

Projected Cost Pressures for Scottish Local Government

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1 Model Assumptions

The model uses forecasts demand increases based on demographic and household projections sourced from the NRS. In addition, these costs are adjusted by inflationary pressures and increasing staff costs. The methodology here is based on previous models developed by the IS, but updated with the latest figures and projections for demography, pay, and inflation.

Each service area is projected using a different demographic group based on correlation between expenditure and demographic change, these are then adjusted for the projected inflation rate. The demographic group used for each service area is different. Education is based on the 5-15 population; social care uses the over 75 population; environmental spend is based on the total population; and roads expenditure is based on household projections. All other service areas are maintained at the 2017-18 expenditure levels and only adjusted for inflation.

This method does not account for policy pressures such as increases in the national living wage and expansion of early years provision both of which will further increase costs and spending. Assumptions for pay increases and inflation are discussed below. Actual spending will also depend on financial settlements and these estimates are at best a likely estimate of what expenditure would have to be based on population changes.

There are other policy pressures not accounted for including the expansion of early years provision to 1140 hours, which will certainly increase costs substantially for all local authorities and are not included in this model.

2 Update to 2017/18

2.1 Introduction

Previous versions of the model for expenditure had utilized the most recent outturn expenditure figures, that is for 2015/16. As more recent data was available through the Provisional Outturn and Budget Estimate statistics for net revenue expenditure covering 2016/17 and 2017/18.¹ These figures are provisional estimates of expenditure, and so the model is only an approximation of future spend based on these. Although expenditure was recalculated on a service by service basis, only the total expenditure is displayed here.

2.2 Expenditure Projections

Between 2017-18 and 2020-2021 spending would have to increase by £1.35 billion to keep pace with inflation and demographic pressure. This would be a 12.6% increase in expenditure. These figures are shown in Table 1 and Figure 1 below.

<i>Year</i>	<i>Forecast Expenditure* (2017-18 Prices) (£million)</i>	<i>Forecast Expenditure* (Cash Prices) (£million)</i>
<i>2015-16</i>	10,884	10,594
<i>2016-17</i>	10,901	10,690
<i>2017-18</i>	10,728	10,728
<i>2018-19</i>	11,004	11,176
<i>2019-20</i>	11,230	11,595
<i>2020-21</i>	11,483	12,078

*Table 1- Projected Expenditure Figures * - figures for 2015-16, 2016-17, and 2017-18 are not modelled*

¹ <http://www.gov.scot/Topics/Statistics/Browse/Local-Government-Finance/POBESats>

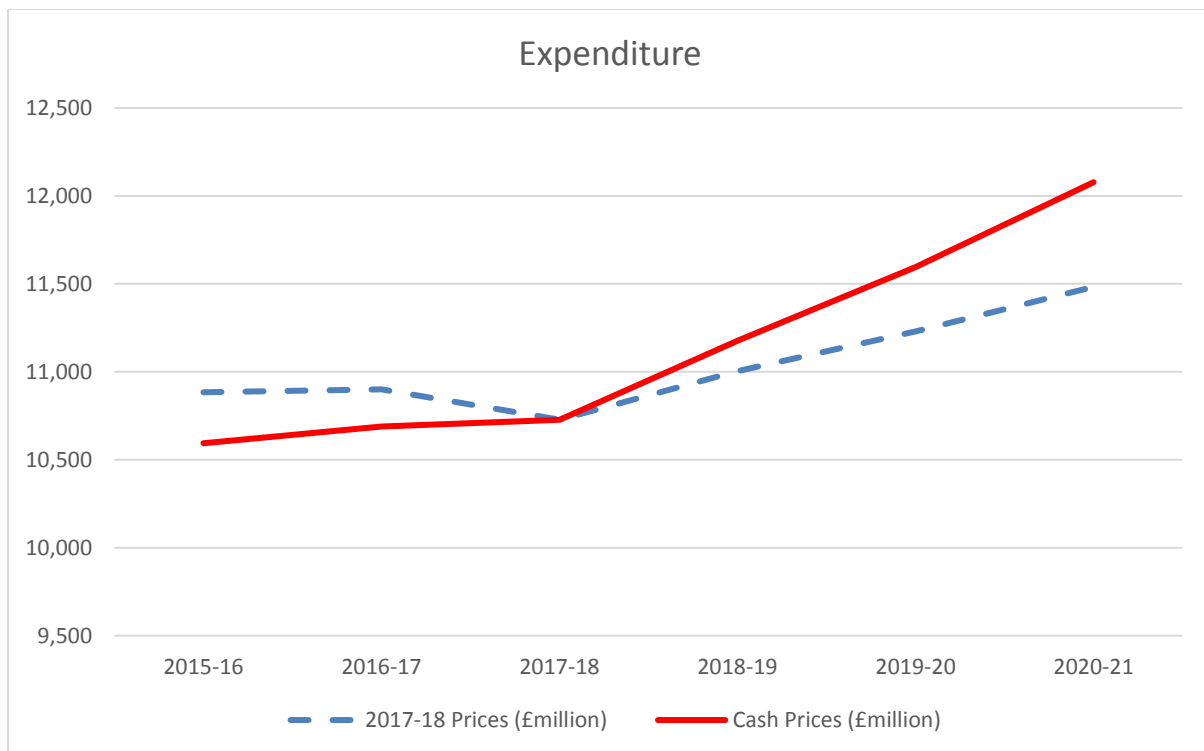


Figure 1 - Forecast Expenditure

2.3 Consequences for Local Authority Funding

The upshot for local authorities of this projected increase in expenditure would be a need for increased funding in order to meet the growing demands placed upon them. The breakdown of the funding figures provided here shows that demographic demands will necessitate an increase of 2.6% between 2017-18 and 2018-19, while to account for inflation an additional 3% would have to be added to the local authority revenue grant. This works out as £248 million for demographic demand and £264.64 million just to account for inflation. The total revenue grant would therefore have to increase from £9640 million to £10185 million. It should be noted that this increase is not to allow any expansion of local government services or activities, but is what is required simply to stand still.

3 Total Expenditure Summary

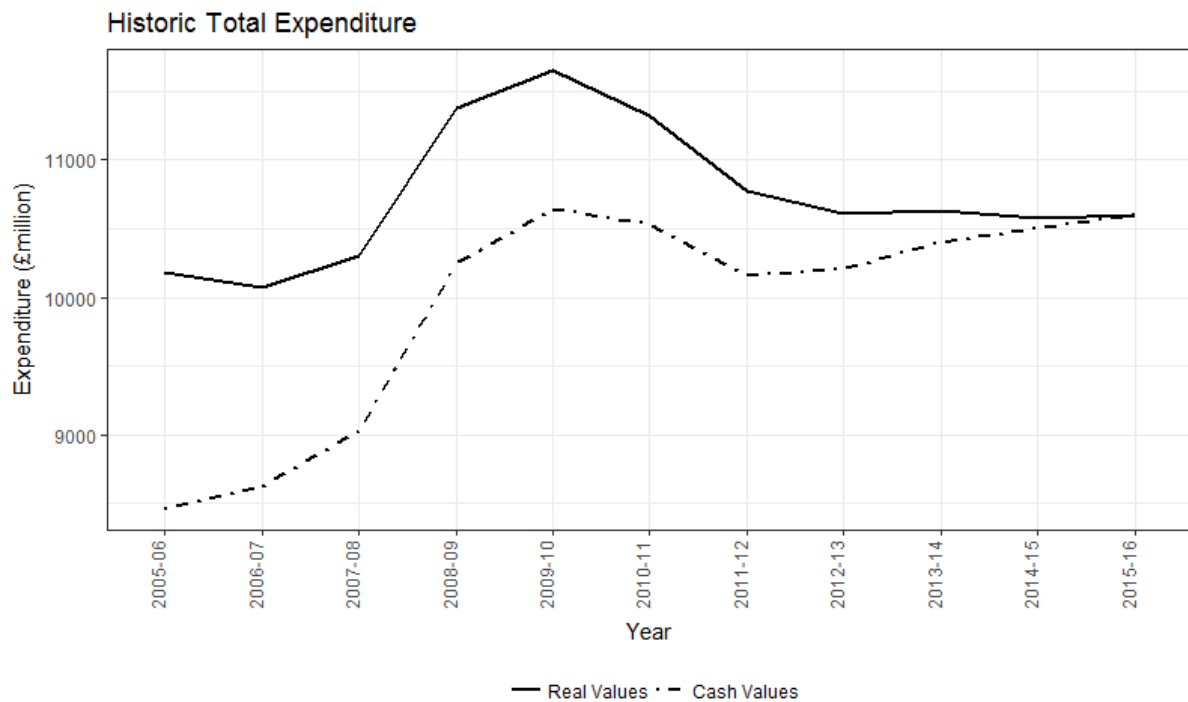


Figure 2 - Historic Expenditure

<i>Year</i>	<i>Expenditure (Cash) (£millions)</i>	<i>Expenditure (Real) (£millions)</i>
<i>2005-06</i>	8463	10,185
<i>2006-07</i>	8624	10,074
<i>2007-08</i>	9031	10,300
<i>2008-09</i>	10,249	11,380
<i>2009-10</i>	10,638	11,652
<i>2010-11</i>	10,531	11,327
<i>2011-12</i>	10,156	10,775
<i>2012-13</i>	10,208	10,607

2013-14	10,400	10,631
2014-15	10,504	10,582
2015-16	10,594	10,594

Table 2 - Historic Expenditure

Since 2008-09 the amount of expenditure by local authorities has decreased substantially. Although there has been a slight increase in cash terms spending since 2010-11 this is yet to reach levels of cash expenditure in 2009-10. In real terms, however, expenditure has declined by over a billion pounds since 2009-10.

The forecasts produced by this paper would require spending at current prices to increase by over a billion by 2020-21 and real terms spending to increase by over two billion or 21%. This would be a sharp break from the trends of the last 5 years.

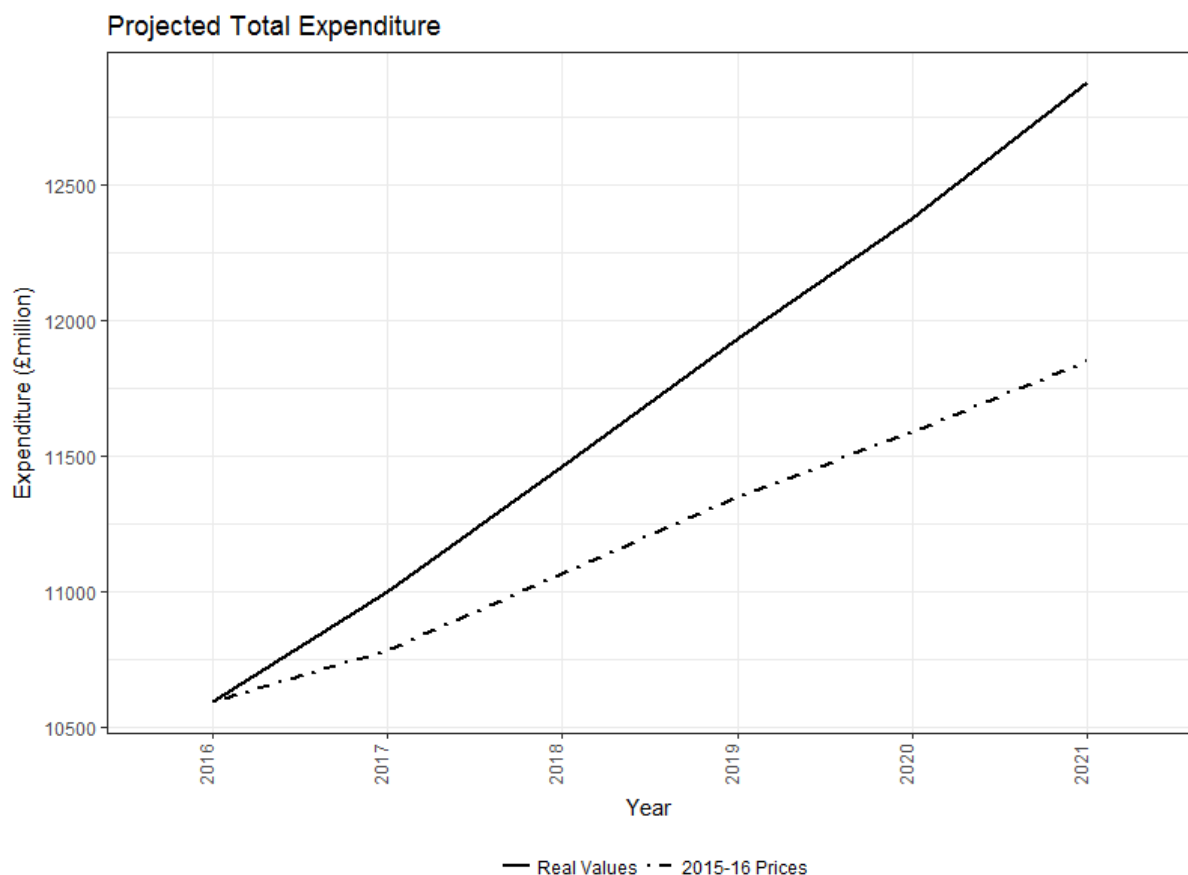


Figure 3 - Projected Expenditure

<i>Year</i>	<i>Forecast Expenditure (Current Prices) (£million)</i>	<i>Forecast Exp. (Real Prices) (£million)</i>
<i>2015-16</i>	10,593	10,593
<i>2016-17</i>	10,593	10,999
<i>2017-18</i>	10,785	11,464
<i>2018-19</i>	11,065	11,937
<i>2019-20</i>	11,351	12,379
<i>2020-21</i>	11,852	12,878

Table 3 - Projected Expenditure

When we combine past and forecast expenditure we can see that demographic and inflationary pressures will require a substantial increase in spending by local authorities in the period to 2021.

