

IN THE EYE OF THE STORM: BRITAIN'S FORGOTTEN CHILDREN AND FAMILIES

A research report for Action for Children,
The Children's Society and NSPCC

Howard Reed, Landman Economics

June 2012



NSPCC charity registration number 216401 and SC037717,
Action for Children charity registration number 1097940 and SC038092
The Children's Society charity registration number 221124

© Action for Children, The Children's Society and NSPCC 2012. You may use this publication for your own personal, non-commercial use and otherwise in accordance with the Copyright Designs and Patents Act 1988 only. No part of this publication may otherwise be copied or reproduced without prior written permissions. NSPCC is a registered trade mark. All rights acknowledged and reserved. Whilst we have made every effort to ensure the accuracy of this publication, we cannot guarantee it and you should not rely on the contents of this publication.

ACKNOWLEDGEMENTS

The author would like to thank Lisa Harker, David Hounsell, Kate Mulley, Sam Royston, Enver Solomon and Kate Stanley for comments and suggestions on the draft report and its findings. Thanks also to Mike Brewer of the Institute for Social and Economic Research at the University of Essex for advice on using the income measures in the FACS data. The data from the Family and Children Study and British Household Panel Survey used in the report are Crown Copyright and are kindly provided by the ESDS Data Archive at the University of Essex.

TABLE OF CONTENTS

Executive Summary	6
Trends in the number of vulnerable families up to 2008	6
The impact of tax and benefit changes on vulnerable families, 2010–15	7
The impact of spending cuts	8
The combined impact of tax and benefit measures and spending cuts	8
Forecasting the change in the number of vulnerable families between 2010 and 2015	9
Introduction	10
1 Defining vulnerable families	11
2 Trends in the number of vulnerable families up to 2008	12
Families with no parent in work	12
Families in poor quality or overcrowded housing	14
Families where no adult has a qualification	14
Families where the mother suffers from depression	15
Families where at least one adult has a limiting long-standing illness, disability or infirmity (LLSIDI)	16
Families with low income	17
Families experiencing material deprivation	18
The vulnerability ‘score’	19
Vulnerabilities in England, Wales and Scotland	25
3 The persistence of vulnerability: Evidence from the panel element of FACS	28
4 The impact of tax and benefit changes on vulnerable families, 2010–2015	31
Impact of tax and benefit changes by decile	31
Impact of tax and benefit changes by family type	34
Impact of tax and benefit changes by number of children	35
Impact of tax and benefit changes by vulnerability measure	37
Impact of tax and benefit changes by vulnerability “score”	39

5 The benefits which vulnerable families received from public spending in 2008	41
Total spending by position in the family income distribution	42
Total spending by family type	42
Total spending by vulnerability measure	43
Total spending by vulnerability “score”	44
6 The impact of spending cuts and changes to tax and benefits system on the living standards of vulnerable families	46
Introduction	46
The impact of spending cuts across the family income distribution	48
Impact of the cuts by number of children	50
Impact of cuts by family type	50
impact of cuts according to vulnerability measure	51
Impact of cuts by vulnerability “score”	54
7 The impact of the overall “fiscal package”: tax and benefit changes and other public spending changes combined	57
8 Forecasting the change in the number of vulnerable families between 2010 and 2015	61
Families with no parent in work	61
Families where no adult has a qualification	63
Families where the mother suffers from depression	64
Families where at least one adult has a limiting long-standing illness, disability or infirmity	65
Families with low income	66
Families experiencing material deprivation	67
Families in poor quality or overcrowded housing	67
Projected increase in the vulnerable families ‘score’ by 2015	67
9 Conclusion	71

EXECUTIVE SUMMARY

The recession and the resulting austerity is the issue that most defines our times. Yet its impact on the most vulnerable children is too rarely considered – children who, by definition, cannot protect themselves. These children deserve consideration in their own right and a level of political discourse above and beyond the current focus on families and parenting.

It is for this reason that three leading children's charities, Action for Children, the Children's Society and the National Society for the Prevention of Cruelty to Children commissioned Landman Economics to undertake new research to estimate the number of vulnerable children and families in Britain and the impact of the current economic context on them.

The research set out to:

- measure the number of families with children in Britain who are most vulnerable to adverse economic conditions, using a number of different definitions of 'vulnerability'; and
- estimate how these families will be affected over the next few years by the changes to tax and benefits, cuts to public services and the on-going effects of the post-2008 economic downturn.

The resulting evidence shows that the number of vulnerable families with children is often understated and on whatever definition that their number will grow substantially in coming years. It also shows that welcome measures put in place to mitigate the impact of the recession on vulnerable families with children are insufficient. These findings underline the urgent need to protect children from the impact of austerity and for particular consideration to be given to the needs of the most vulnerable children and families in our society.

The definition of vulnerable children and families

There is no one way of measuring vulnerability, so this new research draws on the available data to calculate the number of vulnerable children and families living in a wide range of circumstances including:

1. **Worklessness** – no parent in the family is in work;
2. **Housing** – the family lives in poor quality and/or overcrowded housing;
3. **Qualifications** – no parent in the family has any academic or vocational qualifications;
4. **Mental health** – the mother has mental health problems;
5. **Illness/disability** – at least one parent has a limiting long-standing illness, disability or infirmity;
6. **Low income** – the family has low income (below 60% of the median);
7. **Material deprivation** – the family cannot afford a number of food and clothing items.

To calculate the number of vulnerable children and families living in Britain under each of these definitions, the research used a household dataset called the Families and Children Study (FACS).

In 2007 the Cabinet Office used this dataset to identify families 'at risk'. These were defined as those who met five or more of the criteria above. The same methodology was used by the current UK Government to establish the number of so-called "troubled families". However, the threshold of five or more criteria is an entirely arbitrary one and our research has also looked at families who meet both fewer and more than five criteria to give a more complete picture of the extent of vulnerability.

How many families with children are vulnerable?

The Families and Children Study ran from 2003 to 2008. During this period the number of families vulnerable under five or more measures reached a peak at around 160,000 in 2004 and then fell to just over 130,000 in 2008. The number of children living in such families remained reasonably consistent at around 360,000 between 2003 and 2006 before falling to around 280,000 in 2007 and rising to around 310,000 in 2008.

However this significantly understates the real scale of the problem. Even if slightly fewer measures are used the number of vulnerable children and families is much higher. More than three times as many families (395,000) had four or more vulnerabilities in 2008; 900,000 families had three or more, and 1.87 million had two or more.

Furthermore looking at children specifically, by 2008 there were nearly three times as many children (885,000) living in families with four or more vulnerabilities, nearly 2 million children living in families with three or more vulnerabilities and 3.9 million with two or more.

The impact of tax and benefit changes on vulnerable families, 2010–15

Our research simulated the impact of changes to the tax and benefit¹ systems taking place between 2010 and 2015 to look at the distributional impact of these changes on families with children, with a special focus on the impact on vulnerable families.

It found that the changes to the tax and benefit systems will, on average, have a negative impact on every type of vulnerable household analysed in this report. Tax and benefit changes will disproportionately hit the most vulnerable and their negative impact on family income will increase the more vulnerable you are.

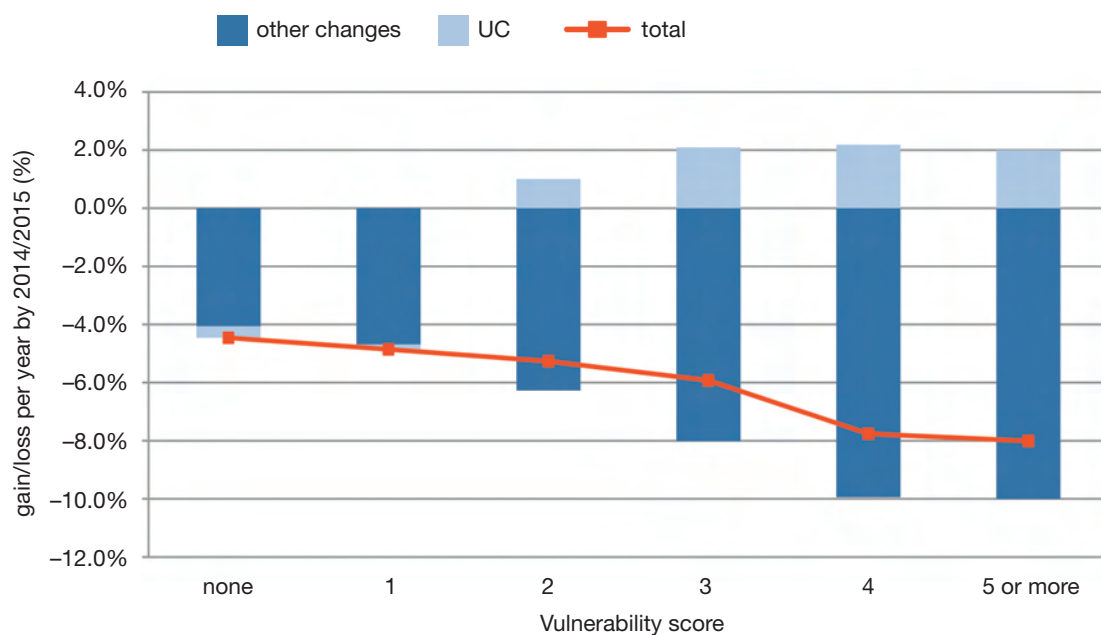
Figure S.1 below shows the average impact of tax and benefit measures as a percentage of net income according to the number of vulnerabilities each family has. The total impact of the measures is broken down into the effect of Universal Credit (in light blue) and the other changes to tax and benefits (in dark blue)².

¹ Including reforms to tax credits

² The results for Universal Credit have been presented separately because it will not be introduced until 2013 and will be phased in so inevitably it is difficult to be precise about its impact up to 2015

The introduction of Universal Credit will result in a gain in income for some of the most vulnerable families but this is not large enough to offset the losses resulting from other changes to the benefit system, such as changes to Housing Benefit and disability benefits. Overall, the negative impact is perversely greater for families with more vulnerabilities. Families with four or more vulnerabilities lose around 8 percent of their net income from the changes, compared to less than 5 percent for families with no vulnerabilities.

Figure S.1 Percentage impact of tax and benefit changes, 2010-15, by vulnerability “score”



The impact of spending cuts on vulnerable families, 2010–15

The research also estimated that the average value of all ‘in-kind’ public services (including health, social care, education, transport, housing, policing and welfare-to-work, but excluding tax credits and benefits) received across all families in 2008 was around £16,200.

As vulnerable families depend to a greater extent on public services than other families, the children in these families will be more greatly affected by cuts to provision. The government has introduced new measures, such as the pupil premium and the childcare offer for disadvantaged two-year-olds, which direct more spending to vulnerable families. However, they do not fully compensate for the overall cuts in spending. The impact in cash terms of the spending cuts on vulnerable families is between £1,000 and £2,400 on average per year by 2015.

The combined impact of tax and benefit measures and spending cuts

When you combine the changes to the tax and benefits system with spending cuts the overall impact on vulnerable families becomes clear. The research shows that families with five or more vulnerabilities lose approximately £3,000 per year by 2015. This represents a decrease in total living standards of around 7 percent.

Will the number of vulnerable children and families increase?

This report estimates there will be a substantial increase in the number of vulnerable families with children between 2010 and 2015 as a result of changes in tax and benefits, spending cuts and the on-going effects of the economic downturn.

Between 2010 and 2015 the incidence of several vulnerabilities is projected to increase as follows:

- 120,000 more workless families
- 25,000 more families with a mother suffering from depression
- 100,000 more families living on a low income (below 60% median income)
- 25,000 more families in material deprivation
- 40,000 more families living in poor quality or overcrowded housing

Not all vulnerable groups will increase in size, though. The simulation results suggest that the number of families where there is no adult with a qualification will fall by around 100,000, while the number of families where one adult has a limiting long-standing illness, disability or infirmity will remain unchanged.

However, between 2008 and 2015 it is estimated that the number of families with five or more vulnerabilities will increase from 130,000 to 150,000 – an increase of just over 14 percent. The number of children living in families with five or more vulnerabilities is set to rise by 54,000 to 365,000, an increase of around 17 percent.

Taking a slightly wider definition of vulnerability, the number of children living in families with four or more vulnerabilities is set to rise from 885,000 in 2008 to just over one million by 2015.

Particularly worrying is the projected increase in the number of children living in extremely vulnerable families – families with six or seven different risk factors. Although currently fewer than 50,000, the number of children living in extremely vulnerable families is set to almost double by 2015, to 96,000.

Overall, it is clear that, now, more than ever, we need a debate about the impact of Government policy on children. By 2015 there will be significantly more children living within vulnerable families than there were in 2008; they will be significantly worse off in terms of disposable income; and that the public spending cuts will have also hit them hard. This research brings into sharp relief the need to take further action to protect those vulnerable children and their families from the recession and the resulting austerity.

INTRODUCTION

This report presents the results of a research project undertaken by Landman Economics for Action for Children, The Children's Society and the National Society for the Prevention of Cruelty to Children. The project has three main objectives:

- First, to measure the number of families with children in Britain who are most vulnerable to adverse economic conditions, using a number of different definitions of “vulnerability”.
- Second, to estimate how these families will be affected in the next few years by the changes to tax and benefits, the spending cuts and the on-going effects of the post-2008 economic downturn.
- Finally, to estimate the change to the number of vulnerable families that there will be by 2015.

The report is structured as follows:

Chapter 1 discusses how best to define vulnerable families, drawing on previous research conducted by the Cabinet Office under the previous UK Government to explore seven different dimensions of vulnerability.

Chapter 2 uses data from the Families and Children Study (FACS) – a large-scale survey of families with children in Great Britain – to measure trends in vulnerable families in the years up to 2008 (the last year in which the survey was conducted).

Chapter 3 uses evidence from the panel element of FACS to assess the extent to which families remained vulnerable for more than a single year between 2003 and 2008.

Chapter 4 looks at the impact on vulnerable families of changes to the tax system, benefits, tax credits and the new Universal Credit being introduced between 2010 and 2015.

Chapter 5 looks at the value of “in-kind” public services such as spending on health and social care, education, housing and transport for families with children, assessing in particular the extent to which vulnerable families rely on public spending to a greater extent than the population average.

Chapter 6 looks at the impact of the spending cuts announced in the October 2010 Spending Review on vulnerable families compared to the rest of the population.

Chapter 7 combines the impact of the tax, benefit and tax credit changes with the impact of the spending cuts to look at the overall impact of the fiscal “package” on the living standards of vulnerable families.

Chapter 8 draws on the evidence from earlier chapters to estimate the extent to which government policies and economic conditions between 2010 and 2015 will affect the number of families defined as “vulnerable” under the seven different dimensions of vulnerability defined in Chapter 1.

1

DEFINING VULNERABLE FAMILIES

There is no one all-encompassing definition of what a ‘vulnerable’ family is.

As a starting point for identifying vulnerable families, this report uses the definition from a 2007 Cabinet Office Report, *Families at Risk*³. The Cabinet Office research analysed a dataset called the Families and Children Study (FACS) using data from between 2001 and 2004. Seven dimensions of vulnerability were analysed, namely:

1. **Worklessness** – no parent in the family is in work;
2. **Housing** – the family lives in poor quality and/or overcrowded housing;
3. **Qualifications** – no parent in the family has any academic or vocational qualifications;
4. **Mental health** – the mother has mental health problems;
5. **Illness/disability** – at least one parent has a limiting long-standing illness, disability or infirmity;
6. **Low income** – the family has low income (below 60 percent of the median);
7. **Material deprivation** – the family cannot afford a number of food and clothing items.

The *Families at Risk* analysis ‘scored’ families according to how many of these seven vulnerability conditions were met. The Cabinet Office’s headline criterion for being classified as vulnerable was five or more of the vulnerability measures. In the 2004 wave of FACS, the number of families vulnerable on five or more measures corresponded to approximately 140,000 families in Great Britain when grossed up to the population totals for England, Scotland and Wales⁴.

More recently the same methodology was used by the current UK Government to establish the number of so-called “troubled families”⁵.

The technical annex to this report contains full details of how each of the vulnerability measures was constructed using the FACS data.

³ Cabinet Office (2007), *Families At Risk: Background on Families with Multiple Disadvantages*. London: HMSO.

⁴ Note that the FACS does not sample households in Northern Ireland.

⁵ See <http://www.communities.gov.uk/communities/troubledfamilies/>

2

TRENDS IN THE NUMBER OF VULNERABLE FAMILIES UP TO 2008

The Families and Children Study continued up to 2008 and so this report uses the more recent waves of FACS to bring the Cabinet Office's analysis up to date. This chapter shows the trends in each vulnerability measure between 2003 and 2008⁶ and also the trends in the combined vulnerability 'score' measure which shows the number of families with a particular number of vulnerabilities, from one to seven.

Over the period 2003–2008, analysis of FACS suggests that the number of families with children in Britain increased from 6.96 million to 7.28 million⁷ – an increase of just under 5 percent. This means that even if the *percentage* of families with any particular vulnerability remained constant over time, the number of families would have increased. Hence, just focusing on the headline number of families with any particular vulnerability may be misleading; the change in the percentage of families with each vulnerability, or with a particular vulnerability score, is more informative. However, because the headline number of vulnerable families has been the focus of media attention in recent years, this report presents the numbers of families with each vulnerability alongside the percentage figures.

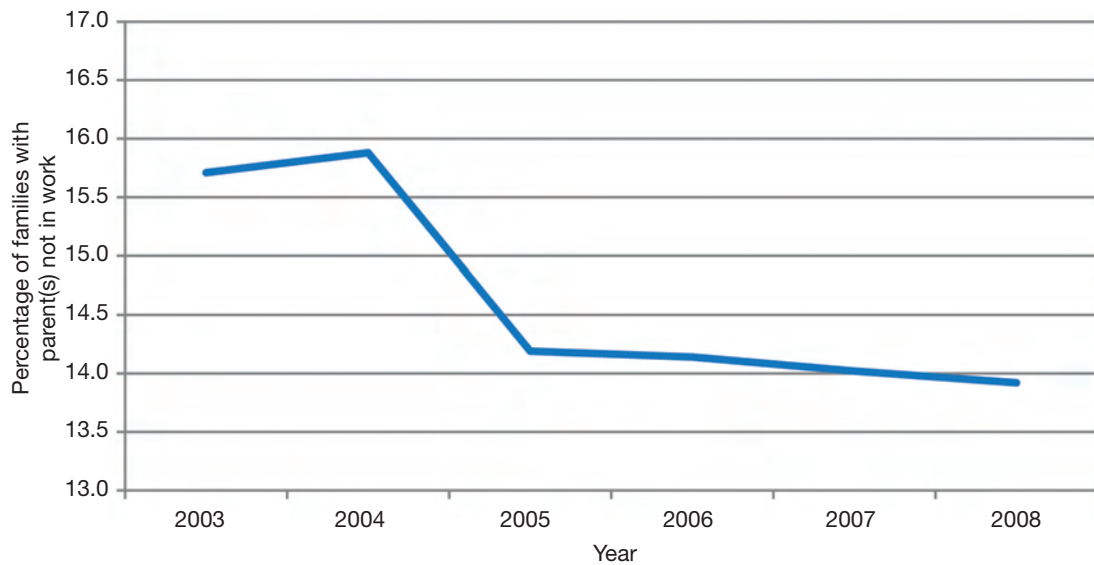
Families with no parent in work

Figure 2.1 shows the trends in the percentage of workless families over the period 2003–2008 in FACS (grossed up to the national level). Between 2003 and 2008, the number of workless families in Britain as estimated in FACS fell from 1.09 million to 1.01 million – a drop of around 80,000.

Figure 2.1 suggests that the percentage of workless families with children in Britain was relatively stable in 2003–04 at just under 16 percent of the population before dropping to around 14 percent in 2005–08. The fall between 2003 and 2008 is statistically significant at the 5 percent level. In terms of the headline number of families, this is a reduction of around 80,000 families.

⁶ The analysis does not include data for 2001 and 2002 because the partner's education questions in 2001 and 2002 were slightly different, which makes the results before 2003 for the 'no qualifications' vulnerability measure inconsistent.

⁷ These statistics use the 'grossing factors' from FACS to calculate the total number of vulnerable families with children in Britain over the period 2003 to 2008 based on the number of vulnerable families in the FACS sample.

Figure 2.1 The percentage of workless families in Britain, FACS 2003–08

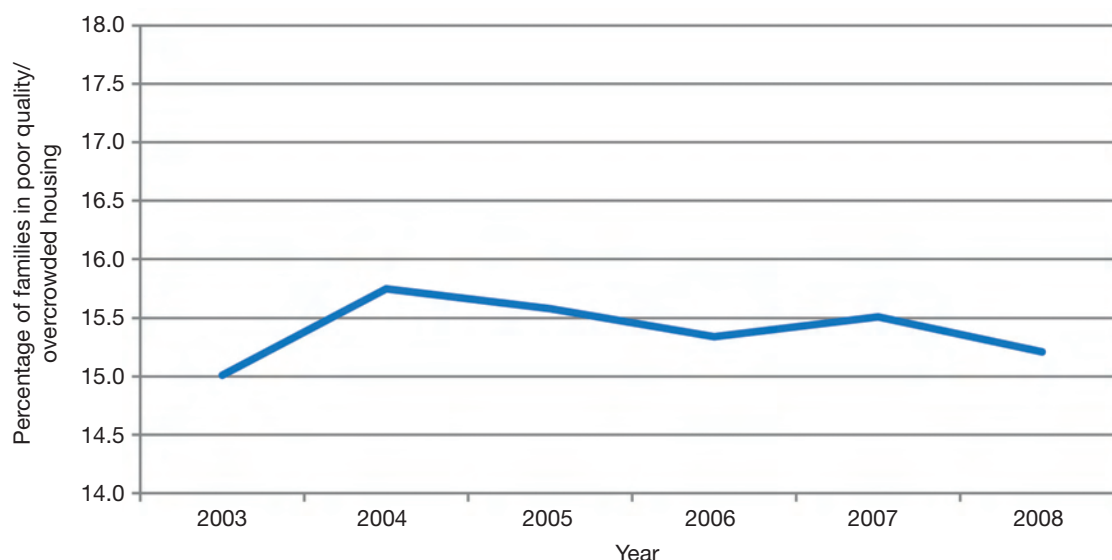
Data from the Office for National Statistics suggests that between 1996 and 2006 the proportion of workless households with children headed by a working age person fell by around 4 percentage points. This is likely to be due to a combination of strong economic growth over the late 1990s and early 2000s, and reforms to the benefit and tax credit system over the period of Labour government from 1997 until 2010 designed to “make work pay” and reduce the number of workless households (for example, the various New Deals, the Pathways to Work programme, and the Working Tax Credit⁸). This reduction in the percentage of workless families up to 2006 is echoed in the FACS data. The years from 2003 to 2007 were the tail end of a decade of economic growth. By contrast, 2008 was the year in which the most serious recession since at least the 1930s began; however unemployment did not start rising sharply until the end of 2008, meaning that the workless families statistic for FACS in 2008 does not reflect the impact of the recession.

⁸ For a detailed summary of welfare-to-work programmes under the Labour government between 1997 and 2010 see H. Reed (2010), *Flexible with the Truth? Exploring the relationship between labour market flexibility and labour market performance*, London: TUC. <http://www.tuc.org.uk/extras/flexiblewiththetruth.pdf>

Families in poor quality or overcrowded housing

Figure 2.2 shows the trend in the percentage of families with children in poor quality or overcrowded housing. There is no strong trend over time in this measure, which fluctuates between 15 and 15.7 percent. None of the changes in the measure over time are statistically significant.

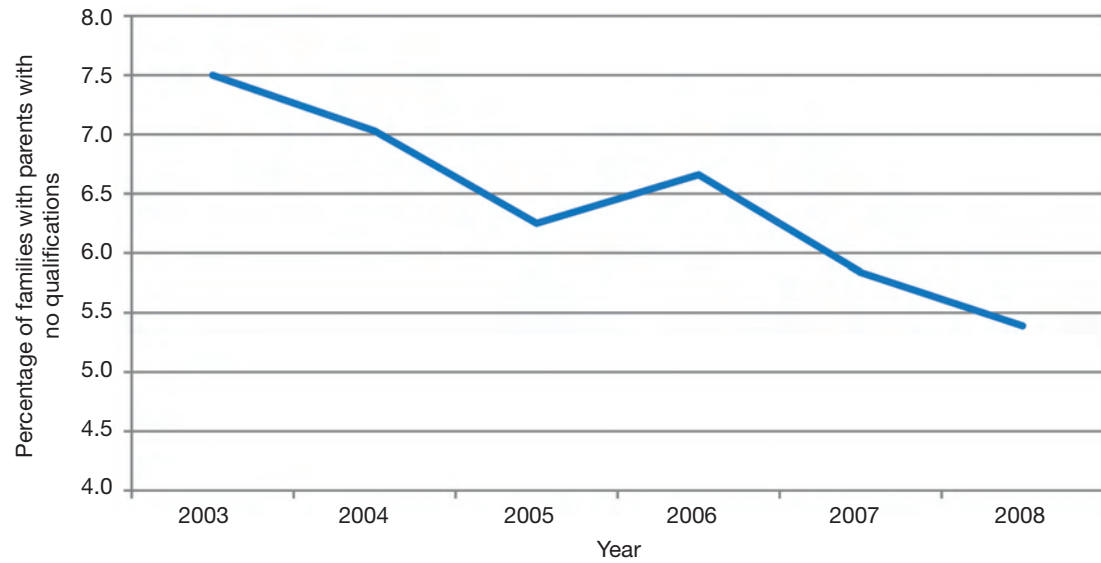
Figure 2.2. The percentage of families in poor quality or overcrowded housing in Britain, FACS 2003–08



Families where no adult has a qualification

Figure 2.3 shows the trend in the percentage of families where both parents (or the sole parent if the family is a lone parent family) have no academic or vocational qualifications. This measure exhibits a strong downward trend, falling by around two percentage points over the period 2003 to 2008 – down from about 520,000 to about 390,000 families. The fall in the measure is statistically significant at the 5 percent level. Analysis using other datasets such as the British Household Panel Survey, Family Resources Survey and the Labour Force Survey (which have longer time series going back to the early 1990s) shows that this reduction in the number of families where the parent(s) have no qualifications is part of a longer run trend stretching back at least as far as the early 1990s. The main driver for this trend seems to be the fact that younger cohorts of parents are more likely to have academic or vocational qualifications than older cohorts; as younger parents replace older parents in the sample, the proportion of families with no qualifications reduces due to this “cohort replacement” effect.

