

Intergenerational Fairness Index 2015

A 10% decline since 2010

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The Intergenerational Foundation:

The Intergenerational Foundation (www.if.org.uk) is an independent, non-party-political charity that researches fairness between the generations. While increasing longevity is to be welcomed, our changing national demographic and expectations of entitlement are placing increasingly heavy burdens on younger and future generations. From housing, health and education to employment, taxation, pensions, voting, spending, transport and environmental degradation, younger generations are under increasing pressure to maintain the intergenerational compact while losing out disproportionately to older, wealthier cohorts. IF questions this status quo, calling instead for sustainable long-term policies that are fair to all – the old, the young and those to come.

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Foreword

For the thirteenth year in a row younger generations in the UK have been disadvantaged compared to older generations. Each year, in spite of the best efforts of IF and other youth advocacy organisations, the position of young people deteriorates a little further. The 2015 Intergenerational Fairness Index continues to prove that the idea of each new generation being better off than the previous generation has been shattered.

Intergenerational fairness is undermined if policy-makers choose systematically to disadvantage one generation in order to favour another. Sadly this appears to be happening today as successive governments have chosen to give priority to the interests of older people while disregarding the interests of younger and future citizens.

While social and economic inequalities exist within generations, undermining intra-generational social mobility, there is indisputable evidence that both increased longevity and intergenerational transfers are combining to suck massive amounts of wealth up the generations. This can be seen in the form of high house prices, high rents, protected final salary pension promises, ring fenced state pensions, benefit protections and exemptions from taxation based solely on age.

IF is not alone in highlighting the changing distribution of wealth across the generations. The highly respected Institute of Fiscal Studies (IFS) has frequently reported that older generations' incomes and wealth have increased while younger generations have suffered declines – even during the global financial crisis.¹

This is at a time when the old-age dependency ratio – the number of workers needed to support retired people – continues to grow, meaning that working age cohorts are having to support more retired people via direct or indirect taxation due to increases in longevity.

Younger generations continue to be over burdened. We have created a packhorse generation of young people who have been encouraged to take on massive levels of student debt while facing lower incomes, less job security, high rents and the unaffordability of home ownership. At the same time, the young have been consistently targeted for state spending cuts such as the withdrawal of housing benefit for the under-25s, the withdrawal of bus passes for school students and cuts in income support.

This has serious implications for social mobility if the only young people able to get on are those with parents who can use their connections to secure them jobs, pay their university fees and give them a leg up the property ladder. The rest are paying a young person's Graduate Tax in all but name, with poor employment prospects, a shrinking state safety net, and the prospect of never owning a home of their own.

We must all wake up to the plight of young. We may have to depend on them in our own old age – so it is also in our best interests to help them have a brighter future.

We hope that this annual Intergenerational Fairness Index, showing a continuing decline in intergenerational fairness towards the young, is a wake-up call to policy-makers, providing clear evidence that younger generations cannot continue to bear the costs incurred by an ageing society.

Angus Hanton

Co-founder, Intergenerational Foundation

¹ IFS (2013) <http://www.ifs.org.uk/pr/hbai2013.pdf> (accessed 2 July 2015)



Executive Summary

Changes in the Past Year

The Intergenerational Fairness Index (IF Index) worsened slightly between 2014 and 2015 and now stands at 136. Out of our 17 component measures, 11 have worsened since 2014, 5 have improved and 1 has remained unchanged (where no new data is available between 2014 and 2015). Overall, since the year 2000,² the position of 10 measures has worsened and for 7 it has improved. A number of indicators reveal a significant **decline** in intergenerational fairness between 2014 and 2015:

- **The rise in levels of government debt.** At 2014/15 prices, public sector net debt increased from £1.35 trillion in 2012/13 to £1.4 trillion in 2013/14 and an estimated £1.5 trillion in 2014/15. This means that the level of public debt per person in the workforce will have risen from £45,240 to £48,157 over these three years.
- **Government spending on education** as a proportion of GDP fell from 5.34% in 2012 to 5.28% in 2013.
- **Buying a home became less affordable** for younger people, with median house prices rising between 2013 and 2014 by 5.4% while median annual incomes of the younger generation (aged 22 to 29) increased by just 1.5%.
- **The rise in the cost of unfunded Public Sector Occupational Pensions.** At 2014/15 prices, the liabilities associated with unfunded public sector occupations pensions (principally - teachers, NHS, civil service, armed forces, police and fire service) increased from £952 billion in 2011/12 to £1 trillion in 2012/13 and £1.2 trillion in 2013/14. This means that the level of public debt per person in the workforce will have risen by 22% from £31,944 to £39,121 over these three years.
- **The proportion of students obtaining 5 or more A* to C grades at GCSE** fell from 81.8% in 2012/13 to 75.7% in 2013/14. There have been significant revisions to the calculation of Key Stage 4 (KS4) performance measures data in 2014 following the findings of the Wolf report, and these have contributed to a re-evaluation of the way that GCSEs are graded. The 2015 IF Index has based its calculation of the 2013/14 results by continuing to use the 2013 methodology (and thus makes use of the latest GCSE pass rate of 75.7%). If the 2014 methodology was applied, the proportion of students achieving 5 or more GCSEs at A* to C grades would fall to 63.8%.
- **Levels of participation in Higher Education fell** between 2011/12 and 2012/13 from 50% to 43%. This is the first decline in HE participation since 2003/04.
- There were **small Index rises** for a number of indicators that also served to reduce intergenerational fairness:
 - an increase in the ratio of youth to adult levels of unemployment
 - a rise in the cost to the workforce of the state pension
 - a rise in the levels of health service usage by over-60s as proportionate to those aged under 60
 - the continuing rise in global CO₂ emissions
 - levels of participation in democracy by younger people have worsened, with the proportion of those aged 25 to 34 choosing to vote in the 2015 General Election being lower than those for the previous year's local and European elections. Of concern too is the fact that voting levels by young people compared to the population average were lower than they were at the 2010 General Election. It would appear that campaigns such as Bite the Ballot have had little overall impact.

There were five indicators in which there has been an **improvement** in terms of intergenerational fairness between 2014 and 2015:

- a decline in UK greenhouse gas emissions
- a decline in the costs of Higher Education to graduates
- a fall in the proportion of household income that is spent on housing costs
- a rise in the amount of houses that are built in relation to the total number of households in Great Britain
- a fall in the disparity in annual levels of income between the young and the UK average.

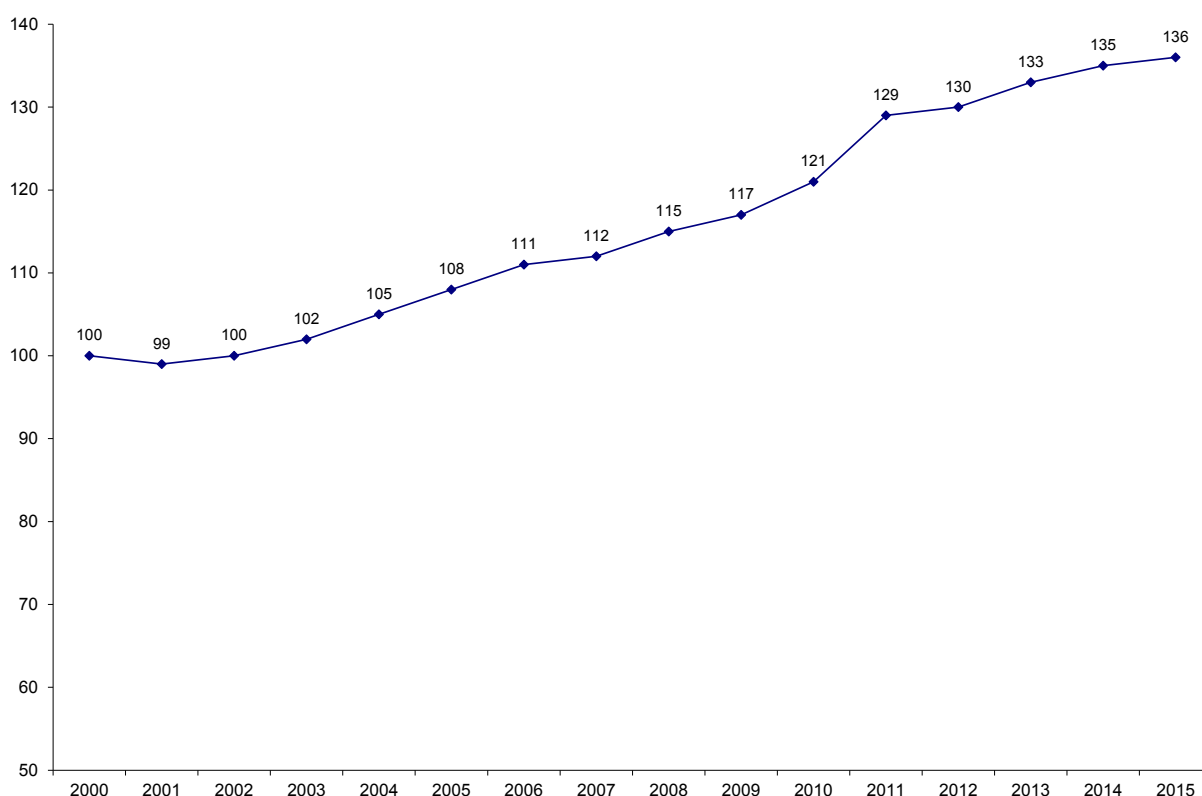
² 2004 in the case of the cost to graduates of Higher Education.

The changes in the indicators both between 2014 and 2015 and between 2015 and our base year 2000 are summarised below:

Content Area	Comparison with 2014	Comparison with 2000
1. Unemployment	Worse	Worse
2. Housing. Measure A – Affordability	Worse	Worse
2. Housing. Measure B – Costs	Better	Better
2. Housing. Measure C – House building	Better	Worse
3. Pensions. Measure A – State Pension	Worse	Worse
3. Pensions. Measure B – Unfunded Public Sector Pensions	Worse	Worse
4. Government Debt	Worse	Worse
5. Participation in Democracy. Measure A – Age of Councillors	No New Data	Worse ³
5. Participation in Democracy. Measure B – Voting	Worse	Better
6. Health	Worse	Worse
7. Income	Better	Worse
8. Environmental Impact. Measure A – UK GHG Emissions	Better	Better
8. Environmental Impact. Measure B – CO ₂ Levels	Worse	Worse
9. Education. Measure A – Levels of Spend	Worse	Better
9. Education. Measure B – Cost to Graduates of HE	Better	Better
9. Education. Measure C – GCSE Pass Rate	Worse	Better
9. Education. Measure D – Participation in HE	Worse	Better

The chart below tracks the movements in the IF Index from its 2000 base to 2015. The Index has risen by 1 point from 135 in 2014 to the 2015 figure of 136. Overall, the pattern is one of small but consistent increases in levels of intergenerational unfairness following the sharp rises of the years immediately following the credit crunch and the attendant recession.

Chart 1. IF Index – 2000 to 2015 (base level of 100 in the year 2000)



³ As no new data for 2015 is available, the comparison is between 2000 and 2014.



Background

Today's policy decisions affect younger and future generations. The IF Index, which was launched in 2012, has been the first attempt to systematically measure the impact that government policies have on young people on a year-to-year basis.

The IF Index reveals that, over the past 25 years, intergenerational unfairness has steadily increased, rising from 87 in 1990 to 136 in 2015.

The rise has been most pronounced since the financial crisis of 2007. Since then and the start of the resulting recession (continuing from 2008 to 2015), the Index has worsened by an average of 3 points each year; previously (between 2000 and 2007) the Index had worsened at an average of just over 1.5 points each year.

The IF Index highlights that, while government borrowing and pension debt have increased steadily, there has also been an increased shift to the disadvantage of the younger generation through higher costs of home ownership and, in particular, a shortage in the number of homes being built, coupled with other factors such as rising youth unemployment relative to adult unemployment.

Why This Matters

The rising level of intergenerational unfairness should matter to everyone. The usual focus on simple measures of inequality between rich and poor misses the important inequalities between generations. This Index highlights the increasing problem of poorer young people financing richer older people.

A rising Index could run the risk that younger generations may be less inclined to support a system that puts the interests of older generations ahead of their own. Young people appear to be becoming increasingly disillusioned, and indeed one of the measures tracks the "democratic deficit" in terms of falling numbers of young people voting.

A rising Index puts the social contract between the generations at risk.