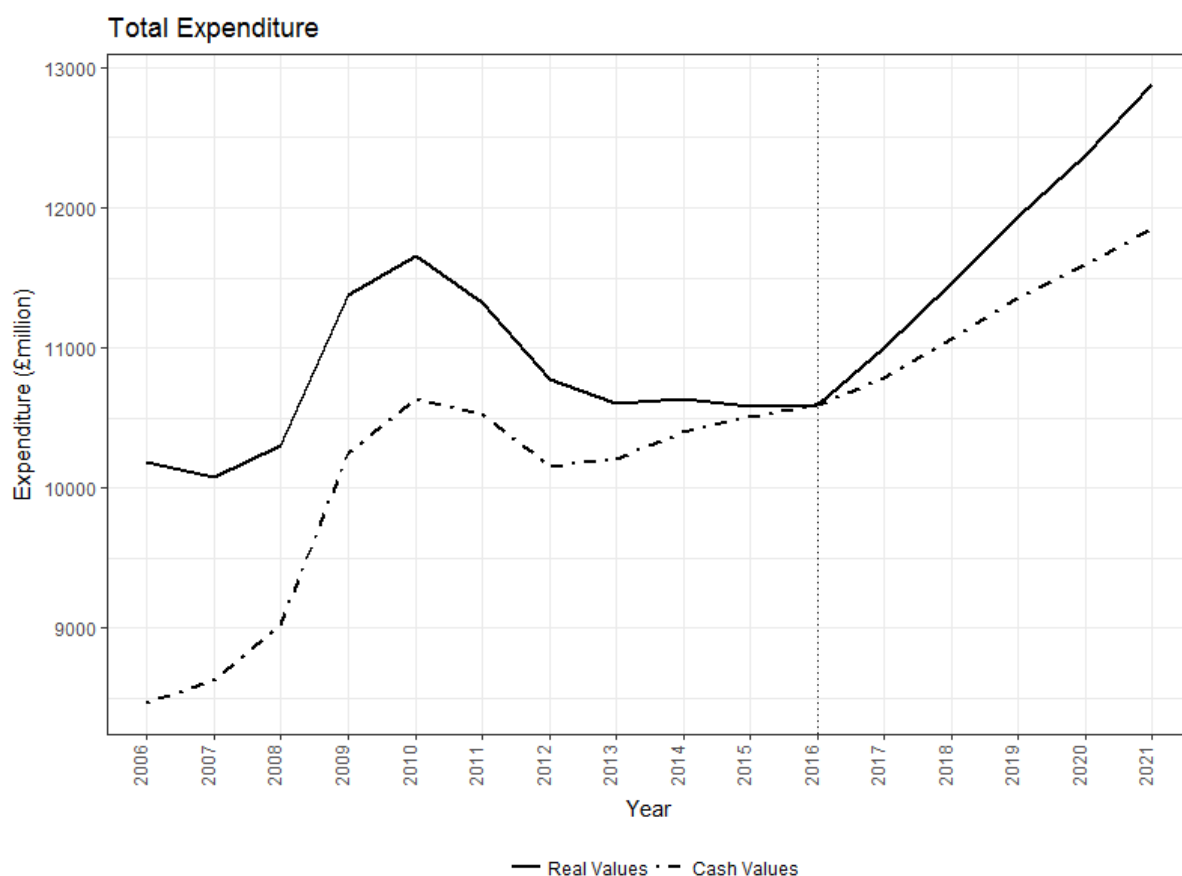


Figure 4 - Historic and Forecast Expenditure – n.b. “real values” here refers to figures adjusted for inflation

4 Inflationary Pressures

For all costs within the core local authority budgets it can be assumed that there will be inflationary pressures that will substantially increase costs beyond the forecasted additional demand. These primarily come from demographic changes.

The model also uses past and projected GDP deflators to estimate how past and future inflation has and will translate into changing costs over time.

4.1 Demographic Changes

The projected costs are all largely based on changes in demography, which will impact demand. Although the number of 5-15 year olds is forecast to increase by about 5% and total population growth is expected to be small, the population aged over 75 will increase by over 25%. These changes will convert into substantial increases in demand for services. The projected figures are explored in more depth in the sections below.

It is also worth noting that these projections were made before the Brexit vote in June 2016, which could have substantial impacts on the demographic make-up of the population. This has not been taken into account here, but is likely to have a negative impact on the tax paying working age population, thus proportionally increasing the demand arising from the elderly population.

4.2 Past Inflation Rates

Since 2015 the CPI has been relatively low at 0.4% in 2015 and 1% in 2016. Pay increases have also been capped at 1%. As a result, this has not led to significant inflationary pressures on council budgets over the last couple of years. For comparison, the years 2010-2015 saw an average annual inflation rate of 2.5%.²

4.3 Projected Inflation Rates

Partly due to a steep decline in the value of Sterling, the Bank of England³ notes that inflation has risen above the target CPI rate of 2% and will continue to remain high for the foreseeable future. The CPI inflation rate was forecast in August 2017 to be 2.7% for 2017, 2.6% in 2018, and 2.2% for 2019 and 2020. However, in practice the 12-month CPI rate of inflation was 3% in December 2017.⁴ This high rate of inflation will push costs upwards for councils in the coming years. We have elected to use the CPI here rather than the slightly lower GDP deflators to account for the potential for increased staff costs outlined in section 5, below.

5 Pay Rises

5.1 1% Public Sector Pay Cap

The First Minister has announced her intention to replace the 1% public sector pay cap.⁵ Therefore the model, unlike previous models, does not adjust for this. Instead salaries, which account for most of expenditure, are increased by the rate of inflation outlined above (3%).

² <https://www.ons.gov.uk/economy/inflationandpriceindices/timeseries/l55o/mm23>

³ <http://www.bankofengland.co.uk/publications/Documents/inflationreport/2017/aug.pdf#page=40>

⁴ <https://www.ons.gov.uk/economy/inflationandpriceindices/bulletins/consumerpriceinflation/december2017>

⁵ <http://www.bbc.co.uk/news/uk-scotland-scotland-politics-41141373>

5.2 Increases in Living Wage and National Living Wage

The ONS projects that the national living wage, which is based on 60% of the median wage will rise from £7.50 this year to £7.90 in 2017/18 and then increase to £8.30, £8.75, and £9.10 in each year to 2020/2021. This translates to a 21.3% increase, which is substantially higher than the rate of inflation.

Some councils also pay the Scottish Living Wage, which is higher than the national living wage at £8.45 an hour, however not all local authorities currently pay this, and so the model uses the national living wage.⁶

It is difficult to calculate the additional costs to local authorities from provider contracts, it has been estimated that the additional costs for local authorities across the UK will be as much as £1 billion by 2020.⁷ This model estimates that around 11% of the current workforce, or over 20,000 employees, are paid the living wage. This would cost £69 million a year extra in Scotland. The actual cost of this increase is likely to be substantially higher as our estimates do not include contracted workers or agency fees for example.

⁶ <http://scottishlivingwage.org/>

⁷ <http://www.emlawshare.co.uk/resource/implications-national-living-wage-local-government/>

6 Education

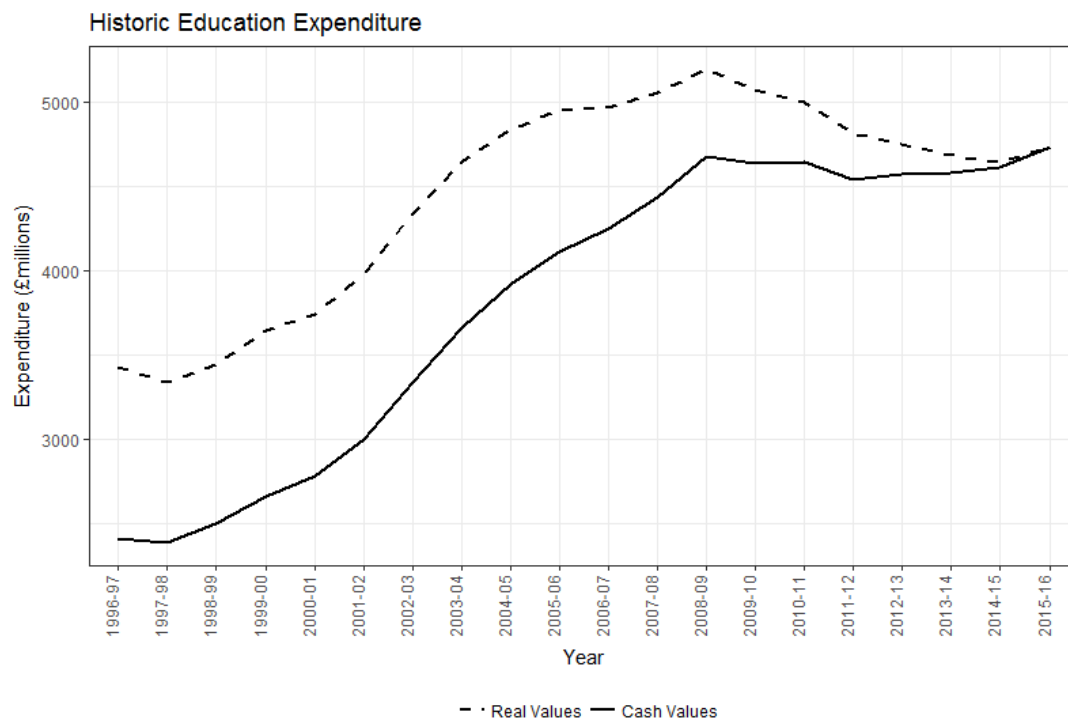


Figure 5 - Historic education expenditure

Historic expenditure increased to 2008/09, but since this high point has decreased in real terms by almost 10% going from £5.2 billion to £4.7 billion.

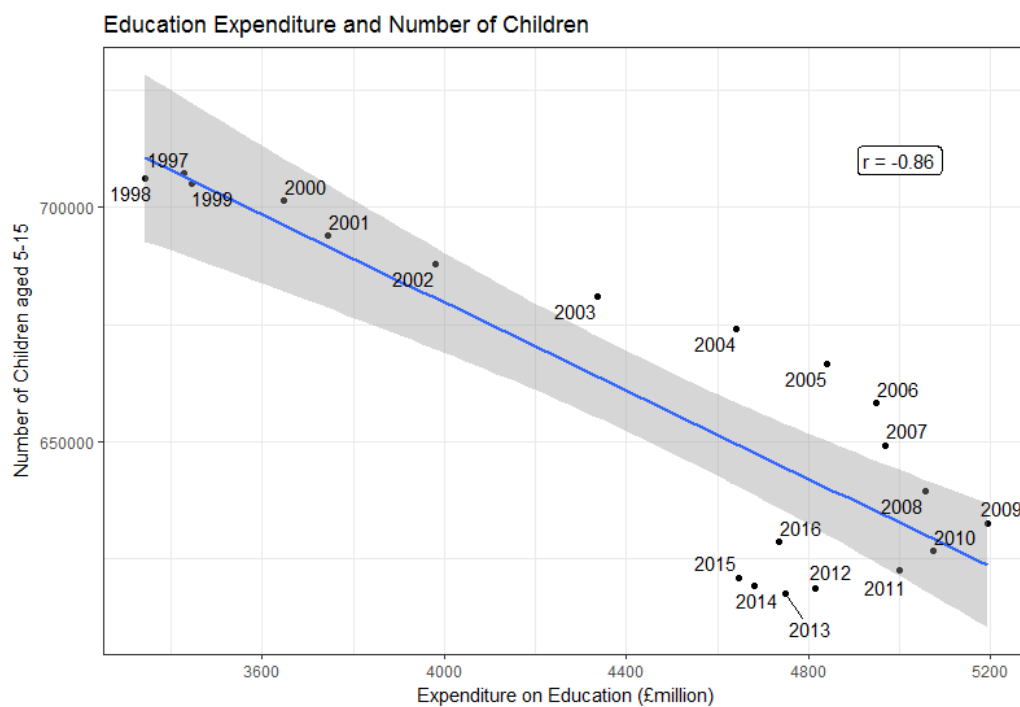


Figure 6 - Historic relationship between education spending and the number of children