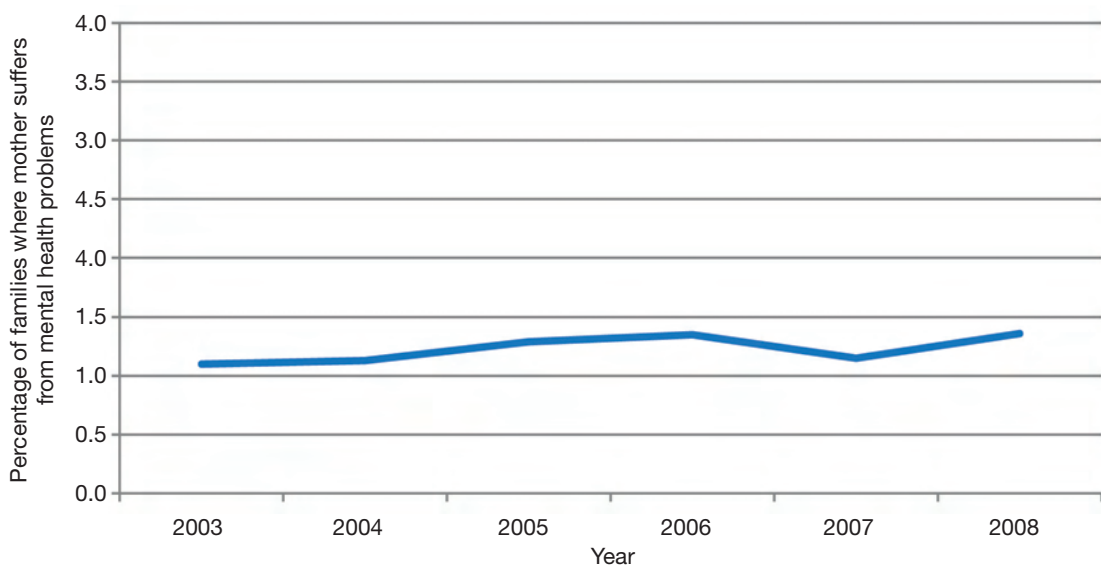
Figure 2.3. The percentage of families where no adult has a qualification in Britain, FACS 2003–08



Families where the mother suffers from depression

Figure 2.4 shows trends in the percentage of families with children where the mother has been experiencing depression. There is no clear trend in this measure over time. Relatively few families experience this form of vulnerability (between 1 and 1.5 percent of families in all six years of the FACS data). The changes in the measure are not significant at the 5 percent level.

Figure 2.4. Percentage of families in Britain where the mother suffers from depression, FACS 2003–08



Families where at least one adult has a limiting long-standing illness, disability or infirmity (LLSIDI)

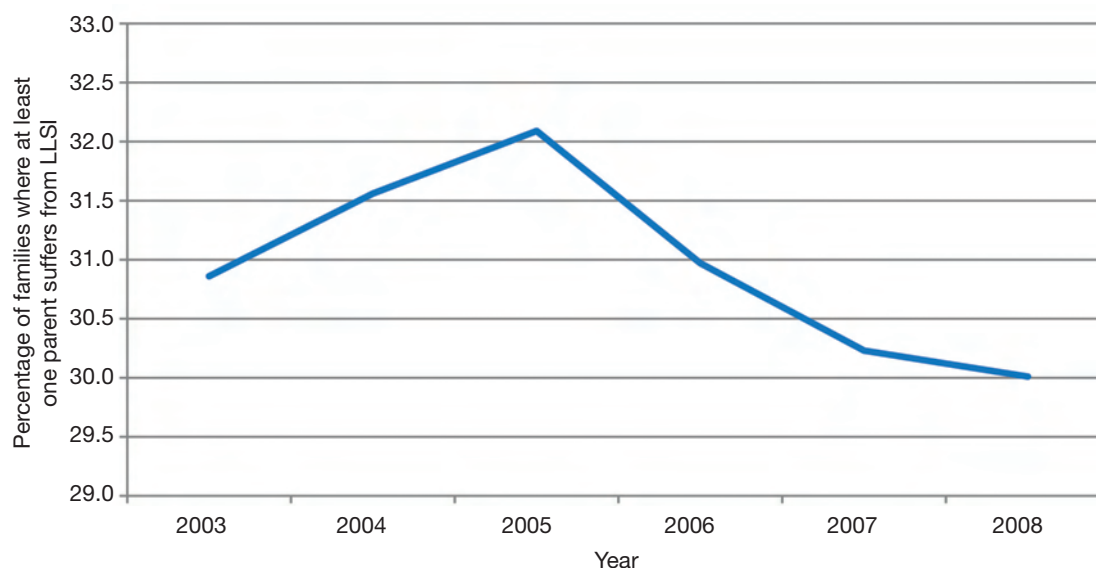
Figure 2.5 shows trends in the number of families where at least one parent answered “yes” to the FACS question:

“Do you have any longstanding illness, disability, or infirmity of any kind? By longstanding I mean anything that has troubled you over a period of time or that is likely to affect you over a period of time?”

This measure has the highest incidence of any of the seven vulnerability measures which the Cabinet Office considered. In each year, over 30 percent of families have at least one parent with an LLSIDI. The measure increases from 30.9 percent to just over 32 percent between 2003 and 2005 but then falls back to 30 percent by 2008. The number of families vulnerable on this measure falls by about 55,000 between 2005 and 2008.

Analysis of longer term trends in the proportion of the population with this vulnerability (shown in Chapter 7) suggests that the incidence of LLSIDI increased over the early 1990s, was stable between around 1997 and 2001, and then slowly decreased. These trends probably reflect the buoyant labour market of the late 1990s and early 2000s, and also the renewed focus by the Labour Government on reducing the number of working age people on long-term Incapacity Benefit and getting more people with long-term health conditions into work via programmes like the New Deal for Disabled People and Pathways to Work.

Figure 2.5. Percentage of families in Britain where at least one adult has an LLSIDI, FACS 2003–08



Families with low income

Figure 2.6 shows trends in the numbers of families with low incomes under two slightly different definitions. The red line shows the proportion of families with equivalised disposable income below 60 percent of the median level in the FACS dataset. The trends in the overall vulnerability score variable (see below) suggest that this was the definition of low income used by the Cabinet Office in their original 2007 analysis. However, because the FACS dataset does not include families *without* children, the median income in the FACS dataset is not the same as the median income across the whole population (it is in fact lower, because median equivalised income for families with children is lower than for families without children). Therefore this research has used the median income from the Family Resources Survey (which is the dataset used for the Government's official Households Below Average Income statistics) sampled each year contemporaneously with FACS. The blue line with square points in Figure 2.6 shows low income using the whole-sample median measure, whereas the red line shows low income using the median based on families with children only.

Note that the measure of income used here is before housing costs are deducted from household income (BHC) rather than after housing costs (AHC). While there are good arguments for using AHC as the preferred measure, this report uses the BHC measure to replicate the Cabinet Office's methodology.

Figure 2.6. Percentage of families in Britain with low income, FACS 2003–08

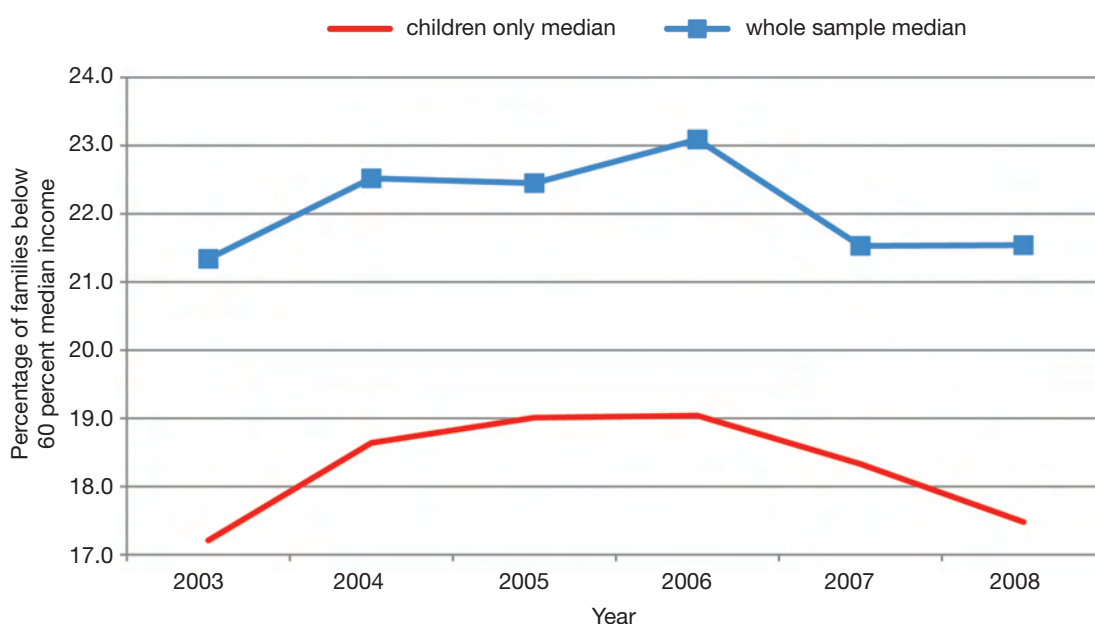


Figure 2.6 shows that the proportion of families with income below 60 percent of median increased, then decreased on both measures. Because median income across all UK households is higher than median income for just households with children, the whole sample low income measure (used in the rest of the report) is higher than the median for children only, and in fact the proportion of families below the whole sample low income measure is similar to the same statistic measured on the Family Resources Survey. The upward movement in the low income measure between 2003 and 2006 is statistically significant at the 5 percent level, and corresponds to an increase of around 150,000 families. The fall in low incomes between 2006 and 2008 corresponds to a reduction of around 60,000 families.

It is likely that the increase in the number of families on low incomes reflects strong growth in median incomes in the period up to 2006. Analysis from the most recent Households Below Average Income (HBAI) publication (Department for Work and Pensions, 2011)⁹ shows that real disposable household income growth averaged 1.9 percent per year for the years 2003/04, 2004/05 and 2005/06. From 2006 onwards, real income growth was a lot weaker, only averaging 0.8 percent per year for 2006/07 and 2007/08. In general, over the last three decades periods of strong growth in average incomes have tended to be associated with increases in the number of families living in relative poverty because growth in earnings and income from investments has tended to be stronger at the median than lower down the income distribution. Tax and benefit policy during this period also played a role in redistributing income to poorer families.

Families experiencing material deprivation

In 2006 the number of material deprivation questions asked in the FACS questionnaire was reduced, which means that this analysis has to use a different material deprivation measure to that used in the original Cabinet Office research. The Cabinet Office research used a combination of two material deprivation questions:

- Whether the family is able to afford good quality brand name food for meals most days;
- Whether the family can afford new, (not second hand) clothes when they are needed.

If the family answered no to either of these questions, then they were considered vulnerable under the Cabinet Office measure.

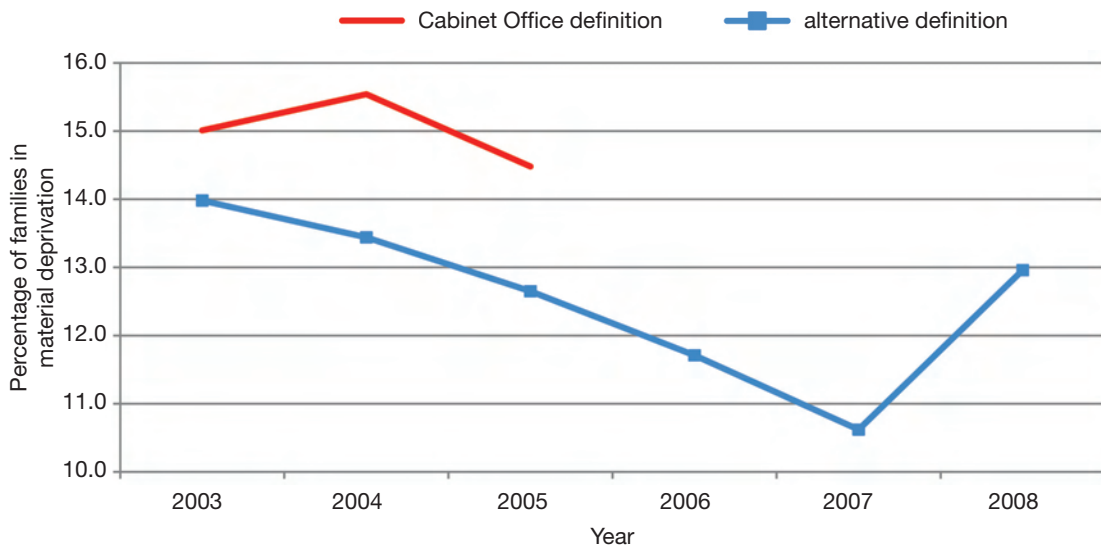
Because neither of these particular questions is available from 2006 onwards in FACS, for the purposes of this research an alternative material deprivation indicator has been constructed based on three other questions that are asked in every year from 2003 to 2008;

- Whether the family can afford two pairs of all-weather shoes for each adult;
- Whether the family is able to have friends and relatives round for a meal at least once a month;
- Whether the family can afford toys and sports gear for the children.

If the family answered no to any of these three questions they were considered vulnerable under the alternative deprivation measure.

Figure 2.7 below shows trends in the Cabinet Office's deprivation measure (up to 2005 only) in red, and the alternative deprivation measure (used in the rest of this report) in blue (with square points). The movements in the two measures do not match exactly, but after experimenting with different deprivation measures this was the measure that came closest to reproducing the patterns seen in the Cabinet Office measure.

⁹ Department for Work and Pensions (2011), *Households Below Average Income: An analysis of the income distribution 1994/95–2010/11*. London: DWP. http://research.dwp.gov.uk/asd/hbai/hbai2011/pdf_files/full_hbai12.pdf.

Figure 2.7. Percentage of families in Britain experiencing material deprivation, FACS 2003–08

The Cabinet Office definition of deprivation shows no obvious trend between 2003 and 2005. The alternative deprivation measure, which starts off around one percentage point below the Cabinet Office measure, shows a strong reduction from 14 percent to less than 11 percent of families from 2003 to 2007 (corresponding to a reduction of around 200,000 families), and then a sharp rebound upwards to around 13 percent of families in 2008 (an increase of around 170,000 families). It is possible that the rebound in 2008 reflects the impact of the severe economic crisis and recession which began that year. The decline from 2003 to 2007, and the upwards reversal in 2008, are both statistically significant at the 5 percent level.

The vulnerability ‘score’

The Cabinet Office definition of vulnerable families comprised those families who were vulnerable according to *five or more* of the indicators specified in this chapter (under the original definitions which the Cabinet Office used of those indicators). By replicating the Cabinet Office’s methodology it is possible to reproduce their result that approximately 140,000 families in Britain were classified as vulnerable according to this ‘score’ measure in FACS for 2004 (of whom 120,000 were located in England). However, as explained above, changes to the deprivation questions in FACS mean that a slightly different deprivation definition has to be used for the FACS data from 2006 onwards. In addition, the original Cabinet Office low income definition was based on median incomes *for families with children only*, rather than for the whole sample. Correcting this measure so that low income is defined as 60 percent of median income for the whole sample slightly increases the number of families classified as vulnerable on five or more measures.

Figure 2.8 shows trends in the number of families classified as vulnerable on five or more indicators according to three different definitions:

- The original Cabinet Office definition (up to 2005 only);
- As for definition a) but with the material deprivation vulnerability indicator changed so that the series can be continued up to 2008;

- c) As for definition b) but with the low income definition changed so that it is based on median incomes for the whole sample (rather than just families with children).

Figure 2.9 gives the same figures in percentage terms, while Figures 2.10 and 2.11 give the same information for the number and percentages of children in families with five or more vulnerabilities.

Figure 2.8. The number of families in Britain with five or more vulnerabilities, FACS 2003–08

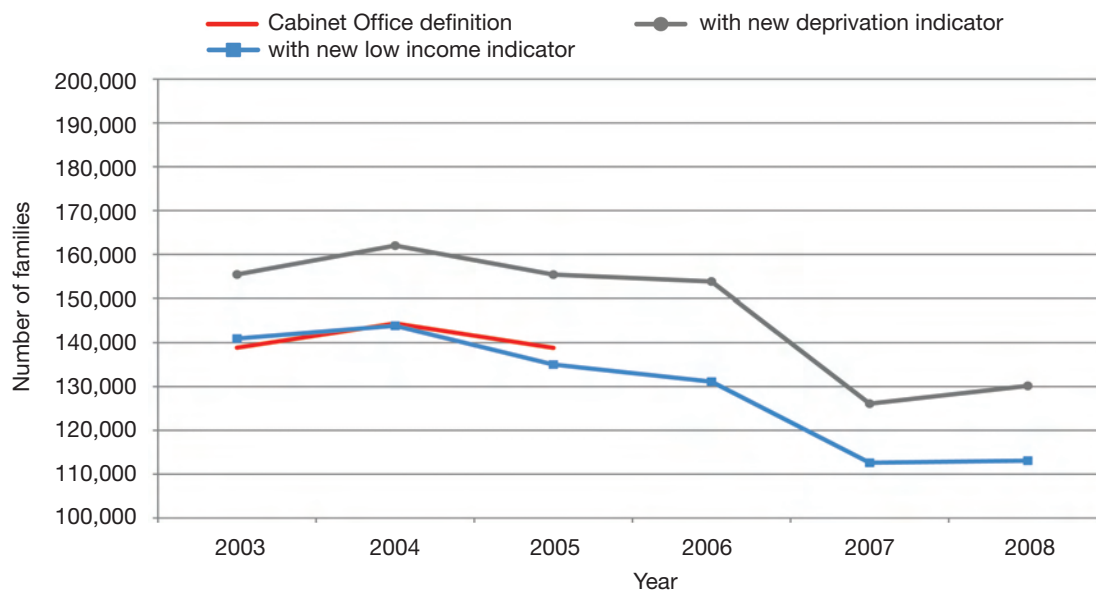


Figure 2.9. The percentage of families in Britain with five or more vulnerabilities, FACS 2003–08

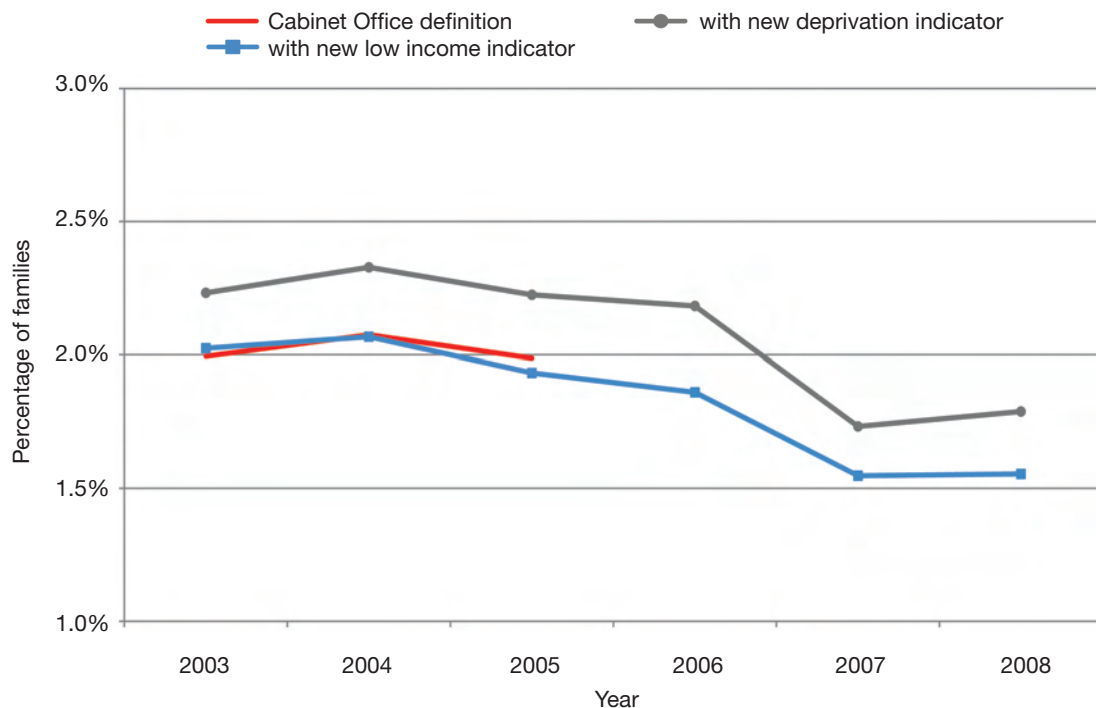


Figure 2.8 shows that the number of families measured as vulnerable on five or more indicators is extremely similar whether the Cabinet Office's original deprivation indicator is used (red line) or the new deprivation indicator is used (grey line with round points). Using the new deprivation indicator but the original low income indicator, the number of vulnerable families falls from around 145,000 in 2004 to just over 110,000 in 2007 and 2008.

Using the new low income indicator (below 60 percent of whole-sample median income), the number of families vulnerable on five or more measures falls from just over 160,000 in 2004 to around 130,000 in 2008. The reduction in the number of families is statistically significant at the 5 percent level. Interestingly, most of the jump in the number of vulnerable families appears to take place between 2006 and 2007. There does not seem to be any one explanation for the relatively large fall in the number of vulnerable families between 2006 and 2007. Rather it seems to be a combination of falls in five of the underlying vulnerability measures – the proportion of workless families, the proportion of families with no qualifications, the proportion with an LLSIDI, the proportion of low income families, and the proportion of families with material deprivation – all at the same time, and the interaction between these measures is what drives the fall in the numbers scoring five or more vulnerabilities.

Figure 2.9 shows that the percentage of families measured as vulnerable on five or more indicators, using the new deprivation and the whole-sample low income indicator, fell from about 2.3 percent of families in 2003 to around 1.8 percent in 2008.

Figure 2.10 looks at the number of *children* living in families with five or more vulnerabilities.

Figure 2.10. The number of children living in families in Britain with five or more vulnerabilities, FACS 2003–08

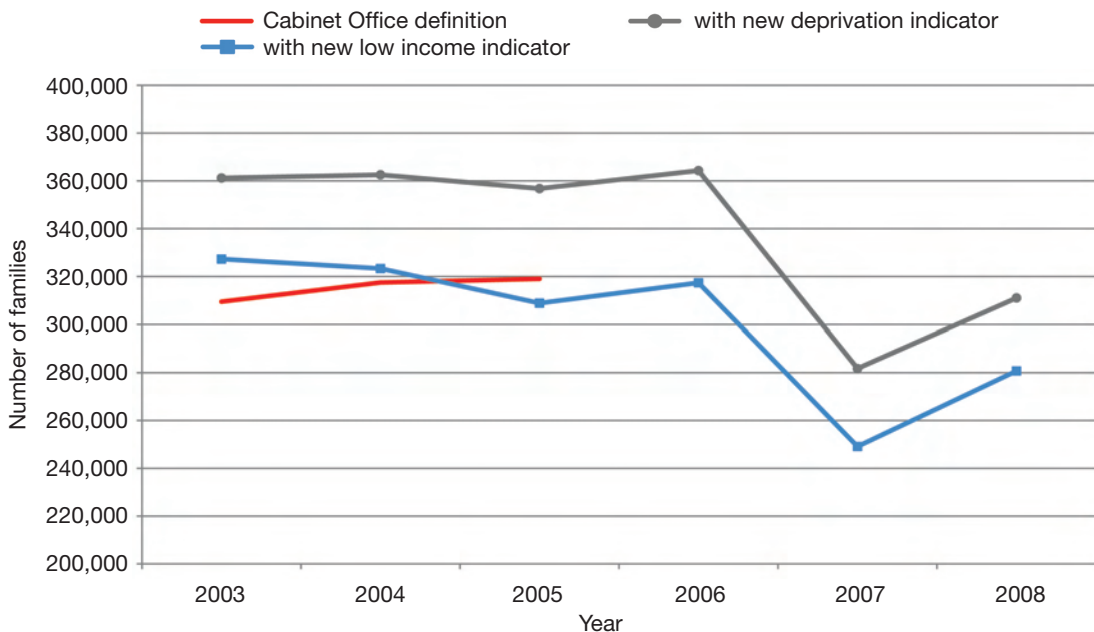
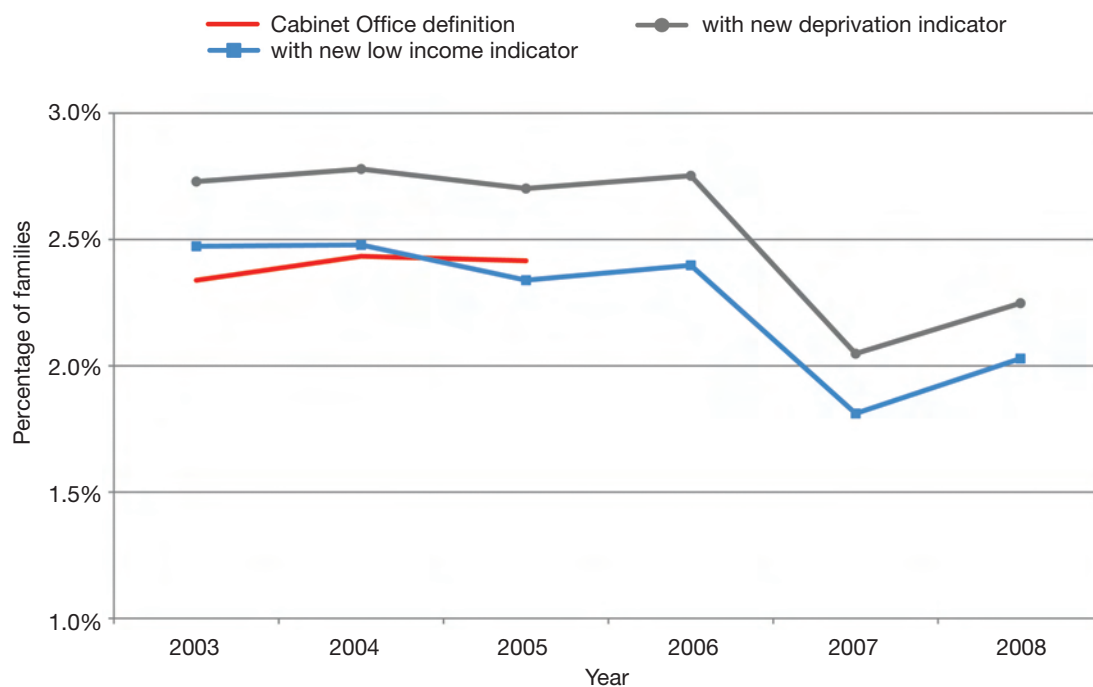


Figure 2.10 shows that the number of children in families with five or more vulnerabilities was reasonably constant at about 360,000 between 2003 and 2006 before falling to around 280,000 in 2007 and then rising to around 310,000 in 2008.

