

Personal Well-being in the UK, 2013/14



Coverage: UK

Date: 24 September 2014

Geographical Areas: Local Authority and County, Region

Theme: People and Places

1. Key points

- The latest personal well-being estimates suggest year-on-year improvements in reported well-being since 2011/12, when ONS started to collect the data.
- Over this three-year period, there have been small but significant improvements in average personal well-being ratings in each UK country and across all four measures of well-being.
- The proportions of people reporting the highest levels of personal well-being have grown since 2011/12 for each of the four measures. The greatest gain has been in reduced anxiety levels. The proportion of people in the UK reporting very low anxiety grew between 2011/12 and 2013/14.
- There were also reductions in the proportions of people in the UK rating their well-being at the lowest levels for all of the measures.
- In 2013/14, people in Northern Ireland gave higher ratings for each aspect of their personal well-being on average than those in any other UK country. This has been the case in each year since ONS began collecting the data.
- In 2013/14, people in London reported lower personal well-being on average for each of the measures than the equivalent UK averages, but since 2011/12 London has had improvements across all the average measures of well-being.
- Since 2011/12, average ratings of personal well-being have improved significantly across all measures in the West Midlands. The region also had the lowest average anxiety rating of any English region in 2013/14.

2. Summary

The personal well-being estimates in this bulletin are based on data from the Annual Population Survey (APS) which includes responses from around 165,000 people. This provides a large representative sample of adults aged 16 and over living in residential households in the UK.

In 2013/14, the average ratings for each of the four measures of personal well-being were:

- 7.5 points out of 10 for life satisfaction (up 0.06 points on the previous year)
- 7.7 out of 10 for feeling that what one does in life is worthwhile (up 0.05 points on the previous year)
- 7.4 out of 10 for happiness yesterday (up 0.09 points on the previous year)
- 2.9 out of 10 for anxiety yesterday (down 0.10 points on the previous year)

The year-on-year differences are small but statistically significant in each case. These latest estimates suggest improvement in the past year in the average ratings of personal well-being in the UK across all of the measures.

The proportion of people giving the highest ratings for each aspect of personal well-being also increased significantly in 2013/14, compared to the previous year.

There were significant reductions in the proportions of people giving the lowest ratings of happiness (down 0.7 percentage points) and highest ratings of anxiety (down 0.9 percentage points).

The proportions rating their life satisfaction and the sense that what they do in life is worthwhile at the lowest levels remained stable in 2013/14, and were not significantly different to the previous year.

Also released today:

[8 insights into personal well-being](#) showing the latest UK estimates and changes since 2012/13

[Interactive maps](#) for exploring the personal well-being estimates in each UK country, the English regions and more local areas of the UK

Interactive graphs for exploring the personal well-being estimates using different [thresholds](#), [averages](#) or [distributions](#)

Short story exploring ['has personal well-being improved for people in and out of work?'](#)

3. Personal well-being in the UK, 2013/14

This bulletin is published as part of the Office for National Statistics (ONS) Measuring National Well-being programme. It presents annual estimates of personal well-being in different areas of the UK for April 2013 to March 2014. It also compares the latest results to previous ONS personal well-being estimates covering the same periods in 2011/12 and 2012/13 (ONS, 2012; ONS, 2013b). The latest estimates of personal well-being among people with different characteristics or circumstances are also included in the reference tables with this release and in a separate publication, [National Well-being Measures, September 2014](#).

The personal well-being estimates in this bulletin are based on data from the Annual Population Survey (APS) which includes responses from around 165,000 people. This provides a large representative sample of adults aged 16 and over living in residential households in the UK.

Personal well-being, people's thoughts and feelings about their own quality of life, is an important aspect of national well-being. It is part of a much wider initiative in the UK and internationally to look beyond GDP to measure what really matters to people. ONS regularly monitor 41 different headline measures in areas such as the natural environment, our relationships, health, what we do, where we live, personal finances, the economy, education and skills, governance and personal well-being to measure the progress and well-being of the nation. The latest updates to these headline measures are available in [National Well-being Measures, September 2014](#). Section 7 provides further information about how the well-being data are used.

The [UK Statistics Authority](#) has designated the ONS personal well-being statistics as National Statistics, signifying compliance with the [Code of Practice](#) for Official Statistics.

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods; and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

3.1 How personal well-being is measured

ONS began measuring personal well-being in April 2011. Since then, the APS has included four questions which are used to monitor personal well-being in the UK:

1. Overall, how satisfied are you with your life nowadays?
2. Overall, to what extent do you feel the things you do in your life are worthwhile?
3. Overall, how happy did you feel yesterday?
4. Overall, how anxious did you feel yesterday?

People are asked to give their answers on a scale of 0 to 10, where 0 is 'not at all' and 10 is 'completely'. These questions allow people to make an assessment of their life overall, as well as providing an indication of their day-to-day emotions. Although 'yesterday' may not be a typical day for an individual, the large sample means that these differences 'average out' and provide a reliable assessment of the self-reported anxiety and happiness of the adult population in the UK over the year.

It is important to remember that the findings presented are based on survey estimates and are subject to a degree of uncertainty. They should therefore be interpreted as providing a good estimate, rather than an exact measure of personal well-being in the UK. For more information about how the statistics are produced and implications for the accuracy of the estimates, please see section 8 (Methodology).

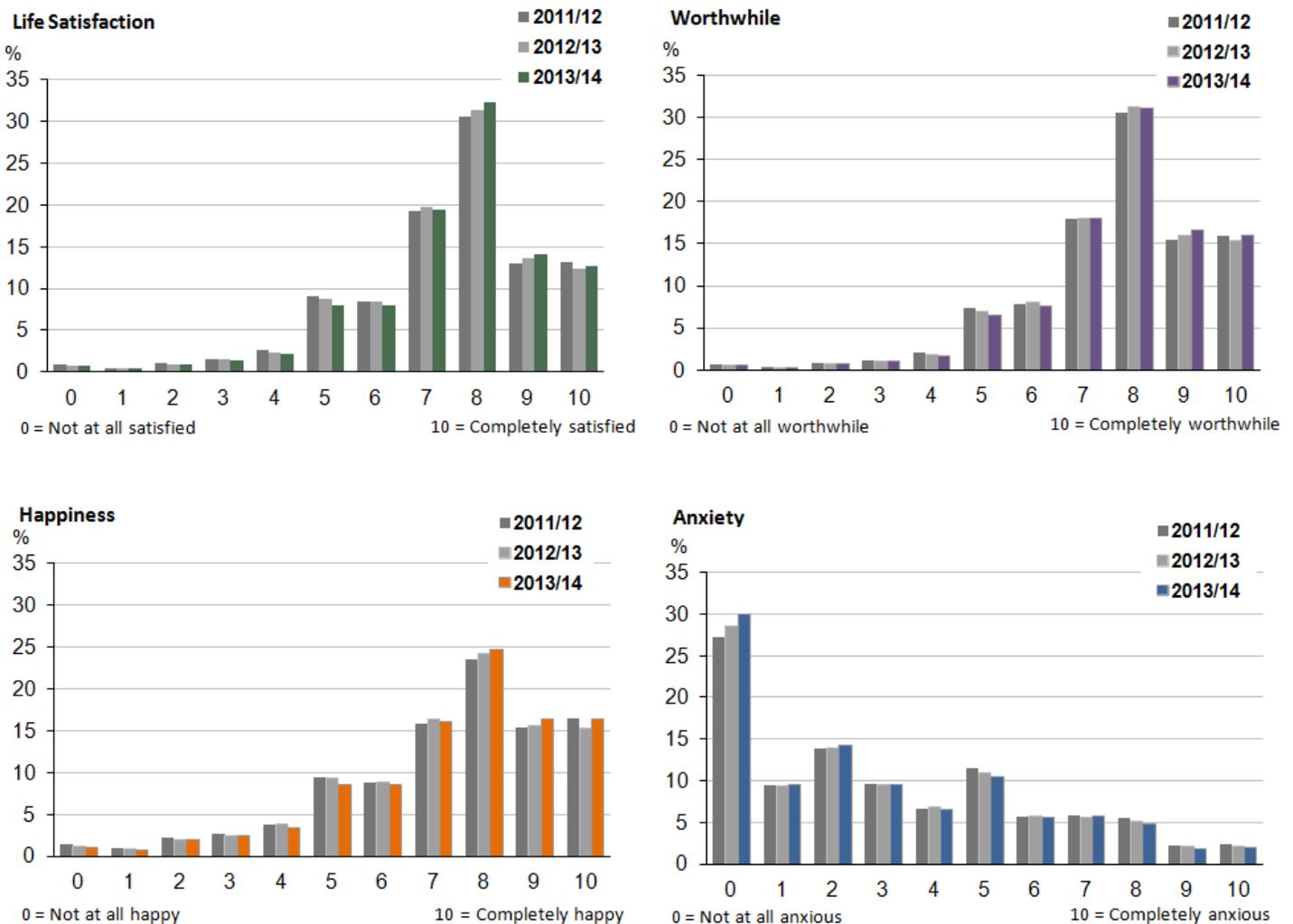
Throughout, differences in the personal well-being estimates over time are described only where they are statistically significant. That is where the change is not likely to be only due to variations in sampling, but to a real change over time. A 5% standard is used for “not likely”. This means that there is no more than a 5% chance that a difference will be classified as significant when in fact there is no underlying change. The country and regional estimates for 2013/14 are compared to the equivalent estimates for the UK and discussed only where a statistically significant difference is found (see section 8 for further details).

3.2 How people in the UK rated their personal well-being in 2013/14

Figure 1 shows how people rated each aspect of their personal well-being based on the 0 to 10 scale in each of the three years.

