

# **The impact of planned cuts to public spending over the 2015-20 Parliament**

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## **Acknowledgements**

Data from the UK Family Resources Survey, National Travel Survey, Health Survey for England and the Crime Survey for England and Wales are Crown Copyright and are kindly supplied by the UK Data Archive at the University of Essex.

## The Distributional Impact of Planned Spending Cuts over the 2015-20 Parliament

This report assesses the distributional effect of the spending cuts to public services such as health, education, social care, social housing and public transport which the Conservative Government is committed to implementing in the 2015-20 Parliament.

### The extent of the cuts

The scale of spending cuts being pursued in the 2015-20 Parliament is not quite as severe as in the 2010-15 Parliament, but will still lead to real terms reductions for many government departments<sup>1</sup>.

Analysis of the Government's plans for 2015-20 published by the Institute for Fiscal Studies in its Green Budget in February 2016 shows that Total Managed Expenditure (TME) is increasing by around 1.4% in real terms (compared to the GDP deflator<sup>2</sup>), but excluding debt interest and Local Authority self-financed expenditure, spending will be falling. Social security (benefits, tax credits and Universal Credit) is planned to fall by 4.2% (£9bn), while departmental spending is planned to fall by 2.3% (a reduction of about £8bn at 2015 prices), compared to a 10.4% cut over the 2010-15 Parliament (a reduction of about £41bn at 2015 prices).

### How the cuts are modelled

The Landman Economics public spending model used in this analysis combines data from two sources:

- 1) data from the UK Government on the total extent of cuts to different public services such as health, education, social care, public housing and public transport;
- 2) data from UK household-level datasets on individuals' and families' use of these public services.

These two sources of data are combined to give an estimate of the amount being spent on services delivered to households with specific attributes (e.g. number of

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<sup>1</sup> See IFS (2016), Chapter 6, for more details of the extent of cuts to departmental spending revealed in the November 2015 Autumn Statement.

<sup>2</sup> The analysis of spending cuts in this report mainly uses the GDP deflator measure of inflation – this is the widest measure of price changes in the economy which the ONS uses to calculate real Gross Domestic Product. Alternative measures of inflation include the Consumer Price Index (CPI) which is the UK Government's preferred measure of consumer prices, and the Retail Price Index (RPI) which was the preferred measure prior to 2010 but is now deprecated (although still used for some calculations – e.g. increases in regulated rail fares). Projected growth for CPI over the period 2015-20 is very similar to the GDP deflator and so the results in this chapter would look very similar using CPI. Projected growth RPI between 2015-20 is significantly higher than growth in the GDP deflator (around 15 percent cumulative growth for RPI compared to around 10 percent for the GDP deflator) and so the estimated spending cuts in this chapter would look substantially worse if the RPI measure of inflation were used as the baseline. Estimated spending cuts using the RPI measure are available from the author on request.

adults in the household, age of adults in the household, number and age of children, housing tenure type, employment status, disability, net income level, etc.) This enables the impact of cuts to spending on different services on each type of household to be modelled.

### Services included in the model

The model only includes services which can be reasonably allocated to households in the FRS or other datasets based on variables pertaining to service use. HM Treasury's *Public Expenditure Statistical Analyses* (PESA) publication, which breaks expenditure down according to the internationally agreed COFOG (Classification Of Functions Of Government) specification<sup>3</sup>.

The model includes approximately 72 per cent of total public expenditure on services. The main exclusions from the model are:

- foreign affairs (e.g. diplomatic service, etc.);
- international aid spending;
- payments to the European Union and other international bodies;
- debt interest;
- defence spending;
- fire protection services;
- cultural spending (e.g. museums and galleries);
- the judicial system and prisons;
- government support for research and development spending;
- environmental protection;
- street lighting and other community amenities;
- broadcasting and publishing services.

The model uses data from four different household datasets on service use – the Family Resources Survey (FRS) for 2012-2013, the Health Survey for England (HSE) for 2013, the National Travel Survey (NTS) for 2014 and the Crime Survey for England and Wales (CSEW) for 2013-14. The FRS is the 'base' dataset and data from the other datasets on service use is matched in to the FRS using a regression methodology. Table 1 explains how the service use variables in the five datasets used are matched to COFOG spending categories in the PESA data.

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<sup>3</sup> Previous research by Landman Economics on the distributional impact of spending cuts published in 2010 used the PESA data to analyse total spending on services, but used departmental spending plans from the 2010 Autumn Statement to analyse the extent of cuts. This is less accurate than the COFOG-based approach used here because departmental spending does not map precisely onto COFOG classifications. However, it is only since the publication of the most recent PESA statistics in July 2014 that a full breakdown of spending plans at the central government level has been available up to 2015-16. For *local* government, the spending breakdown is only available up to 2013-14 and so expenditure up to 2015-16 has had to be extrapolated using data on the overall local authority spending settlements for 2014-15 and 2015-16.