Figure 2.11 shows that the percentage of children living in families with five or more vulnerabilities is slightly higher than the percentage of families with five or more vulnerabilities, because families with five or more vulnerabilities have larger numbers of children on average (averaging 2.48 children per family in the 2008 FACS) than families with four or fewer vulnerabilities (averaging 1.89 children per family in 2008). On the new deprivation and low income definitions, the percentage of children in families with five or more vulnerabilities falls from around 2.75 to 2.2 percent of all children between 2006 and 2008.

Figure 2.11. The percentage of children living in families in Britain with five or more vulnerabilities, FACS 2003–08



While the Cabinet Office only published results for the number of families vulnerable on five or more measures, it is also interesting to look at movements in the number of families with other vulnerability “scores”. Figure 2.12 shows the number of families vulnerable on five, six or all seven measures between 2003 and 2008 (using the new low income and deprivation indicators). The number of families with six or more vulnerabilities peaked at around 40,000 in 2005 and declined to around 22,000 by 2008 – a steeper decline in percentage terms than for the number of families with five or more vulnerabilities. The number of families with all seven vulnerabilities is very small – between 1,300 and 2,000 in all years.

Figure 2.12. Families in Britain with 5, 6 or 7 vulnerabilities, FACS 2003–08

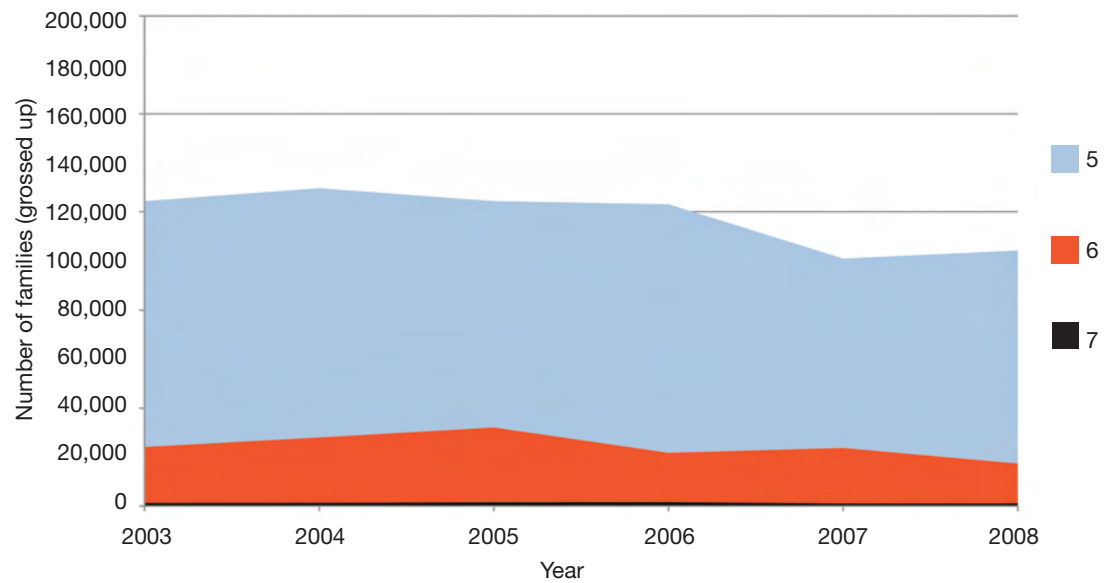


Figure 2.13 shows the number of families with a smaller number of vulnerabilities (two or more), which is much larger than the number of families with five or more vulnerabilities. The number of families with two or more vulnerabilities increased slightly over the period in question, from just over 1.83 million to around 1.87 million families. By contrast, the number of families with three or more vulnerabilities fell over the period, from around 1 million to 900,000 families. The number of families with four or more vulnerabilities also fell between 2003 and 2008, from around 475,000 to 395,000.

Figure 2.13. Families in Britain with 2 or more vulnerabilities, FACS 2003–08

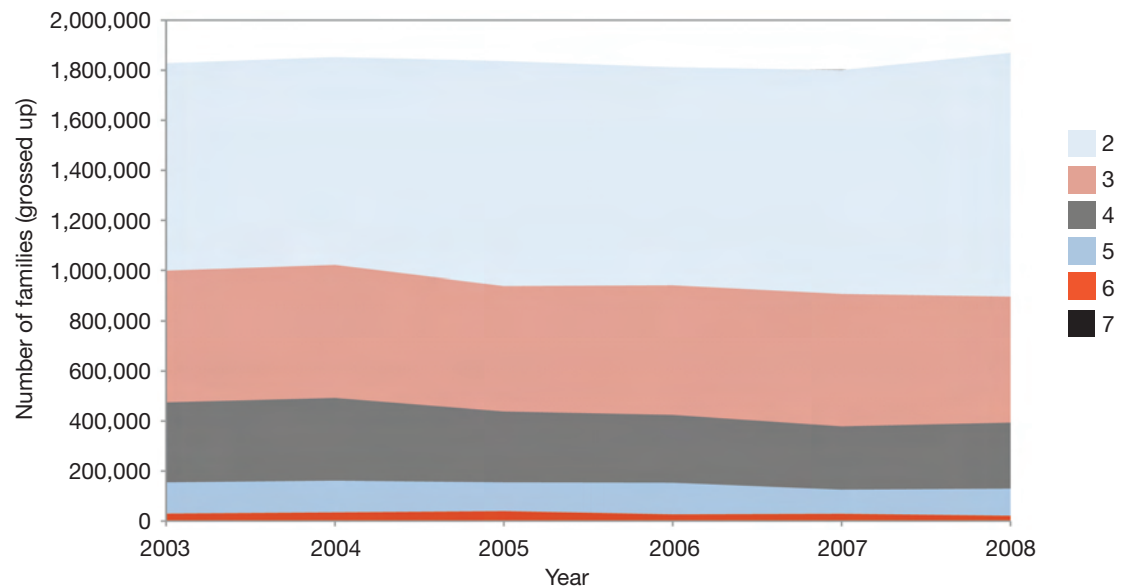


Figure 2.14 shows an equivalent graph to Figure 2.13 for the number of children in families with two or more vulnerabilities. The pattern looks reasonably similar to that shown in Figure 2.13, although the decline in the number of children with three or more vulnerabilities is less pronounced than for the number of families with three or more vulnerabilities.

Figure 2.14. Children in Britain with 2 or more vulnerabilities, FACS 2003–08

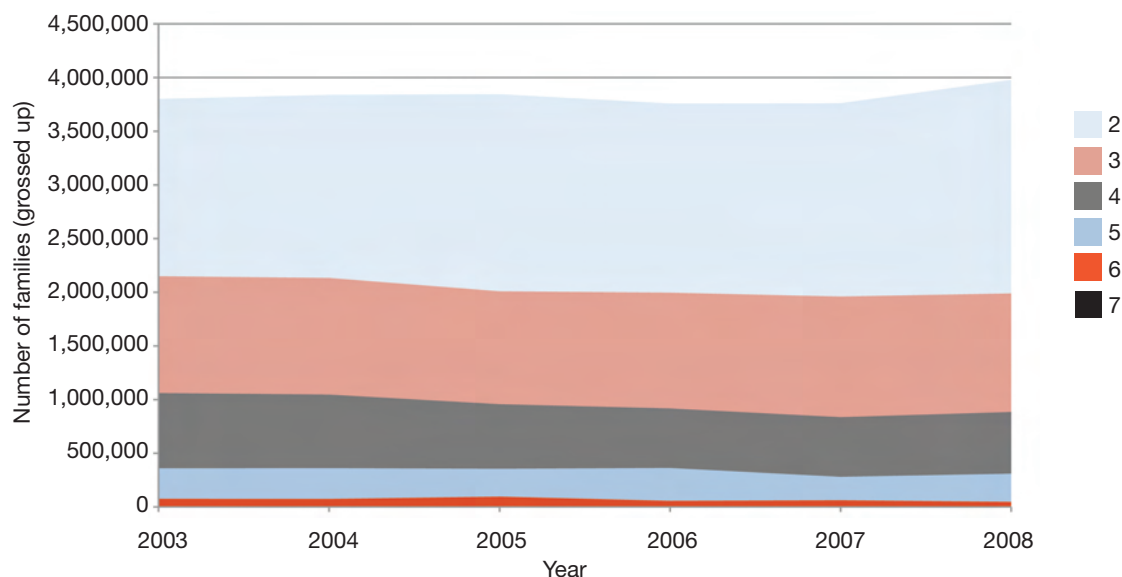
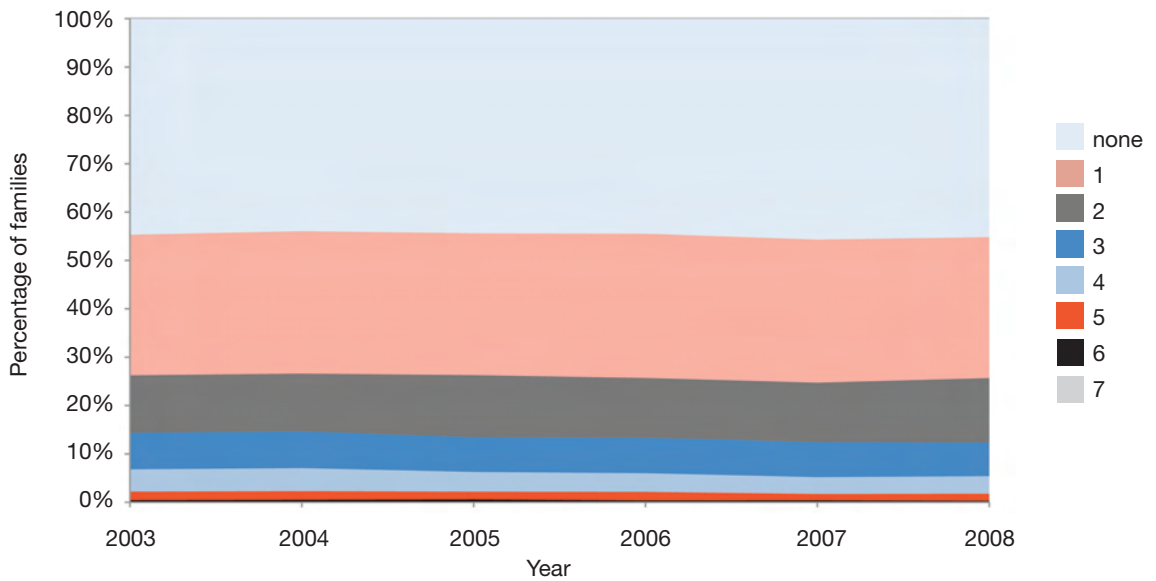


Figure 2.15 looks at the percentage of families who were not vulnerable on any measure in FACS and compares this with the percentage of families with one or more vulnerabilities. Around 45 percent of families in FACS were not vulnerable on any measure; this percentage is extremely stable over the sample period. The number of families with one or more vulnerabilities is simply the inverse of this measure, stable at 55 percent of the sample. The number of families with two or more vulnerabilities is also stable at around 26 percent of the sample. The number of families with five or more vulnerabilities falls from around 2.2 percent to 1.8 percent of the sample between 2003 and 2008, while the number of families with six or more vulnerabilities falls from 0.55 percent to 0.28 percent between 2005 and 2008.

Figure 2.15. Percentage of families in Britain with no vulnerabilities compared with families with one or more vulnerabilities, FACS 2003–08



Vulnerabilities in England, Wales and Scotland

Finally in this section, Figures 2.16 and 2.17 analyse vulnerabilities according to the three countries within Great Britain that are included in the FACS dataset – England, Wales and Scotland¹⁰. Figure 2.16 shows a breakdown of the number of families with five or more vulnerabilities each year (using the revised definitions of low income and material deprivation), split by country. Unsurprisingly, given that England has a much larger population than either Wales or Scotland, most vulnerable families are located in England. Between 2003 and 2008 the number of families with five or more vulnerabilities fell from around 130,000 to around 110,000 in England. The numbers of vulnerable families in Wales and Scotland fluctuate considerably (probably mainly due to small sample sizes in the FACS in Wales and Scotland), but average around 10,000 in Wales and around 15,000 in Scotland over the six years of FACS presented here, with no statistically significant trend in either country.

¹⁰ The FACS sample does not include Northern Ireland.

Figure 2.16. Numbers of families with five or more vulnerabilities by country: FACS 2003–08

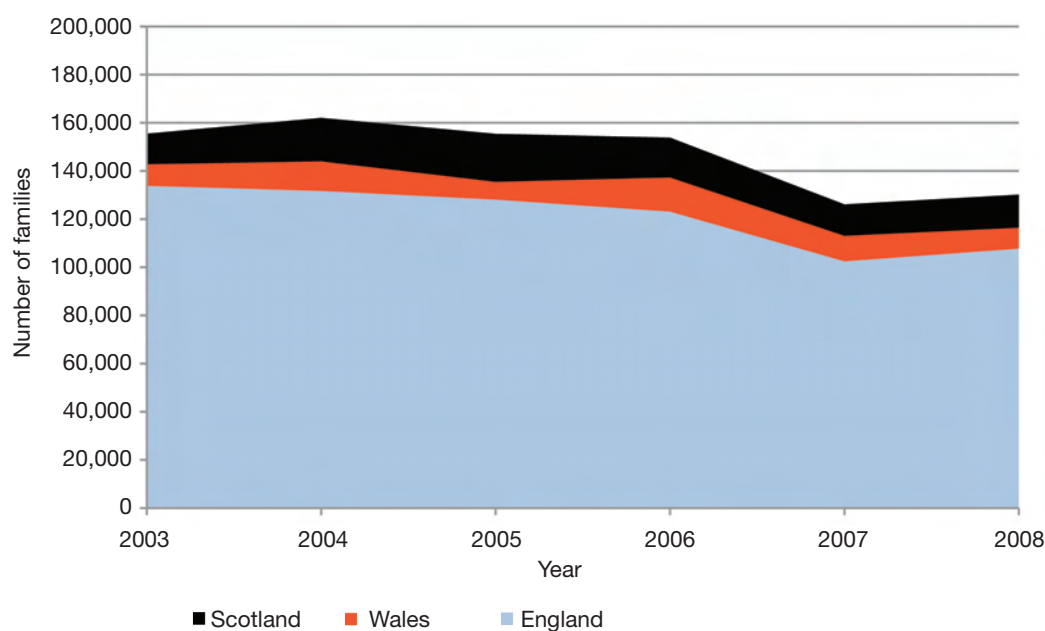
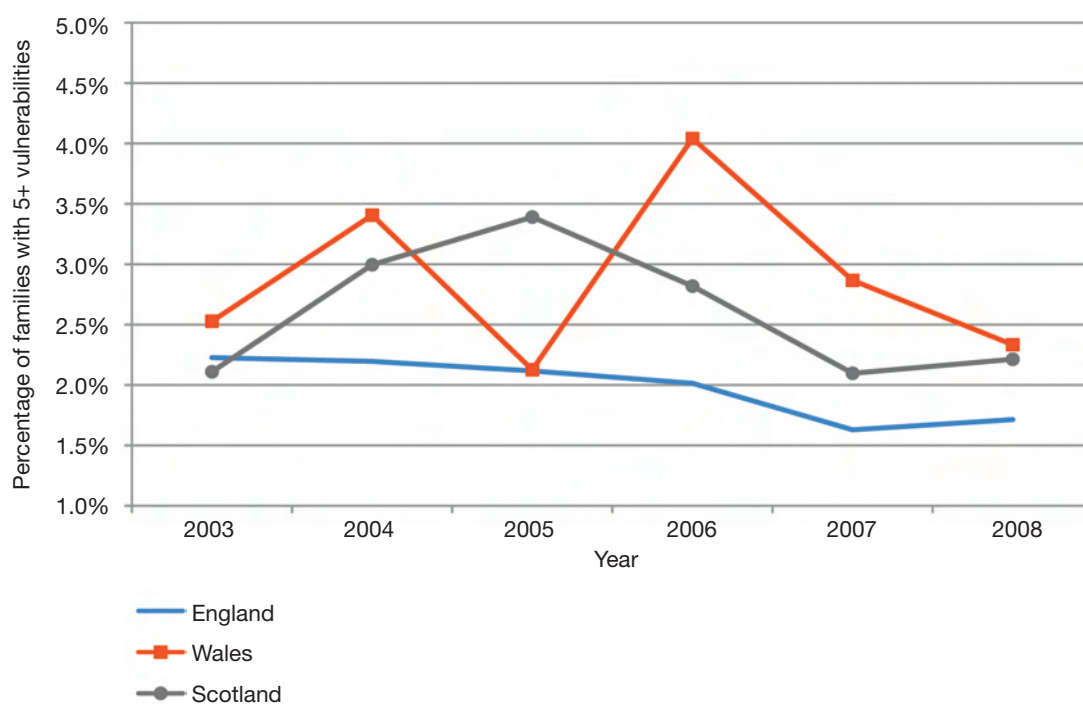


Figure 2.17 shows the percentages of families with five or more vulnerabilities by country. The pattern for England looks similar to the pattern for Britain as a whole shown in Figure 2.7. The percentages for Scotland and Wales are much more volatile than for England, reflecting the low sample sizes for the two smaller countries. In most years, the percentage of vulnerable families in Wales and Scotland is larger than for England.

Figure 2.17. Percentages of families with five or more vulnerabilities by country: FACS 2003–08



In summary

- The number of families defined as 'vulnerable' or 'troubled' by government (the number of families vulnerable with five or more measures) decreased from around 160,000 in 2004 to just over 130,000 in 2008. The number of children living in these families fell from 360,000 in 2003 to around 310,000 in 2008.
- However, the number of families in need of substantial support is much higher than implied by this measure. More than three times as many families (395,000) had four or more vulnerabilities in 2008; 900,000 families had three or more, and 1.87 million had two or more.
- Similarly, there are nearly three times as many children (885,000) living in families with 4 or more vulnerabilities, nearly 2 million children living in families with three or more vulnerabilities and 3.9 million have two or more.

3

THE PERSISTENCE OF VULNERABILITY: EVIDENCE FROM THE PANEL ELEMENT OF FACS

This chapter looks at the extent to which families who are vulnerable in any one year in the FACS survey, stay vulnerable in future years. Is vulnerability (on any of the measures shown in Chapter 2) a temporary state, or do families tend to remain trapped in vulnerability for longer periods of time?

Chapter 2 analysed FACS as if it were a repeated cross sectional survey, with a different set of families surveyed each year. However, FACS contains a substantial panel component which can be used to analyse changes in vulnerability for families across time. Table 3.1 shows two transition probabilities for each of the seven vulnerabilities defined by the Cabinet Office:

- a) The probability of becoming vulnerable in the next year of the survey for families who were not vulnerable this year.
- b) The probability of escaping vulnerability in the next year of the survey for families who were vulnerable this year.

The probabilities are averaged across all six annual waves of FACS from 2003 to 2008.

Table 3.1 shows that the vulnerabilities which families **are least likely to “fall into”** if they are not already experiencing them are: having no qualifications, the mother becoming depressed, or not working. The most likely vulnerabilities are low income and having a limiting long-standing illness, disability or infirmity. Poor quality housing and material deprivation are somewhere in the middle. The fact that not many families move from having qualifications to not having qualifications is unsurprising; once a person has qualifications he or she cannot lose them, and so the only way a family could enter this category (assuming that the qualifications questions in FACS are answered accurately each year) is in a situation where an unqualified FACS respondent with a partner with qualifications loses that partner. It is also unsurprising that a situation where the mother becomes depressed is rare because the incidence of maternal depression in FACS is very low across the sample.

The fact that families are considerably **more likely to move into** poor quality housing from year to year than they are to become workless is interesting, as the overall sample proportions of worklessness and poor quality housing are similar. This suggests more “churn” in and out of poor quality housing than worklessness, and this is backed up by the fact that the probability of escaping bad housing is higher than the probability of escaping worklessness.

The probability of escaping low income, at around 38 percent, is substantially higher than the probability of escaping LLSIDI, which implies that LLSIDI is a more persistent state than low income. Material deprivation and maternal depression are the most transitory vulnerabilities of all, with escape probabilities of 46 percent and 55 percent respectively.

Table 3.1. Conditional transition probabilities into and out of vulnerability, FACS panel, 2003–08

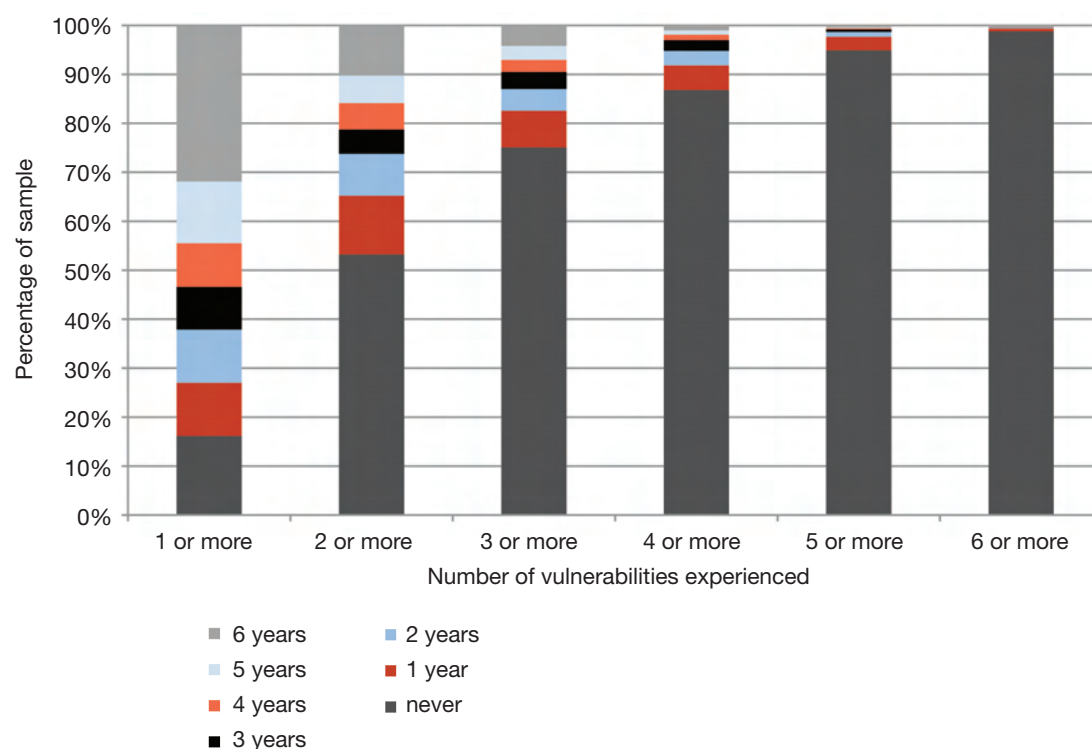
vulnerability	Probability of becoming vulnerable in next year if not vulnerable this year (%)	Probability of escaping vulnerability in next year if vulnerable this year (%)	Average probability of having this vulnerability in each wave (%)
Not working	2.5	17.8	14.64
Poor quality housing	6.2	29.6	15.40
No qualifications	0.9	14.1	6.45
Mother depressed	0.8	54.5	1.23
LLSIDI	14.1	24.9	30.95
Low income	11.8	37.8	22.08
Material deprivation	5.9	46.2	12.56

Figure 3.1 presents an analysis of the vulnerability “score” across the FACS panel over all six years. The left hand column labelled “number of vulnerabilities experienced: one or more” shows the proportion of the sample who experienced at least one vulnerability in all six years (in light grey at the top of the column), five years (in light blue), four years (in lighter red), three years (in black), two years (in blue), one year (in red) and not in any year (in dark grey). Over 30 percent of the sample were vulnerable on at least one measure in all six years of the FACS panel. Just over half were vulnerable in at least four of the six years. Only 15 percent were never vulnerable on any dimension in any of the six years.

The second column labelled “number of vulnerabilities: two or more” shows the proportion of families who experienced at least two vulnerabilities in all six years, five years, four years and so on. Only around 10 percent of families had at least two vulnerabilities in all six years. Just under half were vulnerable on two measures in at least one year.

Viewed from left to right, the remaining columns show the proportion of families experiencing at least three, four, five and six vulnerabilities respectively. The results show that around 75 percent of the sample never experienced three or more vulnerabilities in any year, around 85 percent never experienced four or more vulnerabilities, and about 95 percent never experienced five or more vulnerabilities.

Figure 3.1. Analysis of vulnerability score across the FACS panel, 2003–08



In summary

- The most persistent vulnerabilities (i.e. those where vulnerable families are least likely to escape from vulnerability in subsequent years) are no qualifications, limiting long standing illness, disability or infirmity, and poor quality or overcrowded housing.
- 85 percent of families in FACS experienced some kind of vulnerability in at least one of the six years 2003 to 2008. Over 30 percent of the sample were vulnerable on at least one measure in all six years of the FACS panel
- Just under half of families experienced two vulnerabilities in at least one year, but only around 10 percent of families had at least two vulnerabilities in all six years.
- Serious vulnerability under the Cabinet Office's definition (five or more vulnerabilities) is relatively rare; only 5 percent of the sample experienced five or more vulnerabilities in at least one of the six years of FACS analysed here.

4

THE IMPACT OF TAX AND BENEFIT CHANGES ON VULNERABLE FAMILIES, 2010–2015

This chapter uses microsimulation of the changes to the tax and benefits system taking place between 2010 and 2015 to look at the distributional effect of these changes on families with children, with a special focus on the impact on vulnerable families. The 2008 FACS is the dataset used to model most of the changes.

A detailed list of the tax and benefit changes modelled is provided in the technical annex to this report.

Impact of tax and benefit changes by decile

Figure 4.1 shows the impact of tax and benefit changes by income decile in the FACS¹¹. The changes in net income in the diagram are divided into eight different categories as follows:

1. The changes to income tax and employee National Insurance contributions (labelled “Income tax/ NICs”)
2. The impact on disposable incomes of the increase in VAT from 17.5 percent to 20 percent (labelled “VAT”).
3. Changes to Housing Benefit up to autumn 2013 (labelled “HB”).
4. Changes to Council Tax Benefit over the whole period up to April 2015 (labelled “CTB”).
5. The freezing of Child Benefit in cash terms for three years from 2011 onwards (labelled “Child Benefit”).
6. Changes to other non-means-tested benefits (principally the replacement of Disability Living Allowance with Personal Independence Payment) (labelled “other NMT benefits”).
7. Changes to means-tested benefits and tax credits coming into effect up to Autumn 2013 including Income Support, income-based Jobseekers Allowance (JSA), Employment and Support Allowance (ESA), and the Child Tax Credit and Working Tax Credit, as well as changes to Incapacity Benefit (IB) resulting from the on-going reassessment of the IB caseload and the reassignment of the caseload to ESA or JSA depending on their work status, the ESA assessment for new claimants, and the benefit cap of £500 per week for families with children not claiming Disability Living Allowance or Working Tax Credit (labelled “MTBs/TCs except UC”).
8. The introduction of Universal Credit in 2013, which replaces IS, income-based JSA and ESA, Housing Benefit and tax credits (labelled Universal Credit)¹².

