The Equality Trust

LONDON SUSTAINABLE DEVELOPMENT COMMISSION

The impact of income inequalities on sustainable development in London

A report for the London Sustainable Development Commission
by Professor (Emeritus) Richard Wilkinson and
Professor Kate Pickett on behalf of the Equality Trust

March 2010

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Table of Contents

Foreword

Part I: Diminishing Returns To Economic Growth **7**
- Economic Growth and Wellbeing 7
- Relative Income 9
- Inequality drives Consumerism 13
- Carbon Emissions and the Quality of Life 13
- Convergence and Improvement 15

Part II: How Inequality Affects Health And Social Problems **17**
- Inequality and Social Cohesion 17
- Improving the Quality of Life 19
- Everyone Benefits 23

Part III: Application To London **27**
- An Index of Health and Social Problems for London 27
- Inequality and Social Status 28
- A More Equal London 30
- Benefits of Greater Equality to Each London Borough 32
- Intolerance 36

Part Iv: Greater Equality And The Threat Of Climate Change **37**
- Climate Change 37
- More Equal Societies are Greener 38
- An Allegory of Two Cities in Crisis 40
- Changes in Inequality 43

Conclusions **45**

References **47**

Appendix I: Sources for Figures **49**

Appendix II: Sources of data **50**
- International Sources 51
- London Sources 52

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Figures

Figure 1. Life Expectancy and National Income per person 8

Figure 2. Happiness and National Income per person 8

Figure 3. Economic Growth No Longer Increases Life Satisfaction 9

Figure 4. Income Differences Between Societies and Within Societies 11

Figure 5. Average Working Hours Are Longer in More Unequal Societies 12

Figure 6. Low Infant Mortality Can Be Achieved At Low CO_2 Emission Levels 14

Figure 7. High Life Expectancy Can Be Achieved At Low CO_2 Emission Levels 15

Figure 8. People Are More Likely To Trust Each Other In More Equal Societies 18

Figure 9. Child Wellbeing is Better in More Equal Societies 20

Figure 10. Illicit Drug Use is Less Common in More Equal Societies 20

Figure 11. The Teenage Birth Rate is Lower in More Equal Societies 21

Figure 12. Mental Illness is Less Common in More Equal Societies 21

Figure 13. Obesity Rates Are Lower in More Equal Societies 22

Figure 14. Fewer People Are Imprisoned in More Equal Societies 22

Figure 15. Health and social problems are worse in more unequal societies 23

Figure 16. Social Class Differences in Infant Mortality Rates: Sweden Compared With England and Wales. 24

Figure 19. Health and social problems in London are closely related to deprivation 27

Figure 20. The Distribution of Violent Crime in London 28

Figure 21: How greater equality would benefit London boroughs 32

Figure 23. Estimated reduction in percent of population obese resulting from a decline in inequality 34

Figure 25. Business leaders in more equal countries give a higher rating to the importance of complying with international environmental agreements. 39

Figure 26. More equal countries recycle a higher proportion of waste materials 39

Figure 27. More Equal Countries Produce Less CO_2 per $100 of Income 40

Figure 28 Death rates of working age men and women are lower in more equal cities. 42

Figure 29. Trends in Income Inequality in the UK 1975-2006. 44

Foreword

The London Sustainable Development Commission has long taken the view that high levels of income inequality may be incompatible with the journey towards a truly sustainable London.

Now, in this ambitious and challenging report, Professors Richard Wilkinson and Kate Pickett, leading academics in the field, provide a powerful analysis of the impacts and complexity of inequalities. We are grateful to them and now invite your views on this emerging topic, which we also highlighted in our 2009 Quality of Life Indicators report.

Containing complex and challenging ideas as well as some brilliantly simple and optimistic messages, this report suggests that we can enhance quality of life and respond to the environmental, economic and social challenges of the moment. It shows that greater equality delivers benefits for all in society, not just the poor. It shows that actions to reduce global carbon emissions need not damage quality of life in London. And, it shows that the global economy need not be rebuilt on the same assumptions as before.

Above all, the evidence in this report indicates that action taken to tackle income inequality brings with it potential benefits across a range of social, environmental and economic challenges for London.

We're all in this together

Most compellingly, this report reminds us that more unequal societies tend to be harmful not just for those at the bottom of the income scale. Evidence points to the negative effects of income inequality percolating up through society, affecting virtually everybody in one way or another.

The negative correlations between income inequality and social indicators extend to a wide range of outcomes, including levels of trust, violence, obesity, mental illness, and teenage pregnancy. The report sets out the evidence for each of these areas. The most thoroughly researched link is between inequality and health. Again, it is not simply that wealthier people tend to live longer than the poor, although they do; it is that even in a prosperous society such as ours, life expectancy decreases for every step down the income scale.

Londoners live with both sides of this equation: significant levels of income inequality, and significant social dysfunctions felt or observed by us all, which Wilkinson and Pickett identify as being affected by inequality.

We do not underestimate either the complexity of possible causal factors or the implications of applying the inequalities research to the level of the city, rather than country or state. But the report does challenge us all to take a sustainable development approach to policy and decision making, where social, economic and environmental considerations are looked at together leading to better decisions and better use of resources in tackling and resolving persistent problems. This challenge is directly relevant to the Mayor's strategies for London's future direction.

Economic recovery

As well as reminding us of the negative social impacts of income inequality the report is also timely for the current debate about how we might best emerge from the national and global economic recession.

Undeniably economic growth has brought enormous benefits to a large number of people. Equally, there is growing understanding that the single-minded pursuit of economic growth has

brought costs to many sections of society, to our environment and global climate.

Furthermore, evidence also now suggests that once an economy, such as London's, reaches a certain level of maturity, economic growth no longer delivers as many benefits as we would expect, with some societies demonstrating a decline in community and values, as well as a growth in individualism, consumerism and greed.

The positive transformative potential of economic growth alone may well be reaching its limits in wealthy societies as the evidence suggests that societal wellbeing is now more likely to follow from greater equality rather than from further economic growth alone.

Thus the prevalence and impacts of income inequalities provide yet another dimension to the ongoing analysis of and response to the limitations of current models of pursuing and measuring economic growth. It suggests that growth, as we have come to know it, needs to reflect societal and environmental needs as well as being a prime source of monetary income and revenue.

Equality and environmental actions

The correlation between inequality and a whole range of social ills is reasonably well established and this report is enormously valuable in clarifying and illustrating these correlations for Londoners and in opening up the area for further exploration and debate.

The report also pursues the possible relationships between greater income equality, and therefore more cohesive societies, and positive environmental behaviour. The report argues that inequality drives consumerism, since the status provided by consumption is more important in a more unequal society, and draws our attention to evidence of the disconnect between increasing consumption and wellbeing.

These findings meet with our intuition that responding to environmental challenges is easier in a 'healthy and fairer' society, and they provide an important basis for further debate and research.

Opening up debate

The purpose of this report is not to reach conclusions on either acceptable levels of income inequality or how we might best achieve greater equality.

However, this is the start of a discussion and an exercise in learning how inequalities operate at the London level, how they affect environmental performance, and how social status and income inequalities amplify the effects of simple material deprivation.

I hope you can be part of this ongoing dialogue by registering your interest at LSDC@london.gov.uk or visiting our website, www.londonsdc.org for more information.

We are grateful to Professor Wilkinson and Professor Pickett for their contribution to this crucial area of work and we look forward to engaging with you on the debate.

John Plowman
Chair, London Sustainable Development Commission

Part 1: Diminishing Returns To Economic Growth

Economic Growth and Wellbeing

Discussions of human wellbeing and how rich countries should respond to climate change should start from a recognition of how our relationship with economic growth has changed. For thousands of years the best way of improving the quality of life has been to raise material living standards. Over the last couple of centuries economic growth has completely transformed both the quality and length of human life. But at some point in the long trajectory of economic growth, material standards are bound to reach a level where diminishing returns set in and further growth makes less and less difference to average wellbeing. Indeed, the data shows that all rich developed societies have already got well beyond that point. Among them, economic growth no longer increases life expectancy (Figure 1). In the affluent world, one society can be twice as rich as another without any benefit to health. For example, despite their great wealth and far higher medical expenditure than anywhere else in the world, Americans have a shorter life expectancy than the people of Greece. The rich societies have yet to adapt to such a momentous change in their relationship with economic growth.

Improvements in societal wellbeing are now more likely to follow from greater equality rather than from further economic growth

Nor does this apply only to health. Research also shows that human happiness has ceased to rise with economic growth (Figure 2). Developed societies have reached a threshold of living standards beyond which increased wealth has ceased to make much contribution to human wellbeing. Over long periods in which average real incomes have perhaps tripled, measures of happiness and wellbeing have failed to rise.[2] The picture is much the same when we look at quite different measures such as the "Genuine Progress Indicator", measures of 'life satisfaction' or the New Economics Foundation's Index of Social and Economic Wellbeing.[3] Using UK data from 1972-2002, Figure 3 shows that rises in Gross Domestic Product per head over the last generation have not led to increases in 'life satisfaction'.

This report will show how improvements in societal wellbeing are now more likely to follow from greater equality rather than from further economic growth.

Figure 1. Life Expectancy and National Income per person

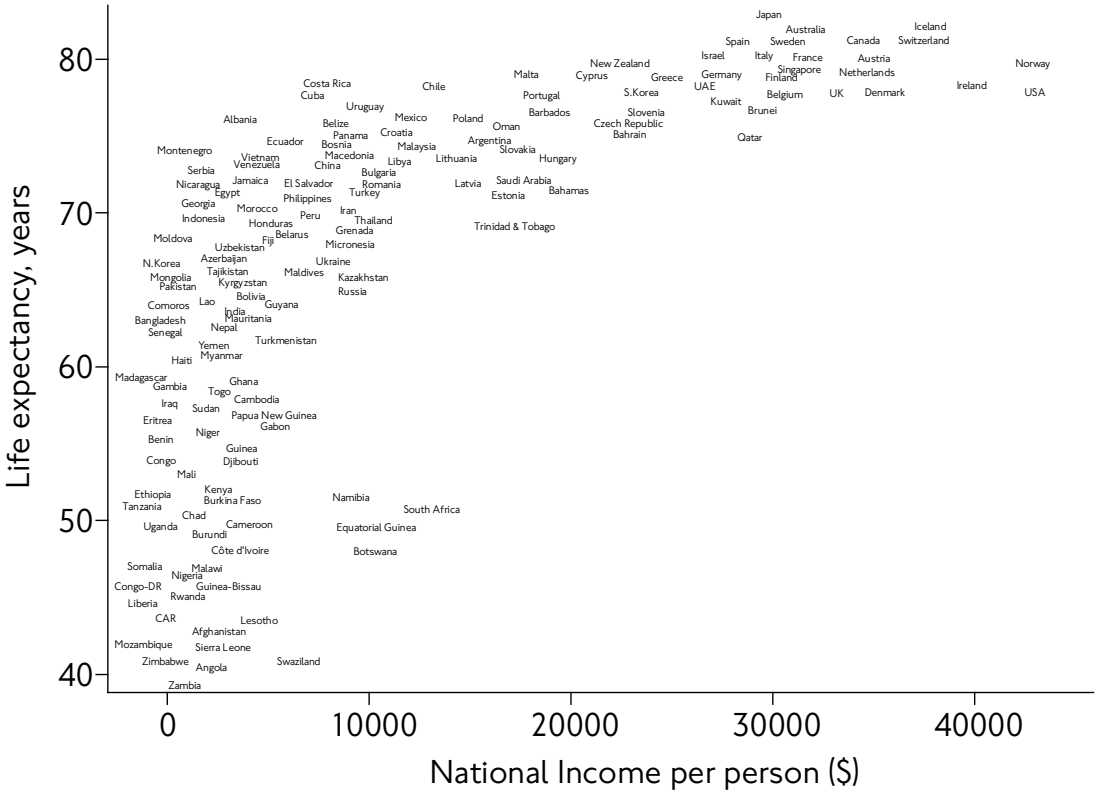


Figure 2. Happiness and National Income per person

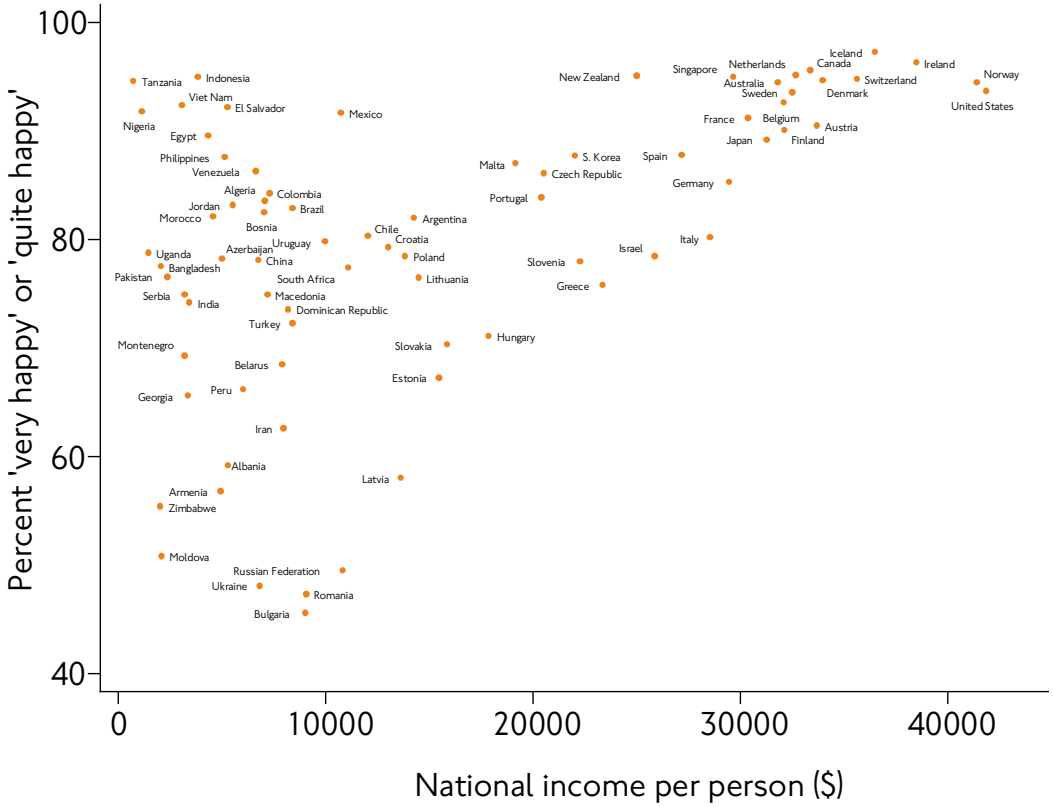
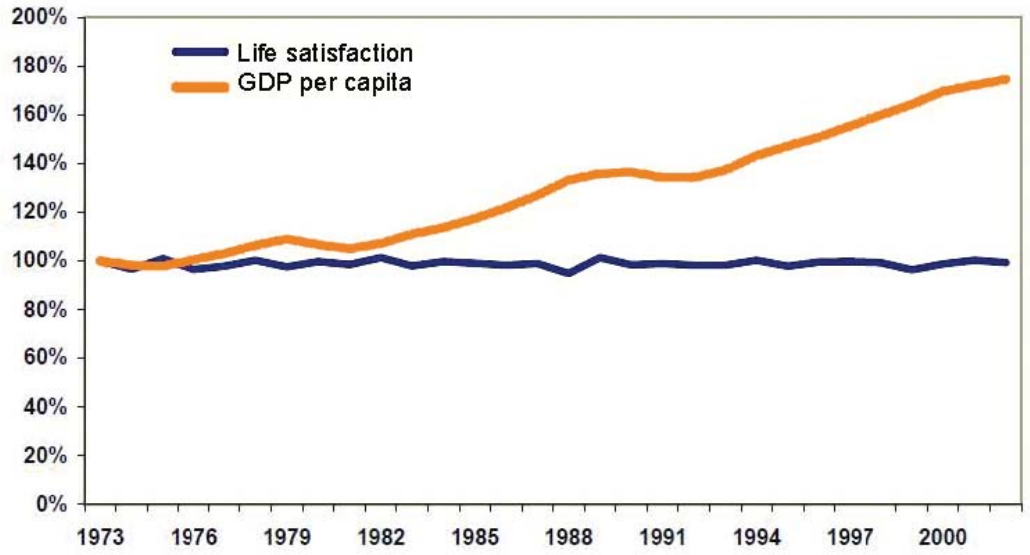


Figure 3. Economic Growth No Longer Increases Life Satisfaction



Relative Income

Based simply on the experience of daily life, there is already widespread recognition that levels of material consumption in the rich world are not synonymous with what is most important for human wellbeing. Even in the USA, often considered to be where materialism is most powerful, surveys show that a large majority of the population actually feel that consumerism has led to the sacrifice of more important values - values to do with our need for family, friends and community.[4] Most people apparently thought this was just a private feeling of their own, not shared by others. As a result, those invited to discuss these issues in focus groups were delighted to find that most people shared these views. A similar picture came out of some survey work undertaken by the Joseph Rowntree Foundation (http://www.socialevils.org.uk/social-evils-your-responses/). As shown in Box 1, people again thought that consumerism was somehow winning out over more important values to do with community and how people treated each other.