Figure 1: Distribution of personal well-being ratings, 2011/12 - 2013/14 (1)

United Kingdom



Source: Annual Population Survey (APS) - Office for National Statistics

Notes:

1. Adults aged 16 and over were asked 'Overall, how satisfied are you with your life nowadays?', 'Overall, to what extent do you feel the things you do in your life are worthwhile?', 'Overall, how happy did you feel yesterday?' and 'Overall, how anxious did you feel yesterday?' where 0 is 'not at all' and 10 is 'completely'.

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People in the UK tend to rate their life satisfaction, feeling that what they do in life is worthwhile and happiness at the high end of the scale. This suggests high personal well-being on these measures. People most commonly rated each of these questions at 8 out of 10. A higher proportion rated their life satisfaction and feelings that what they do in life are worthwhile at 8 out of 10 (just over 30% in each case) than rated their happiness levels this way (just under 25%).

The pattern for how people rate their anxiety is different to the other questions. A much higher proportion of people rate their anxiety at the lower end of the scale (as 0 or 1), but more also rate their anxiety levels in the middle of the scale (as 5 out of 10). In each year, the majority of people rated their anxiety at a low level between 0 and 3. The most common response was 0 out of 10, which indicates that they felt 'not at all anxious' on the previous day.

This pattern of personal well-being ratings in the UK has been fairly consistent for each of the three years with small (but statistically significant) variations emerging year-on-year.

Explore the data in this section using:

[Personal Well-being distribution interactive chart](#)

3.3 Average ratings of personal well-being in the UK

Average ratings of personal well-being are a simple method of drawing comparisons over time. In 2013/14, the average ratings for each of the four measures of personal well-being were:

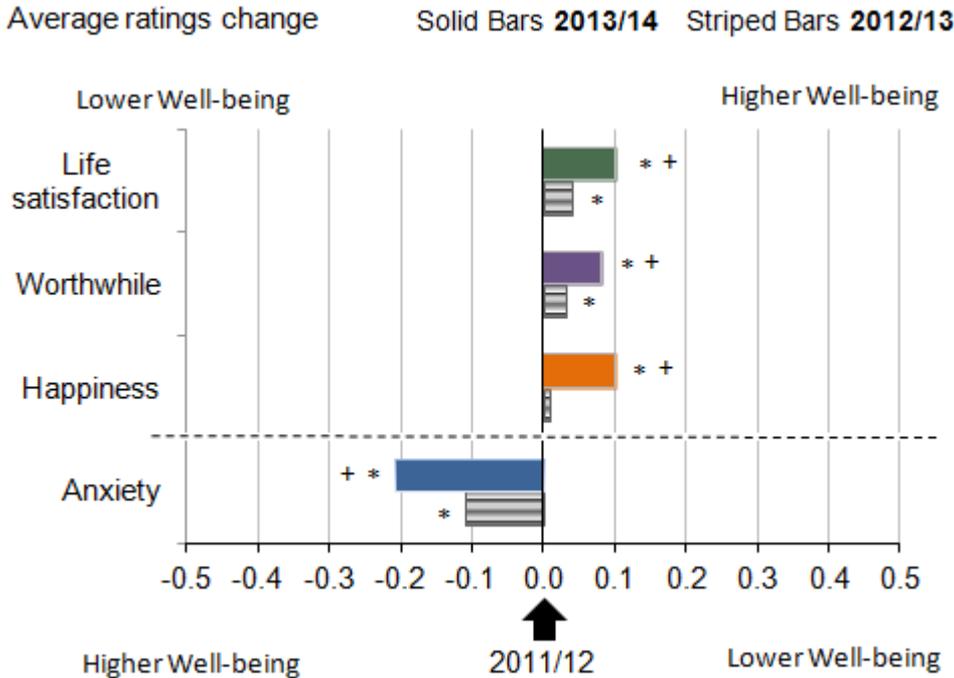
- 7.5 points out of 10 for life satisfaction (up 0.06 points on the previous year)
- 7.7 out of 10 for feeling that what one does in life is worthwhile (up 0.05 points on the previous year)
- 7.4 out of 10 for happiness yesterday (up 0.09 points on the previous year)
- 2.9 out of 10 for anxiety yesterday (down 0.10 points on the previous year)

The year-on-year differences are small but statistically significant in each case. In summary, the latest estimates suggest improvement in the past year in the average ratings of personal well-being in the UK across all of the measures.

Comparing the latest average estimates with those from 2011/12, there have also been small but significant improvements in personal well-being across all four measures (see **Figure 2**).

Figure 2: Change in average annual UK personal well-being ratings compared to 2011/12

United Kingdom



Source: Annual Population Survey (APS) - Office for National Statistics

Notes:

1. * Indicates significant from 2011/12 at the 0.05 level.
2. + Indicates significant from 2012/13 at the 0.05 level.

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3.4 Highest and lowest personal well-being in the UK

Average ratings of personal well-being provide a useful summary of overall levels of reported well-being, but they do not tell the whole story. Another key consideration is whether people assess their personal well-being in similar ways across areas and population groups and how this changes over time. Here, we look at the proportions of people in the UK who rated their well-being at the highest and lowest levels in 2013/14, compared to the previous two years.

3.4.1 Measuring ‘highest’ and ‘lowest’ personal well-being

The highest levels of personal well-being for life satisfaction, worthwhile and happiness are defined as ratings of 9 or 10. For reported anxiety, ratings of 0 or 1 are used because lower levels of anxiety suggest better personal well-being.

On the other hand, lowest levels of personal well-being are defined as ratings of 0 to 4 for life satisfaction, worthwhile and happiness. For reported anxiety, ratings of 6 to 10 are used because higher levels of anxiety suggest lower personal well-being.

3.4.2 Highest and lowest personal well-being in the UK, 2013/14

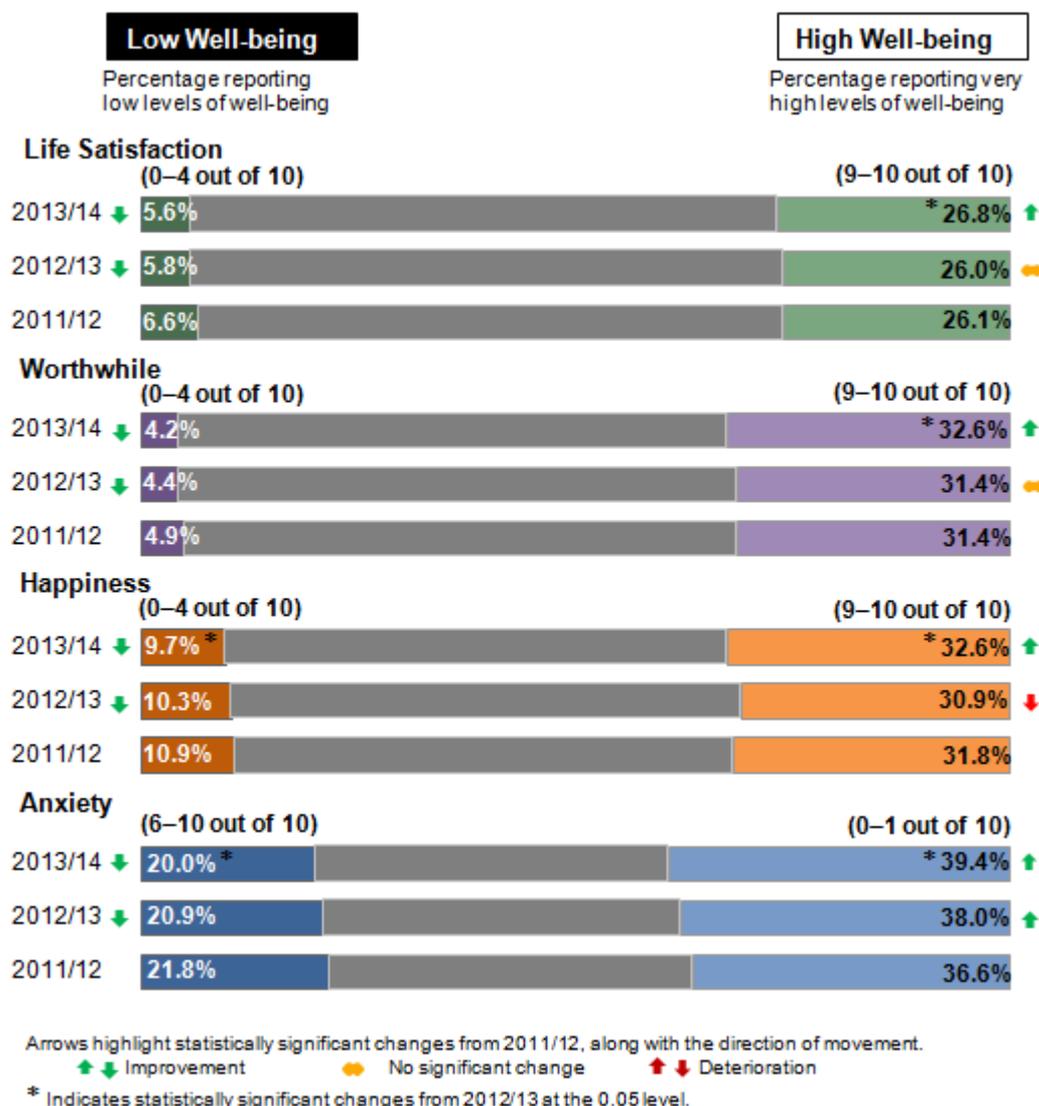
Figure 3 shows the percentages of people in the UK reporting the highest and lowest levels of well-being in 2013/14 and how this has changed since 2011/12.