¹¹ The deciles are defined according to the categories for HBAI in the FRS for 2008–09.

¹² Note that the distributional impacts of Universal Credit are presented relative to a scenario where the old means-tested benefit and tax credit system is kept in place after autumn 2013 and uprated to 2014–15 prices using Consumer Price Index. The “means-tested benefits plus tax credits except Universal Credit” bars in Figure 4.1 and the other figures in this chapter show the impact of the old means-tested benefit system if it were kept in place up to 2015, while the Universal Credit bars show the additional impact of moving to Universal Credit (again, with CPI uprating for 2014–15).

The line on the figure shows the total combined impact of all the changes to taxes and benefits combined. All figures are presented in real terms at April 2012 prices.

Note that the impact of Universal Credit shown in the figures in this chapter is likely to be an overestimate of the impact by 2015, for two reasons:

- While all new working-age claimants for means-tested benefits will be assessed for Universal Credit instead of the old tax credit system from autumn 2013 onwards, the Department for Work and Pensions estimates that the process of transferring existing means-tested benefit and tax credit claimants to Universal Credit will not be complete until 2017. This means that many claimants will still be receiving payments under the old system in 2015.
- A transitional protection scheme will operate whereby existing claimants transferred across to Universal Credit will not receive less in cash terms under the new system than they would have done under the old one. However, this transitional protection will be eroded over time by price inflation, and also the protection only applies to claimants whose claims are continuous and whose circumstances do not change. The integration of Universal Credit, therefore, reflects the position if the new benefit were “fully introduced” by 2015.

This means that only part of the distributional impact of Universal Credit (the pink bar in Figure 4.1 and the other graphs in this chapter) will be actualised by 2015, with the rest occurring by 2017, or when transitional protection is fully eroded by inflation and/or changes in claimant circumstances.

Figure 4.1. The cash impact of tax and benefit changes, 2010–15, by family decile

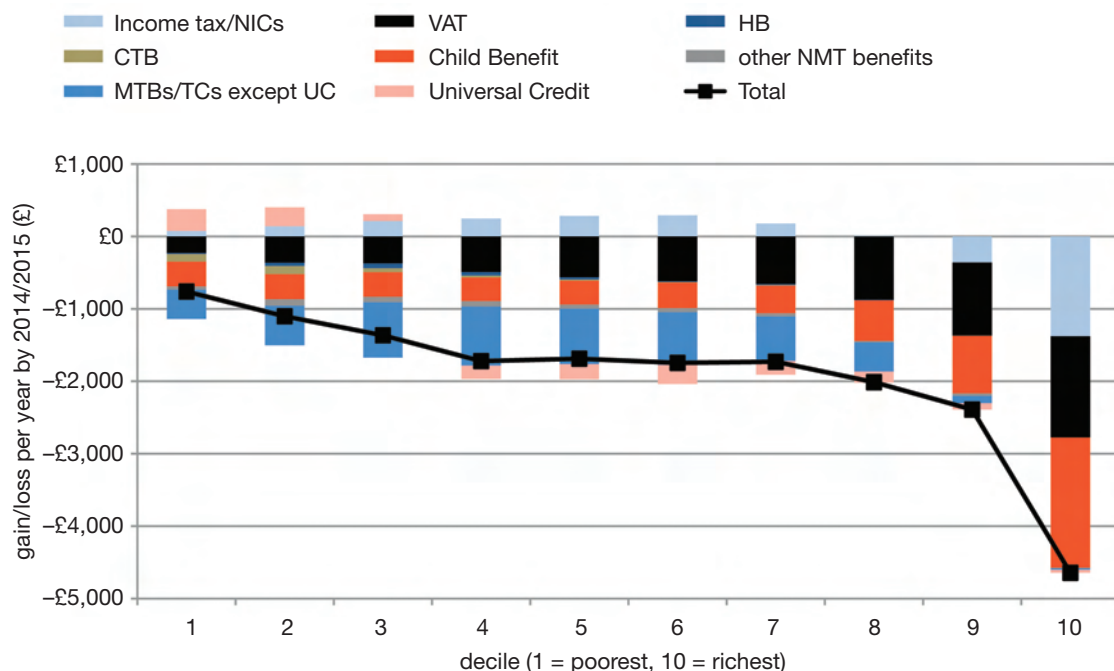


Figure 4.1 shows that the overall cash impact of the changes is negative for all groups. The overall impact is lowest for the poorest decile, then increases gradually up to the fourth decile. The overall impact is approximately similar for the fourth to the ninth decile, but is much larger for the richest decile, for two reasons: (a) increases in NICs at the top end of the earnings scale and (b) the removal of Child Benefit from high-income families. These outweigh the effect of the reduction in the top income tax rate from 50 percent to 45 percent.

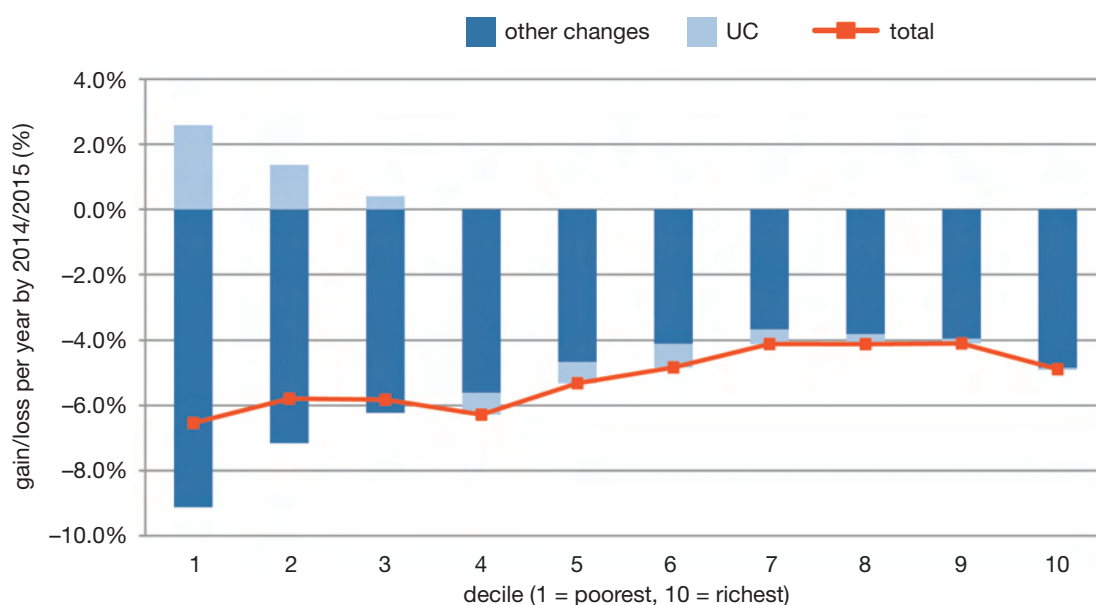
The changes to means-tested benefits prior to 2013 reduce income for all deciles, but particularly the third decile through to the seventh decile. The Housing Benefit changes also reduce income in the lower deciles but not by as much (on average) as for the means-tested benefit changes, partly because the Housing Benefit restrictions mainly affect tenants in the private rented sector, and a high proportion of families with children in the lower deciles of the income distribution are in the social rented sector. The Council Tax Benefit reductions – which result in a decrease of around 24 percent in total real terms expenditure on Council Tax Benefit for working-age families between 2010 and 2015 – have a significant impact on incomes in the lowest three deciles in particular.

The introduction of Universal Credit results in a slight increase in net income for the poorest three deciles, but this is outweighed by the reduction in Income Support and Tax Credits, and the Incapacity Benefit/Employment and Support Allowance changes over the period 2010 to 2013. The other seven deciles lose out on average from the introduction of Universal Credit, although as shown later in this chapter, the overall distributional pattern conceals significant variation according to family type and work status.

The Child Benefit freeze has a significant negative impact across all deciles (averaging around £360 per family per year). Changes to Disability Living Allowance and other non-means-tested benefits also have a negative impact although the average impact is smaller than for means-tested benefits. The income tax and National Insurance contributions reductions at the bottom end of the earnings scale deliver a small cash boost for the lowest 60 percent of the income distribution, but this is not enough to compensate for the benefit and tax credit cuts. Finally, the VAT increase results in a substantial reduction in living standards across all deciles, with the impact being bigger for higher deciles because expenditure is higher (on average) for families with higher incomes.

Figure 4.2 shows the overall impact of the changes to taxes and transfer payments in real terms as a percentage of net income under the initial tax/benefit system (2010/11) by decile. The distributional effects are broken down into the effect of Universal Credit (in light blue) and the effect of all the other tax, benefit and tax credit changes over the period 2010 to 2015 (in dark blue). Overall, the distributional pattern is regressive except for the top decile, which loses more than the seventh, eighth, or ninth deciles. The poorest decile loses out most in percentage terms (by just over 6 percent), even though the impact of Universal Credit for this decile (and for the second and third deciles) is positive.

Figure 4.2. Overall impact of tax and benefit changes, 2010–15, as a percentage of net income by decile



Impact of tax and benefit changes by family type

Table 4.1 shows that the impact of the tax and benefit changes by family type differs markedly for lone parents and couples, and also according to whether each adult is in work or not and the number of hours they work. Lone parents are worse off on average from the changes. The introduction of Universal Credit results in a small gain for lone parents who are not working, and for those working between one and 15 hours per week, but substantial losses for lone parents working 16 hours or more, who suffer the largest losses of any group as a result of Universal Credit. This is because of the abolition of the Working Tax Credit premium for working 16 or more hours. The other changes to Housing Benefit, Council Tax Benefit, Child Benefit and other parts of the benefit system also have an adverse impact on lone parents regardless of their work status.

Couples where one partner is working more than 16 hours and the other partner is not working (or working less than 16 hours per week) gain substantially on average from the introduction of Universal Credit, whereas couples with two earners working 16 or more hours per week lose out on average. On average across the whole of FACS, couples gain (slightly) from Universal Credit whereas lone parents lose out. However, couples' gain from Universal Credit is not large enough to offset the losses from other parts of the tax and benefit system and so couples lose out from the reforms overall, although their average loss (at 4.4 percent of net income) is less than half that of lone parents (at 9.7 percent of net income).

Lone parents lose out from Universal Credit by more than couples on average because of a particular feature of the way the Universal Credit system operates compared with the old tax credit system. As Brewer *et al* (2010)¹³ explain in an analysis of the Universal Credit proposals for the Institute for Fiscal Studies,

13 M. Brewer, J. Browne and W. Jin (2010), *Universal Credit: A Preliminary Analysis*. IFS Briefing Note 116. London: Institute for Fiscal Studies. <http://www.ifs.org.uk/bns/bn116.pdf>.

it is impossible for Universal Credit to replicate the way in which the current system treats lone parents. Under the current system, the basic entitlement to Working Tax Credit for a lone parent is greater than their basic entitlement to out-of-work benefits. For a lone parent who is not entitled to Housing Benefit or Council Tax Benefit, and whose earnings are below the income tax personal allowance and the point at which tax credits start to be withdrawn, this means that the government can pay out more benefits and tax credits to them when they are working than when they are not working. (This can occur, for example, for lone parents working at least 16 hours a week but who have sufficiently low earnings)... This situation is possible because entitlements to WTC can be set separately from entitlements to the out-of-work means-tested benefits. Such a situation cannot arise under Universal Credit, with its much simpler structure of just a basic entitlement, a single withdrawal rate and an earnings disregard. Inevitably, therefore, some working lone parents will lose out (ignoring transitional protection) from the move to Universal Credit. (Brewer et al, 2010, p24).

Table 4.1. Impact of tax and benefit changes by family type, 2010–15

Family type	Annual cash gain/loss including Universal Credit (£)	Gain/loss from Universal Credit (£)	Annual gain/loss as a percentage of original income
Lone parent: not working	–£1,236	£77	–8.0%
Lone parent: working <16 hrs	–£807	£286	–4.4%
Lone parent: working 16–29 hrs	–£2,413	–£1,359	–12.8%
Lone parent: working 30+ hrs	–£2,408	–£997	–9.3%
All lone parents, average	–£1,868	–£608	–9.7%
Couple: respondent not working, partner not working or <16 hrs	–£1,541	£477	–8.2%
Couple: respondent not working, partner 16+ hrs	–£2,072	£342	–6.2%
Couple: respondent working 1–15 hrs, partner not working or <16 hrs	–£541	£1,139	–3.1%
Couple: respondent working 1–15 hrs, partner 16+ hrs	–£2,455	–£173	–6.3%
Couple: respondent 16–30 hrs, partner not working or <16 hours	£2,750	£4,168	11.7%
Couple: respondent 16–30 hrs, partner 16+ hours	–£1,910	–£169	–4.6%
Couple: respondent 30+ hrs, partner not working or <16 hours	£1,229	£2,692	4.6%
Couple: respondent 30+ hrs, partner 16+ hours	–£1,602	–£83	–3.3%
All couples, average	–£1,716	£168	–4.4%

Impact of tax and benefit changes by number of children

The next section assesses the average gains and/or losses from the changes to taxes and benefits for vulnerable families according to the number of children in each family – one, two, three or four or more. Figure 4.3 shows the pattern of cash losses according to number of children, labelled using the same schema as Figure 4.1. Average cash losses are larger for families with three or more children than

for families with one or two children, due to the combined effects of bigger losses from Child Benefit, Council Tax Benefit, DLA and other means-tested benefits, and Universal Credit. The income tax and National Insurance changes also deliver net benefits to families with one or two children, but losses to families with three or more children. Losses from VAT are fairly even in cash terms across each group.

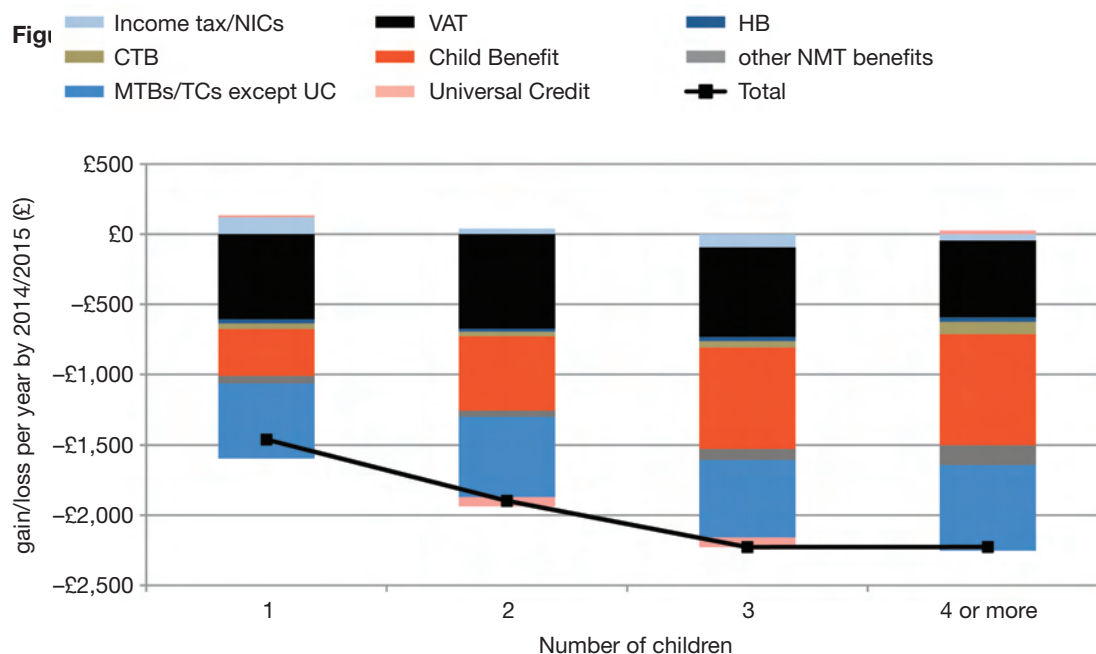
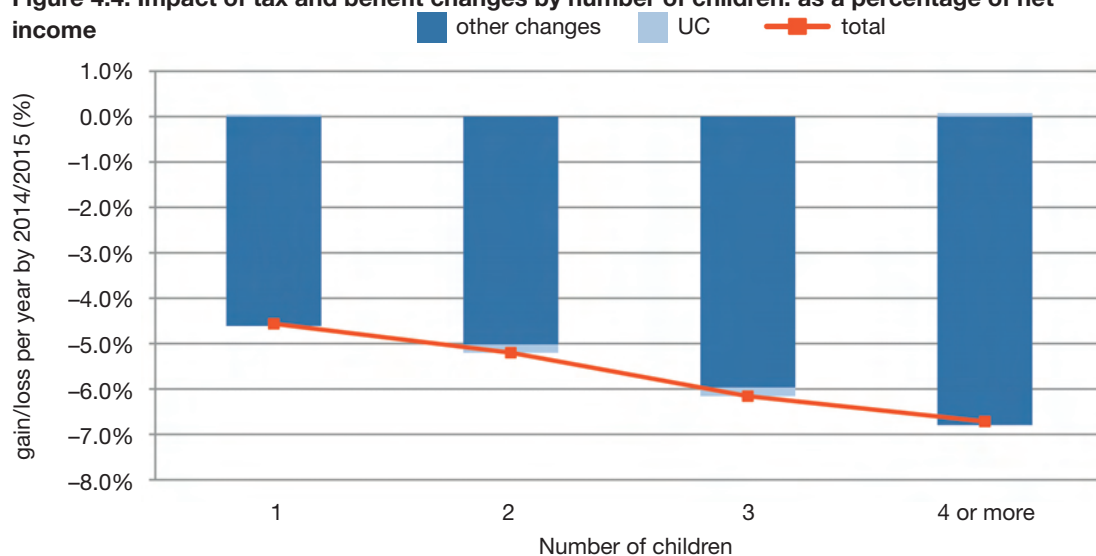


Figure 4.4 shows average losses as a percentage of net income according to number of children. Percentage losses are largest for families with four or more children. Families with one child lose out least.

Figure 4.4. Impact of tax and benefit changes by number of children: as a percentage of net income



Impact of tax and benefit changes by vulnerability measure

The next part of this section looks at the gains and/or losses from the changes to taxes and transfers for vulnerable families according to the seven classifications presented in Chapters 1 and 2. Figure 4.5 shows the same breakdown of the tax and transfer changes as for Figure 4.1, but for each of the seven vulnerability measures, labelled in the diagram as follows:

- Workless family – **work**
- Poor quality and/or overcrowded housing – **housing**
- Parents have no qualifications – **quals**
- Mother suffers from depression – **depression**
- Parent with limiting long-standing illness, disability or infirmity – **LLSIDI**
- Income below 60 percent median equivalised disposable – **income**
- Material deprivation – **deprivation**

Figure 4.5 shows that the overall cash impact of tax and benefit changes is negative for all of the vulnerability categories. The group that loses the most in cash terms is families where the mother is depressed (just under £1,800 per year on average), with the low income group losing least on average (around £800 per year). Workless families, families with no qualifications, families where the mother is depressed and families with material deprivation lose out most in cash terms from the Council Tax Benefit and Housing Benefit changes. The Disability Living Allowance changes and changes to other non-means-tested benefits hit workless families and those with maternal depression hardest. The other means-tested benefit changes (including the transfer from Incapacity Benefit to Employment Support Allowance) have the biggest negative impact on families in poor housing, those with an LLSIDI, families with maternal depression, and those with material deprivation. The impact of Child Benefit cuts is largest for families in poor quality housing and those with an LLSIDI. The impact of the VAT increase is also largest for families with an LLSIDI.

The Universal Credit results in gains for all groups but the size of the gains differs significantly according to the vulnerability. Groups with no qualifications, low income families and families experiencing material deprivation gain most from the Universal Credit while those with maternal depression, LLSIDI and poor quality housing gain the least.

Figure 4.6 presents the total impact of tax and benefit changes for each type of vulnerable family as a percentage of net income. In percentage terms the impacts are largest for workless families and families with maternal depression (around 8 percent of net income). Families in poor quality housing, material deprivation and with a limiting long standing illness, disability or infirmity have the smallest losses in percentage terms (between 5 percent and 6 percent). Excluding the impact of Universal Credit, families with low income and workless families lose the most from the reforms in percentage terms.

Figure 4.5. Average cash impact of tax and benefit changes for families with particular vulnerabilities

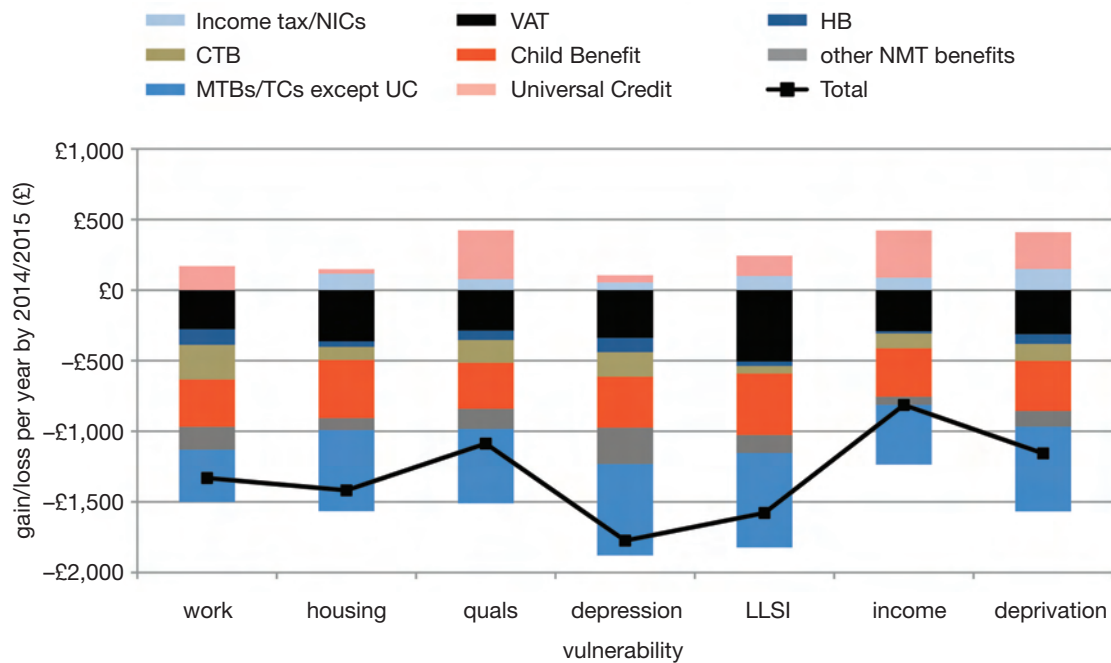
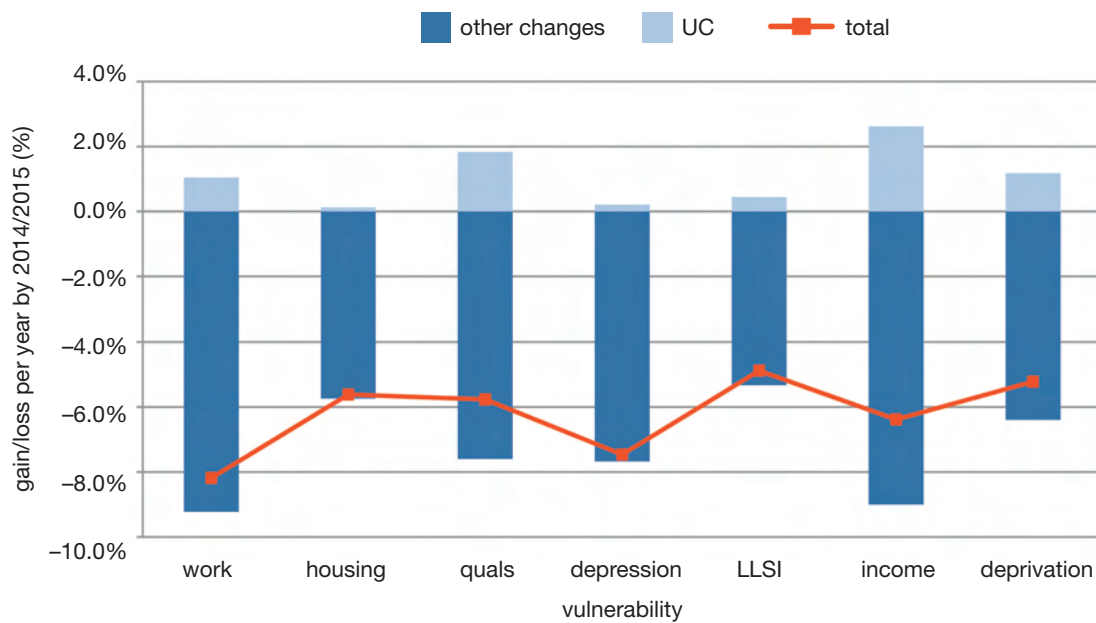


Figure 4.6. Total percentage impact of tax and benefit changes for families with particular vulnerabilities



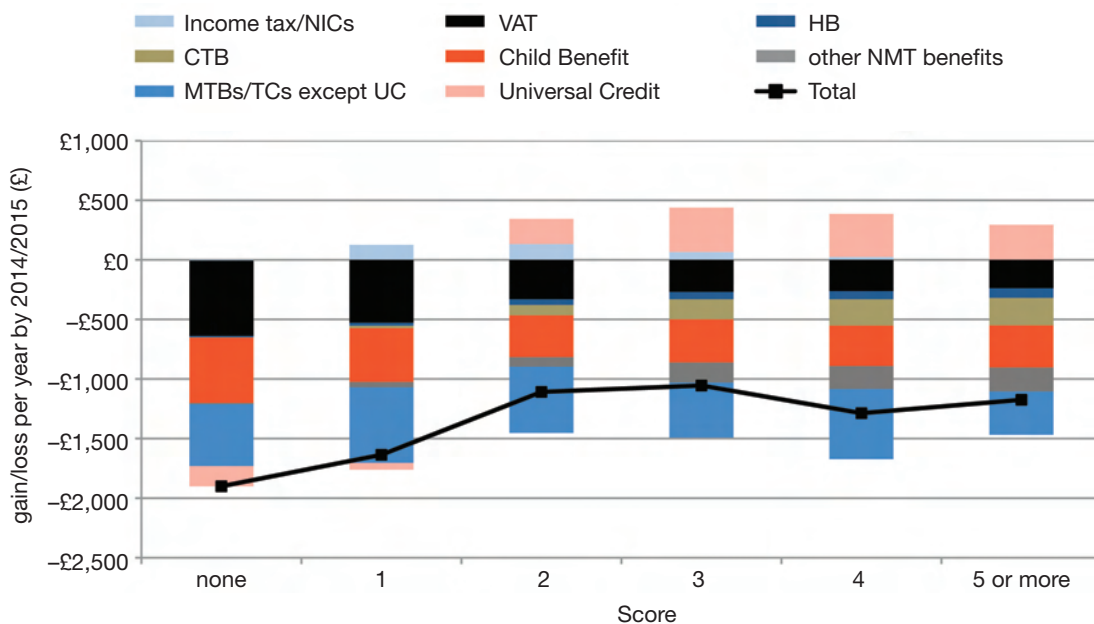
Impact of tax and benefit changes by vulnerability “score”

Finally in this section, Figure 4.7 analyses the changes in tax and benefits according to the vulnerability “score”, running from families with no vulnerabilities at the left-hand side of the figure to families with five or more vulnerabilities at the right-hand side¹⁴.

