LIFE IN BRITAIN

Using millennial Census data to understand poverty, inequality and place

Technical report

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Summary

This project uses publicly available data from the 2001 Census to address aspects of inequalities in five key themes in the UK at the start of the 21st century: Health, Education, Housing, Employment and Poverty. These are, and have long been, important themes of interest and closely reflect the five 'Giant Evils' identified by William Beveridge (architect of the UK Welfare State): Disease, Ignorance, Squalor, Idleness and Want (Beveridge, 1942). This project provides an illustration, through 10 examples (two for each of the five key themes), of the overall picture of social inequalities in modern Britain. (See 'Areas' on page 4 of this report for our definition of geographical terms.)

The research takes a simple approach: it does not use complex analyses of small areas, it does not conduct international or longitudinal comparisons, nor contain systematic reviews of the literature for the wide subject areas covered. Instead, a selection of data from the Census are used, analysed with simple methods, and areas that are familiar and that have political and social meaning are used. This simple method is adequate to demonstrate that clear and obvious social inequalities in the UK remain to this day.

Introduction

This technical report provides background information and further detail on the analyses presented in the series of 10 reports and five posters, collectively entitled *Life in Britain*. The aim of this report is both to provide enough information to allow the work to be replicated and to demonstrate how all the reports are related. First, the use of the Census to record aspects of life in Britain is discussed. Then it is suggested that the Census can be used to reveal wide social inequalities for which more sophisticated analysis may be unnecessarily complex. Basic inequalities can be made clear to see through simple methods.

The Census is the decade's unique record of the extent to which poverty, work, overcrowding, good health, education and many other aspects of life have become more or less concentrated in particular places in the UK. No other source of information is as comprehensive. Similarly, the Census is the only means of determining whether policies aimed at reducing concentrations of poverty and inequalities in outcome and opportunity in particular places are working. The Census allows us to concentrate on long-term social changes and is a useful antidote to political emphasis on shorter-term evaluation. However, it is used here to simply consider a snapshot in time – to take a social photograph of life in Britain in April 2001. Each report also briefly mentions trends from the past up to 2001 and considers changes since 2001 in order to provide a little context.

Given the advantages of the Census it is surprising that in the past the Census tends to have been used to consider fairly narrow definitions of poverty and well being. People are more usually labelled as 'poor' in the Census if they are seen to lack certain attributes (such as employment or a car), and 'well off' if they have cars, are owner-occupiers or are employed. The most sophisticated work on poverty using the Census, such as the Breadline Britain study (Gordon and Pantazis, 1997), utilises the Census in conjunction with sample surveys to estimate the number of people living in poverty and to illustrate where the poor live. However, even this work only makes use of a fraction of what the whole Census can tell us about poverty, affluence, place and the processes that link them, and many other aspects of life in Britain.

Background

Previous work on the Census in Britain has tended to concentrate on aspects of poverty – who does not have what, where they are, and how such things are changing. To be poor is not to have, or not to have access to, certain things (possessions, resources and opportunities) that are increasingly seen as essential for a 'reasonable' standard of living. Money is the most obvious of these but the Census does not ask about income or wealth. What the Census does do well is to record where many of the possessions, resources and opportunities actually are which the poor are often claimed to lack. This project examined five themes of general resources and opportunities that the poor are often claimed to be lacking, each associated with one of the five great evils (see page v): employment opportunities, healthcare, housing provision, material needs and good education. Two reports were produced on each of these five themes. For each report, the Census was used to determine where these resources and opportunities are most highly concentrated.

There is plenty of research to show that good jobs, healthcare, better housing, material wealth and educational opportunities have been slowly and steadily moving geographically away from poor areas to concentrate in rich places. However, the concentration of research efforts on poor people and poor places has partly obscured our understanding of the processes that actually create poverty and maintain poor places. The Census counts everybody. It can be used to see a fuller picture. Without this fuller picture some of the processes by which poverty and affluence become concentrated in particular places are missed. The Census has already revealed that the relationship between the age structure of the population, and where people live within Britain, has been changing and that inequalities between richer

and poorer people and places have grown (Dorling and Rees, 2003; Ballas, 2004; Boyle et al, 2004; Thomas and Dorling, 2004). The 2001 UK Census also updated our understanding of the population of the UK and contained several new questions. As more research on the Census takes place, it will change our understanding of society in this country. Even its basic count of the population revealed that a large group of mainly young men who were born in Britain and who were previously assumed to have been living here have actually left the country. The Key Statistics, released in February 2003, showed that Britain had polarised socially by area almost as much in the 1990s as it did in the 1980s (Dorling and Rees, 2003).

This project reveals the broad locations, circumstances and number of the most disadvantaged in society by contrasting the opportunities and resources to which they have access with those owned by, and available to, the more advantaged. The research uncovers the geographical relationship between poverty, affluence and area. It differs from work on 'deprivation indices' because it takes focused examples of the relationship between need and supply for very specific services or opportunities, rather than combining multiple indicators of circumstances that 'suggest' poverty. In simple terms, this work is about providing real examples of the different worlds in which the 'haves' and 'have nots' live in Britain.

Themes

The project has five main themes that are centred around the relationships between the need for, and the supply of, opportunity and resources. Where the supply of something is in proportion to – and meeting – need, the relationship between them is said to be 'positive'. However, when the availability of a resource or an opportunity is the opposite of the need for it (that is to say, where there is a great need for something yet it is hard to find or obtain, or where there is little need for it, but it is available in abundance), that relationship is said to be 'inverse'. A well-known example of an inverse relationship is called the inverse care law – first suggested by Tudor Hart in 1971 (Tudor Hart, 1971). He proposed that medical services are distributed inversely to population health needs, and that this law operates more completely where medical care is most exposed to market forces (see Shaw and Dorling, 2004). For each of

the five themes, two reports consider different aspects of the relationship between supply and demand for resources and opportunities, and their geographies.

The five themes covered in the 10 reports and five posters this report supports are:

1) Health and care: the availability of health professionals and informal carers to ill people, updating Tudor Hart's study of the 1970s.
2) Education: young people's qualifications, the educational attainment of people in their parents' generation and the availability of teachers.
3) Housing: overcrowding, underoccupation, the prevalence of second residences and households that might be having difficulty getting on to the property ladder.
4) Employment: employment in well-rewarded high-status jobs, the distribution of skills, unemployment and people working long hours.
5) Poverty: the potential need for, and possible excess of, access to cars, the distribution of families with no working parent and young people providing informal care.

Methods

Simple quantitative methods are used for this project. Correlation coefficients are the most complex of the methods employed (and even they are only shown in this technical report, rather than in the 10 main reports). There is no need for complex models or analyses, given how strong and understandable many of the basic inequalities are. Graphics and maps are used throughout to illustrate findings. A crucial aspect of the project is the use of contemporary photography to bring life to the findings.

Sometimes those working with geographical areas are criticised for assuming that the findings for an area as a whole can be applied to all the individuals living there. This is called the ecological fallacy. However, working with the Census means that the information that almost everyone in each of the areas gave is being used. It also known from many other studies that the impact of the ecological fallacy is easy to over-estimate and that working in this way also avoids the (less well-

known, but equally pernicious) atomistic fallacy. That is, where studies of individuals, rather than groups, leads to incorrect generalisations. The methods used here are appropriate for the purpose of the study.

The methods used in each report are broadly the same. The characteristics, opportunities and resources representing the 'supply and demand' of interest are selected. Appropriate Census data are extracted from the Census database and the distribution is explored using maps, graphs and charts. In determining which are the most appropriate data to use, the authors have often had to fall back on their experiences of working with the three Censuses before 2001. Thus their findings will be both influenced by, and may benefit from, their past work. The results are then commented on and illustrated with photographs and a discussion of contemporary trends.

Each report also contains an illustrative section on circumstances '100 years ago'. This section is intended to provided some historical context – where possible relevant information from the 1901 Census is included, otherwise other pertinent information from around that time is briefly mentioned. Although Censuses have been conducted since 1801 in the UK, these earliest surveys were only really population counts, and it is only since late Victorian times that poverty has featured prominently on the social and political agenda.

2

Technical details

Census data

The Census is the only means of assessing the socio-demographic make-up of (almost) the entire population of the UK. New systems to try and capture absolutely everyone and adjust the figures to estimate who was missed mean that the 2001 Census is the most complete and accurate social survey dataset available in Britain. However, it does not actually give very much detail on individuals or households because the Census takers promise that no one individual or household will be identifiable within the data they publish. That is why all of the analyses carried out for this project are 'ecological'. They compare groups of people, or areas, rather than individuals. The reports compare rates or percentages of the population with particular characteristics across areas of the country.

The Census database stores data via a system of data tables and table cells. The tables used to derive each variable selected for each report are given in Chapter 3. Chapter 3 also details the exact Census table cell references used to derive each variable. The tables can be obtained from the statistics agency for each country:

- England and Wales: National Statistics (www.statistics.gov.uk)
- Scotland: General Register Office for Scotland (www.gro-scotland.gov.uk)
- Northern Ireland: Northern Ireland Statistics and Research Agency (www.nisra.gov.uk).

As described above, the quantity of data analysed here and in previous work is vast, and yet it is only a small fraction of the Census dataset. Selection was made on the basis of keeping the analysis as simple as possible, using measures that are quite easy to understand and have direct relevance to the five key issues addressed, and given the authors' past experience of working with these data. The authors have no great concerns over the quality of the Census data that is far better than all other surveys (as they rely on it!) and recent Censuses (as they were not corrected properly for missing people).

Areas

Much has been made of the area-based nature of this research and here the authors explain what areas they use throughout this work. All reports in the series analyse data for counties, unitary authorities, former metropolitan authorities, council areas (in Scotland) and Northern Ireland as a whole. These areas were used in these analyses to provide a geographical framework of largely self-contained units with relevance and familiarity to non-specialist audiences. The areas were chosen for being familiar, with relevance to administrative units and to highlight national and regional rather than local (within city) divides. For convenience the terms Britain and the UK are used interchangeably throughout this report. Although the former term does not include Northern Ireland, the province is included wherever possible in the research.