Construction of the IF Index

The IF Index is an expression of how fairness across the generations is changing over time. It works by using quantitative data, openly available to all, that cover some of the most important aspects of our society (e.g. housing, employment etc).

IF identified nine indicators that most affect our lives – including housing, government debt, the pensions burden, and the environment – and put them together to create a measure of how things have changed over recent years. Not all the indicators have got worse – some, such as participation in Higher Education (up until recently) and UK greenhouse gas emissions, have been improving.

Taken together, the data series measure how things have changed over the last 25 years. IF has been careful to exclude the effects of inflation by using a GDP deflator, and the effect of population growth has also been excluded by looking at the numbers on a per head basis. All figures are taken from official sources and this report gives the reasoning behind the choice of indicators and the methodology used, together with the precise sources of the data.

The use of long-running data series, which go as far back in time as possible, is crucial in order to be able to build up an historic picture of how these component measures are evolving.

IF has also attempted to make use of data series that can be compared between countries, and work has commenced on providing objective comparisons between the UK and other countries.

The Index is meant to be as open to scrutiny (and improvement) as possible. All of the data used, and how it is used, are outlined in detail below.

The IF Index is made up of data from the following **nine content areas**:

- Unemployment
- Housing
- Pensions
- Government Debt
- Participation in Democracy
- Health
- Income
- Environmental Impact
- Education

The Index measures changes in two areas:

- The extent to which young people who are alive today are at a disadvantage compared to the rest of society.
- The degree to which future generations (those who are not yet born) will be impacted by the ways in which we live our lives today or by government actions (i.e. how much they may be advantaged or disadvantaged by the actions of those alive today).



An increase in the Index indicates a worsening position for younger people in our society. The table below outlines which type of data is being used for each of the content areas.

Content Area	Younger Persons Comparison	Future Generations
1. Unemployment	Unemployment among younger people compared to UK average.	
2. Housing. Measure A – Affordability	House price affordability compared to income levels of young people.	
2. Housing. Measure B – Costs	Housing costs as a % of disposable income.	
2. Housing. Measure C – House building		Numbers of houses built as a proportion of number of households.
3. Pensions. Measure A – State Pension		Cost of state pension payments per person in the UK workforce.
3. Pensions. Measure B – Unfunded Public Sector Pensions		Cost of unfunded public sector occupational pensions per person in the UK workforce.
4. Government Debt		Public sector debt per person in the UK workforce.
5. Participation in Democracy. Measure A – Age of Councillors	Average age of Councillors in England & Wales.	
5. Participation in Democracy. Measure B – Voting	Participation in voting in General Elections by younger people.	
6. Health	Under 60s usage of selected health services.	
7. Income	Comparison of the income levels of young people to the UK average.	
8. Environmental Impact. Measure A – UK GHG Emissions		UK greenhouse gas emissions.
8. Environmental Impact. Measure B – CO₂ Levels		Levels of CO ₂ in the atmosphere.
9. Education. Measure A – Levels of Spend	Spend on education as a proportion of GDP.	
9. Education. Measure B – Cost to Graduates of Higher Education	Cost of HE to graduates based on upfront tuition fees and repayments by loans borrowers.	
9. Education. Measure C – GCSE Pass Rate	% of school leavers of any age achieving 5 or more A*–C equivalent pass grades.	
9. Education. Measure D – Participation in Higher Education		% of young people (17–30) who have had at least 6 months HE experience.

IF has attempted to ensure that there is no element of double counting. This is particularly problematic in relation to government debt, where there is a danger that the costs of large elements overlap, such as the State Pension and unfunded public sector occupational pensions, which are already included in our Pensions measure. In this case, as far as is possible, the costs of these two elements are omitted from the calculations of government debt.

It has not always been possible to define the young in the same way across the sets of data which are available. For that reason, the decision about the definition of the young was based on what appears most appropriate with the data that are available for that component measure. IF does not believe that the differences would materially affect the results.

The following pages detail how each of the nine component content areas have been gathered and included in the Index.

The process by which the different data sources have then been combined into the IF Index is explained at the end of this report.

Changes in Methodology

There have been no significant changes to the methodology between the 2014 and 2015 Index.

In order to ensure that the data used is as up-to-date as possible, the latest available data for each measure is used in the Index. In the data boxes within the pages which cover each of the component measures, the most recent data is shown in red.

In the case of one measure (5. Participation in Democracy. Measure A – Age of Councillors) no new data is available over and above that of 2014. The most recent previously available data (from the 2014 Index) has been repeated as 2015 data.



The 2015 IF Index

The IF Index sets its base at 100 in the year 2000; however, the Index runs back to 1990 in order to provide historical context for its movements. Most of the component measures employed use data that go back to at least 1990. Data for some measures, however, go back far further. The table below indicates how the different sets of data have been introduced.

Year	Component Measures
From 1990	Unemployment, Pensions (Measure A – State Pension Costs), Government Debt, Democracy (Measure B – Participation in Voting), Environmental Impact (Measure B – Global CO ₂ Emissions), Education (Measure A – Levels of Spend; Measure C – GCSE Pass Rate; Measure D – Participation in Higher Education), Housing (Measure C – House building)
From 1992	Environmental Impact (Measure A – UK GHG Emissions)
From 1993	Pensions (Measure B – Unfunded Public Sector Occupational Pensions)
From 1997	Housing (Measure B – Costs)
From 1999	Democracy (Measure A – Average Age of Councillors)
From 2000	Housing (Measure A – Affordability), Health, Income
Post 2000	Education (Measure B – Cost to Graduates of Higher Education)

The IF Index is structured such that if the Index figure rises, it demonstrates that intergenerational fairness is declining and if it falls it suggests that the position of young people is improving. In all of the component measures, with the exception of Education (Measure A – Level of Spend as % of GDP), Education (Measure C – GCSE Pass Rate), Education (Measure D – Participation in Higher Education) and Housing (Measure C – Levels of House building), an increase in the level of the component data represents a decline in intergenerational fairness. In creating the Index value for the four measures identified above, therefore, an adjustment has been made to ensure that the rise in this component data serves to reduce rather than increase intergenerational unfairness.

Four of the component measures, Pensions (Measure B – Unfunded Public Sector Occupational Pensions), Education (Measure B – Cost to Graduates of Higher Education), Education (Measure D – Participation in Higher Education) and Government Debt, make use of data sources that have not taken inflation or changes to GDP into account; as a result, the source data have been adjusted by the latest HM Treasury GDP deflator data⁴ from March 2015.

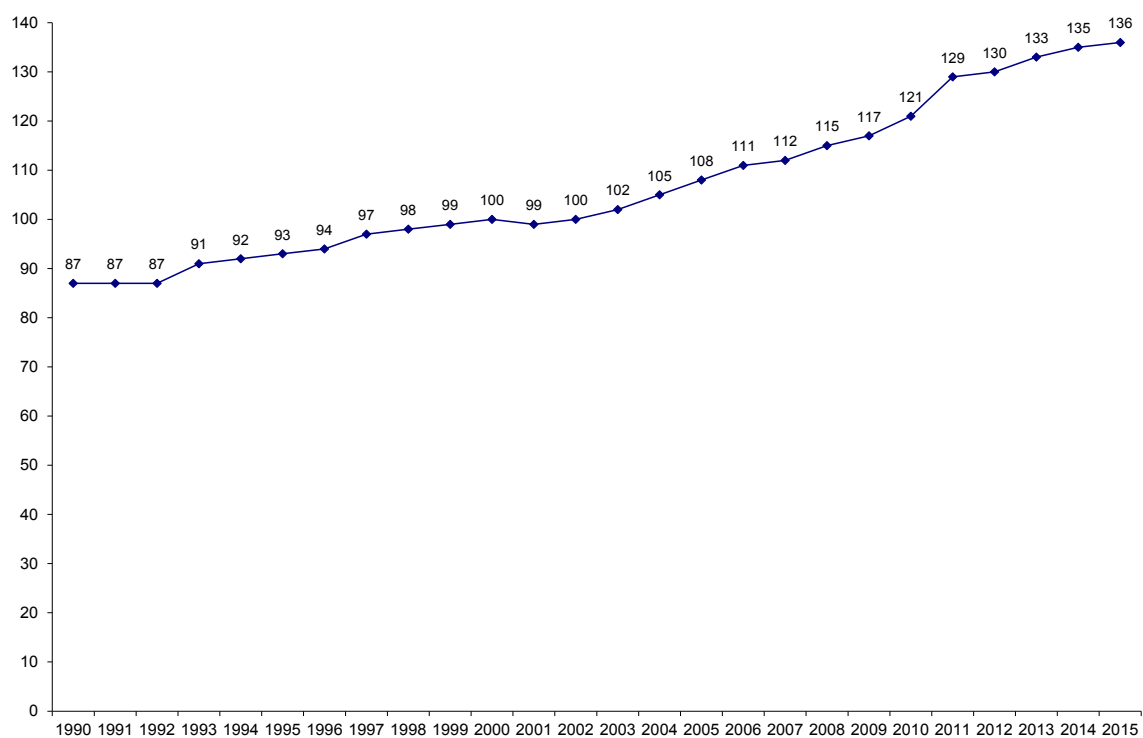
⁴

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/423082/GDP_Deflators_Qtrly_National_Accounts_March_2015_update.csv

- The year-on-year IF Index results are as follows:

Year	Index	Year-on-Year Change
1990	87	
1991	87	0
1992	87	1
1993	91	3
1994	92	1
1995	93	1
1996	94	1
1997	97	3
1998	98	1
1999	99	1
2000	100	1
2001	99	- 1
2002	100	1
2003	102	2
2004	105	3
2005	108	3
2006	111	3
2007	112	1
2008	115	3
2009	117	2
2010	121	4
2011	129	7
2012	130	1
2013	133	3
2014	135	2
2015	136	1

Chart 2. IF Index – 1990 to 2015, with a base level of 100 in the year 2000





Understanding Changes in the Index: 1990–2015

What are the significant factors that have caused the IF Index to move from a level of 87 in 1990 to its current figure of 137?

A. 1990 to 1995 – IF Index rose from 87 to 93

The increase in the Index in this initial period was principally driven by sharp rises in the value of unfunded liabilities for public sector occupational pensions as well as increases in the value of government debt. At the same time, levels of unemployment among younger people continued to increase in comparison to the national average and there was a small but steady increase in the costs of the liabilities for the state pension among working people.

Offsetting these increases were the benefits of rising spending on education as a percentage of GDP, a steady decline in the UK's emissions of greenhouse gases, rising levels of GCSE passes and increasing participation in Higher Education.

B. 1995 to 2000 – IF Index rose from 93 to 100

The value of unfunded liabilities for public sector occupational pensions continued to rise along with the gap between levels of unemployment for young people and the national average. The impacts of these indicators were balanced to a degree by a decline in overall levels of government debt from 1997 onwards, a continued rise in spending on education and significant falls in UK greenhouse gas emissions.

C. 2000 to 2005 – IF Index rose from 100 to 108

A number of factors lie behind the increase in the Index that occurred in the early years of the new century. The most significant were the sharp rise in the costs of home ownership as a proportion of disposable income and unfunded liabilities for public sector occupational pensions. Levels of youth unemployment also rose. Some of these themes were, however, countered by improvements in education with increased GCSE pass rates, higher government spending on education and increasing participation in Higher Education.

D. 2005 to 2010 – IF Index rose from 108 to 121

The sharpest rise in the IF Index in a full five-year period. Increasing government debt, the costs of unfunded liabilities of public sector occupational pensions, a decline in levels of housebuilding, the increasing costs of state pensions, and increasing costs of Higher Education all conspired to wipe out any improvements in intergenerational fairness.

The above drivers were too significant to improve the lot of younger generations in spite of declines in house prices (mostly outside the southeast of England), continuing increases in levels of spending on education, rising GCSE pass rates, participation in Higher Education and the continuing fall in the level of UK greenhouse gas emissions.

E. 2010 to 2015 – IF Index rose from 121 to 136

The five year period since 2010 has also seen a sharp increase in intergenerational unfairness but offers some hope for the future with a one point increase being observed between 2014 and 2015, the lowest increase since immediately before the credit crunch in 2007.