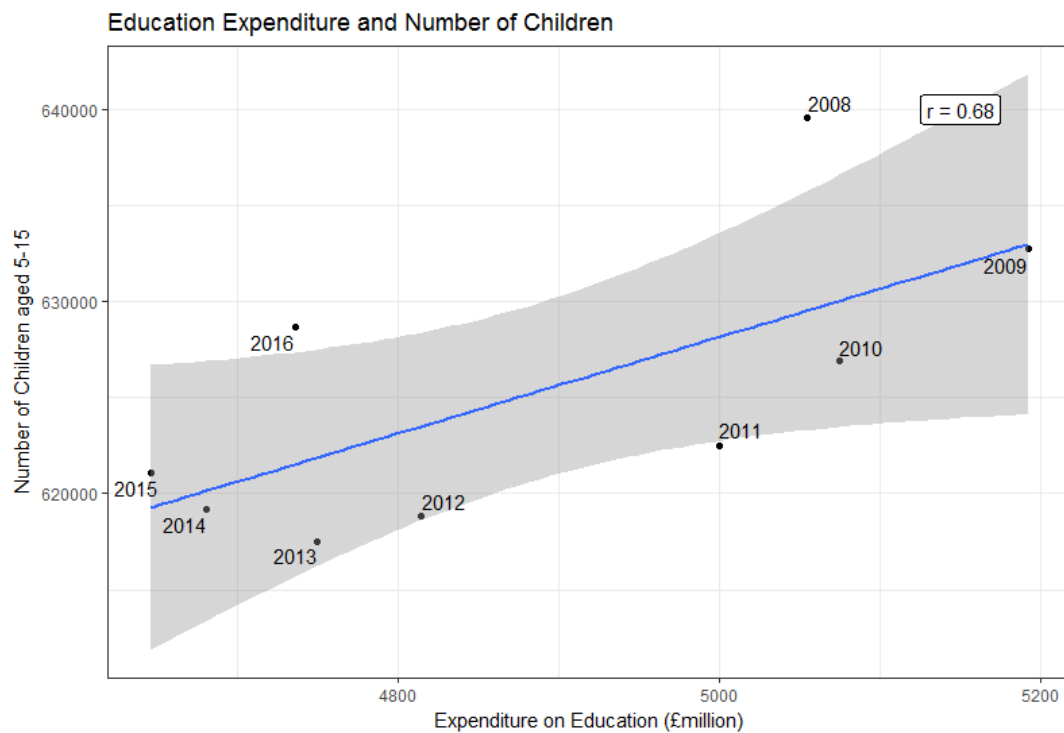


Figure 7 - The relationship between education spending and the number of children since 2008

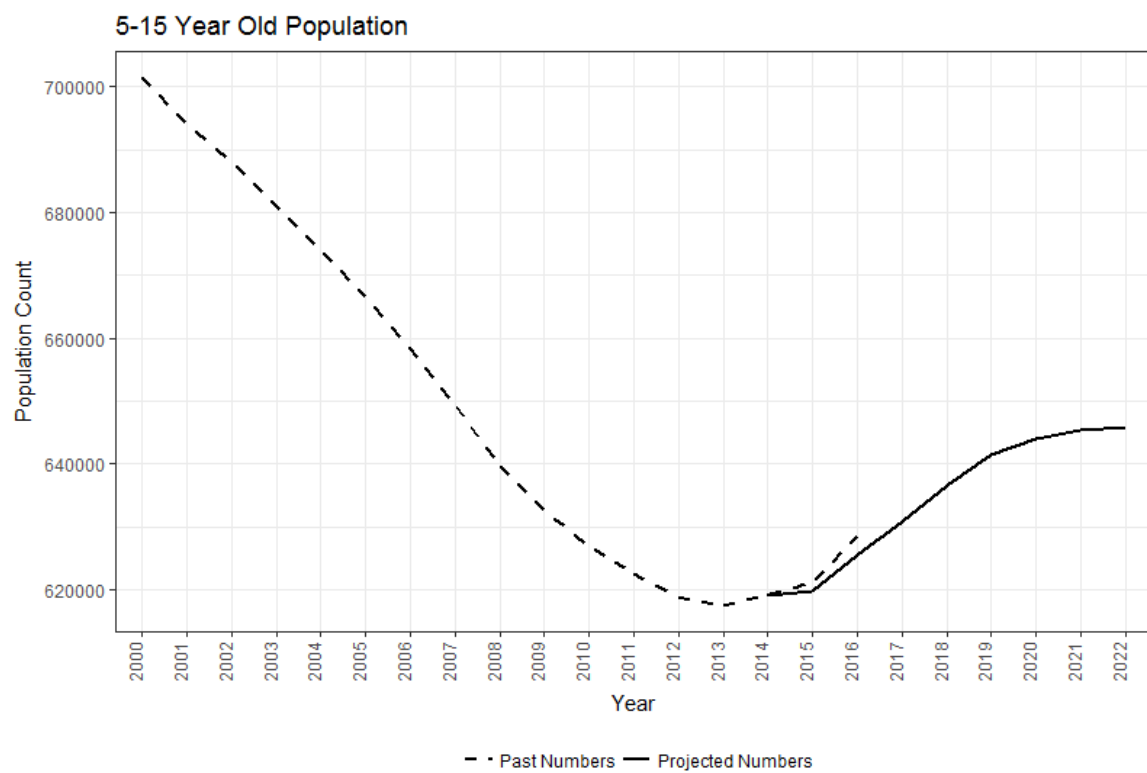


Figure 8 - Historic and forecast numbers of young children

The population projection in fact slightly underestimated the number of 5-15 year olds for both 2015 and 2016. Therefore, it is quite likely that actual costs could be slightly higher than projected here.

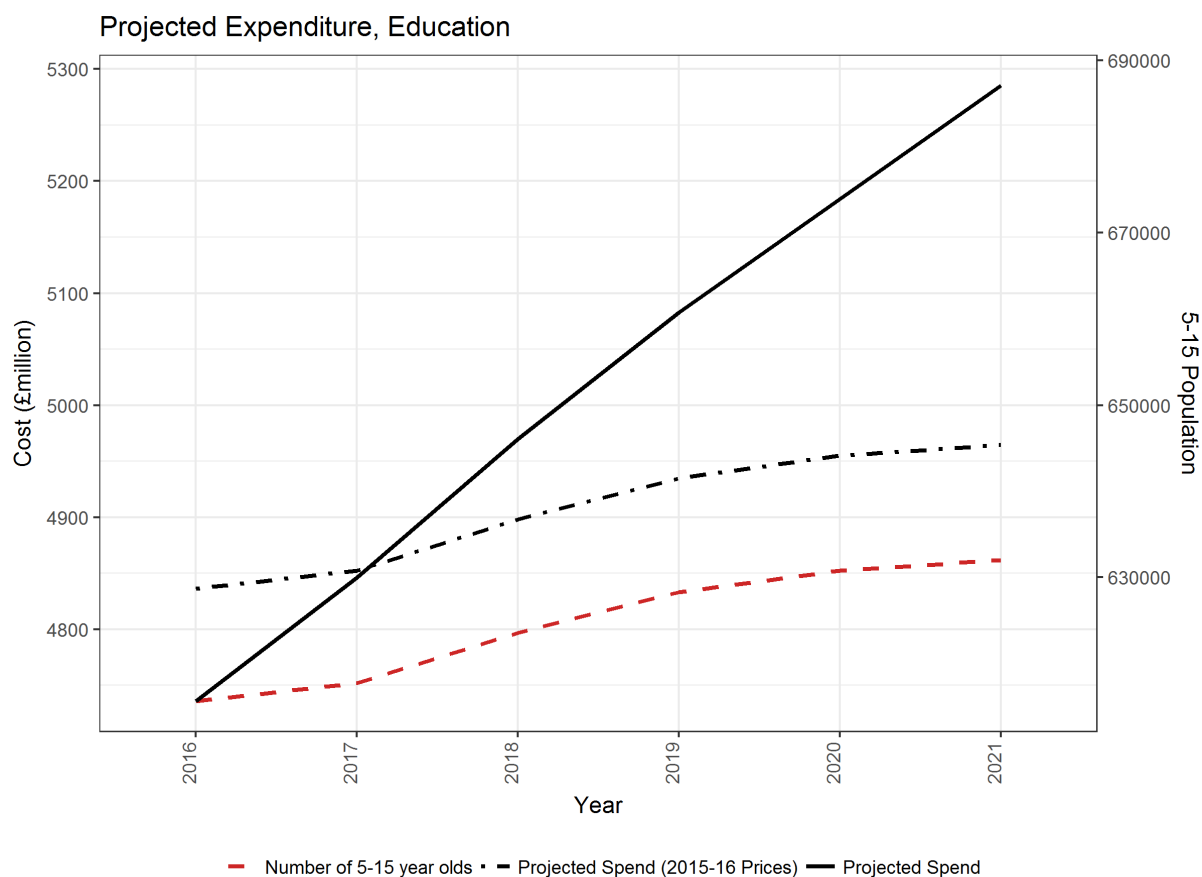


Figure 9 - Projected spend on education and projected demand

This model uses the projected number of 5-15 year olds to project forward anticipated education spend, which is then adjusted for inflation. The model predicts a 2.5 % increase in the number of 5-15 year olds between 2016 and 2020, which translates to an increase in real terms of expenditure from £4736 million to £5285 million by 2021. This is an 11.6% increase in expenditure before additional policy decisions or increase in the living wage are accounted for. In particular, the increase in early years provision to 1140 hours will substantially increase costs on top of these figures.

Year	Expenditure (Current Prices) (£million)	Expenditure (Real) (£million)
2015-16	4736	4736

2016-17	4751.91	4845.95
2017-18	4796.81	4969.83
2018-19	4833	5082.9
2019-20	4852.5	5184
2020-21	4861.72	5285.37

Table 4 - projected education expenditure

7 Social Care

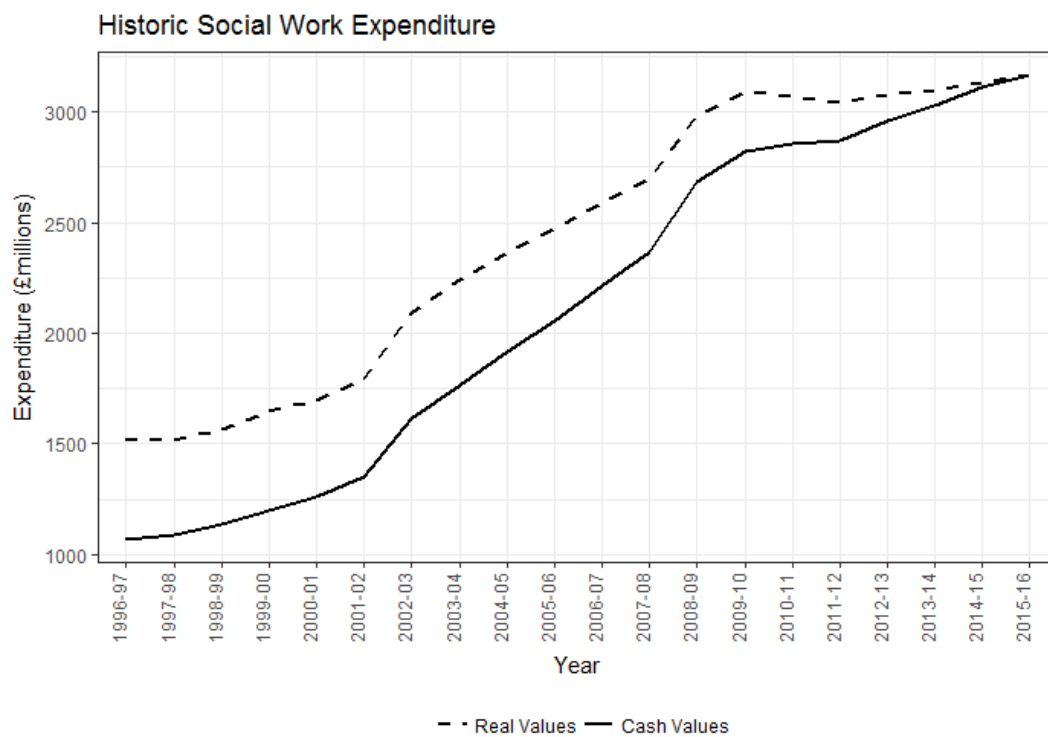


Figure 10 - Historic social care expenditure

Although cash expenditure on social care has increased over the whole period, in real terms this expenditure has slowed in recent years. Between 2009-10 and 2011-12 there was a decrease in spending in real terms before rising again in 2012-13. However, expenditure has increased at a much lower rate than before the financial collapse. Between 2005-06 and 2009-10 there was a 38% increase in cash expenditure which equates to a 25% increase in real terms. This is comparatively higher than the expenditure between 2009-10 and 2015-16, where there was only a 2% increase in expenditure in real terms.