Box 1. A Broken Society?

In 2007, the Joseph Rowntree Foundation conducted a web survey and focus groups to find out what people thought about the social problems facing the UK.

The people who responded were concerned about a decline of community, the growth of individualism, consumerism and greed, and a decline of values. They were worried by crime and violence, the decline of the family, young people, drugs and alcohol, immigration and poverty. They also considered inequality to be a "social evil".

Here are some comments from participants

"We are in danger of losing sight of what is important in life, like kindness, playfulness, generosity and friendship. The immaterial things that can't be bought and sold."

"It seems that people no longer care about others or the community area they live in. People are too busy making sure that they have whatever it is that makes their life easier, happier, etc. Regardless of the cost to others."

"People not respecting each other. I don't just mean young people having no respect for older people, it works the other way as well – some older people tar youngsters with the 'nasty' and 'ill-mannered' brush when they do the same. It pervades all parts of society."

"…the community spirit, is broken down terribly over the last 20 or 30 years. I am nearly 50 years old. I can remember before. Society has changed, it is a lot more selfish and 'me, myself and I'."

"Everything seems to be based around money and owning things. The more you have, the more successful you are. There's nothing wrong with having enough, but there's pressure on people to go for more and more."

"Even though on average the UK has become more affluent, there is a poor distribution of wealth. The rich are getting richer and the poor are getting poorer!"

"Inequality…This is one of the root causes of the increase in crime and in dissatisfaction in modern society. I believe that a more equal society would make everyone happier, both rich and poor."

It is as if we had succumbed to consumerism against our better judgment. But if consumerism goes with a loss of things that people feel are more important to them, how is it that it has such a powerful hold over us? Why is getting as big an income as possible so important?

The answer is surprisingly simple. To improve our status and our standing in the eyes of others, we want more money relative to others in our society.

Take health as an example. The top part of Figure 4 shows (as we have already seen in Figure 1) that among rich countries there is absolutely no relation between average income (Gross National Income per head) and life expectancy. However, within each society there is (as shown in the bottom panel of Figure 4) a remarkable gradient in health running right across society. The columns show a difference of about 7 1/2 years in the average life expectancy of men and women in the most deprived wards compared to those in the most advantaged wards in England and Wales. These health inequalities are found to varying degrees in all countries and they are now well researched and partly understood. Rather than merely showing a difference between the poor and the rest of society, life expectancy declines with every step down the income scale. This is illustrated in the bottom panel of Figure 4 and was also described in Living Well in London, The Mayor of London's First Draft Health Inequalities Strategy (2008).

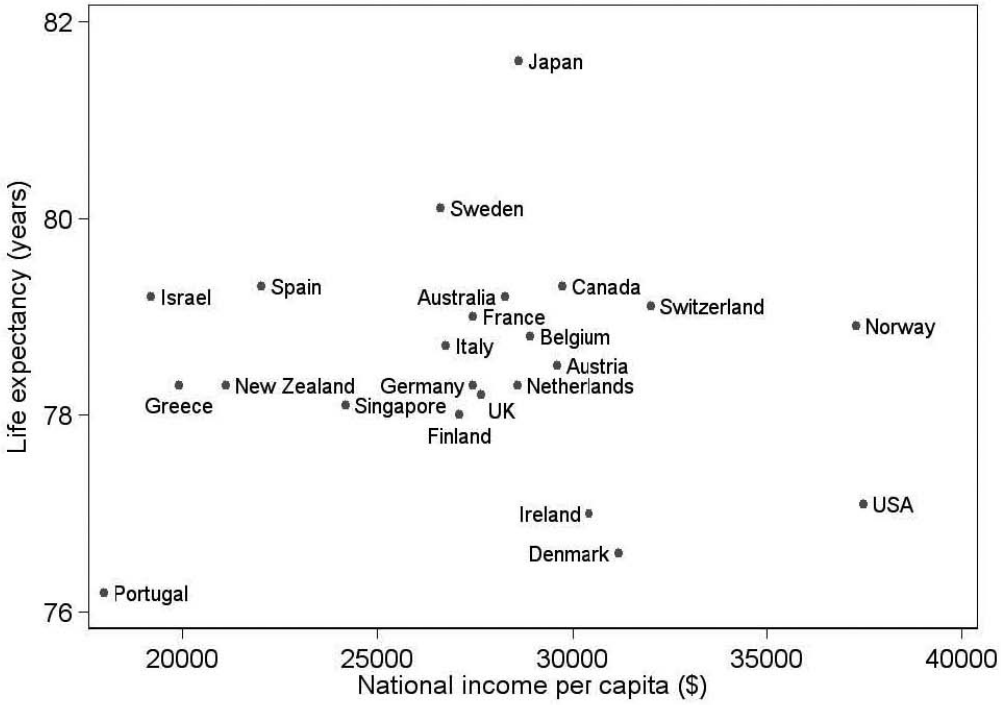
Together, what the two parts of Figure 4 show, is that the differences in average income between rich societies make little difference to wellbeing, but differences in individual incomes within any society are very important. Even when average real incomes are almost twice as high in one society as another, it has no consequences for health. But each step up the income scale within a society makes a huge difference. In our example of health, we can say in broad terms that, in rich countries, one person being richer than another does them good - not because better houses and cars benefit health directly - but because it improves social status, so people are more likely to feel confident, respected, looked up to and liked. The inherent benefits of a newer car or a bigger house make little difference. What matters, more than the absolute level of income, is whether we have

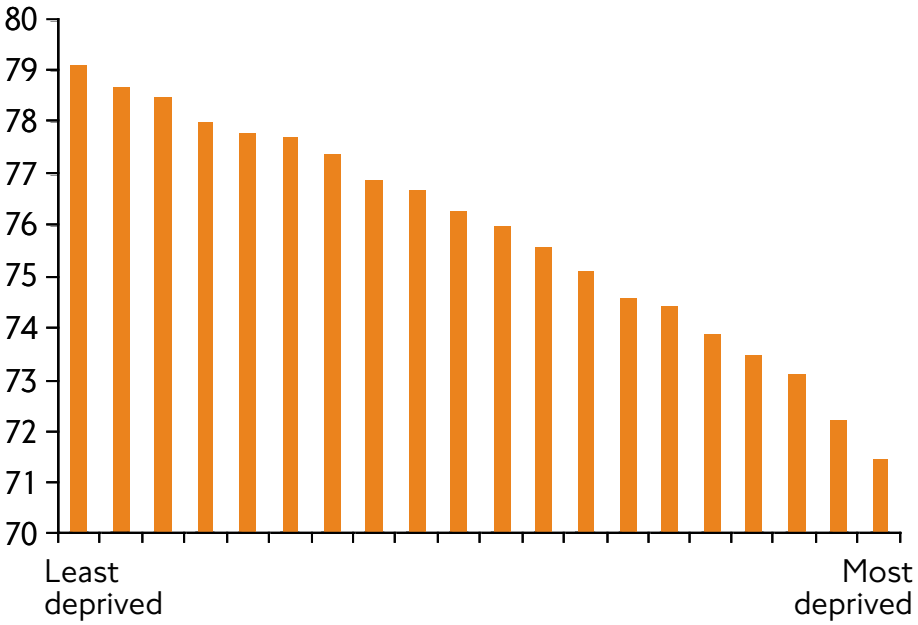
more or less than those around us - our relative income or social position. This report will go on to show these issues all become more important in more unequal societies where bigger income disparities make social status differences matter more.

Figure 4. Income Differences Between Societies and Within Societies

Between countries, average income levels are not related to health (above)

BUT within a country, income is strongly related to health (below)





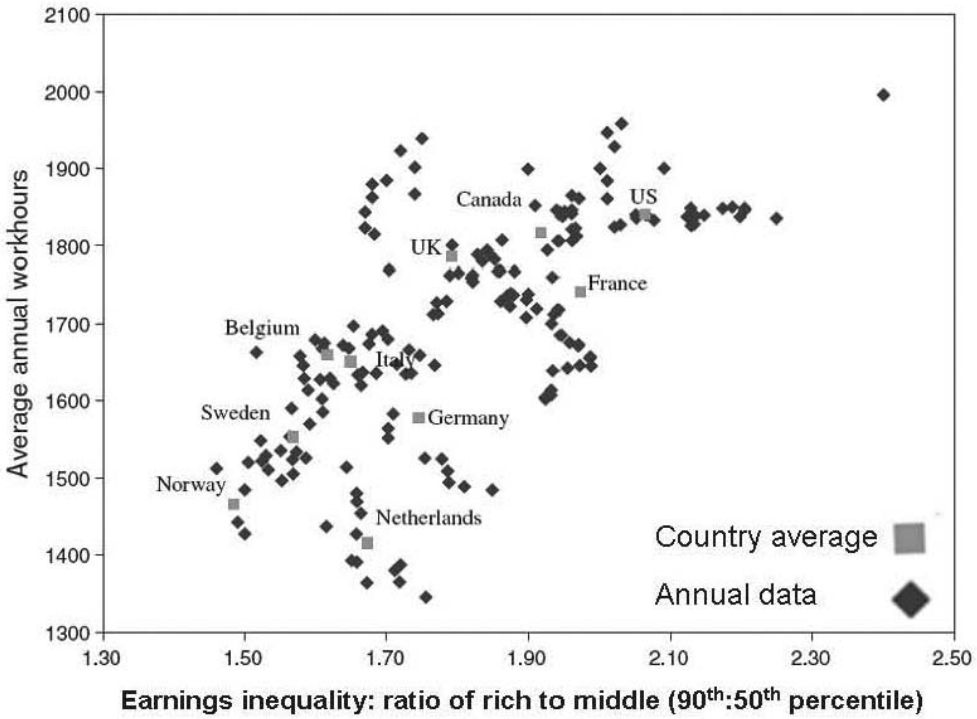
Electoral wards in England and Wales ranked by deprivation score

In his book "Falling Behind: how rising inequality harms the middle class", the American economist Robert Frank explains how we judge almost everything in relative terms.[5] He points out that whether the suit you wear to an interview looks good depends on the standard of the suits worn by other candidates. Similarly, a car which by the standards prevailing in the 1960s seemed to have brisk acceleration would, by modern standards, seem decidedly sluggish. Not only are standards relative to the prevailing context, but what you buy is an important expression of social status. Consumer goods have become imbued with social meaning - they provide an outward symbol of social status. Hence, second-rate goods tend to be stigmatising, as if they were an indication of a second class person. Poverty attracts stigma and makes it hard to avoid feelings of shame and embarrassment while, on the other hand, expensive clothes, cars and homes serve as indications of superior status and give the owner a sense of pride.

There is, then, no difficulty in understanding why we - as individuals competing in a consumer society - continue to attach great importance to increasing our own income, even though it makes no difference to average wellbeing when everyone in a rich society gets richer together. The data shown in Figure 4 makes perfect sense: we all want to improve our own income, but if everyone's income improves at the same rate, no one gains. Across society as a whole, status competition is, in effect, a zero-sum game.

We will return to looking at the relationship between inequality and social status later in this report.

Figure 5. Average Working Hours Are Longer in More Unequal Societies



Inequality drives Consumerism

If relative income is important because income and consumption are markers of status, what happens if the income differences in a society become bigger or smaller? As we have just seen, the short answer is that bigger income differences increase status differentiation and make consumption an even more important marker of status. Status competition and the pressure to consume are increased. Not only is it harder to keep up with the Joneses, but failure to do so becomes more shaming. Several pieces of evidence point in this direction.

With greater inequality people seem to spend more of their income, save less and become more indebted. Looking at statistics for counties in the USA, one study found that areas with greater income inequality also had more bankruptcies.[6] Other studies have shown how much the pressure to consume is influenced by people round you.[7] There is also evidence that greater inequality leads to increased corruption.[8] Over a period when income differences widened rapidly, surveys showed that the incomes people aspired to increased dramatically.[9] But perhaps the strongest evidence that greater inequality increases the pressure to consume comes from working hours. As Figure 5 shows, the more unequal incomes in any country are, the longer hours everyone works. People in more unequal societies are likely to work 400 hours more each year than those in more equal societies - an extra 10 or more weeks a year.[10] Whether they work longer hours to secure promotion or to boost their pay more immediately, they become increasingly caught up in the treadmill of competitive consumption, and their work/life balance suffers.

A UNICEF report called Child Neglect in Rich Nations drew attention to the extent to which children pay the price when their parents become too enmeshed in spending and earning a living.[11] More recently, the Good Childhood Inquiry drew attention to how children suffer as a result of the high priority parents give to their own material interests and success.[12] Instead of preferring more leisure as we become better off, it often seems that we become more tightly bound into the cycle of earning and spending.

Consumerism is fed by status competition and intensified by inequality leading to an insatiable demand for ever higher standards. This is one of the most important obstacles to cutting greenhouse gas emissions - both because it leads to a wasteful use of the earth's resources, and because it increases people's opposition to environmental policies such as green taxes or carbon rationing which threaten expenditure and levels of consumption. Yet, people already have a strong sense that 'materialism' involves sacrificing aspects of life which we know are more important to human wellbeing.

Carbon Emissions and the Quality of Life

When discussing the need to reduce carbon emissions, it is important to recognise that increased wellbeing is no longer dependent on further economic growth and that there may be few social benefits of still higher levels of consumption. But we can go further than that. The decoupling of economic growth and measures of wellbeing means that emissions in the rich countries could be reduced without reducing real wellbeing. Evidence from other countries shows that even without new technologies, present levels of wellbeing can be achieved with much lower levels of emissions than the UK currently produces. If, for example, we take infant mortality rates as a marker of wellbeing, Figure 6 shows that many societies achieve low levels of infant mortality while producing only a

fraction of the amount of CO_2 per head that others do. The relationship between life expectancy and carbon emissions (Figure 7) shows, similarly, that even with current technology it is possible to make very substantial reductions in emissions without any loss of life expectancy.

Figures 6 and 7 are grounds for hope. If standards of health and happiness enjoyed in the richest countries can be achieved at very much lower levels of emissions and consumption, even without more use of renewable energy resources and more efficient technology, reducing emissions should not be regarded as such a threat to human wellbeing in the rich countries. Even if it turned out that an 80 percent cut in carbon emissions led to an actual reduction in levels of material consumption, it does not necessarily follow that levels of health or happiness would be reduced. We need to change, but that does not mean sacrificing the real quality and length of our lives. If this is true at a time when countries are using inefficient fossil fuel based technologies, what might be achieved in societies after converting to the best, state-of-the-art, technology based on renewable sources of energy?