For the picture of highest and lowest well-being for 2013/14:

- 26.8% rated their life satisfaction at the highest levels compared to 5.6% at the lowest;
- 32.6% rated their sense that what they do in life is worthwhile at the highest levels, compared to 4.2% at the lowest levels;
- 32.6% rated their happiness at the highest levels, while 9.7% rated their happiness at the lowest;
- 39.4% rated their anxiety at the lowest levels, while 20% rated it at the highest levels.

Figure 3: Percentages rating personal well-being at highest and lowest levels, 2011/12-2013/14

United Kingdom



Source: Annual Population Survey (APS) - Office for National Statistics

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3.4.3 Changes over time in highest and lowest personal well-being in the UK

The proportion of people giving the highest ratings for each aspect of personal well-being increased significantly in 2013/14, compared to the previous year. This suggests that more people in the UK are feeling positive about their lives and is consistent with the higher average ratings of personal well-being noted in the previous section.

On the other hand, for those reporting lowest personal well-being, the picture is more mixed. There were significant reductions in the proportions of people giving the lowest ratings of happiness (down 0.7 percentage points) and highest ratings of anxiety (down 0.9 percentage points). The proportions rating their life satisfaction and the sense that what they do in life is worthwhile at the lowest levels remained stable in 2013/14, compared to the previous year.

Looking at how ratings have changed over the three-year period, there have been statistically significant gains in the proportions of people reporting very high personal well-being for each of the four measures. The smallest gain was in the proportion of people giving the highest ratings of life satisfaction (up 0.64 percentage points). The largest gain was in the proportion of people rating their anxiety as very low (up 2.82 percentage points).

The proportions of people rating their personal well-being at the lowest levels decreased significantly for all four measures. The reductions in very low personal well-being ratings ranged from 0.67 percentage points in the case of low ratings for 'worthwhile' to 1.76 percentage points in the case of very high ratings of anxiety.

Overall, these estimates suggest improvements in reported personal well-being since 2011/12. These are shown in both the greater proportions of people giving high ratings for each aspect of well-being and in the smaller proportions giving low ratings.

3.5 Possible reasons for the improvement in reported personal well-being in the UK

The latest picture of personal well-being is more positive across all of the measures compared to 2012/13, and even more so compared to 2011/12. This is only the third year ONS have collected the personal well-being data, so it is too early to speculate on trends over time. However, one possible reason for the small scale improvements in personal well-being may be the more positive economic outlook in the UK.

ONS recently published analysis (ONS, 2013a) looking at what matters most to personal well-being. The findings, similar to other research in this area, suggested that self-assessed health, employment status and relationship status are particularly strongly related to personal well-being. Further analysis (ONS, 2014a) also added household income and household expenditure to this list, but found they were not as strongly linked to well-being as some other aspects of life, such as health and employment.

Other academic research also suggests that, apart from individual circumstances, aspects of the wider economic environment such as unemployment and inflation are negatively related to national ratings of well-being (Blanchflower et al, 2013). Comparing the relative influence of both inflation and unemployment rates on life satisfaction ratings across countries and over time, the study concluded that: "In the Great Recession, unemployment has been a much bigger problem than inflation for ordinary people."

This suggests that as unemployment rates fall in the UK, we should expect to see life satisfaction rise.

The Economic Review (ONS, 2014b) recently summarised the improved labour market conditions in the UK for the period covered by the latest personal well-being estimates:

“The unemployment rate for those aged 16 plus, which fell just 0.4 percentage points in the year to April 2013, has fallen a further 1.2 percentage points over the last year to 6.6% in the 3 months ending in April 2014...The employment rate has risen by 1.4 percentage points over the last year reflecting an increase in employment of 780,000.”

The continuing fall in UK unemployment rates over the past two years appears to be mirrored by the small but significant improvements in the personal well-being estimates over this period.

Some research evidence (Lim and Laurence, 2013) suggests that there may be both direct and indirect effects of a recession and unemployment on personal well-being. For example, people’s evaluations of their lives may be affected directly by their own experiences of unemployment and its effects such as reduced financial security, loss of social contacts, daily structure, and sense of meaning and purpose.

Further to this, during a recession, people who are employed may also become fearful of losing their job (Blanchflower, 1991). Other research has also found that life satisfaction is reduced among those living with unemployed people (Lim and Laurence, 2013). Although the effects are less severe than for the unemployed person, these studies suggest that the negative impacts of unemployment on personal well-being are spread out beyond those directly affected by job loss. Also, the increased financial anxiety linked with bad economic news may have an indirect effect on how people rate their personal well-being. The opposite may be true as the media focus is on economic recovery.

Other non-official sources suggest that people in the UK are beginning to feel more positive about the economy and about their own financial security. For example, a monthly survey of 2000 UK consumers carried out by Which? found statistically significant increases between March 2013 and March 2014 in the proportions of people describing the economy as good (up 13 percentage points) and expecting their personal finances to get better (up 3 percentage points).

These findings suggest that, at the national level, people may be feeling more positive about their lives as unemployment rates fall, the economic news becomes more positive and their expectations for the future improve.

This may be the case even if they may not yet have seen much improvement in their own circumstances. For example, some estimates suggest that real wages which take inflation into account have fallen continuously since 2009 (ONS, 2014b).

The improvement in the national estimates of personal well-being may also mask important differences between people in different economic and employment circumstances. [A short story](#) also published by ONS today looks in more detail at personal well-being ratings in relation to employment status and how they have changed since 2011/12.

4. Personal well-being across UK countries

This section examines the latest findings on personal well-being across UK countries. Interactive charts and graphs are also available to explore the findings further:

[Personal Well-being average interactive chart](#)

[Personal Well-being thresholds interactive chart](#)

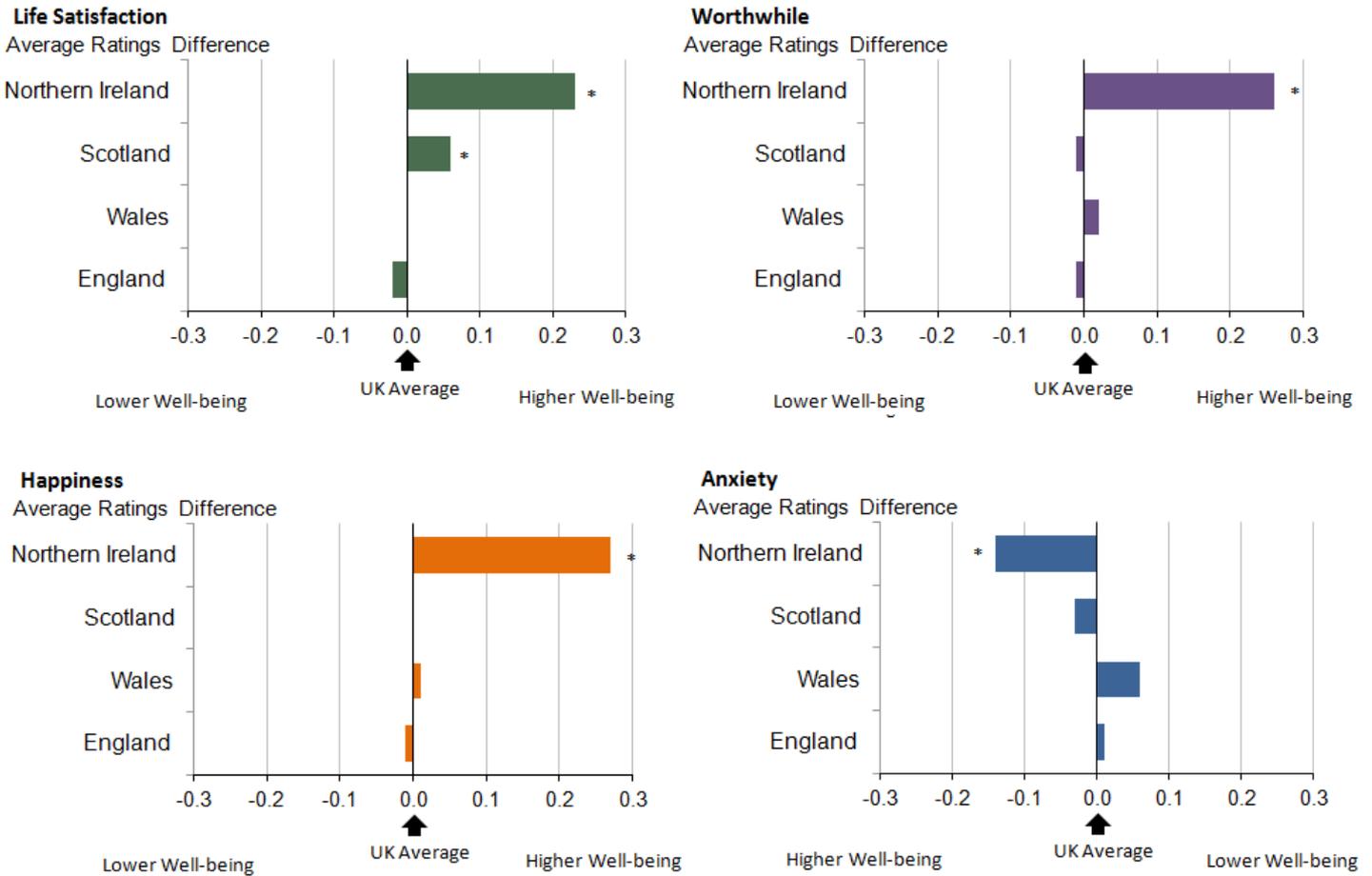
4.1 Average reported personal well-being in UK countries

Figure 4 shows the latest average ratings of personal well-being across the UK countries and how they compare to the UK averages.

- In 2013/14, Northern Ireland and Scotland had the highest average ratings of life satisfaction (7.7 and 7.6 out of 10, respectively). These were above the UK average (7.5).
- Northern Ireland was the only country where average ratings for worthwhile (8.0), happiness (7.7) and anxiety (2.8) were significantly different to the UK averages. Average reported happiness and sense that what one does in life is worthwhile were above the UK averages, while average reported anxiety in Northern Ireland was lower than in the UK.