Year	Expenditure (Cash) (£millions)	Expenditure (Real) (£millions)
2005-06	2054	2472
2006-07	2212	2584
2007-08	2368	2701
2008-09	2684	2980
2009-10	2825	3094
2010-11	2857	3073
2011-12	2871	3046
2012-13	2959	3075
2013-14	3031	3098
2014-15	3110	3133
2015-16	3169	3169

Table 5 - Historic social care expenditure

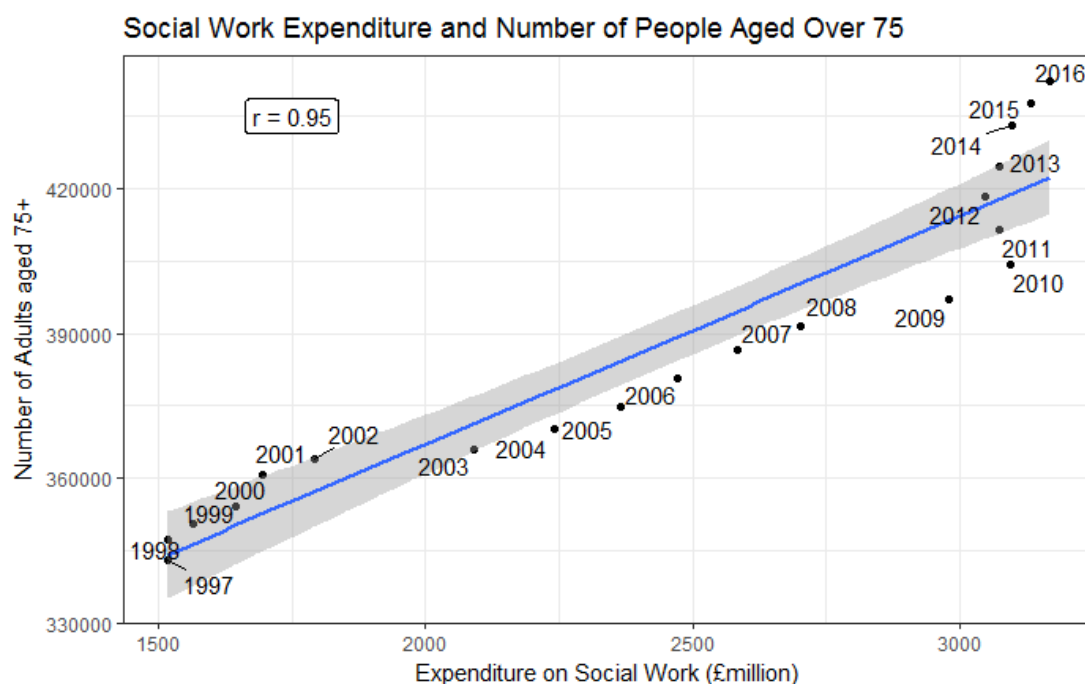


Figure 11- Relationship between social care and the elderly population

Historically there has been a significant relationship between social care expenditure and the number of people aged over 75. However, as the following graph shows, this relationship has become weaker in recent years.

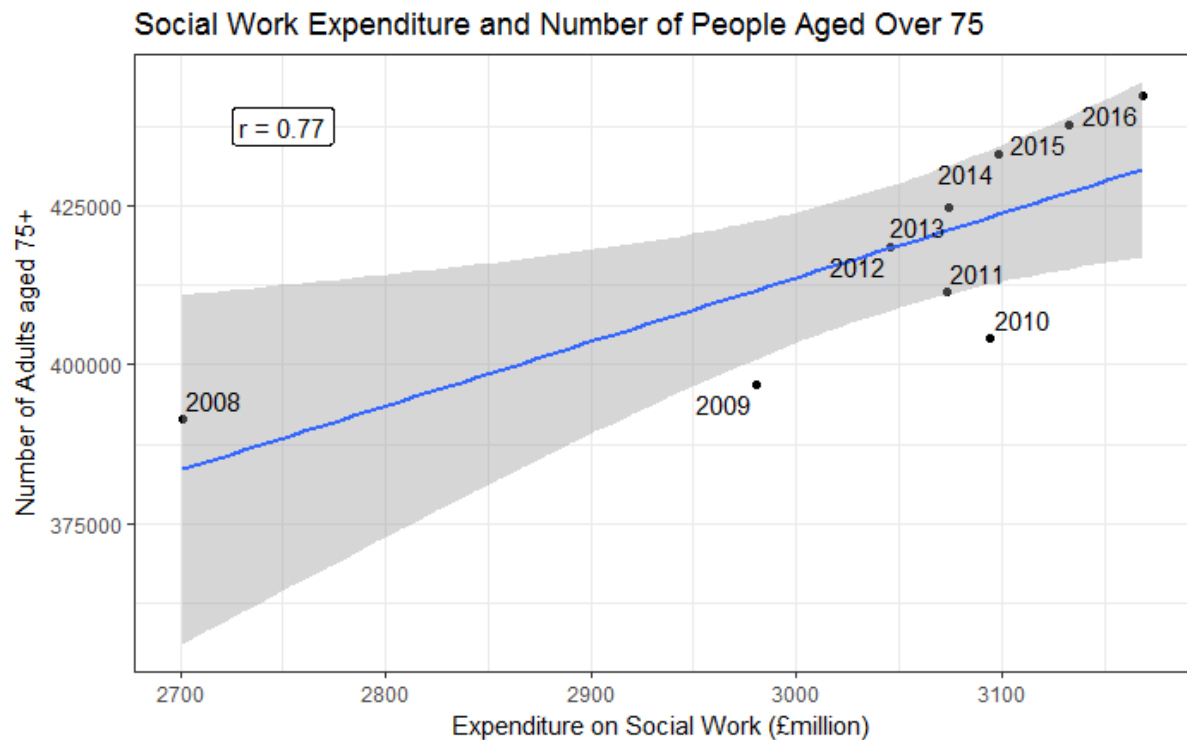


Figure 12- Relationship between social care expenditure and elderly population since 2008

Since 2014, expenditure has been lower than would be expected given the size of the over 75 population. Since 2009-10 there has been a 9% increase in the number of people aged over 75 but social care expenditure has only increased by 2% in real terms. Thus, currently social care expenditure is not increasing at the same rate as demand. The graph below shows that this demand is projected to continue to increase.

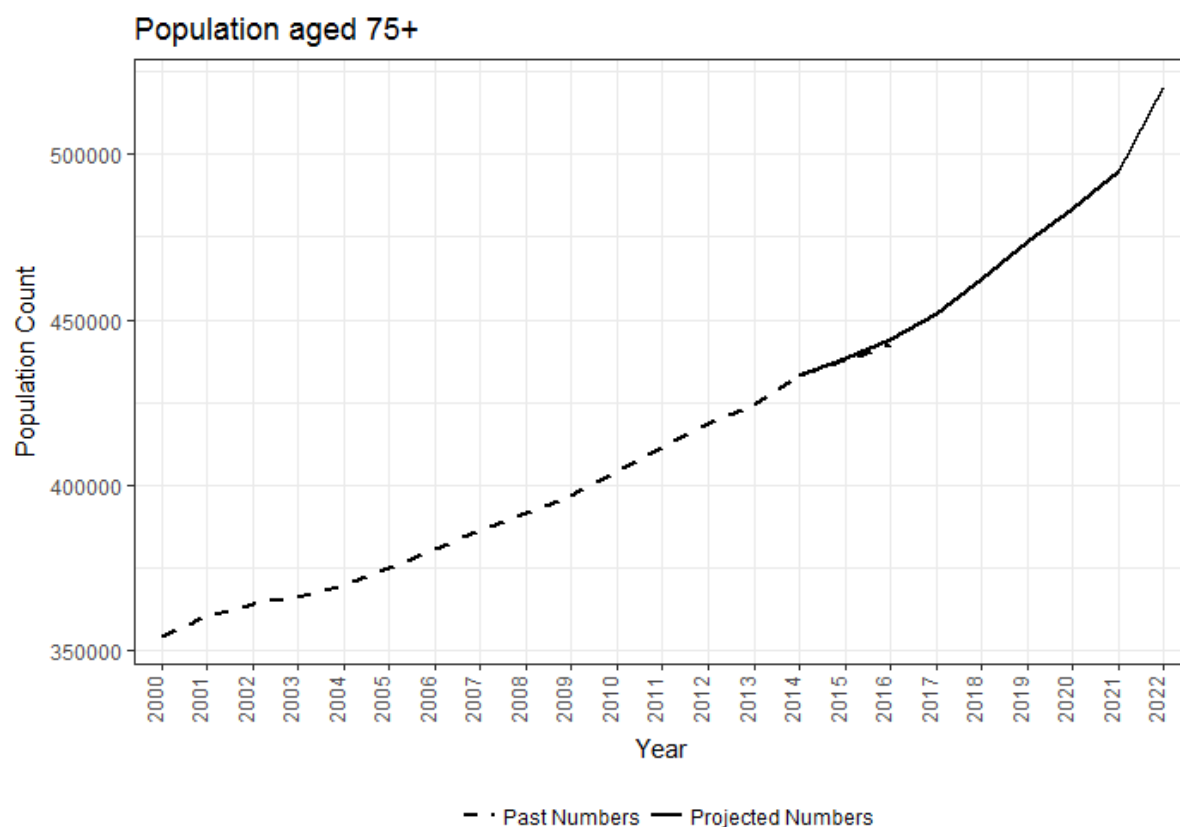


Figure 13 - Historic and projected over 75 population

The number of people aged over 75 is projected to increase 18% by 2022, which reflects an extra 78,248 people of this age. Thus a substantial increase in social care expenditure would be needed to keep up with this demand.

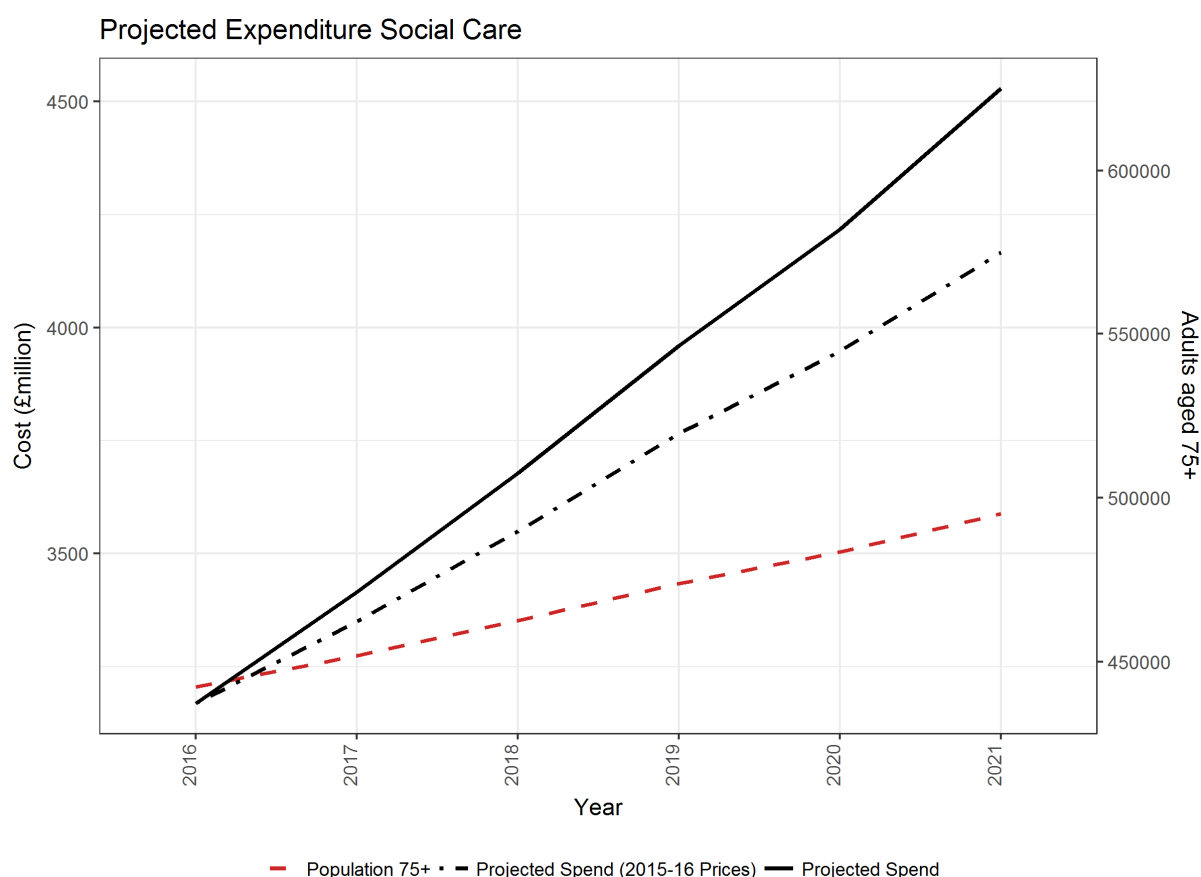


Figure 14 - Projected social care expenditure and demand

The above model projects estimated social care expenditure based on a linear model of historic expenditure and the number of adults aged over 75. The projected expenditure is displayed both in 2015-16 prices and with adjustments for inflation to show what the expenditure would be in real terms. By 2021 the over 75 population is projected to increase by 12%, which requires a £997 million increase in expenditure in current prices to maintain the trend of the past 20 years. This is equivalent to a 43% increase in real prices, 41% higher than the 2% rise seen in the most recent 7-year period.

