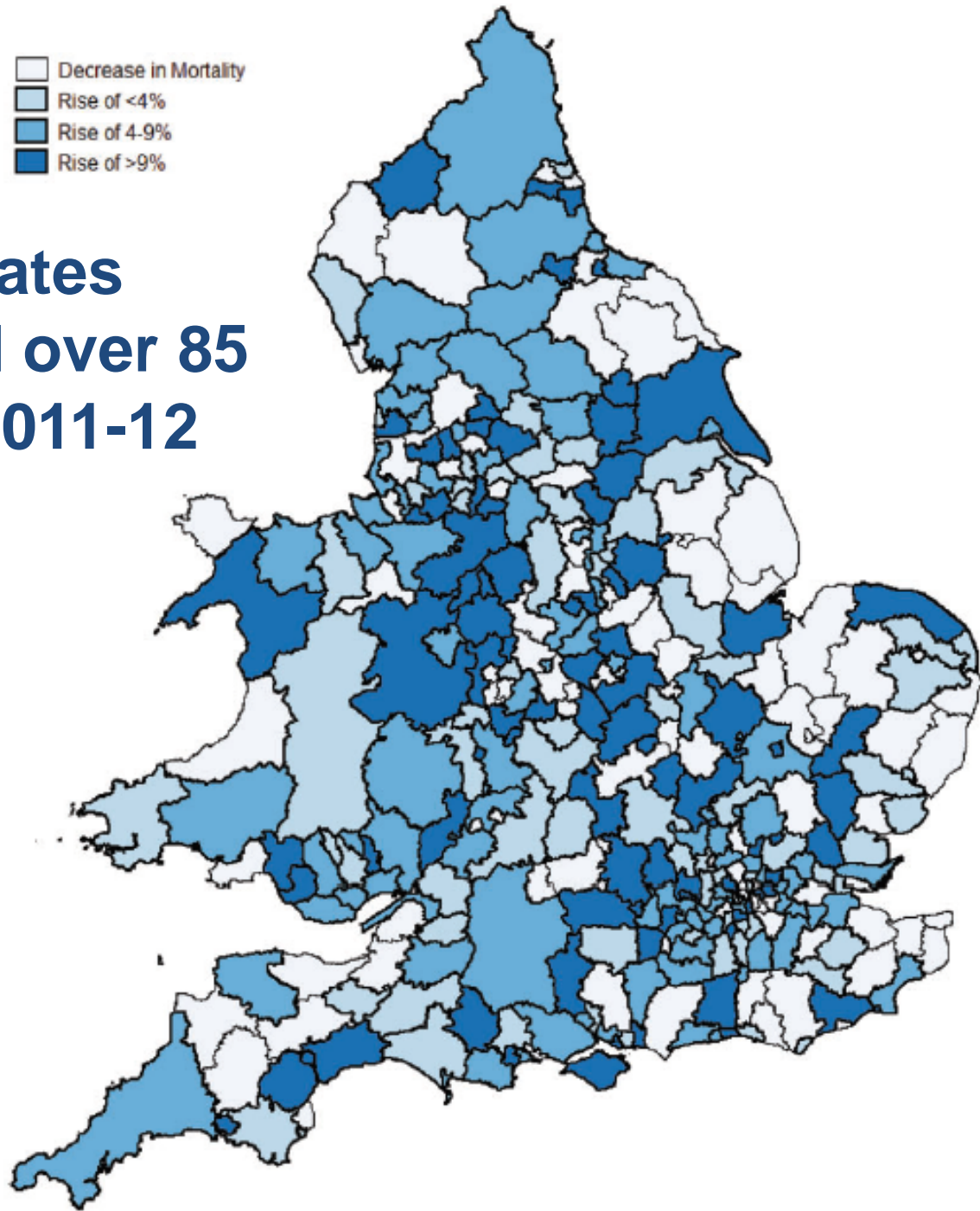
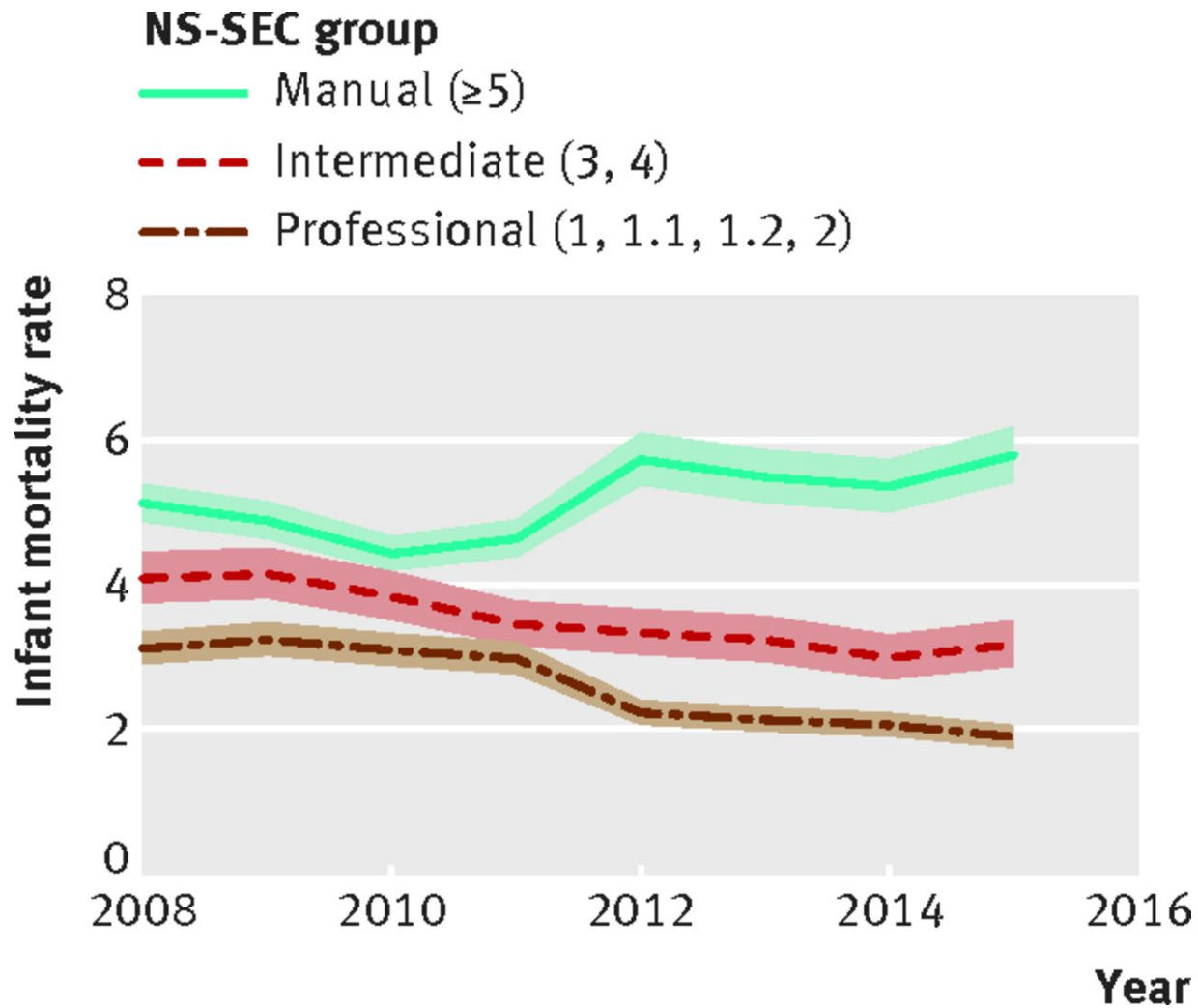


Fig 1 Infant mortality rate (95% confidence interval) by socioeconomic classification, 2008-15.