**Table 1. Spending categories in the Landman Economics public spending model**

<b>COFOG category</b>	<b>Service use provision variables used</b>
3.1: Police	Victim of crime (CSEW)
4.5: Transport	Number of car journeys (NTS) Number of bus journeys (NTS) Number of train journeys (NTS)
6.1 Social housing development	Social housing tenancy (FRS)
7: Health	Hospital inpatient stays (HSE) Hospital outpatient stays (HSE) GP visits (HSE)
9.1: Early years education	Number of children in state-funded nursery education and/or childcare (FRS)
9.1-9.2: school level education	Number and age of children in state primary and secondary schools (FRS)
9.3 – 9.4: further and higher education	Children/adults in further education (FRS) Children/adults in higher education (FRS)
10: social protection (benefits and tax credits)	Modelled by Landman Economics tax/benefit model (FRS)
10: social protection (social care spending)	Care received by old people from sources other than household members, means-tested as appropriate (FRS)  Care received by working age disabled people from sources other than household members, means-tested as appropriate (FRS)

The spending cuts for 2015-20 are estimated based on the plans for departmental spending reductions in the Government's Spending Review document published in November 2015. These departmental spending reductions are projected onto spending estimates by function using the information from the PESA data for 2014-15.

In addition (and for the first time in an analysis of this type), the modelling takes into account changes in the size of population using each public service<sup>4</sup> to produce a more accurate estimate of changes in spending *per service user* rather than just changes to aggregate spending totals. In most cases, the spending reduction is larger when the change in the population of service users is taken into account,

<sup>4</sup> Appendix C gives details of the particular variables used to estimate population change across each category of public service spending.

because the size of the population increased between 2010 and 2015, and is projected to increase further between 2015 and 2020<sup>5</sup>.

Table 2 at Annex A to this document shows that the largest percentage cuts over the 2015-20 period are for further and higher education, secondary education, social care spending and social housing. In the specific case of social care, it should be noted that we have assumed that every local authority in England makes use of the new power (conferred by the Government in the November 2015 Spending Review) to levy an additional increase in Council Tax of 2% per year above CPI inflation each year over the parliament, leading to a total real-terms increase of 10 percent in Council Tax over the Parliament (the "social care precept"). Without this additional spending from increased Council Tax, the cuts to social care spending would be significantly larger<sup>6</sup>.

Transport sees substantial increases in spending over the period (especially for roads), although this is entirely due to increases in capital investment (current spending on transport falls during this period). In some areas – police, healthcare, primary and secondary education – spending is flat in real terms (or slightly increasing) if population change is not taken account of, but spending per head *accounting for population change* is falling.

Overall, excluding cuts to social security benefits and tax credits (which total around £12 billion of discretionary reductions in spending<sup>7</sup>), the model allocates only around £2 billion of 'raw' spending cuts at 2015 prices, but adjustment for increases in the size of the population receiving these services implies total cuts of just over £15 billion relative to a position where spending per head rose in line with the GDP deflator.

## The distributional impact of planned service cuts for 2015-20

### Impact across the income distribution

Figure 1 shows the distributional impact of spending cuts (excluding social security measures) expressed in annual cash-equivalent terms, across the distribution of net income (by household income decile). The black line on the figure shows that the total impact of spending cuts is largest in cash terms for the 4<sup>th</sup> and 5<sup>th</sup> deciles – just below the middle of the income distribution; for these groups the cuts total over £1,500 per year in value. Cuts to social care have the largest effect of any single

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<sup>5</sup> An exception is state secondary schools, where statistics from the Department for Education show that overall pupil numbers fell between 2010 and 2014 (the most recent available data). See Appendix C for more detail.

<sup>6</sup> It should be noted here that at the time of writing (March 2016) we do not yet know whether most local authorities will decide to make use of the extra Council Tax raising powers. To the extent that they do not, cuts to social care services are likely to be substantially worse than the estimates shown in this report.

<sup>7</sup> Note that this figure differs from the total forecast real-terms reduction in social security spending of £9bn discussed earlier because real terms social security spending is forecast to increase slightly (by around £3bn by 2020) in the absence of any discretionary cuts.

spending category, and are largest for people located between the 3<sup>rd</sup> and 7<sup>th</sup> deciles of the income distribution. Cuts to health care have a fairly even cash impact across the distribution. Cuts to school-level education have the largest impact in the lower-to-middle reaches of the income distribution. For transport, by contrast, the cuts are larger in the top half of the distribution than the bottom half distribution (mainly because well-off families are more likely to make rail and road journeys than poorer families.) Average cuts in cash terms are smallest for the top two deciles (at less than £1,000) mainly because these rich households receive relatively little publicly funded social care.