Year	Forecast Expenditure (Current Prices) (£million)	Forecast Expenditure (Real Prices) (£million)
2015-16	3169	3169
2016-17	3349	3415
2017-18	3550	3678
2018-19	3765	3960
2019-20	3948	4218
2020-21	4166	4529

Table 6 - Forecast social care expenditure

8 Roads & Transport

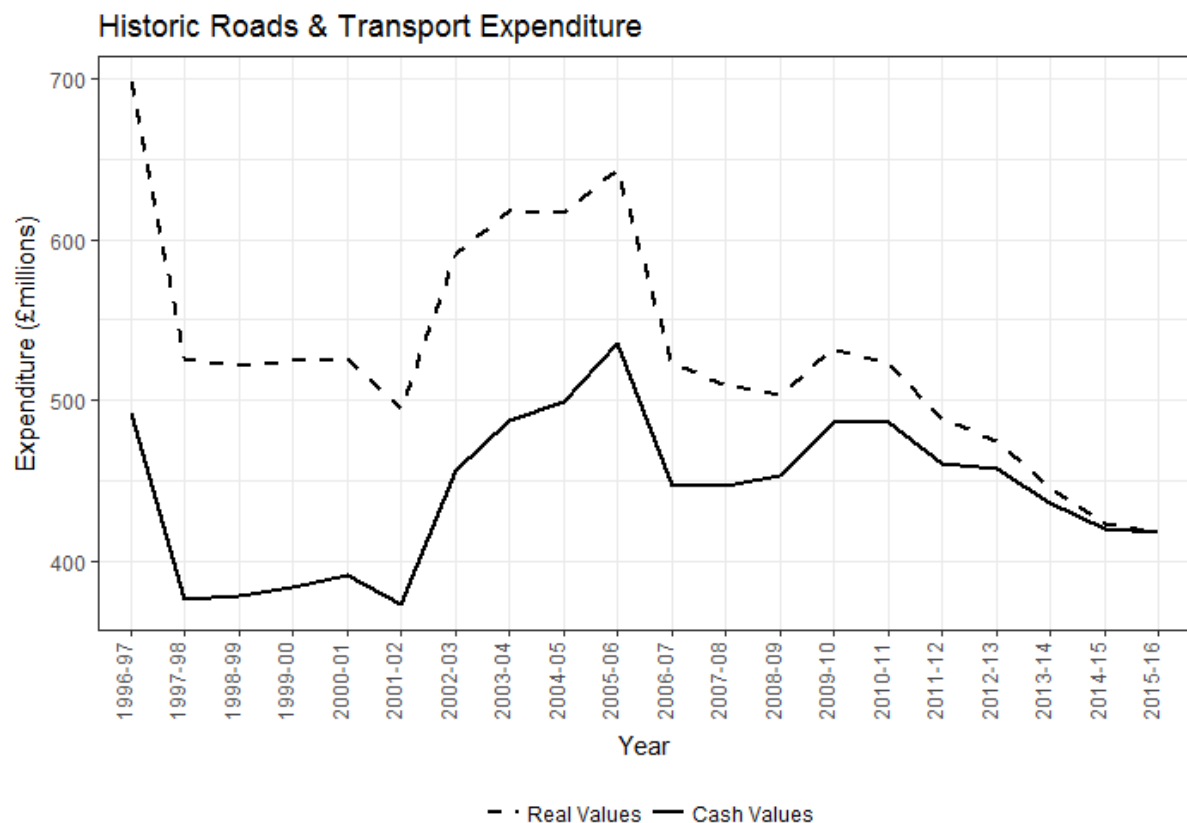


Figure 15 - Historic roads and transport expenditure

Overall there has been fluctuations in expenditure on roads and transport however in recent years' expenditure has steadily followed a declining trend. Since 2009-10 expenditure on roads and transport has dropped 14% in cash terms and 21% in real terms.

Year	Expenditure (Cash) (£millions)	Expenditure (Real) (£millions)
2005-06	535	644
2006-07	447	522
2007-08	447	510
2008-09	453	503
2009-10	486	532
2010-11	486	523
2011-12	460	488
2012-13	457	475
2013-14	436	446
2014-15	420	423
2015-16	418	418

Table 7 - Historic roads & transport expenditure

The following two graphs display how roads and transport expenditure relate to the number of households. The first graph indicates that there is a general trend of lower levels of expenditure when there are higher numbers of households. However due to the fluctuation in expenditure historically, this is only a moderate relationship.

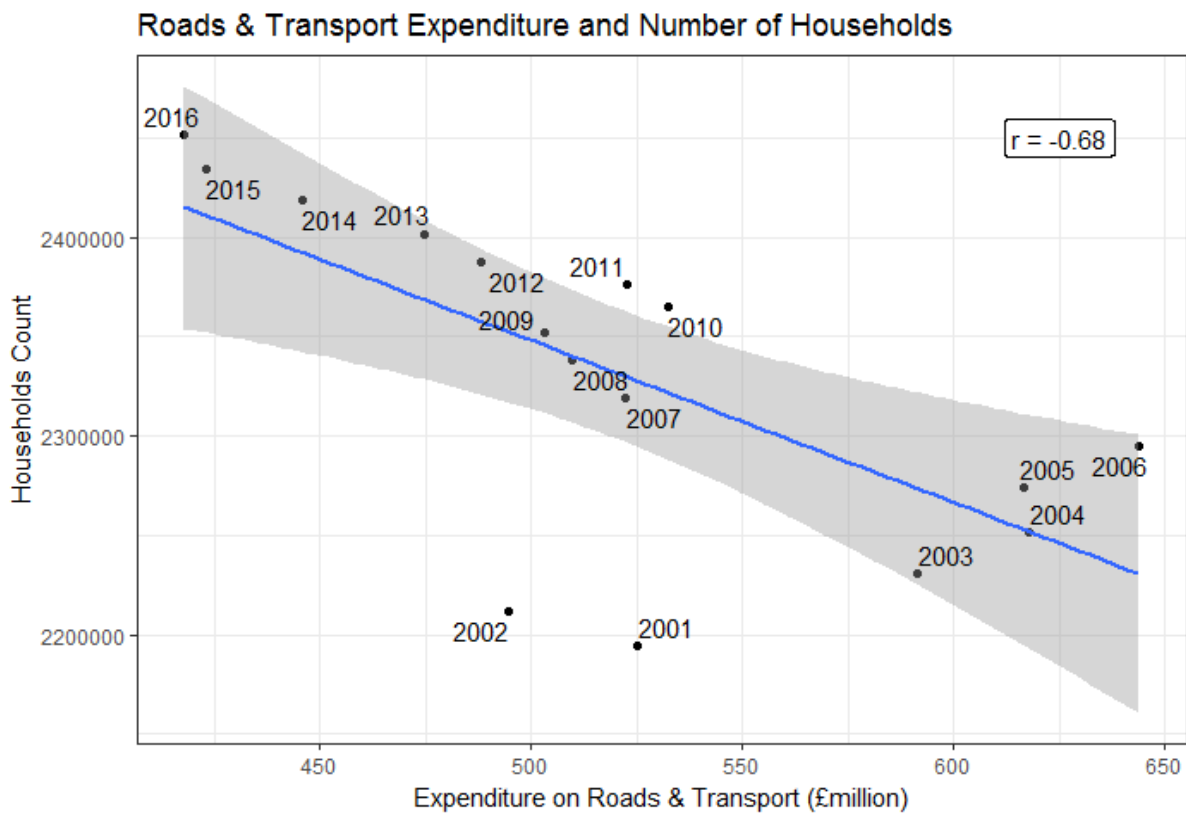


Figure 16- Relationship between roads and transport expenditure and the number of households

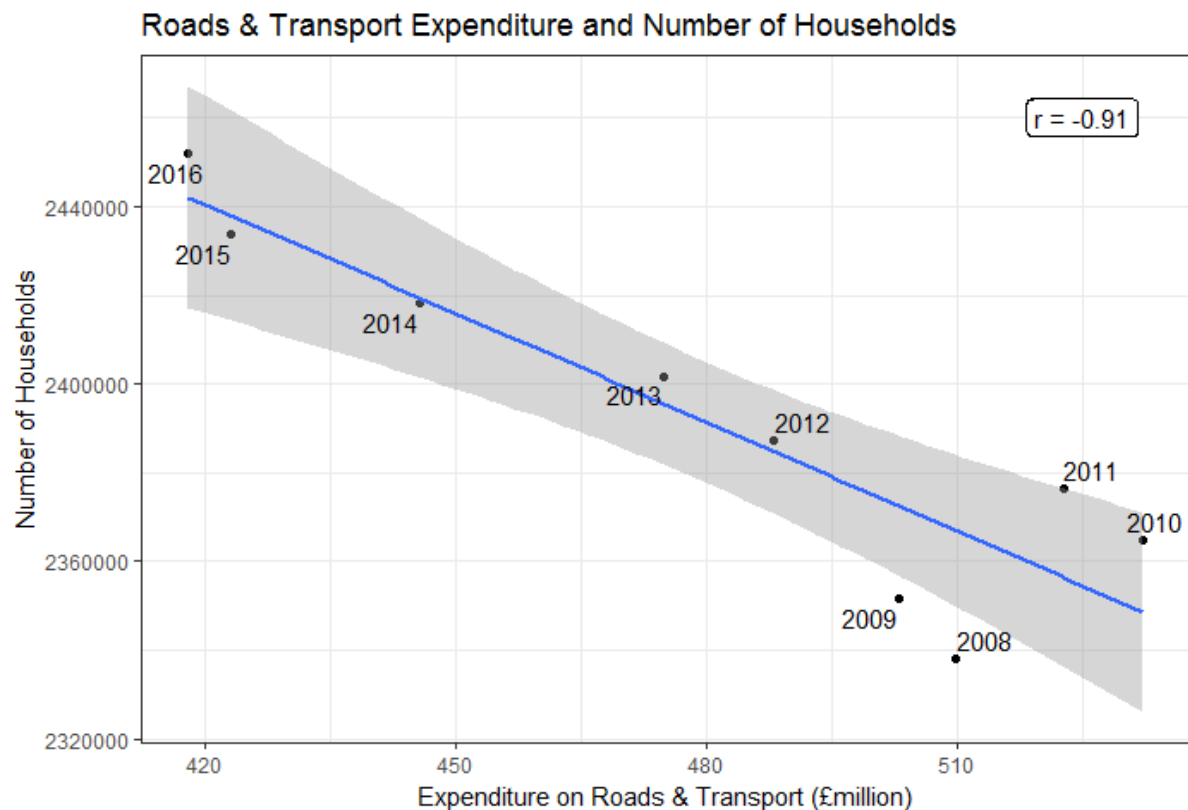


Figure 17- Relationship between roads and transport expenditure and the number of households since 2008

The graph above indicates that in more recent years this negative relationship has strengthened. The number of households has continued to grow but expenditure has reduced. Since 2010 there has been a 4% increase in the number of households but a substantially larger 21% reduction in expenditure in real terms. As shown below, the number of households is projected to increase by a further 4%. Although the number of households are increasing at a steady rate, the sharp decline in roads and transport expenditure is likely to put increasing pressure on current infrastructure.