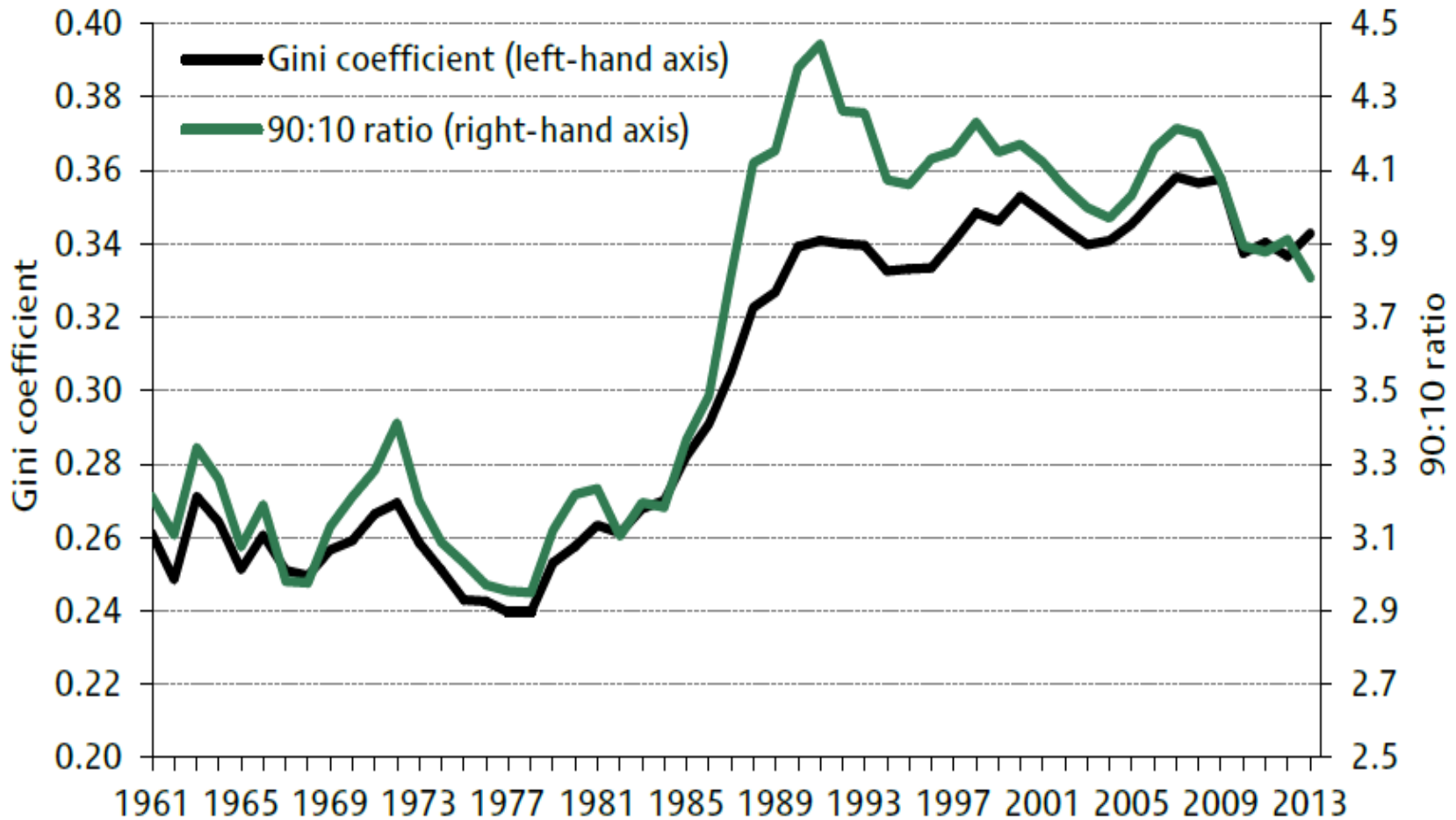


David Taylor-Robinson, and Ben Barr *BMJ*
2017;357:bmj.j2258



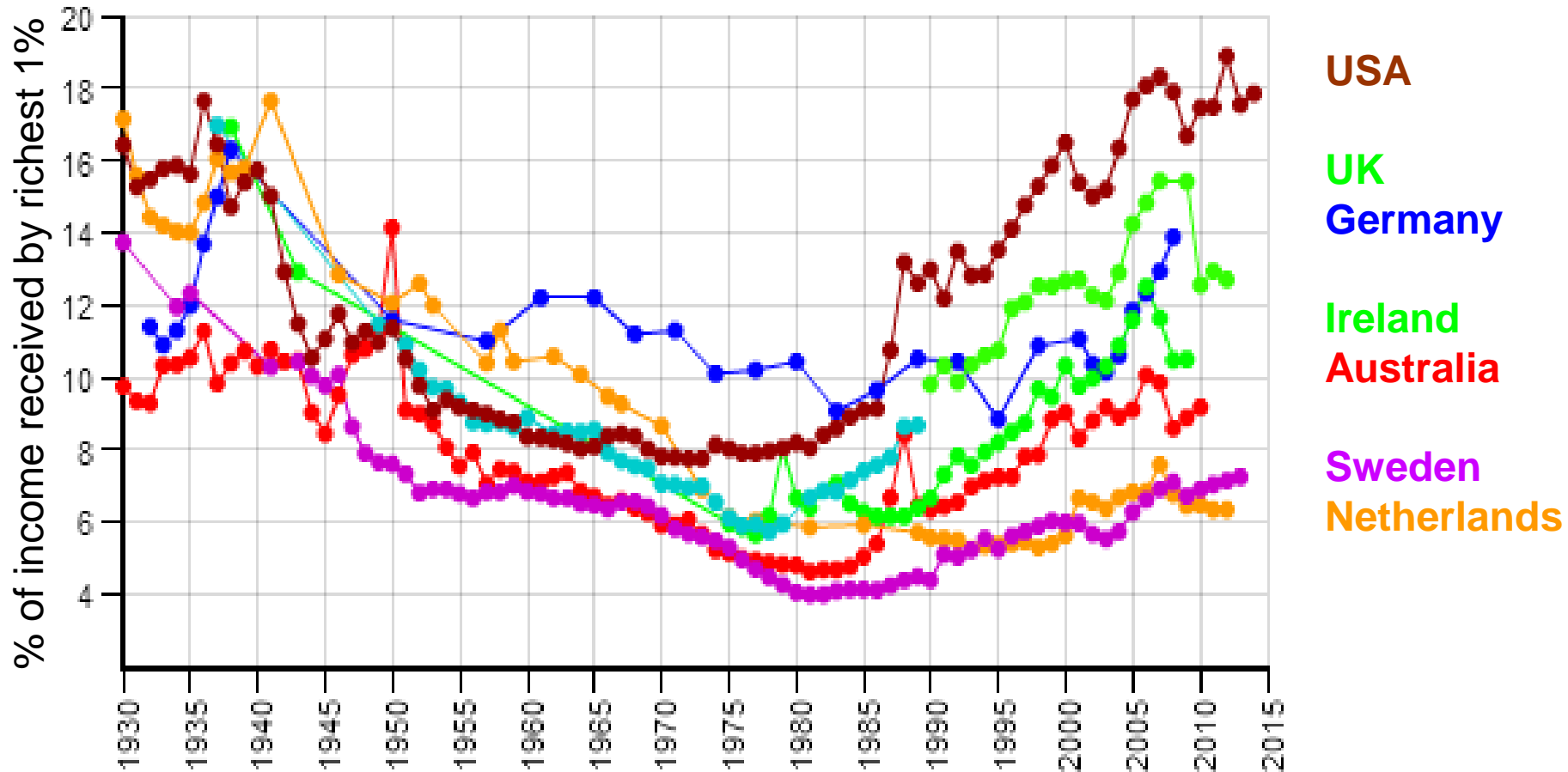
Trends in Income inequality

Gini and 90:10 ratio. Institute For Fiscal Studies, BHC, GB.



Belfield C, Cribb J, Hood A, Joyce R. *Living Standards, Poverty and Inequality in the UK: 2015*. (Institute for Fiscal Studies, 2015).