Figure 4: Average personal well-being ratings compared to UK averages: by country, 2013/14

United Kingdom



Source: Annual Population Survey (APS) - Office for National Statistics

Notes:

- * Indicates statistical significance determined on the basis of non-overlapping confidence intervals.

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4.2 Changes over time in average reported personal well-being in the UK countries

Comparing the latest average estimates for each country to the 2012/13 estimates, key points include (see **Figure 5**):

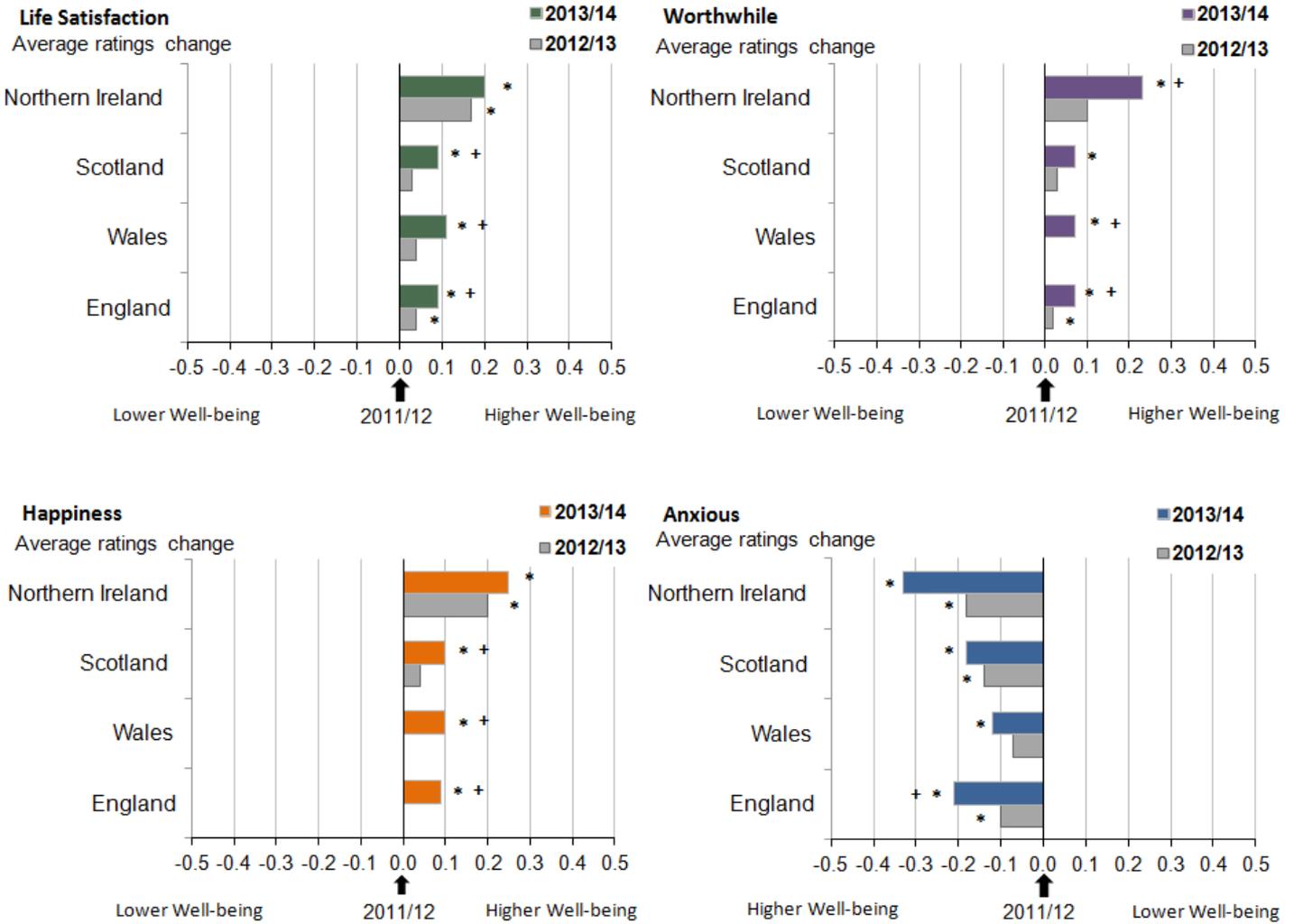
- England and Wales had significant improvements in the average estimates of life satisfaction, the sense that what we do in life is worthwhile and happiness.
- Scotland had an increase in average reported life satisfaction and happiness while Northern Ireland had an increase in average ratings that what we do in life is worthwhile.

- England, was the only country with any significant change in average anxiety ratings, with a reduction in reported anxiety levels.

Since 2011/12, when ONS first collected the personal well-being data, there have been significant improvements across all of the measures and in each of the UK countries.

Figure 5: Change in annual average UK personal well-being ratings compared to 2011/12: by country

United Kingdom



Source: Annual Population Survey (APS) - Office for National Statistics

Notes:

1. * Indicates significant from 2011/12 at the 0.05 level.
2. + Indicates significant from 2012/13 at the 0.05 level.

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4.3 Highest and lowest ratings of personal well-being across UK countries

This section provides the latest estimates of the proportions of people in each country reporting the highest and lowest levels of personal well-being.

For concentrations of highest well-being across the UK countries:

- In 2013/14, England, Scotland and Wales all had similar proportions of people reporting the highest levels of life satisfaction, sense that what they do in life is worthwhile, and happiness.
- Northern Ireland had the highest percentages of people rating life satisfaction, worthwhile and happiness as very high. It was the only country which was significantly different to the UK (36.4% rated their life satisfaction as 9 or 10 in Northern Ireland compared to 26.8% in the UK).
- In 2013/14, Scotland was the only country with a greater proportion of people reporting very low anxiety than the equivalent UK percentage (40.8% in Scotland compared to 39.4% in the UK).

For concentrations of lowest well-being across the UK countries:

- None of the countries had a greater proportion of people rating any aspect of personal well-being as very low than the equivalent proportions for the UK.

4.4 Changes over time in highest and lowest personal well-being across the UK countries

Comparing the latest estimates of highest well-being for each country to the 2012/13 estimates, key points include:

- The percentages of people giving the highest ratings for each aspect of well-being either increased or remained stable in all countries.
- England was the only country with significant increases in the percentages of people reporting the highest well-being on all four measures compared to the previous year. It was also the only country in which the proportion reporting low anxiety grew.
- Wales and Northern Ireland also had significant increases in the proportions of people rating their personal well-being as very high on two of the four measures
- Scotland remained stable on every measure over this period.

Comparing the latest estimates of lowest well-being for each country to the 2012/13 estimates, key points include:

- Only Wales and England had any significant changes in the proportions of people reporting very low well-being over this period. In Wales, there were significant reductions in the proportions of people rating their life satisfaction and happiness as very low. In England, there were reductions in the proportions of people rating happiness as very low and anxiety as very high.
- Scotland remained stable in the proportions of people rating their well-being as very low across all measures.

Since 2011/12, when ONS first collected this data, there have been changes in the lowest and highest personal well-being ratings in each UK country (see **Figure 6**).

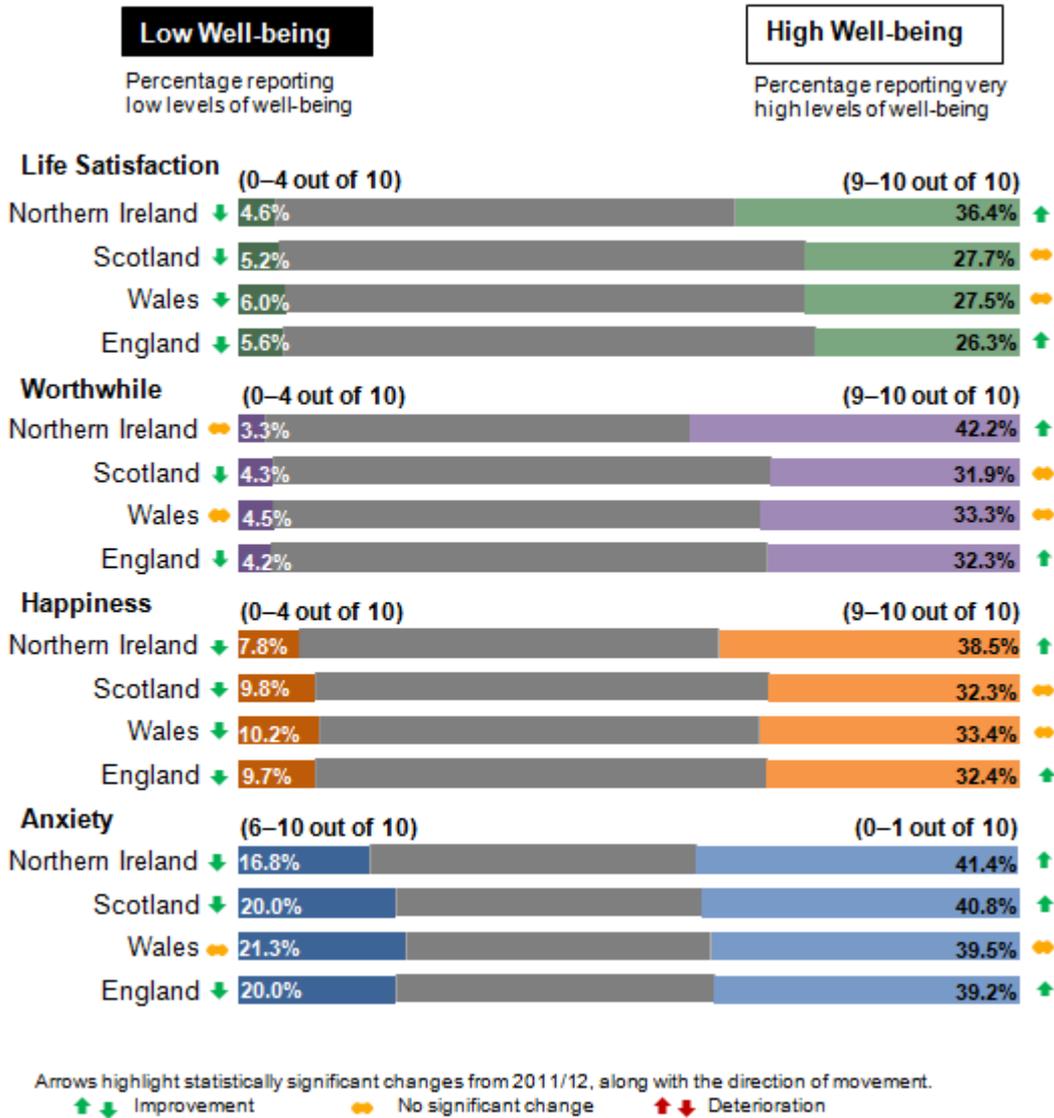
- Northern Ireland and England have each had significant increases in the proportions of people reporting very high well-being across all four measures.
- In Scotland, the proportion reporting very low anxiety has grown. There were no significant changes in the proportions of people reporting highest well-being on any other measures.
- In Wales, the proportion of people reporting very high well-being remained stable.