**Figure 1. Distributional impacts of cuts to spending on public services (excluding social security) over the 2015-20 Parliament: annual cash equivalent, by household income decile**

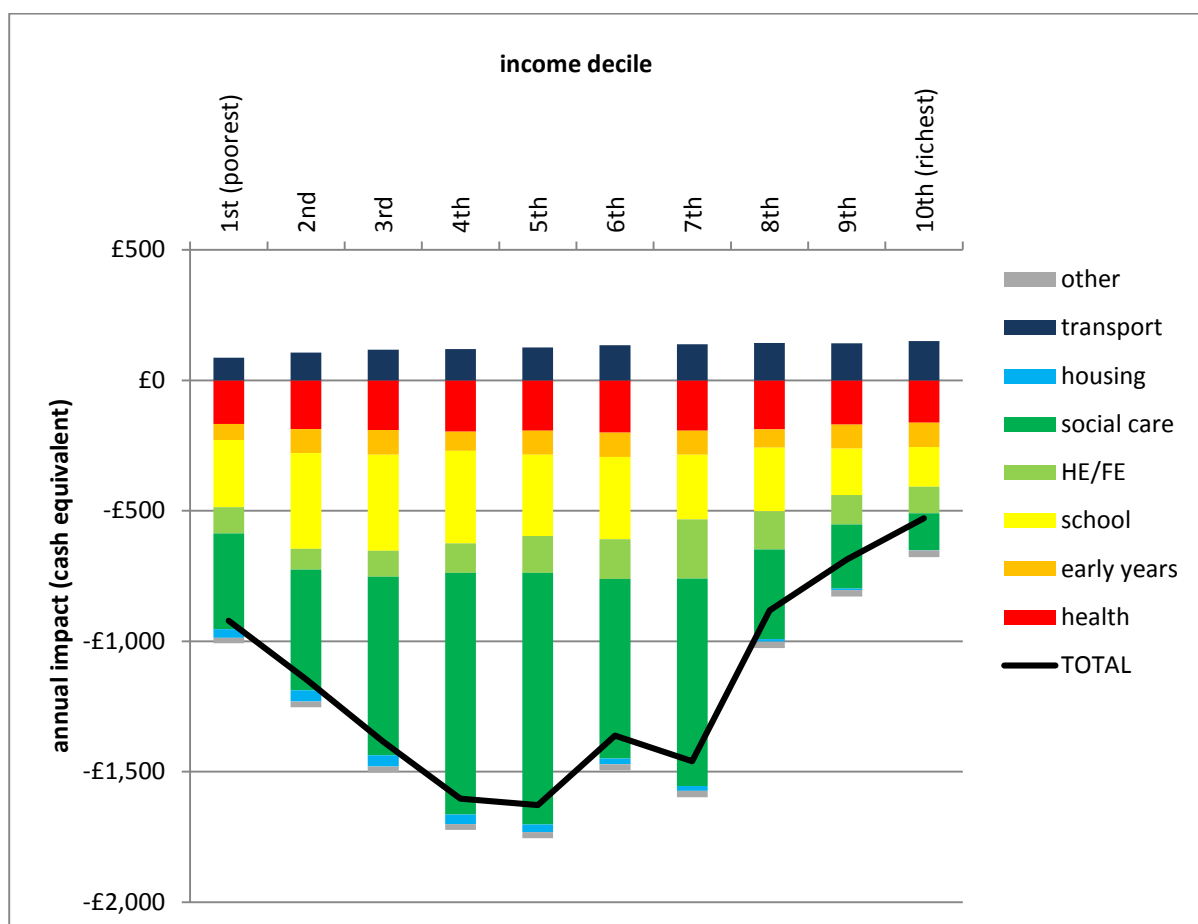
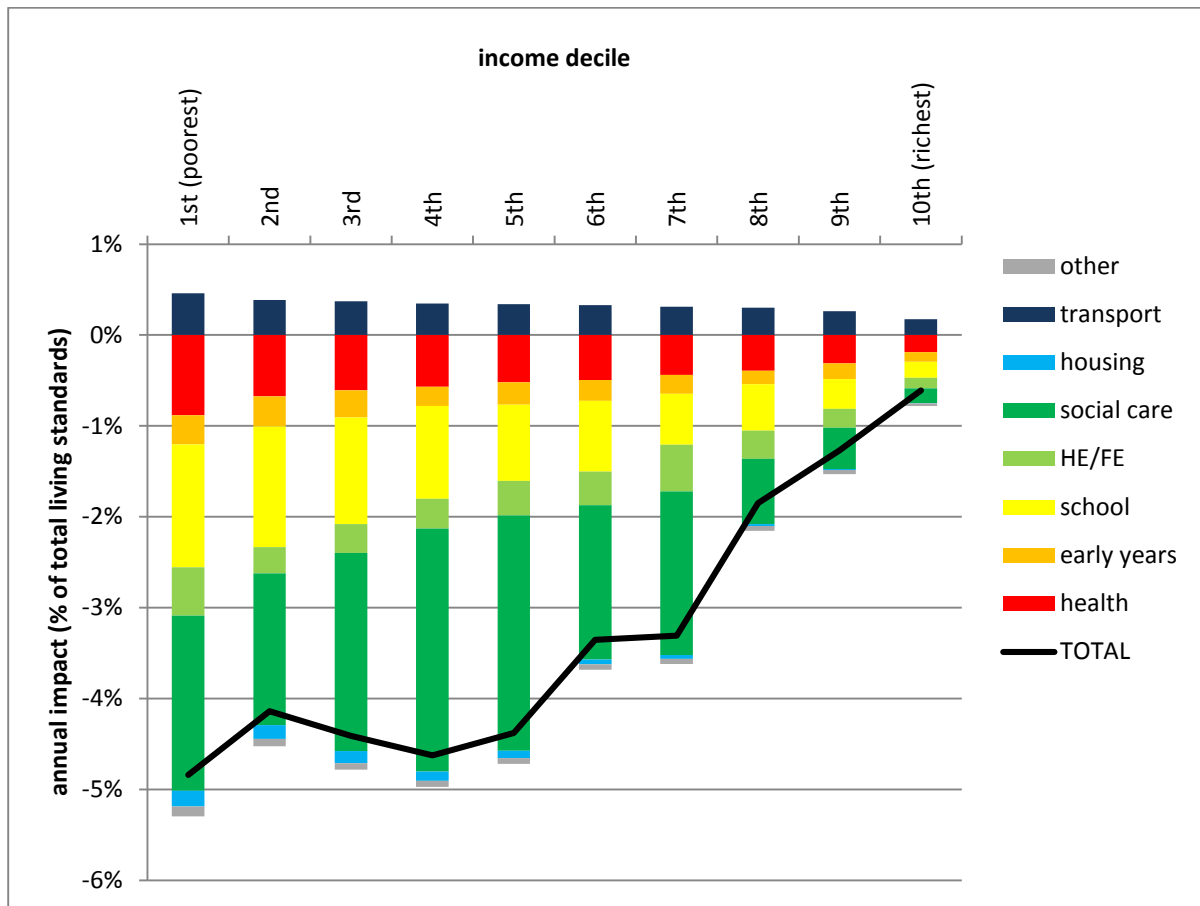


