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Bell curves

The person who's poor and contented is rich enough. But infinite riches are nothing to someone who's always afraid he'll be poor. God, help us not be jealous.

Iago, Othello, Act 3 Scene 31

Shakespeare's England was not a rich country. By the year 1600 the average income in England would buy you the equivalent of \$1,000 (£800) a year today, not much more than \$2.50 a day (£2).² Worldwide over 3 billion people still survive on around \$2.50 a day. We are still living in Shakespearean times.

Four hundred years ago Gross Domestic Product (GDP) per capita in Holland was 2.5 times greater than in England. The Dutch were the first people in the modern era to begin to grow rich on trade. The British were the second, but in both cases these riches were amassed by just a few.



By 1800, when adjusted for inflation, the UK's GDP per head had doubled to \$2,000 (£1,600) a year per person and inequalities rose to the highest they had ever been.3 GDP more than doubled in the next century to reach \$4,500 by 1900. It then rose abruptly to reach \$8,000 by 1957, \$16,000 by 1990; then slowing to peak at \$25,000 (£20,000) in 2007, after which it fell, only recovering to its 2007 level by 2017.

The capitalist transformation created a wider spread of incomes and a greater concentration of wealth than ever seen before. Across Europe the wealth share of the poorest 90% of people halved between 1600 and 1800 and then halved again by 1900.4 Today only a very small minority of households in the UK receive an income above the average GDP per person, or have above-meanaverage wealth. The bottom fifth of households currently receive, on average, about the equivalent income of the average British person a century ago.⁵ We tend to overestimate both progress and stability.

There is nothing stable about a distribution of income inequality that fluctuates as wildly as that shown in figure 1.1. Between 1984 and 1990 the ratio of the top to bottom UK income quintiles rose from 4.0 to 6.4. This happened for political reasons: 1984 was the year in which the last great





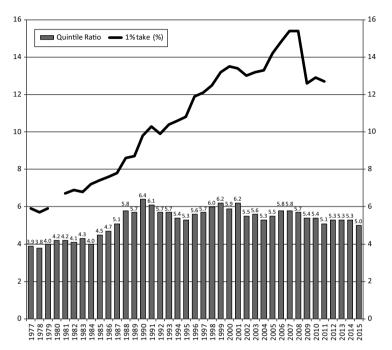


Figure 1.1 Household income inequality, quintile ratio 1977–2015, and 1% take 1977–2012, UK

Source: ONS (2017) Household Disposable Income and Inequality in the UK: top fifth/bottom fifth excluding the incomes of the best-off 1% of households, which rose during this period. The take of the 1% is shown as a separate line, derived from the World Wealth and Income Database, http://wid.world/.

Note: Quintile ratio is the ratio of the average income of the best-off fifth of households (left y axis) to the average income of the worse-off fifth of households (right y axis).

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miners' strike occurred, they lost; 1990 was the year when Mrs Thatcher finally resigned, when she lost.

Mrs Thatcher was an advocate of inequality. She believed ability was distributed along a bell curve in which a few people were very unable, most were ordinary, and just a few were super-able. She talked of the super-able, of encouraging some of our children to grow taller than others, like 'tall poppies' and of how no one admired a man who travelled by public transport. It was during her premiership that the top 1% began to take more and more, as she thought they should, and as figure 1.1 illustrates. As yet we don't know if their take only temporarily fell after 2010.

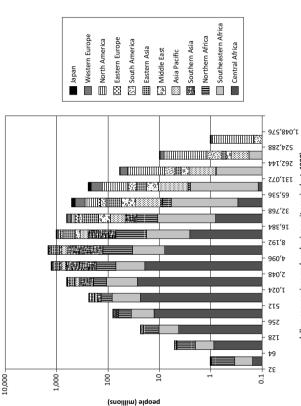
One problem with discussing inequality is that people cannot easily comprehend the entirety of what is being talked about. Consider the current global distribution of income inequality and consider all the people on earth today. A graph that did justice to the actual numbers of people and the degree of income disparity seen worldwide would have to be too huge to draw in this book.

Worldwide, the top 1% receives so much that they make the average earnings of the remaining 99% appear insignificant. The top 0.1% takes so much as to make the earnings of the otherwise best-off 9.9% look insignificant. Figure 1.2 uses a

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dollars per year income (purchasing parity equivalent, 1990)

Figure 1.2 Worldwide distribution of income per person by region, year 2000

abroad: because enough is never enough, Applied Spatial Analysis and Policy, 3, 2-3, pp. 81-106, table 1, p. 102. Source: Dorling, D. and Pritchard, J. (2010) The geography of poverty, inequality and wealth in the UK and



mathematical trick, a log-log scale, to show global income inequality, appearing as if we were all part of a normal curve. This is the key graph of global economic inequality and it is highly misleading.