The changes were more striking in relation to the proportions of people reporting lowest well-being over this period. For example:

- In all UK countries, there were significant reductions in the proportions of people reporting very low life satisfaction and happiness. Scotland and England also had significant reductions in the proportions giving very low ratings for the sense that what they do in life is worthwhile.
- There were significant reductions in the proportions rating their anxiety as very high in Northern Ireland, Scotland and England. Wales remained stable in the proportion reporting high anxiety.

Figure 6: Percentages rating personal well-being at highest and lowest levels: by country, 2013/14 and change since 2011/12

United Kingdom



Source: Annual Population Survey (APS) - Office for National Statistics

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5. Personal well-being in the English regions

This section focuses on personal well-being across the English regions in 2013/14 and changes over time. Previous analysis by ONS (ONS, 2013c) found that after taking account of a range of characteristics relating to individuals and where they live, the region where we live and whether we live in an urban or rural area are related to personal well-being. However, the effect is not as strong as other aspects of life, such as employment situation, for example.

As the differences between regions may not be statistically significant, comparisons are made between each region and the equivalent UK figure. They are commented on only where there is a statistically significant difference (Section 8, Methodology).

5.1 Average personal well-being ratings in the English regions

The average ratings across the regions for each measure of personal well-being in 2013/14 are shown in **Figure 7**, as well as how they compare to the UK averages. Regions where average ratings were significantly above the UK averages include the following:

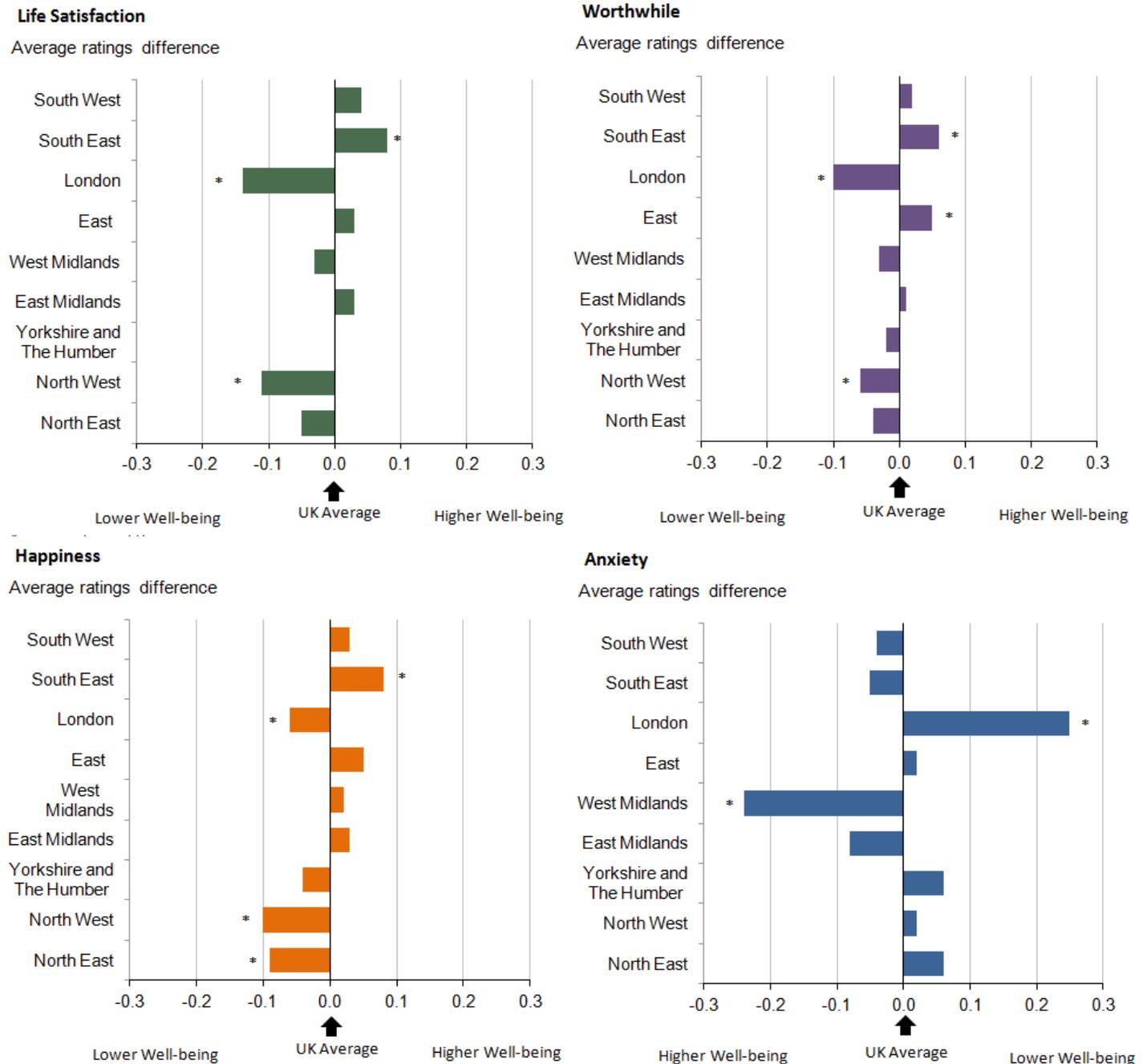
- The South East had higher average ratings of life satisfaction, sense that what we do in life is worthwhile and happiness than the UK (average life satisfaction was 7.6 and happiness 7.5 compared to 7.5 and 7.4 respectively for the UK).
- The East of England had higher average ratings for the sense that what one does in life is worthwhile than the UK (7.8 in the East of England compared to 7.7 for the UK).
- The West Midlands was the only region with a lower average anxiety rating than the UK (2.7 compared to 2.9 for the UK).

Regions where average ratings were significantly below the UK averages include the following:

- People in London reported lower personal well-being on average for every measure than the UK. For example, life satisfaction was 7.4 compared to 7.5 for the UK, and average reported anxiety in London was 3.2 compared to 2.9 for the UK.
- The North West also had lower average ratings than the UK for life satisfaction, the sense that what we do in life is worthwhile and happiness. For example, in the North West, the average happiness rating was 7.3 compared to 7.4 in the UK. Average reported anxiety levels in the North West did not differ significantly to the UK average.
- People in the North East also had lower average happiness ratings than the UK (7.3 compared to 7.4 for the UK). Average ratings for other aspects of well-being were not significantly different to the UK averages.

Figure 7: Average personal well-being ratings compared to UK averages: by region, 2013/14

United Kingdom



Source: Annual Population Survey (APS) - Office for National Statistics

Notes:

- * Indicates statistical significance determined on the basis of non-overlapping confidence intervals.

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5.2 Changes over time in average personal well-being ratings in the English regions