Figure 2 shows the same information on cuts by service category, but as a proportion of total household living standards (defined as household disposable income after taxes and social security payments, *plus* the value of in-kind public services). As a proportion of total living standards, the spending cuts are regressive; the lowest income decile experiences an average reduction in living standards of around 5 percent, while the 2<sup>nd</sup>, 3<sup>rd</sup> 4<sup>th</sup> and 5<sup>th</sup> deciles experience reductions of around 4.5 percent. Meanwhile, average losses for the top decile are less than 1 percent of living standards, and for the 9<sup>th</sup> decile only just over 1 percent of living

standards. Spending cuts have a very regressive impact by income decile for all of the spending categories.

**Figure 2. Distributional impacts of cuts to spending on public services (excluding social security) over the 2015-20 Parliament: as percentage of net income plus value of services received, by household income decile**



### Impact by family type

It is also useful to look at the impact of spending cuts by family type, distinguishing between the following types of households:

- single adults without children;
- couples without children
- lone parents;
- couples with children;
- single pensioners;
- couple pensioners;
- households with more than one family type in them (for example, a couple with children living with a pensioner), i.e. multiple family types.

Figure 3 shows the cash-equivalent impacts by family type. The largest cash impacts are for multiple family types, lone parents, couples with children and single pensioners. These results are driven by cuts in two particular spending categories: social care (for single pensioners and multiple family types), and school-level education (for lone parents and couples with children. Cuts to the HE and FE budget



also have a fairly large cash impact for households with multiple family types (because this category includes a large number of households with HE and FE students in them). Cuts to the early years' budget also have a fairly large impact for lone parents and couples with children. Cuts to the health budget have the largest cash impact for couples with children, couple pensioners and multiple family types. The increases in transport spending have the largest impact for couples with children and multiple family types.

**Figure 3. Distributional impacts of cuts to spending on public services (excluding social security) over the 2015-20 Parliament: annual cash equivalent, by family type**