As stated in the Summary, no complex small area analyses are carried out. Instead, the research is conducted at a spatial scale that has relevance to policy setting at local, regional and national (rather than micro/ neighbourhood) levels. In many cases, the neighbourhood level would be too small, given that the authors discuss and analyse housing and job markets that operate across larger geographic areas. The availability of certain professionals (such as doctors) based on residential location is investigated, and the use of small-area data here would invalidate the analysis due to commuting patterns. The use of the former metropolitan authorities means that the large conurbations are considered in their entirety, rather than dividing them up along rather arbitrary political boundaries. In practice, given how clear many of the patterns are, the use of slightly different areas would have little impact on the results. The use of the formal administrative boundaries also means that the Census data used for the analyses can easily and precisely be identified, but the analyses could be replicated at any geographic scale.

Cartograms and maps

Cartograms as well as maps are used to show the spatial distribution of inequalities. A cartogram is an alternative way to represent a set of areas. Instead of representing the physical boundaries of areas, the cartograms show areas defined in proportion to some variable of interest. The counties and unitary authorities used in the analyses here are represented using a cartogram where the area is approximately proportional to the 2001 population. The cartogram is useful because it allows us to see the areas which are physically small, but which have large populations in them (such as cities). They also serve to de-emphasise rural areas that may be physically very large, but relatively small in population terms.

All of the maps presented in the reports and posters use an automated classification scheme based on Jenks' 'natural breaks' method (Jenks, 1977), available as standard in most geographic information system (GIS) software packages (ESRI, 2002). This method of classifying the data minimises variation within classes across the range of the data. While other classification schemes could have been applied here, the use of a single automated system across the series means that the maps have not been individually manipulated to produce any particular representation of the data. In short, if you were to download the data used for the standard geographies and were to then map them using the industry standard software package and the standard classification method employed, you would produce identical maps and cartograms to those shown throughout this work.

The cartogram 'shape files' are available from www.shef.ac.uk/sasi. Figure 1 provides a key to the cartograms used in all of the reports. Note that on the cartogram, the largest areas are the West Midlands, Greater Manchester, West and South Yorkshire former metropolitan counties, London, Glasgow and Northern Ireland. The smallest are the island communities of Orkney and Shetland. All of the areas very roughly equate to housing and labour markets, and all are familiar.

Figure 2 gives a similar key to the geographical map boundaries. Note how many areas are hardly visible on this conventional map; there was not even space to add small numeric labels within a number of the areas. Areas where the label has had to be displaced account for a total 2001 population of about three million, yet they are very difficult to see clearly on this map. The cartogram therefore aids interpretation of the geographical patterns described in the reports.

Figure 3 includes cartograms of a selection of variables from the reports. Each cartogram shows a pattern, and these can be summarised as north/south, urban/rural, core/periphery, or a combination of such. The South of England tends to be 'better off' than the North in terms of: population with limiting long-term illness and poor health; car ownership; unemployment; provision of informal care (including that provided by young carers, but with the acknowledgement that having to provide informal care has some positive as well as negative consequences); proportion of well-qualified people in jobs at the top of the socio-economic spectrum; well-qualified population (with the exception of most of Scotland, which also has a high proportion of older people with degrees); and medical practitioner availability. The North is only 'better off' than the South in terms of the availability of nurses, midwives and health visitors, and having fewer people working long hours (with the obvious caveat that a possible lack of full-time work opportunities may also have negative consequences).

Rural areas tend to have lower unemployment than urban areas, and also to have fewer families with dependent children where no parent is in employment. Rural areas also tend to have greater availability of teachers (per head of school-age population) and lower rates of overcrowded housing. However, they also have lower proportions of their well-qualified populations in jobs at the top of the socio-economic classification. The South East (of England) 'core' has greater availability of good jobs than the 'periphery'; more households with multiple car ownership; and fewer people with good qualifications in jobs at the bottom of the socio-economic classification. The 10 reports describe these patterns in greater detail, but Figure 3 gives a broad overview of the major patterns to geographical inequalities in the UK in 2001.

Figure 1: Key to cartograms

Area name	Label
Aberdeen City CA	1
Aberdeenshire CA	2
Angus CA	3
Argyll and Bute CA	4
Bath and North East Somerset UA	5
Bedfordshire County	6
Blackburn with Darwen UA	7
Blackpool UA	8
Blaenau Gwent	9
Bournemouth UA	10
Bracknell Forest UA	11
Bridgend	12
Brighton and Hove UA	13
Bristol; City of UA	14
Buckinghamshire County	15
Caerphilly	16
Cambridgeshire County	17
Cardiff	18
Carmarthenshire	19
Ceredigion	20
Cheshire County	21
Clackmannanshire CA	22
Conwy	23
Cornwall and the Isles of Scilly	24
Cumbria	25
Darlington UA	26
Denbighshire	27
Derby UA	28
Derbyshire County	29
Devon County	30
Dorset County	31
Dumfries and Galloway CA	32
Dundee City CA	33
Durham County	34
East Ayrshire CA	35
East Dunbartonshire CA	36
East Lothian CA	37
East Renfrewshire CA	38
East Riding of Yorkshire UA	39
East Sussex County	40
Edinburgh CA	41
Eilean Siar CA	42
Essex County	43
Falkirk CA	44
Fife CA	45
Flintshire	46
Glasgow City CA	47
Gloucestershire	48
Greater Manchester (Met County)	49
Gwynedd	50
Halton UA	51
Hampshire County	52
Hartlepool UA	53
Herefordshire; County of UA	54
Hertfordshire	55
Highland CA	56
Inverclyde CA	57
Isle of Anglesey	58
Isle of Wight UA	59
Kent County	60
Kingston upon Hull; City of UA	61
Lancashire County	62
Leicester UA	63
Leicestershire County	64
Lincolnshire	65
London	66
Luton UA	67
Medway UA	68
Merseyside (Met County)	69
Merthyr Tydfil	70
Middlesbrough UA	71
Midlothian CA	72
Milton Keynes UA	73
Monmouthshire	74
Moray CA	75
Neath Port Talbot	76
Newport	77
Norfolk	78
North Ayrshire CA	79
North Lanarkshire CA	80
North Lincolnshire UA	82

Area name	Label
North Somerset UA	83
North Yorkshire County	84
Northamptonshire	85
Northern Ireland	86
Northumberland	87
Nottingham UA	88
Nottinghamshire County	89
Orkney Islands CA	90
Oxfordshire	91
Pembrokeshire	92
Perth and Kinross CA	93
Peterborough UA	94
Plymouth UA	95
Poole UA	96
Portsmouth UA	97
Powys	98
Reading UA	99
Redcar and Cleveland UA	100
Renfrewshire CA	101
Rhondda; Cynon; Taff	102
Rutland UA	103

Area name	Label
Scottish Borders	104
Shetland Islands CA	105
Shropshire County	106
Slough UA	107
Somerset	108
South Ayrshire CA	109
South Gloucestershire UA	110
South Lanarkshire CA	111
South Yorkshire (Met County)	112
Southampton UA	113
Southend-on-Sea UA	114
Staffordshire County	115
Stirling CA	116
Stockton-on-Tees UA	117
Stoke-on-Trent UA	118
Suffolk	119
Surrey	120
Swansea	121
Swindon UA	122
Telford and Wrekin UA	123
The Vale of Glamorgan	124

Area name	Label
Thurrock UA	125
Torbay UA	126
Torfaen	127
Tyne and Wear (Met County)	128
Warrington UA	129
Warwickshire	130
West Berkshire UA	131
West Dunbartonshire CA	132
West Lothian CA	133
West Midlands (Met County)	134
West Sussex	135
West Yorkshire (Met County)	136
Wiltshire County	137
Windsor and Maidenhead UA	138
Wokingham UA	139
Worcestershire County	140
Wrexham	141
York UA	142
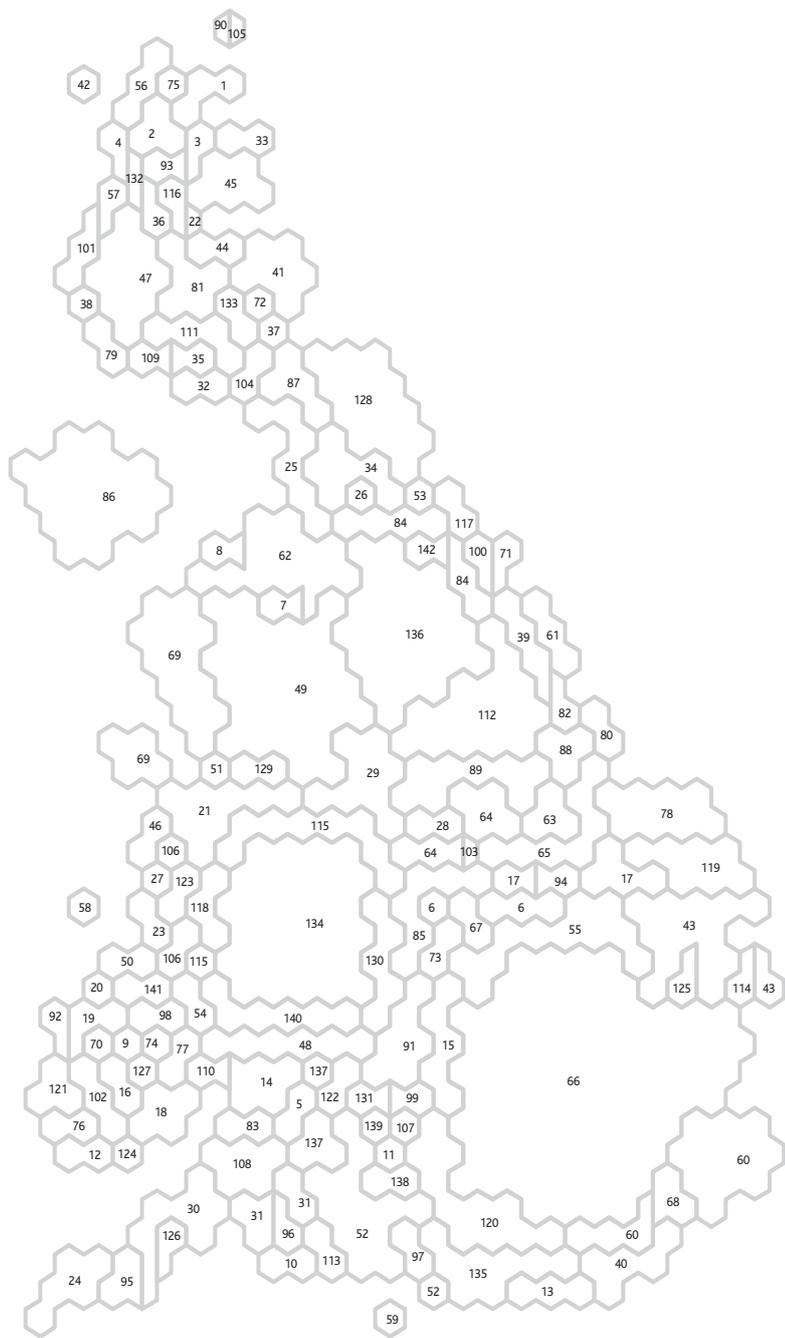
Note:
UA: unitary authority
CA: council area