Figure 6. Low Infant Mortality Can Be Achieved At Low CO_2 Emission Levels

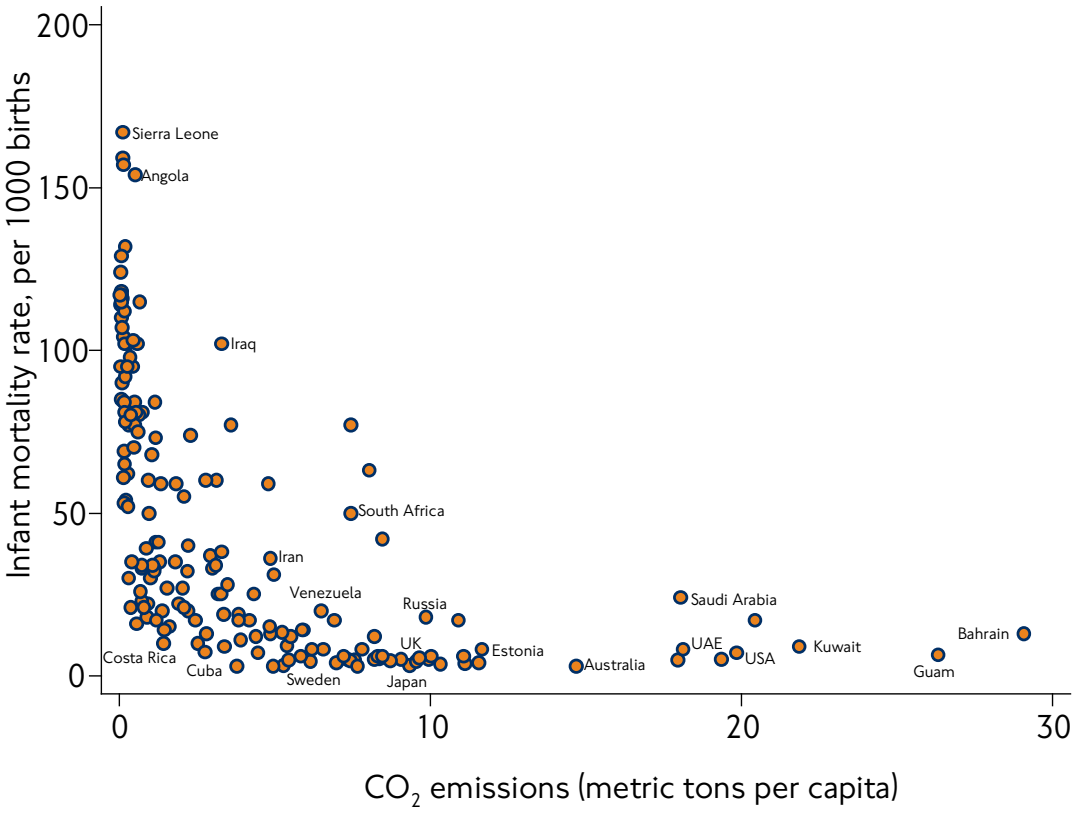
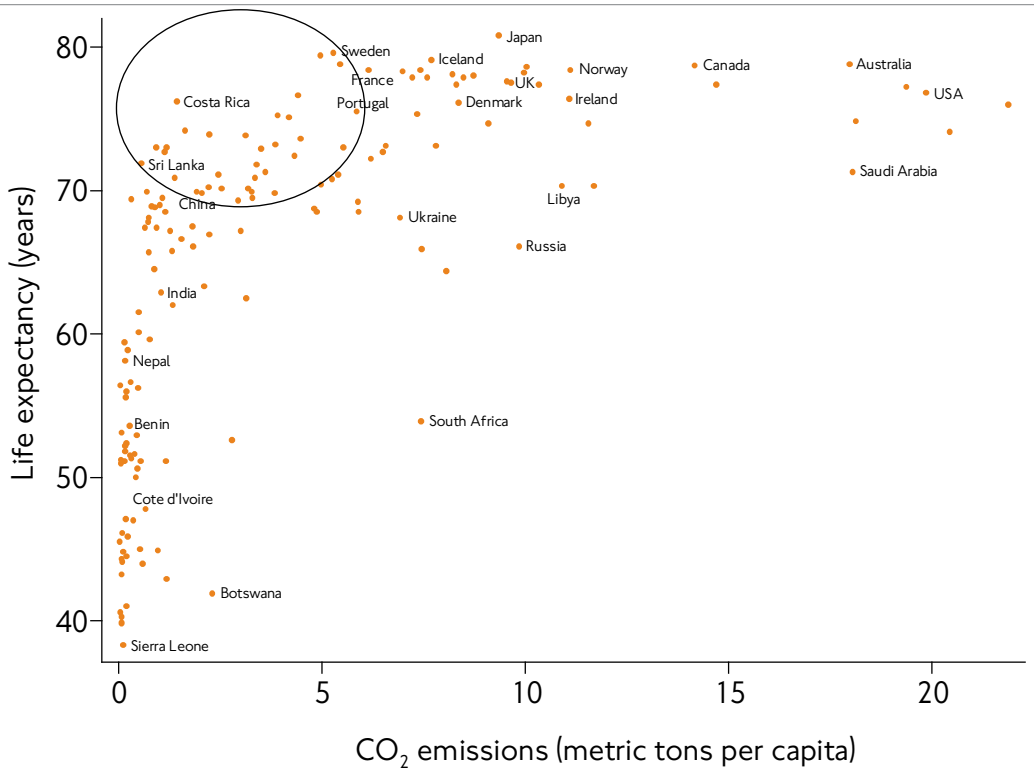


Figure 7. High Life Expectancy Can Be Achieved At Low CO_2 Emission Levels



Convergence and Improvement

The development of greener technologies and sources of power will shift the curves in Figures 6 and 7 to the left - the carbon cost of good health will be reduced. However, what humanity should be aiming for is that rich and poor countries should converge somewhere around the area circled in Figure 7 where the curve begins to flatten out and good health comes most cheaply in terms of carbon emissions. Developing countries, on the steeply rising slope of life expectancy, need to get to the top of that section of the curve, and rich developed societies (which in this context we should perhaps call 'overdeveloped') need to cut back on their carbon emissions so removing the wasteful long flat tail (top right in Figure 7) made up of societies in which consumption and emissions are much higher than the gains in the length or quality of life justify. While this suggestion of international convergence has the merit of being both rational and socially just, it may resonate particularly with Londoners who have family and relations in countries that will be more adversely affected by global warming.

The graphs shown here suggest that reducing emissions need not involve sacrificing health or wellbeing. However, this report will go on to show that the creation of a more cohesive and less unequal society will not only make it easier to reduce carbon emissions but will also tend to improve health and wellbeing. Although in the rich countries we have got to the end of what higher material standards can do for wellbeing, policies to improve the social environment have the potential to make very substantial further improvements.

A future without economic growth in its present form may initially sound a bleak prospect to many. There is an excitement to technical change and innovation and much of what they make possible. However, we need to distinguish between qualitative improvement and development - which

we continue to need - and growth per se. We have to avoid increases in resource extraction, emissions and the production of waste, which have been part of economic growth in the past. The progress which continued invention and technical innovation can bring are essential if we are to reduce carbon emissions and build sustainable societies with a high quality of life. Because economic growth and resource consumption have already become decoupled from wellbeing, we may be confident that it will be possible to continue to make important qualitative improvements in wellbeing while developing a low carbon and resource efficient economy. Emerging technologies, such as digitisation, electronic communications, control systems and miniaturisation, clearly have the potential to improve the quality of life at the same time as being hugely resource saving.

Later in this report we shall return to discuss other factors affecting the ability of societies to reduce carbon emissions.

The creation of a more cohesive and less unequal society will not only make it easier to reduce carbon emissions but will also tend to improve health and wellbeing

Part II: How Inequality Affects Health And Social Problems

Inequality and Social Cohesion

The development of internationally comparable measures of income inequality in different countries means that it is now possible to compare more and less equal societies and identify the effects of inequality on social life. It is not simply that greater equality reduces the intensity of status competition and the pressure to consume. The statistical evidence also shows that the quality of social relations is better in more equal societies.

People are more likely to feel they can trust others, community life is stronger, and levels of violence are lower. Figure 8 shows that there are very big differences in the proportion of people who feel they can trust others. In the more unequal countries only 10 or 15 percent say they trust others, whereas in the more equal societies this rises to 60-70 percent. This relationship between greater trust and greater equality has been shown a number of times in different settings - including among the 50 states of the USA.[13 14]

Box 2. How Income Inequality is Measured

There are several ways to measure income inequality.
One way (the 20:20 ratio) is to compare how much richer the top 20 per cent of people are, compared to the bottom 20 per cent. Among the rich developed countries the 20:20 ratio varies from as little as 3 or 4 to as much as 8 or 9. For example, in Japan and Sweden the income gap is fairly small: the richest 20 per cent are less than 4 times as rich as the poorest 20 per cent; but in Britain the richest 20 per cent are over 7 times as rich as the poorest 20 per cent, and in the USA they are over 8 times as rich.

Instead of the top and bottom 20 percent, you can compare the top and bottom 10 percent (the 10:10 ratio) or any ratio. Some people measure what proportion of income goes to the poorest half of the population (the median share). In many societies, the poorest half of the population get around 20-25 percent of all incomes and the richest half get the rest.

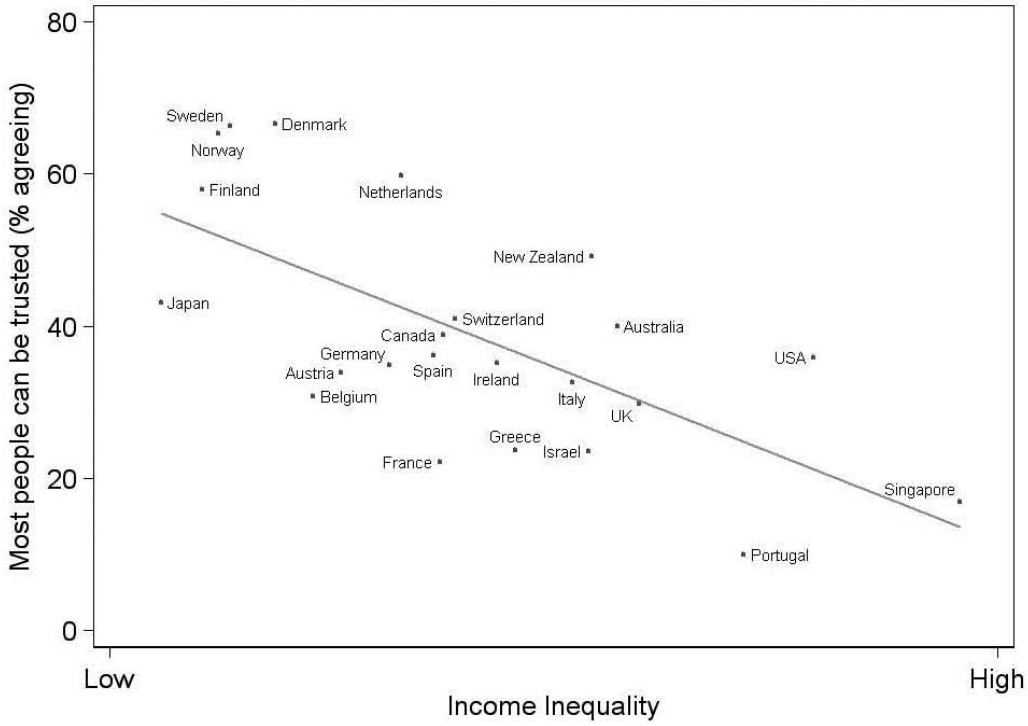
Another measure of inequality is called the Gini coefficient. It measures inequality across the whole society rather than simply comparing groups. If all the income went to a single person (maximum inequality) and everyone else got nothing, the Gini coefficient would be equal to 1. If income was shared equally, and everyone got exactly the same, the Gini would equal 0. The lower its value, the more equal a society is. The most common values tend to be between 0.3 and 0.5.

Another measure is called the "Robin Hood Index" because it measures what proportion of a society's income would have to be taken from the rich and given to the poor to get complete equality.

All these measures tend to be highly correlated and the conclusions of this report are not dependent on the measure of income inequality used. We have used the 20:20 ratio because it is easy to understand and available from the United Nations Human Development Report.

in Britain the richest 20 per cent are over 7 times as rich as the poorest 20 per cent

Figure 8. People Are More Likely To Trust Each Other In More Equal Societies



Concern has grown over recent years at the apparent decline in community life in many societies. Researchers such as Robert Putnam, a political scientist at Harvard, have combined different indicators of people's involvement in local community life to make up indexes of 'social capital'. Typically they have included variables such as the proportion of the population who are members of voluntary associations of any kind (such as gardening clubs, sports clubs, charities or choirs), whether people read a local newspaper or vote in local elections. They usually show a strong tendency for community life to be weaker both in more deprived areas and in more unequal societies. In a study of Italy, Putnam mentions a close association between his measures of social capital and income inequality across 20 regions.[15] In the United States, similarly, he shows a close association between income inequality and social capital across the 50 states.[16] In both cases, social capital is substantially weaker where inequality is greater. In his study of the USA he also draws attention to how trends in social capital follow trends in income inequality. He says:

"Social capital and economic inequality moved in tandem through most of the twentieth century. In terms of the distribution of wealth and income, America in the 1950s and 1960s was more egalitarian than it had been in more than a century. ...those same decades were also the high point of social connectedness and civic engagement. Record highs in equality and social capital coincided.

"Conversely, the last third of the twentieth century was a time of growing inequality and eroding social capital. By the end of the twentieth century the gap between rich and poor in the US had been increasing for nearly three decades, the longest sustained increase in inequality for at least a century. The timing of the two trends is striking: somewhere around 1965-70 America reversed

course and started becoming both less just economically and less well connected socially and politically." (Putnam RD (2000), Bowling Alone: the collapse and revival of American community. NY: Simon and Schuster. p.359.)

Although the deteriorating quality of social relations associated with widening income differences is central to the effects of inequality on social functioning, it is doubly relevant here because social divisions reduce a society's ability to act in the common interest. Putnam first developed his measures of social capital as part of the research he was doing in Italy to find out why there were such big differences in how well regional governments functioned. Some were very much more efficient and better organised than others despite all having been set up in 1970 with the same level of funding per head of population. What Putnam found was that local governments did best (on a number of objective assessments of performance) in regions where there were high levels of involvement in community life and badly in regions with low levels.

Improving the Quality of Life

As well as reducing the pressure to consume and making societies more cohesive, recent research shows that the amount of inequality in a society also has a crucial influence on many other aspects of how it functions. Greater inequality appears to make societies increasingly dysfunctional in a number of ways that undermine sustainable development.

Average standards of health tend to be better in more equal societies. There are now at least 200 studies testing this relationship in different contexts. More recent research has shown that most of the problems which occur more frequently in the poorest neighbourhoods in our societies also tend to be much more common in more unequal societies.[17] Thus, just as ill health is more common in more deprived London boroughs and tends to be more common in more unequal societies, the same is true of a wide range of social problems including homicide rates and violence, teenage births, obesity, low levels of trust and social cohesion, poor educational performance of school children, drug abuse, mental illness and the proportion of the population in prison.

Figures 9-14 show examples of these relationships among the rich developed countries. All are statistically significant and powerful relationships. Similar associations between inequality and health and social problems have also been found among the 50 states of the USA. There too, greater inequality is consistently associated with worse outcomes. The differences in the rates of all these social problems associated with those differences in inequality are often very large. Mental illness is more than three times as common in more unequal countries compared to more equal ones. In more equal societies people are four or five times as likely to feel they can trust each other. The proportion of the population in prison may be eight times as high, obesity twice as common, and the teenage birth rate six or seven times higher in more unequal societies.