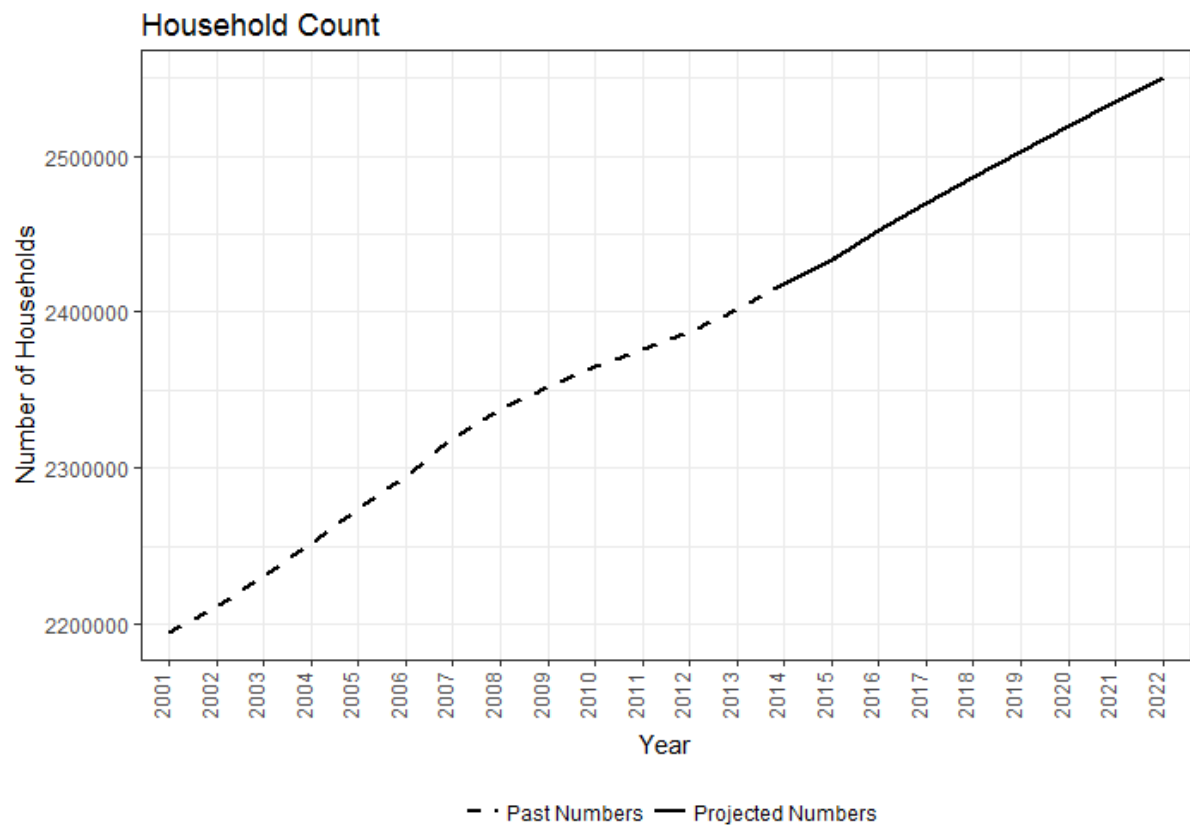


Figure 18- Historic and forecast household count

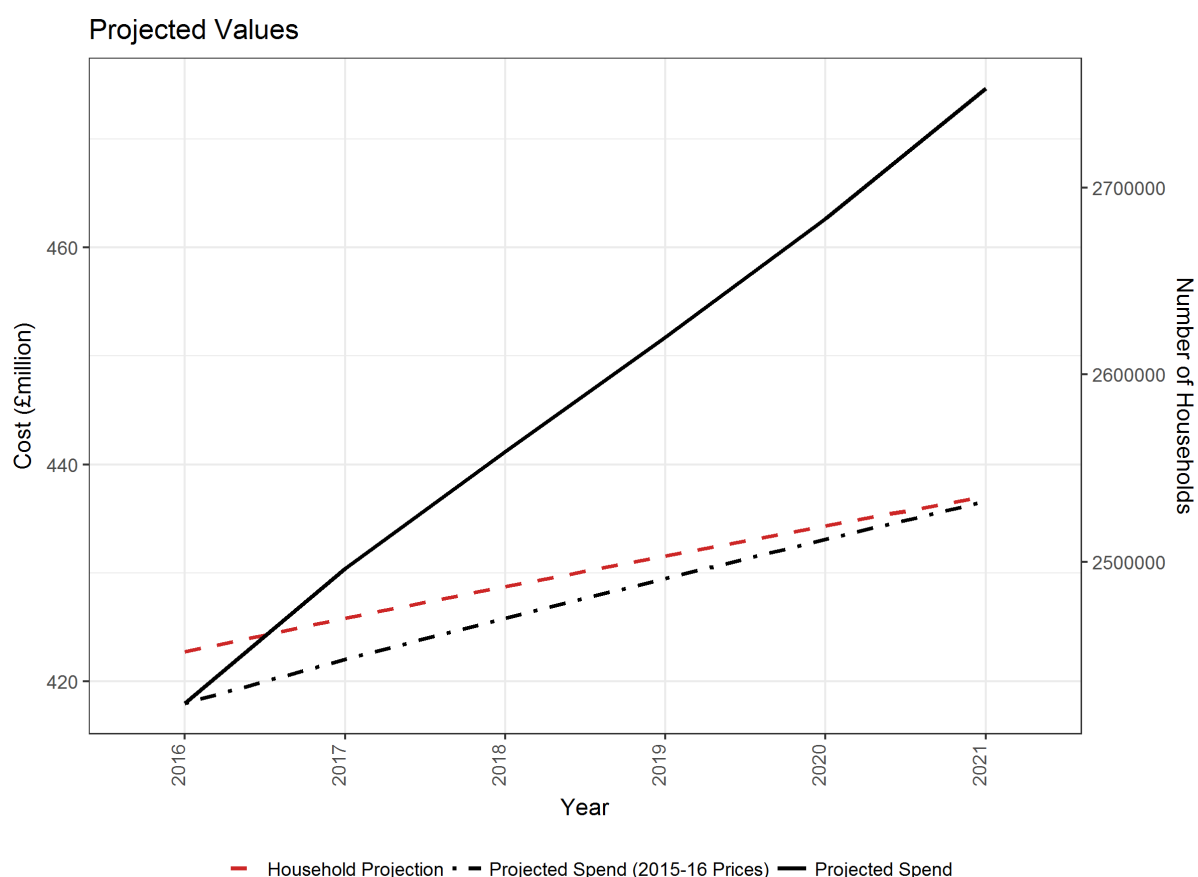


Figure 19- Projected roads and transport expenditure and demand

The above model uses historic expenditure and historic household estimates to approximate the average expenditure per household since 2001. Future roads and transport expenditure is then calculated using household projections, assuming that the average expenditure remains stable. Thus the projected 3% increase in number of households between 2016 and 2021 is estimated to cost an extra £19 million in 2015-16 prices or an extra £57 million when adjusted for inflation. Therefore, in order to maintain the average Roads & Transport expenditure per household, expenditure cannot continue on the current trend but rather would have to increase by 14%.

Year	Forecast Expenditure (Current Prices) (£million)	Forecast Expenditure (Real Prices) (£million)
2015-16	418	418
2016-17	422	430
2017-18	426	441
2018-19	430	452
2019-20	433	463
2020-21	437	475

Figure 20 -Forecast roads & transport expenditure

9 Environmental Services

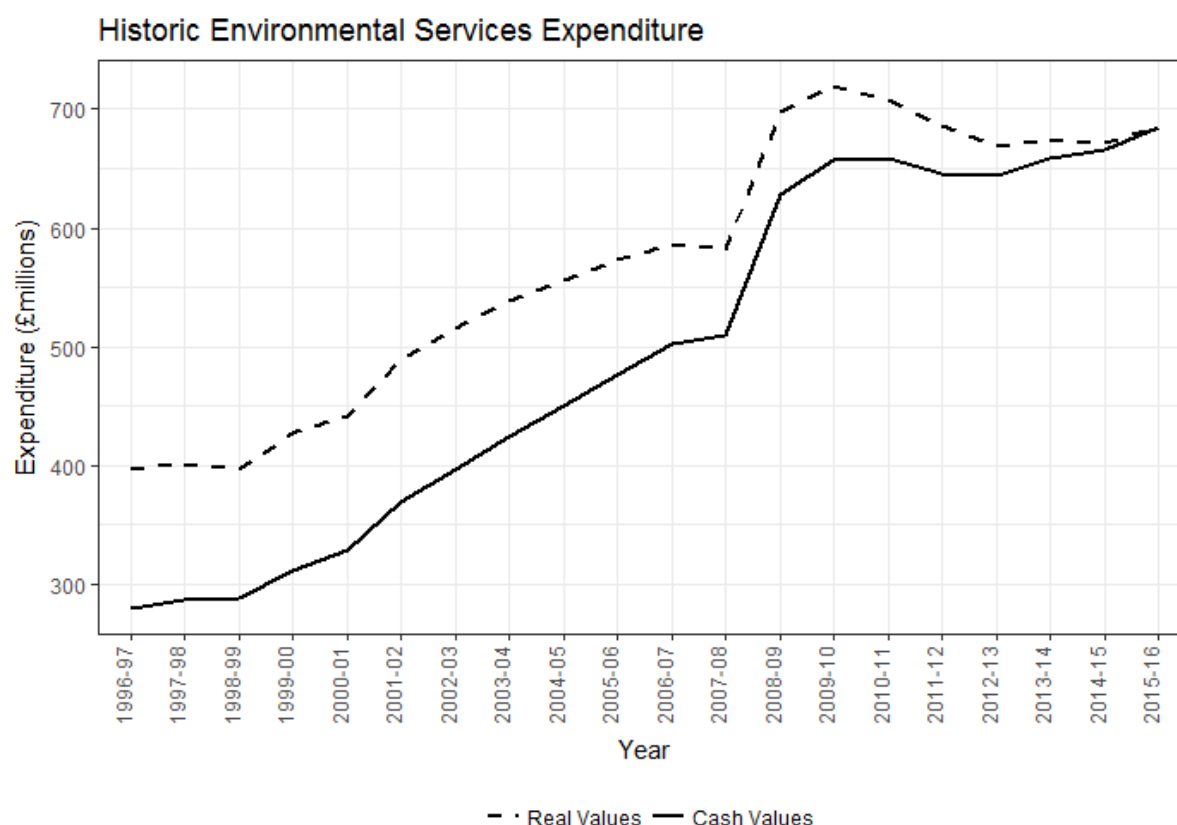


Figure 21- Historic environmental services expenditure

In general expenditure on environmental services has followed a rising trend. This has fallen slightly since the financial collapse and has only recently started to rise again. Since 2009-10 there has been a 4% increase in cash expenditure but a 5% decrease in real expenditure. However, environmental services expenditure in the most recent year was still substantially higher than in the years preceding the peak in 2009-10.

Year	Expenditure (Cash) (£millions)	Expenditure (Real) (£millions)
2005-06	476	573
2006-07	502	586
2007-08	510	582
2008-09	628	697
2009-10	657	720
2010-11	658	708
2011-12	646	685
2012-13	644	669
2013-14	659	674
2014-15	666	671

Table 8- Historic environmental services expenditure

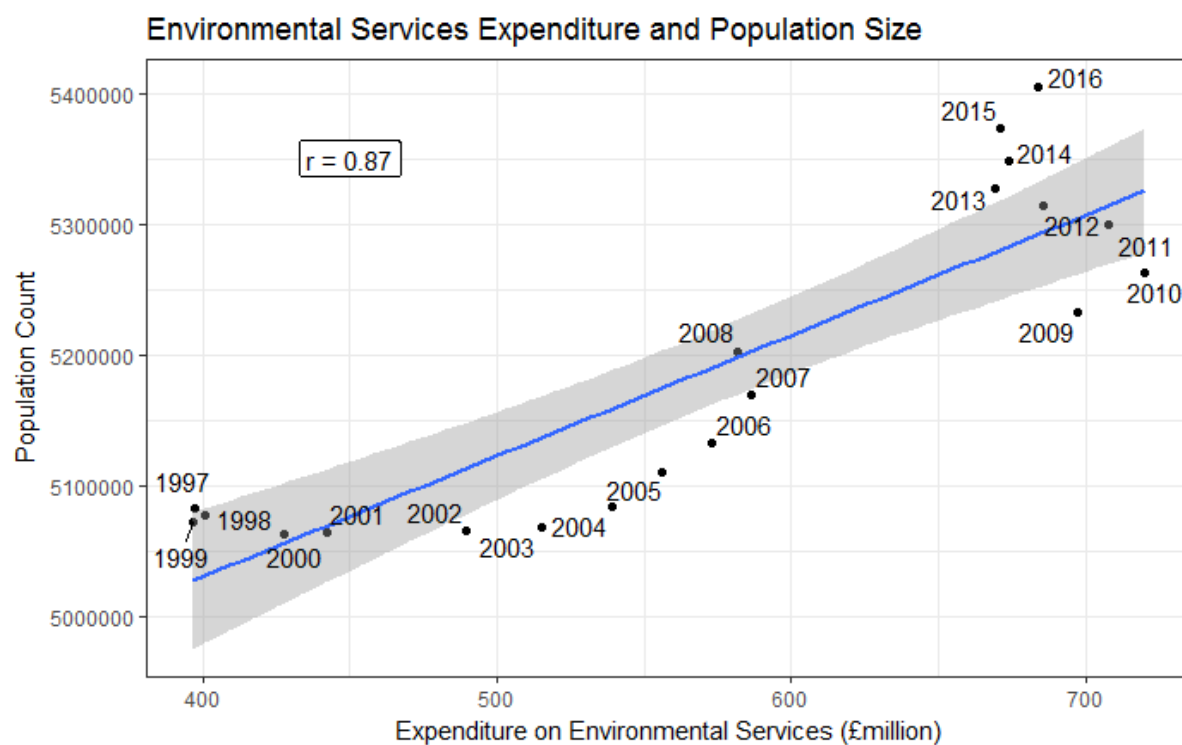


Figure 22 - Relationship between environmental expenditure and total population

The above graph shows that historically there has been a strong positive relationship between environmental services expenditure and the population size. Between 1997 and 2008 there was a substantial increase in expenditure of 46% and a 2% increase in the population size.