Figure 2 [For key to maps please refer to Figure 1]
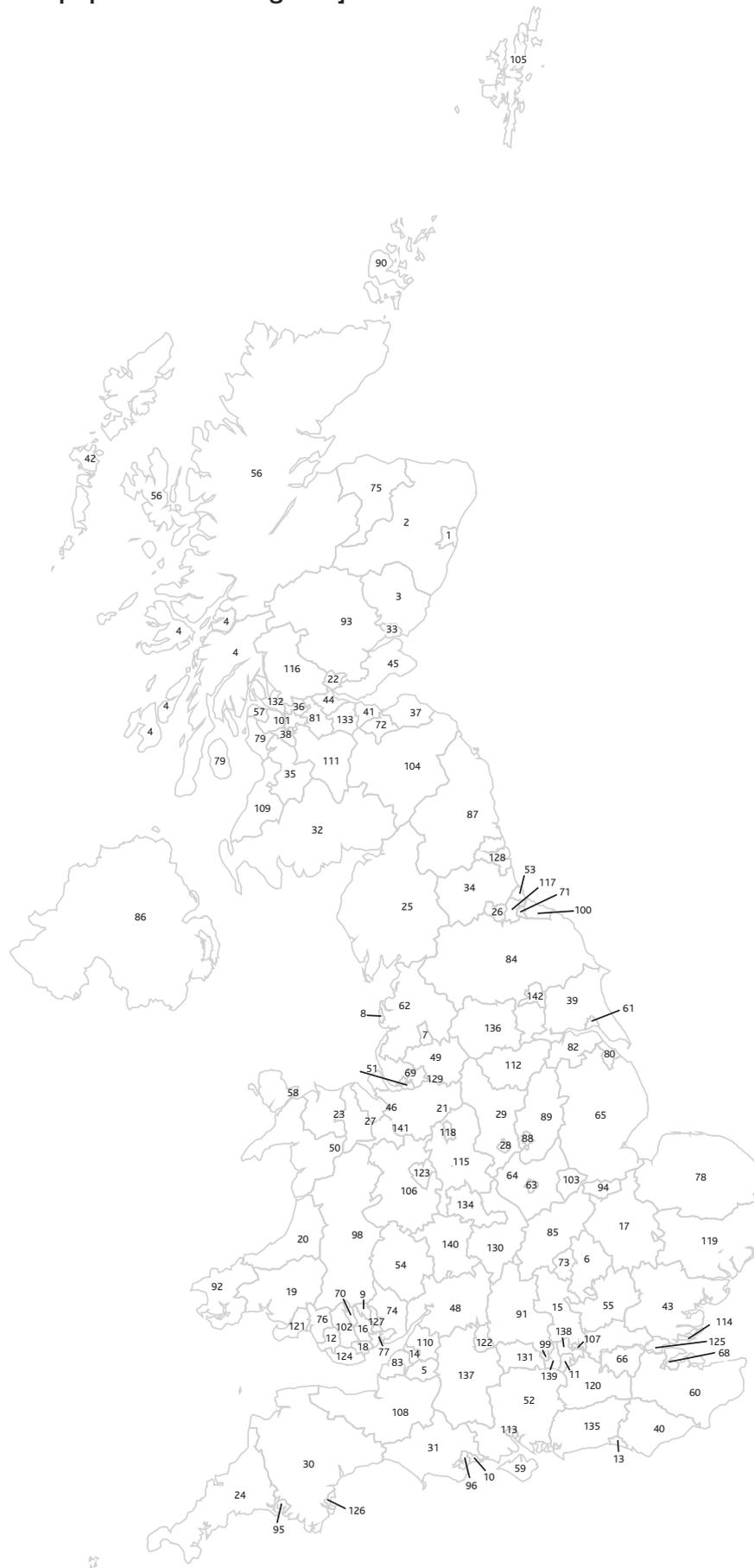
Figure 3: Cartograms of a selection of the variables analysed in the reports (see note on page 9)

Working, qualified nurses, midwives and health visitors per head of population (north/south and urban/rural)

% of population with limiting long-term illness and poor health (north/south)

% of households that have dependent children and no car (north/south)

% of households with more people than rooms (urban/rural)

% of people with good qualifications doing jobs in the lowest levels of the socio-economic classification (core/periphery)

% of population providing 50+ hours of informal care a week (north/south)

% of population aged 30-54 that are unemployed (north/south and urban/rural)

% of parents with dependent children in families where no parent works (urban/rural)

% of 5-17 year olds providing 20+ hours of informal care a week (north/south)

Working, qualified teaching professionals per 100 5-15 year olds in the population (urban/rural)
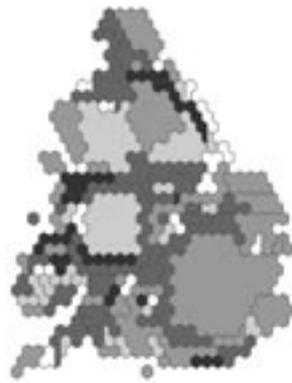
% of households with one or two people living in eight or more rooms (urban/rural)

% of people with good qualifications doing jobs in the highest levels of the socio-economic classification (urban/rural and north/south)

% of employed people aged 30-54 working 49+ hours a week (urban/rural and north/south)
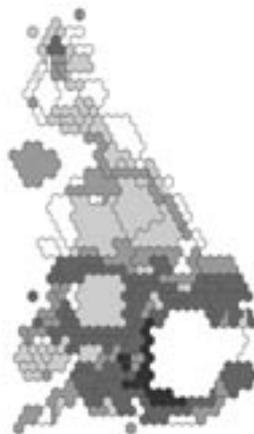
% of households that have three or more cars (north/south and core/periphery)
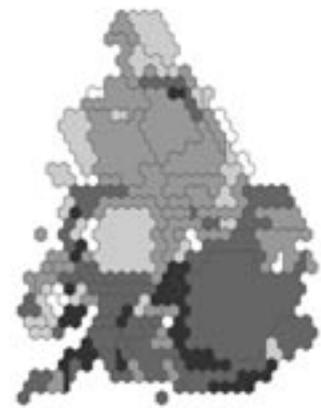
Other qualified health professionals (not doctors, nurses, dentists) per head of population (north/south)

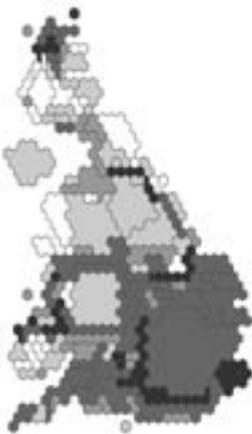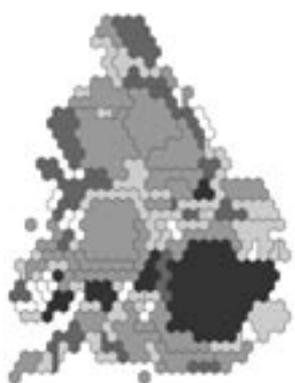Working, qualified medical practitioners per head of population (north/south)
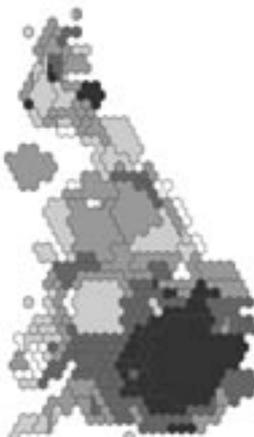
% of population working in occupations in the top levels of the socio-economic classification (core/periphery)
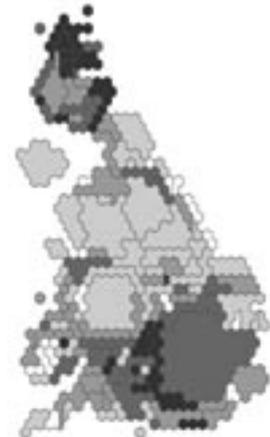
% of 40-54 year olds with degree-level qualifications (north/south excluding Scotland)

Note: In all maps, darker shades indicate higher percentages/rates per head of population. The dominant pattern as indicated in the text is noted for each cartogram.

Correlation coefficients

The correlation coefficient gives a statistical measure of how closely two variables are related. A good way to think about the relationship between variables is to see them on a graph (see Figure 4 for some examples). The correlation coefficient is a numerical way of describing how tightly the points on the graphs fit a straight line. The coefficient gives an indication of the strength of the relationship between the two variables, and a measure of statistical significance can be calculated to indicate the reliability of the coefficient. The coefficient can vary between +1 and −1. A correlation coefficient of +1 indicates a perfect, positive linear relationship between the two variables; −1 indicates a perfect, negative linear relationship and 0 indicates no linear relationship. The correlation coefficient does not tell us anything about the slope of the line – that is, to what degree one variable increases as the other increases/decreases.