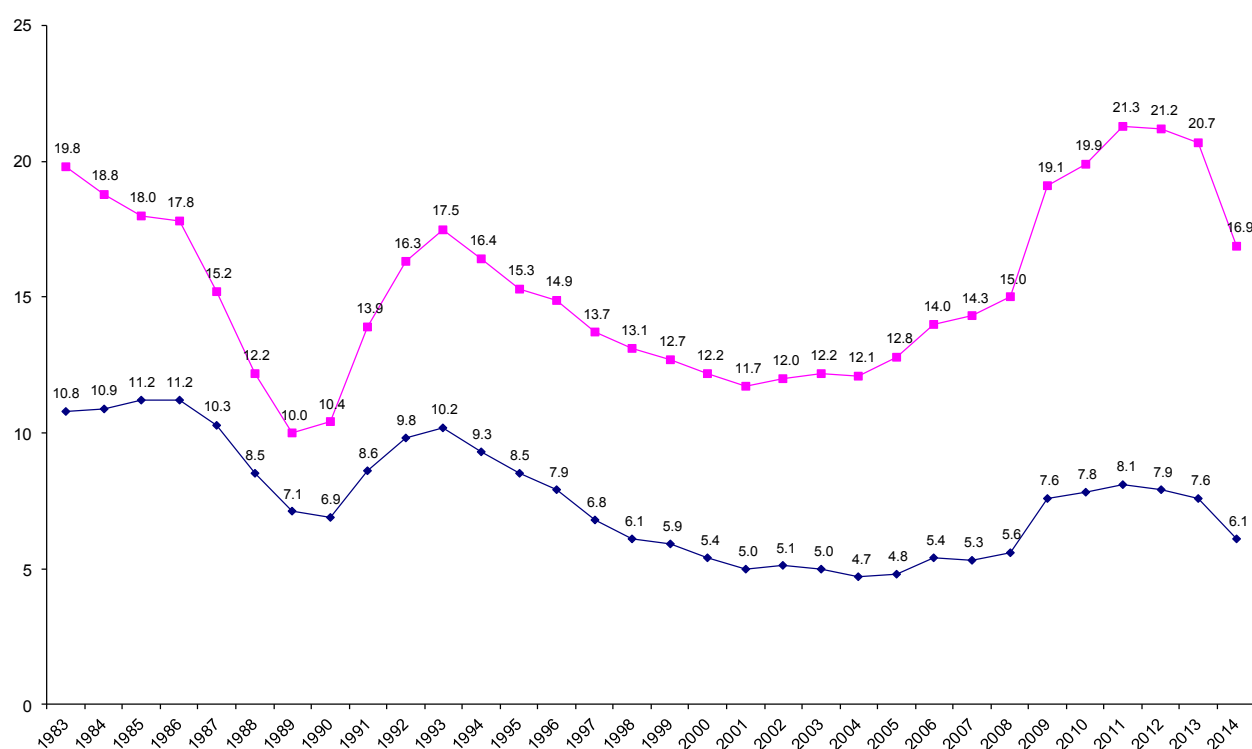
Driving the increase over this period have been rising levels of government debt, increasing house prices and low levels of housebuilding. Also contributing to the rise of the Index are higher costs for state and unfunded public sector pensions. While improvements have been occurring through falling costs to graduates of Higher Education with the impact of the higher threshold for loan repayments as well as higher GCSE pass rates and increased participation in Higher Education, these have been insufficient to counterbalance forces driving the Index higher.

The Component Measures

1. Unemployment

Purpose of Measure	To assess levels of unemployment among younger people compared to the UK average.
Measurement	The ratio compares the proportion aged under 25 who are unemployed to the average level of unemployment in the UK.
Data Sources	Eurostat: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=une_rt_a&lang=de (comparing UK unemployment rate (%), annual average, for those aged under 25 to total unemployment rate).
Notes	Length of data: From 1983. 2015 Index: 2013 and 2014 added.

Chart 3. Proportion (%) of those aged under 25 (pink line) who are unemployed compared to total UK unemployment (blue line)



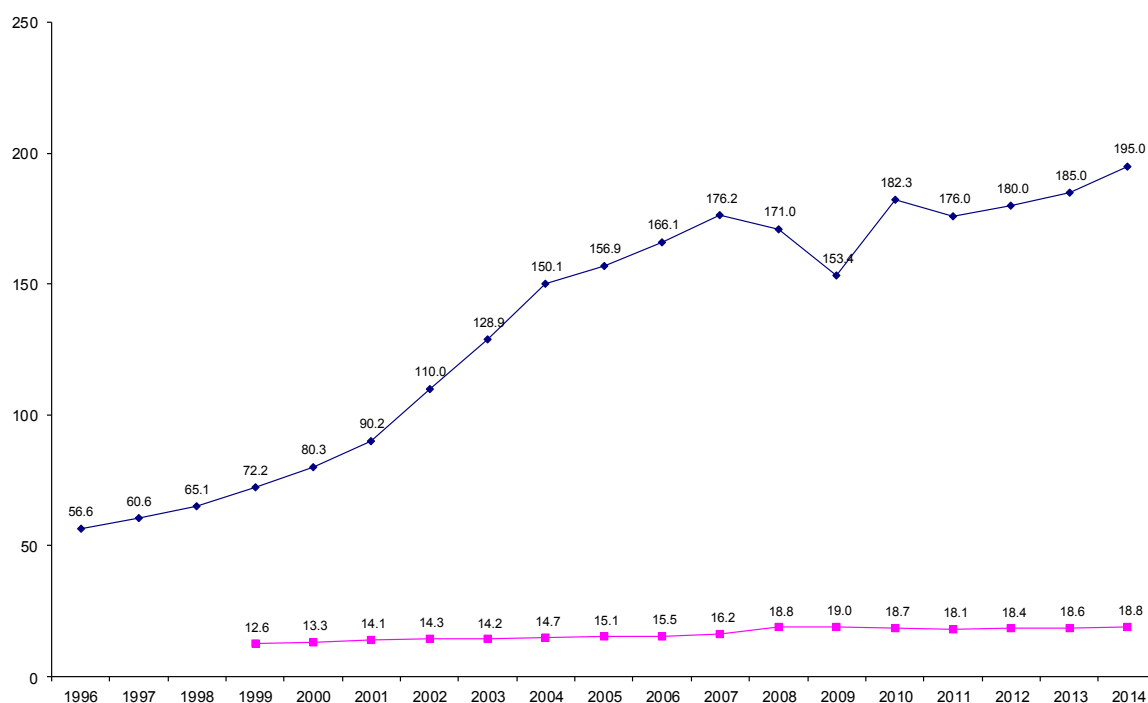
Resulting ratio of youth unemployment – proportion of those aged 25 who are unemployed divided by the average UK level of unemployment

Year	Ratio		Year	Ratio		Year	Ratio
1983	1.83		1994	1.76		2005	2.67
1984	1.72		1995	1.80		2006	2.59
1985	1.61		1996	1.89		2007	2.70
1986	1.59		1997	2.01		2008	2.68
1987	1.48		1998	2.15		2009	2.51
1988	1.44		1999	2.15		2010	2.55
1989	1.41		2000	2.26		2011	2.63
1990	1.51		2001	2.34		2012	2.68
1991	1.62		2002	2.35		2013	2.72
1992	1.66		2003	2.44		2014	2.77
1993	1.72		2004	2.57			

2. Housing. Measure A – Affordability

Purpose of Measure	To assess levels of affordability of UK housing among younger people.
Measurement	The ratio compares the median levels of income among those aged 20 to 29 (22 to 29 from 2008 onwards) to median house price values in England and Wales.
Data Sources	<p>1. House Prices: Land Registry: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/49810/582.xls Data – 2012 onwards: http://data.gov.uk/dataset/land-registry-monthly-price-paid-data. 2014 is the most recent completed year.</p> <p>2. Income Data: Annual Survey of Hours and Earnings; Home: http://www.ons.gov.uk/ons/rel/ashe/annual-survey-of-hours-and-earnings/Index.html. Data from 2013 revised from provisional to final. 2014 (provisional) data can be accessed at: http://www.ons.gov.uk/ons/rel/lmac/understanding-average-earnings-for-the-continuously-employed-/using-the-annual-survey-of-hours-and-earnings---2014/index.html</p> <p>Age Group Table 6.7a Annual pay – Gross (£) for all employee jobs: UK, 2014</p>
Notes	<p>Length of data: 1. House Prices: From 1996; 2. Income Data: From 1999.</p> <p>2015 Index: 2014 added.</p>

Chart 4. Median annual income of those aged 20 to 29 (£000s) (pink line) compared to median house prices (£000s) (blue line)



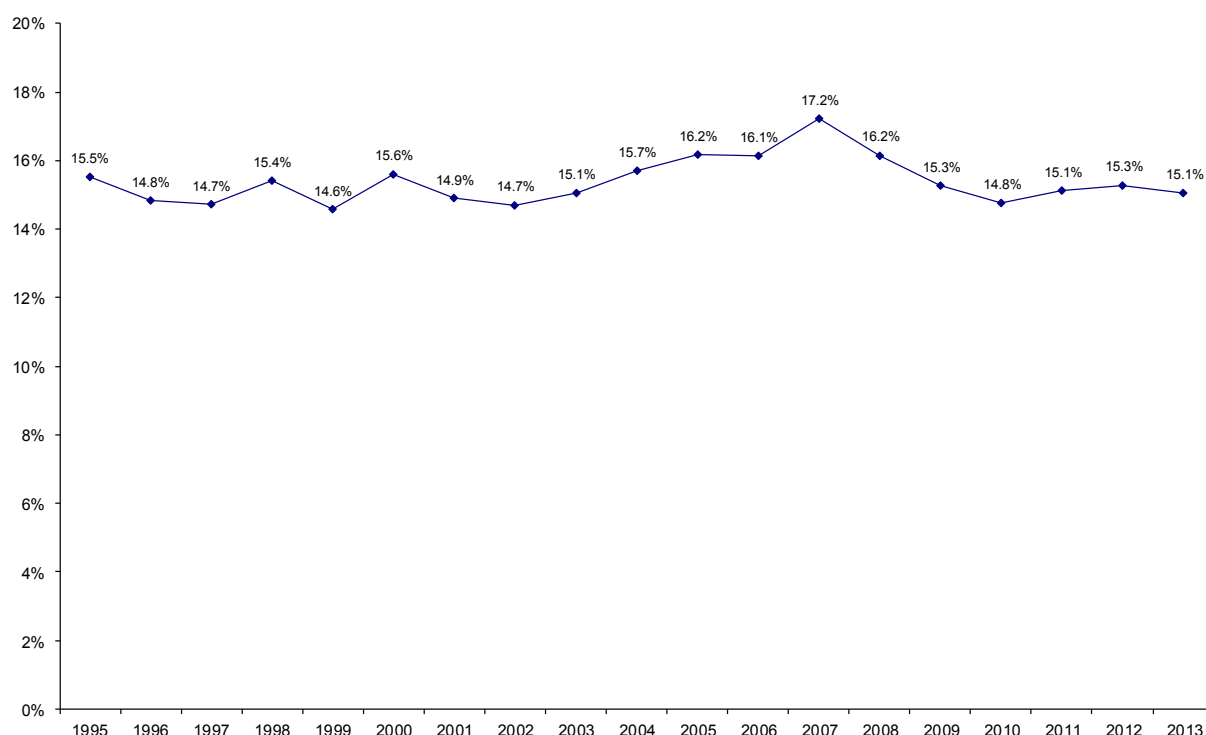
Resulting ratio of house price affordability – ratio of median house prices to median annual income levels of those aged 20 to 29

Year	Ratio		Year	Ratio		Year	Ratio
1999	5.75		2005	10.36		2011	9.73
2000	6.05		2006	10.69		2012	9.78
2001	6.37		2007	10.90		2013	9.96
2002	7.70		2008	9.12		2014	10.35
2003	9.07		2009	8.09			
2004	10.23		2010	9.75			

2. Housing. Measure B – Housing Costs

Purpose of Measure	To assess the proportion of disposable income which is spent on housing costs.
Measurement	The ratio expresses housing costs as a proportion of disposable income.
Data Sources	1. ONS Family Expenditure Survey (FES): http://www.ons.gov.uk/ons/rel/family-spending/family-spending/family-spending-2012-edition/rft---table-4-1.xls 2012 and 2013 data based on FES available via a request to ONS (post discontinuation of the publication of tables based on FES and move to COICOP)
Notes	Length of data: From 1995/96 – Data change from financial year up to 2005/06 to calendar year 2006 onwards. 2015 Index: 2013 data added