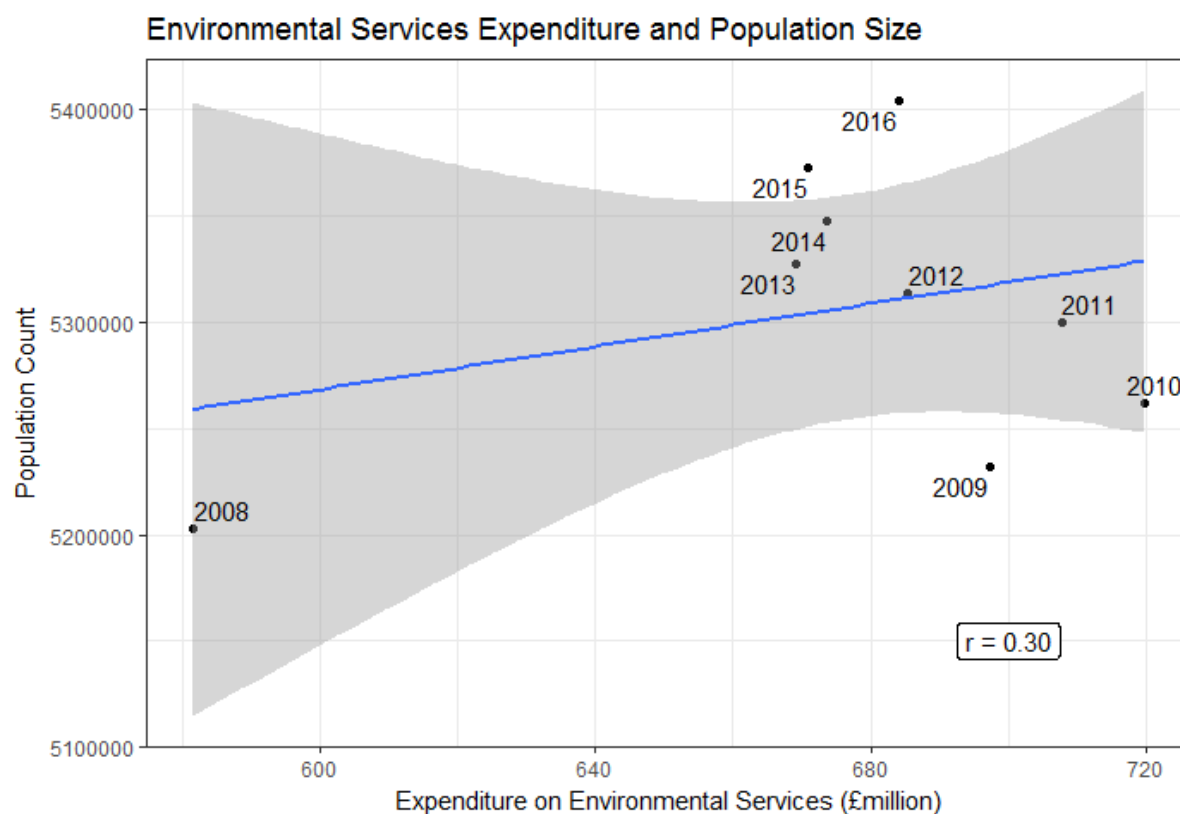


Figure 23- Relationship between environmental expenditure and total population since 2008

From 2008 onwards the relationship between environmental services expenditure and population size is substantially weaker with a wide margin of error. This reflects that expenditure on this area has only recently started to rise again following a large drop between 2010 and 2013, despite the 4% increase in population size since 2008. By 2021 the population is projected to increase by a further 1%.

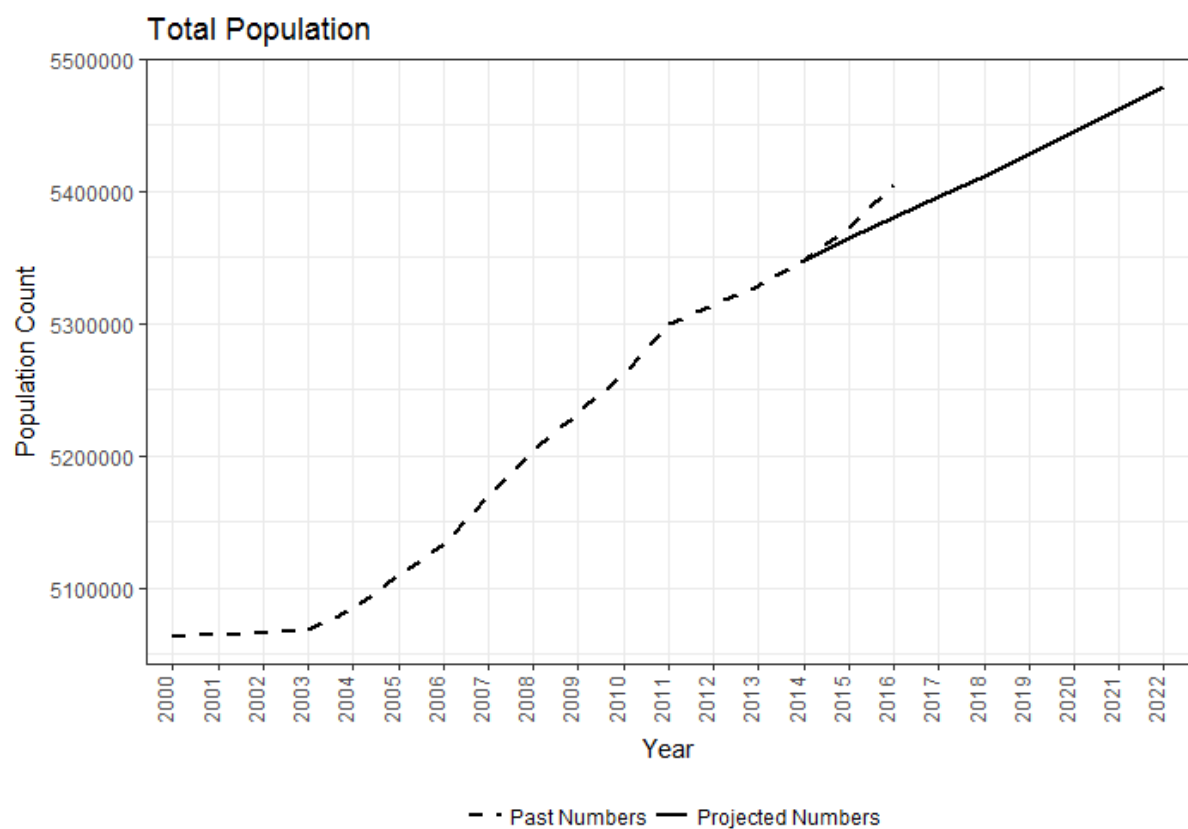


Figure 24 - Historic and projected population estimates

Projected population is based on figures from 2014, however the actual population growth has been even higher than forecast between 2014 and 2016. Therefore it is likely that future population and thus expenditure would be higher than is projected here.

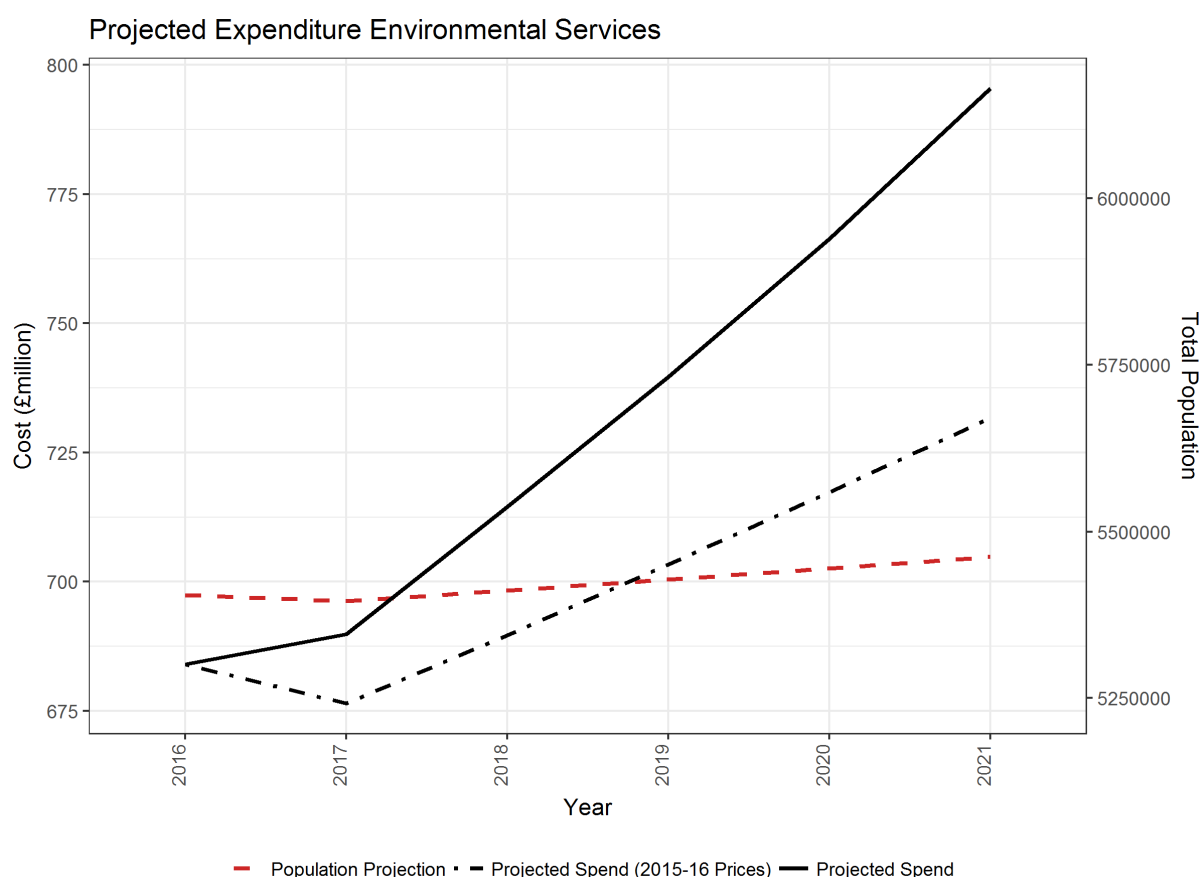


Figure 25- Projected environmental services spend and demand

Forecasted expenditure is calculated here using a linear model of past environmental expenditure since 1997 against past population size. The linear model is then used to estimate future expenditure given population projections. Between 2016 and 2021 the model projects a 1% increase in population which equates to a 7% increase in expenditure in 2015-16 prices and a 16% increase in real expenditure. Current expenditure would need to increase at a faster rate in order to meet this increase.

Year	Forecast Expenditure (Current Prices) (£million)	Forecast Expenditure (Real Prices) (£million)
2015-16	684	684
2016-17	676	690
2017-18	690	715
2018-19	703	740
2019-20	717	766
2020-21	732	795

Figure 26 - Forecast environmental services expenditure

10 Other Services

As with the previous models, for the remaining expenditure areas there was only a weak correlation with demographic indicators. Therefore these have been kept constant at 2015-16 prices and only been adjusted for inflation in future. The sections below display the spending trends for previous years for each area.

10.1 Planning and Development

The previous models kept planning expenditure constant, however as this indicator does correlate strongly with population it would be possible to inflate this expenditure area with population. To maintain consistency with previous models, this paper also keeps planning trends constant at the cash rate for 2015-16 and adjusted for inflation.

Historically spending on planning and development increased sharply between 2007-8 and 2009-10, but has been steadily declining since.