Percent of all income going to top 1% 1930-2014



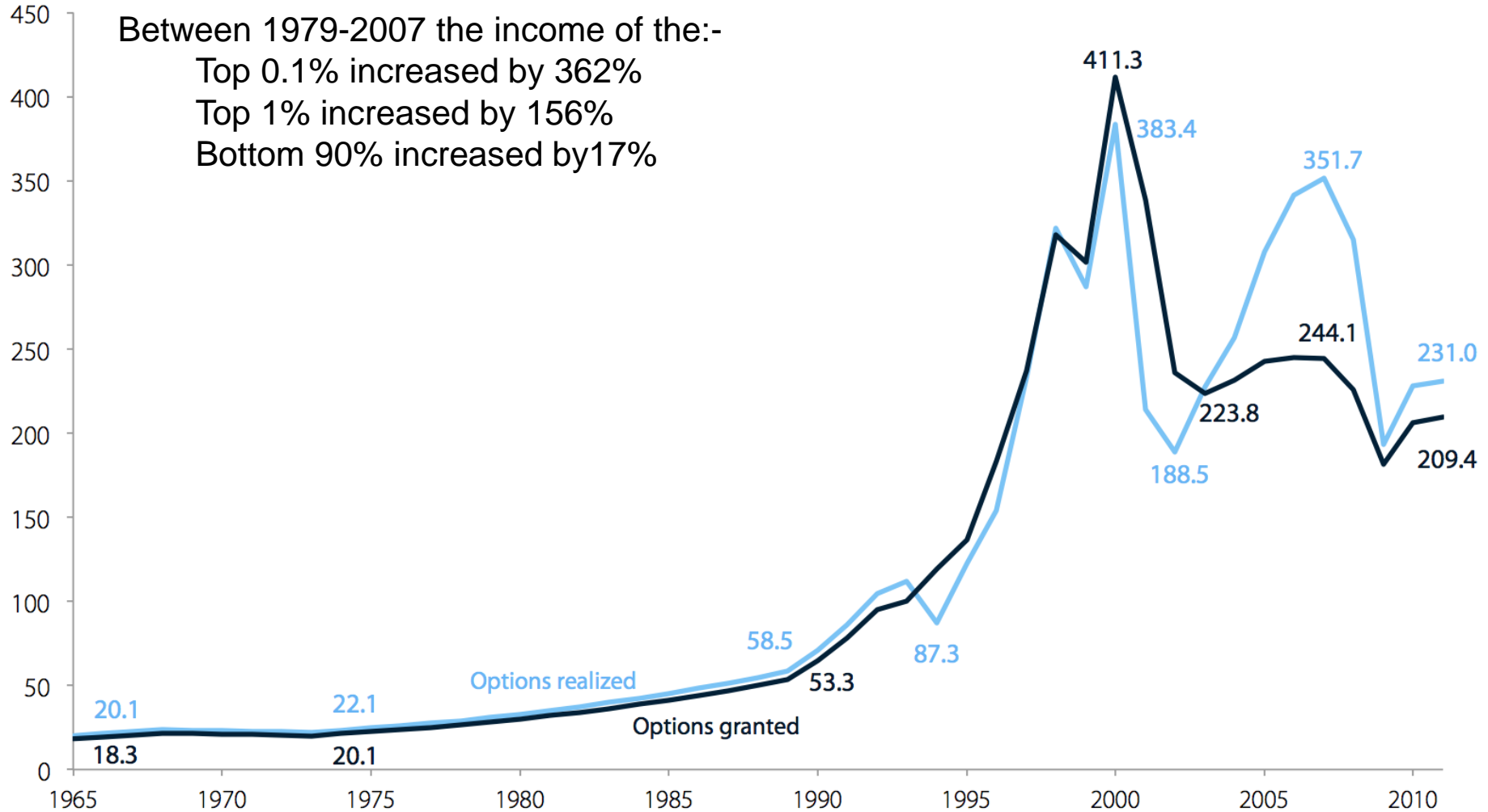
Source: World Top Incomes Database

Trade Unions membership (% workforce) and Share of Income going to top 10% (USA, 1918-2008)

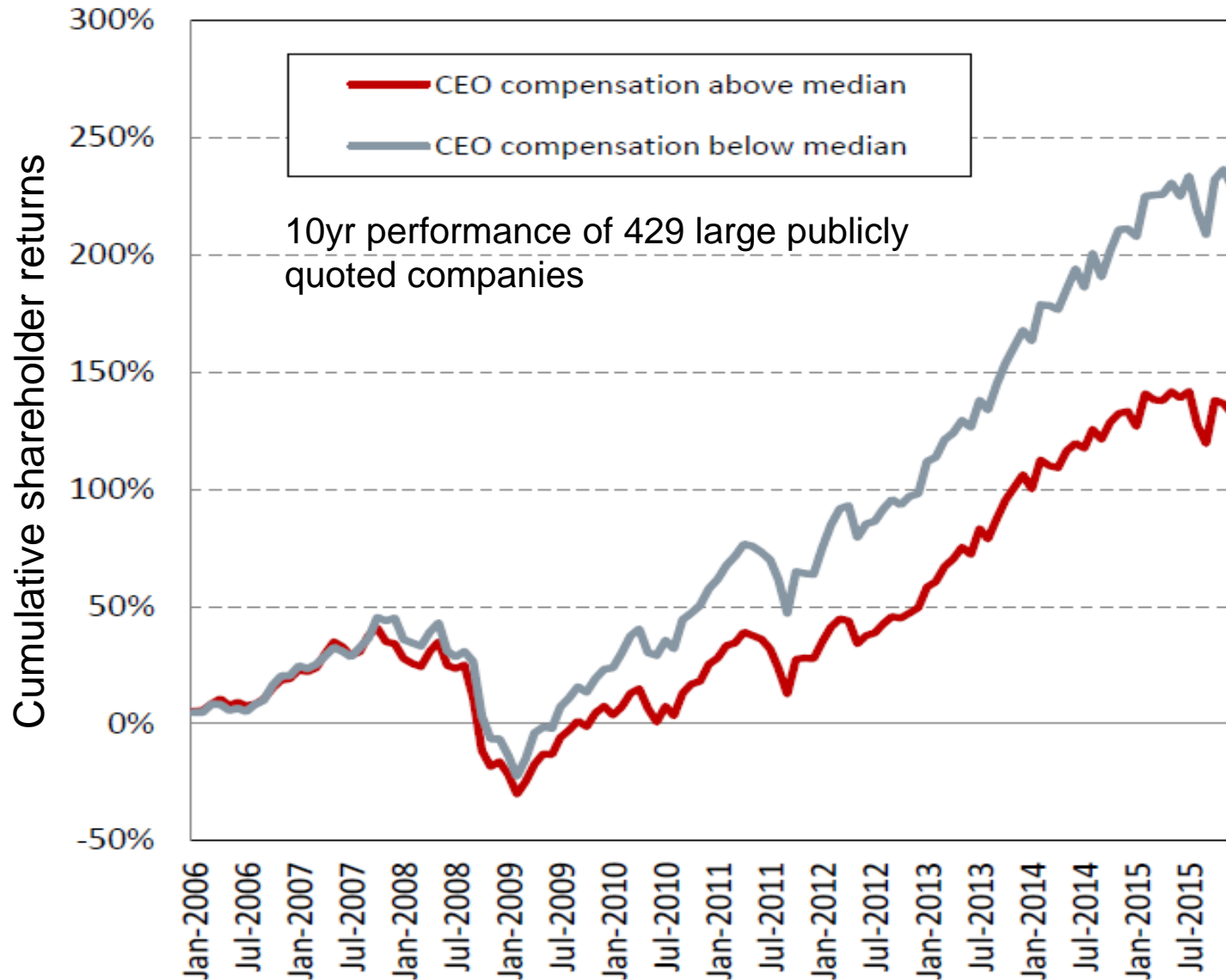


Colin Gordon's analysis of Historical Statistics for the US, unionstats.com, Piketty and Saez 2003, and World Top Incomes Database. Economic Policy Institute, Washington DC.

Changing ratio of CEO pay to average pay of production & non-supervisory workers in top 350 US companies



Companies paying CEOs above the median performed less well than those paying below the median



What can be done?

Income differences before tax

- Increase economic democracy - employee ownership etc
- Strengthen trade unions



Taxes & benefits

- Stop tax avoidance
- End tax havens
- Make taxation progressive again

Economic democracy:-

- **“turns companies from being pieces of property into communities”**
- **reduces pay ratios within companies**
- **transforms the experience of work**
- **redistributes wealth & reduces unearned income**
- **improves productivity**
- **makes companies more environmentally & socially responsible**

Boards can include employee, community and consumer representatives



The voice of co-owned business



2012 International Year of Cooperatives



COOPERATIVA ITALIA L'IMPRESA IN ARMONIA CON IL FUTURO

ARUP

Cooperatives



The Effects of Income inequality

EVIDENCE OF CAUSALITY

Pickett KE, Wilkinson RG. Income inequality and health: a causal review. *Social Science & Medicine* 2015;128: 316-26