Chart 5. Housing costs as a proportion of disposable income



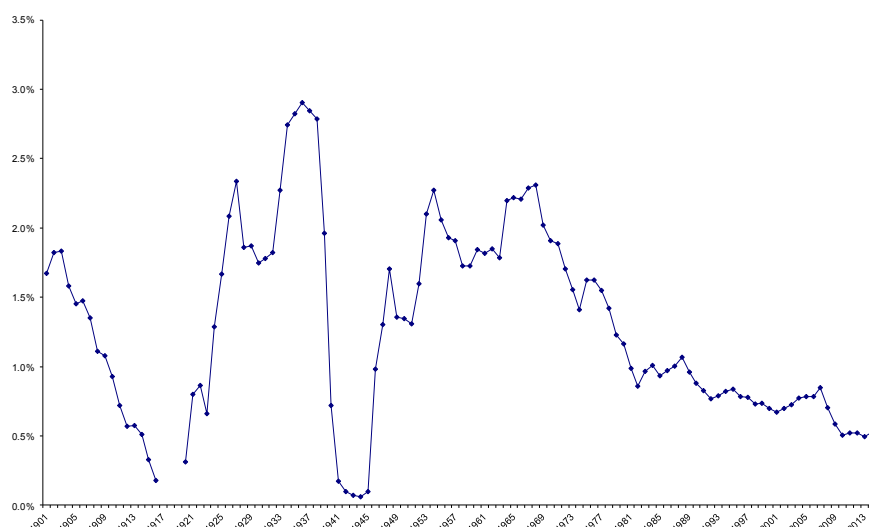
Housing costs and disposable income (£ real terms, 2013 prices)

Year	Housing costs (£pw)	Household disposable income (£pw)	Housing as % of disposable income	Year	Housing costs (£pw)	Household disposable income (£pw)	Housing as % of disposable income
1995/96	81.13	522	15.5%	2005/06	104.74	648	16.2%
1996/97	79.64	537	14.8%	2006	105.06	651	16.1%
1997/98	81.03	551	14.7%	2007	111.33	647	17.2%
1998/99	87.30	567	15.4%	2008	109.42	677	16.2%
1999/00	85.71	588	14.6%	2009	99.74	653	15.3%
2000/01	93.26	598	15.6%	2010	95.49	647	14.8%
2001/02	94.74	636	14.9%	2011	94.32	624	15.1%
2002/03	94.00	639	14.7%	2012	92.43	605	15.3%
2003/04	95.81	636	15.1%	2013	92.50	614	15.1%
2004/05	101.98	650	15.7%				

2. Housing. Measure C – House building

Purpose of Measure	Measure of levels of house building in relation to the need for new homes.
Measurement	The ratio expresses the numbers of houses built as a proportion of the number of households. A decrease in numbers built indicates a reduction in intergenerational fairness. This is taken into account when this data is introduced into the Index.
Data Sources	1. House building. To 1980: http://books.google.co.uk/books?id=Oyg9AAAAIAAJ&pg=PA382&source=gbs_toc_r&cad=4#v=onepage&q&f=false 1980 onwards: https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building (key tables 244/245/246) 2. Households: Various based on ONS and Census data. Current years 1991 onwards (2012-based household projections to 2037 for England): https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections (Live table 401) Most recent update 27 February 2015
Notes	Length of data: From 1901 – Great Britain. 2015 Index: 2013 and 2014 added (except for Scotland where 2014 has not yet been published).

Chart 6. Number of houses built in Great Britain since 1901 as a proportion of the number of households



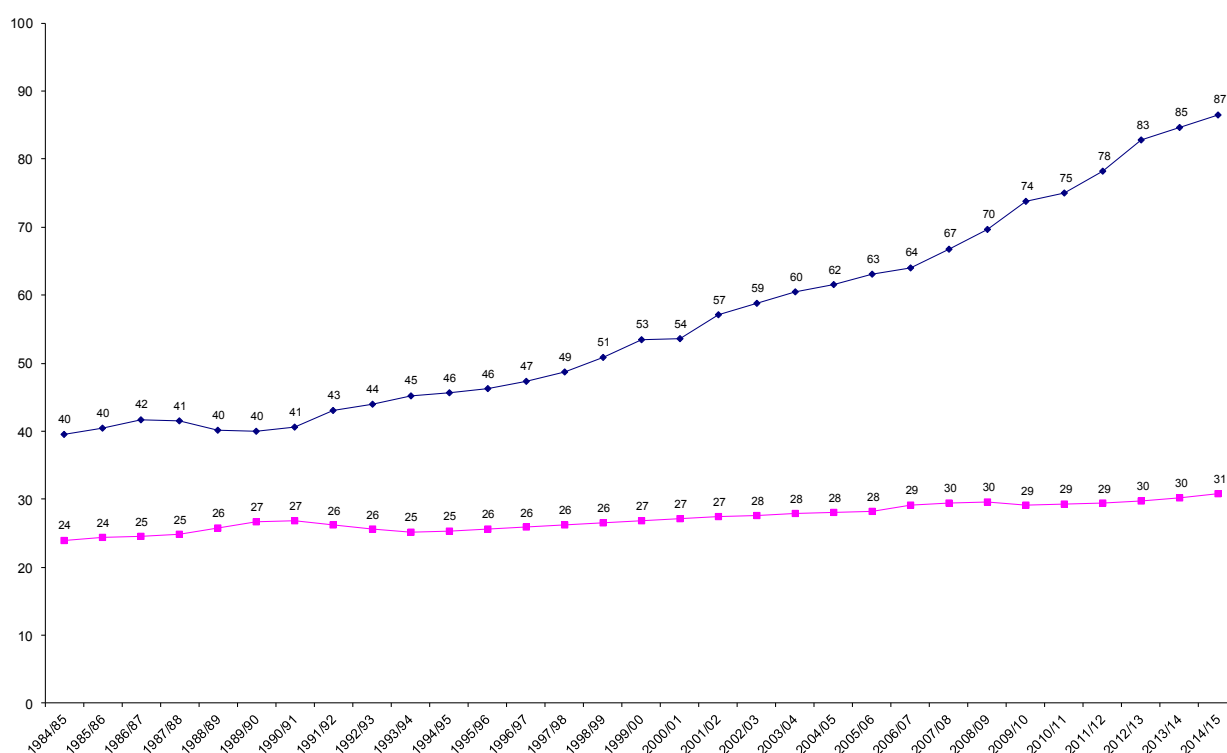
Total number of houses built per year (in '000s)

Year	No.	Year	No.	Year	No.	Year	No.
1900	139.7	1920	29.7	1940	95.1	1960	297.8
1901	139.7	1921	76.1	1941	23.4	1961	296.1
1902	153.8	1922	84.5	1942	12.9	1962	305.4
1903	156.9	1923	66.1	1943	9.5	1963	298.9
1904	136.6	1924	131.2	1944	8.1	1964	373.7
1905	127.4	1925	174.2	1945	13.8	1965	382.3
1906	130.6	1926	222.3	1946	138.5	1966	385.5
1907	121.3	1927	254.9	1947	186.0	1967	404.4
1908	100.9	1928	206.8	1948	245.9	1968	413.7
1909	98.8	1929	212.2	1949	197.7	1969	366.8
1910	86.0	1930	202.4	1950	198.2	1970	350.4
1911	67.5	1931	210.0	1951	194.8	1971	350.6
1912	53.4	1932	218.1	1952	239.9	1972	319.3
1913	54.2	1933	275.2	1953	318.8	1973	294.1
1914	48.3	1934	336.7	1954	347.8	1974	269.5
1915	30.8	1935	350.5	1955	317.4	1975	313.0
1916	17.0	1936	365.0	1956	300.6	1976	315.2
1917	N/A	1937	362.2	1957	300.1	1977	303.3
1918	N/A	1938	359.1	1958	273.7	1978	279.8
1919	N/A	1939	255.6	1959	276.7	1979	244.4
						1980	233.7
						1981	199.8
						1982	175.8
						1983	199.3
						1984	210.0
						1985	196.7
						1986	206.4
						1987	216.5
						1988	232.4
						1989	211.2
						1990	195.3
						1991	184.5
						1992	172.0
						1993	178.9
						1994	187.0
						1995	191.5
						1996	180.7
						1997	180.9
						1998	171.0
						1999	172.5

3. Pensions. Measure A – State Pension Costs

Purpose of Measure	To assess the changing cost of the state pension in relation to the size of the UK workforce. The size of the UK workforce is used, as it is those who are currently in that force who are paying for the costs of the state pension through their taxes.
Measurement	The ratio divides the total cost of the state pension by the numbers in the UK workforce.
Data Sources	1. State Pension Costs: Autumn Statement 2014: Outturn and Expenditure 2014 data from DWP. 2. Workforce Size: http://www.ons.gov.uk/ons/rel/lms/labour-market-statistics/april-2015/dataset--labour-market-statistics.html table-a01.xls (Table 1 - Code MGRZ). Pre 1992 data http://stats.oecd.org Annual Labour Force Statistics – Total Employment
Notes	Length of data: 1. State Pension Costs: From 1948; 2. Workforce Size: From 1984/85. 2015 Index: 2013/14 & 2014/15 added.

Chart 7. Size of the UK employed workforce (millions) (pink line) compared to total cost of state pension (£billions – real terms, 2014/15) Prices (blue line)



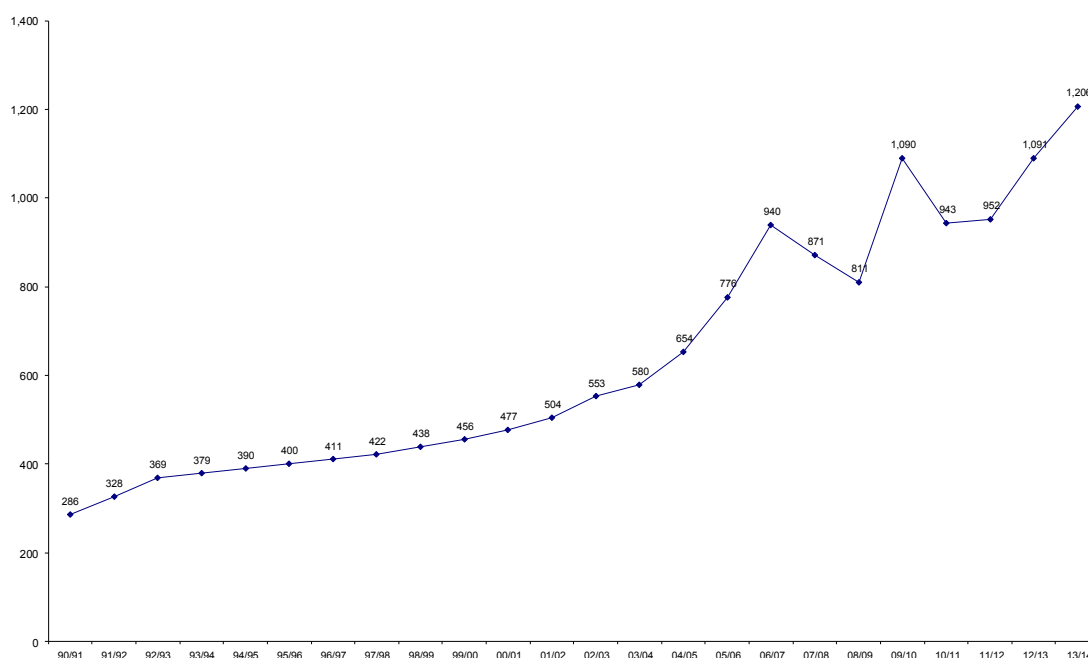
State pension costs per working person (£billions – real terms, 2014/15 prices)

Year	£		Year	£		Year	£
1984/85	1,649		1995/96	1,803		2006/07	2,195
1985/86	1,665		1996/97	1,830		2007/08	2,264
1986/87	1,700		1997/98	1,856		2008/09	2,358
1987/88	1,669		1998/99	1,920		2009/10	2,539
1988/89	1,559		1999/00	1,994		2010/11	2,554
1989/90	1,504		2000/01	1,971		2011/12	2,664
1990/91	1,510		2001/02	2,083		2012/13	2,778
1991/92	1,648		2002/03	2,136		2013/14	2,801
1992/93	1,718		2003/04	2,174		2014/15	2,807
1993/94	1,795		2004/05	2,196			
1994/95	1,798		2005/06	2,237			

3. Pensions. Measure B – Unfunded Public Sector Pension Costs

Purpose of Measure	To assess the cost of unfunded public sector pensions (inc. teachers, NHS, civil service, armed forces, police and fire service) in relation to the size of the UK workforce.
Measurement	The ratio divides the total cost of the unfunded liabilities of UK Public Sector Occupational Pensions by the numbers in the UK workforce.
Data Sources	1. Public Sector Occupational Pensions Liabilities (adjusted using GDP Deflator). Data from 1991 to 1998: http://www.geog.ox.ac.uk/news/events/phclcs/Clark.pdf Data from 1999 to 2001: http://www.iea.org.uk/sites/default/files/publications/files/upldbook329pdf.pdf Data from 2002 to 2008: ONS Pension Trends Chapter 14. Data for 2009/10 onwards Net pension liability by type of scheme in WGA https://www.gov.uk/government/collections/whole-of-government-accounts In the 2013/14 report the detail appears in section 2.77 Table 2.9 at page 29 2. Workforce Size: As Pensions. Measure A
Notes	Length of data: 1. Public Sector Occupational Pensions Liabilities: From 1991; 2. Workforce Size: From 1984. 2015 Index: 2012/13 & 2013/14 added.