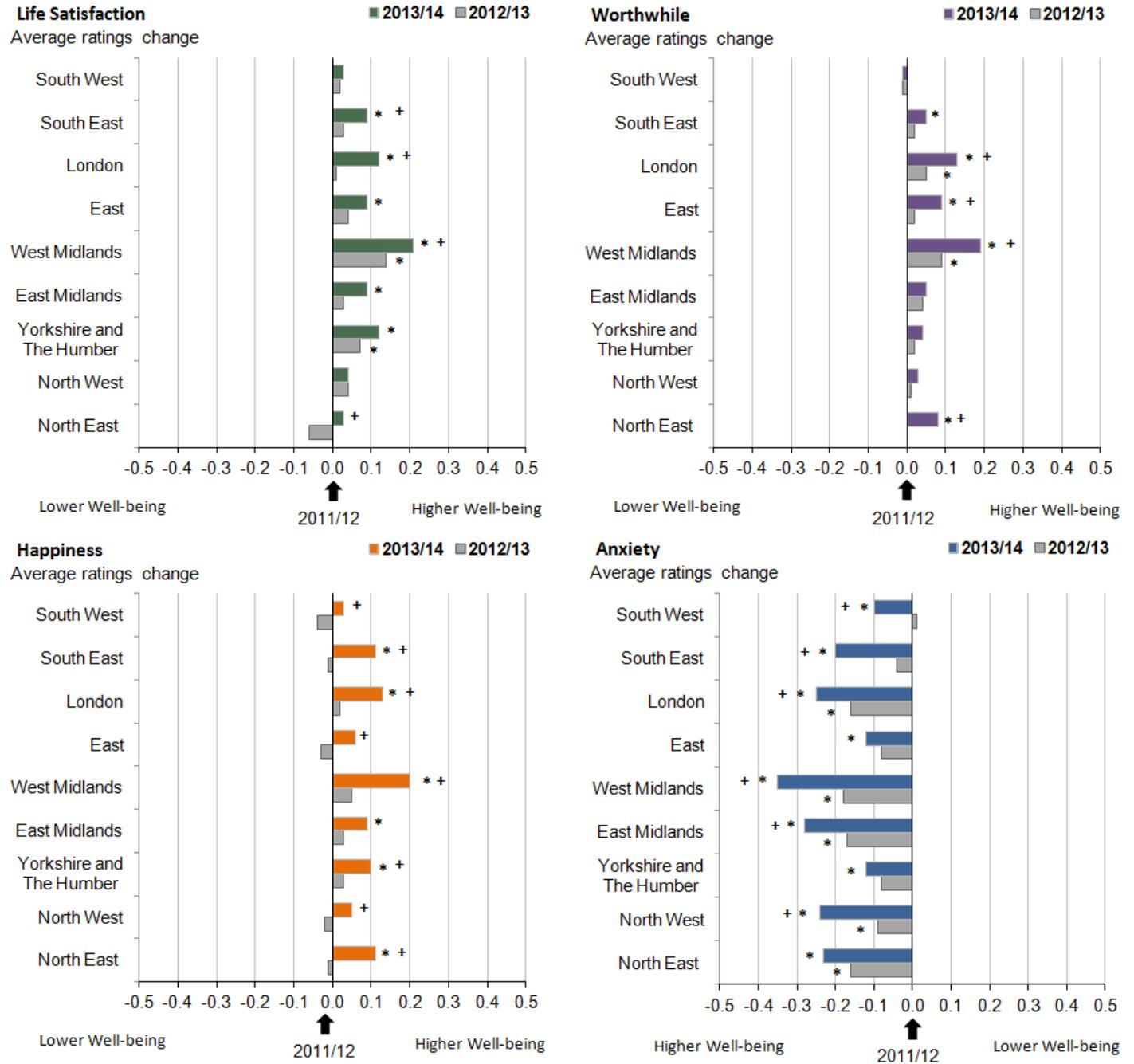
Comparing the latest average estimates for each region to the 2012/13 estimates, many regions had higher average ratings for the positive aspects of well-being and reductions in average reported anxiety. This suggests small but widespread improvements in personal well-being across the English regions.

Since 2011/12, when ONS first collected these data, the following summarises the changes in the regional average ratings (see **Figure 8**):

- This pattern of small improvements in average reported personal well-being has continued for two years. Average personal well-being ratings have not deteriorated significantly in any region.
- Average reported well-being improved on all measures in London, the South East, and the West Midlands.
- The East of England saw a significant improvement in average reported life satisfaction, sense that what we do in life is worthwhile and a reduction in anxiety levels.
- In some areas, average personal well-being has remained largely stable. For example, the North West has not had any significant improvement in average ratings of life satisfaction, happiness or feelings that what we do in life is worthwhile since 2011/12. There have been significant reductions in anxiety year-on-year since 2011/12.

Figure 8: Change in annual average personal well-being ratings: by region

United Kingdom



Source: Annual Population Survey (APS) - Office for National Statistics

Notes:

1. * Indicates significant from 2011/12 at the 0.05 level.
2. + Indicates significant from 2012/13 at the 0.05 level.

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5.3 Highest and lowest personal well-being in the English regions in 2013/14

This section considers whether the highest and lowest reported personal well-being is spread evenly across the regions or is concentrated in certain areas.

The percentages of people in each region reporting the highest well-being in 2013/14 are shown in **Map 1**, with the lowest reported well-being shown in **Map 2**. These maps also show the direction of changes in the estimates since 2011/12.

For the concentrations of highest levels of reported personal well-being across the English regions, key points are as follows:

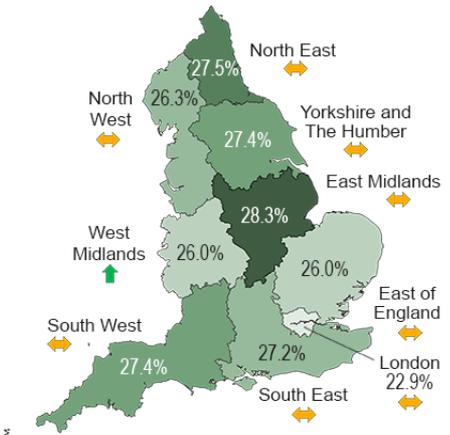
- The percentages of people reporting the highest level of personal well-being in each region were generally not significantly different to the UK, though there were a few exceptions.
- For life satisfaction, feeling that what we do in life is worthwhile and happiness, no region had a significantly greater percentage of people reporting very high well-being than the UK. This suggests a high degree of similarity in the concentrations of people reporting highest personal well-being across the regions.
- Only the West Midlands had greater proportions of people reporting very low anxiety levels than in the UK (44.1% rated their anxiety as very low compared to 39.4% in the UK).

Map 1: Percentages rating personal well-being at highest levels: by region, 2013/14 and change since 2011/12

England

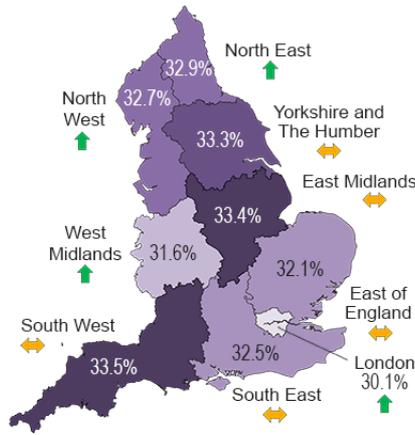
Life satisfaction (9–10)¹

England = 26.3%, UK = 26.8%



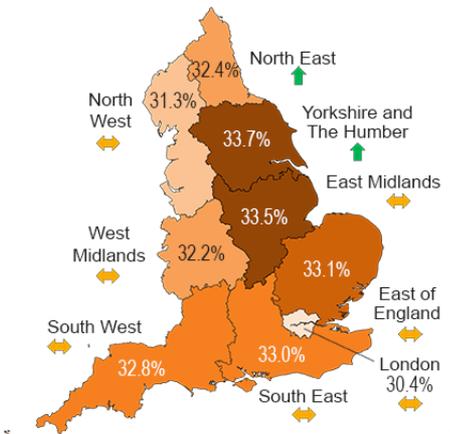
Worthwhile (9–10)¹

England = 32.3%, UK = 32.6%



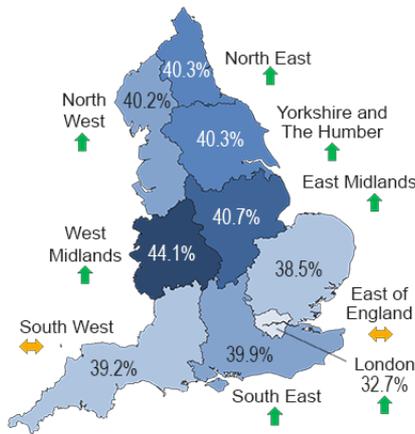
Happiness (9–10)¹

England = 32.4%, UK = 32.6%



Anxiety (0–1)¹

England = 39.2%, UK = 39.4%



Statistically significant change in highest levels of personal well-being since 2011/12, along with direction of movement

↑ Improvement ↓ Deterioration ↔ No significant change

¹ Adults aged 16 and over were asked 'Overall, how satisfied are you with your life nowadays?', 'Overall, to what extent do you feel the things you do in your life are worthwhile?', 'Overall, how happy did you feel yesterday?' and 'Overall, how anxious did you feel yesterday?' where 0 is 'not at all' and 10 is 'completely'.

Source: Office for National Statistics

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Contains Ordnance Survey data © Crown copyright and database right 2014

Source: Annual Population Survey (APS) - Office for National Statistics

Download map

[PNG](#) [PNG format](#)

(364.4 Kb)

For concentrations of the lowest levels of reported personal well-being across the English regions, key points are:

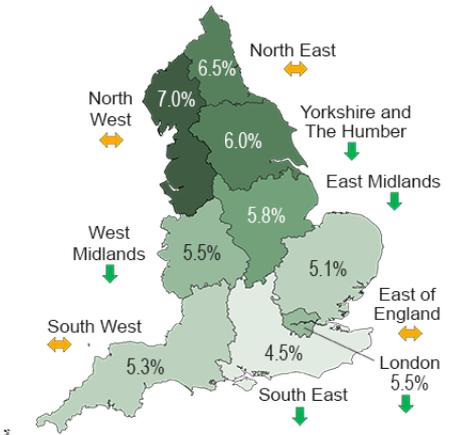
- The North East and the North West both had greater proportions of people reporting very low well-being than the UK. In each region, the proportions of people giving low ratings for life satisfaction, feeling that what they do in life is worthwhile, and happiness were significantly greater than in the UK.
- Yorkshire and The Humber also had a greater proportion of people (10.8%) rating their happiness as very low than in the UK (9.7%).