If we combine measures of health and different social problems into one index, it becomes clear that more unequal societies have a general tendency to perform less well on most outcomes. Figure 15 shows, in relation to income inequality, an Index of Health and Social Problems which combines (with equal weighting) life expectancy, maths and literacy scores, infant mortality rates, homicides, the proportion of the population imprisoned, teenage births, trust, obesity, social mobility and mental illness (which, in the WHO survey data, includes drug and alcohol addiction). Figure 15 shows a remarkably tight fit between

inequality and the prevalence of health and social problems. It suggests that there is a strong tendency towards a general social dysfunction related to inequality. [Further evidence on the effects of inequality can be found in: Wilkinson RG, Pickett KE, The Spirit Level: why more equal societies almost always do better. (Penguin 2009)]

Figure 9. Child Wellbeing is Better in More Equal Societies

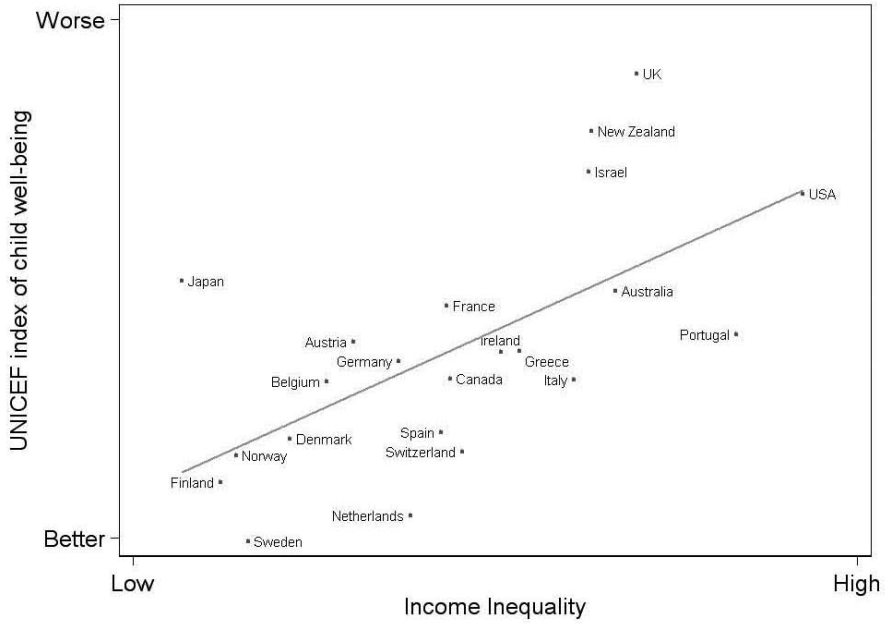


Figure 10. Illicit Drug Use is Less Common in More Equal Societies

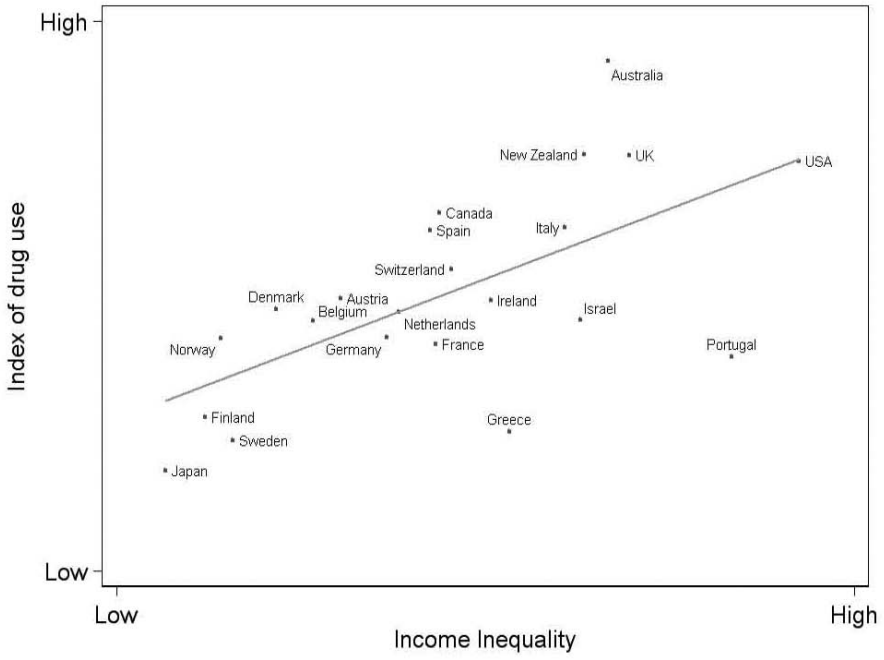


Figure 11. The Teenage Birth Rate is Lower in More Equal Societies

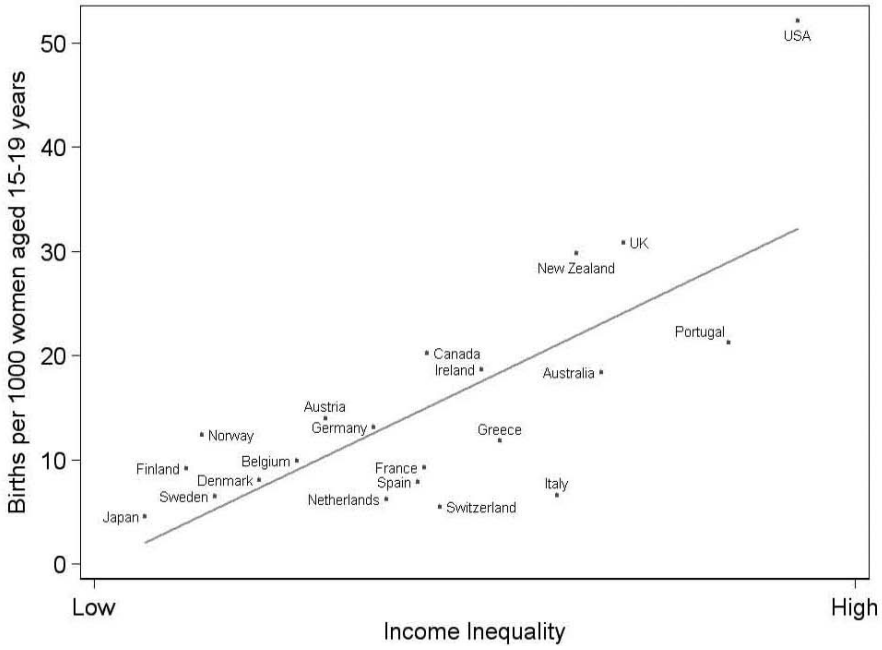


Figure 12. Mental Illness is Less Common in More Equal Societies

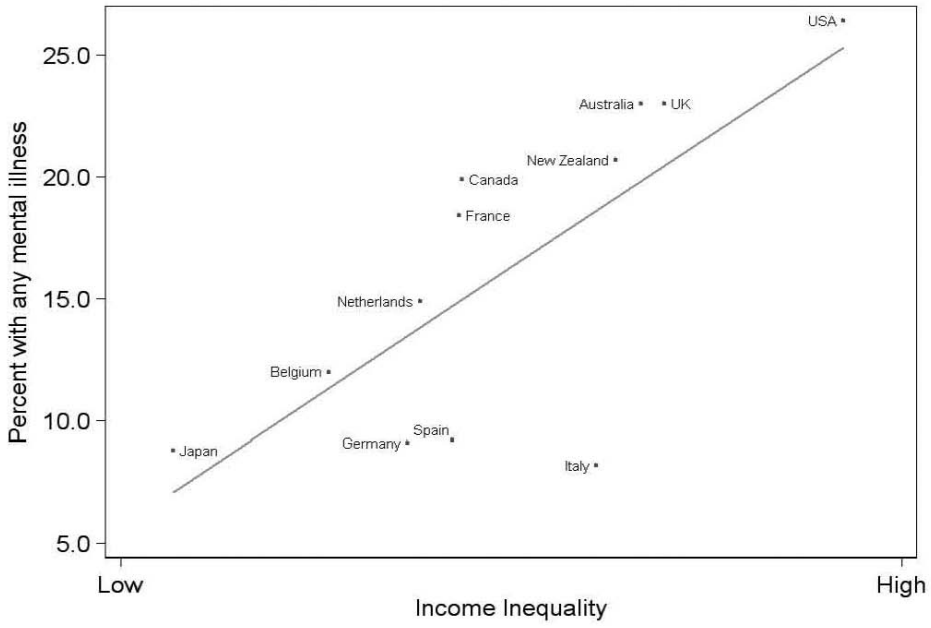


Figure 13. Obesity Rates Are Lower in More Equal Societies

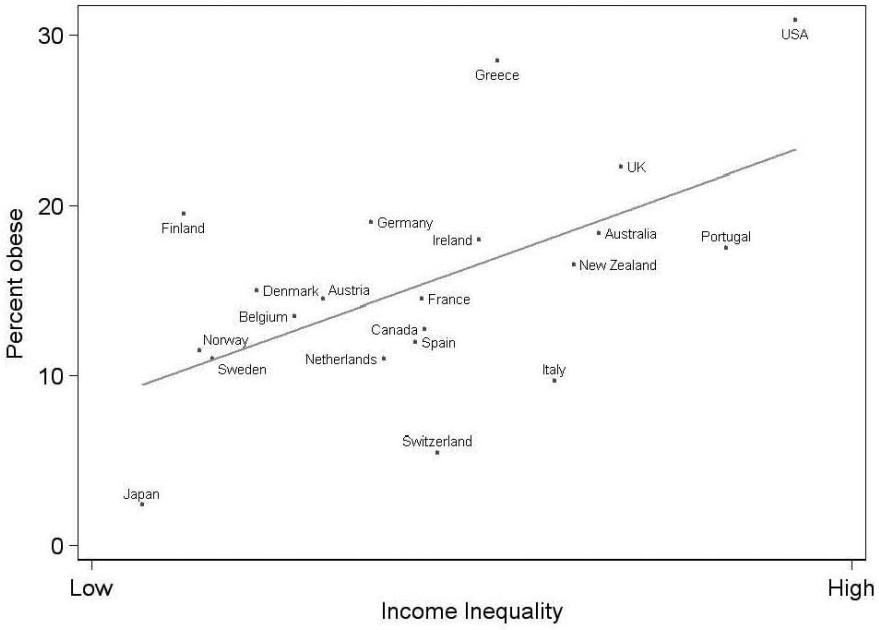


Figure 14. Fewer People Are Imprisoned in More Equal Societies

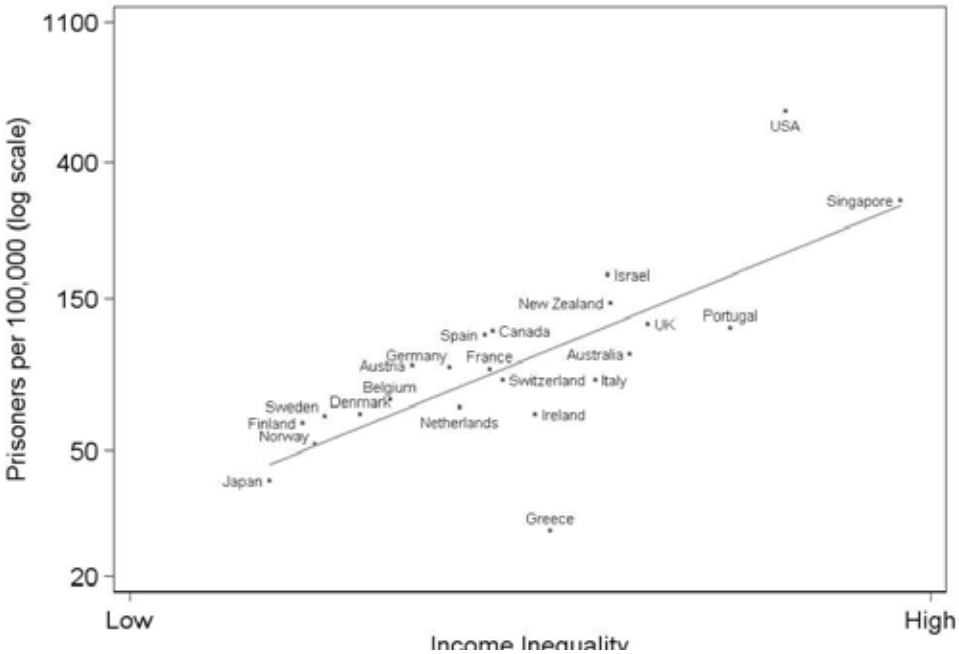
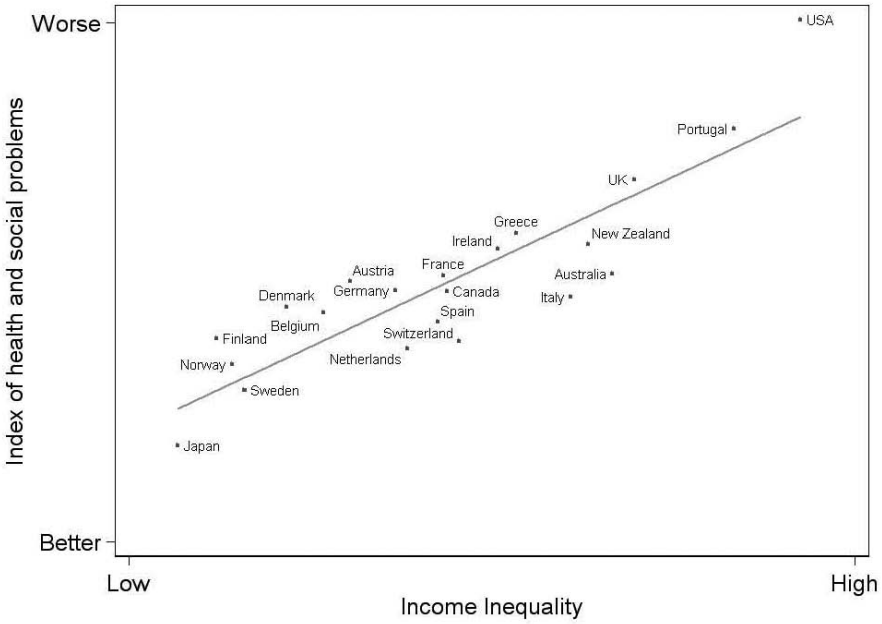


Figure 15. Health and social problems are worse in more unequal societies



Everyone Benefits

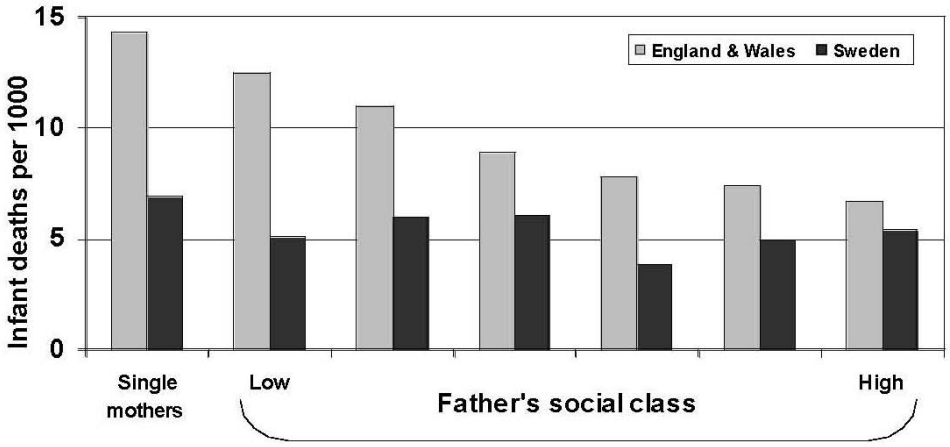
In the past, demands for a more equal society have usually been seen as demands that the better off should sacrifice the advantages they enjoy in order to provide for the poor. However, we now know that this is not the situation. What the evidence shows is that greater equality improves health and the quality of life for the vast majority of the population, not just those on lower incomes.

We saw earlier that the differences in the prevalence of health and social problems between more and less equal societies were very large. This, in itself, is a reason for thinking that inequality cannot just affect what happens amongst those on lower incomes. For example, if the threefold difference in mental illness rates between more and less equal societies were all due to an effect of inequality confined to the poorest 10 percent of the population, then the poorest 10 percent in more unequal societies would have to have 30 times the amount of mental illness of the poorest 10 percent in the more equal societies. Similarly, if the 4.5 year difference in life expectancy between Japan and the USA were all due to differences in the health of the poorest 10 percent in each country, then life expectancy among the poor in the USA would have to be 45 years shorter than it is among the poorest in Japan.

The size of the differences in the prevalence of health and social problems in more and less equal societies is clearly too large to be explained by an effect of inequality limited just to the least well-off. Even if that were the only evidence, we could still be reasonably sure that the benefits of greater equality are more widely spread in the population. Research has provided more direct evidence of who benefits from greater equality. It shows that although the benefits are bigger nearer the bottom of society, they extend to the vast majority of the population, including people in the highest categories of income, education or occupation.