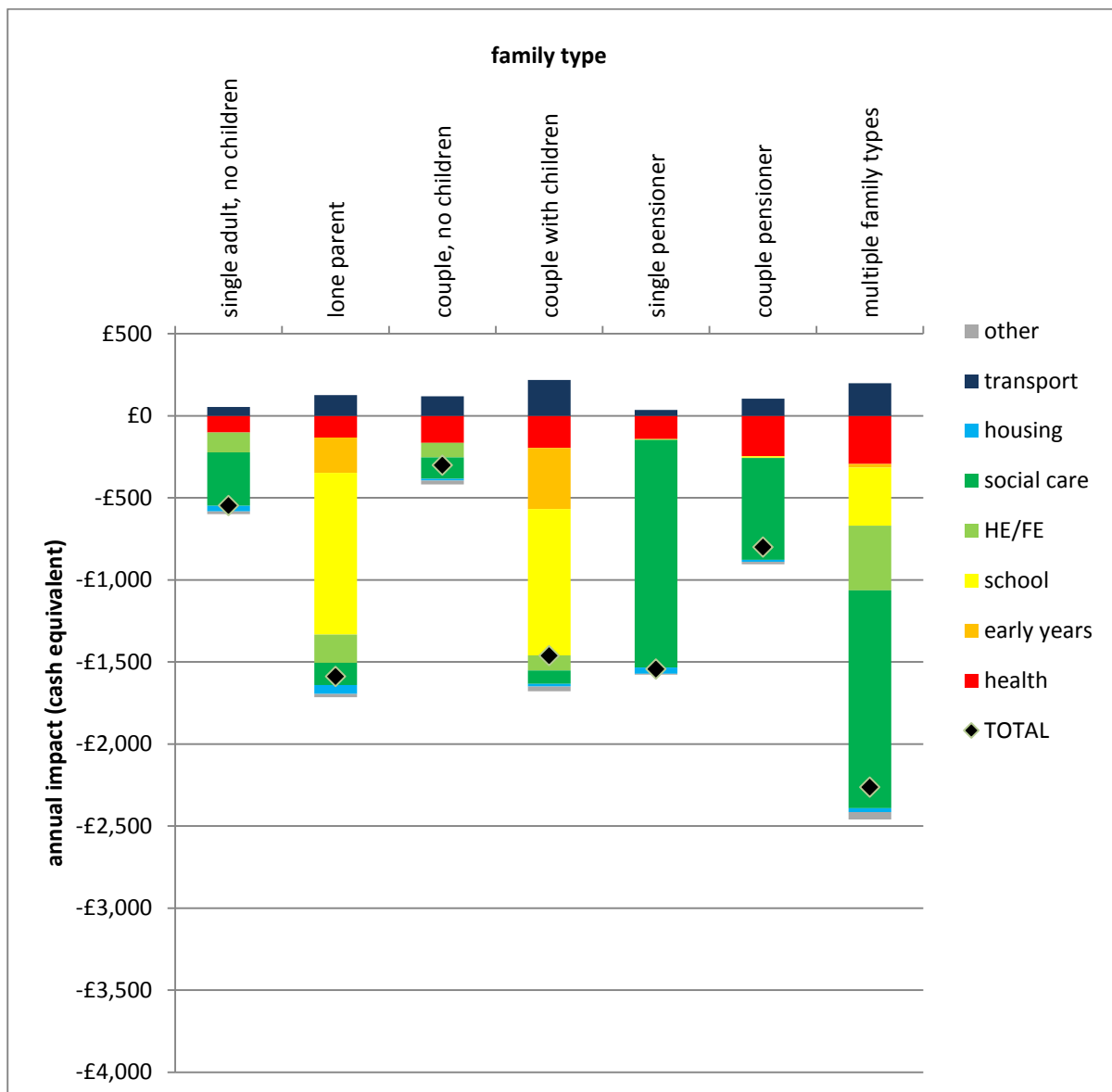
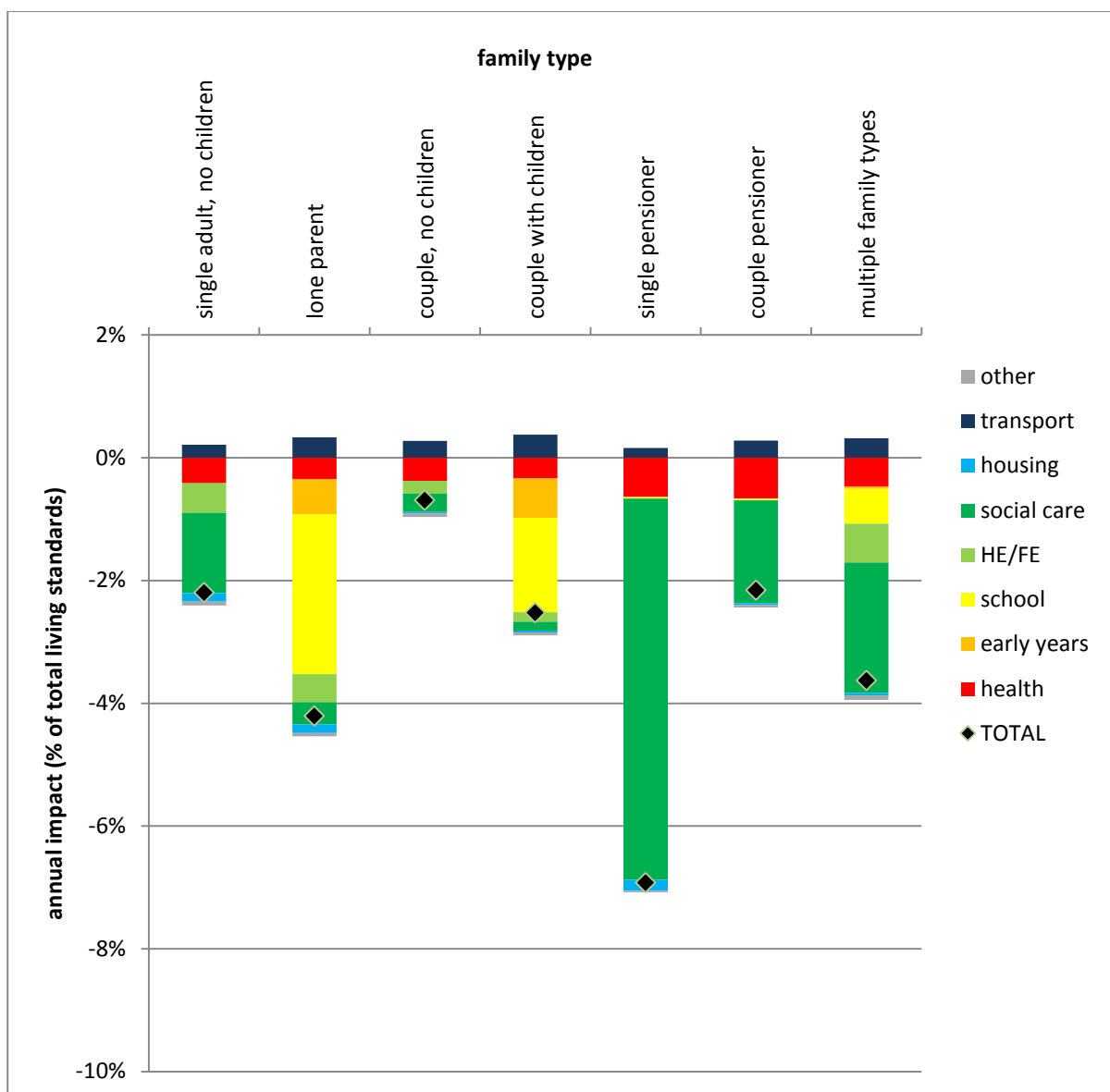