Chart 8. Cost of unfunded liabilities of UK Public Sector Occupational Pensions (£billions – real terms, 2014/15 prices)



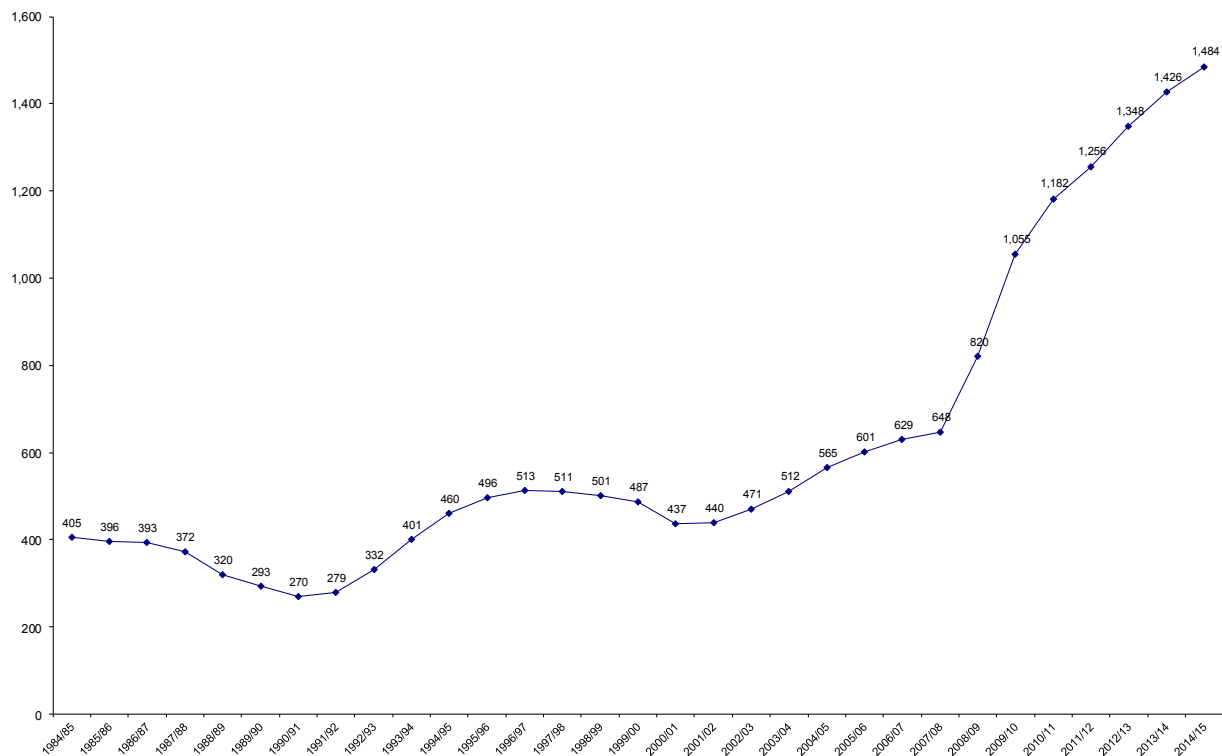
Resulting liability for unfunded liabilities of UK Public Sector Occupational Pensions per person in the workforce (£ real terms, 2014/15 prices)

Year	£		Year	£		Year	£
1990/91	£10,951		1998/99	£16,352		2006/07	£31,850
1991/92	£12,789		1999/00	£16,793		2007/08	£29,481
1992/93	£14,627		2000/01	£17,390		2008/09	£27,898
1993/94	£14,883		2001/02	£18,297		2009/10	£37,152
1994/95	£15,140		2002/03	£19,865		2010/11	£32,125
1995/96	£15,396		2003/04	£20,703		2011/12	£31,944
1996/97	£15,652		2004/05	£23,186		2012/13	£36,088
1997/98	£15,908		2005/06	£26,594		2013/14	£39,121

4. Government Debt

Purpose of Measure	To assess level of public debt per employed person.
Measurement	The ratio divides the total value of public debt of the UK government (excluding State Pension and Unfunded Public Sector Occupation Pensions) by the numbers in the UK workforce
Data Sources	1. Level of Public Debt (adjusted using GDP Deflator): Post 2000/01 - http://www.ons.gov.uk/ons/rel/psa/public-sector-finances/march-2015/rft-a.xls (Table psa4 - Public Sector Net Debt (excluding public sector banks)) 2. Workforce Size: As Pensions. Measure A
Notes	Length of data: 1. Level of Public Debt: From 1974; 2. Workforce Size: From 1984/85. 2015 Index: 2013/14 & 2014/15 added.

Chart 9. Levels of government debt (public sector net debt, £billions – real terms, 2014/15 prices)



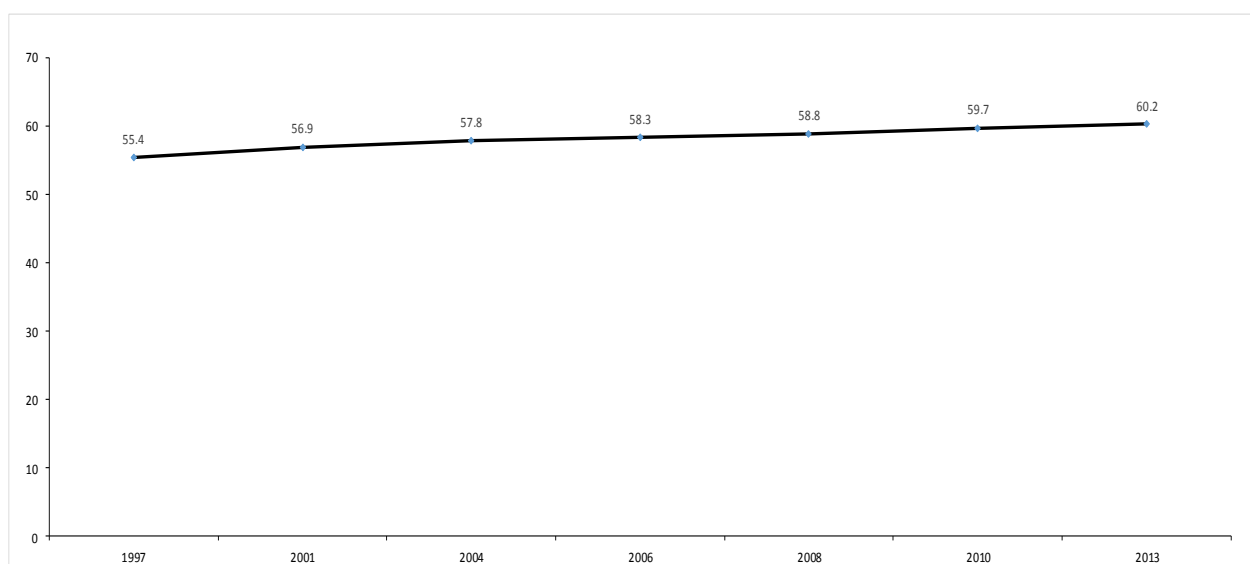
Resulting level of government debt per person in the workforce (£/person – real terms, 2014/15 prices)

Year	£		Year	£		Year	£
1984/85	16,911		1995/96	19,360		2006/07	21,549
1985/86	16,271		1996/97	19,841		2007/08	21,949
1986/87	16,012		1997/98	19,452		2008/09	27,735
1987/88	14,953		1998/99	18,912		2009/10	36,302
1988/89	12,434		1999/00	18,166		2010/11	40,280
1989/90	11,022		2000/01	16,101		2011/12	42,788
1990/91	10,040		2001/02	16,053		2012/13	45,240
1991/92	10,680		2002/03	17,089		2013/14	47,187
1992/93	12,972		2003/04	18,397		2014/15	48,157
1993/94	15,886		2004/05	20,167			
1994/95	18,118		2005/06	21,324			

5. Participation in Democracy. Measure A – Age of Councillors

Purpose of Measure	To assess the age of Councillors (excluding Town and Parish Councillors) as a guide to the ages of those who make significant decisions about the places in which we live.
Measurement	The average age of Councillors over time.
Data Sources	Regular (but not annual) research by the Local Government Association) http://www.lga.gov.uk/lga/core/page.do?pageId=1165045 Most recent report on 2013 data published in May 2014 Census of Local Authority Councillors 2013: http://www.local.gov.uk/documents/10180/5854661/National+Census+of+Local+Authority+Councillors+2013+-+full+report.pdf/886cab3b-146b-4160-a548-d40c17bdfbfc
Notes	Length of data: LGA Research: 1997 onwards. 2015 Index: No new data.

Chart 10. Average age of Councillors (excluding Town and Parish Councillors) based on the years that the LGA has undertaken its research



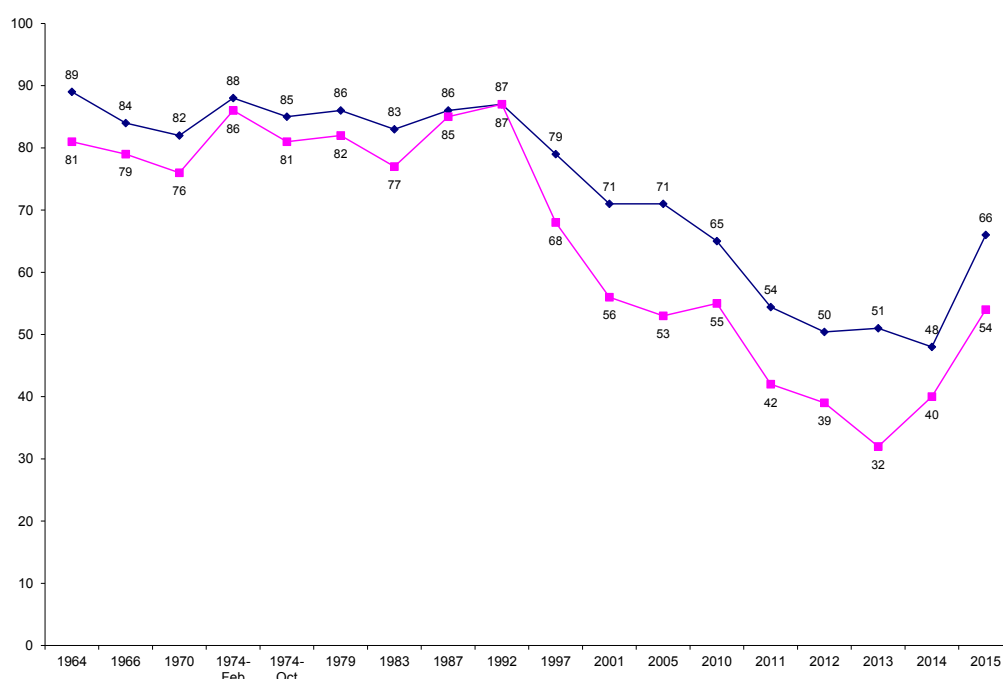
Average age of Councillors (excluding Town and Parish Councillors) based on the years that the LGA has undertaken its research

Year	Average Age		Year	Average Age
1997	55.4		2008	58.8
2001	56.9		2010	59.7
2004	57.8		2013	60.2
2006	58.3			

5. Participation in Democracy. Measure B – Voting

Purpose of Measure	To compare levels of participation in voting at General Elections among younger people with the population average.
Measurement	Comparing the proportion of those aged 25 to 34 who have voted in General Elections to the population average. The Electoral Commission now undertakes research every year into that year's election. As a result, findings for elections held between 2011 and 2014 are also included.
Data Sources	1. 1964 to 2005 British Election Survey: http://www.essex.ac.uk/bes/Papers/ec%20report%20final.pdf 2. 2010 Election: http://www.ipsos-mori.com/researchpublications/researcharchive/2613/How-Britain-Voted-in-2010 ; 3. 2013 Local Elections – Figure 2 – page 10: http://www.electoralcommission.org.uk/_data/assets/pdf_file/0020/162137/2013-Post-election-survey-Report.pdf 4. 2014 Local & European Assembly Elections http://www.electoralcommission.org.uk/_data/assets/pdf_file/0009/169866/2014-Post-election-survey-UK-tables-WEB.pdf (page 21) 5. 2015 General Election. https://www.ipsos-mori.com/researchpublications/researcharchive/3575/How-Britain-voted-in-2015.aspx
Notes	General Elections only: 1964 to 2010; local and other elections 2011 to 2014. 2015 Index: 2014 Local & European Elections added & 2015 General Election.