THEORY & PSYCHOSOCIAL PROCESSES

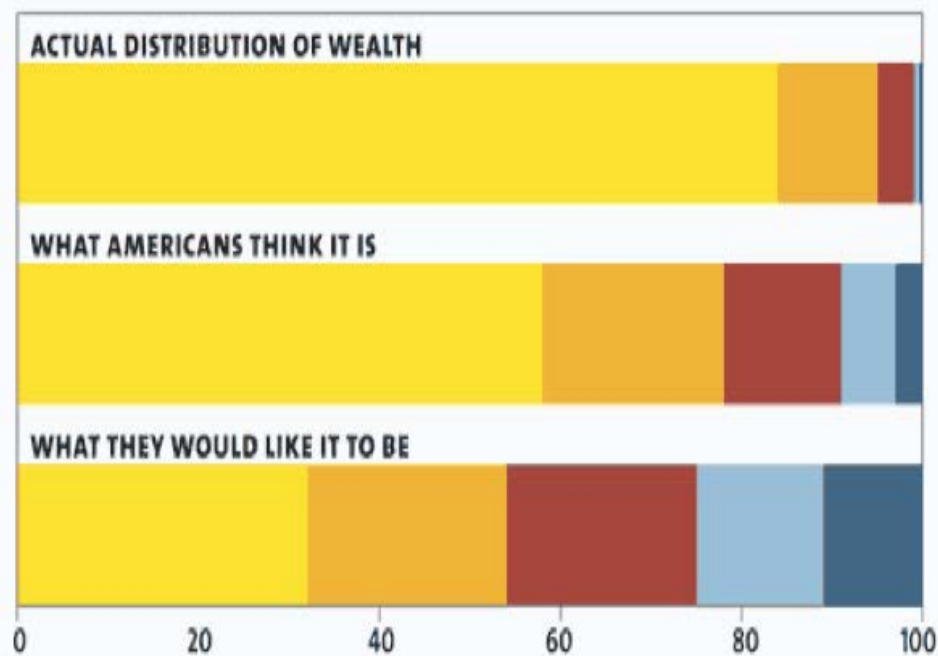
Wilkinson RG, Pickett KE. The enemy between us: The psychological and social costs of inequality. *European Journal of Social Psychology*, 2017; 47, 11-24.
<http://dx.doi.org/10.1002/ejsp.2275>

CREATING THE SOCIETY WE WANT

Wilkinson RG, Pickett KE. *A Convenient Truth: A Better Society for Us and the Planet*. Fabian Society, London 2014. <http://www.fabians.org.uk/publications/a-convenient-truth/>

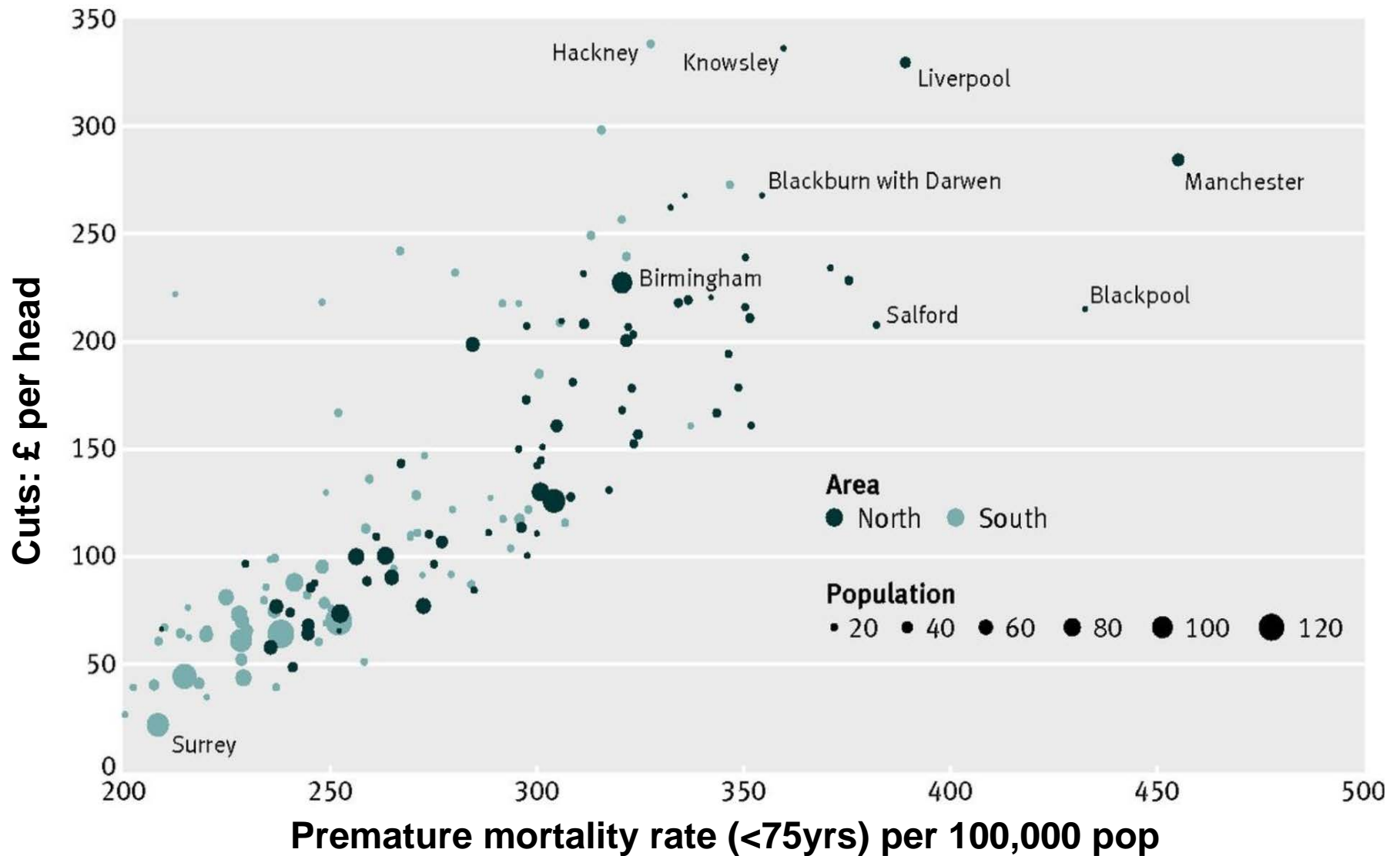
OUT OF BALANCE

A Harvard business prof and a behavioral economist recently asked more than 5,000 Americans how they thought wealth is distributed in the United States. Most thought that it's more balanced than it actually is. Asked to choose their ideal distribution of wealth, 92% picked one that was even more equitable.