Currently the world is simultaneously becoming both more equal and more unequal. It is becoming more equal because inequalities between countries fell recently. However, the world is also becoming more unequal when the desperate lives of those who are poorest of all are considered. Far fewer can now rely on self-sufficiency from farming. Housing has become a commodity rather than a right or inheritance in so much more of the world. And a tiny number of extremely rich people have also recently become much richer.

We now know that most of the infamous sixty to eighty people who have as much wealth as the poorest half of humanity are still becoming richer. So much so that by updating their methodology in 2017 Oxfam could claim that just eight billionaires now owned that much.⁶ For all practical purposes those eight individuals might as well have infinite riches. They can buy almost anything they desire, but still all of them fear giving too much away. Any who *did* give more away would cease to be in the group. No one individual is *forced* to be in it.





Many philanthropists give with one hand while legitimizing the exploitation that made them rich with their other hand. They argue that their giving is necessary because governments do not spend correctly, as if only they have the super-human powers to see where money is best directed. Governments have less to spend when the richest are effectively taxed so little and grow so very wealthy.

Bell curves, such as that shown in figure 1.2, have been used to depict income inequality because they give the misleading impression that income is distributed on the basis of a 'natural', random variation, which serves the interests of those who want to justify equality. However, humans have no evolutionary mechanism whereby they produce just a few super-valuable individuals with the rest being people of relatively little or minimal value.

Bell curves describe the distribution of random error very well, or variation around an average height or weight, which is why they are so popular in the physical sciences. But they are not a good description of the natural social relationships between human beings, of our ability and worth. And we are not rewarded as if our worth were distributed along a bell curve. Instead, at times of greatest exploitation the distribution of income becomes extremely uneven, so extreme that it is





only by taking the logarithm of both the population and income that the curve shown in the figure will appear bell shaped

The income distribution of the world shown in figure 1.2 is a completely false bell curve. A curve that is made to look bell shaped through the use of two log scales. Each bar in the graph represents people who receive in real terms twice as much money per year as the group to the left of them. Try to imagine having to live on a quarter of your current income, two bars to the left, or having four times your current income, two bars to the right. It is unthinkable. The six bars that vary between \$1,000 and \$33,000 a year represent nearly 80% of people in the world. The five left-most bars represent people in extreme poverty.

Bell curves came to be associated with the study of inequality just over 120 years ago when the British Empire was at its peak. In 'leading nations' notions of inevitable inequalities in ability were useful myths for justifying great inequalities, both within Britain and for justifying the subjugations of others living in its colonies, areas that are today most prominent to the left in the graph in figure 1.2. Inequality is determined by factors of power and politics that aren't random, but can be multiplicative when not controlled - those who have most get more and



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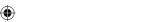


more, until the expropriating trend changes – and it always, eventually, has to change and does always eventually change.

In July 2016 UK Members of Parliament were issued with a report on inequality that concluded with an earlier version of the graph shown in figure 1.3.8 The text above the graph said that the UK had a higher level of income inequality than *most* other European countries, but lower than the United States. That was presumably meant to suggest that levels of inequality in the UK were somehow OK. But the UK actually reported higher inequality than *any other* European country at that time! Since then inequality in Estonia has risen slightly above that in the UK, as shown in the figure reproduced here using the latest data. Figure 1.3 also shows levels of inequality to be below their most recent peak in two thirds of OECD countries.

There are many ways of measuring inequality. We know that the confusing Gini measure, the one used in figure 1.3, can theoretically produce identical results from very different patterns of income distribution. However, all the commonly used measures of inequality usually end up ranking countries in roughly the same order.

Countries where the 1% takes the most, such as the USA and UK, where they took 17% and 15%



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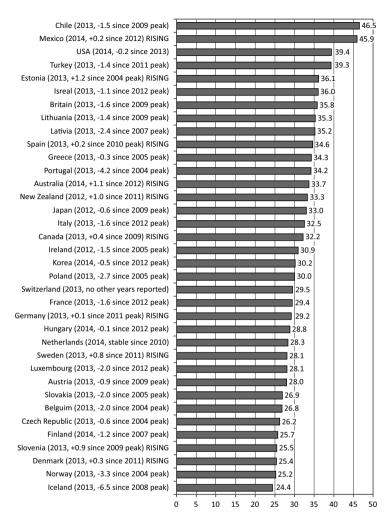


Figure 1.3 Income inequality in OECD countries, 2012–2014, Gini coefficient

Source: McGuinness, F. (2016) Income Inequality in the UK, House of Commons Library Briefing paper No. 7484, 24 November, updated using Source: https://data.oecd.org/inequality/income-inequality.htm, accessed March 2017.

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respectively in 2009, are in the top seven in the Gini table in figure 1.3. Countries in which they take the least are in the bottom three: in Norway and Denmark they took 7% and 5% that same year. This is an enormous difference. Note that inequalities are only rising to new peaks in ten of the thirty-six countries included in figure 1.3. In most affluent countries in the world income inequalities are now below their recent peak heights.