Chart 11. Proportion of the UK adult population voting in elections from 1964 (blue line) compared to the % of those aged 25 to 34 who voted (pink line)



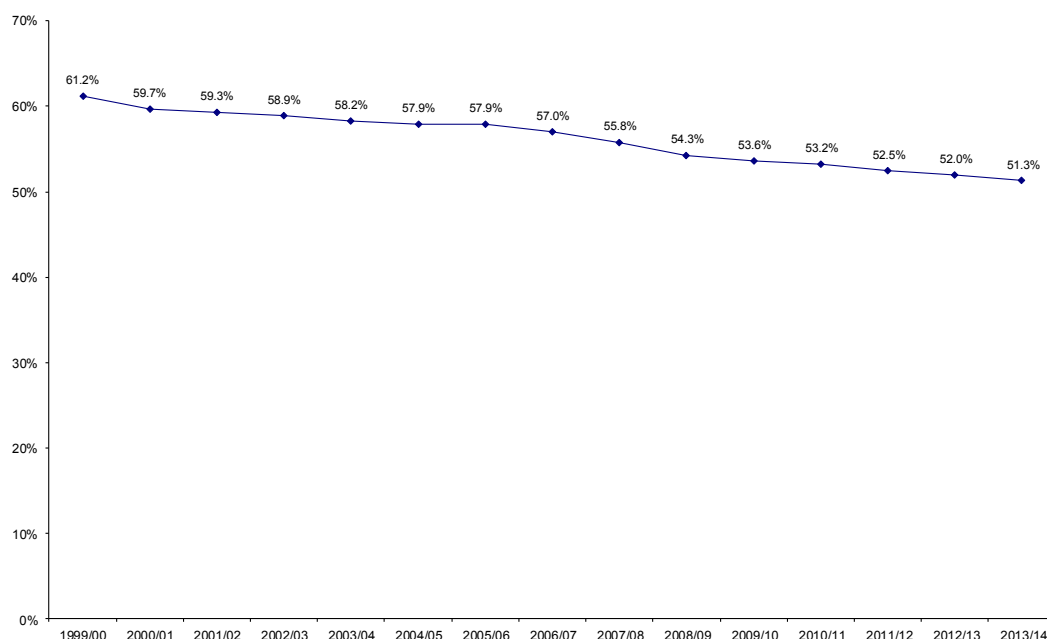
Ratio of participation by younger people. Proportion of UK adult population voting in elections since 1964 divided by the proportion of those aged 25 to 34 who voted

Year	Ratio	Year	Ratio	Year	Ratio
1964	1.10	1983	1.08	2010	1.18
1966	1.06	1987	1.01	2011	1.30
1970	1.08	1992	1.00	2012	1.29
1974-Feb	1.02	1997	1.16	2013	1.59
1974-Oct	1.05	2001	1.27	2014	1.20
1979	1.05	2005	1.34	2015	1.22

6. Health

Purpose of Measure	To compare usage of selected medical services among younger people (for this measurement, those aged under 60).
Measurement	To compare the usage of inpatient treatments and operations and other procedures by those aged under 60 with the total – England
Data Sources	Hospital Episode Statistics: Hospital Episode Statistics, Admitted Patient Care, England (http://www.hscic.gov.uk). 2013/14 data from http://www.hscic.gov.uk/catalogue/PUB16719 . Data constructed from: 1. Admitted Patient Care (2013/14 data) http://www.hscic.gov.uk/catalogue/PUB16719/hosp-epis-stat-admi-prov-leve-2013-14-tab.xlsx 2. Procedures & Interventions (2013/14 data) www.hscic.gov.uk/catalogue/PUB16719/hosp-epis-stat-admi-proc-2013-14-tab.xlsx (Worksheet: All Procedure 3 Character)
Notes	Length of data: From 1999. 2015 Index: 2013/14 data added.

Chart 12. Proportion of inpatient treatments and operations and other procedures undertaken among those aged under 60 years of age



Total numbers of inpatient treatments and operations and other procedures comparing the numbers undertaken among those aged 60 and over with those aged under 60 years of age

Year	Undertaken with those aged 60/+	Undertaken with those aged under 60	Total undertaken	Year	Undertaken with those aged 60/+	Undertaken with those aged under 60	Total undertaken
1999/00	9,510,439	15,016,083	24,526,522	2007/08	15,629,627	19,739,912	35,369,539
2000/01	10,026,240	14,858,850	24,885,090	2008/09	17,702,045	21,031,217	38,733,262
2001/02	10,155,575	14,806,529	24,962,104	2009/10	19,164,097	22,158,302	41,322,399
2002/03	10,857,895	15,556,047	26,413,942	2010/11	20,214,006	22,964,688	43,178,694
2003/04	11,322,576	15,793,264	27,115,840	2011/12	21,240,546	23,455,501	44,696,047
2004/05	11,790,156	16,245,326	28,035,482	2012/13	22,026,864	23,814,708	45,841,572
2005/06	12,484,130	17,168,272	29,652,402	2013/14	23,342,367	24,597,213	47,939,580
2006/07	13,766,107	18,238,628	32,004,735				

7. Income

Purpose of Measure	To compare median income levels among the young to the population average (among those in employment).
Measurement	Comparing the median income levels of the young (20 to 29 (22 to 29 from 2008 onwards)) to the population average.
Data Sources	Data from Annual Survey of Hours and Earnings (ASHE): http://www.ons.gov.uk/ons/rel/ashe/annual-survey-of-hours-and-earnings/Index.html (Age Group Table 6.7a Annual pay) 2013 data updated from provisional to revised results and 2014 provisional results added http://www.ons.gov.uk/ons/rel/ashe/annual-survey-of-hours-and-earnings/2014-provisional-results/Index.html
Notes	Length of data: From 1999 – Data change from financial year up to 2007/08 to calendar year 2008 onwards. 2015 Index: 2013 data updated; 2014 added.

Chart 13. Median annual income (£) of all in employment in the UK (blue line) compared to the median annual income of those aged 20 to 29 (pink line)



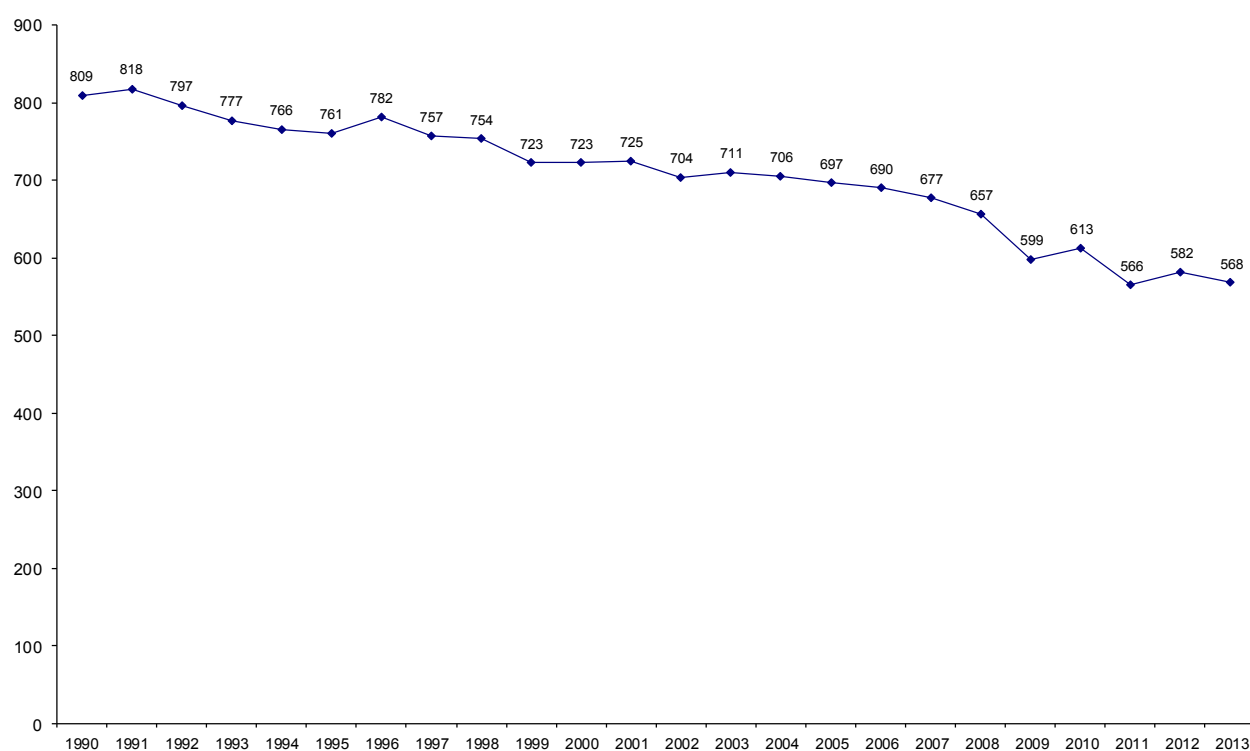
Resulting ratio describing the relationship of the median level of all those in employment to the median income of younger workers (median income of all in employment divided by that of those aged under 30)

Year	Ratio		Year	Ratio		Year	Ratio
1999/00	1.147		2005/06	1.129		2011	1.167
2000/01	1.117		2006/07	1.139		2012	1.168
2001/02	1.096		2007/08	1.144		2013	1.176
2002/03	1.106		2008	1.110		2014	1.170
2003/04	1.126		2009	1.124			
2004/05	1.118		2010	1.135			

8. Environmental Impact. Measure A – UK Greenhouse Gas Emissions

Purpose of Measure	To describe the environmental impact of UK energy consumption.
Measurement	UK emissions of greenhouse gases.
Data Sources	Department of Energy & Climate Change – housed at: https://www.gov.uk/government/publications/final-uk-emissions-estimates 2013 final UK figures https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/400395/final_emissions_data_tables_final.xls (Table 1)
Notes	Length of data: 1990 onwards – NB The entire time series is revised each year to take account of methodological improvements. 2015 Index: 2013 added.