Figure 4: Examples of the sign and magnitude of correlation between two variables, X and Y
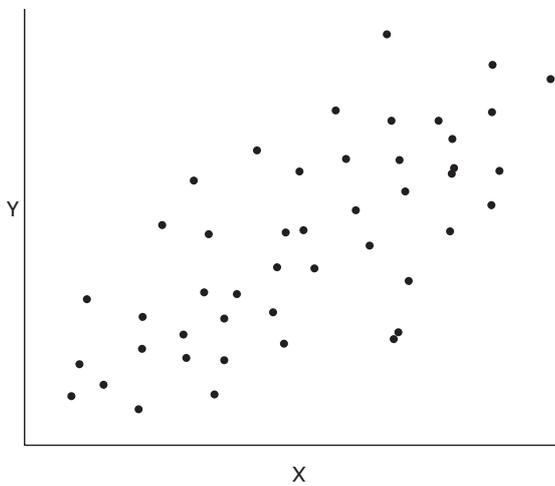
a) Weak/moderate positive correlation – as X increases, Y also tends to increase, but the data points do not lie tightly along a straight line
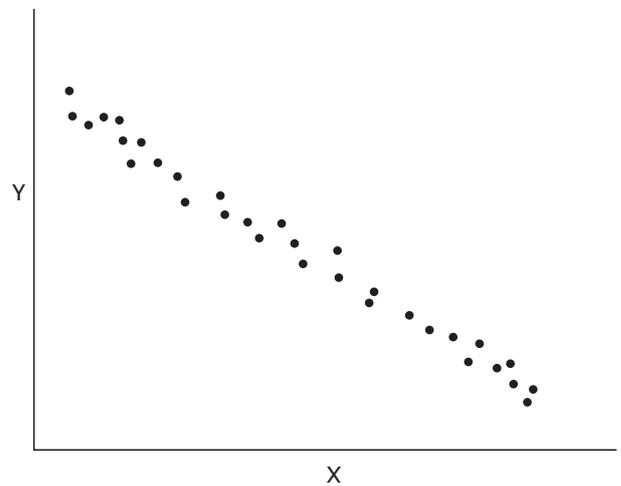
b) Strong negative correlation – as X increases, Y decreases, and all the points lie very close to a straight line (that is, the relationship is almost directly proportional)
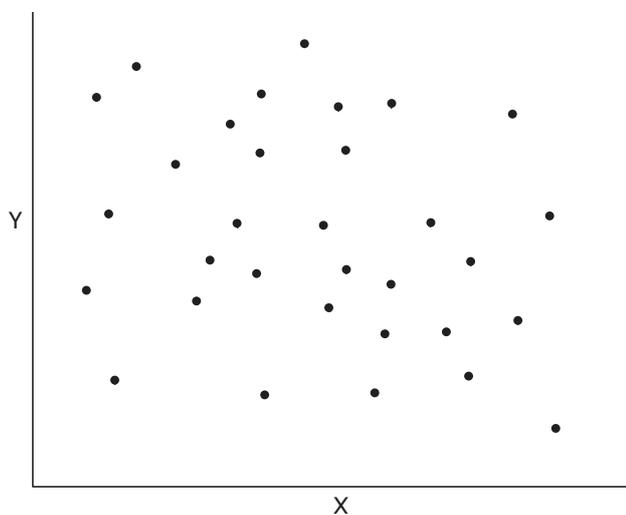
c) No apparent correlation – there is no systematic change in Y with increasing X
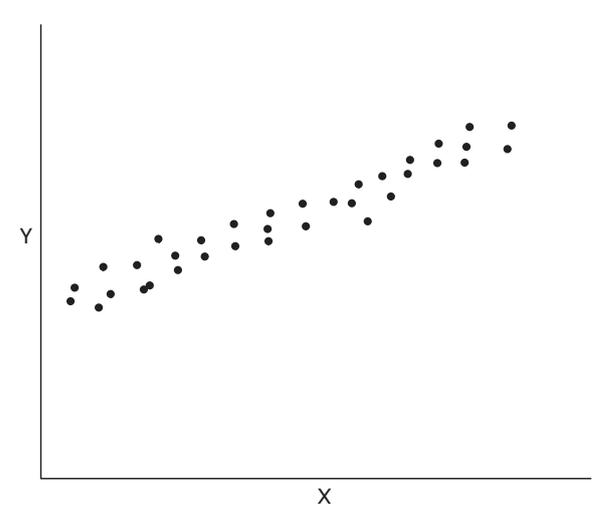
d) Strong positive correlation – as X increases, Y increases

For each of the scatterplots included in the 10 reports, the correlation coefficient and its associated *p*-value have been calculated, and these are listed in Table 1. The *p*-value indicates the statistical significance of the coefficient, and typically *p*-values less than 0.05 indicate that the coefficient is statistically reliable (that is, unlikely to be due to chance variation alone). However, this is simply a rule of thumb, and does not mean that associations that just miss statistical significance are not important or real. In some cases data were not available for all 142 areas (due to differences in the Census in Scotland, Northern Ireland, England and Wales). The coefficients have been calculated on fewer areas in those cases.

The strongest relationship is found in the report *In sickness and in health*, between the percentage of the population with limiting long-term illness and poor health, and the percentage of the population providing informal care for 50+ hours a week. This unusually high correlation coefficient (0.96) suggests an almost perfect proportional association between the proportion of people requiring care, and the proportion providing it outside of the health services. Another very strong correlation is found for the association between the percentage of households with both dependent children and no car, and the percentage of households with three or more cars. In this case, the coefficient is –0.86, a strong negative correlation indicating a geographic divide between households that might be in need of a car, but do not have one, and households that might have an excess of cars.

The weaker correlations are those for associations between the availability of healthcare professionals and the proportion of people with limiting long-term illness and poor health. However, these correlations are still highly statistically significant, and also fit the inverse care law in that the care sectors with the greatest exposure to market forces (that is, the more 'private' sectors) are those with the greatest inverse relationships. This is illustrated by the increasing strength of inverse relationship from doctors to dentists to 'other practitioners' (including complementary/alternative medicine practitioners and so on).

Figures 5(a) to (e) illustrate associations between subsets of the variables using scatterplot matrices. These indicate the direction and the magnitude of the correlations between various pairs of variables analysed in the project.

Title pages of the 10 reports

Table 1: Correlation coefficients for all graphs in the reports

Report	Variable 1	Variable 2	Correlation coefficient	*p*-value	Number of observations (areas)
Doctors and nurses	% of population with limiting long-term illness and poor health	Qualified, practising health professionals per 10,000 population: • medical practitioners • dental practitioners • nurses, midwives and health visitors • other health professionals	−0.22 −0.42 0.31 −0.48	0.022 <0.001 0.0001 <0.001	109 (England and Wales only)
In sickness and in health	% of population with limiting long-term illness and poor health	% of population providing 50+ hours of informal care a week	0.96	<0.001	142
Teachers	% of 17 year old students with no (or unknown) qualifications	Working, qualified teaching professionals per 100 5-15 year olds	−0.51	<0.001	109 (England and Wales only)
Sons and daughters[a]	Scotland: % of 16-17 year olds with Group 1 qualifications Rest of UK: % of 16-17 year olds with Level 2 qualifications	Scotland: % of 40-54 year olds with Group 3/4 qualifications Rest of UK: % of 40-54 year olds with Level 4/5 qualifications	−0.32 0.77	0.076 <0.001	32 110
Changing rooms[b]	% of households with more people than rooms	% of households with one or two people and eight or more rooms	−0.71	<0.001	142
A place in the sun[b]	% of household spaces that are unoccupied second residences or holiday accommodation	% of households with household reference person (HRP) aged 35-74 who is privately renting (or living rent-free)	0.70	<0.001	142
The office	% of population working in occupations in NS-SEC 1 or 2	% of people with Level 4/5 qualifications (Group 4 in Scotland) who are in an occupation in NS-SEC 5-7 % of people with Level 4/5 qualifications (Group 4 in Scotland) who are in an occupation in NS-SEC 1-4	−0.66 0.79	<0.001 <0.001	142
Open all hours	% of employed people aged 30-54 working 49+ hours a week	% of population aged 30-54 who are unemployed	−0.61	<0.001	142
Top gear	% of all households who have both dependent children and no car	% of all households who have three or more cars	−0.86	<0.001	142
Home front	% of parents with dependent children in households where no parent works	% of 5-17 year olds providing 20+ hours informal care a week	0.75	<0.001	142

Note: [a] Correlation coefficients are presented separately for Scotland and the rest of the UK for reasons described in the report.

[b] The associations in both housing analyses appear to be non-linear, and for this reason, the co-efficients and *p*-values are for Spearman's Rank correlation rather than Pearson's correlation as used in the other analyses.

Figure 5(a):Scatterplots for health variables
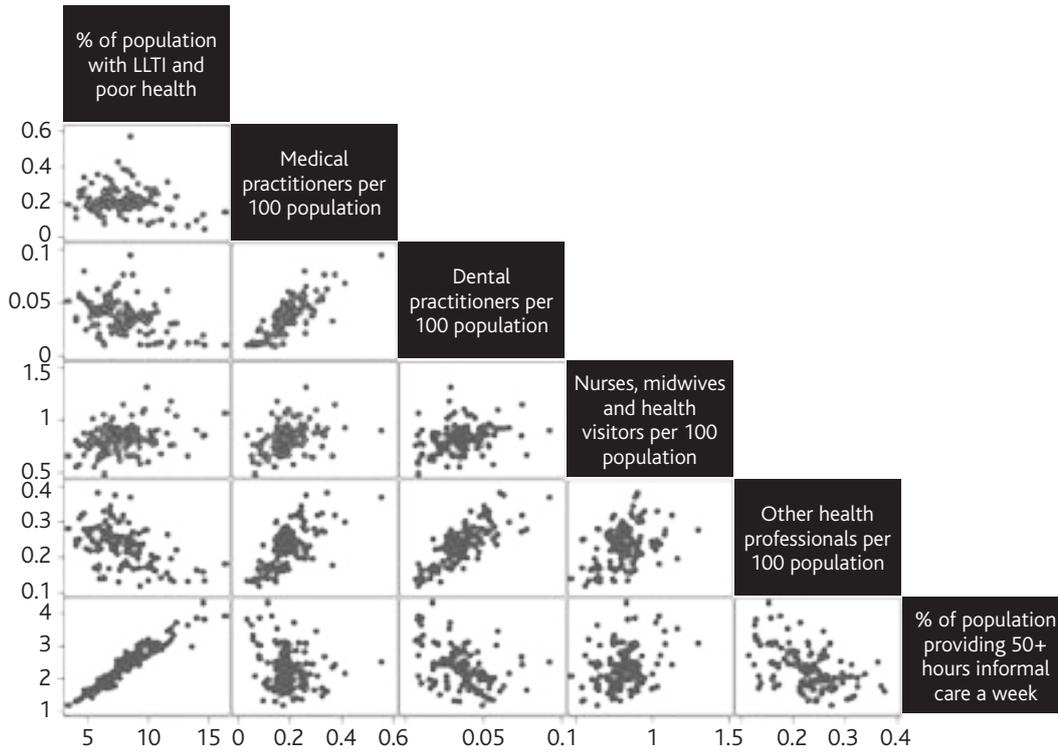
Note here that the strongest relationship is a near perfect positive correlation between the proportion of the population in need of care (percentage with limiting long-term illness [LLTI] and poor health) and the proportion of the population providing 50+ hours a week of informal care.