It shows that the income tax and NICs changes have a slight positive effect for families with one, two or three vulnerabilities; the impact of income tax and NICs changes on families in other categories is negligible. Changes to means-tested benefits and tax credits and Incapacity Benefit/Employment Support Allowance reduce net incomes substantially for families at all vulnerability levels. The same changes result in a slight boost in income for families with five or more vulnerabilities; this seems to be the result of the above inflation increase in the Child Tax Credit in 2011. Housing Benefit and Council Tax Benefit have a significant negative impact on families with two or more vulnerabilities; the size of this impact increases with the number of vulnerabilities. The Child Benefit cuts have a substantial negative impact across all groups but are largest for those with fewest vulnerabilities (largely because the high-income taxpayers who lose out from the withdrawal of Child Benefit from people with incomes above £50,000 are in the ‘no vulnerabilities’ group). The reductions in Disability Living Allowance and other non-means-tested benefits have a larger impact for families with higher numbers of vulnerabilities. The VAT change has the largest negative impact for families with lower numbers of vulnerabilities, largely because net incomes for these families are higher than for the more vulnerable families and so their expenditure also tends to be higher.

Universal Credit has a negative impact for families with no vulnerabilities or one vulnerability, but a positive impact for families with two or more vulnerabilities. Families with three or four vulnerabilities gain the most from Universal Credit. However, the gains from Universal Credit for vulnerable groups are not big enough to offset the losses resulting from the other changes to the benefit system.

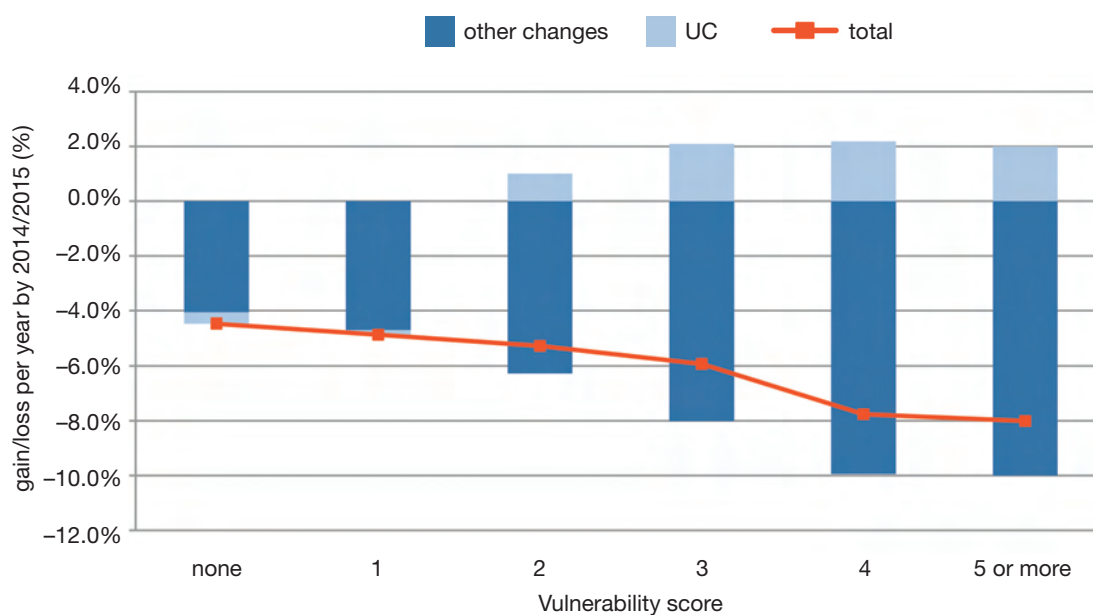
Figure 4.7. Real terms cash impact of tax and benefit changes, 2010–15, by vulnerability “score”



¹⁴ The FACS sample size for families with six or seven vulnerabilities is too small to obtain reliable results from this analysis for families in those categories considered separately, so in this case they have been combined with families with five vulnerabilities.

Figure 4.8 shows the impact of the tax and benefit changes as a percentage of net incomes according to vulnerability “score”. Worryingly, in percentage terms the average impact of the tax and benefit changes increases with the number of vulnerabilities. For families with four, five or more vulnerabilities the negative impact is substantial, at around 8 percent of net income. The negative impact of tax and benefit changes excluding Universal Credit ranges from 4 percent for families with no vulnerabilities to 10 percent for families with five or more vulnerabilities.

Figure 4.8. Percentage impact of tax and benefit changes, 2010–15, by vulnerability “score”



In summary

- Overall, the tax and benefit changes are regressive as a percentage of disposable income (adjusted for family size), with the poorest tenth of families losing just under 7 percent of their net incomes on average, whereas the richest half of families lose less than 5 percent.
- Lone parents lose out a lot more in percentage terms (almost 10 percent on average) compared with couples (less than 5 percent). Percentage losses are also larger on average for families with more children.
- In terms of specific vulnerabilities, changes to the tax and benefit system will, on average, have a negative impact on every type of vulnerable household analysed in this report. Families where the mother has mental health problems and workless families lose out most in percentage terms from the tax and benefit changes (with losses of around 8 percent of net income in each case).
- The negative impact of the tax and benefit changes is greater (as a percentage of net income) for families with larger numbers of vulnerabilities. Families with four or more vulnerabilities lose around 8 percent of their net income from the changes, compared to around 4 percent for families with no vulnerabilities.

THE BENEFITS WHICH VULNERABLE FAMILIES RECEIVED FROM PUBLIC SPENDING IN 2008

This section of the report shows the extent to which families of different types benefit from public spending. The analysis uses the model developed by Tim Horton and Howard Reed for the TUC report *Where the Money Goes: How We Benefit From Public Services* (published in 2010). The model originally used the Family Resources Survey for 2007/08 combined with service use information from a variety of data sources including the General Household Survey, British Household Panel Survey and the Expenditure and Food Survey. For this project the model has been adapted to run on the 2008 Families and Children Study, with service use data matched in from other data sources where necessary. The model also uses aggregate public expenditure information from HM Treasury's Public Expenditure Statistical Analyses (PESA) dataset¹⁵. This is allocated across households according to their use of different kinds of services in the FACS and other suitable datasets. Details of the modelling methodology are contained in the technical appendix to this project.

Public spending is divided into the following categories:

- **Health** – NHS services including hospital services, GPs, and subsidy for dental services, optical services and prescriptions.
- **Social care** – public subsidy for social care services provided or funded by local authorities.
- **Transport** – public subsidy for road building and maintenance, rail operators and infrastructure, subsidised bus services and other publicly funded transport infrastructure spending.
- **Housing** – subsidy to newbuild social housing and the maintenance of existing public and social housing stock, and the implicit subsidy to below-market rents in the social housing sector.
- **Early years** – public funding for nursery places, Sure Start children's centres, etc.
- **Schools** – state schooling up to year 11 (16 year olds).
- **Further education and higher education** – sixth form schooling and FE colleges, and public subsidy for universities and other HE provision, and adult learning.
- **Other** – other public services where information exists that allows us to allocate spending according to service use (for example police services, welfare-to-work and employment services and culture and recreation spending).

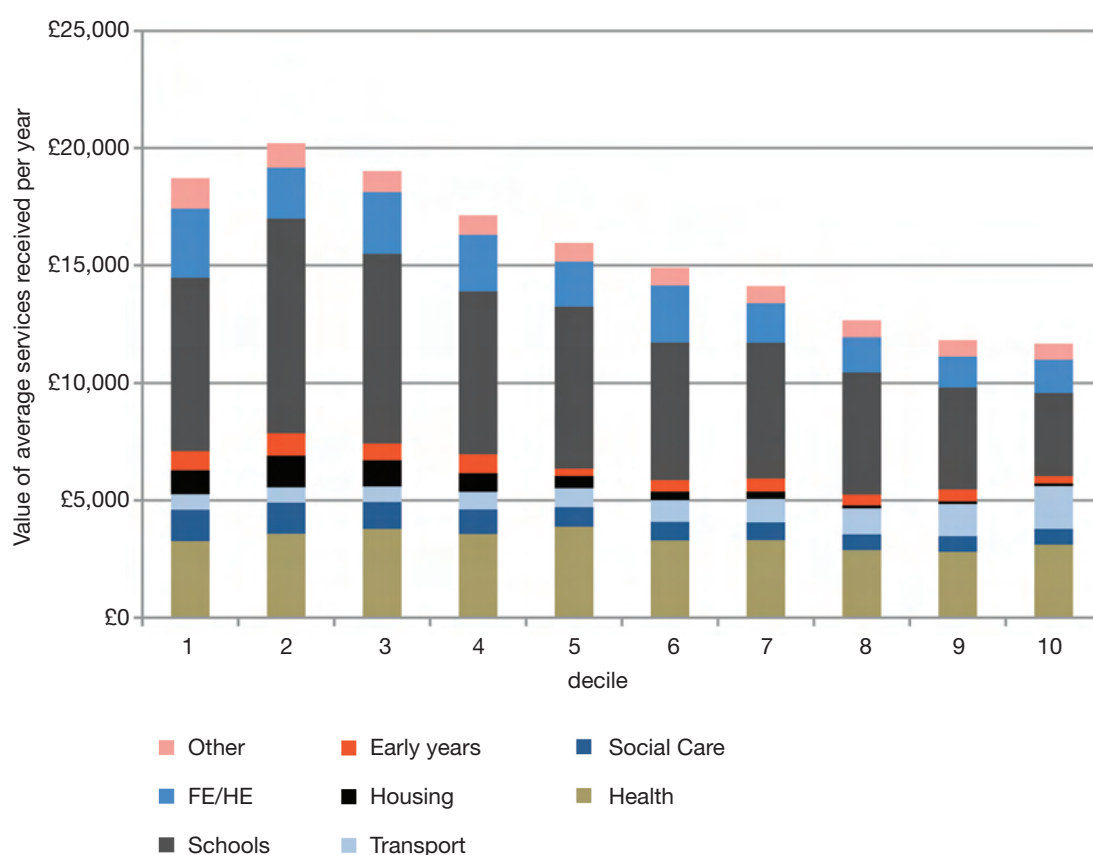
In total, around 70 percent of spending is allocated in this manner. The remaining spending consists of “pure public goods” which cannot be assigned according to service use (e.g. defence, environmental protection).

¹⁵ HM Treasury, *Public Expenditure Statistical Analyses*, http://www.hm-treasury.gov.uk/pespub_index.htm

Total spending by position in the family income distribution

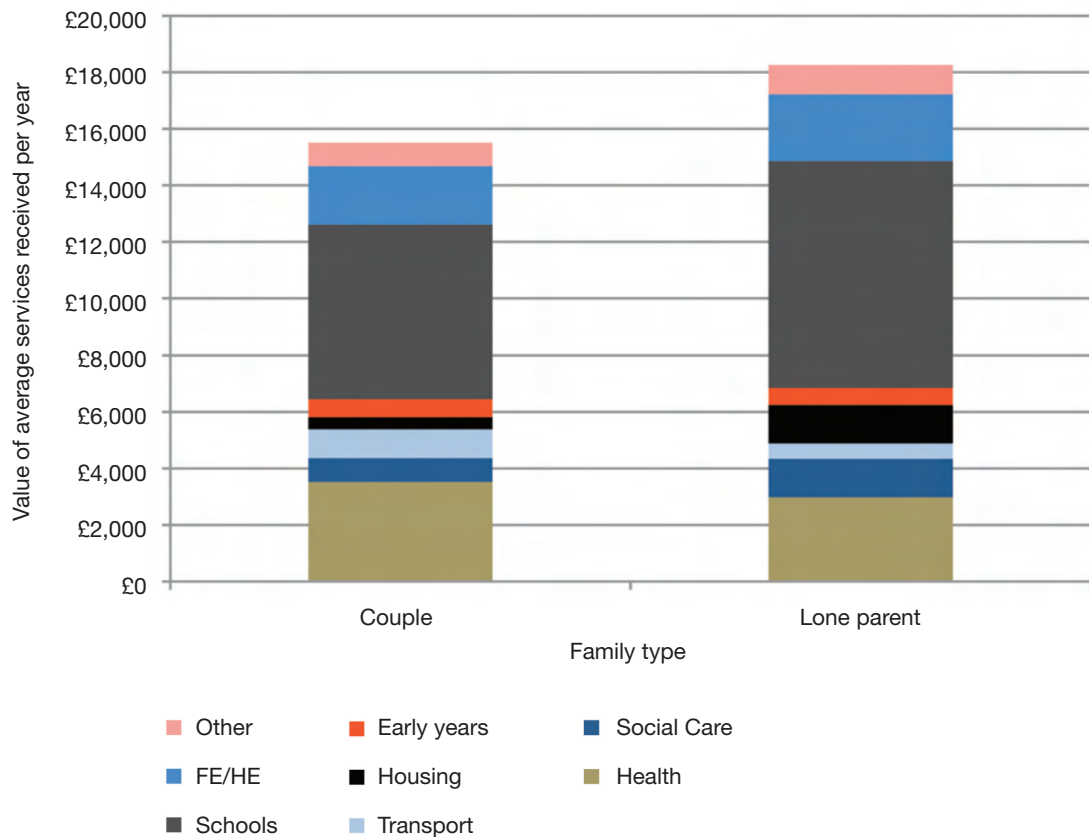
Figure 5.1 shows the distribution of spending on families with children in FACS in 2008 according to their position in the net income distribution, by decile. Most elements of spending are progressive in cash terms, meaning that they are extremely progressive as a share of income. For example, in the lowest decile the FACS data shows that average net family income in 2008 was around £12,000 per year whereas average net income in the top decile was around £95,000 per year. The only element of service use-related public spending which is not progressive in cash terms is transport (largely because well-off families use the rail network a lot more than poorer families.)

Figure 5.1. Average public spending by family decile, FACS 2008



Total spending by family type

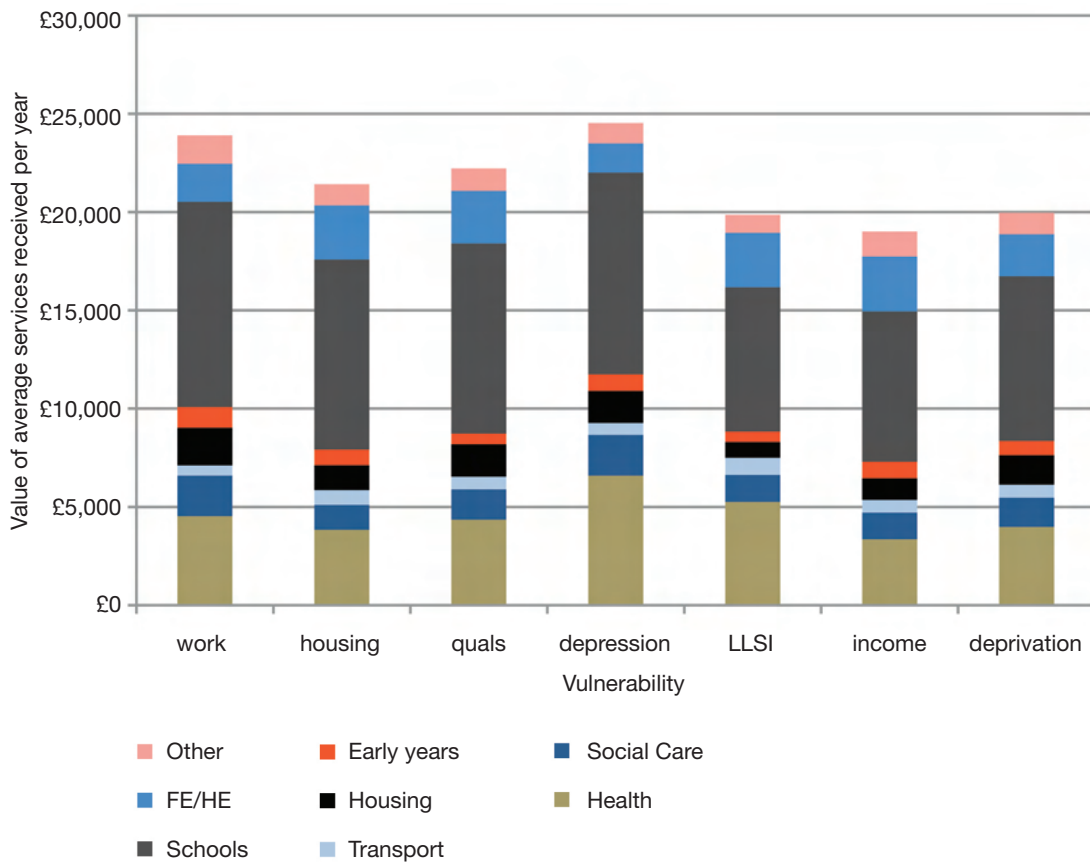
Figure 5.2 shows the distribution of spending by family type (lone parents versus couples.) Couples use more publicly funded healthcare services and transport but lone parents use more social care, public housing, and state schooling. For other areas of public spending the value of service use is approximately equal across family types. The average lone parent in FACS received public services spending of around £18,000 in 2008 compared to around £15,500 for couples on average.

Figure 5.2. Average public spending on families with children by number of adults, FACS 2008

Total spending by vulnerability measure

Figure 5.3 shows average spending on services for families with different types of vulnerabilities. The average value of services received across the whole FACS sample was around £16,200 in 2008. Every category of vulnerable family received services worth substantially more than this. The lowest average value of services received for a vulnerable category was £19,000 for low income families; the highest average value was £24,500 for families where the mother suffered from depression. As one might expect, families where the mother suffered from depression, or where one or more of the parents had a limiting long standing illness, disability or infirmity, used more public health services than other types of vulnerable family. Interestingly, families in poor quality or overcrowded housing were no more likely to receive publicly funded housing services than most of the other the vulnerable types, despite the fact that families in social housing were most likely to be classified as in poor quality or overcrowded housing in FACS. Workless families and families where the mother suffers from depression received a greater value of social care services than other vulnerable families on average.

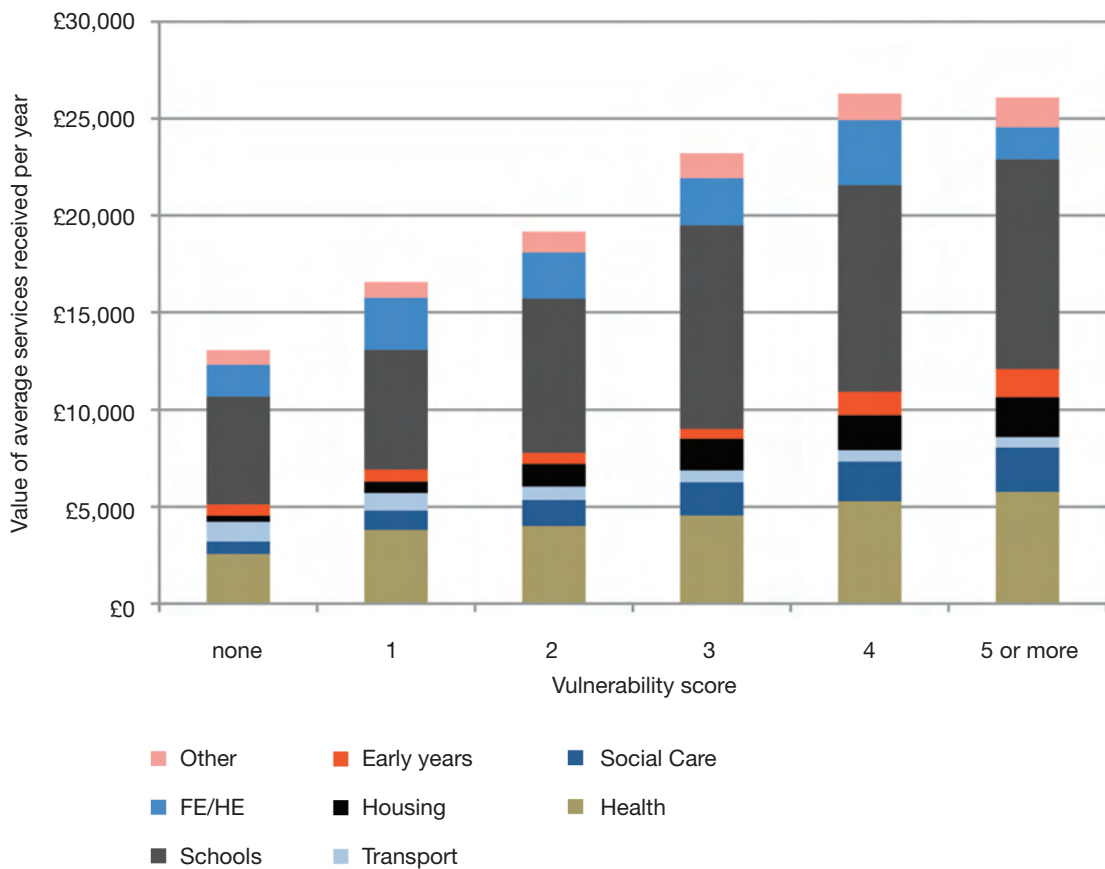
Figure 5.3. Average public spending on families with particular vulnerabilities, FACS 2008



Total spending by vulnerability “score”

Figure 5.4 shows the pattern of spending on services according to vulnerability “score”, defined as in the previous chapter. For scores of up to four vulnerabilities there is a clear positive relationship between the number of vulnerabilities a family has, and the value of public services received. Families with five or more vulnerabilities receive public services costing marginally less than the services received by families with four vulnerabilities, but this seems to be driven by lower spending on Further Education (FE) and Higher Education (HE) for the ‘five or more vulnerabilities group’; if FE and HE spending were taken out of the graph then there would be a positive relationship between amount of spending received and number of vulnerabilities all the way across the graph. Health, social care, housing, early years, and schools spending all have a positive “vulnerability gradient” – at least as far up as four vulnerabilities. Only transport has a negative gradient, with average levels of funding falling as the number of vulnerabilities increases.

Figure 5.4. Average public spending by vulnerability “score”, FACS 2008



In summary

- The distributional impact of public services overall is progressive; the poorest fifth of families receive public services worth around £19,000 per family on average compared with around £12,000 per family on average for the richest fifth.
- Lone parents receive more public services per family on average than couples with children.
- In terms of individual vulnerabilities, workless families and families with maternal depression receive the largest amounts of public spending per family.
- The more vulnerabilities a family has, the larger the amount of public spending it receives on average. Families with five or more vulnerabilities received public services worth over £25,000 per head on average compared to around £13,000 for families with no vulnerabilities

THE IMPACT OF SPENDING CUTS AND CHANGES TO TAX AND BENEFITS SYSTEM ON THE LIVING STANDARDS OF VULNERABLE FAMILIES

Introduction

This chapter combines the information in Chapter 5 on the extent to which different types of families benefit from public spending with data on the size of spending cuts by departmental function from the 2010 Spending Review and subsequent minor revisions to those spending plans. In percentage terms, health is the service receiving the smallest cuts, with school-level education also partially ring fenced. The largest percentage-term cuts in the public services modelled here are for Further Education and Higher Education, transport, housing and other income-related services. In real terms (at April 2012 prices), the total amount of cuts to public services spending (excluding social security spending which was covered in Chapter 4) is approximately £53 billion by the fiscal year 2014/15 relative to the starting year of 2010/11.

It is also important to take into account that schools spending and early years spending are also being reallocated in such a way as to make them more progressive. The pupil premium, which allocates funding to schools in England according to the proportion of children in each school who are receiving free school meals, will account for £2.5 billion of education expenditure by 2014–15. Similarly, although the overall amount of funding for early years services is being cut, within the overall Early Intervention Grant spending settlement, an additional £760 million of funding is being provided for nursery places and other support services for disadvantaged two-year-old children in England by 2014–15 (referred to in this chapter as the “disadvantaged two-year-old offer”). The analysis here uses the FACS data to identify children in receipt of free school meals and two-year-old children in disadvantaged families and then diverts the appropriate amount of funding from the schools and early years budgets in accordance with these indicators, while keeping the overall spending envelope for schools and early years spending in line with the overall plans announced in the Spending Review. In other words, the pupil premium and the disadvantaged two-year-old offer represent redistribution within each funding stream rather than an additional funding stream on top of what was announced in the Spending Review. Other than this, the analysis uses percentage-terms cuts in each service without taking into account any redistribution of spending towards (or away from) vulnerable families.

It should be noted that the additional allocations from the schools and early years budgets for the pupil premium and the disadvantaged two-year-old offer are not ringfenced – this means that schools and local authorities are free to spend them in other ways should they wish. The analysis here assumes that all the additional funding for the pupil premium and disadvantaged two-year-olds actually ends up

being spent on these groups. But in reality this may not be the case. This means that the distributional impact of these two funding streams might not be as tightly focused on disadvantaged children as we are assuming here.

The analysis here also includes the impact of the funding package of £448 million announced by the government in 2011 “to ensure that 120,000 ‘troubled’ families in England are turned around by the end of the current Parliament.”¹⁶ This is money reallocated from the existing funding settlement from the Department for Communities and Local Government, Department for Work and Pensions, the Home Office, the Department of Health and the Ministry of Justice, rather than new funding. The figure of 120,000 is taken from the original 2007 Cabinet Office estimate of 140,000 vulnerable families as explained in Chapter 1 (the discrepancy between 120,000 and 140,000 is explained by the fact that the 120,000 estimate excludes Scotland and Wales.) However, the Department for Communities and Local Government’s definition of “troubled families” states:

These families are characterised by there being no adult in the family working, children not being in school and family members being involved in crime and anti-social behaviour.

These families almost always have other often long-standing problems which can lead to their children repeating the cycle of disadvantage. One estimate shows that in over a third of troubled families, there are child protection problems. Another estimate suggests that over half of all children who are permanently excluded from school in England come from these families, as do one-in-five young offenders.