For example, Swedish researchers classified a large number of Swedish deaths according to the British occupational class classification so they could compare class differences in health in the two countries. The results are shown for infant mortality in Figure 16. If greater equality is part of the reason why Sweden is healthier than England and Wales, we can see that this has made the biggest difference to infant mortality rates in the lowest social classes and among single parents - the groups which in England and Wales do particularly badly. (A very much smaller proportion of Swedish single parents live in relative poverty than in England and Wales.) However, although England and Wales have such large health inequalities, it is clear that even in Social Class I, the senior professional occupations, Swedish death rates are still at least a little lower. A similar study which compared class differences in adult death rates in each country showed much the same pattern - the benefits of greater equality were biggest in lower social classes but still apparent in upper classes.[19]

Figure 16. Social Class Differences in Infant Mortality Rates: Sweden Compared With England and Wales.

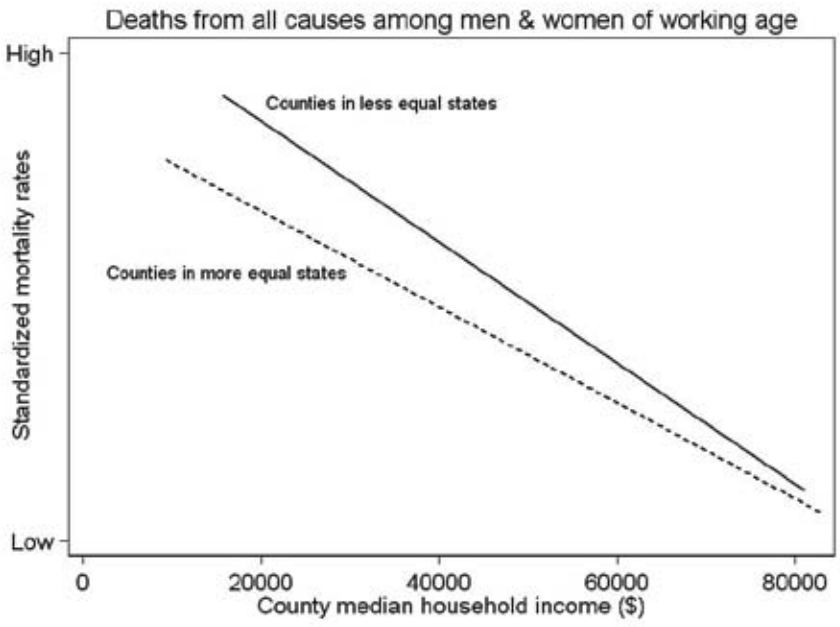


A similar comparison, but this time between health among middle-aged whites in England and in the USA, found that health was worse in the USA (which is more unequal) than in England.[20] When people were classified into high, medium and low income and education groups, it was clear that insofar as England benefits from being less unequal than the USA, the health benefits are spread across all three categories of income and education. This was true of rates of different illnesses, death rates, blood pressure, cholesterol levels and other measures. Although the authors say that there was a steeper gradient in health across the categories of income and education in the USA than in England, it was clear that the English health advantage is spread across all income and educational categories rather than being confined to the lower ones.[21]

Studies of inequality in the 50 states of the USA come to similar conclusions. The results of one are shown in Figure 17. The upper line shows the relation between county median income and death rates in all counties in the least equal 25 states. The lower line shows that at every level of income, death rates were lower in counties in the more equal 25 states. The health advantage of the more equal states (the gap between the two lines) was once again biggest among the poorer counties but still apparent even among the richest.[22]

Another study which compared individuals in more and less equal states found that the benefits of greater equality went so far up the income scale that the authors suggested that inequality acted as a general 'social pollutant'. [23]

Figure 17. Death Rates Are Lower At All Income Levels in the More Equal States of the USA.



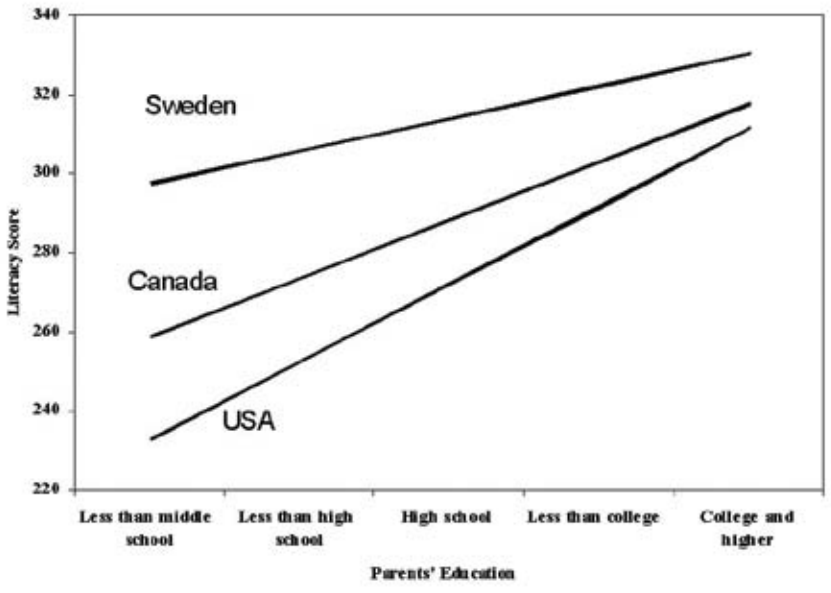
Most of the evidence that the benefits of greater inequality are not confined to the poor comes from studies of health. However, as with health, the differences in the rates of various social problems between more and less equal societies are also too large to be explained by the effect of inequality on the poor alone. Studies of the social gradients in maths and literacy scores again suggest that the benefits of greater equality are larger at lower levels in society but may continue all the way to the top. Figure 18 shows the international literacy data (taken from the OECD's Programme for International Student Assessment) for young adults, 16-25 years old, in Sweden, Canada and the USA. Their scores are arranged according to the level of education achieved by their parents (shown on the horizontal axis). The scores of young people with well-educated parents, likely to be nearer the top

of the social hierarchy, are towards the right, and the scores of people with poorly educated parents, low in the hierarchy, are on the left. Once more we see that the biggest differences are lower down the socioeconomic scale but that even at the top Sweden still does a little better than Canada, which, in turn, does better than the USA.

These studies confirm what was implied by the large size of the differences in the prevalence of health and social problems between more and less equal societies: rather than affecting only the poor, the benefits of greater equality are spread very widely across the population. More equal societies seem to work better for almost everyone. What Figures 16-18 show is that for every social class, for every level of income and at every educational level, outcomes are better in more equal societies. Even at a fixed level of income, a comfortably off, middle class family will do better in a more equal society. They would be likely to find the local community more cohesive, the parents would have a better chance of living longer, healthier lives; they will be less likely to be obese or to suffer violence; their children would do better at school and would be less likely to become teenage parents or become drug users. Greater equality would seem to improve the quality of life for almost everyone.

Greater equality would seem to improve the quality of life for almost everyone

Figure 18. Young People's Literacy Scores are Lower at All Levels of Parental Education in Countries with Steeper Social Gradients



Part III: Application To London

An Index of Health and Social Problems for London

For this report a London Index of Health and Social Problems, similar to that shown in Figure 15, was calculated for each of the 32 London Boroughs. It contains life expectancy, infant mortality, obesity, mental illness, drug abuse, violent crime, teenage birth rates, and GCSE scores. (Some items are 'reverse scored' so that in every case higher scores indicate worse results.) Figure 19 shows how closely the Index combining rates of all these problems is related to the relative deprivation score of each Borough. Statistically speaking, half of the overall differences in health and social problems from one London Borough to another are attributable to differences in deprivation. The distribution of violent crime among the London Boroughs is shown in Figure 20. However when looking at Figures 19 and 20, remember that national rates of health and social problems in rich countries are strongly affected by inequality but almost unaffected by average material living standards. This means that the close relationships between Borough deprivation scores and their health and social problems reflects where each Borough comes in the national scale of inequality. Therefore the relationships should not be interpreted as if social problems are a direct result of material circumstances in themselves rather than of the social meaning of those circumstances. The next section will go on to show how inequality and the associated scale of social differentiation are also contributors.

Figure 19. Health and social problems in London are closely related to deprivation

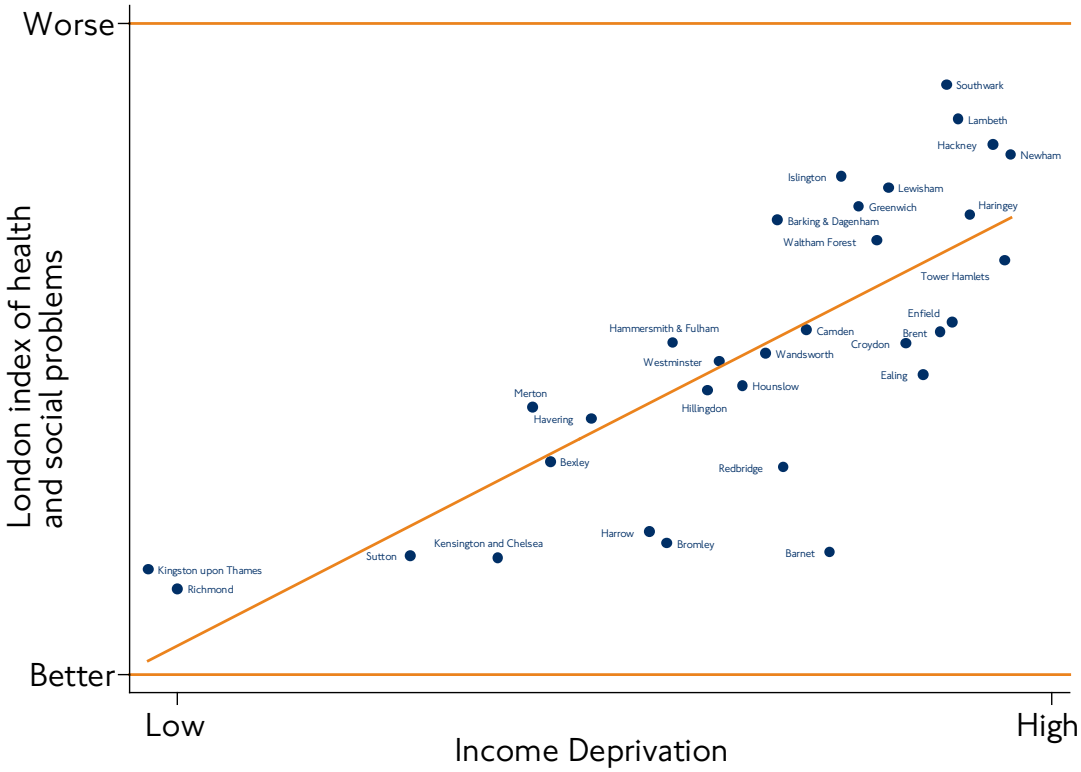
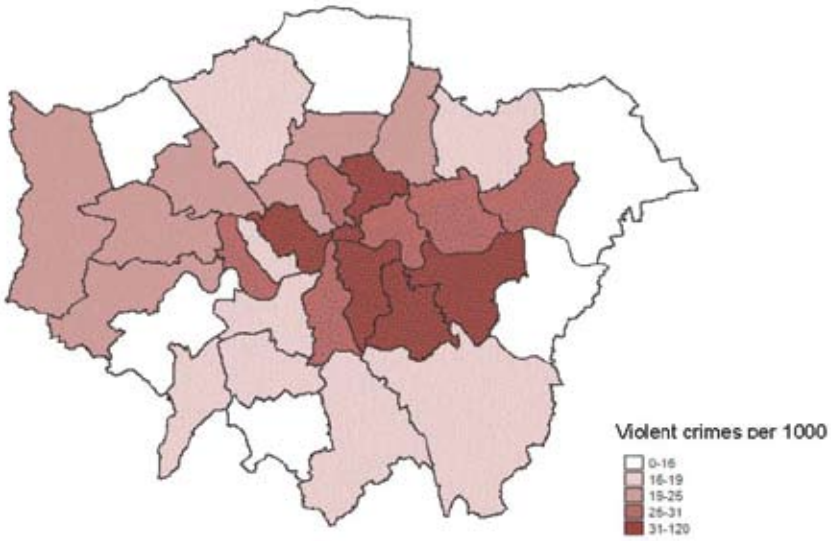


Figure 20. The Distribution of Violent Crime in London



Inequality and Social Status

The scale of income differences almost certainly serves as a measure and determinant of the scale of social distances between different levels in the social hierarchy. An important part of how people use money is, after all, to express status.[5] But as social status differences increase, they also become more important. If more is at stake, then the impression people form of your social standing comes to matter more.

An academic review of 168 research reports on the relationship between income inequality and health concluded that they were most strongly related to each other when they were measured across whole societies.[18] When inequality was measured in small areas such as neighbourhoods, the evidence that inequality matters was much weaker. This is because deprived neighbourhoods do not have bad health because of the inequality within them, but because they are deprived in relation to the wider society. As Figure 4 makes clear, it is people's position in the social class hierarchy running across the whole society that affects them profoundly. Class impresses itself on people and marks them from earliest childhood onwards. And greater inequality makes these processes more powerful.

Greater inequality amplifies the effects of deprivation

Almost all the problems known to be related to deprivation within societies turn out to be more common in societies where greater income inequality increases the burdens of social status differentiation. Greater inequality amplifies the effects of deprivation. The problems which we know are affected by class or status across

society - from top to bottom (as shown in Figure 4) - all seem to be made worse when inequality makes the social status differences bigger. The fact that differences in the average levels of income from one rich country to another (Figure 4) make little difference to health confirms that we are dealing with the effects of social status differentiation itself.

What this means, is that the reason why ill health and social problems are so much more common in poorer neighbourhoods is because they are poorer in relation to the wider society - the rest of London or Britain. The greater burden of the ill health and social problems they suffer is neither because most people in these areas lack basic necessities such as food and shelter, nor is it because of inequality within the local neighbourhood. More deprived Boroughs do worse because their populations come low in the national hierarchy. Because the underlying issue is the scale of income differences which drive social differentiation, it strongly implies that the problems of the disadvantaged are just as much due to the superior position of others - rendering them inferior - as to their own lower status. The explanatory task is - eventually - to understand how social status differences play such a powerful role in creating the apparent differences in characteristics and abilities.

One question posed is could the social class gradient in ill health and many other social problems result instead from social mobility? Maybe the most vulnerable simply end up nearer the bottom of the social ladder. But this cannot explain why more unequal societies are so socially dysfunctional. Whether social mobility makes a larger or smaller contribution to the gradient in health and social problems cannot explain why they tend to be so very much more common in more unequal societies. No amount of social sorting of the population according to pre-existing vulnerability traits would make problems two, four, or even six times as common across the population as a whole in more unequal societies.

The fact that problems related to relative deprivation become so much more prevalent where wider income differences make society more hierarchical is powerful evidence that social problems are substantially the products of social status differentiation. As bigger material inequalities increase the scale and importance of status differentiation, so the problems related to it become more common.

BOX 3. Why are we so sensitive to inequality?

Inequality makes social interaction more stressful at every level. By increasing social status differences it makes status more important in how people judge each other and who they mix with. All the markers of status - money, class, education, occupation - come to matter more. Position in the hierarchy is seen as an indicator of ability, importance and personal worth. As a result it heightens what have been called "social evaluation anxieties" - our anxieties about how others judge us, what they think of us, and our fears about our own inadequacies.

The large body of research showing that violence is more common in more unequal societies is indicative. The most common triggers to violence are loss of face, humiliation and feeling looked down on. In more unequal societies those lower down the social ladder become more sensitive to how they are seen and to any signs of disrespect. It is almost inevitable that the more people are divided into ranks of inferiority and superiority, the more touchy everyone is about how they are judged.

Contrasting with the divisive effects of inequality, friendship has repeatedly been found to be protective of health, and the explanation is that friends are a source of positive feedback. Friends enjoy your company and make you feel a valued human being. Low social status, social exclusion, or not having friends are all stressful because they undermine confidence, making people feel inferior and devalued.

Early childhood experience feeds into these processes. Different parenting styles serve to pass on parental experience of adversity. If adults experience society as mutually supportive and trusting, it is much more likely that they will pass that on, in the quality of care, to affect the cognitive and emotional development of their children. But if, on the other hand, they experience the world as highly unequal, in which people have to be on their guard against others and fight for what they can get, then that experience will be passed onto children through a harsher style of upbringing.