Figure 4 shows the impact of cuts by household type as a percentage of total living standards. The pattern here is different to the cash-equivalent impacts shown above; in percentage terms the cuts are most severe for single pensioners, which is an interesting finding which goes against the prevailing narrative that pensioners are

being relatively insulated from the effects of austerity. Social care cuts and cuts to the health budget both have a particularly large impact on pensioner living standards. Overall, single pensioner living standards fall by over 6 percent on average due to the cuts. Lone parents are the next most affected group with average losses of just over 4 percent, followed by multiple family types with losses of just under 4 percent, and couples with children who lose an average of just over 2 percent of total living standards. Couples with no children are the least affected group, with average losses of less than 1 percent.

**Figure 4. Distributional impacts of cuts to spending on public services (excluding social security) over the 2015-20 Parliament: as percentage of net income plus value of services received, by family type**



## Combined impact of tax/benefit measures and cuts to other public services during 2015-20

This section combines results on the impact of cuts to public services during the 2015-20 period with estimates of the distributional impact of the tax and benefit changes announced by George Osborne in the July 2015 Budget.

The included reforms to taxes and benefits are as follows:

- four-year freeze on working age benefits and Universal Credit [note that analysis assumes full roll out of UC in the base and reform systems]<sup>8</sup>;
- reductions in UC work allowances;
- Universal Credit restricted to two children only for children born after April 2017;
- removal of Work-Related Activity Premium for Employment and Support Allowance;
- housing support in Universal Credit restricted to adults aged 21 and over
- benefit cap regionalised and reduced;
- increase of 10 percent in Council Tax (assuming that all authorities levy a social care precept in each year in the Parliament);
- increase in income tax personal allowance to £12,500 by April 2020;
- the "National Living Wage" – modelled as an increase in the minimum wage to £9.20 per hour by 2020 for all employees aged 25 and over.

The distributional analysis of the impact of tax, benefit and tax credit reforms in this section is produced using the Landman Economics tax-benefit model, which uses data from the Family Resources Survey and Living Costs and Food Survey to model the impact of these reforms on household disposable incomes.

The analysis excludes changes to taxes which are not directly incident on household incomes (such as Inheritance Tax, Capital Gains Tax and Stamp Duty), changes to corporate taxation and indirect taxes<sup>9</sup>.

Figure 5 shows the overall distributional impact of the cuts to spending on public services during 2015-20 (the "services" column) combined with the changes to taxes and transfer payments over the same period (the "tax & transfers" column), by household income decile, as a percentage of overall household living standards. The overall impact of all modelled fiscal measures is regressive. The average reduction in living standards as a result of all the modelled tax, transfer and public spending

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<sup>8</sup> Note that the abandonment of some of the planned cuts to tax credits in the November 2015 Spending Review makes no difference to the figures presented here as this analysis assumes full roll-out of Universal Credit by 2020, so tax credits will have been completely superseded by then.

<sup>9</sup> There were significant changes to indirect taxation over the 2010-15 Parliament – principally the increase in the standard rate of VAT from 17.5 to 20 percent, and repeated nominal freezes in excise duties on road fuels. However, no major changes to indirect taxes are planned over the 2015-20 Parliament according to the November 2015 Autumn Statement.

measures is around 13 percent for the bottom decile and around 11 percent for the second and third decile. Meanwhile, for the top decile the average change in living standards are close to zero; the negative impact of cuts to services is almost cancelled out by a small positive impact of the tax and benefit changes (mainly driven by the increase in the personal allowance, which we have assumed has a positive impact on incomes for everyone with gross incomes between £12,500 and £125,000 per year)<sup>10</sup>. For people in the bottom three deciles the tax and transfer payment changes have a bigger negative impact than the service cuts; for people between the 4<sup>th</sup> and the 9<sup>th</sup> decile the service cuts have a bigger impact than the tax and transfer changes.