Chart 14. UK greenhouse gas emissions, weighted by global warming potential (million tonnes carbon dioxide equivalent (MTCO₂e))



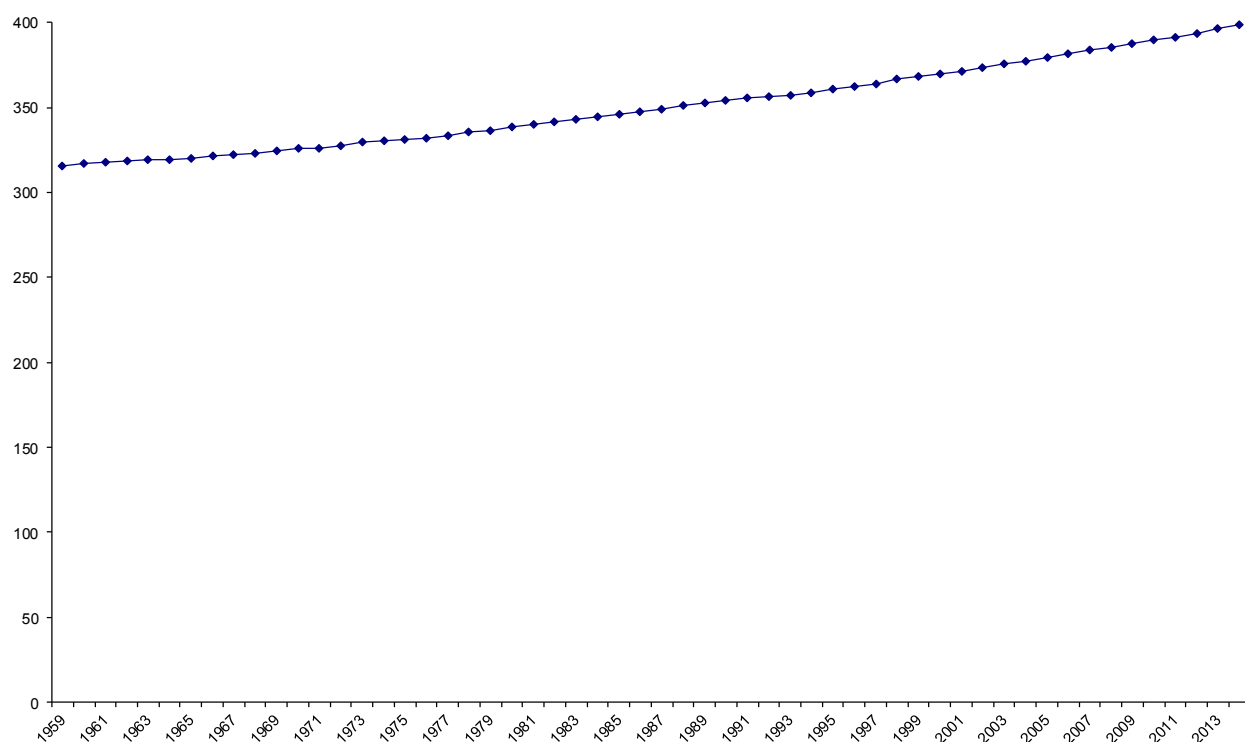
UK greenhouse gas emissions, weighted by global warming potential (million tonnes carbon dioxide equivalent)

Year	MTCO ₂ e		Year	MTCO ₂ e		Year	MTCO ₂ e
1990	809.4		1998	753.7		2006	690.1
1991	818.4		1999	722.9		2007	677.2
1992	797.2		2000	722.8		2008	657.1
1993	777.1		2001	725.4		2009	598.6
1994	766.2		2002	704.2		2010	613.3
1995	760.6		2003	710.9		2011	566.2
1996	782.0		2004	705.8		2012	582.2
1997	757.0		2005	696.6		2013	568.3

8. Environmental Impact. Measure B – CO₂ in the Atmosphere

Purpose of Measure	To describe the impact of climate change.
Measurement	CO ₂ levels – parts per million.
Data Sources	US Dept of Commerce – National Oceanic & Atmospheric Administration – Earth System Research Laboratory Monthly Mean Concentrations at the Mauna Loa Observatory (PPM): co2now.org/images/stories/data/co2-mlo-monthly-noaa-esrl.xls (Worksheet – Annual CO ₂ Data). 2015 Index: 2014 Data added.
Length of data	From 1959

Chart 15. CO₂ expressed as a mole fraction (number of molecules) in dry air, micromol/mol, abbreviated as ppm



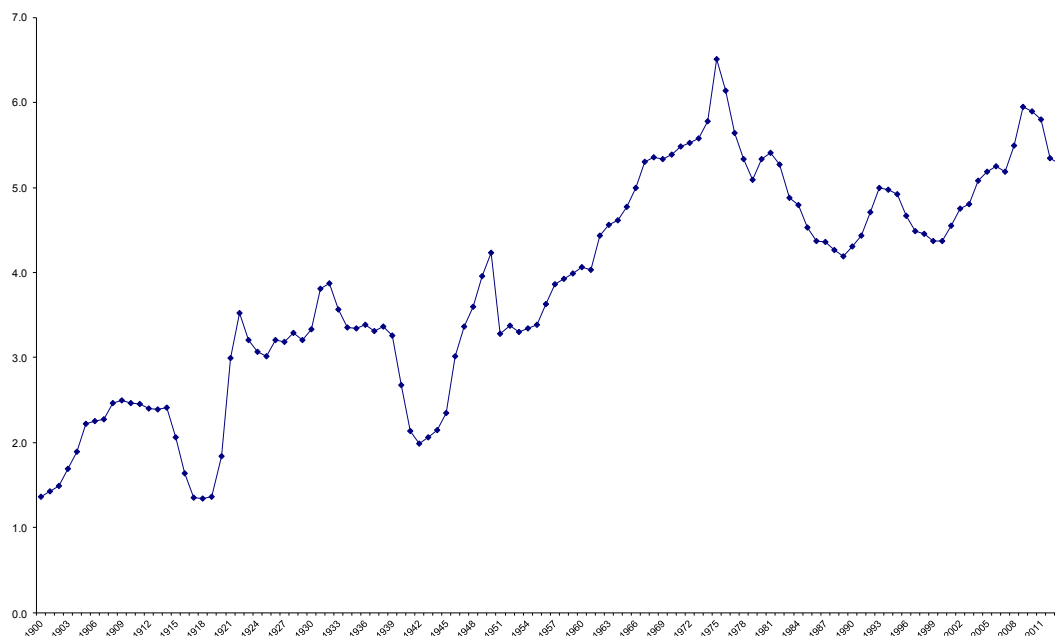
Base Data – CO₂ expressed as a mole fraction in dry air, micromol/mol, abbreviated as ppm

Year	ppm	Year	ppm	Year	ppm	Year	ppm	Year	ppm	Year	ppm
1959	315.97	1970	325.68	1980	338.68	1990	354.35	2000	369.52	2010	389.85
1960	316.91	1971	326.32	1981	340.1	1991	355.57	2001	371.13	2011	391.62
1961	317.64	1972	327.45	1982	341.44	1992	356.38	2002	373.22	2012	393.82
1962	318.45	1973	329.68	1983	343.03	1993	357.07	2003	375.77	2013	396.48
1963	318.99	1974	330.18	1984	344.58	1994	358.82	2004	377.49	2014	398.55
1964	319.62	1975	331.08	1985	346.04	1995	360.8	2005	379.8		
1965	320.04	1976	332.05	1986	347.39	1996	362.59	2006	381.9		
1966	321.38	1977	333.78	1987	349.16	1997	363.71	2007	383.76		
1967	322.16	1978	335.41	1988	351.56	1998	366.65	2008	385.59		
1968	323.04	1979	336.78	1989	353.07	1999	368.33	2009	387.37		
1969	324.62										

9. Education. Measure A – Level of Spend on Education

Purpose of Measure	To describe spend on education over time.
Measurement	Spend on education as a proportion of GDP. An increase indicates an improvement in intergenerational fairness. This is taken into account when the data are introduced into the Index.
Data Sources	UK Central Government and Local Authority Public Spending: http://www.ukpublicspending.co.uk/spending_chart_1900_2013UKp_13c1li011mcn_20t
Notes	Length of Data: From 1900. 2015 Index: 2013 data added.

Chart 16. Spend on education as a % of GDP

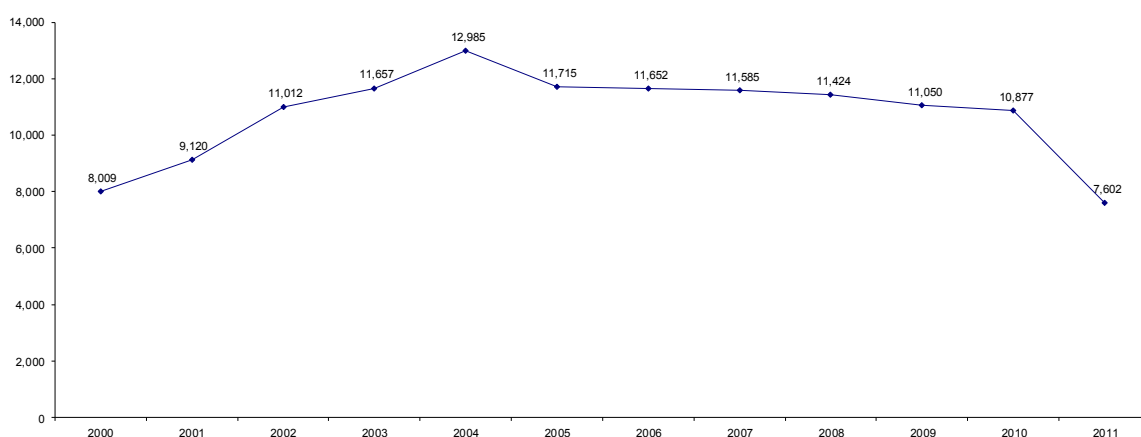


Year	% GDP	Year	% GDP	Year	% GDP	Year	% GDP	Year	% GDP
1900	1.36	1924	3.07	1948	3.60	1972	5.52	1996	4.67
1901	1.42	1925	3.01	1949	3.96	1973	5.58	1997	4.49
1902	1.49	1926	3.20	1950	4.23	1974	5.78	1998	4.45
1903	1.69	1927	3.18	1951	3.28	1975	6.51	1999	4.37
1904	1.89	1928	3.29	1952	3.37	1976	6.14	2000	4.37
1905	2.22	1929	3.21	1953	3.30	1977	5.64	2001	4.55
1906	2.25	1930	3.33	1954	3.34	1978	5.33	2002	4.75
1907	2.27	1931	3.81	1955	3.38	1979	5.09	2003	4.80
1908	2.46	1932	3.87	1956	3.63	1980	5.33	2004	5.07
1909	2.49	1933	3.56	1957	3.86	1981	5.41	2005	5.19
1910	2.46	1934	3.35	1958	3.93	1982	5.27	2006	5.25
1911	2.45	1935	3.34	1959	3.99	1983	4.88	2007	5.19
1912	2.40	1936	3.38	1960	4.06	1984	4.79	2008	5.49
1913	2.39	1937	3.31	1961	4.03	1985	4.53	2009	5.95
1914	2.41	1938	3.36	1962	4.43	1986	4.37	2010	5.90
1915	2.06	1939	3.26	1963	4.56	1987	4.36	2011	5.80
1916	1.64	1940	2.67	1964	4.61	1988	4.26	2012	5.34
1917	1.35	1941	2.14	1965	4.77	1989	4.19	2013	5.28
1918	1.34	1942	1.99	1966	5.00	1990	4.31		
1919	1.36	1943	2.06	1967	5.30	1991	4.43		
1920	1.84	1944	2.15	1968	5.35	1992	4.71		
1921	2.99	1945	2.35	1969	5.33	1993	5.00		
1922	3.52	1946	3.01	1970	5.39	1994	4.97		
1923	3.21	1947	3.36	1971	5.48	1995	4.92		

9. Education. Measure B – Cost to Graduates of Higher Education

Purpose of Measure	To assess the costs of Higher Education to graduates.
Measurement	The costs to graduates of Higher Education made up of: 1. (1998/99 to 2009/10 only) The average annual contribution to upfront Tuition Fees. 2. The average total amount repaid by Income Repayment Contingent (ICR) student loans borrowers in the first 10 years of repayments.
Data Sources	1. Tuition fee statistics (12 Jul 2013): www.parliament.uk/briefing-papers/SN00917.pdf (Table on page 4) 2. Repayments of ICR Student Loans borrowers 2000/0 onwards: http://www.slc.co.uk/official-statistics/full-catalogue-of-official-statistics/student-loans-debt-and-repayment.aspx Student Loans for HE in England: financial year 2013–14 http://www.slc.co.uk/media/775303/slcfr012014.pdf (page 24) Table 4A(iii): UK and EU: Average amount repaid by ICR Student Loans borrowers making repayments via HMRC. Full tables: http://www.slc.co.uk/official-statistics/student-loans-debt-and-repayment/england.aspx
Notes	Length of Data: 2000 graduate cohort onwards. 2015 Index: 2013/14 data added (delivering the 2011 cohort data).

Chart 17. Estimated costs of Higher Education to graduates based on combination of upfront tuition fees (1998/99 to 2009/10) and repayments of ICR student loans by repayment cohort⁵ (at current prices (£)).