Rather than social problems being related to class for one set of reasons, and to the amount of inequality in societies for other quite different reasons, they are both rooted in the same causal processes. Social status and material inequality are welded together. So much so that social mobility seems to be hampered in societies where income differences are bigger.[17] This means that trying to understand why more unequal societies are so dysfunctional is the same task as trying to understand how social class imprints itself on each of us from early life. Instead of working through separate processes of social comparison, the most significant effects of inequality are to amplify the effects of class.

A More Equal London

The strong implication of the evidence we have seen is that reducing income differences would reduce the prevalence of a wide range of social problems. We have no precise basis on which to estimate the likely scale of the benefits. Although London is a large city, it is not a whole country, and may not behave like one. But if the international relationships provide any guide to how London

might benefit from greater equality then these can be used to make a very rough guide to the scale of the possible benefits.

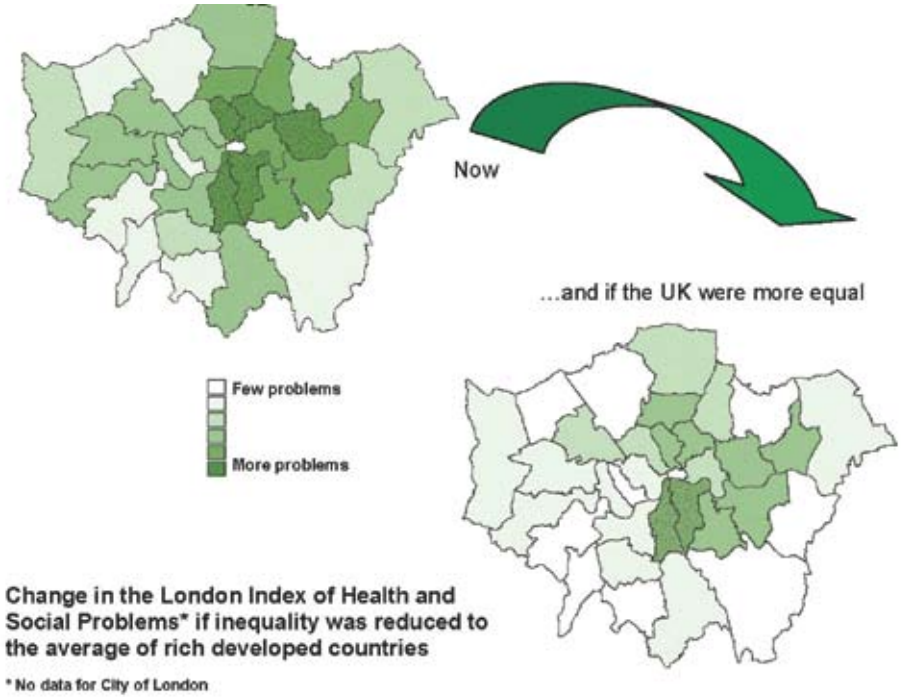
Table 1 shows the results of calculations of the likely effect on health and social problems if London reduced its inequality. Figures are shown for two hypothetical - but achievable - levels of inequality. The first column of figures shows the existing level of health and social problems in London. The second shows the level of health and social problems we might expect to see if inequality in London was reduced by as much as the difference between inequality in the UK and that in countries like France and Canada which are close to the average levels of inequality in rich developed countries. The third column shows the level of improvement that might be expected if inequality reduced still further to the level of the four most equal of the developed countries (Japan, Norway, Sweden and Finland). Figure 21 shows the predicted change in each Borough's score on the London Index of Health and Social Problems if inequality in London was reduced by the difference between the UK and that in France and Canada - which are close to the average of rich developed countries.

Table 1. Estimates of Improvements in Health and Reduction in Social Problems Associated with Decreases in Inequality

	Levels of health and social problems in London		
	Current	Estimates...	
Health or Social Indicator		**if inequality reduced to level in France and Canada**	**if inequality reduced to Nordic and Japanese levels**
Life expectancy (years)	80.1	80.5	80.9
Infant mortality rate (per 1000 births)	4.9	4.5	4.0
Obesity (%)	18.3	14.0	9.0
Mental illness (%)	17.9	12.3	5.6
Teenage births (per 1000 teen girls)	27.8	18.6	7.5
Homicides (per million)	22.4	17.2	11.5
Trust (% who trust others)	23.0	31.9	42.6

Figure 21: How greater equality would benefit London boroughs

Change in the London Index of Health and Social Problems* if inequality was reduced to the average of rich developed countries



The estimated improvements resulting from reductions in inequality shown in Table 1 are striking. The only changes which look small, even when inequality is reduced to the average of Sweden, Japan, Norway and Finland, are the gains in life expectancy of just under 10 months for every man and woman, and the decline in infant mortality which is a 16 percent decline. Our estimates are that obesity would decline by 50 percent, mental illness would be reduced to less than one-third of its present levels, the teenage birth rate would be cut by almost three-quarters, homicide rates would be halved, and the proportion of the population who feel they can trust others would increase by 85 percent. These estimates are based on the assumption that the effects of different amounts of inequality in London are no bigger or smaller than the average effect identified among rich nations such as those shown in Figures 9-14.

Benefits of Greater Equality to Each London Borough

In Table 1 we gave estimates based on the international data of the reduction in social problems which might be expected to follow if London's inequality was reduced by an amount equal to the difference between the level of inequality in the UK and the average level in the four most equal of the rich market democracies. Now that we know (partly from Figures 16-18 but also from a large body of research) how the gains are likely to be spread across the whole society, we can make estimates of the likely reductions in social problems in each of the London Boroughs. As we saw internationally in Figures 16-18, the estimated improvements would be greatest in the poorest Boroughs but would also benefit the richest. The poorest Boroughs would still have more of each problem, but the differences would be smaller than they are now.

Data for some of the social problems which have been analysed in relation to inequality internationally are not available for each London Borough. However, as a rough illustration of the possible gains which might be made by increasing equality, the estimated declines in each Borough are shown in bar charts - for mental illness (Figure 22), obesity (Figure 23) and teenage births (Figure 24). In each of these illustrations the percentage changes in rates shown in Table 1 have been applied to each London Borough.

The data illustrated in Figures 22-24 is estimated in accordance with a wider body of evidence and reflects the relationship between inequality and mental illness, obesity and teenage births shown in Figures 11-13. Although the absolute improvements are biggest in the poorer Boroughs which tend to have the highest rates, the ranking and relative differences between the Boroughs is unchanged.

Figure 22. Estimated reduction in percent of population with 'any mental illness' resulting from a decline in inequality

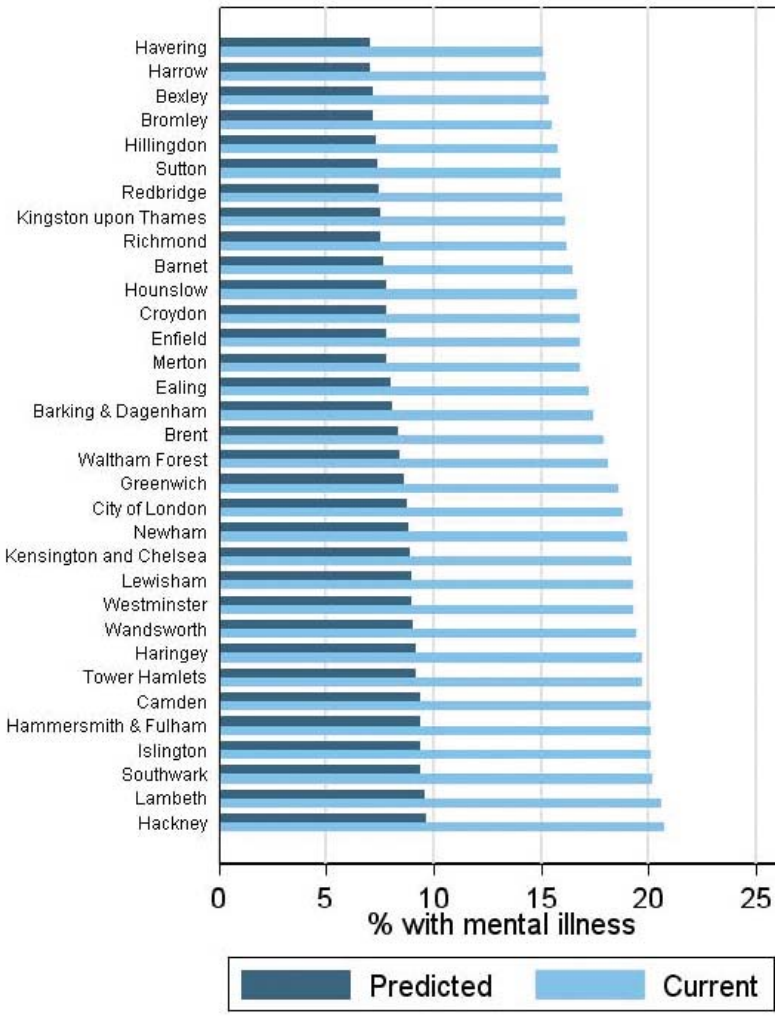


Figure 23. Estimated reduction in percent of population obese resulting from a decline in inequality

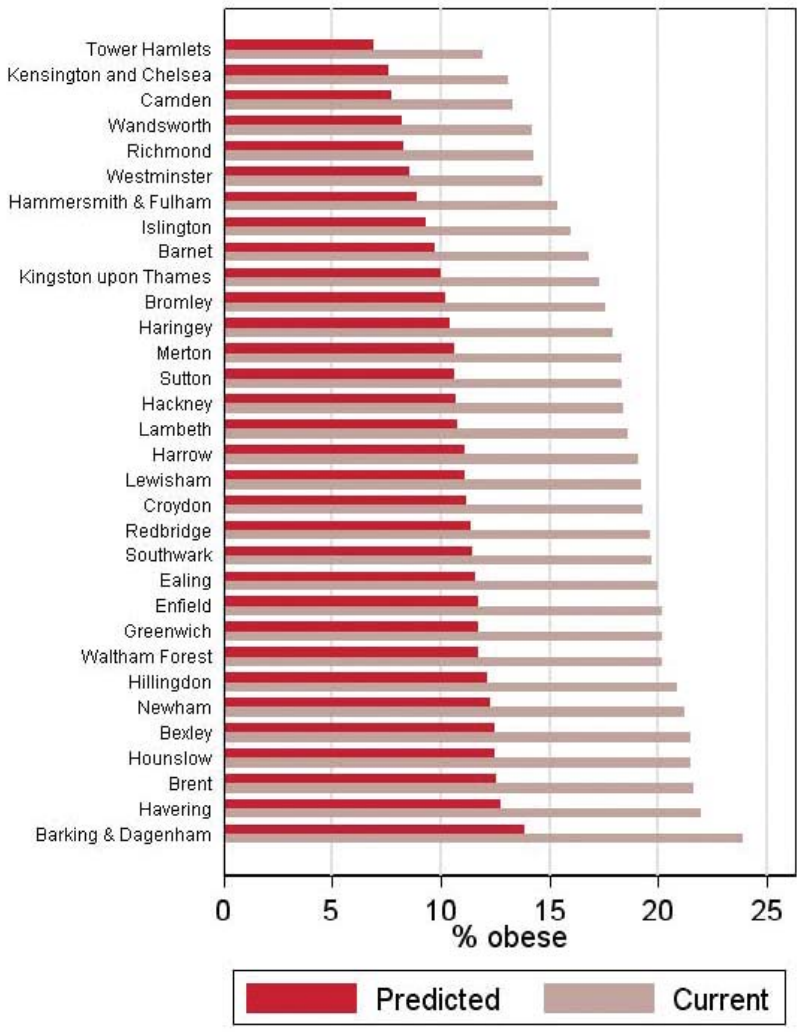
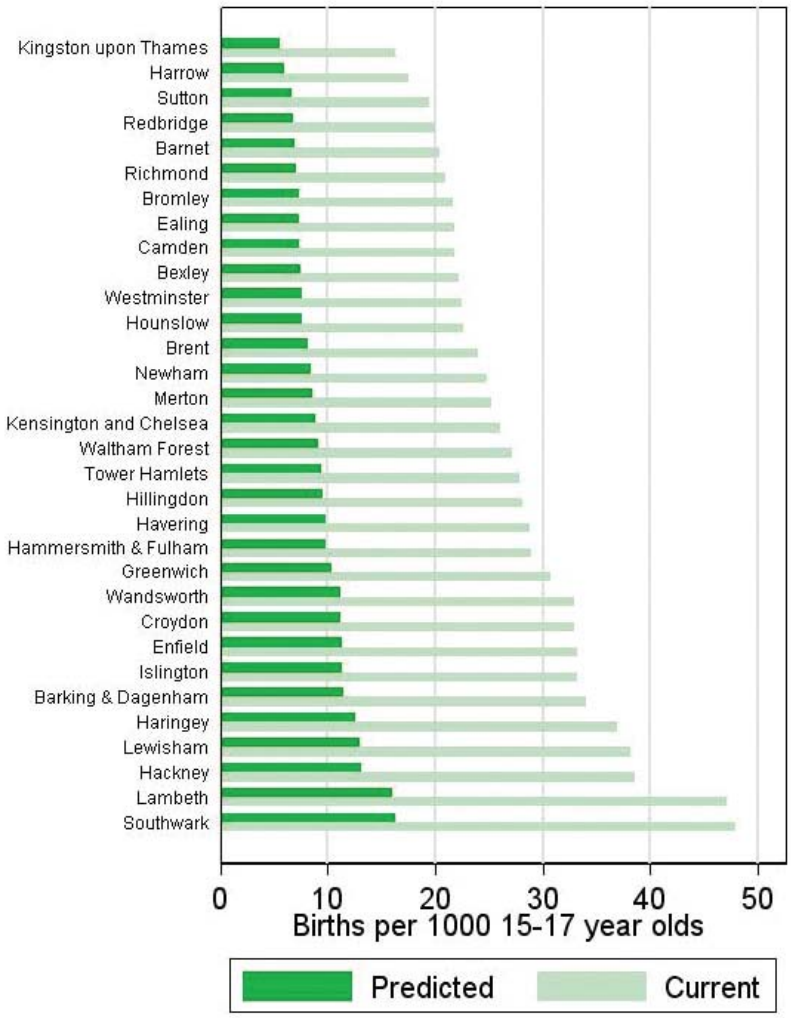


Figure 24. Estimated decline in teenage birth rates resulting from a decline in inequality



Intolerance

London is in the forefront of one of the most momentous processes in human development: nothing less than the reunification of the human race. After the prehistoric diversification of human populations as they established themselves throughout the world, the development of world-wide economic interdependence and international travel are now bringing about the rapid reunification of humanity in the space of a few short generations. London rightly takes pride in its status as the most multicultural and diverse city in the world. However, as well as being an exciting process, the cultural mixing will sometimes cause friction, particularly when material inequalities are larger.

Inequality has powerful effects on relations between people from different ethnic and cultural backgrounds, on tolerance and the willingness to mix, particularly when people feel their social and economic security are threatened. Inequality not only increases social distances and status competition between individuals; it also increases prejudice and discrimination across those social distances. Racial prejudice has been shown to be more common in the American states where income differences are greatest.[24] The bigger the material differences the more important status – and status differentiation – becomes. As inequality weakens community life, real knowledge of and interaction with each other is easily replaced by prejudice.

Almost inevitably, people who are made to feel inferior will sometimes try to regain a sense of themselves by asserting their superiority over more vulnerable rivals for status – "the captain kicks the cabin boy and the cabin boy kicks the cat". People who feel humiliated may try to regain status by asserting their superiority over more vulnerable groups such as ethnic minorities.

Differences in skin colour, language, or religion become socially charged when large inequalities in living standards come to be seen as indications of superiority and inferiority. The status competition and struggle for superiority which greater inequality intensifies can make relations between groups increasingly tense.

The widely held desire that children from all social groups should have an equal chance in life reflects the importance of these issues. But it looks, from the little data available, as if wider income differences in a society are strongly antagonistic to equal opportunities. The countries with the widest income differences have the lowest social mobility.[25] And when income differences widened in Britain and the USA, social mobility diminished. It is not simply that the rich always find ways of passing on their advantages to their children. It is also that, as inequality increases the importance of social status, social distances and downward prejudices increase and differences of all kinds (such as skin colour, language, religion, class accent) become markers of social status and likely to attract prejudice.