Other problems such as domestic violence, relationship breakdown, mental and physical health problems and isolation make it incredibly hard for families to start unravelling their problems. (CLG, 2011)

Clearly, only one of the vulnerability measures featured in the original Cabinet Office research – families with no adult in work – is used in its original form in the Department for Communities and Local Government’s working definition of “troubled families”. The other identifying characteristics of troubled families cited by Department for Communities and Local Government – children not being in school, family members involved in crime and anti-social behaviour, one or more adults on out-of-work benefits, and “causing high cost to the public purse” – were not analysed in the Cabinet Office research, although it is possible they are correlated with one or more of the vulnerability measures.

The £448 million provided by central government – 20 percent of which will be allocated to local authorities on a payment-by-results basis – would correspond to just over £3,700 per “troubled” family if local authorities were able to allocate it precisely to troubled families on a per capita basis¹⁷. This chapter does not *separately* identify the impact of the troubled families funding stream in the estimates of the impacts of the spending cuts on vulnerable families because the criteria for identifying troubled families do not match the definition of vulnerable families used in this report, and there is no information in FACS on crime or anti-social behaviour to enable us to identify an alternative set of families who *do* match the criteria for troubled families.

¹⁶ CLG, *Financial Framework for the Troubled Families programme’s payment-by-results scheme for local authorities*, <http://www.communities.gov.uk/documents/communities/pdf/2117840.pdf>. See also <http://www.communities.gov.uk/communities/troubledfamilies/>

¹⁷ CLG claims that £4,000 per family is available, but on the basis of 120,000 troubled families this would suggest a total programme budget of £480 million whereas the actual budget is £448 million.

The impact of spending cuts across the family income distribution

Figure 6.1 shows the cash impact of the cuts by 2014–15 (in 2012 prices) by income decile. The overall effect of the cuts (shown by the black “total” line) is regressive in cash terms from the third decile upwards. The impact of the cuts is lessened somewhat in the bottom two deciles by the disadvantaged two-year-old offer (which results in *increased* early years funding for the lowest decile) and the pupil premium (which reduces the size of losses in school funding in the second decile in particular). The impact of cuts in most of the other funding areas is larger for families in poorer deciles (except for transport, where the cuts are larger for richer deciles).

Figure 6.1. Impact of spending cuts by 2015 in real cash terms by family decile

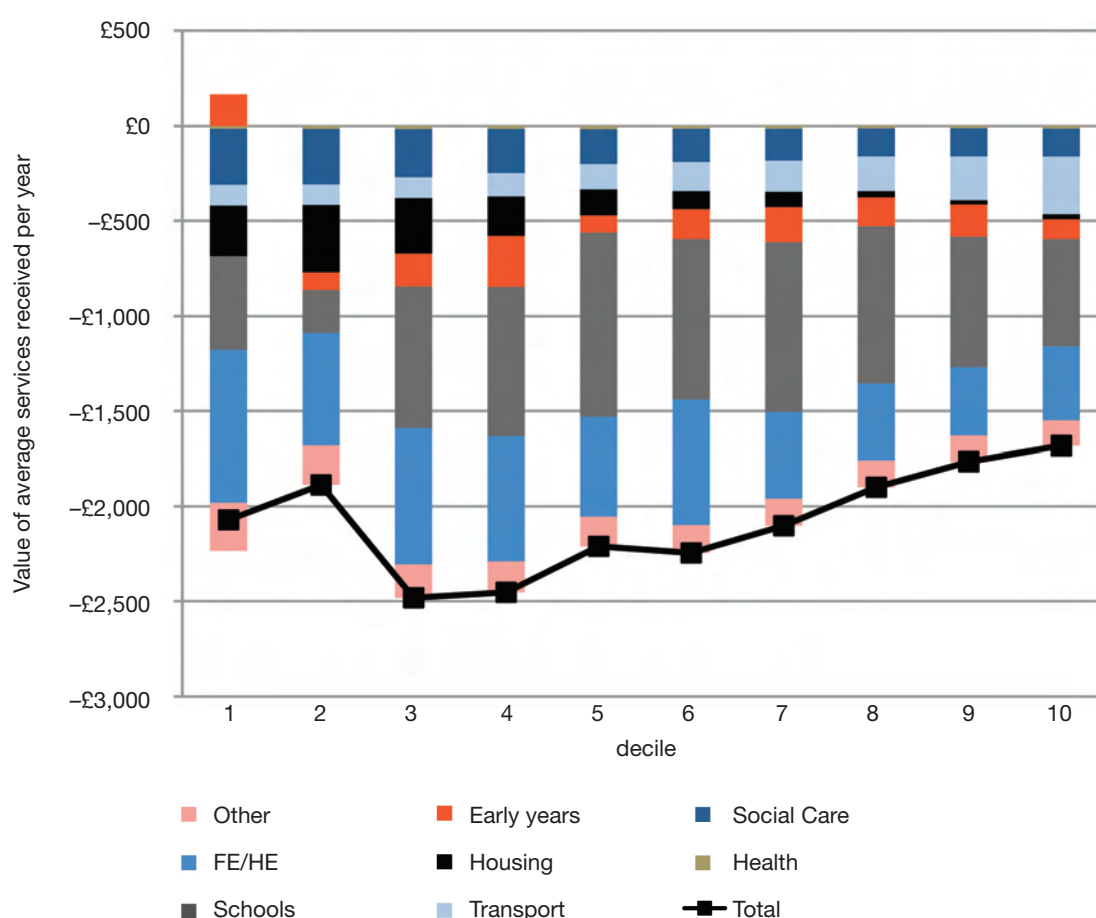


Figure 6.2 shows the impact of the cuts on schools spending by decile, broken down into the positive effect of the pupil premium and the negative impact of the cuts to the remainder of schools spending excluding the pupil premium. The pupil premium has the biggest positive impact in the second decile rather than the poorest decile (because the proportion of children receiving Free School Meals is larger in the second decile than in the poorest decile). Other than this, the impact of the pupil premium on schools spending is progressive, but overall the impact of the Spending Review settlement is negative across all deciles as the pupil premium is not large enough to outweigh the other cuts, with the largest impact on services for the poorest families.

Figure 6.2. Cuts to schools spending by income decile, 2010–15: Impact of the pupil premium

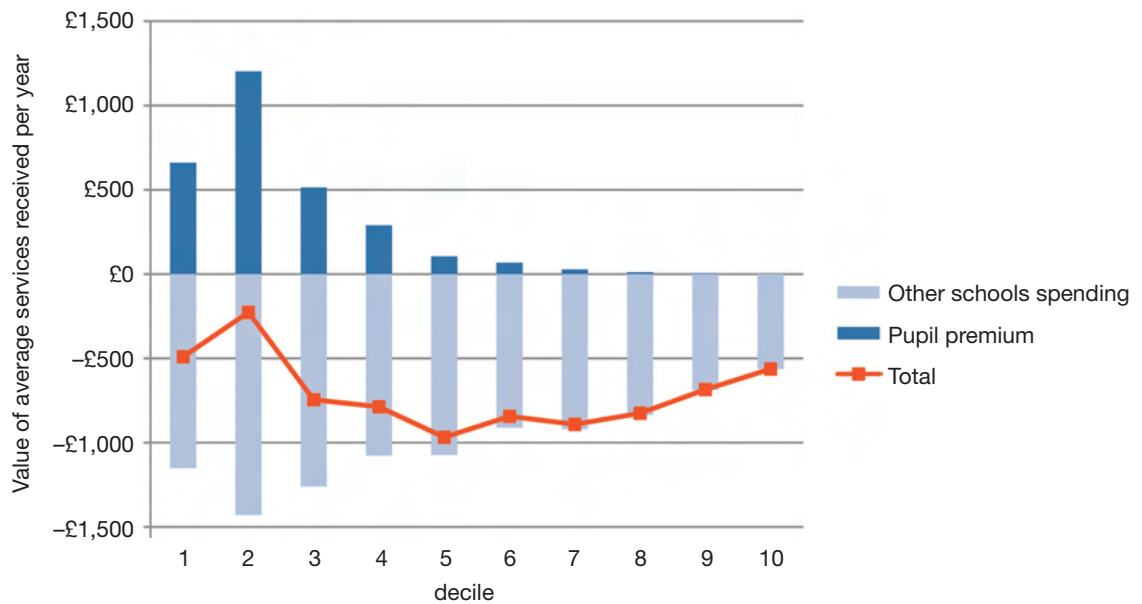
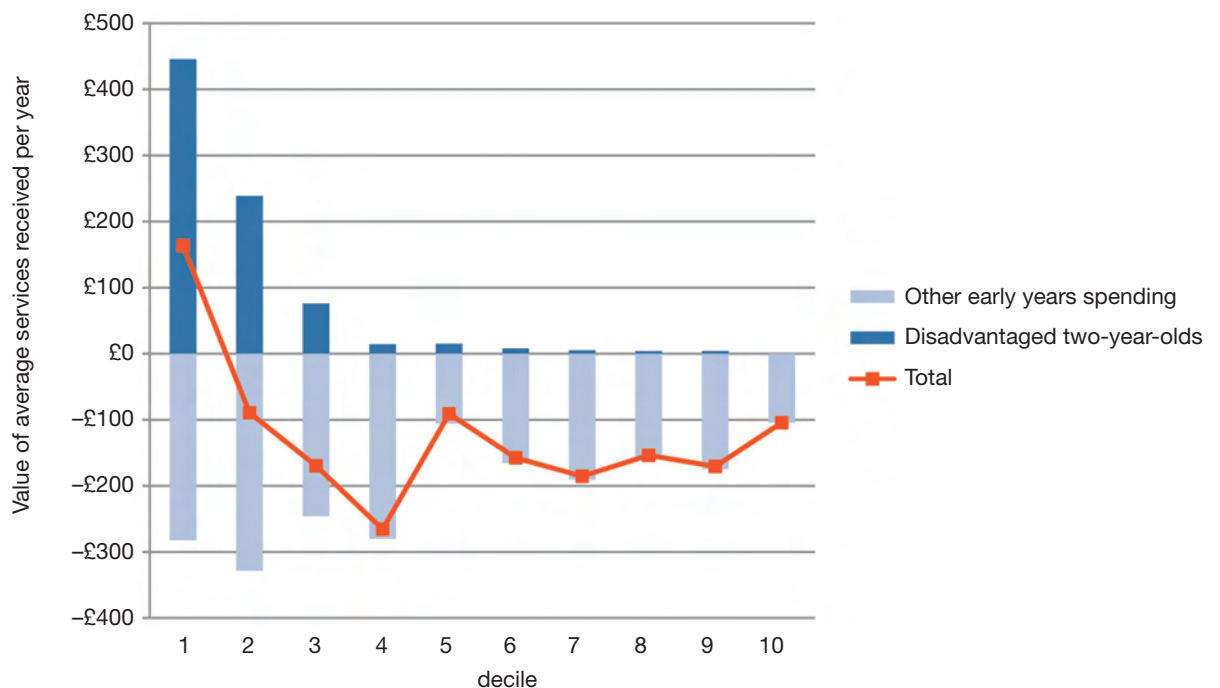


Figure 6.3 presents an analysis of the impact of the disadvantaged two-year-old offer on early years spending, taking into account cuts to the rest of the early years budget. Because the funding criteria for disadvantaged two-year-olds are based on *potential* eligibility for Free School Meals (and not the number of families actually claiming Free School Meals), the impact of this funding stream is more progressive than the pupil premium. In the poorest decile (but not the other deciles) the impact of the disadvantaged two-year-old offer is large enough to more than offset other cuts in the early years budget, resulting in an increase in funding rather than a funding cut for families in the lowest decile.

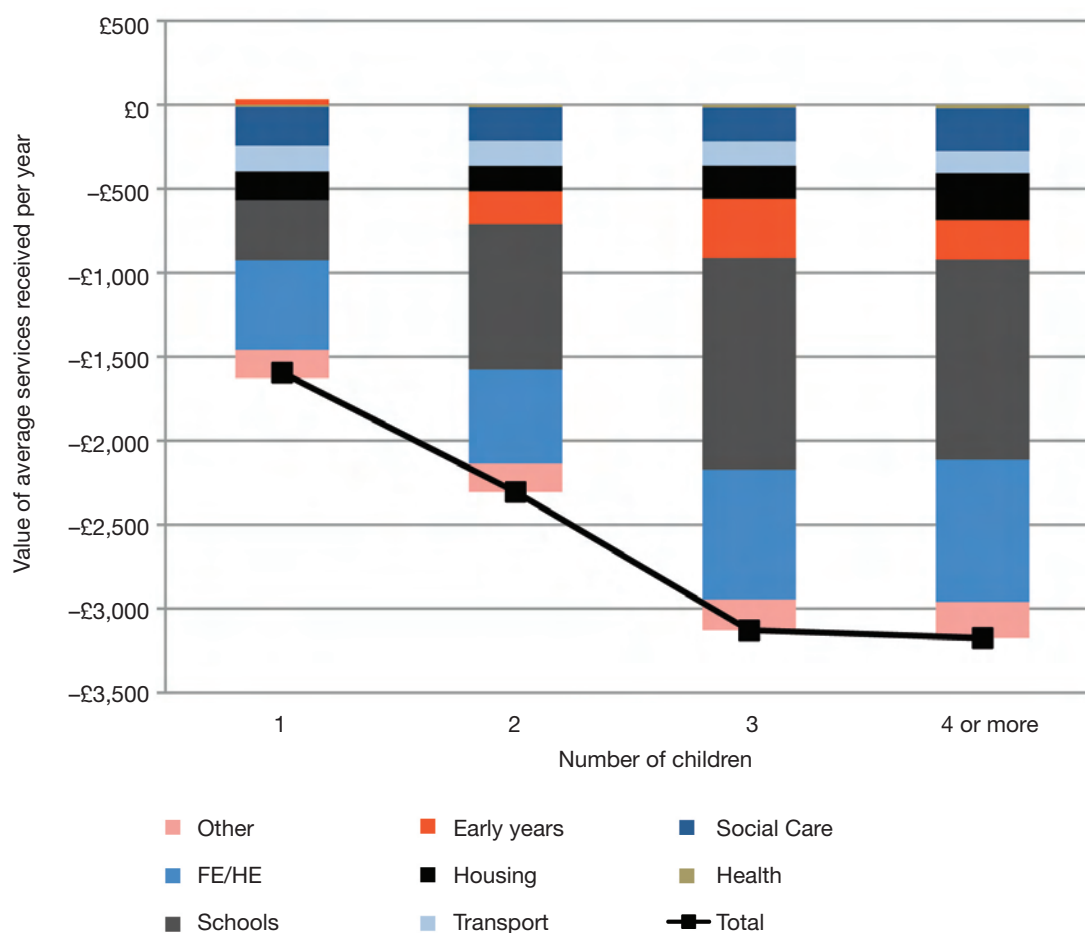
Figure 6.3. Cuts to early years spending by income decile, 2010–15: Impact of the disadvantaged two-year-old offer



Impact of the cuts by number of children

Figure 6.4 shows the average impact of cuts in cash terms according to the number of children in the family. The impact of spending cuts, is larger for families with more children (although families with four or more children only do slightly worse than families with three children). This pattern is mainly driven by cuts to schools spending although cuts to early years, public spending on housing and FE and HE also play a role. As a percentage of income plus the value of services received, the cuts have the greatest negative impact on living standards for families with three children (9.3 percent) and with four or more children (8.7 percent), compared with 7.5 percent for families with one child.

Figure 6.4. Average cuts in cash terms, 2010–15, by number of children in family

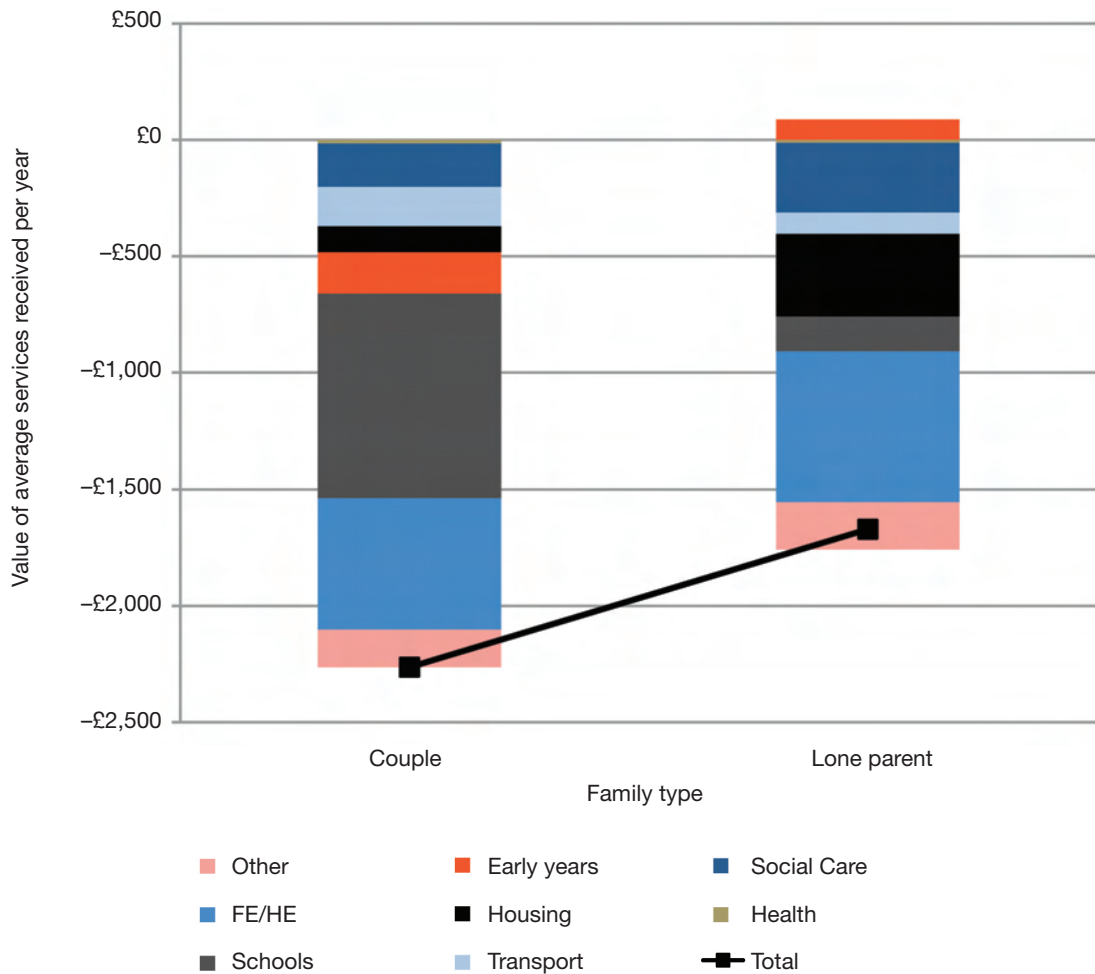


Impact of cuts by family type

Figure 6.5 shows the average impact of cuts in cash terms for couple families compared with lone parent families in the FACS sample. Overall, the cash impact of cuts is greater for couples, mainly because schools and early years spending cuts have a big negative impact on average for couple families, whereas for lone parent families early years spending actually increases (due to the Early Intervention Grant) and the cut in schools spending is much smaller (mainly due to the pupil premium). Also, transport spending

cuts have a larger negative impact on couples than lone parents. On the other hand, housing and social care cuts hit lone parents harder than couples on average. It is also the case that relative to family size, lone parents are hit harder in cash terms *per person* than couples. Furthermore, as a proportion of net income plus the value of public services, the spending cuts have a bigger negative impact on lone parents (4.5 percent) than couples (4.1 percent). The tax and benefit measures shown in Chapter 4 have an even bigger negative impact on lone parents as a percentage of net income plus the value of public services: 6.2 percent, compared with 3.4 percent for couples.

Figure 6.5. Average cuts in cash terms, 2010–15, by family type

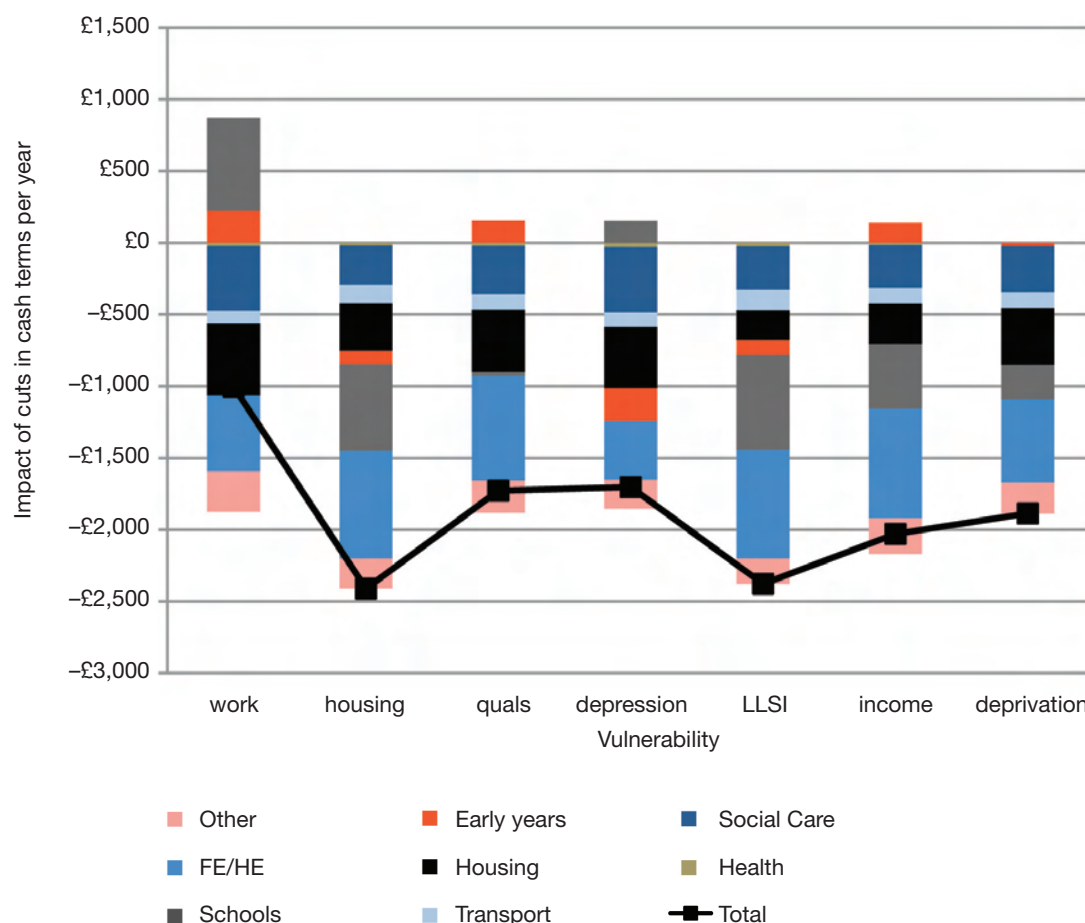


Impact of cuts according to vulnerability measure

Figure 6.6 shows the average impact of cuts in cash terms according to each type of vulnerability classification in the FACS data. Overall, families in poor quality housing, and with limiting long standing illnesses, experience the largest cuts in cash terms, while workless families fare best on average. For workless families and families where the mother suffers from depression, the impact of the pupil premium *increases* school funding despite overall cuts in the schools budget. The Early Intervention Grant has a similar impact on early years funding for low income families, workless families and families

with no qualifications. By contrast, for families in poor quality housing with low incomes, households in deprivation and those with a limiting long-standing illness, disability or infirmity, cuts to the schools budget more than outweigh the positive impact of the pupil premium. Housing cuts are particularly large for workless families, families with no qualifications, and families where the mother is depressed. Early years cuts have a particularly negative impact where the mother is depressed.

Figure 6.6. Impact of spending cuts by 2015 in cash terms for families with particular vulnerabilities



Figures 6.7 and 6.8 show the impact that the pupil premium and the disadvantaged two-year-old offer have on schools and early years spending respectively, for families with different vulnerabilities. An interesting finding here is that the pupil premium is particularly well-targeted on families who are workless, where the mother is suffering from depression, and where the family has no qualifications. In these three cases the boost to schools spending from the pupil premium is large enough to offset the effect of other cuts, but for other vulnerabilities the reverse is the case. The pupil premium is least well targeted on families on low incomes, families in poor quality housing and those with a parent with a LLSIDI. The patterns for the disadvantaged two-year-olds offer are slightly different; it is also well targeted on workless families and families with no qualifications, but also in this case, families on low income and to a certain extent deprived families. The two-year-old offer is not well targeted on families with a parent with an LLSIDI, where the mother is depressed, or those in poor quality housing.

Figure 6.7. Cuts to schools spending by vulnerability, 2010–15: Impact of the pupil premium

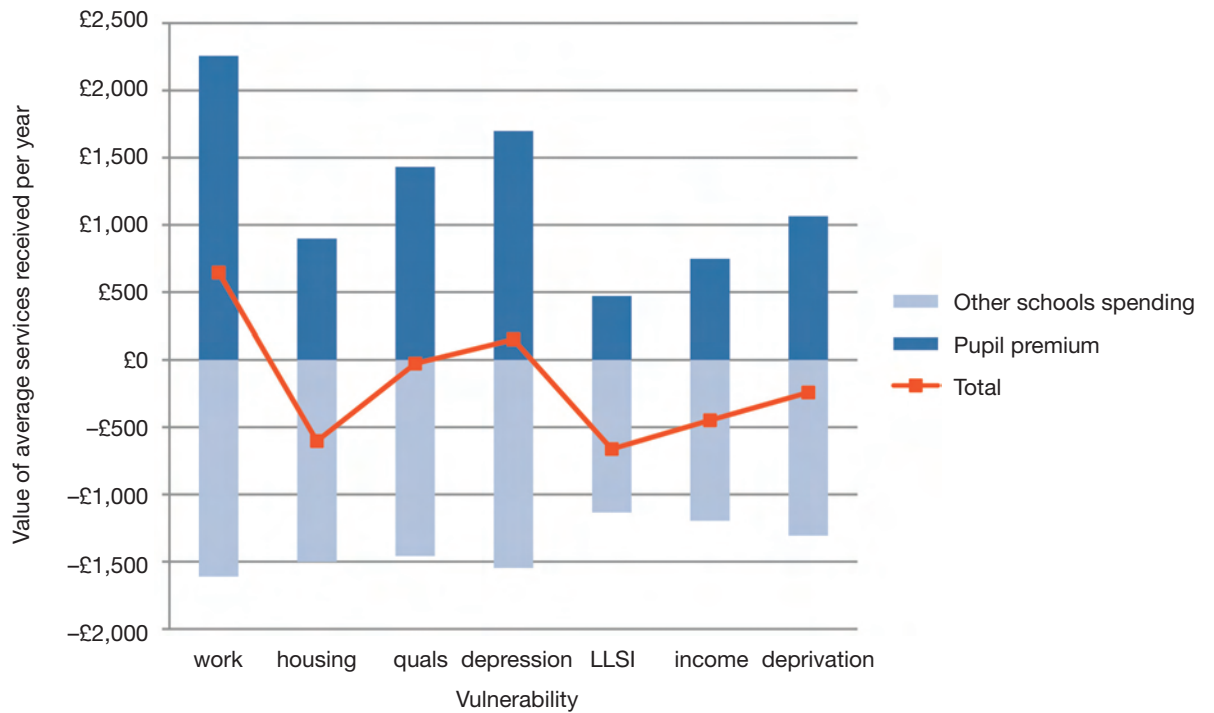


Figure 6.8. Cuts to schools spending by vulnerability, 2010–15: Impact of the disadvantaged two-year-old offer



Impact of cuts by vulnerability “score”

Finally, this chapter examines the impact of the cuts according to family vulnerability “score”. Figure 6.9 shows the cash impact of cuts using this breakdown. Social care and housing cuts have a much more severe impact on families experiencing multiple vulnerabilities. By contrast, the pupil premium helps redistribute schools funding to families with four or more vulnerabilities, while the disadvantaged two-year-old offer does the same for early years funding for families with two, three or four vulnerabilities. The improved targeting of schools and early years funding on vulnerable families is not enough to compensate fully for cuts to other areas of funding; families with high vulnerability still lose out on average, but not by as much as they would do had the funding formula not been altered.