Map 2: Percentages rating personal well-being at lowest levels: by region, 2013/14 and change since 2011/12

England

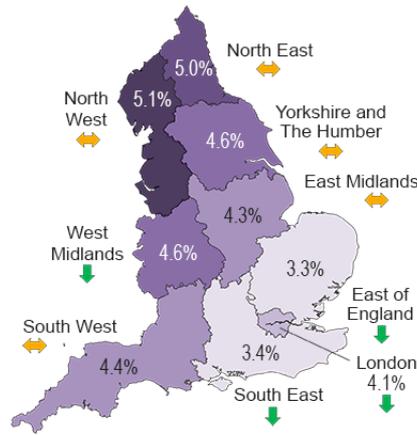
Life satisfaction (0–4)¹

England = 5.6%, UK = 5.6%



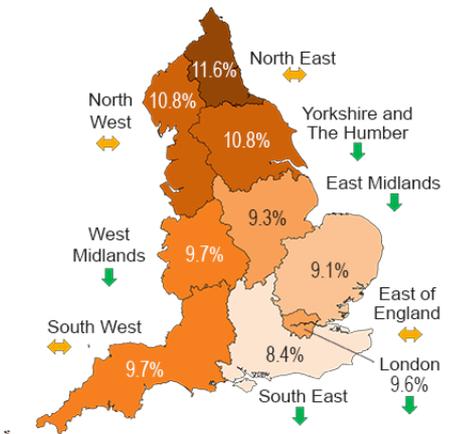
Worthwhile (0–4)¹

England = 4.2%, UK = 4.2%



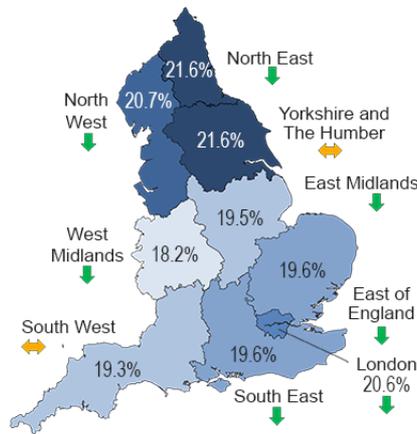
Happiness (0–4)¹

England = 9.7%, UK = 9.7%



Anxiety (6–10)¹

England = 20.0%, UK = 20.0%



Statistically significant change in lowest levels of personal well-being since 2011/12, along with direction of movement

↓ Improvement ↑ Deterioration ↔ No significant change

¹ Adults aged 16 and over were asked 'Overall, how satisfied are you with your life nowadays?', 'Overall, to what extent do you feel the things you do in your life are worthwhile?', 'Overall, how happy did you feel yesterday?' and 'Overall, how anxious did you feel yesterday?' where 0 is 'not at all' and 10 is 'completely'.

Source: Office for National Statistics

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Source: Annual Population Survey (APS) - Office for National Statistics

Download map

[PNG](#) [PNG format](#)

(356.2 Kb)

5.4 Changes over time in highest and lowest personal well-being in the regions

Comparing the concentrations of highest reported personal well-being in the regions to those of 2012/13:

- London, the West Midlands and the South East all had increases in the proportions of people reporting the highest levels of well-being on three of the four measures.
- The North East had greater proportions of people reporting the highest levels of happiness and feeling that what they do in life is worthwhile.
- The North West had a greater proportion of people reporting the lowest levels of anxiety.
- In the South West, and Yorkshire and The Humber there were no significant changes in the percentages of people reporting very high well-being on any of the measures.

Comparing the concentrations of lowest reported personal well-being to those of 2012/13, there were fewer significant changes in the proportions of people reporting very low personal well-being than very high well-being. All of the changes involved reductions in the percentages of people reporting lowest personal well-being.

- London had reduction in the percentages of people rating their life satisfaction at the lowest levels and their anxiety at the highest;
- The South East had a reduction in the proportions reporting very low happiness and very high anxiety;
- The East of England had a reduction in the proportion of people rating the sense that what they do in life is worthwhile at a very low level;
- The West Midlands had a reduction in the proportion of people rating their anxiety as very high.

Since 2011/12, when ONS first collected these data, changes in concentrations of highest reported personal well-being across the regions include (see Map 1):

- The West Midlands had an increase in the proportions reporting the highest levels of life satisfaction and sense that what they do in life is worthwhile and the lowest levels of anxiety.
- In the North East there were increases in the proportions reporting the highest levels of happiness and sense that what they do in life is worthwhile, and the lowest levels of anxiety.
- Most regions had significantly greater proportions of people reporting very low anxiety. Only the East of England and the South West remained stable on this measure.
- There were no significant reductions in any region in the proportions of people rating their well-being at the highest levels over this period (on any of the four measures).

Since 2011/12, when ONS first collected the data, changes in concentrations of lowest reported personal well-being across the regions include (see Map 2):

- The West Midlands, South East, and London all had significant reductions in the proportions of people reporting the lowest levels of personal well-being for all four measures.
- The East Midlands had a significant reduction in the proportions of people reporting the lowest levels of life satisfaction and happiness and the highest levels of anxiety
- In the North East and North West, the only significant reductions in lowest reported well-being were in the proportions of people in these regions reporting very high anxiety.

- The South West remained stable in the proportion of people reporting the lowest levels of well-being. This was the only region in which there were no significant reductions in the percentages of people reporting the lowest well-being for any of the measures.
- Across the regions, there were no significant increases in the proportions of people reporting the lowest well-being on any measure.

Explore the data in this section using:

[Personal Well-being average interactive chart](#)

[Personal Well-being thresholds interactive chart](#)

6. PWB in local areas of the UK

For more local areas of the UK, the personal well-being estimates are available as [interactive maps](#) that can be explored in a variety of ways and in the [reference table \(646 Kb Excel sheet\)](#) accompanying this bulletin. The personal well-being estimates have been published for the following administrative areas in England, Scotland, Wales and Northern Ireland in the reference tables:

- Unitary Authorities/ Counties in England
- Local Authority Districts in England
- Unitary Authorities in Wales
- Local Authorities in Scotland
- District Council Areas in Northern Ireland

ONS have also published further analysis looking at how personal well-being differs according to the characteristics of areas and the people living there (ONS, 2013a; ONS, 2014c).

By the end of 2014, ONS plan to release a further dataset which will combine the first 3 years of personal well-being data (April 2011 to March 2014). This should provide larger sample sizes and more robust analysis of personal well-being in local areas and among smaller population sub-groups.

We would welcome feedback on this bulletin, particularly how the data are used. Please contact us via email at: personal.well-being@ons.gsi.gov.uk or telephone Dawn Snape on 01633 45 5674.

7. Uses of the data

The personal well-being statistics are used to inform decision making among policy-makers, individuals, communities, businesses and civil society. They complement other traditional measures of progress and quality of life such as unemployment and household income. The personal well-

being estimates are used by ONS as part of a wider programme to monitor and understand UK national well-being over time and in comparison to other countries.

One of the main benefits of collecting personal well-being data is that people are able to give their views about each aspect of their well-being. Without it, assumptions must be made about how objective conditions, such as people's health and income, might influence their individual well-being. On the other hand, personal well-being measures are grounded in individuals' preferences and take account of what matters most to them by allowing them to decide what is important when providing an assessment of their own quality of life.

The uses of personal well-being data are varied, but four main uses have been identified:

- Overall monitoring of national well-being
- Use in the policy making process
- International comparisons
- Public decision making

7.1 Overall monitoring of national well-being

Collected regularly, personal well-being data can provide an indication of how the well-being of a nation is changing. To get a full picture of national well-being, ONS believe it is important to use this information to supplement existing objective information. ONS have identified different aspects (or domains) of well-being that sit alongside the personal well-being domain. These include such areas as:

- health
- our relationships
- what we do
- where we live
- personal finance
- education and skills
- the economy
- the environment
- governance.

The [National Well-being wheel](#) of measures includes indicators for all these.

7.2 Use in policy making

Personal well-being data, within the framework of wider measures of national well-being, focuses on how people think and feel about their lives. This is an important addition to official statistics, helping policy makers understand how their decisions may affect people's quality of life. Personal well-being data is increasingly being used both in the UK and internationally in the development and evaluation of policies and services.

7.2.1 Identifying need and targeting policies

The large sample size of the APS Personal Well-being dataset allows for comparisons between different groups of the population (for example, different age groups or different ethnic groups) and between different areas in the UK (for example, countries, regions and local authority districts). This can help policy-makers target policy at the groups or areas with highest need in terms of personal well-being.

Analysis can also be carried out to look at how different objective circumstances relate to personal well-being and which are most strongly associated with it. This can help to identify which policies could be most effective in improving personal well-being. In May 2013, ONS published analysis looking at '[What matters most to personal well-being?](#)' (ONS, 2013a) and this identified health, relationship status and employment status as the factors most highly associated with personal well-being in the Annual Population Survey. Recent publications by ONS have also looked at relationships between [commuting and personal well-being](#) (ONS, 2014d), [household income and expenditure](#) (ONS, 2014a), and aspects of [where we live](#) (ONS, 2014c).

7.2.2 Policy appraisal

Another use is in cost-benefit analysis for policy appraisal. Personal well-being estimates can provide an alternative method to value the costs and benefits of different policies. This process could also help inform decisions around which forms of spending will lead to the largest increases in personal well-being (Dolan et al, 2011).

The Green Book is HM Treasury's guide for government departments on the appraisal of the costs and benefits of projects through social cost-benefit analysis. A [Green Book discussion paper](#) (Fujiwara and Campbell, 2011), produced jointly by HM Treasury and the Department for Work and Pensions, looks at the potential uses of personal well-being measures in social cost-benefit analysis. Another recent example of the use of personal well-being data in this area has been to produce a method for the monetary valuation of volunteering (Fujiwara et al, 2013).

7.2.3 Examples of use of personal well-being data for policy evaluation and monitoring

Personal well-being data are increasingly being used to evaluate and monitor the effectiveness of policy interventions in the UK. A recent example is the National Citizen Service where a pilot evaluated the personal well-being of young people before and after their participation in the service. The results compared people's reported personal well-being before and after participation in the programme and found statistically significant increases. The well-being of participants' also improved compared to a control group of similar people who had not participated in the programme. As well as government interventions, other civil society and third sector interventions could be evaluated in a similar way.