At a time when governments need to make strenuous efforts to change people's behaviour and the technology on which we all depend in order to tackle challenges such as climate change, the diversity of London's population requires that special attention is paid to creating a more equal and inclusive society less preyed upon by status insecurities. Creating a sustainable society capable of making dramatic reductions in carbon emissions may only be possible if we succeed in engendering a sense of unity round a common purpose in which we all have a valued part to play and in which the burden is fairly shared. This is examined further in the next section.

Part IV: Greater Equality And The Threat Of Climate Change

Climate Change

The Mayor's draft Climate Change Adaptation Strategy sums up the impact of climate change on London:-

"Climate change will mean that south-east England will experience progressively warmer wetter winters, and hotter, drier summers. On top of these changes to our average climate will be an increase in the frequency and intensity of extreme weather events, such as heat waves, tidal surges, storms and heavy rainfall. By the latter part of this century, an extreme weather event of a magnitude that might happen once every 100 years today, may occur every three or four years, and a new intensity will define the once in a 100 years event. Sea levels will continue to rise for centuries."

These warnings are based on the work of the Intergovernmental Panel on Climate Change (IPCC) and endorsed by the UK Climate Impact Programme. IPCC brings world scientific expertise together to hammer out what is happening and what are the likely consequences. They test the evidence, study world records of temperature and rainfall, analyse the composition of air trapped in ice cores from thousands of years ago, study changes in ice and snow coverage recorded by satellites, and feed the data into different computer models of climate systems. They test to see how sensitive the models are to changes in the data or assumptions and check whether different models produce different predictions or whether they converge on the same conclusions. Finally they give measures of how much confidence can be placed in each aspect of their predictions.

Global warming and climate change are not simply predictions about the future: they are observations of what has been happening and how the rate of change is increasing. Measurements of air composition show accelerating increases in levels of greenhouse gases. The pace of warming has been much faster in the last 50 years than it was in the previous 50. Over the last decade or so sea levels have been rising at just over 3mm a year compared to just under 2mm a year during the last 50 years and ice sheets are melting increasingly rapidly. Eleven of the 12 most recent years examined in the IPCC Synthesis Report for 2007 were among the warmest on record since 1850. The target for London of a 60 percent reduction on 1990 levels of carbon emissions by 2025, was set by the previous Mayor, Ken Livingstone,[25] and confirmed by the current Mayor of London, Boris Johnson.[26] A national target for 2050 has been set by the Climate Change Act of 80 percent reduction relative to 1990.

The consequences are serious. The Mayor's Regional Flood Risk Appraisal estimates that the homes of over a million Londoners, over 400 schools and large numbers of railway and underground stations already depend on existing flood defences.[27] The heatwave in August 2003 is estimated to have caused 50,000 extra deaths in Europe.[28] Almost 15,000 of these were in France. In the London region deaths among those over 75 years old (the most vulnerable) rose by almost 60 percent.

The longer we delay reducing carbon emissions the higher the CO_2 concentrations in the climate become and the more devastating their consequences. Already the concentrations of greenhouse gases in the atmosphere far exceed the natural range over the last 650,000 years. The earth's atmosphere now contains 35 percent more carbon dioxide than it did before the British industrial revolution. Even if we stopped all emissions of greenhouse gases immediately, temperatures and sea levels would continue to rise as a consequence of what we have already emitted. There is a real danger that we shall trigger

runaway processes of global warming from first one and then other processes creating feedback loops accelerating the warming process. The sea is already absorbing much less of the carbon dioxide we produce, so making what we produce more damaging. Arctic temperatures have risen twice as fast as the rest of the planet and satellite observations show rapid reductions in the area covered by sea ice in the Arctic and in the amount of permanently frozen ground. Reductions in highly reflective ice and snow cover will increase the amount of the sun's energy which is absorbed rather than being reflected back into space. As melting permafrost allows organic material to decay it will produce vast quantities of methane, which has particularly powerful greenhouse effects. And as tropical forests, which hitherto have been too wet for major forest fires, become drier, these carbon sinks may release vast quantities of stored carbon into the atmosphere.

Climate change affects us all. The elderly will not escape it because they are the most vulnerable to changes already happening such as heatwaves and other challenges. By the time today's middle aged have become old, all the effects of global warming will have intensified. And today's younger people will have to cope with the most dramatic consequences of climate change and rising sea levels in the future. Many babies being born now are likely to live into the 22nd century. They will look back over half a lifetime at the consequences of whether or not we met the targets for 2050.

greater equality also leads people to treat environmental issues more seriously

More Equal Societies are Greener

As well as helping to reduce consumerism, strengthening community life and enabling societies to respond more cohesively to crises, evidence shows that greater equality also leads people to treat environmental issues more seriously. Because community life is stronger and people trust each other more in more equal societies, they also seem to be more public spirited and more willing to work together towards shared objectives. The conflict between self and society is perhaps less stark and people are more likely to do things they feel are for the public benefit. Support for environmental policies is a sensitive indicator of the balance between feeling that life is about the pursuit of self-interests in opposition to the wider society, and the pursuit of common interests. Based on data from the World Economic Forum, Figure 25 shows that business leaders in more equal countries regard complying with international environmental agreements as more important than do their counterparts in less equal societies. Believing that it is important to comply with international environmental agreements is of course essential if the world is to respond adequately to the challenge of climate change.

Figure 25. Business leaders in more equal countries give a higher rating to the importance of complying with international environmental agreements.

(Reproduced with kind permission of De Vogli R, and Gimeno D.)

Figure 26. More equal countries recycle a higher proportion of waste materials

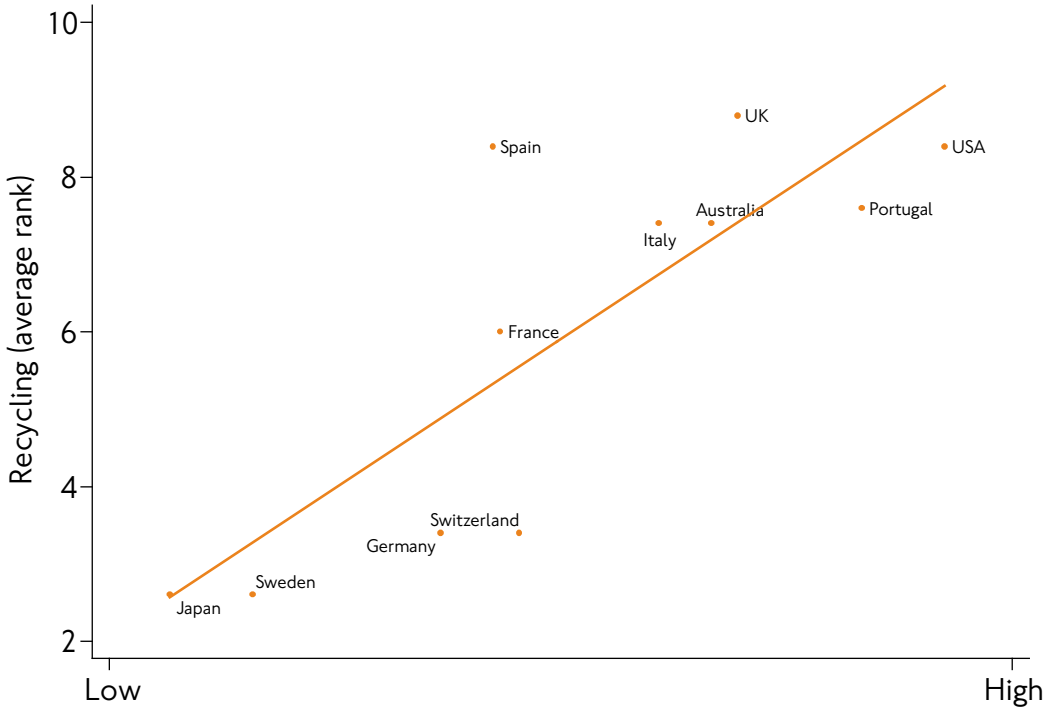
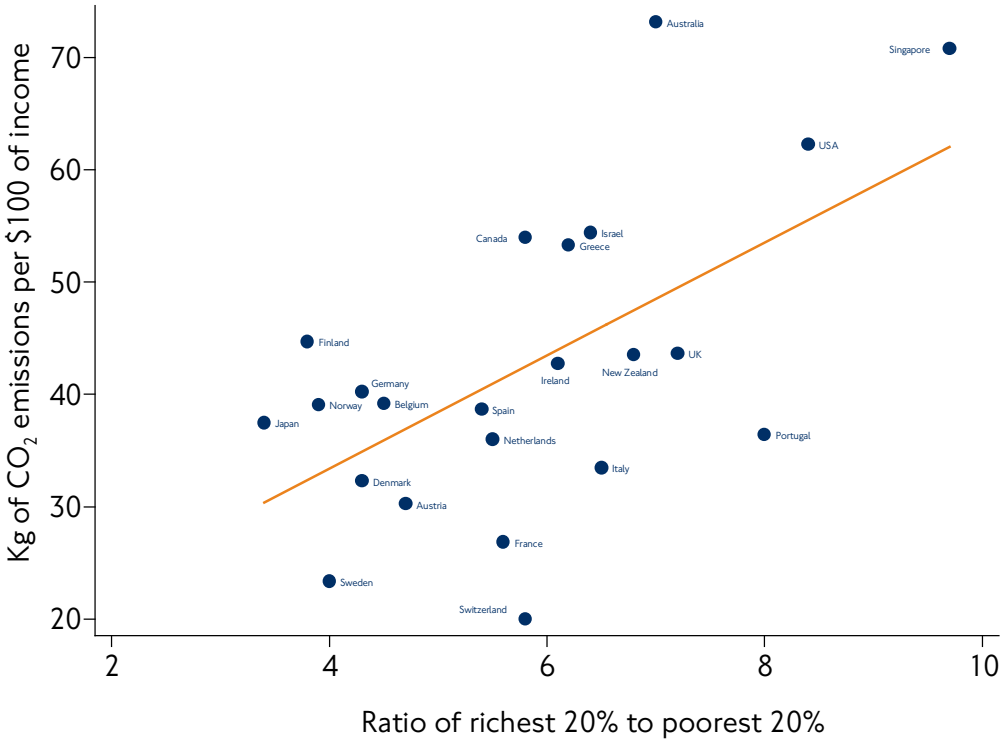


Figure 27. More Equal Countries Produce Less CO_2 per $100 of Income



Evidence that smaller income differences may make societies more responsive to environmental issues is presented in Figure 26, which shows that people in more equal societies recycle a higher proportion of waste materials (here lower rank indicates a higher recycling rate). In addition, Figure 27 shows that more equal countries produce less CO_2 per $100 of income. In this case however, these figures for the year 2000 are almost certainly too early to be an indication of the effect of environmental consciousness on policy. It is instead likely to reflect social effects of inequality: people in more equal countries may be less likely to drive large uneconomical cars, more likely to use public transport, and perhaps less likely to live on their own so incurring higher costs per head of lighting, heating and cooling.

An Allegory of Two Cities in Crisis

A reduction in carbon emissions as large as the 60 percent reduction by year 2025, to which the Mayor has committed London, requires such rapid changes in energy use, technology, the economy and behaviour, that it has been suggested that it needs to be pursued with something like the seriousness and shared sense of purpose which, in the Second World War, enabled us to convert the economy from peace time production to the manufacture of armaments and other war supplies, and pursue the war effort. Whilst portraying, however simplistically, two very different scenarios in very different times, the story outlined below provides some interesting analogies.

As well as the personal sacrifices during the conflict, the war was a period of great practical hardship and privation for everyone: taxes rose steeply to pay for the war, luxury goods became scarce, levels of material consumption went down, and resources for everything from house building to medical care were hugely overstretched. But the period is remembered for the extraordinary sense of camaraderie and unity as people helped

each other out - an experience which, to this day, inspires a deep sense of nostalgia.

Perhaps this nostalgia depends on filtering memories through rose tinted spectacles so that the hardships are forgotten. But the health record suggests otherwise. Health reflects physical, social and emotional wellbeing and in the decades containing each of the World Wars, life expectancy increased more than twice as fast as in any other decade of the twentieth century. Instead of the normal gain of two or three years life expectancy each decade, which was the norm for peace time of the twentieth century, the decades containing the first and second World Wars see increases in life expectancy of 6-7 years.[29]

London's wartime experience is a story of a society which managed to pull together and respond well to a crisis. The response of New Orleans to hurricane Katrina provides a very different example of how a society might respond to a crisis - albeit a very different kind of crisis. The response to the hurricane reflected the deep divisions in the society. As much as the devastating flood damage itself, what caught the attention of the world's media was the extent of social breakdown and the remarkably dysfunctional response of the authorities. Rather than bringing in supplies and mounting an efficient rescue operation for people marooned and without food, armed troops were sent in by boat to look for looters. The lack of empathy between the authorities and the frequently poor black citizens meant the response could hardly have been more dysfunctional. But the failures predate the hurricane itself. The disaster was made substantially worse than it need have been by a long-term failure to provide adequate public funding to maintain the levees. The priority given to private expenditure meant that there was a long standing reluctance to raise the tax revenues necessary to provide better protection.

The explanation of the differences between how these two cities responded to crises reflects one crucial underlying difference between them. The wartime sense of unity did not just happen: it was deliberately fostered by government policy. Richard Titmuss, the founding father of the academic discipline of social administration, writing about war and social policy said: "If the cooperation of the masses was thought to be essential (to the war effort), then inequalities had to be reduced and the pyramid of social stratification had to be flattened." [30] The sense of unity and social cohesion were fostered as an essential contribution to the war effort. Rather than being merely an automatic reaction to the fact of a common enemy, the sense of pulling together, of shouldering a shared burden, was underpinned and encouraged by a raft of egalitarian policies.

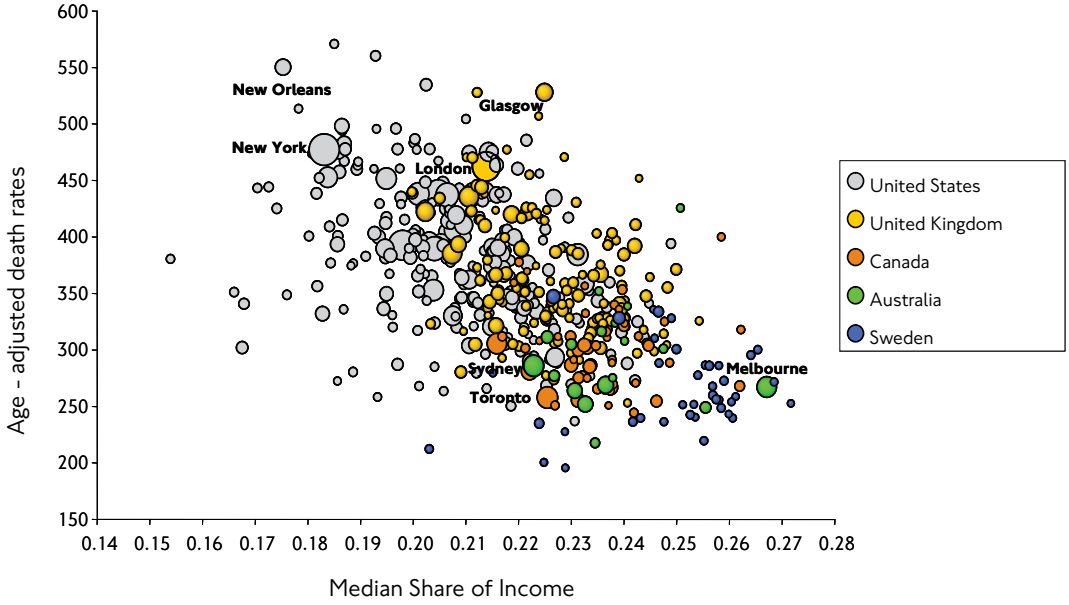
Britain became a more equal society. As well as reductions in pay differences, luxuries were taxed and necessities were subsidised. Taxes were made much more progressive and the war effort virtually abolished unemployment. The benefits of greater equality are shown by the fact that health improved fastest in the poorest areas. To have commissioned in 1941, the year after Dunkirk and one of the darkest periods of the war, the Beveridge report, which held out the promise of social policies which would defeat the 'Five Giant Evils' of Want, Disease, Ignorance, Squalor and Idleness, is a particularly clear indication of the government's strategy for gaining popular support for the war effort.