**Figure 5. Combined impact of tax/benefit measures and cuts to other public services over the 2015-20 Parliament , as percentage of net income plus the value of services received, by household income decile**

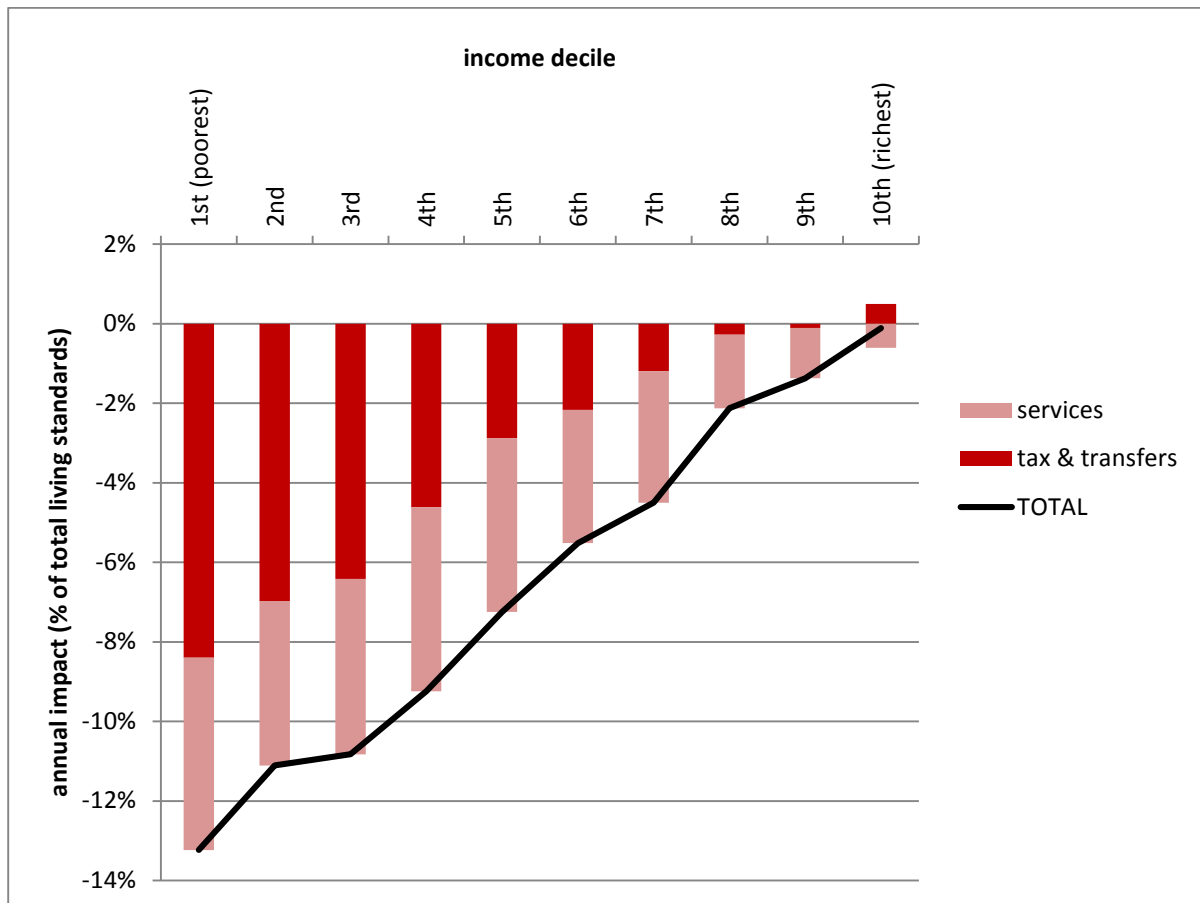
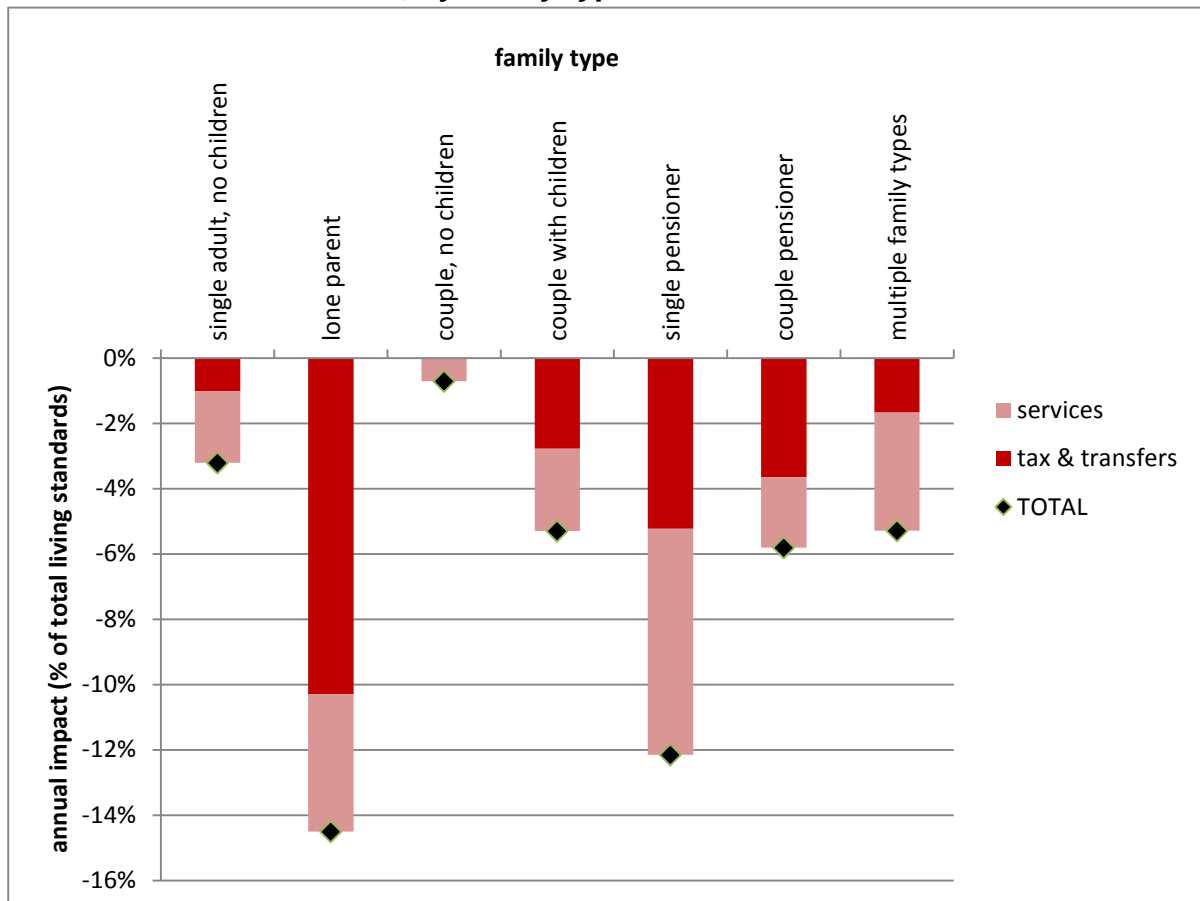