Figure 5(b): Scatterplots for education variables
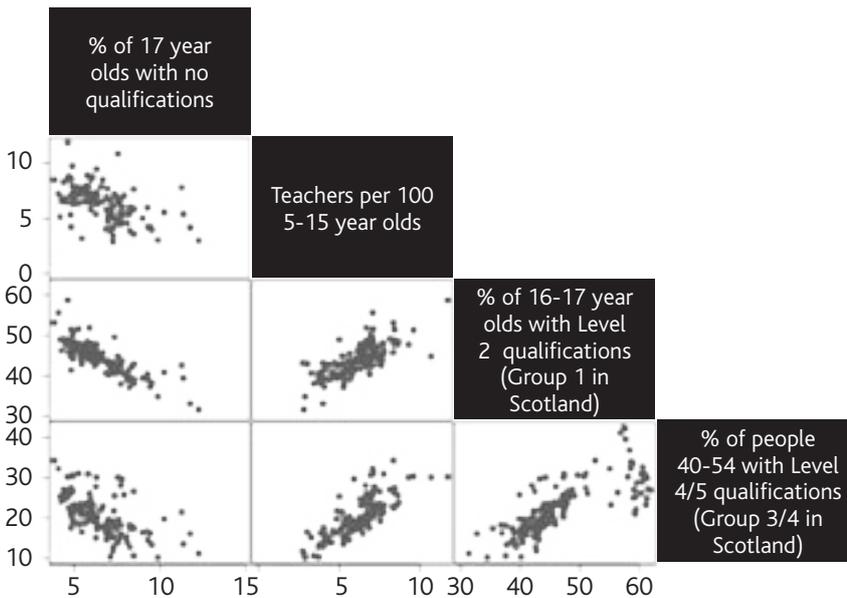
Note the strong positive relationship between areas with many teachers per child aged 5-15 and the educational achievements of children aged 16-17.

Figure 5(c): Scatterplots for housing variables
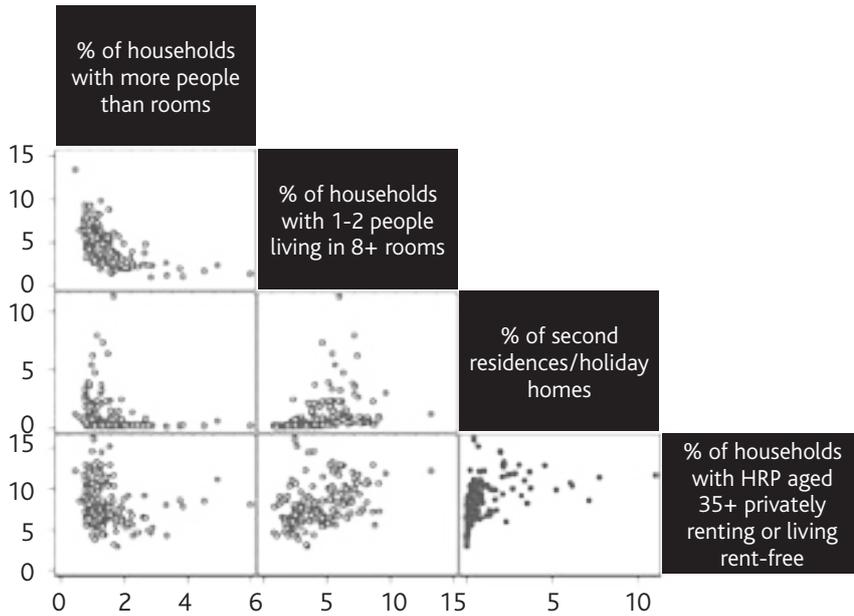
Note here the curvilinear ('boomerang' shaped) negative relationship between the proportion of households with more people than rooms and the proportion of properties that are second homes or holiday residences in an area (these are more common where there is less overcrowding).

Note: HRP = household reference person.

Figure 5(d): Scatterplots for employment variables
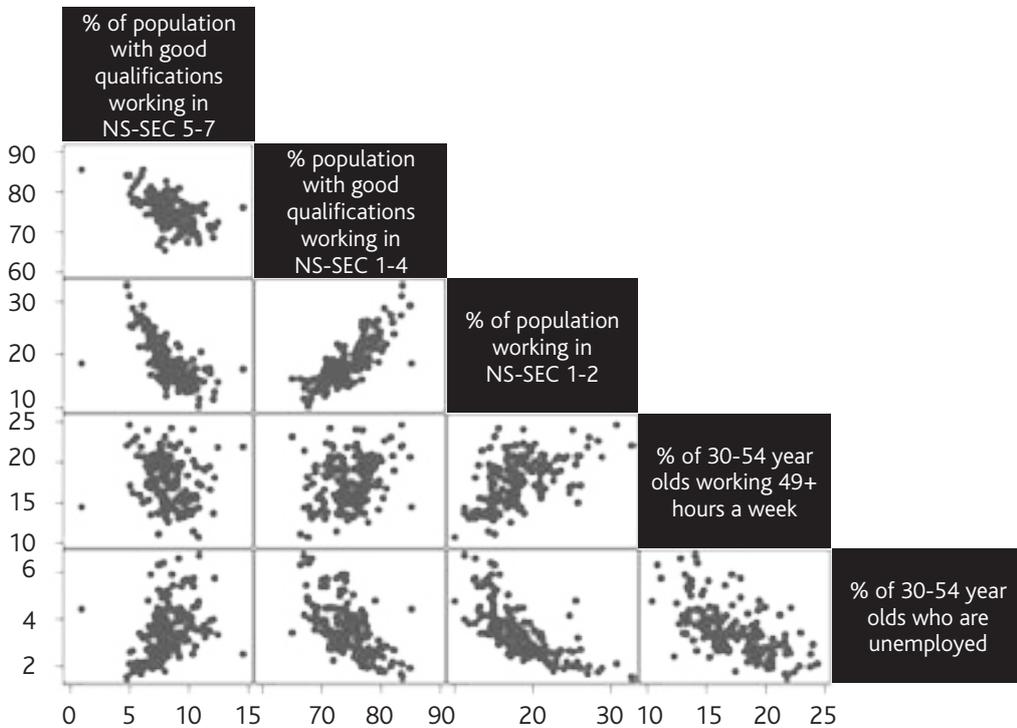
Note the strong inverse relationship between numbers of people working in high status jobs (NS-SEC 1-2) in an area and unemployment rates for those aged 30-54.

Note: NS-SEC = National Statistics Socio-economic Classification; variables relate to the population aged 16-74.

Figure 5(e): Scatterplots for poverty variables
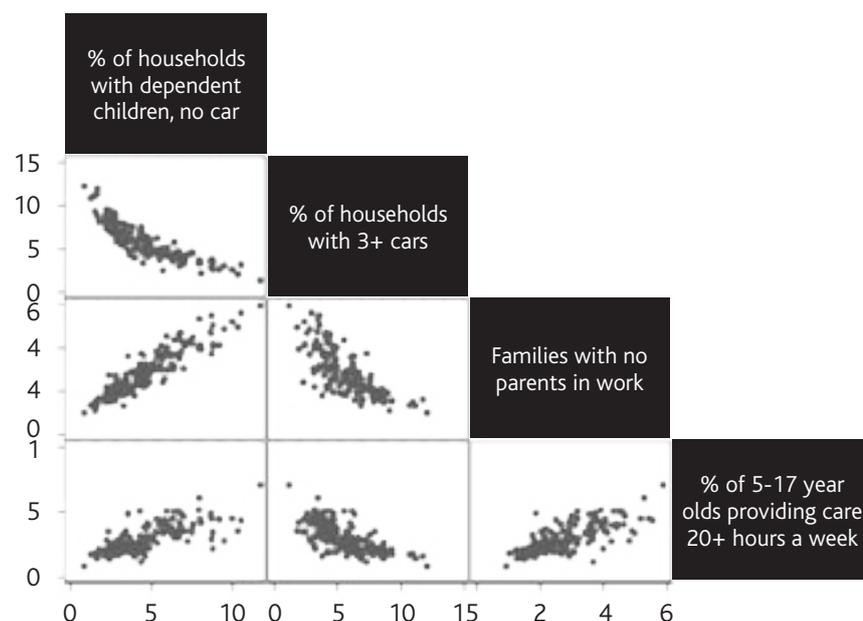
Note the strong positive relationship between areas where fewer households have cars and areas where many children have no parent in work.

Posters and photography

In addition to producing 10 reports with explanatory text, tables, maps and cartograms, five posters accompanying the reports have also been produced. The posters include photographs that comment on the reports and attempt to bring the data alive. A series of photographs were taken specifically for this purpose. Selected images are also used in each of the 10 reports.

Rationale and approach

Before going out to take photographs, some thought was given as to how to go about this element of the project. The following decisions were made, either before the project, or during the project as it took shape:

- The images should be visually cohesive, of a similar style, so that it is apparent that they are part of one series. One way of achieving this was by using one camera, the same lens, similar settings, and black and white rather than colour. A Canon G5 digital camera was used, allowing immediate re-shooting when necessary. In addition, a visual style that was very symmetrical, direct and with 'straight-on' perspective emerged.

- Images should invoke life in Britain without being stereotypical. This meant careful selection and presentation of subject matter.
- Images would be more engaging if the subject was not always immediately apparent, for instance if the viewer has to do some work to discern what it is that they are looking at.

Background research

A range of sources were explored, including looking at the work of photographers in the social documentary photography tradition (see, for example, Darwell, 1986; Baker, 2000; Danziger, 2001; Peralta, 2001; Salgado, 2003), as well as the use of photography in social science and the history of the poster.

For centuries posters have been produced for the purposes of information and advertising. Before radio and television, posters were the primary means of visual and mass communication – as most of the population were illiterate, the gripping images of posters were a way of reaching them (Le Coultre and Purvis, 2002). Posters have also traditionally been designed to have meaning and to motivate, to communicate and convince, for example, prompting political or commercial action. Posters usually include both images and text, and a good poster will

both seize and retain attention (Le Coultre and Purvis, 2002). Features that contribute to their success are originality, clarity, directness and effective use of colour and typography.