Figure 6.9. Impact of spending cuts in cash terms by 2015 by family vulnerability “score”

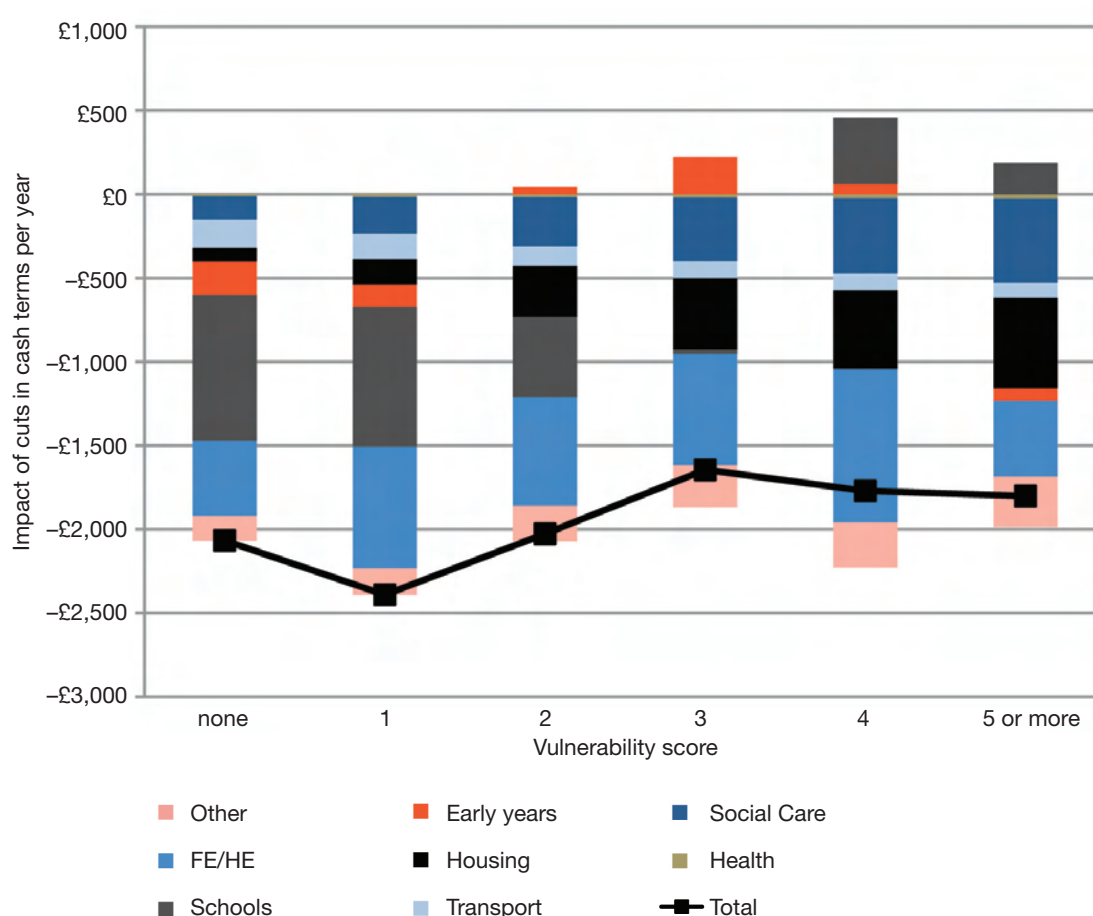


Figure 6.10 shows the impact of the pupil premium set against the cuts to the rest of the schools budget, while Figure 6.11 does the same for the disadvantaged two-year-old offer and the rest of the early years budget. Figure 6.10 shows that the pupil premium is well targeted on families with high vulnerability, although families with five or more vulnerabilities receive slightly less from the premium than families with four vulnerabilities do. The impact of the pupil premium means that overall schools spending per family increases for families with four or more vulnerabilities, while it is approximately unchanged in real terms for families with three vulnerabilities. Schools spending for families with two or fewer vulnerabilities is reduced overall.

Figure 6.10. Cuts to schools spending by vulnerability score, 2010–15: Impact of the pupil premium

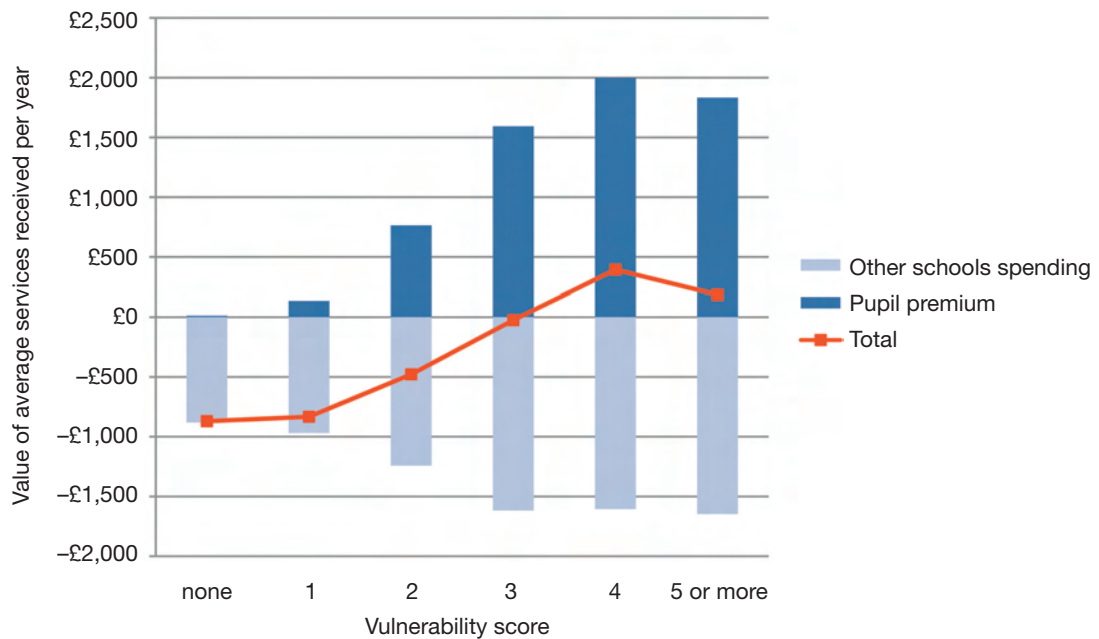
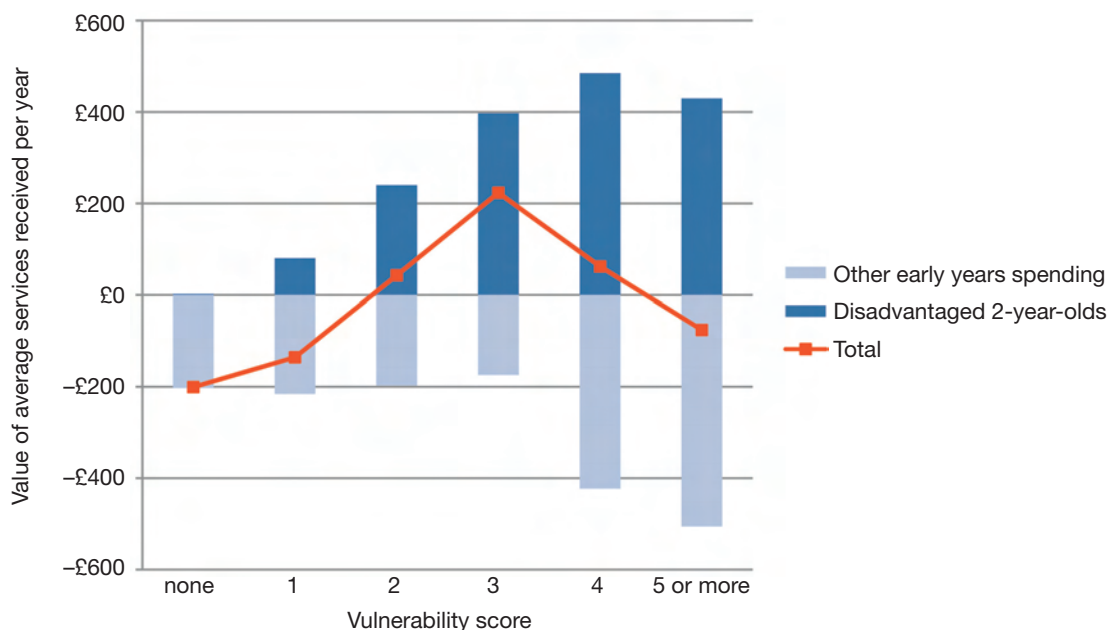


Figure 6.11 shows that the disadvantaged two-year-old offer is also reasonably well targeted on families with larger numbers of vulnerabilities, but in this case the positive effects of the offer are outweighed by the negative impacts of cuts to the rest of the early years budget for families with five or more vulnerabilities. Families with between two and four vulnerabilities see a net increase in early years spending, which is highest for families with three vulnerabilities.

Figure 6.11. Cuts to schools spending by vulnerability score, 2010–15: Impact of the disadvantaged two-year-old offer



In summary

- The spending cuts are regressive overall in cash terms, with poorer families losing out more than richer families on average.
- In cash terms, families with a limiting long standing illness, disability or infirmity and those in poor quality over overcrowded housing lose out most.
- The impact of the spending cuts in cash terms is fairly even by vulnerability “score” at between £1,900 and £2,400 per family on average.
- The reallocation of schools funding as a result of the pupil premium offsets other cuts to schools funding for families with four or more vulnerabilities. The reallocation of early years funding as a result of the disadvantaged two-year-old offer offsets early years funding cuts for families with between two and four vulnerabilities but does not fully compensate for funding cuts for families with five or more vulnerabilities.

7

THE IMPACT OF THE OVERALL “FISCAL PACKAGE”: TAX AND BENEFIT CHANGES AND OTHER PUBLIC SPENDING CHANGES COMBINED

This chapter combines the changes to the tax, benefit and tax credit system discussed in Chapter 4 with the public spending cuts discussed in Chapter 6, to show the distributional impact of the whole fiscal “package” of tax, benefit and other public spending changes between 2010 and 2015, affects the living standards of vulnerable families. The distributional effects in this chapter are measured as a percentage of average disposable income *plus* the average value of public services received for each type of family. This allows the fiscal measures to be viewed in terms of their overall impact on “living standards” defined in a wider sense than just income.

Figure 7.1 shows the impact of the spending cuts from Chapter 6 (in dark blue) combined with the tax, benefit and tax credit measures from Chapter 4 (in light blue), by 2014/15 as a percentage of average 2010 net incomes *plus the average value of public spending*, for each decile. The spending cuts are strongly regressive in percentage terms overall. For the poorest decile the reduction in public spending on services used by this decile is equivalent to around 6.5 percent of net income plus the value of spending; for the richest decile the cuts are equivalent to around 1.5 percent of net income plus spending. The tax and benefit changes from Chapter 4 are slightly regressive as a proportion of net income plus spending (except for the richest decile, where the impact is larger than for lower deciles). The overall effect of tax and benefit measures and spending cuts is regressive, with three of the four poorest deciles losing out by around 9 percent, compared with less than 6 percent for the two richest deciles.

Figure 7.2 shows the impact of the spending cuts and the tax and benefit measures analysed in Chapter 4 as a percentage of net income plus the value of public spending for the different types of vulnerable family. As a percentage of net income plus the value of services received, the spending cuts are largest as a percentage of net income for low income families. The next largest percentage of net income is for families in poor quality housing, followed by families with an LLSIDI, and materially deprived families. Spending cuts are the smallest in percentage terms for families not in work.

Taking the impact of tax and benefit measures into account as well, the impact of the overall fiscal package between 2010 and 2015 is largest for families on low incomes and those with maternal depression, at around 8 percent in each case. For all of the vulnerability groups, the combined impact of the measures is a reduction of more than 6 percent in total living standards, except for workless families (for whom the impact is between 5 and 6 percent).

Figure 7.1. Impact of tax/benefit measures and spending cuts by 2015 as a percentage of net income plus public spending, in April 2012 prices

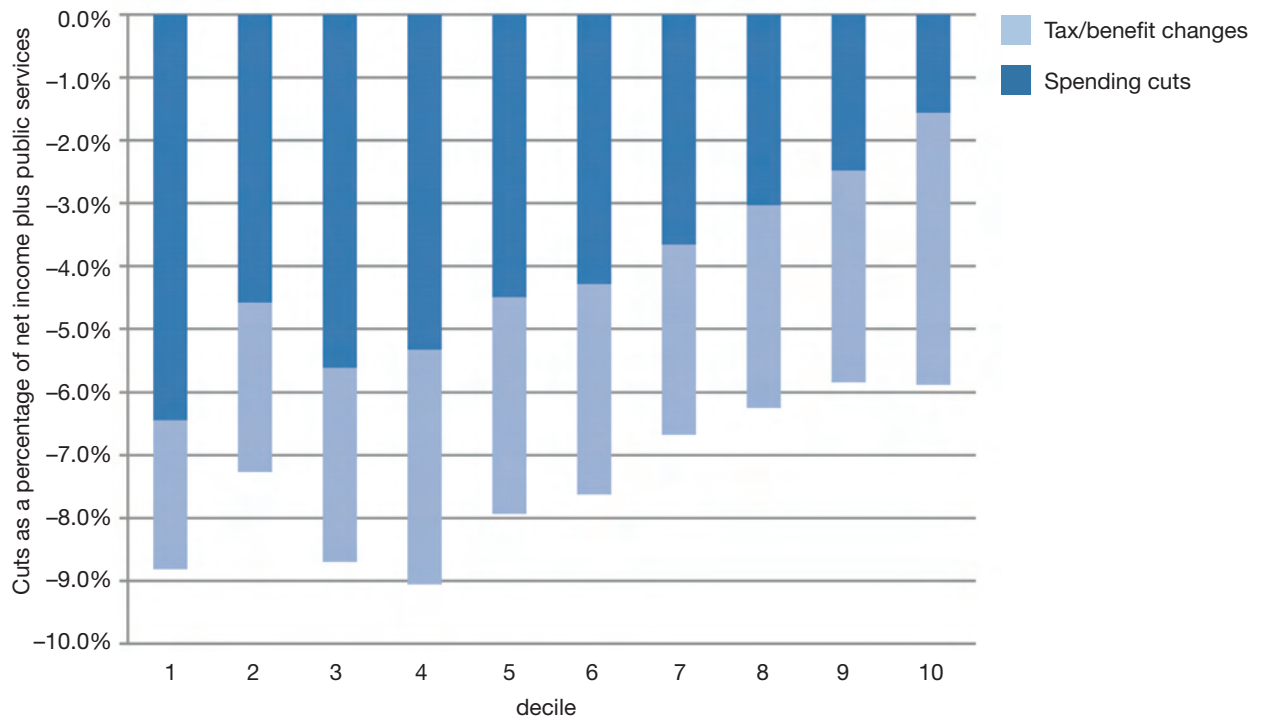
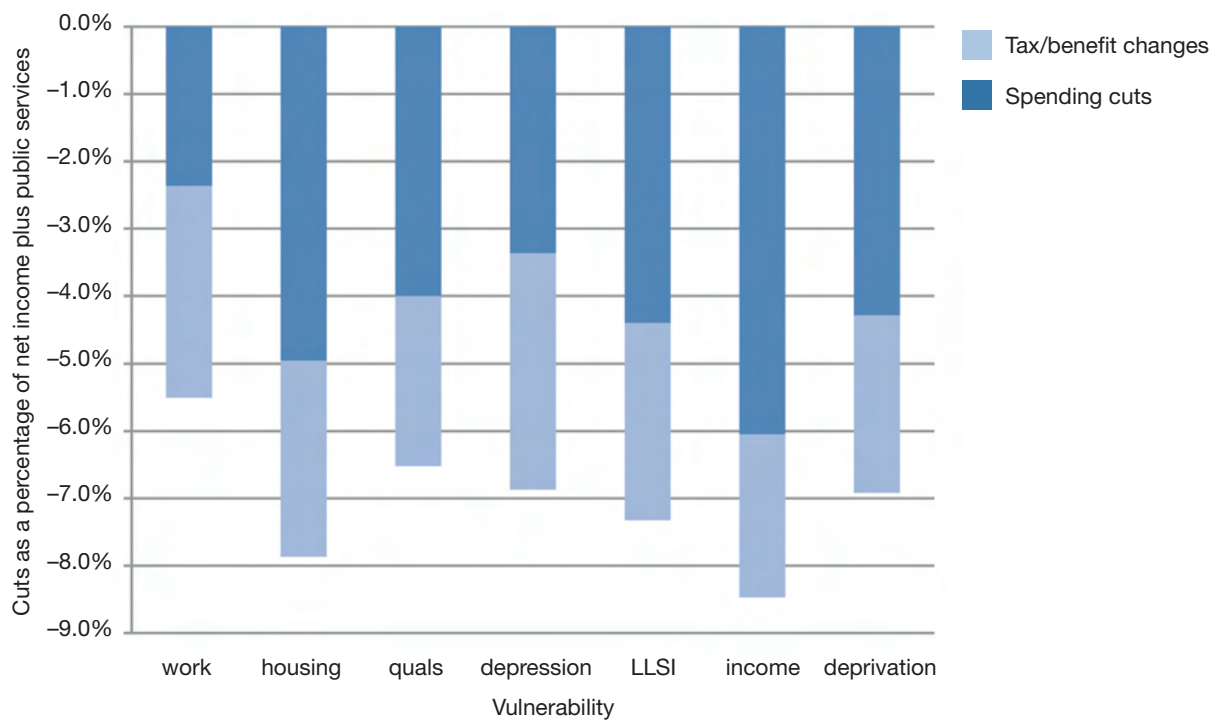


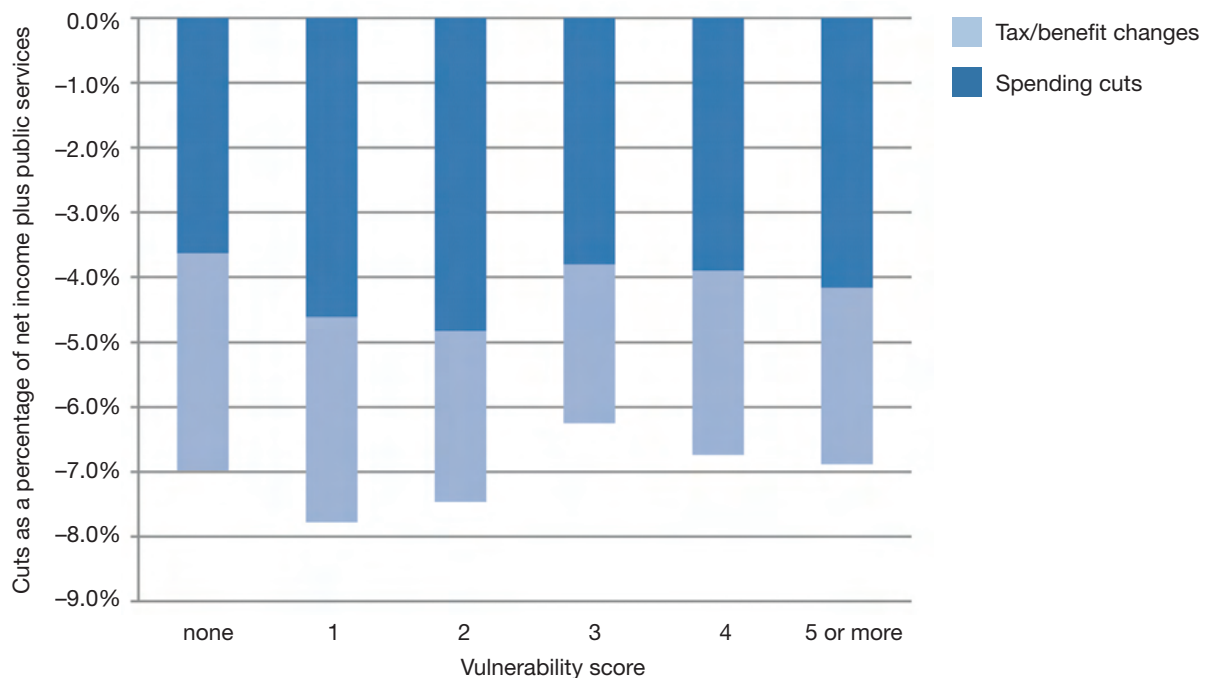
Figure 7.2. Combined impact of spending and tax/benefit measures, 2015 as a proportion of net income plus the value of public spending: by vulnerability



Finally, Figure 7.3 looks at the combined impact of spending cuts and tax and benefit measures as a proportion of net income plus the value of public spending on services received, by vulnerability score. The spending cuts reduce living standards by between 3 and 5 percent for all groups using this measure.

When the impact of tax and benefit measures are added in, families with one vulnerability are the biggest losers in percentage terms from the overall fiscal package (with a reduction of just under 8 percent in total living standards), closely followed by families with two vulnerabilities (with a reduction of around 7.5 percent). Families with three vulnerabilities lose least from the tax, benefit and spending changes. Families with four, five or more vulnerabilities lose almost 7 percent of total living standards as a result of the tax and benefit measures and spending cuts.

Figure 7.3. Combined impact of spending and tax/benefit measures, 2010–15 as a proportion of net income plus the value of public spending: by vulnerability score



Returning to the £488 million of funding diverted from departmental budgets to the “troubled families” initiative discussed in Chapter 6, it is clear that even if we were to assume that the 120,000 troubled families in England who are the target for this funding programme exactly matched the 120,000 families in England (on the original Cabinet Office measure) with five or more vulnerabilities, the average total loss from spending cuts plus tax, benefit and tax credit measures for families with five or more vulnerabilities is around £3,600 per year. This means that even if the troubled families funding were targeted *exactly* on families with five or more vulnerabilities, these families would be little better off in net terms because the gain from the extra troubled families spending is mostly wiped out by cuts elsewhere. And in reality, the Department for Communities and Local Government funding is likely to be nowhere near as well targeted on vulnerable families as suggested in this example.

In summary

- The overall effect of tax and benefit measures and spending cuts is regressive, with three of the four poorest deciles losing out by over 8 percent, compared with less than 6 percent for the two richest deciles.
- All vulnerability groups lose out by at least 5.5 percent from the combined changes. For low income families, the total loss is over 8 percent.
- Combining the changes to the tax and benefits system with other changes shows that families with five or more vulnerabilities lose approximately £3,000 per year. This represents a decrease in total living standards of around 7 percent.
- Even if the ‘troubled families’ funding were targeted exactly on families with five or more vulnerabilities, these families would be almost no better off in net terms because the gain from the extra troubled families spending is mostly wiped out by cuts elsewhere.

8

FORECASTING THE CHANGE IN THE NUMBER OF VULNERABLE FAMILIES BETWEEN 2010 AND 2015

This chapter estimates the change in the number of vulnerable families arising due to a combination of factors taking effect over the May 2010–May 2015 parliament. The factors considered are as follows:

- Tax and benefit changes
- Public spending cuts
- Macroeconomic trends
- Long-term trends in specific vulnerabilities.

As will be shown during the course of the chapter, different factors are important in the case of each particular vulnerability. A selection of methodologies is used, as no single method is appropriate in all cases. The first part of the chapter looks at the estimated change in each individual vulnerability measure, while the second part estimates the change in the vulnerability ‘score’ based on the results in the first part.

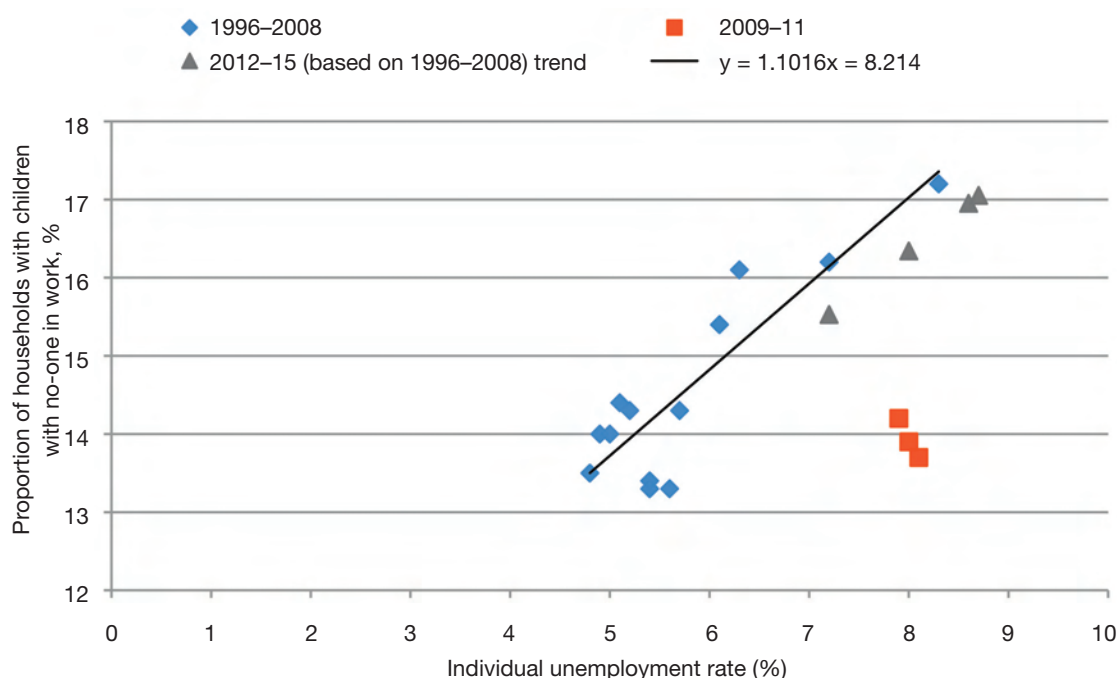
Families with no parent in work

The trend in the number of workless families is closely related to (but is not the same as) the working age *employment to population ratio* – i.e. the number of working-age people employed as a percentage of the whole working age population. It is also likely to be related to unemployment as defined by the International Labour Organisation (ILO) (i.e. people not currently in work who are available for work and seeking work).