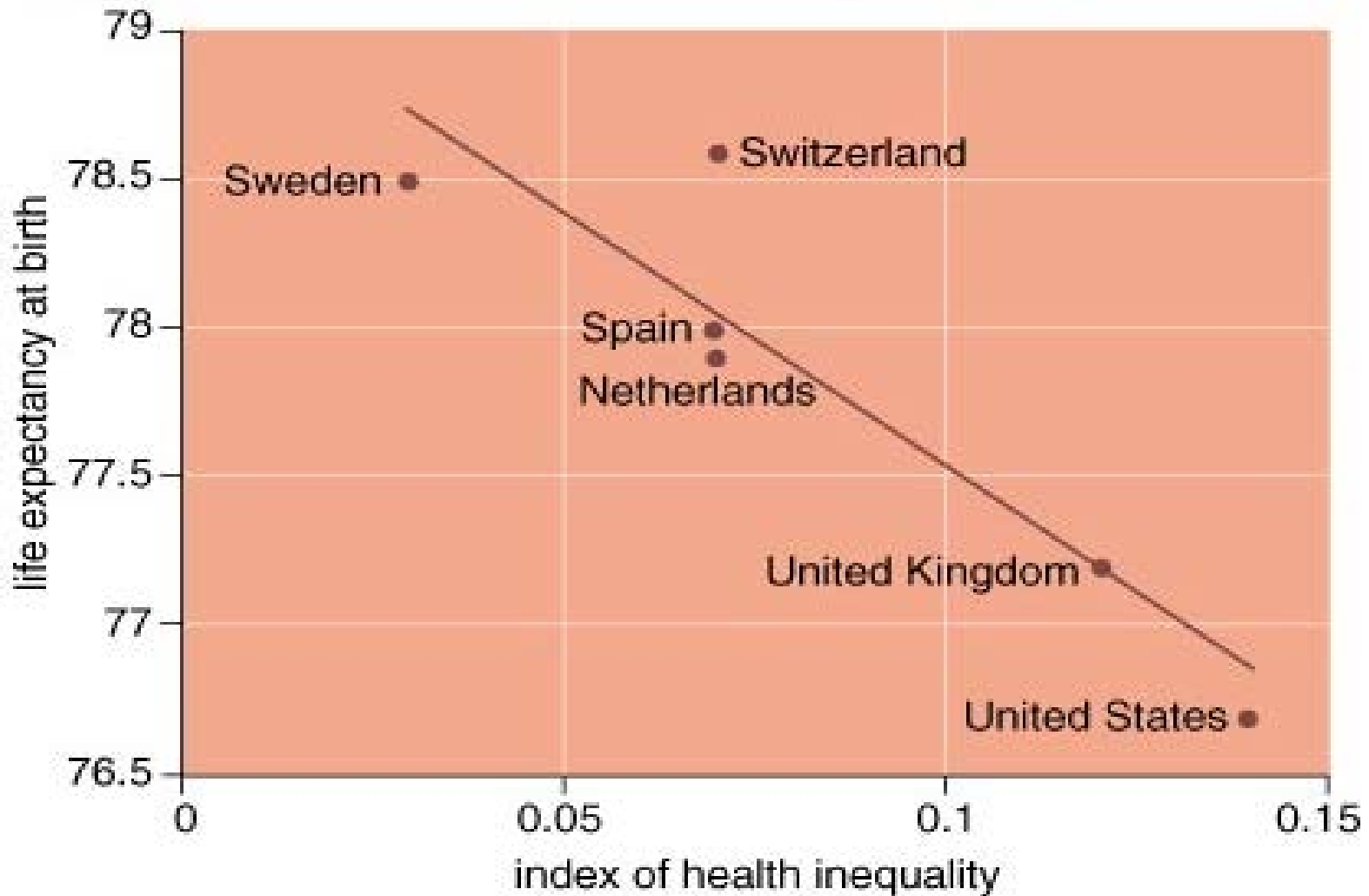


Source: Michael I. Norton, Harvard Business School; Dan Ariely, Duke University

Local Authority Budget cuts 2010-11 to 2014-15 and premature mortality

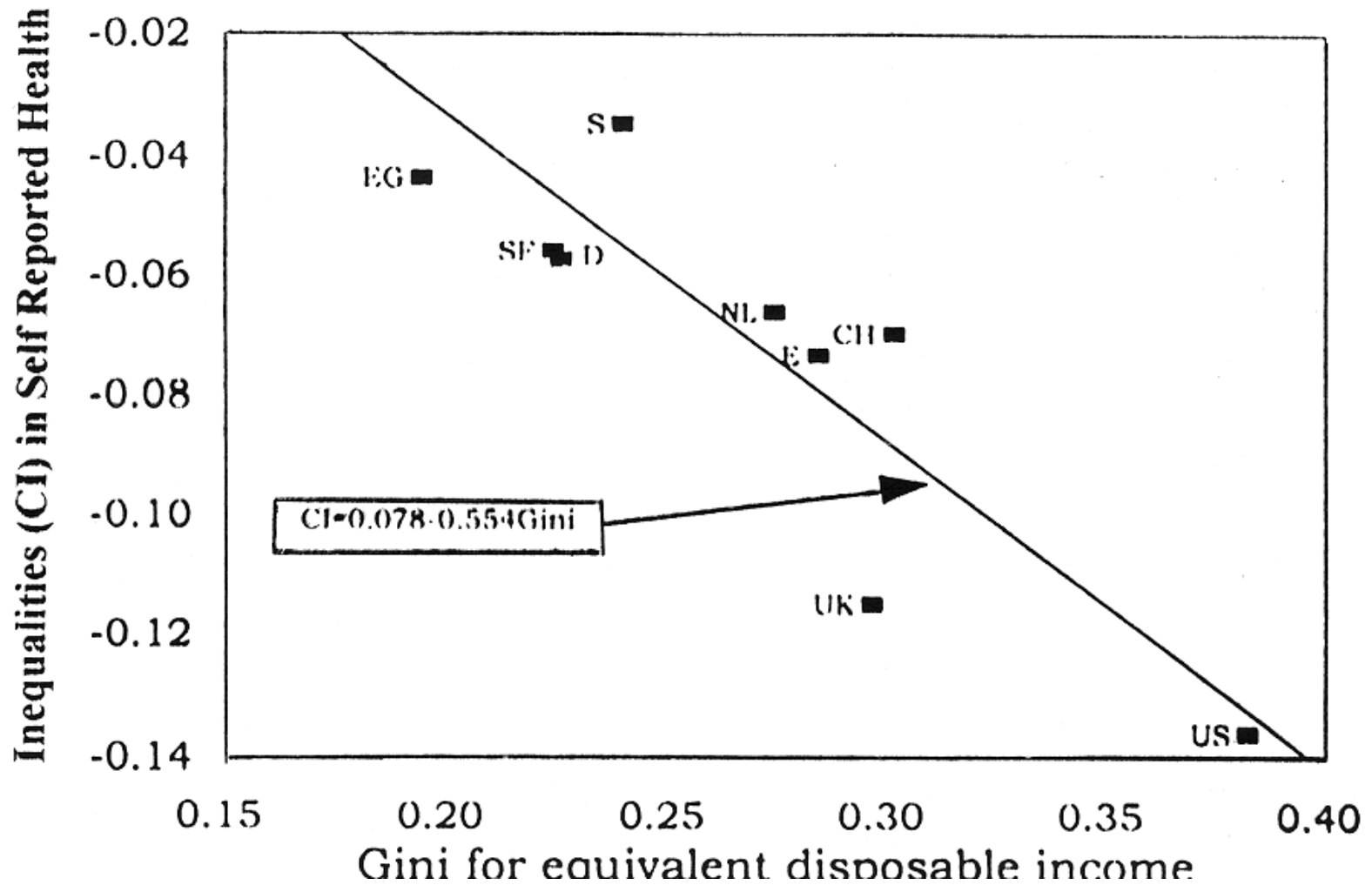


Life expectancy is worse where health inequalities are larger

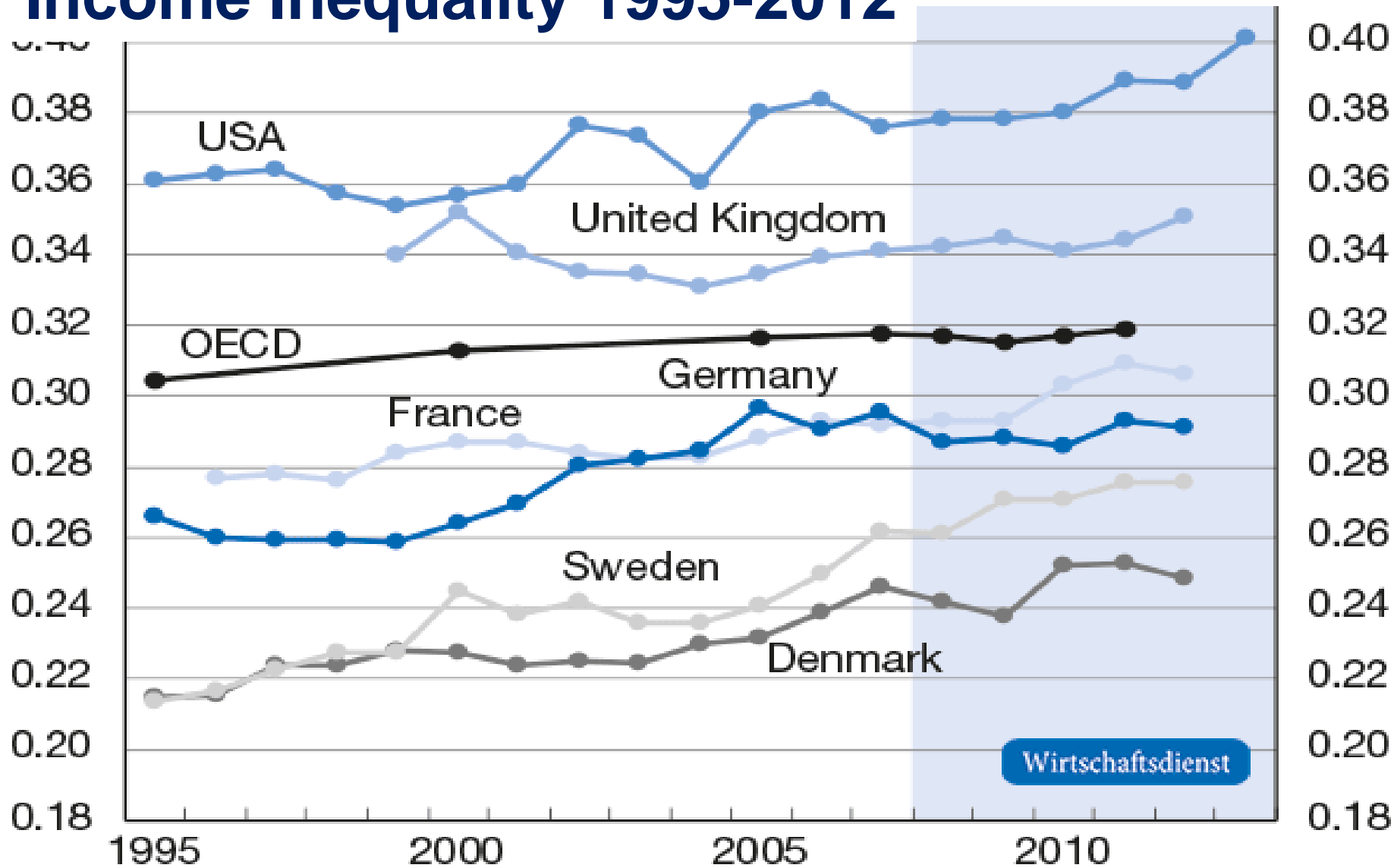


The index of health inequality measures the proportion of illness that correlates with income status. Source: Hertzman C. *American Scientist*, 2001; 89 (6): 538-45