Taking these characteristics into consideration, the posters have been designed to create an eye-catching, provocative introduction to the research project. The design is intended to be bold and straightforward, and common across all five posters to emphasise that they form a coherent series.

Photographing the five topics

Housing

This category was covered first and proved to be the most straightforward. It was decided to photograph a range of different types of housing: terraces, detached, old and newly built, with gardens and other surrounding features. For practical reasons they have only been photographed from the outside – it would have been much more revealing, but also much more difficult to arrange, to photograph inside people's homes.

Employment

For this category the authors wanted to represent a range of occupations. They stood in various public places and asked passersby if they would mind if their shoes were photographed. The authors explained about the project based on the Census, and carried contact information and ID for those who requested it. Only a handful of people refused; most were obliging and interested in the imaginative approach to the use of photography in the project. Each shot was framed in a similar way, but the location was varied and thus so too was the background. People were asked to state what they would describe as their occupation, and these descriptors have been used verbatim. When these individual images are placed together, as in the poster, the overall effect is enhanced.

Health

Here the method used for the employment category was built on by focusing on hands. The idea was that hands would be evocative of a range of activities related to

health and well being. These shots were posed by various colleagues, friends and family. Both the shoes and hands shots have the advantage that the individuals are not identifiable.

Education

For this category the authors opted for collecting a variety of images to form a collage. This included outside shots from afar, as well as close-ups of educational objects (books, school bags, pencil cases, computers). They were careful to include subjects evocative of different levels of education, from primary to higher education.

Poverty

This was the most challenging category. To photograph recognisable images of poverty might easily appear stereotypical and hackneyed. The authors wanted to produce something less predictable, less immediately apparent. After some thought they decided to try to represent the side of poverty that is about deprivation – lack and absence – by photographing scenes of emptiness and bareness.

Ethical considerations

All photographers have to consider ethical issues. For this project the authors were careful not to include people as the subject of the photograph (other than as background passersby) unless they had been asked and their permission acquired. Where the people are recognisable, the consent form opposite was used (for the photographs of hands and feet this was not deemed necessary). Where practical and appropriate, the subjects were included in the decisions concerning the final choice of shots used in the posters.

The consent form used where people could be identified is shown next:

Life in Britain

Consent to use of photography

Background

We are taking photographs to use as illustrations for a series of reports and posters based on a research project funded by the Joseph Rowntree Foundation. The research uses information from the 2001 Census, supplemented by these photographs, to depict life in Britain today. The photos are intended to reflect various aspects of 'Life in Britain' and will be illustrative only – we will not require any personal information from you, with the exception of the information you give us on this form, and your full name will not be published with the photos. The reports and posters will be made publicly available, and may be published on the Internet.

Why do we need you to sign this form?

It is important that you understand why we are taking your picture, and what we may do with the photographs. We will also give you a copy of this form to keep so that you can retain the information and contact us at a later date if you need to. Please read the statement carefully before signing.

Consent statement

- I hereby confirm that I give consent for photographs to be taken of me for the purposes of the research project described above.
- I understand the photos have educational value. I consent to the photos being shown to appropriate professional staff and used in educational publications, journals, textbooks, posters and used in any other form or medium including all forms of electronic publication or distribution. As a result, I understand that the photos may be seen by the general public.
- All or part of the photos may be used in conjunction with other photographs, drawings, or other forms of illustration. Efforts will be made to conceal my identity but full confidentiality is not guaranteed.
- I may view the material by arrangement with the researchers. However, once published I realise that recovery of the photos may not be possible.
- I understand that no fee is payable to me in respect of the material either now or at any time in the future.
- I confirm that the purpose for which the material will be used has been explained to me in terms which I have understood.
- I have been given the option to refuse consent to be photographed.

To be completed by subject, or parent/guardian if subject is under 16:

I agree with the above consent statement

Name: ....

(BLOCK CAPITALS)

Date:..

Signature...(subject or parent/guardian)

Thank you very much for assisting us with this project.

Contact details

Dr Mary Shaw, Department of Social Medicine, University of Bristol.

Telephone: 0117 928 7353. E-mail: mary.shaw@bristol.ac.uk

Some of the key images used in the reports and posters are presented below:

Report details

In this chapter, background details are provided for each report. Additional data and graphs for which there was insufficient space in the reports are also included.

Census tables and cell references

This section includes details of the Census tables and cell references from which each variable was derived. These cell references refer to the way that Census data tables output by the national statistical agencies are arranged, and can be used to find the exact data on which the analyses are based. In most cases, the table numbers and cell references for England and Wales, Scotland and Northern Ireland are the same. Where they are not, this is noted. In the case of Northern Ireland, specific cell references are unavailable, but even where table numbers are different, layouts are in most cases exactly the same as those for the other countries. All data used here have been extracted from the Census data series called

'Standard Tables', with the exception of some data on educational attainment from the series 'Theme Tables'.

Figure 6 gives an example of the layout of a Census output table. For example, the cell reference 'Standard Table 48: Cell 26' would refer to the total number of occupied flats, maisonettes and apartments in an area in 2001.

Health

1. Doctors and nurses

Redistribution

The following graph was excluded from the report due to lack of space, and gives an example of how numbers of medical practitioners in certain areas would need to change in order to bring about an even distribution of practitioners per head of population across all areas.

Figure 6: Example Census output table layout and cell references

	TOTAL	Occupied	Unoccupied	
			Second residence/ holiday accommodation	Vacant
ALL HOUSEHOLD SPACES	0001	0002	0003	0004
In an unshared dwelling	0005	0006	0007	0008
House or bungalow	0009	0010	0011	0012
Detached	0013	0014	0015	0016
Semi-detached	0017	0018	0019	0020
Terraced (including end terrace)	0021	0022	0023	0024
Flat, maisonette or apartment	0025	0026	0027	0028
In a purpose built block of flats or tenement	0029	0030	0031	0032
Part of a converted or shared house (includes bed-sits)	0033	0034	0035	0036
In a commercial building	0037	0038	0039	0040
Caravan or other mobile or temporary structure	0041	0042	0043	0044
In a shared dwelling	0045	0046	0047	0048
ALL DWELLINGS	0049	0050	0051	0052

Footnotes: In general a household's accommodation is defined as an unshared dwelling if all the rooms are behind a door that only household can use.

Source: Census 2001: England and Wales Standard Tables, Final layout

Census health measures and life expectancy

Self-reported illness is a good indicator of real levels of poor health as evidenced by the close relationship between the levels of limiting long-term illness in an area and local life expectancy. The graph opposite illustrates the strong relationship between limiting long-term illness and life expectancy, demonstrating that the illness measure from the Census is a good general indicator of real health status.

Figure 7: Vital Statistics: How to make the distribution of doctors better related to the distribution of the population

Change in number of medical practitioners needed to achieve national average of 23 per 10,000
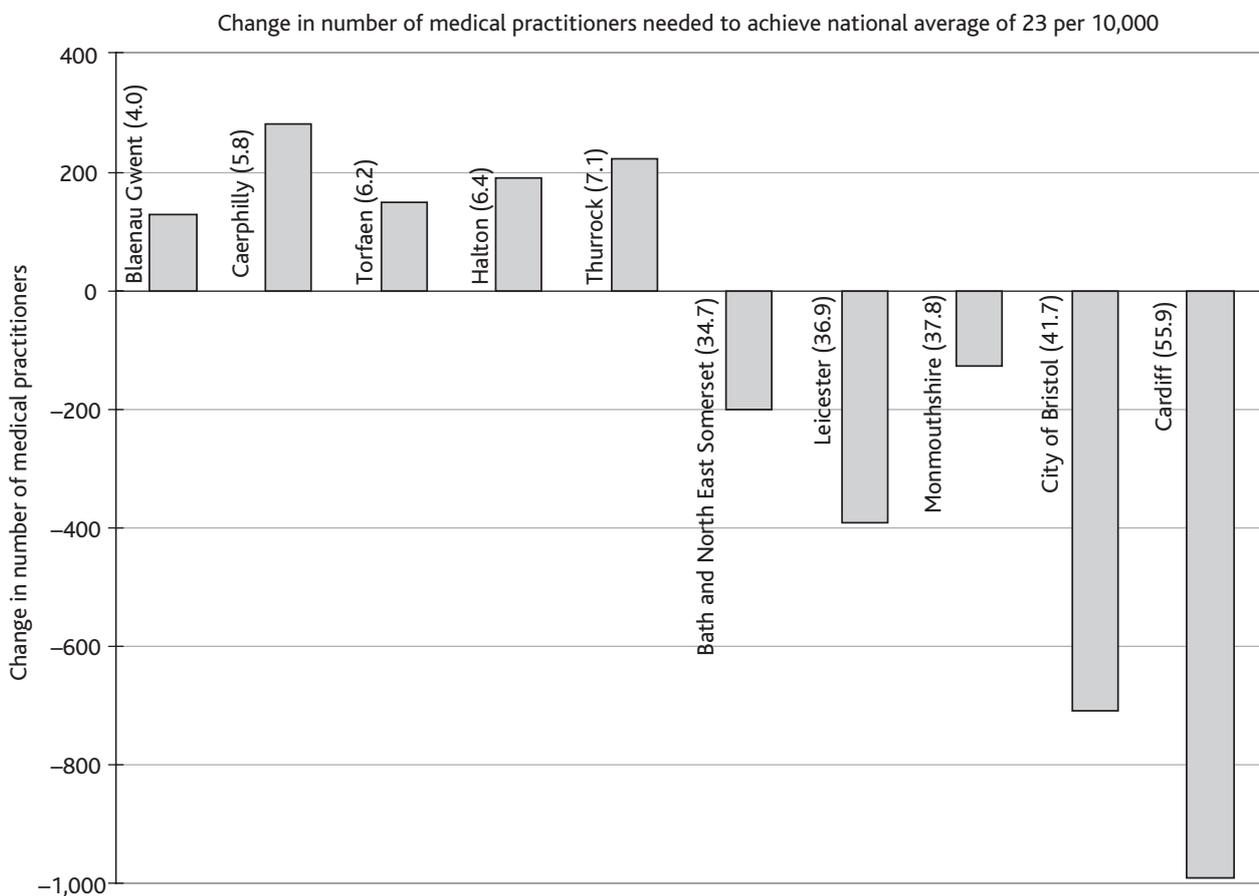
This chart shows the change in the number of medical practitioners that would be needed to achieve the national average rate of doctors per head of population for the five areas with the highest rates, and the five with the lowest (rates per 10,000 population are shown in brackets). For example, Halton would need to gain around 200 doctors to achieve the national average rate.