One way to forecast changes in the number of workless families involves using a time series of data on the proportion of workless families in the population (which the Office for National Statistics has produced back to 1996) and comparing it with the ILO working age unemployment rate to see how strong the correlation is. If a strong relationship exists between the two variables, the forecasts of the unemployment rate produced by the Office for Budget Responsibility (OBR) up to 2015 can be used to predict the proportion of workless families in 2015.

Figure 8.1 plots the Office for National Statistics’s ILO working age unemployment rate percentage against its measure of the percentage of workless families between 1996 and 2011. For the points from 1996 to 2008 (inclusive), shown in blue diamonds on the figure, there is a reasonably strong positive relationship between the unemployment rate and the workless family rate. However, for 2009, 2010 and 2011, the proportion of workless households is lower than we might have expected given the upwards jump in the unemployment rate.

Figure 8.1. Trends in the unemployment rate and the percentage of workless families, 1996–2015



The triangular points on the graph show projections for the workless household rate between 2012 and 2015 given the relationship between the two variables that existed between 1996 and 2008. By 2015, the OBR forecasts that the unemployment rate will be 7.2 percent (up from 5.4 percent in 2008 at the end of the FACS sample period, but down from a peak of 8.7 percent in 2012). This would suggest that 15.5 percent of households with children will be workless in 2015. Based on a comparison between the workless families rate in FACS in 2007 and 2008 and the ONS's workless household rate over the same time period, the best projection for the percentage of workless families (defined *as per* FACS) in 2015 is approximately 16.2 percent of the family population. This would correspond to an increase of around 170,000 workless families between 2008 and 2015. Between 2010 and 2015, we project that the proportion of workless families as defined in FACS will increase from 14.5 percent to 16.2 percent, an increase of around 120,000 families.

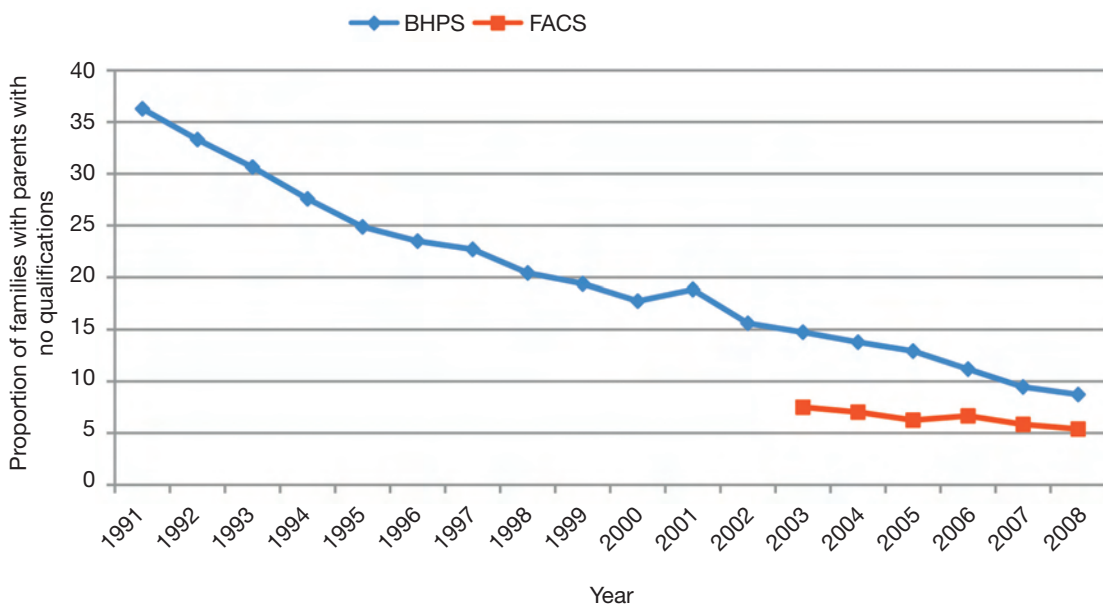
The main rationale for using the 1996–2008 trend in the relationship between workless households and the individual working age unemployment rate to extrapolate the number of vulnerable families in 2015, rather than the 2009–11 trend, is that the 2009–11 trend looks to be unsustainably low in the long run. This is for three main reasons. First, cuts in services for unemployed people (e.g. the reduction in the budget for the Work Programme compared with its predecessors) may make it harder to get long-term unemployed people back to work in the recovery from recession than would otherwise have been the case and this could push up the number of workless households relative to the situation in 2009 and 2010. Second, youth unemployment is currently running at very high levels, and to the extent that the long-term young unemployed start their own families and move into the sample of families with children, this is likely to increase the workless household rate. Finally, given current macroeconomic conditions in Europe it is quite possible that the Office for Budget Responsibility's unemployment forecast for 2015 (which is based on the Treasury macroeconomic model) is an underestimate; already in this Parliament, the unemployment forecasts for 2012 and 2013 have been revised upwards in the 2011 Budget and

the 2011 Autumn Statement, and so a forecast of 7.2 percent for unemployment in 2015 looks quite optimistic.

Families where no adult has a qualification

By contrast to the unemployment rate, the number of families where no adult has a qualification is unlikely to be much affected by business cycle factors, but rather is a consequence of longer term trends. In Chapter 2 it was established that the proportion of families with no qualifications fell in every year of the FACS between 2003 and 2008, which seemed to be due to younger cohorts of parents with more academic and vocational qualifications entering the sample and replacing older cohorts of parents with fewer qualifications. The British Household Panel Survey (BHPS), which ran from 1991 to 2008 in the UK, collected information on adult qualifications and can be used to construct a longer time series for this vulnerability measure. Figure 8.2 shows the BHPS measure of the proportion of families in the sample with no qualifications from 1991 to 2008, with the FACS measure from 2003 to 2008 for comparison. The BHPS measure is substantially higher than the FACS measure for all years where both measures are available. However, there is a clear downward trend in both measures. This trend is also visible in surveys that are repeated cross-sections rather than panels; for example, in the Family Resources Survey the proportion of families with no qualifications fell from 11 percent to 7.5 percent between 2005/06 and 2009/10. With this in mind, the assumption made here is that the downward trend in the proportion of families with no qualification in FACS will continue after 2008. This produces the prediction that the number of families where no adult has a qualification will decline from 4.7 percent (approximately 345,000 families) in 2010 to 3.4 percent (approximately 245,000 families) in 2015.

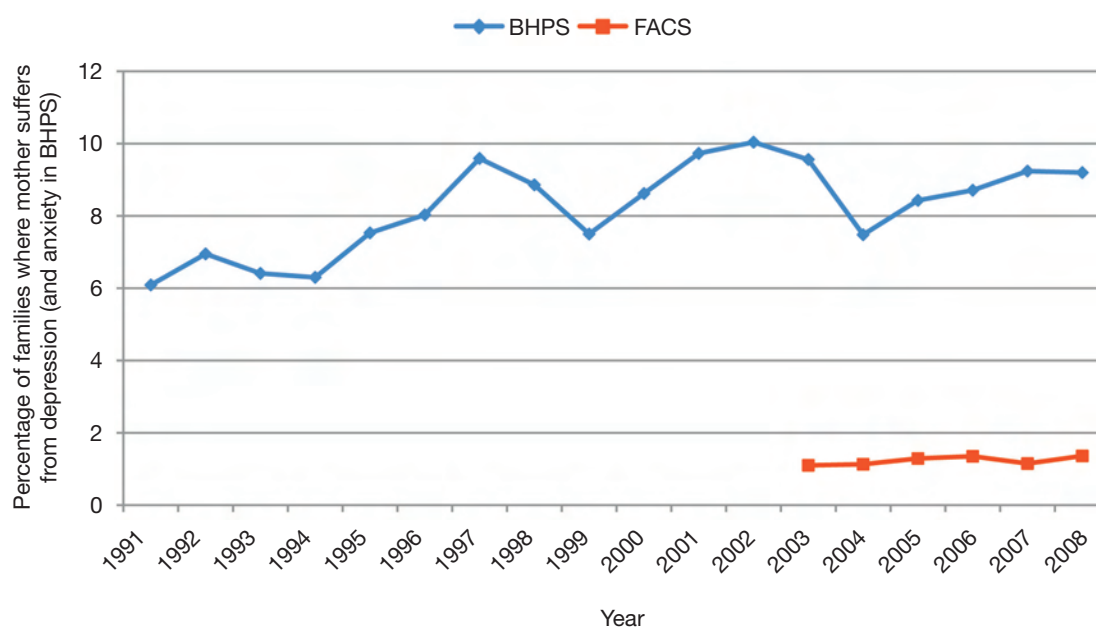
Figure 8.2. Percentage of families in Britain where no adult has a qualification: BHPS and FACS, 1991–2008



Families where the mother suffers from depression

The analysis in Chapter 2 showed no obvious trend in the percentage of families where the mother suffers from depression in FACS between 2003 and 2008. Figure 8.3 shows a time series for the nearest comparable question in BHPS, whether the mother in the family suffers from anxiety or depression (in the FACS, the two conditions are asked about separately.) The time series for the combined anxiety/depression variable in BHPS shows strong upward movement between 1991 and 1997 but no consistent trend thereafter, fluctuating up and down between 1997 and 2008. The depression series in FACS shows very slight upward movement between 2003 and 2008 which is not significant “in the raw”. However a regression analysis of the determinants of the mother’s mental health variable shows that there is a statistically significant upward trend in the proportion of families where the mother suffers from mental health problems, controlling for other factors such as number and age of children, region, and age of the mother. However, the trend is very small – around 0.07 percentage points per year. Extrapolating this trend forwards from 2008 implies that the number of families where the mother suffers from depression will increase from around 110,000 in 2010 to around 135,000 in 2015.

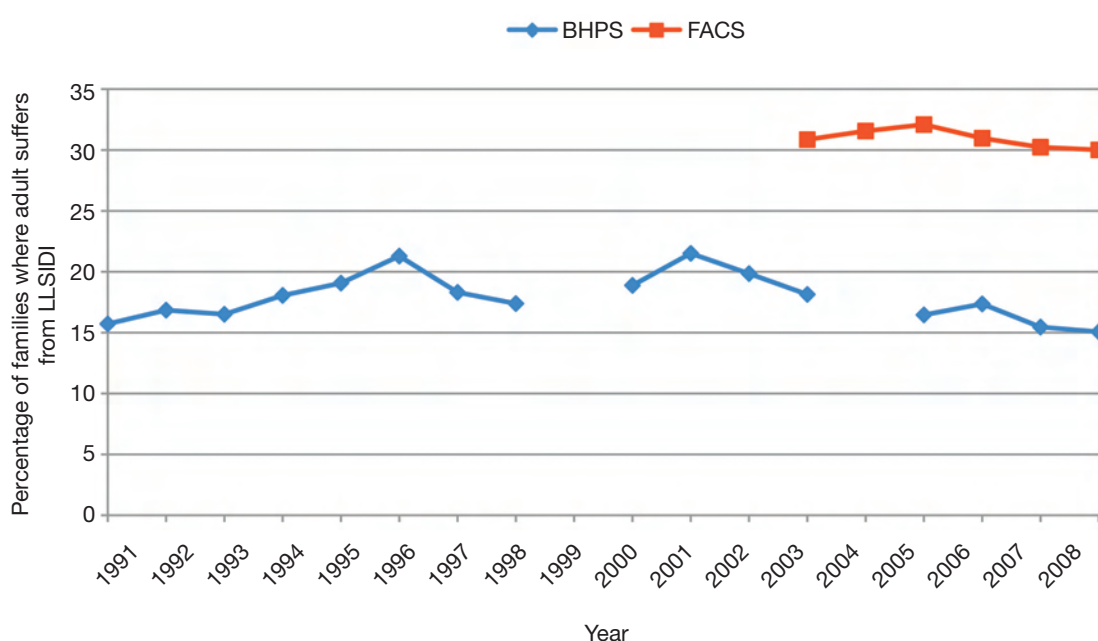
Figure 8.3. Percentage of families in Britain where the mother suffers from depression: BHPS and FACS, 1991–2008



Families where at least one adult has a limiting long-standing illness, disability or infirmity

Analysis of FACS showed no strong pattern in limiting long standing illness, disability or infirmity (LLSIDI) between 2003 and 2008. Figure 8.4 shows a longer run series for a BHPS question which asks whether “poor health limits your daily activities”. This is a differently worded question from FACS and the percentage of respondents who respond in the affirmative to this question is much lower than for the FACS question about LLSIDI. The BHPS measure shows an upward trend from 1991 to 1996, no clear trend between 1996 and 2001, and a downward trend from 2008 onwards¹⁸.

Figure 8.4. Percentage of families in Britain where at least one adult has an LLSIDI: BHPS and FACS, 1991–2008



A regression analysis of the trend in the LLSIDI variable in FACS controlling for several other factors which might be correlated with illness or disability found essentially zero trend in the proportion of families with an adult with LLSIDI after controlling for other factors. Hence the assumption used in this analysis is that the proportion of families with an LLSIDI in 2015 will be unchanged from 2008.

¹⁸ The two breaks in the BHPS series in 1999 and 2004 are caused by a rotating module in the BHPS asking more detailed questions about health status which replaced the question about poor health limiting daily activities for those two years only.

Families with low income

The methodology for forecasting the number of families with low incomes is more sophisticated than any of the other analyses in this chapter because it is possible to use the microsimulation analysis of tax-benefit changes developed for Chapter 4 to forecast the change in the number of families below 60 percent median income by 2015. The analysis here also takes account of changes in real income from earnings, investments and other sources between 2010 and 2015 (these were held constant in Chapter 4 so that the analysis there could focus just on the changes to taxes and transfer payments). Real earnings are actually forecast to decline over the period 2010 to 2015, by around 1 percent (relative to CPI) or 4 percent (relative to RPI).

Additionally, the analysis takes account of changes in the number of workless families over the same period. The relationship between the unemployment rate and the number of workless families estimated earlier in this chapter implies that between 2008 and 2015 the number of workless families will increase by around 165,000. Analysis of FACS shows that workless families are around 55 percentage points more likely to have low incomes than families with someone in work. This implies that around 90,000 families will fall into the low income category over and above the estimates given above.

Table 8.1 shows how low income changes between 2008 (the FACS baseline) and 2015 using the relative low income measure which was used for the headline estimates of vulnerability in Chapter 2 (the proportion of families with incomes below 60 percent of median household income in the same year). The first column of Table 8.1 shows the proportion and number of low income families with low incomes in the 2008 FACS (as shown in Chapter 2). The middle column shows the estimated percentage and number of low income families in 2015 using just the microsimulation of family incomes in 2015, without taking account of the projected change in unemployment. As it turns out, the proportion of families with low income *relative to projected median income in 2015* is only slightly changed from 2008, increasing by around 10,000. However, increased worklessness between 2008 and 2015 means that the total number of low income families is projected to increase by around 100,000 – an increase of around 1.4 percentage points.

It should be noted that because real incomes are forecast to decline between 2008 and 2015, the projected increase in the number of low income families is much larger if an *absolute* low income measure – the poverty line in 2008 (adjusted only for price inflation) – is simulated for 2015. If an absolute 2008 low income measure were used, the number of low income families would increase by an additional 170,000 families. However, because the original Cabinet Office vulnerability research in *Families at Risk* used a relative low income measure, this report also uses a relative low income measure for the headline findings.

Table 8.1. Low income forecasts for 2015

	2008 baseline	2015	
		Assuming no change in unemployment	Including change in unemployment
Proportion of low income families	21.54	21.66	22.91
Number of low income families (to nearest 1,000)	1,568,000	1,577,000	1,667,000

Families experiencing material deprivation

In Chapter 2 the FACS data showed a decrease in material deprivation over the period 2003 to 2007 followed by a sharp rise in 2008. Unfortunately it is not possible to examine longer trends in the material deprivation measure using BHPS because it does not contain material deprivation questions. As an alternative, we have estimated a regression model of the factors affecting material deprivation in the FACS from 2003 and 2008 and used changes to our projections for several of the other explanatory factors including income level, worklessness and mental health. The results from the regression projection suggest that, taking account of other factors, the proportion of families experiencing material deprivation will increase by around 0.35 percentage points between 2010 and 2015. This is an increase of around 25,000 families.

Families in poor quality or overcrowded housing

The number of families experiencing an increase in poor quality housing over the five years 2010 to 2015 is perhaps the hardest element of vulnerability to forecast because it depends on a number of factors including investment in the social and private housing stock, rent levels, the generosity of the housing element of means-tested benefits, earnings levels among low-paid workers and the extent of unemployment. We have forecast the increase in the number of families in poor quality or overcrowded housing using a combination of two techniques;

- 1) A regression-based model operating in a similar manner to the model used for forecasting increases in material deprivation above.
- 2) A model of the impact of the Housing Benefit restrictions introduced by the coalition government (including the cap on total income from benefits at £500 per week) on the quality of accommodation which families with children are able to afford.

The regression-based model suggests that the number of families experiencing poor quality housing will increase by around 20,000 families. Additional modelling of the impact of the HB restrictions and the benefit cap suggests that they will increase the number of families in poor quality or overcrowded housing by an additional 20,000, resulting in 40,000 extra families in poor housing in total.

Projected increase in the vulnerable families 'score' by 2015

This final section of Chapter 8 uses a model of the relationship between each vulnerability measure and underlying family characteristics (such as region, age of respondent and partner (if any), number and age of children, housing tenure and income level) to simulate *which* families in the 2008 FACS would be most likely to experience changes in vulnerability if the sample were 'projected forward' first to 2010 and then to 2015. For the vulnerability indicators where we project an increase in vulnerability, the model identifies the families who are not currently vulnerable who are most likely to become vulnerable and changes their vulnerability status so that the overall number of vulnerable families in the grossed-up FACS sample matches our projected estimates of vulnerability for 2010 and 2015. For the vulnerability indicators where we project a *decrease* in vulnerability, the model does the opposite: it identifies the families who are currently vulnerable who are most likely to become non-vulnerable and changes their

vulnerability status so that the grossed up FACS sample matches the *reduction* in vulnerability from the simulations for 2010 and 2015.

The results of this simulation exercise (which is explained in more detail in the technical appendix to this report) are simulated 'FACS 2010' and 'FACS 2015' datasets with new sets of seven vulnerability indicators for each family. The tabulation of each individual vulnerability indicator – for example the proportion of families in poor quality housing – matches our estimates of the changes in vulnerability between 2008, 2010 and 2015. This means that simulated vulnerability 'scores' for 2010 and 2015 can be constructed. Tables 8.2 and 8.3 present the results of this vulnerability score modelling.

Table 8.2. Projected vulnerability scores in 2010 and 2015: Number of families and percentage change with each vulnerability in Britain

Number of vulnerabilities	FACS baseline – 2008	2010 estimates		2015 estimates		
	Number of families	Number of families	% change from 2010	Number of families	% change from 2010	% change from 2008
None	3,286,605	3,287,816	0.04%	3,140,177	–4.49%	–4.46%
1	2,121,680	2,120,436	–0.06%	2,146,307	1.22%	1.16%
2	971,838	965,926	–0.61%	1,022,421	5.85%	5.20%
3	503,682	499,846	–0.76%	527,570	5.55%	4.74%
4	263,825	272,070	3.13%	292,289	7.43%	10.79%
5	108,353	106,257	–1.93%	108,469	2.08%	0.11%
6	20,454	23,178	13.32%	38,296	65.23%	87.23%
7	1,347	2,255	67.41%	2,255	0.00%	67.41%
Total	7,277,784	7,277,784	0.00%	7,277,784	0.00%	0.00%
At least 5	130,154	131,690	1.18%	149,020	13.16%	14.50%

Table 8.2 shows that the number of families with five or more vulnerabilities is expected to increase from around 130,000 in 2008 to around 150,000 in 2015 – a total increase of 14.5 percent. Almost all of this increase is projected to take place between 2010 and 2015 – the increase between 2008 and 2010 is relatively minor. The number of vulnerable families increases at each level of vulnerability score from one to seven. The number of families with six vulnerabilities is projected to almost double, from 20,500 to 40,400.

Table 8.3 shows similar statistics for the number and percentage of vulnerable children.

Table 8.3. Projected vulnerability scores in 2015: Number and percentage of children in Britain

Number of vulnerabilities	FACS baseline – 2008	2010 estimates		2015 estimates		
	Number of children	Number of children	% change from 2008	Number of children	% change from 2010	% change from 2008
None	5,876,734	5,881,001	0.07%	5,589,189	–4.96%	–4.89%
1	3,982,518	3,978,716	–0.10%	4,036,258	1.45%	1.35%
2	1,988,832	1,965,856	–1.16%	2,064,085	5.00%	3.78%
3	1,104,283	1,088,342	–1.44%	1,145,493	5.25%	3.73%
4	574,255	608,322	5.93%	638,111	4.90%	11.12%
5	262,962	258,332	–1.76%	268,607	3.98%	2.15%
6	45,129	49,604	9.92%	88,430	78.27%	95.95%
7	2,962	7,502	153.27%	7,502	0.00%	153.27%
Total	13,837,675	13,837,675	0.00%	13,837,675	0.00%	0.00%
At least 5	311,053	315,438	1.41%	364,539	15.57%	17.20%

The proportionate increase in the number of children with five or more vulnerabilities between 2008 and 2015 – from around 311,000 to over 366,000 – is 17 percent, which is slightly larger than the increase in the number of families with five or more vulnerabilities. The number of children with all seven vulnerabilities is projected to grow by a factor of around two and a half – from around 3,000 to 7,500, under both low income measures. The number of children with six vulnerabilities also more than doubles between 2008 and 2015. Most of the growth in the number of children with five or more vulnerabilities takes place between 2010 and 2015.

Overall, this simulation of the increase in vulnerable children between 2008 and 2015 suggests that there will be a significant increase in the number of children who are extremely vulnerable – a worrying finding for policymakers.

In summary

- Between 2010 and 2015 the incidence of several vulnerabilities is projected to increase as follows:
- 120,000 more workless families
- 25,000 more families with a mother suffering from depression
- 100,000 more families living on a low income (below 60 percent median income)
- 25,000 more families in material deprivation
- 40,000 more families living in poor quality or overcrowded housing
- Not all vulnerable groups will increase in size. The simulation results suggest that the number of families where there is no adult with a qualification will fall by around 100,000, while the number of families where one adult has a limiting long-standing illness, disability or infirmity will remain unchanged.
- Between 2008 and 2015 it is estimated that the number of families with five or more vulnerabilities will increase from 130,000 to 150,000 – an increase of just under 15 percent.
- The number of children living in families with five or more vulnerabilities is set to rise by 55,000 to 365,000, an increase of around 17 percent. Taking a slightly wider definition of vulnerability, the number of children living in families with four or more vulnerabilities is set to rise from 885,000 in 2008 to just over one million by 2010, an increase of 13 percent.
- Particularly worrying is the projected increase in the number of children living in extremely vulnerable families – families with six or seven different risk factors. Although currently fewer than 50,000, the number of children living in extremely vulnerable families is set to almost double by 2015, to 96,000.

CONCLUSION

This research report has updated and extended the original Cabinet Office research on vulnerable families using more recent data from the Families and Children Study, and used simulation modelling to forecast the growth in the number of vulnerable families between 2010 and 2015. In addition, the FACS data has been used to model the effects of the fiscal consolidation package over the 2010–15 Parliament, including the effects both of tax increases and spending cuts. Four main conclusions emerge from this research.

Firstly, the period between 2003 and 2008 saw a sustained fall in the number of families classified as vulnerable using the Cabinet Office's headline definition of five or more out of seven vulnerability indicators. However, given the increases in unemployment following the 2008–09 recession and the subsequent 2012 'double dip' recession, reductions in the level of housing support in the benefit system, and a host of tax and benefit reforms, the number of vulnerable families is projected to rise by around 15 percent by 2015 compared to 2008, with the number of vulnerable children rising by 17 percent over the same period. This is despite the fact that one of the vulnerability indicators – the number of families with no qualifications – is on a long-term downward trend which is not affected very much by business cycle factors.

Secondly, the changes to the tax and benefit system which are being enacted over the course of this Parliament will, on average, have a negative impact on every type of vulnerable household analysed in this report. These adverse effects on vulnerable families are a result of a combination of the VAT increase, the cuts to Child Benefit, the replacement of Disability Living Allowance with Personal Independence Payment, the reforms to Employment and Support Allowance, reductions in the generosity of tax credits and the Housing Benefit and Council Tax Benefit reductions, and finally the introduction of the Universal Credit in 2013. The introduction of Universal Credit offsets a small amount of the other tax and benefit changes, but the increases in net income for vulnerable groups arising from Universal Credits are nowhere near large enough to offset the other changes completely.

Thirdly, the cuts to 'in-kind' public services such as health, education, social care and housing also have a disproportionately large effect on vulnerable families. Partly this reflects the fact that vulnerable families make greater use of public services such as social care, housing services and state schooling than the average across the population of families with children. However, the adverse distributional effect of public spending cuts on vulnerable families also reflects the fact that some of the service areas which these families rely on particularly heavily – such as social care and housing services – face severe cuts. Furthermore, if it were not for the redistributive impact of the pupil premium and the offer for disadvantaged two-year olds, vulnerable families' losses from the spending cuts would be even greater.

Finally, combining the changes to the tax and benefit system with the other spending cuts, families with five or more vulnerabilities lose approximately £3,000 per year (in April 2012 prices) from the overall fiscal 'package' by 2015 compared to 2010. This represents a decrease in total living standards (net income plus the value of public services received) of around 7 percent. Even if the £448 million per year

allocated to “troubled” families by the Government in 2011 were targeted solely on families with five or more vulnerabilities using the Cabinet Office’s original definition, the money allocated per family would only just offset the losses which vulnerable families are suffering from the rest of the fiscal package.

Putting all of this together, it is clear that by 2015 there will be significantly more vulnerable families than there were in 2010. They will be significantly worse off in terms of disposable income than they were in 2010 and the public spending cuts will have hit them particularly hard compared with the population at large. Furthermore, the number of children living in families with five or more vulnerabilities is predicted to increase by around 17 percent and the number of extremely vulnerable children (in families with six or seven vulnerabilities) will almost double. On this reading of the situation, the outlook for vulnerable families over the next three years – and beyond – should be of major concern to policymakers.