Health inequalities are larger where income differences are larger



Income Inequality 1995-2012

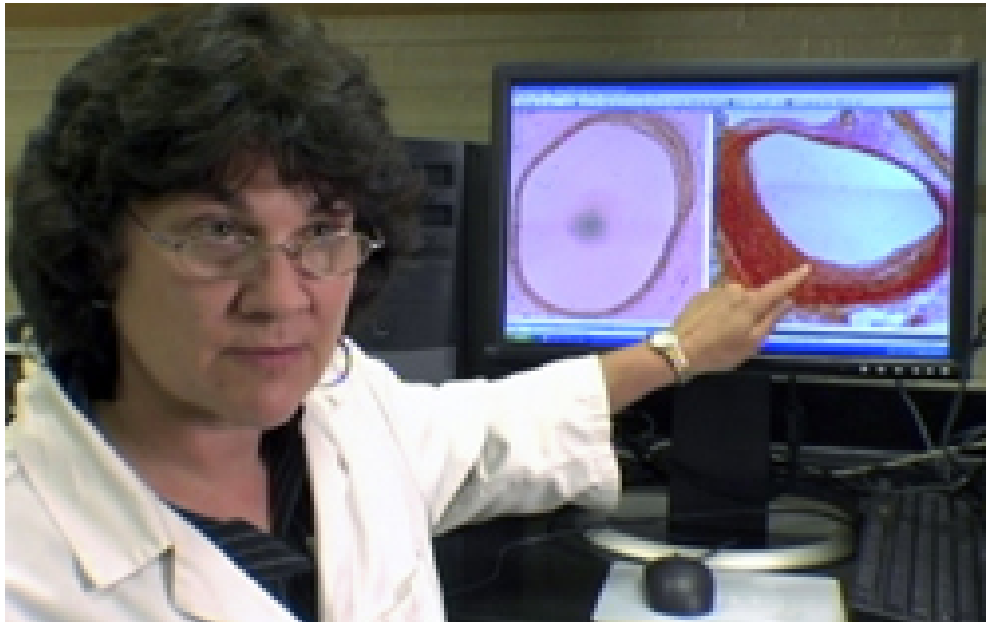


OECD (2015), "In It Together", <http://www.oecd.org/social/in-it-together-why-less-inequality-benefits-all-9789264235120-en.htm>.

Social hierarchy in non-human primates

Robert Sapolsky studies baboons in the wild

Carol Shively studies macaques in captivity

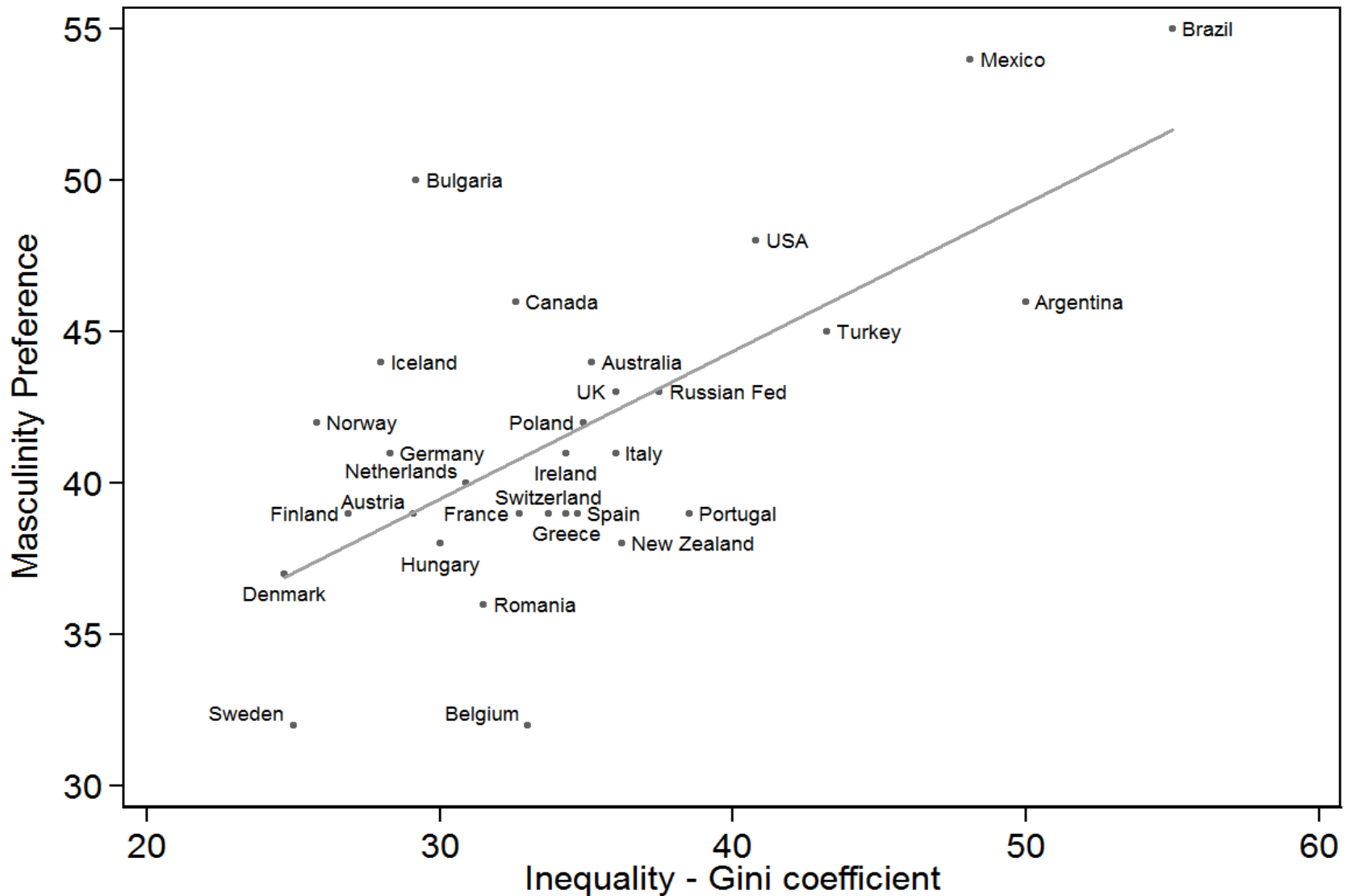


Plasma fibrinogen by employment grade among Civil Servants, Whitehall II.



(Adjusted for age, ethnic origin and women's menopausal status)

Women's preference for more masculinized faces is stronger in more unequal societies



Brooks R, Scott IM, et al. Proceedings of the Royal Society, B, 2011;

278: 810-12

Psychosocial risk factors for ill health

- **Low social status**
- **Weak social connections**
- **Stress in early life (pre- & post-natal)**



The Jekyll & Hyde of Public Health?

- **Social status** (dominance hierarchies, pecking orders) are orderings based on power, coercion and privileged access to resources – regardless of the needs of others.
- **Friendship** in contrast, is based on reciprocity, mutuality, social obligations, sharing and a recognition of each other's needs.