This redistribution would only serve to equalise the rate of doctors per head of population – it would not make the distribution of doctors more proportional to need, which would require even more extreme changes than indicated here. It also ignores the sometimes efficient concentration of doctors into specialist units in a few hospitals.

Figure 8: Graph illustrating the close association between the prevalence of limiting long-term illness (LLTI) (measured by the Census) and life expectancy (calculated using data from death certification) across local authorities in Britain
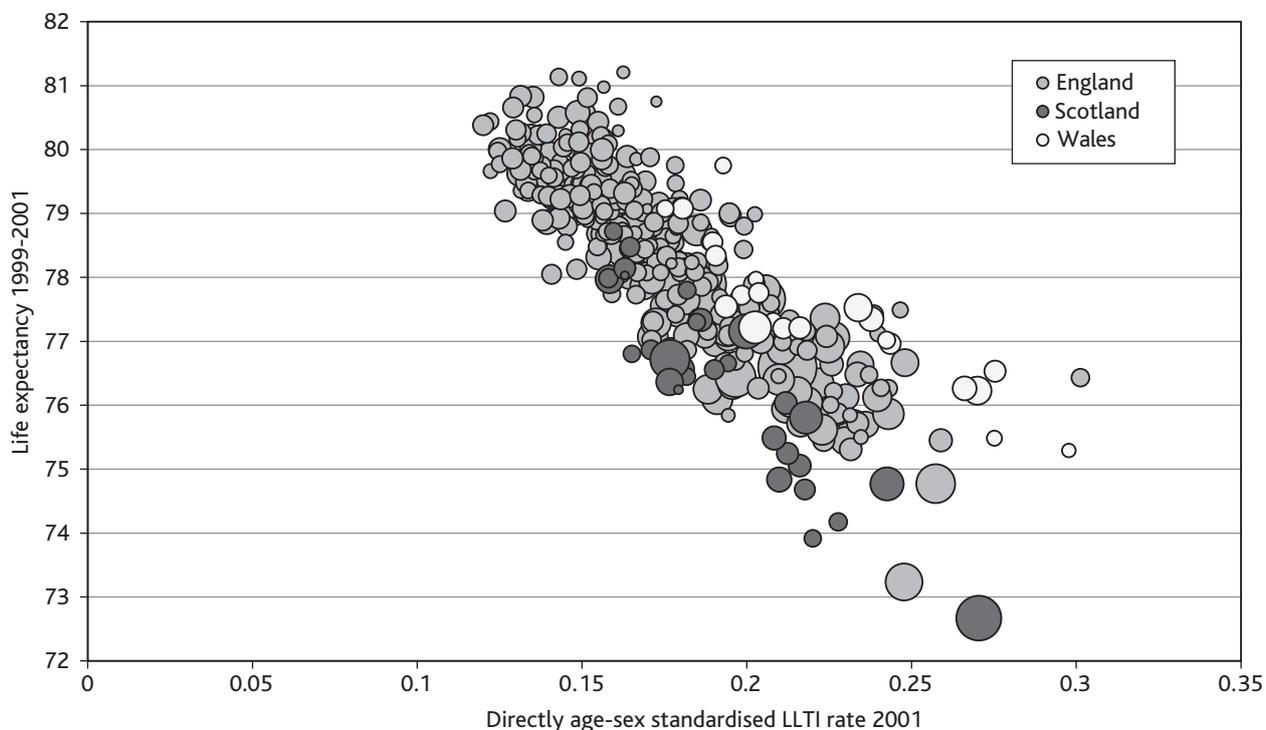
Note: Each circle represents a local authority, and its size is proportional to the local authority population.

Census tables and exact cell references used to derive main report variables

Variable	Census table and cell references	
	Numerator	Denominator
% of population with limiting long-term illness and poor health	st16: c11	st16: c1
Qualified, practising health professionals per 10,000 population		
Medical practitioners	st116: c25	st16: c1
Dental practitioners	st116: c33	st16: c1
Nurses, midwives and health visitors	st116: c37	st16: c1
Other health professional	st116: c45	st16: c1

Note: st = standard table; c = cell.

2. In sickness and in health

Figure 1 in the corresponding report shows the distribution of people providing differing amounts of informal care across economic activity categories. The figures clearly demonstrate that people who spend more time providing care are less likely to be economically active. The table below gives total figures and percentages that form the basis of that figure in the report.

Basis for Figure 1 (in report no 2):
The economic activity of informal carers aged 16-74, UK (2001)

UK	Providing 1-19 hours care per week	% of UK total	Providing 20-49 hours care a week	% of UK total	Providing 50+ hours care a week	% of UK total
Economically active	**2,586,704**	**69.8**	**323,822**	**53.1**	**347,193**	**32.1**
Employee – part time	615,764	16.6	87,288	14.3	104,371	9.6
Employee – full time	1,448,121	39.1	170,019	27.9	168,409	15.6
Self-employed – part time	112,242	3.0	12,133	2.0	14,789	1.4
Self-employed – full time	256,582	6.9	26,456	4.3	31,831	2.9
Unemployed	107,681	2.9	22,348	3.7	24,264	2.2
Full-time student	46,314	1.3	5,578	0.9	3,529	0.3
Economically inactive	**1,117,155**	**30.2**	**286,431**	**46.9**	**735,539**	**67.9**
Retired	569,910	15.4	100,507	16.5	275,215	25.4
Student	66,411	1.8	9,305	1.5	8,313	0.8
Looking after home/family	263,381	7.1	107,869	17.7	289,015	26.7
Permanently sick/disabled	144,557	3.9	46,714	7.7	124,884	11.5
Other	72,896	2.0	22,036	3.6	38,112	3.5
All persons aged 16-74	**3,703,859**	**100.0**	**610,253**	**100.0**	**1,082,732**	**100.0**

Source: Derived from Standard Table 26, UK Census 2001

Census tables and exact cell references used to derive main report variables

Variable	Census table and cell references	
	Numerator	Denominator
% of population with limiting long-term illness and poor health	st16: c11	st16: c1
% of population providing 50+ hours of informal care a week	st25: c25	st25: c1

Note: st = standard table; c = cell.

Education

3. Teachers

The table opposite demonstrates the distribution of 16- 24 year olds across economic activity categories by educational attainment. It shows that young people with higher qualifications are much more likely to be economically active and employed, and conversely, those without qualifications are more likely to be unemployed or economically inactive.

Percentage of 16-24 year olds in each economic activity category by educational attainment

	Economically active					Economically inactive					
	Total	Employee	Self-employed	Unemployed	Full-time student	Total	Retired	Student	Looking after home/family	Perma-nently sick or disabled	Other
All 16-24 (%)	65.0	43.1	1.6	5.8	14.5	35.0	0.1	26.7	3.8	1.1	3.4
No qualifi-cations or level unknown (%)	45.2	25.2	1.7	10.1	8.2	54.8	0.3	35.2	8.3	3.5	7.6
Lower-level qualifications (%)	67.7	43.9	1.6	5.0	17.2	32.3	0.0	26.2	3.1	0.6	2.4
Higher-level qualifications (%)	78.8	65.6	2.0	3.8	7.5	21.2	0.1	16.6	1.1	0.2	3.1

Source: Derived from Standard Table 32, England and Wales Census, 2001

Census tables and exact cell references used to derive main report variables

	Census table and cell references	
Variable	Numerator	Denominator
% of 17 year old students with no (or unknown qualifications)	Theme table 2: c308	Theme table 2: c4
Working, qualified teaching professionals per 100, 5-15 year olds	st116: c15	st1: c11+c65+c119+c182

Note: st = standard table; c = cell.

4. Sons and daughters

In 'Since 2001' we refer to the attainment of 5 or more GCSEs at A*- C by 15 year olds, and also to the proportion of 15 year olds gaining no GCSEs or GNVQs since the Census. The tables overleaf, from the Department for Education and Skills (DfES), give figures for trends in these measures since 1988/89. The DfES constructs these statistics counting all pupils aged 15 at the start of the school year (30 August).

Percentage of pupils aged 15 achieving 5 or more GCSEs at grades A*-C, England (Table 5.5a)

School year	Boys	Girls	Total
1988/89	29.8	35.8	32.8
1989/90	30.8	38.4	34.5
1990/91	33.3	40.3	36.8
1991/92	34.1	42.7	38.3
1992/93	36.8	45.8	41.2
1993/94	39.1	47.8	43.3
1994/95	39.0	48.1	43.5
1995/96	39.9	49.4	44.5
1996/97	40.5	50.0	45.1
1997/98	41.3	51.5	46.3
1998/99	42.8	53.4	47.9
1999/00	44.0	54.6	49.2
2000/01	44.8	55.4	50.0
2001/02	46.4	57.0	51.6
2002/03	47.9	58.2	52.9
2003/04	48.4	58.4	53.3

Percentage of 15 year old pupils achieving no GCSE/GNVQ passes, England (Table 5.5d)

School year	Boys	Girls
1988/89	8.8	6.2
1989/90	8.7	5.8
1990/91	8.0	5.5
1991/92	9.7	7.0
1992/93	8.2	5.8
1993/94	8.7	6.6
1994/95	9.3	6.8
1995/96	8.9	6.6
1996/97	8.8	6.5
1997/98	7.7	5.4
1998/99	7.0	5.0
1999/00	6.5	4.6
2000/01	6.5	4.4
2001/02	6.4	4.3
2002/03	6.3	4.1
2003/04	6.5	4.2

*Source:*DfES GCSE Statistics (www.dfes.gov.uk/trends/)

Census tables and exact cell references used to derive main report variables

Variable	Census table and cell references	
	Numerator	Denominator
% 16-17 year olds with Level 2 (Group 1 in Scotland) qualifications		
England and Wales	st105: c11	st105: c8
Scotland	st204: c8	st204: c7
Northern Ireland	st320	st320
% 40-54 year olds with Level 4/5 (Group 3/4 in Scotland) qualifications		
England and Wales	st105: c55+c62+c69	st105: c50+c57+c64
Scotland	st204: c46+c47+c52+c53+c58+c59	st204: c43+c49+c55
Northern Ireland	st320	st320

Note: st = standard table; c = cell.