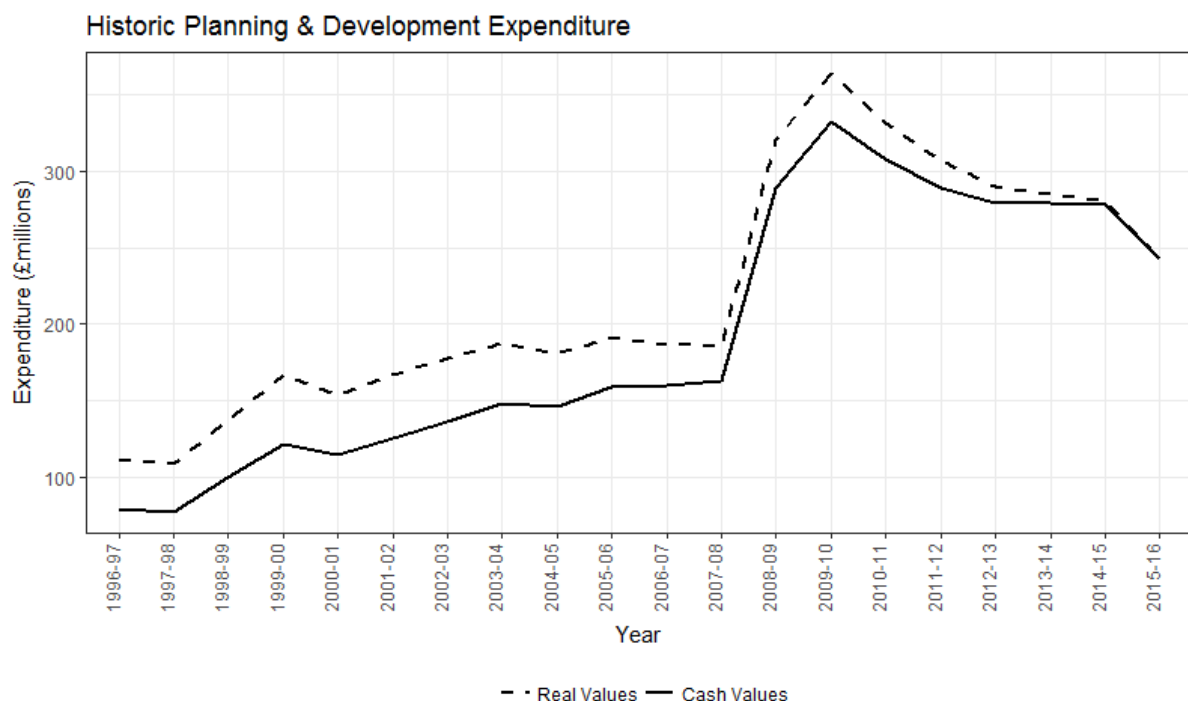


Figure 27 - Historic planning and development expenditure

10.2 Cultural Services

Cultural and related services have seen spending steadily decline since 2009-10 in both real and cash terms.

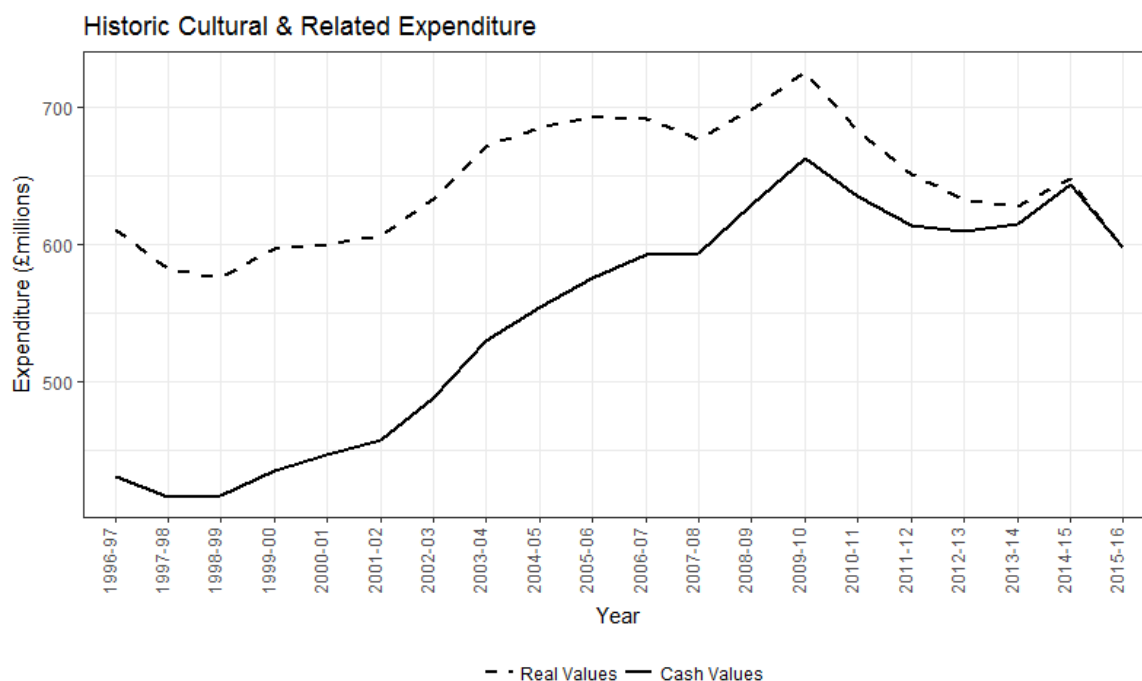


Figure 28 - Cultural services historic expenditure

10.3 Central Services

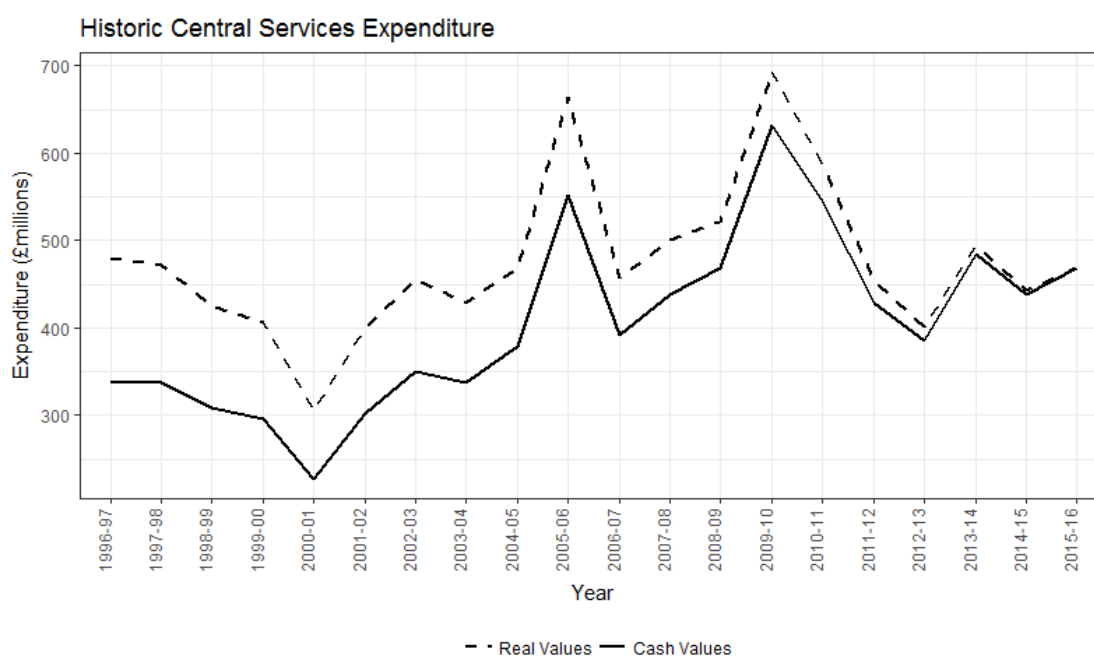


Figure 29 - Historic central services expenditure

10.4 Non-HRA Housing

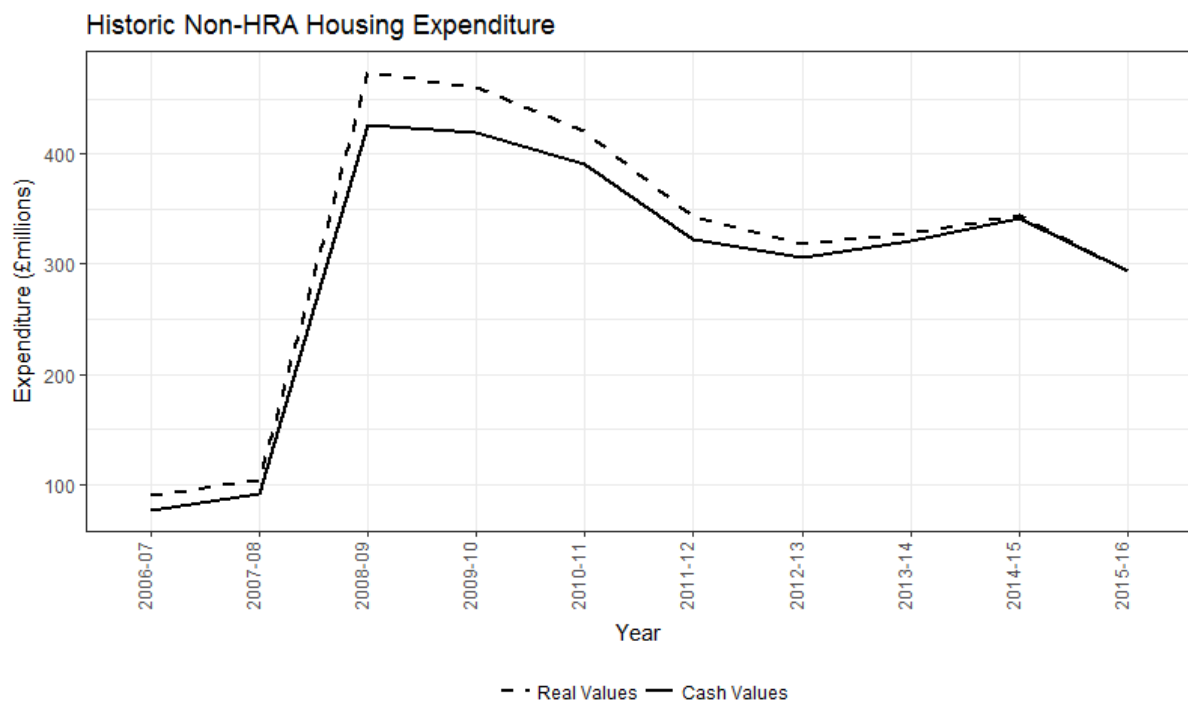


Figure 30 - Historic non-HRA housing expenditure

10.5 Trading Services

Revenue generated by trading services has increased since 2011-12, although this has fluctuated several times.

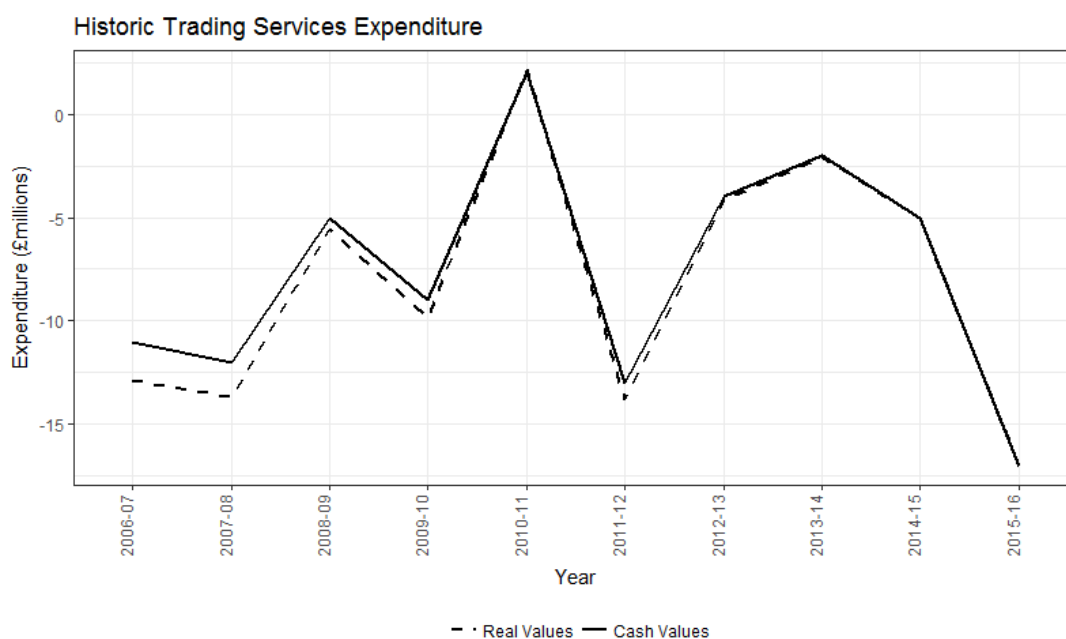


Figure 31 - Historic trading services expenditure and revenue

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[https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/205904/GDP Deflators User Guide.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/205904/GDP_Deflators_User_Guide.pdf)

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