Figure 6 shows the overall impacts of public spending cuts and tax and transfer payment measures by household type. The largest average negative impacts are for lone parents, who lose just under 15 percent on average. Cuts to Universal Credit

<sup>10</sup> Above £125,000 per year we assume that the personal allowance is completely tapered away (given that taxpayers lose 50 pence of allowance for each £1 of gross taxable income above £100,000) and so taxpayers with incomes above this level derive no gain from the increase in the personal allowance to £12,500.

have a particularly large impact on this group. Single pensioners are the next biggest losers with losses of around 12 percent<sup>11</sup>. Couples with children, couple pensioners and multiple family types all experience losses of between 4 and 6 per cent of total living standards. The smallest impacts are for couples with no children (less than 1 per cent losses overall, with the tax and transfer payment changes having essentially zero impact).

**Figure 6. Combined impact of tax/benefit measures and cuts to other public services over the 2015-20 Parliament, as percentage of net income plus the value of services received, by family type**



<sup>11</sup> Note that pensioners here are defined using the 2020 state pension age, which will be 66 for both men and women under current plans. If the 2015 state pension age is used instead (which is 65 for men and around 63 for women depending on exact date of birth) the average losses for pensioners by 2020 are slightly larger (because men aged 65 and women aged between 63 and 65 will be below state pension age by 2020, and hence subject to the working age benefits regime, which has been cut more extensively than benefits for pensioners) but the difference on average for the whole group is not particularly large because only a small proportion of pensioners are affected by the change in the age boundaries of the group.

**Annex A:**

**Table 2. Implied reductions in each category of spending accounting for population change**

Spending category	Actual change in spending (per cent) 2010-15		Projected change in spending (percent) 2015-20	
	Raw total (%)	Accounting for population change (%)	Raw total (%)	Accounting for population change (%)
Police	-19	-22	0	-3
Transport: roads	-12	-16	+26	+22
Transport: buses	-34	-35	+5	+4
Transport: rail	-12	-28	+23	+5
healthcare	+6	+2	+1	-3
Early years	-10	-18	-8	-8
Education: primary	-15	-21	0	-4
Education: secondary	-16	-13	0	-12
Education: FE+HE	-51	-51	-14	-14
Social care: old people	-23	-26	-11	-19
Social care: working age	-7	-11	-6	-13
Housing	-38	-43	-4	-10
<b>TOTAL (allocatable)</b>	<b>-10</b>	<b>-13</b>	<b>-1</b>	<b>-5</b>

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