Companion

Spanish: Compañero;

French: Copain

from the Latin “Con” (with)

and “Pan” (bread)

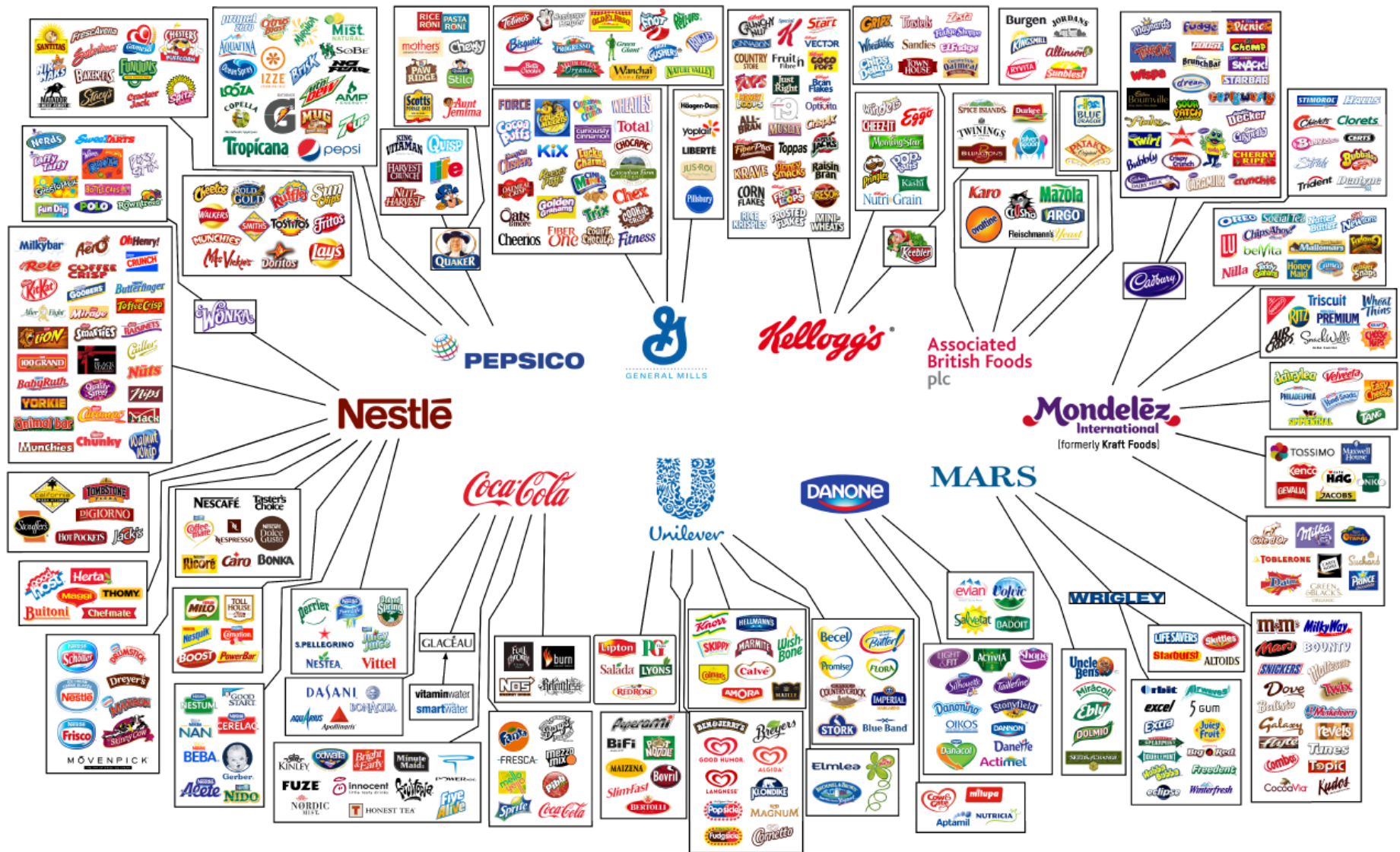
- someone with whom you eat bread

“Gifts make friends and
friends make gifts”



Marshall Sahlins, *Stone Age Economics* (1974)

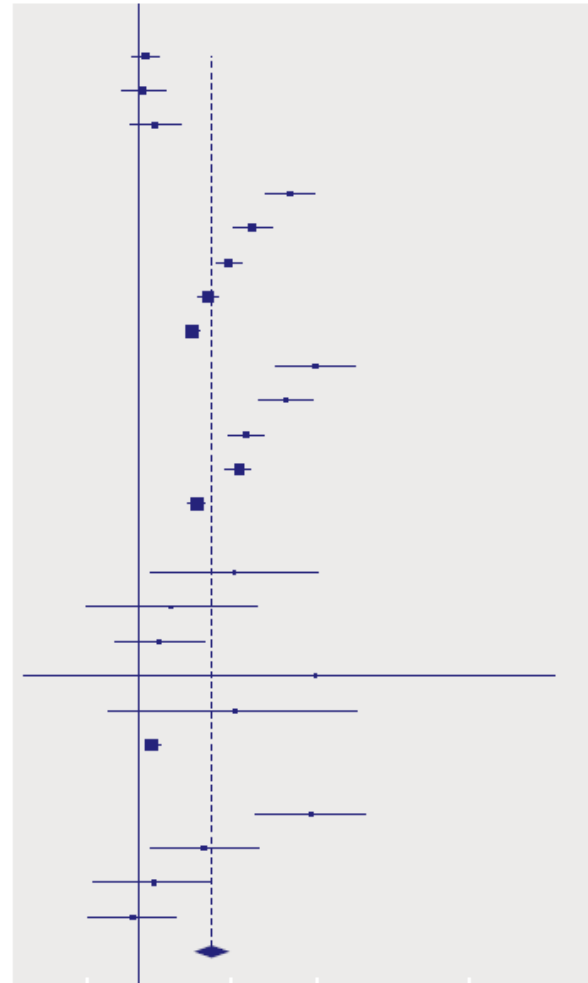
Brands owned by the 'big ten' food multinationals



Inequality and mortality over time: multilevel cohort studies

Cohort study	Weight (%)	Relative risk (95% CI)
Denmark, CCHS/CPS 1976-8 ^{w1}		
Male	5.45	1.01 (0.99 to 1.02)
Female	5.17	1.01 (0.98 to 1.03)
Finland, Census 1990 ^{w2}	5.09	1.02 (0.99 to 1.04)
Norway, Census 1980-2002 ^{w3}		
Male age 30-39	5.06	1.17 (1.14 to 1.20)
Male age 40-49	5.28	1.13 (1.10 to 1.15)
Male age 50-59	5.45	1.10 (1.08 to 1.11)
Male age 60-69	5.55	1.07 (1.07 to 1.08)
Male age 70-79	5.58	1.06 (1.05 to 1.06)
Female age 30-39	4.46	1.20 (1.15 to 1.25)
Female age 40-49	5.00	1.16 (1.13 to 1.20)
Female age 50-59	5.30	1.12 (1.10 to 1.14)
Female age 60-69	5.48	1.11 (1.10 to 1.12)
Female age 70-79	5.56	1.06 (1.05 to 1.07)
New Zealand, Census 1991 ^{w4}		
Male	2.49	1.10 (1.01 to 1.20)
Female	2.46	1.04 (0.95 to 1.13)
Sweden, Census 1990 ^{w5}	4.13	1.02 (0.98 to 1.07)
Sweden, SLC 1980-6 ^{w6}	0.42	1.17 (0.89 to 1.53)
US, NHEFS 1971-5 ^{w7 w8}	1.50	1.10 (0.97 to 1.25)
US, NHIS 1987-94 ^{w9}	5.57	1.01 (1.01 to 1.02)
US, NLMS 1979-85 ^{w10}		
Male age 25-64	3.65	1.19 (1.13 to 1.26)
Female age 25-64	3.70	1.07 (1.01 to 1.13)
Male age ≥65	3.44	1.02 (0.96 to 1.08)
Female age ≥65	4.20	0.99 (0.95 to 1.04)
Combined	100.00	1.08 (1.06 to 1.10)

$I^2 = 96\%$ (95% CI 95% to 97%), heterogeneity $P=0.000$



Time lags between changes in inequality and changes in health

Zheng H. Do people die from income inequality of a decade ago?

Social Science & Medicine 2012;75(1):36-45.

Lillard DR, Burkhauser RV, Hahn MH, Wilkins R. Does early-life income inequality predict self-reported health in later life? Evidence from the United States.

Social Science & Medicine 2015;128(0):347-55.

Charles Cooley (1864-1929)

‘Many people of balanced mind and congenial activity scarcely know that they care what others think of them, and will deny, perhaps with indignation, that such care is an important factor in what they are and do. But this is an illusion. If failure or disgrace arrives, if one suddenly finds that the faces of men show coldness or contempt instead of the kindness and deference that he is used to, he will perceive from the shock, the fear, the sense of being outcast and helpless, that he was living in the minds of others without knowing it, just as we daily walk the solid ground without thinking how it bears us up.’

Human Nature and the Social Order. 1902, p.207

Alan Bennett, *Untold Stories*, Faber/Profile, 2005

“(My parents) put...down...most of their imagined shortcomings to their not having been educated, education (was) to them a passport to everything they lacked: self-confidence, social ease and above all the ability to be like other people.