Base Data – Estimated total costs of Higher Education to graduates by repayment cohort

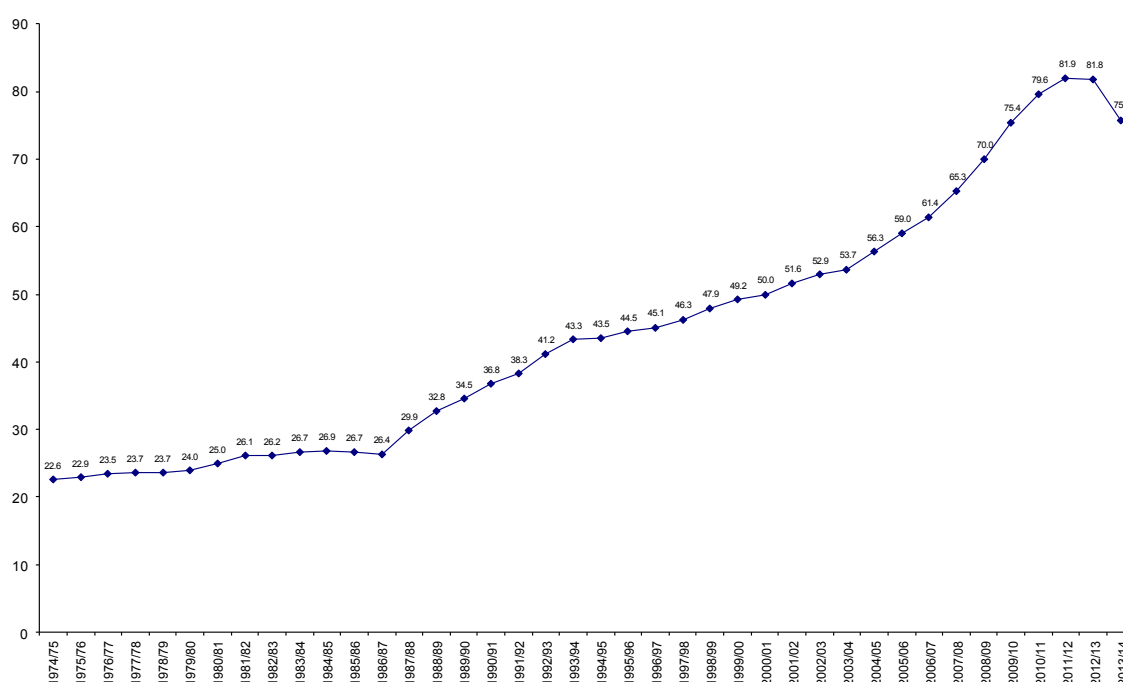
Repayment cohort	Resulting total		Repayment cohort	Resulting total
2000	£ 8,009		2006	£ 11,652
2001	£ 9,120		2007	£ 11,585
2002	£ 11,012		2008	£ 11,424
2003	£ 11,657		2009	£ 11,050
2004	£ 12,985		2010	£ 10,877
2005	£ 11,715		2011	£ 7,602

⁵ Repayment cohort. In essence this is the year of graduation. Repayments commence in the subsequent year. The latest available data consist of payment data from 2012/13. Repayment data have been used for up to a maximum of 10 years (cohorts 2000 to 2003). Cohorts are omitted where there is less than 3 years' worth of repayment data (2011/2012). For those cohorts with between 3 and 10 years' repayment history the projected total has been adjusted to take into account the likely cumulative payments for years 3 to 10, as exhibited by the 4 cohorts (2000 to 2003) which had completed 10 full years of repayments.

9. Education. Measure C – GCSE Pass Rate

Purpose of Measure	To assess educational performance over time.
Measurement	Proportion of students achieving 5 or more A* to C equivalent pass grades at GCSE in England. An increase indicates an improvement in intergenerational fairness. That has been taken into account when the data are introduced into the Index itself.
Data Sources	Statistics on Key Stage 4 results, including GCSEs. https://www.gov.uk/government/collections/statistics-gcse-key-stage-4 2013/14 Data (Revised data issued 25 January 2015): https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/406314/SFR_02_2015-revised_GCSE_and_equivalents.pdf
Notes	Length of data: From 1974/75. 2015 Index: 2013/14 added. Significant methodology changes have occurred in GCSE statistics. In order to aid consistency, the base chosen for the 2015 Index is the 2013 methodology (page 10, figure 3 Revised GCSE and equivalents results in England, 2013/14)

Chart 18. Proportion of students achieving 5 or more A* to C pass grades at GCSE/equivalent in England (All Schools)



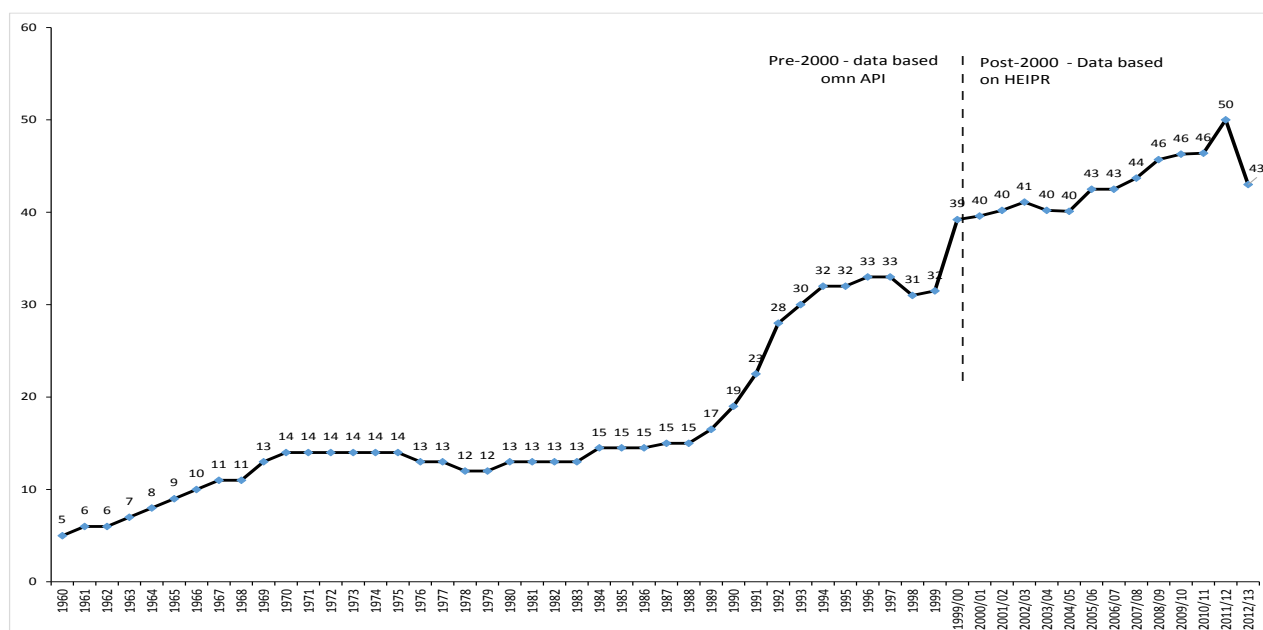
Base Data – Proportion of students achieving 5 or more A* to C pass grades at GCSE/equivalent in England (All Schools)

Year	%	Year	%	Year	%	Year	%
1974/75	22.6	1984/85	26.9	1994/95	43.5	2004/05	56.3
1975/76	22.9	1985/86	26.7	1995/96	44.5	2005/06	59.0
1976/77	23.5	1986/87	26.4	1996/97	45.1	2006/07	61.4
1977/78	23.7	1987/88	29.9	1997/98	46.3	2007/08	65.3
1978/79	23.7	1988/89	32.8	1998/99	47.9	2008/09	70.0
1979/80	24.0	1989/90	34.5	1999/00	49.2	2009/10	75.4
1980/81	25.0	1990/91	36.8	2000/01	50.0	2010/11	79.6
1981/82	26.1	1991/92	38.3	2001/02	51.6	2011/12	81.9
1982/83	26.2	1992/93	41.2	2002/03	52.9	2012/13	81.8
1983/84	26.7	1993/94	43.3	2003/04	53.7	2013/14	75.8

9. Education. Measure D – Participation in Higher Education

Purpose of Measure	To assess levels of participation in Higher Education (HE).
Measurement	Participation in Higher Education: 1. (1960 to 2000 only) Age Participation Index (API) for all Great Britain; % of each cohort undertaking HE 2. (2000 to present) Higher Education Initial Participation Rate (HEIPR), for England; % of young people (17–30) with at least 6 months HE experience.
Data Sources	1. 1960 to 2000. BIS research paper No. 112 from August 2013 ⁶ 2. 2000 to 2005/06. Participation rates in higher education: academic years: http://www.ihep.org/assets/files/gcfp-files/UKPARTICRATES.pdf 3. 2006/07 to 2012/13. Participation rates in higher education: https://www.gov.uk/government/collections/statistics-on-higher-education-initial-participation-rates 2012/13 data: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/347868/HEIPR_TABLES_2012-13.xls (Tab 1)
Notes	Length of Data: 1960 onwards. 2015 Index: 2012/13 data added (provisional).

Chart 19. % Participation in HE; 1960 to 2000 based on API; 2000 to present based on HEIPR



Year	%	Year	%	Year	%	Year	%	Year	%	Year	%
1960	5.0	1970	14.0	1980	13.0	1990	19.0	1999/00	39.2	2009/10	46.2
1961	6.0	1971	14.0	1981	13.0	1991	22.5	2000/01	39.6	2010/11	46.3
1962	6.0	1972	14.0	1982	13.0	1992	28.0	2001/02	40.2	2011/12	49.5
1963	7.0	1973	14.0	1983	13.0	1993	30.0	2002/03	41.1	2012/13	43.0
1964	8.0	1974	14.0	1984	14.5	1994	32.0	2003/04	40.2		
1965	9.0	1975	14.0	1985	14.5	1995	32.0	2004/05	40.1		
1966	10.0	1976	13.0	1986	14.5	1996	33.0	2005/06	42.5		
1967	11.0	1977	13.0	1987	15.0	1997	33.0	2006/07	42.5		
1968	11.0	1978	12.0	1988	15.0	1998	31.0	2007/08	43.6		
1969	13.0	1979	12.0	1989	16.5	1999	31.5	2008/09	45.6		

⁶ The impact of university degrees on the lifecycle of earnings: some further analysis: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/229498/bis-13-899-the-impact-of-university-degrees-on-the-lifecycle-of-earnings-further-analysis.pdf



How the Index is Created using these Component Measures

The Index has been created by taking each of the nine core content areas, setting the values for them in the year 2000 at an Index figure of 100, and expressing them in terms of the percentage variation from the level recorded in 2000. IF has gone back in time as far as 1990 and forward in time to 2015 for as many of the measures as possible.

Where a content area contains two or more component measures, the average of variation of these component measures has been used. This has been done in order not to give undue weight to any particular content area.

Once the level of variation of each of the content areas has been identified, the unweighted arithmetic average of the changes across the nine content areas has been worked out and the overall IF Index figure is an expression of that change forward in time and backward in time from the base figure of 100 in the year 2000.

An increase in the Index represents an increase in intergenerational unfairness.

The table below shows the variation for each of the content areas from the level of 100 in the year 2000 and the resulting IF Index figure for each year.

	1. Unem- ployment	2. Housing	3. Pensions	4. Govt Debt	5. Democracy	6. Health	7. Income	8. Environmental Impact	9. Education	IF Index 2015
1990	65	76	75	61	81			96	152	87
1991	70	83	76	55	81			96	144	87
1992	75	89	75	59	81			102	132	87
1993	77	96	82	71	83			103	121	91
1994	80	93	90	87	86			101	107	92
1995	82	89	91	100	88			100	101	93
1996	84	88	92	107	91			100	99	94
1997	88	97	93	109	94			100	98	97
1998	94	95	94	107	96			101	98	98
1999	100	98	97	104	99			100	99	99
2000	100	100	100	100	100	100	100	100	100	100
2001	105	102	101	89	101	100	97	98	99	99
2002	109	107	105	88	102	104	96	98	92	100
2003	109	112	110	94	104	105	96	99	90	102
2004	113	118	115	101	105	106	98	98	90	105
2005	120	124	118	111	105	108	97	98	93	108
2006	124	125	127	117	105	108	98	98	97	111
2007	120	128	136	119	103	109	99	98	97	112
2008	125	127	154	121	102	111	100	98	99	115
2009	124	125	149	153	101	114	97	97	95	117
2010	117	124	149	200	100	118	98	96	92	121
2011	119	138	178	222	105	120	99	93	88	129
2012	122	135	165	236	106	121	102	94	86	130
2013	125	136	167	249	118	123	102	91	85	133
2014	127	140	181	260	102	124	103	92	85	135
2015	129	139	190	265	103	126	102	92	79	136

Chart 20. IF Index and the Nine Content Areas – 2000 to 2015
(from the Index base of 100 in the year 2000)