Inequality matters, because 'Our lives don't make sense in abstraction, only when compared with the lives of others.' Almost everyone grossly underestimates the extent of economic inequality. Furthermore, people in more unequal countries notoriously overestimate the likelihood of moving up the income scale and underestimate their chances of moving down.

Numeracy is on average far worse in more economically unequal countries, but that is not enough to explain the direction of bias in these misapprehensions. In the USA they have been put down to the power of the 'American Dream'; a dream that endures despite numerous reports of its demise.

Figure 1.4, which first appeared in the *New York Times* in December 2016, intimated that Americans going home to their parents that Christmas should be able to see that the dream was ending.¹¹







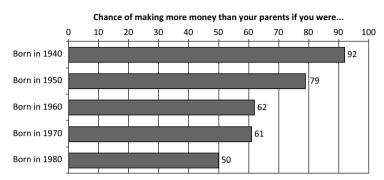


Figure 1.4 Being better off than your parents in the USA by decade by birth, chance (%)

Source: Leonhardt, D. (2016) The American Dream, quantified at last, New York Times, 8 December. Figure drawn from a subset of the data presented at http://www.equality-of-opportunity.org/ under the title 'The fading American Dream', accessed March 2017.

Despite it being far harder to escape poverty in the USA than in most of Europe, some 71% of Americans, as compared to 40% of Europeans, believe that the poor have a 'reasonable chance of escaping poverty'. A study published in 2015¹² found that poor Americans were much more likely to believe it was possible to move up the income scale than rich Americans believed it to be. The views of the rich were nearer to reality.

In the 2015 study, non-white participants were the most likely to believe upward mobility was likely. The study asked 3,034 Americans complex questions about probabilities in which they were



reminded that their answers should sum to 100% to avoid them producing impossible estimates. But even when corrected for this their expectations were impossible.¹³

In 2013 President Obama said that misperceptions about inequality were a 'fundamental threat to the American Dream'. Had he been braver he could have added that the dream itself was a chimera, reality was quite different. Only a few can ever get rich; it is a myth to believe that many can realize the dream because being rich *is* about having much more than almost everybody else.

The myth of the American Dream has been shown in the past to make Americans far less concerned about inequality, so it is little wonder they live with more inequality than most other folk in the rich world. A generation ago Americans who despised inequality were described as 'a sub-group of rich leftists'. It was even claimed that they were suffering from 'inequality-generated unhappiness'! Today, far more Americans are unhappy with inequality. It was also better-off leftists who first highlighted rising inequality in the UK. As a result, government statisticians now more regularly report on its extent.

In London people live parallel lives according to their incomes. Almost all neighbourhoods in





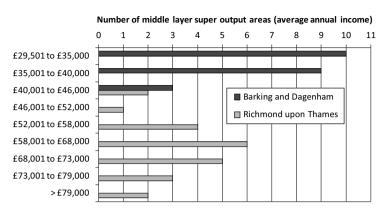


Figure 1.5 Distribution of household income in two London boroughs, 2013/2014

Source: ONS (2016) Small Area Model-Based Income Estimates, England and Wales: financial year ending 2014, London: ONS. The data this figure are based on are Crown Copyright (acknowledged).

London are now *more* mixed by ethnicity and religion than they were a decade ago, but *less* mixed by income. Figure 1.5 shows the most recent estimates of average household income in different neighbourhoods for two London boroughs. Everyone in Barking and Dagenham now lives in areas where mean household income is below £46,000 a year and in the majority of cases as low as around £30,000 a year. There is hardly any overlap with Richmond upon Thames on the opposite side of London. But within Richmond there are even greater disparities by neighbourhood.







Further away from London the majority of people (55%) in England and Wales live in neighbourhoods where average household incomes range between £17,000 and £39,000 a year.

It is important to note that not everything is getting worse in the UK. English schools were even more mixed ethnically in 2013 than in 2008. Research published in 2016 'shows that for all ethnic groups, segregation fell in far more places than it rose.' Ethnic segregation fell the most for Pakistani students in those five years. British children are increasingly segregated by their parents' incomes, not by their race or religion.

The children of the affluent are most segregated through family money that allows them to have a home in a 'good area' or a place at a private school. Such a school place comes with many advantages, including being much more likely to be granted extra time in public examinations. Private schools register a fifth of their students as having a disability requiring special exam concessions, as compared to just one in eight state school students. This is not because more of the children of the rich are handicapped. In 2016 it was revealed that '22% of young people from the richest fifth of the population get a place at one of the "top 40" universities, but only 2% of the poorest fifth'. And children





from the poorest fifth go almost entirely into the 'bottom' group of universities.

High income and wealth inequalities result in huge educational inequalities, but these could be mitigated. The inequalities we currently live with have not always been with us, they are a varying feature; they rise and fall. Worldwide they are today enormous. Within the USA, the UK, and especially London, they are stark. But they will change. Perpetually increasing inequality is unsustainable. Which is why inequalities so often fell in the past and are falling within most countries of the world today.²¹