In contrast, New Orleans is (in terms of the scale of income differences between rich and poor) amongst the most unequal cities in the USA, which in turn, is almost the most unequal of the rich developed market democracies. People have often

believed that inequality was divisive and socially corrosive. Modern research now bears that out - community life is weaker in more unequal societies; people are less likely to feel they can trust each other and violence becomes more common. At bottom, a sense of interdependence and mutuality gives way to a feeling that we have to fend for ourselves in competition with each other.

Figure 28 Death rates of working age men and women are lower in more equal cities.

(Source: Ross N, Dorling D, Dunn JR, et al., Journal of Urban Health 2005; 82(1): 101-110. Redrawn with kind permission.)



Source: Ross N, Dorling D, Dunn JR, et al., Metropolitan income inequality and working age mortality: A five country analysis using comparable data. Journal of Urban Health 2005;82:101-110.

Using data for 528 cities in the USA, Britain, Australia, Canada and Sweden, Figure 28 shows the well-established tendency for more equal societies to have better health.[31] Inequality is shown in relation to death rates of men and women of working age (25-64 years old). It shows that in cities such as Melbourne, where income differences are smaller, death rates are lower than in cities such as New York or New Orleans which have much bigger income differences.

New Orleans has amongst the biggest income difference between rich and poor and has almost the highest death rate of any city in Figure 28. Research has repeatedly shown that friendship, involvement in community life, and greater equality are all highly protective of health. That was an important part of the reason why health in Britain improved so much faster than usual through the war period. Similarly, New Orleans' dysfunctional response to hurricane Katrina was almost certainly a reflection of its high levels of inequality and the harmful effects that has on trust, community life and violence.

The difference between New Orleans' response to the hurricane and Britain's war time experience has obvious relevance to the ability of a society to respond to almost any kind of crisis - whether the problems of adapting to peak oil, or the threats posed by climate change and the need to reduce carbon emissions, or even to financial crises. It will

be crucial to governments wishing to gain public cooperation and support in the fight against global warming. Perhaps what is hardest about reducing carbon emissions is that although it does not mean lowering the real quality of life, it does require us all to make material changes, or even sacrifices, for the common good - for the good of humanity and the future of the planet. Thinking narrowly in terms of individual benefits, each person may see their own contribution to reducing carbon emissions as a drop in the atmosphere making next to no difference. So according to the maximising behaviour emphasised in so much economic theory, the rational course for each person is to try to escape the material sacrifice and avoid changing their own behaviour as much as possible. Like trying to avoid paying VAT or income tax, we could treat government measures to reduce carbon emissions - such as carbon taxes, inducements to turn our heating down, to use public transport, to fly less, to eat less meat, simply as more regulations to be circumvented by whatever means possible. Similarly we could also support strident media campaigns opposing any policies which might mean paying more. If we continue to feel we have almost a duty to avoid doing our bit and paying our share, then the world will pay the price.

Rather than simply having green taxes on energy which everyone pays equally, governments need first to create a society in which people regain a sense of community, shared purpose and common interest. If the rich are able to buy their way out of trouble and maintain lifestyles which produce ten times the emissions of the poor, then the rest of the population will feel they have a right to get round the regulations as best they can.

Changes in Inequality

This report has shown that there are powerful social and environmental reasons for reducing the scale of income differences in society. To achieve sustainability we must become less unequal. Although it is not the purpose of this report to suggest how income differences can be reduced, it may be helpful to point out how dramatically income differences have changed in Britain during recent decades.

To achieve sustainability we must become less unequal

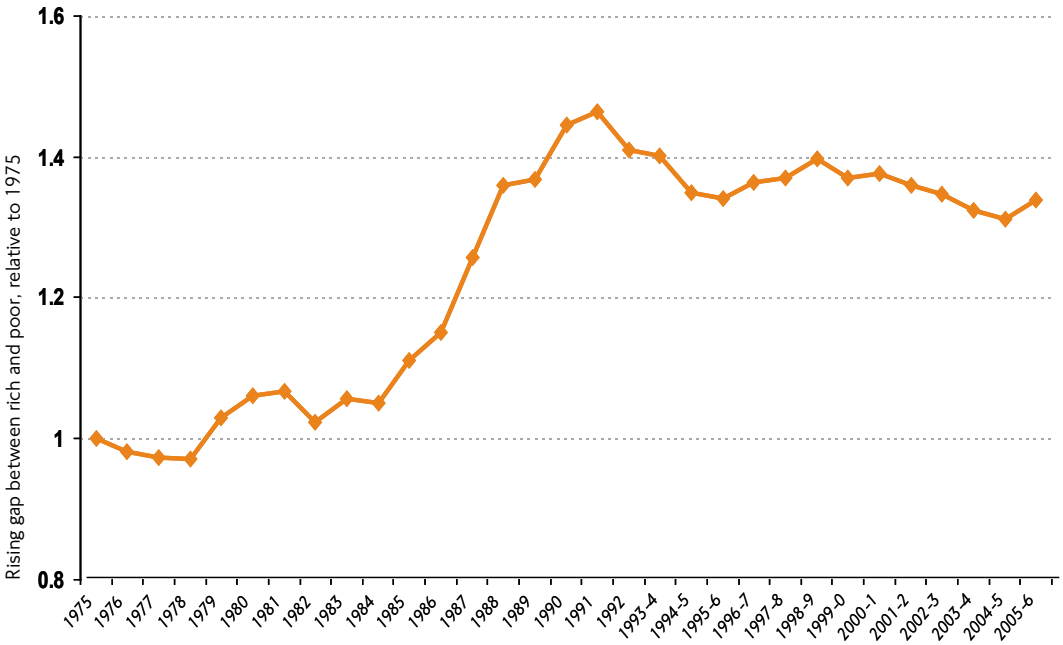
Inequality increased particularly rapidly from the mid 1980s. By the early 1990s a major step change to a new and much higher level of inequality had occurred. Since then changes have been fairly minor (Figure 29) and none of the earlier rises in inequality have been reversed. Many of the adverse changes experienced in British society over the last two decades are likely to be the long term consequences of that widening.

If income differences can widen, they can also narrow. Governments in most of the rich market democracies control close to 40 percent of all economic activity and so can hardly avoid influencing the spread of large and small incomes. Indeed, there are many different ways of increasing equality. Income distribution will be affected by taxes and benefits, by education policies, by minimum wage legislation, by trade unions, by the levels of unemployment which are tolerated, by taxes on unearned incomes, by how company directors are chosen and who they are responsible to. More equal societies

More equal societies have gained their greater equality through dramatically different routes

have gained their greater equality through dramatically different routes. Some have used large-scale redistribution of income through taxes and benefits. Others have developed smaller differences in earning before taxes and benefits and done very much less redistribution. The best policies will differ from one society to another and from one period to the next. The role of this report is to point out the need for greater equality. How it should be achieved will be the focus of further LSDC work.

Figure 29. Trends in Income Inequality in the UK 1975-2006 (1975=100).



Conclusions

The research evidence brought together in this report leads to four main conclusions:-

1. Economic growth in the rich counties has ceased to be a reliable source of higher standards of wellbeing. Indeed, many countries achieve levels of life expectancy similar to those in Britain but at a fraction of our levels of per capita national income and emissions. This implies that, even on the basis of current technology, we could make very substantial reductions in carbon emissions without reducing the quality of life.

2. The high rates of many social problems in London, and Britain more widely, are directly attributable to the scale of inequality and would be reduced if inequality was decreased. If inequality was reduced simply to the average of other rich developed market societies it would dramatically reduce the burden of a wide range of health and social problems including violence, mental illness, teenage births, drug abuse, mistrust and obesity. At the same time we would enjoy a more cohesive society with stronger community life. If inequality was reduced further, to levels as low as those enjoyed by Japan, Sweden, Norway and Finland, our society would be transformed. And it would be transformed not just for the poor, but for the vast majority of the population.

   Putting this together with the first point (above) means that future improvements in the quality of life now depend more on narrowing income differences than on economic growth.

3. Greater equality also has a major role to play in facilitating the shift to a low carbon economy. Consumerism is probably the single most important threat to sustainability in the rich countries. The pressure to consume is substantially increased by inequality because inequality increases status competition. The importance of status competition as a driver of consumption explains why, although everyone wants higher incomes, economic growth is a zero-sum game, no longer producing benefits to society as a whole.

Even on the basis of current technology, we could make very substantial reductions in carbon emissions without reducing the quality of life

4. Ultimately, the achievement of a low carbon, sustainable, society depends on people's willingness to act for the common good. It is threatened by private greed, short-termism and sectional interests. Greater equality strengthens community life, public spiritedness and trust, while weakening individual status competition. As a result, greater equality seems to make people more willing to respond to environmental goals. More equal countries recycle more of their waste and put more emphasis on their government's compliance with international agreements to protect the environment.

This evidence demands a change in everyone's mindset - public and politicians alike. Rather than thinking there are no solutions, we need a change of direction inspired by a clear view of our objectives.

Our arrival simultaneously at the end of the real social benefits of economic growth and

at a recognition of the need to reduce carbon emissions is an opportunity to pull ourselves out of an antisocial consumerism - and dependence on 'retail therapy' - and improve the quality of the social and natural environment. This is the essence of achieving sustainable development. Rather than continuing to define the quality of our lives in exclusively material and asocial terms so that the need to reduce carbon emissions is perceived as a threat, we can now see how societies can respond to climate change whilst making qualitative improvements in happiness, wellbeing and in the social functioning of our societies.

Greater equality also has a major role to play in facilitating the shift to a low carbon economy

Almost everyone regrets the weakening of community life and would prefer a friendlier and safer society. But because we have failed to understand the social processes driving us, we fail to recognise that a better society is within our reach and continue living with the oppressive belief that social and environmental problems are insoluble.

Achieving sustainable development requires gaining enough confidence in our understanding of the interrelated issues not only to believe that we can create a friendlier and more cooperative society, but to actually begin making the necessary changes to make society more equal. Now that everyone's material needs can so easily be satisfied it has become much easier to create a society which is also capable of satisfying our social needs. We now know that there are clear policy levers affecting the psychosocial wellbeing of whole societies. The scale of material inequality in a society is, in effect, the foundation on which the quality of social relations is built. The inequality and status insecurity which add to the pressure to consume are the enemies both of the environment and of a just and socially fulfilling society.

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Appendix I: Sources for Figures

Figures 1, 2, 4, 6, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 22, 26
Wilkinson R, Pickett K. The Spirit Level: why more equal societies almost ´always do better. London: Allen Lane, 2009.

Figure 3
Marks N. Measuring what matters: assessing people's quality of life and well-being across Europe. London: New Economics Foundation, 2005.

Figure 5
Bowles S, Park Y. Emulation, inequality, and work hours: was Thorsten Veblen right? The Economic Journal 2005;115:F397-F412.

Figure 7
Developed for this report using data on life expectancy at birth for men and women from the 2004 United Nations Human Development Report and CO_2 emissions data from the World Bank, World Development Indictators database

Figure 16
Leon DA, Vagero D, Olausson PO. Social class differences in infant mortality in Sweden: comparison with England and Wales. British Medical Journal 1992;305(6855):687-91.

Figures 19, 20, 21, 22, 23, 24
See Appendix II

Figure 25
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Figure 27
Developed for this report using data on CO2 emissions data from the World Bank, World Development Indictators database, and data on income per capita and income inequality from the United Nations Human Development Reports

Figure 28
Ross NA, Dorling D, Dunn JR, Henriksson G, Glover J, Lynch J, et al. Metropolitan income inequality and working-age mortality: a cross-sectional analysis using comparable data from five countries. Journal of Urban Health 2005;82(1):101-10.

Figure 29
Brewer M, Goodman A, Muriel A, Sibieta L. Poverty and Inequality in the UK: 2007. Institute of Fiscal Studies, London.

Appendix II: Sources of data

Component	International data	London
Trust	Percent of people who respond positively to the statement "most people can be trusted" 1999-2001 World Values Survey[1] *Reverse-coded*	**For Greater London only:** Percent of people who respond positively to the statement "most people could be trusted" 2004/5 General Household Survey [(1)]
Life expectancy	Life expectancy at birth for men and women 2004 United Nations Human Development Report [3] *Reverse-coded*	Life expectancy at birth for men and women 2005-7 ONS[(2)] *Reverse-coded*
Infant mortality	Deaths in the first year of life per 1000 live births 2000 World Bank [5]	Deaths in the first year of life per 1000 live births 2006 ONS [(3)]
Obesity	Percentage of the population with BMI > 30, averaged for men and women 2002 International Obesity TaskForce[7 8]	Model-based estimates of obesity 2003-2005 NatCen[(4)]
Mental health	Prevalence of mental illness 2001-2003 WHO [10]	Proportion of people predicted to have CIS-R score of 12+ Centre for Public Mental Health[(5)]
Education	Combined average of maths literacy and reading literacy scores of 15-year olds 2000 OECD PISA [12] *Reverse-coded*	Percent of 15 year old pupils achieving 5+A*-C grades at GCSE 2007/8 DCSF[(6)] *Reverse-coded*
Teenage birth rate	Births per 1000 women aged 15-19 years 1998 UNICEF [15]	Births per 1000 women aged 15-17 years 2006 ONS[(7)]
Homicides	Homicide rate per 100,000 Period average for 1990-2000 United Nations [17]	**For Greater London only**: Homicides per million 2006/7 Home Office[(8)] **For boroughs**: Violent crimes against the person per 1000 2007-8 Home Office[(9)]
Imprisonment	Log of prisoners per 100,000 United Nations [17]	N/A
Social mobility	Correlation between father and son's income 30-year period data from 8 cohort studies London School of Economics [20]	N/A

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請致電以下號碼或與下列地址聯絡

Hindi

यदि आप इस दस्तावेज की प्रति अपनी भाषा में चाहते हैं, तो कृपया निम्नलिखित नंबर पर फोन करें अथवा नीचे दिये गये पते पर संपर्क करें

Vietnamese

Nếu bạn muốn có văn bản tài liệu này bằng ngôn ngữ của mình, hãy liên hệ theo số điện thoại hoặc địa chỉ dưới đây.

Bengali

আপনি যদি আপনার ভাষায় এই দলিলের প্রতিলিপি (কপি) চান, তা হলে নীচের ফোন্ নম্বরে বা ঠিকানায় অনুগ্রহ করে যোগাযোগ করুন।

Greek

Αν θέλετε να αποκτήσετε αντίγραφο του παρόντος εγγράφου στη δική σας γλώσσα, παρακαλείστε να επικοινωνήσετε τηλεφωνικά στον αριθμό αυτό ή ταχυδρομικά στην παρακάτω διεύθυνση.

Urdu

اگر آپ اِس دستاویز کی نقل اپنی زبان میں چاھتے ھیں، تو براہ کرم نیچے دئے گئے نمبر پر فون کریں یا دیئے گئے پتے پر رابطہ کریں

Turkish

Bu belgenin kendi dilinizde hazırlanmış bir nüshasını edinmek için, lütfen aşağıdaki telefon numarasını arayınız veya adrese başvurunuz.

Arabic

إذا أردت نسخة من هذه الوثيقة بلغتك، يرجى الاتصال برقم الهاتف أو مراسلة العنوان أدناه

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਸ ਦਸਤਾਵੇਜ਼ ਦੀ ਕਾਪੀ ਤੁਹਾਡੀ ਆਪਣੀ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੀਦੀ ਹੈ, ਤਾਂ ਹੇਠ ਲਿਖੇ ਨੰਬਰ 'ਤੇ ਫ਼ੋਨ ਕਰੋ ਜਾਂ ਹੇਠ ਲਿਖੇ ਪਤੇ 'ਤੇ ਰਾਬਤਾ ਕਰੋ:

Gujarati

જો તમને આ દસ્તાવેજની નકલ તમારી ભાષામાં જોઈતી હોય તો, કૃપા કરી આપેલ નંબર ઉપર ફોન કરો અથવા નીચેના સરનામે સંપર્ક સાધો.

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