Housing

5. Changing rooms

Alternative overcrowding/underoccupancy measure

In 'Findings' we describe the use of an alternative measure of occupancy that can be used to look at the number of people, rather than households, living in overcrowded or underoccupied circumstances. The Census calculates an 'occupancy rating' for each household based on a number of factors. The occupancy rating provides a measure of underoccupancy and overcrowding. A value of −1 implies that there is one room too few and that there is overcrowding in the household; a rating of +1 indicates that there is a surplus of one room relative to the basic needs of the household; and a rating of 0 indicates a household that is neither overcrowded nor underoccupied. The occupancy rating assumes that every household, including one-person households, requires a minimum of two common rooms (excluding bathrooms).

The Census Standard Table 54 gives counts of population by age and occupancy rating of the household in which individuals live.

Basis for Figure 1 (in report no 5)

Population by occupancy rating	Aged 0-17	Aged 18+	% aged 0-17	% aged 18+
+2 or more (underoccupied)	4,857,535	21,708,010	36.6	48.8
+1	3,311,356	11,161,915	25.0	25.1
0	3,350,603	8,016,745	25.3	18.0
−1 or less (overcrowded)	1,739,006	3,597,284	13.1	8.1
Total	**13,258,500**	**44,483,954**	**100.0**	**100.0**

Source: Derived from Standard Table 54, UK Census 2001

Census tables and exact cell references used to derive main report variables

Variable	Census table and cell references	
	Numerator	Denominator
% of households with more people than rooms		
England, Wales and Scotland	st52: c25+c33	st52: c1
Northern Ireland	st356	st356
% of households with one or two people and eight or more rooms		
England, Wales and Scotland	st51: c18+c27	st51: c1
Northern Ireland	st355	st355

Note: st = standard table; c = cell.

6. A place in the sun

Census tables and exact cell references used to derive main report variables

Variable	Census table and cell references	
	Numerator	Denominator
% of household spaces that are unoccupied second residences or holiday accommodation		
England, Wales and Scotland	st48: c3	st48: c1
Northern Ireland	st363	st363
% of households with HRP aged 35-74 that are privately renting (or living rent-free)		
England, Wales and Scotland	st13: c181+c241+c301+c361	st13: c133+c193+c253+cc313
Northern Ireland	st327	st327

Note: st = standard table; c = cell; HRP = household reference person.

Employment

7. The office

Full details of the National Statistics Socio-economic Classification (NS-SEC)

The report includes a truncated version of the table opposite, describing NS-SEC classes 1 to 7. Here the table is reproduced in full to include class 8 ('never worked' and 'long-term unemployed') and the 'unclassified' class. The National Statistics Socio-economic Classification (NS-SEC) is the replacement proposed for the Registrar General's 'social class' classification. It places people into a socio-economic category based on their occupation and certain characteristics of the work that they do (whether they are an employer, self-employed or an employee; whether or not they are responsible for supervising others; and the number of employees at the place of work). Of the classifications for people in work, the highest group is NS-SEC 1, 'Higher managerial and professional occupations', and the lowest is NS-SEC 7, 'Routine occupations'. The NS-SEC classes are listed with the population in 2001, example occupations and relative risk of death for those in work.

National Statistics Socio-economic Classification	Population 2001[a]	Examples of occupations[b]	Relative risk of death[c]
1 Higher managerial and professional occupations	3,182,614	Doctors, directors of large organisations, clergy	70
2 Lower managerial and professional occupations	6,990,083	Journalists, nurses, school teachers	94
3 Intermediate occupations	3,532,894	Travel agents, police officers (sergeant and below)	99
4 Small employers and own account workers	2,626,067	Farmers, taxi drivers, hotel managers	86
5 Lower supervisory and technical occupations	2,687,927	Train drivers, electricians, bakers	102
6 Semi-routine occupations	4,393,965	Scaffolders, traffic wardens, dental nurses	113
7 Routine occupations	3,410,122	Building labourers, waiters, cleaners	126
8 Never worked and long-term unemployed	1,404,188		
Never worked	*1,021,800*		
Long-term unemployed	*382,388*		
Not classified	9,379,577		
Full-time students	*2,648,991*		
Not classified for other reasons	*6,730,586*		
Total (aged 16-74)	**37,607,437**		

Notes:

[a] People aged 16-74 only.

[b] Drever et al (2004).

[c] The relative risk of death was the chance of men classified by their occupation in 1981 dying in the period 1986-90. The national average was 100, so a relative risk of 126 indicates 26% greater risk than the average. Thus, after allowing for differences in age distribution men in NS-SEC class 7 were 1.8 times more likely to die in a given period as compared to men in class 1 (126/70=1.8). The NS-SEC classification includes more people in these top and bottom categories and thus this ratio is slightly smaller than that found for men classified at the extremes of the Registrar General's classification over the same period (130/66=1.97) (Fitzpatrick et al, 1997). Note that no data were provided for group 8.

Census tables and exact cell references used to derive main report variables

Variable	Census table and cell references		
	28		
	Numerator		Denominator
% of population working in occupations in NS-SEC 1 or 2 England and Wales Scotland Northern Ireland	st114: c7+c8+c9+c10+c11+c12+c25+c26+c27+c28+c29+c30 st215: c7+c25 st321		st16: c1 st16: c1 st16
% of people with Level 4/5 qualifications (Group 4 in Scotland) who are in an occupation in NS-SEC 5-7 England and Wales Scotland Northern Ireland	st114: c47+c53+c59 st215: c47+c53+c59 st321		st114 c5 st215: c5 st321
% of people with Level 4/5 qualifications (Group 4 in Scotland) who are in an occupation in NS-SEC 1-4 England and Wales Scotland Northern Ireland	st114: c11+c29+c35+c41 st215: c11+c29+c35+c41 st321		st114 c5 st215 c5 st321

Note: st = standard table; c = cell.

8. Open all hours

Figure 1 in the report shows the distribution of weekly working hours for people aged 30-54. This graph is based on the following figures from Standard Table 29.

Basis for Figure 1 (in report no 8)
Data for all people aged 30-54 in employment in the week before the Census, UK (2001)
(Total: 16,351,098)

Part time (30 hours or less per week)				
Total	1-2 hours	3-5 hours	6-15 hours	16-30 hours
3,797,566	21,578	112,439	879,499	2,784,050
Full time (31 hours or more per week)				
Total	31-37 hours	38-48 hours	49-59 hours	60 or more hours
12,553,532	3,038,566	6,563,594	1,796,568	1,154,804

Source: Derived from Standard table 29, UK Census 2001

In 'Findings', we describe that 79% of people employed part time (30 hours or less per week) are women, compared with 35% of those working full time. The following table gives population counts and percentages from Standard Table 29 that are the source of these figures.

Distribution of full-time and part-time employment among men and women

	Total population aged 16-74 in employment in the week before Census		Working part time (30 hours or less per week)		Working full time (31or more hours per week)	
Males	14,361,337	(54.0%)	1,373,526	(21.0%)	12,987,811	(64.8%)
Females	12,214,342	(46.0%)	5,162,171	(79.0%)	7,052,171	(35.2%)
Total	26,575,679	(100%)	6,535,697	(100%)	20,039,982	(100%)

Source: Standard Table 29, UK Census 2001

Census tables and exact cell references used to derive main report variables

	Census table and cell references	
Variable	Numerator	Denominator
% of employed people aged 30-54 working 49+ hours a week	st29: c87+c88+c98+c99+c109 +c110+c120+c121+c131+c132	st29: c78+c89+c100+c111+c122
% of people aged 30-54 who are unemployed	st28: c121+c137+c153+c169+c185	st28: c113+c129+c145+c161+c177

Note: st = standard table; c = cell.

Poverty

9. Top gear

Figure 1 in the report demonstrates that the percentage of households who might need a car is very similar to the percentage of households who may have more cars than are really needed. The basis of this graph, from Standard Table 62, is the table of figures below, and the total number of households from the same table (24.5 million).

Basis of Figure 1 (in report no 9)

UK households with dependent children and no car (numbers)	UK households with three or more cars (numbers)
1,243,571	1,394,786
% of all UK households with dependent children and no car	*% of all UK households with three or more cars*
5.1	5.7

Source: Standard Table 62, UK Census 2001

In 'Findings', we state that "… nearly two thirds of households that have three or more cars contain just two or fewer employed people". Figures on the number of employed people and vehicle access in each household are only available for England, Wales and Northern Ireland (figures are from Standard Table 118, which is not available for Scotland). This table reveals that of 1,311,276 households with three or more cars, 554,703 (42%) have three or more employed people.

Census tables and exact cell references used to derive main report variables

Variable	Census table and cell references	
	Numerator	Denominator
% of all households who have both dependent children and no car	st62: c50+c68+c86	st62: c1
% of households who have three or more cars	st62: c5+c6	st62: c1

Note: st = standard table; c = cell.

10. Home front

Census tables and exact cell references used to derive main report variables

Variable	Census table and cell references	
	Numerator	Denominator
% of people who are parents with dependent children in households where no parent works	st31: c100	st16: c1
% 5-17 year olds providing 20+ hours informal care a week	st25: c44+c45+c64+c65+c84+c85+ c104+c105+c124+c125+c144 +c145	st25: c41+c61+c81+c101+c121+ c141

Note: st = standard table; c = cell.

4

Conclusions

While the analyses, data, and aggregations used here are fit for the purpose for which they are intended, a number of other possibilities for more in-depth analyses exist. In some cases, small area analysis may be appropriate and provide further insight into patterns of inequalities at higher resolution. In the use of relatively large areas, very localised social patterns are ignored. For example, in the case of the analysis of the availability of teachers and the qualifications of young people locally, variation between schools within each area is ignored; however, such analysis would be impossible with Census data, which are not released for aggregations of teachers and children by school.

Further investigation of issues covered here may also be possible using data from previous censuses to look at changes over time. This would be complex and beyond the scope of this project, given changes in Census questions, definitions and areas over time. However, this situation may improve, with the advent of 'future-proof' Census geography from 2001, and with the availability of time-series datasets through projects such as 'Linking Censuses through Time' (http://census.ac.uk/cdu/software/lct).

The 10 reports and this technical report consider only a tiny fraction of information revealed from one Census of population. Comparisons are not made with other Censuses, other social data, longitudinal data, nor with other countries or for small areas. Nevertheless, the amount of information presented here is vast and many illustrations and examples are given of the overall patterns of social inequalities in the UK at the beginning of the 21st century.

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