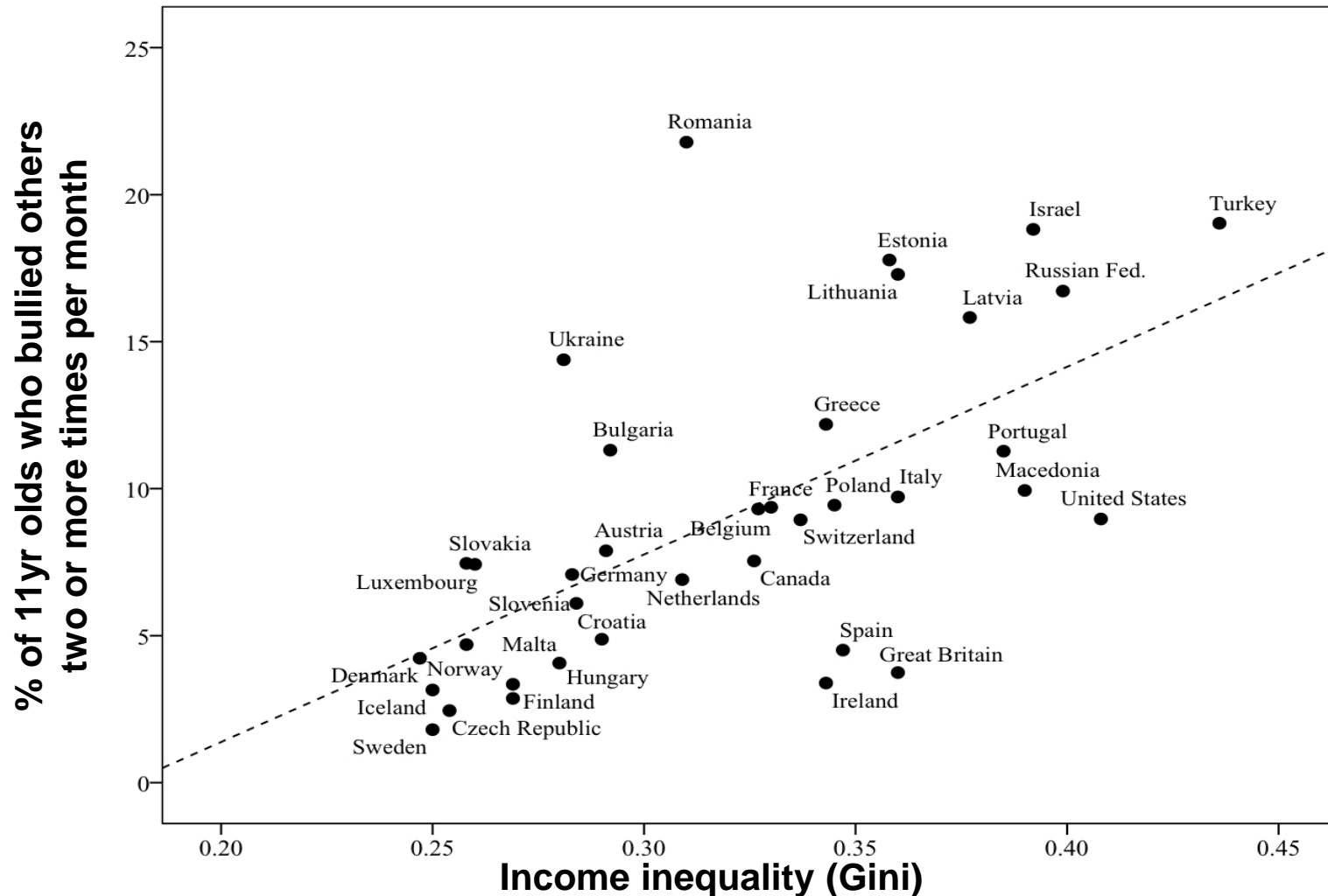
Put simply and as they themselves would have put it, both my parents were shy, a shortcoming they thought of as an affliction while at the same time enshrining it as a virtue.

I assured them, falsely, that everybody felt much as they did but that social ease was something that could and should be faked.

‘Well, you can do that,’ Dad would say, ‘you've been educated,’ adding how often he felt he had nothing to contribute. ‘I'm boring, I think. I can't understand why anybody likes us. I wonder sometimes whether they do, really.’

School bullying is much more common in countries with bigger income differences.

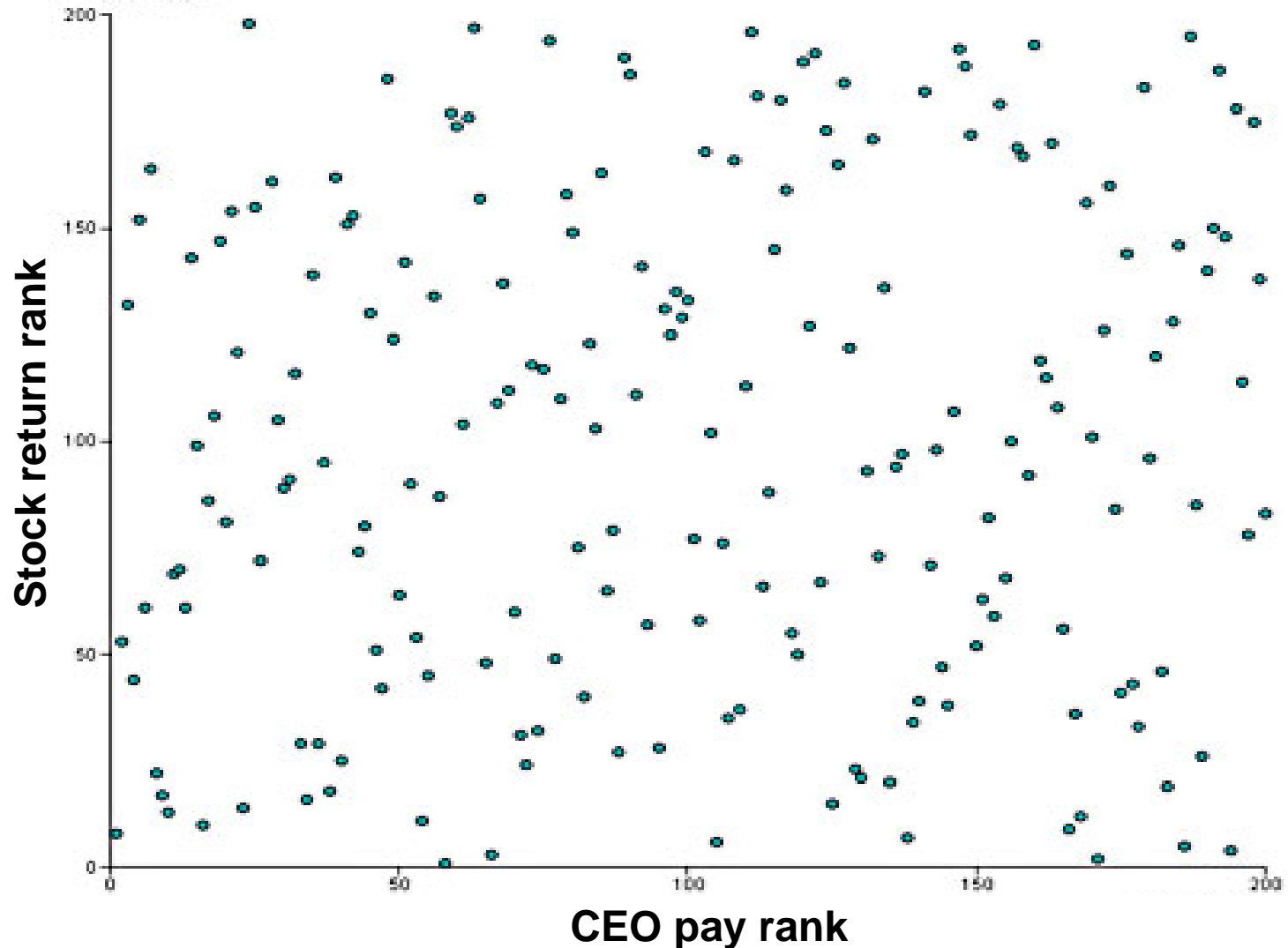
11-year-olds in 37 countries ($r = .62$)



Teenage Birth Rates are Higher in More Unequal Rich Countries



Rank total shareholder return in relation to CEO pay rank among Australia's largest 200 companies



Improving Schools in
Sweden:
An OECD Perspective