Added to this, looking at policies through a 'well-being lens' and using data to inform not only the formulation of policy but also how policy could be better implemented with people's well-being in mind is also important. The Social Impacts Taskforce (SITF), comprising of senior analysts from across government, has been working to make use of personal well-being data and share approaches and findings across government. The Cabinet Office has also convened a cross-Whitehall steering group of senior policy makers to encourage the consideration of well-being in policy.

Separate initiatives to investigate well-being are being undertaken by the devolved governments. These include: the National Performance Framework, which forms part of the 'Scotland performs' initiative and the recently published 'Analysis of subjective well-being in Wales: Evidence from the Annual Population Survey'. These initiatives reflect the specific needs of the countries they represent.

Most UK government departments are actively engaged in well-being research in some way, particularly analysis of personal well-being data. This explores how people's ratings of their personal well-being are associated with particular policy areas including housing, crime, adult learning, sport, culture, volunteering and health.

Further information, including examples of how personal well-being data are being used in the policy process, is available in recent government evidence submitted by the Cabinet Office to the [UK Parliament's Environmental Audit Committee](#) as part of their inquiry on well-being

Also available is '[Well-being Policy and Analysis](#)', a document providing updated information about well-being work across Whitehall (including use of the ONS personal well-being questions and data in evaluations, surveys and specialised data exploration tools).

7.3 International developments to monitor well-being

The benefit of understanding where the UK is placed compared to other nations is another important reason for the collection of personal well-being data.

There are increasing calls from international organisations such as Eurostat and the Organisation for Economic Cooperation and Development to develop national personal well-being estimates and increasing recognition internationally that this should be included in official data collection.

Eurostat (the Statistical Office of the European Union) have started to collect personal well-being statistics from member states as part of the European Statistics on [Income and Living Conditions \(EU-SILC\)](#) in an ad-hoc well-being module in 2013. Eurostat's Quality of Life Indicators, currently being developed, will also include personal well-being information to supplement objective information already collected across Europe.

The Organisation of Economic Cooperation and Development (OECD) has also published guidance on the measurement of subjective well-being and ONS contributed to this.

8. Methodology

8.1 The APS Personal Well-being dataset

The data analysed in this bulletin are from the Annual Population Survey (APS) Personal Well-being dataset, covering the period April 2013 to March 2014. ONS will release a new annual APS Personal Well-being dataset every year, soon after the publication of the latest Personal Well-being in the UK statistical bulletin in September. The dataset includes responses to the four ONS personal well-being questions as well as a range of other variables useful for the analysis of personal well-being. Also, special weighting is included in the dataset to make the data representative of the UK

population. The weighting also adjusts for the fact that each respondent must answer the questions for themselves, with no one else in the household allowed to answer on their behalf.

Since 2012, the annual version of the APS Personal Well-being dataset has been archived so that approved researchers can use the data for their own analysis. Further details of how researchers can access the data are available from our [Frequently Asked Questions](#) page or by contacting the Personal Well-being Team: personal.well-being@ons.gsi.gov.uk.

8.2 The ONS personal well-being questions and their development

The ONS personal well-being questions were developed as part of the [Measuring National Well-being Programme](#). ONS sought advice from experts working in the field of subjective well-being (see Dolan et al, 2011) and consulted with specialists on the National Statistician's Measuring National Well-being Advisory Forum and Technical Advisory Group. Based on this, as well as extensive question testing, four questions were designed. They provide a concise and balanced approach to the measurement of subjective well-being, drawing on three main theoretical approaches (Dolan et al, 2011, ONS, 2011a). These include:

- The 'evaluative' approach which asks people to reflect on their life and assess how it is going overall in terms of their satisfaction with life;
- The 'eudemonic' approach which asks people to consider the extent to which they feel a sense of meaning and purpose in life;
- The 'experience' approach which ask about people's positive and negative experiences and emotions over a short period of time to assess these aspects of personal well-being on a day-to-day basis.

ONS conducted focus groups with members of the public in 2013, and found that 'personal well-being' is clearer and simpler for people to understand than 'subjective well-being'. Since then, both the questions and estimates have been referred to as 'personal well-being'.

The following are the ONS personal well-being questions that have been included on the Annual Population Survey each year since 2011:

- Overall, how satisfied are you with your life nowadays? (evaluative approach)
- Overall, to what extent do you feel the things you do in your life are worthwhile? (eudemonic approach)
- Overall, how happy did you feel yesterday? (experience approach)
- Overall, how anxious did you feel yesterday? (experience approach)

All are answered using a 0 to 10 scale where 0 is 'not at all' and 10 is 'completely'.

Further information on the ONS approach to measuring personal well-being can be found in the paper ['Measuring Subjective Well-being' \(240.8 Kb Pdf\)](#) (ONS, 2011a).

8.3 APS design and its implications for the personal well-being statistics

Early in the Measuring National Well-being Programme, ONS selected the Annual Population Survey (APS) as the key survey on which to include the personal well-being questions for the

national estimates of personal well-being. The APS is one of the largest household surveys run by ONS and offers a very cost-effective means of measuring personal well-being in a representative way across the UK and for each UK country. Also, because of its very large sample size, it provides opportunities for analysis of the personal well-being estimates of smaller groups, such as minority ethnic groups, and across regional and local areas. These are important considerations in deciding how best to monitor the personal well-being of the nation.

Whenever including new questions on a survey originally designed for another purpose, there are some aspects of the design and coverage of the survey which present challenges. These are highlighted in this section wherever they are relevant.

8.3.1 How the APS is constructed

The APS is an annual version of the quarterly Labour Force Survey (LFS). It is constructed by combining data collected on the LFS (waves 1 and 5), and also includes data from LFS 'boost' samples in England, Wales and Scotland (all 4 waves). The APS is comprised of data collected over a 12 month period, and includes a panel element where a household, once selected for interview, is retained in the sample for a set period of time (known as 'waves'). The way the APS is constructed makes sure that no person appears more than once in the dataset. **Table 1** shows this, with all the shaded areas highlighting the waves contributing to the APS data between April 2013 and March 2014:

Table 1: Data structure of the APS Personal Well-being dataset, 2013/14

APS Personal Well-being dataset: April 2013 to March 2014				
	April - June 2013	July - August 2013	Sept - Dec 2013	Jan - March 2014
LFS cohort 1 (first sampled April - June 2012)	Wave 5			
LFS cohort 2 (first sampled July - August 2012)	Wave 4	Wave5		
LFS cohort 3 (first sampled Sept - Dec 2012)	Wave 3	Wave 4	Wave 5	
LFS cohort 4 (First sampled Jan - March 2012)	Wave 2	Wave 3	Wave 4	Wave 5
LFS cohort 5 (First sampled April - June 2013)	Wave 1	Wave 2	Wave 3	Wave 4
LFS cohort 6 (first sampled July - August 2013)		Wave 1	Wave 2	Wave 3
LFS cohort 7 (first sampled Sept - Dec 2013)			Wave 1	Wave 2
LFS cohort 8 (First sampled Jan - March 2014)				Wave 1
LFS boost cohort 1 (first sampled April 2010 - March 2011)	Wave 4			
LFS boost cohort 2	Wave 3			

(first sampled
April 2011 - March
2012)

LFS boost cohort **Wave 2**
3

(first sampled
April 2012 - March
2013)

LFS boost cohort **Wave 1**
4

(first sampled
April 2013 - March
2014)

Table source: Office for National Statistics

Table notes:

1. LFS households are interviewed over a 5-wave period, with 3 months between interviews.
2. LFS boost households are interviewed over a 4-wave period, with 1 year between interviews.

Download table

XLS [XLS format](#)

(28.5 Kb)

8.3.2 Sample sizes and representativeness

In total, the APS personal well-being file includes responses from over 300,000 people per year, based in around 135,000 households. Unlike other questions on the APS, people are only asked the personal well-being questions directly and no one else in the household is allowed to respond on their behalf. For this reason the sample size for the APS Personal Well-being dataset is smaller than the normal APS dataset, at around 165,000 people per year. This still makes it the largest dataset in the UK to include the personal well-being questions.

The APS is a household survey, and after weighting, the APS Personal Well-being dataset provides a representative sample of adults (aged 16 and over) living in residential households in the UK. It is not representative of young people under the age of 16 nor people living in institutional settings such as nursing homes, care homes, prisons or hostels. It also does not include homeless people. It is important to acknowledge that the personal well-being of people living in these circumstances might differ substantially from that of adults living in household settings. As a result, the estimates of personal well-being from the APS can only be seen as representative of the adult population of the UK living in household settings and any generalisations should be made on this basis.

8.3.3 Data collection methods and their implications

The APS uses both face-to-face and telephone interviewing methods. These different data collection methods appear to affect how people respond to the personal well-being questions. On average, people rate each aspect of their well-being more positively when interviewed by telephone than when interviewed face-to-face by an interviewer. For example, in 2013/14, higher ratings were given on average for the life satisfaction, worthwhile, and happy yesterday questions during telephone interviews compared to face-to-face (see **Table 2**).

Table 2: Average personal well-being, by mode of interview, 2013/14

United Kingdom

	Average	
	Telephone	Face-to-face
Life satisfaction	7.6	7.5
Worthwhile	7.8	7.7
Happy yesterday	7.5	7.3
Anxious yesterday	3.0	2.9

Table source: Office for National Statistics

Download table

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(28.5 Kb)

The relationship between the mode of interview and average responses to the personal well-being questions has been examined using regression analysis to hold other possible influences on personal well-being constant. This shows the same pattern found in descriptive statistics: on average, people give more positive responses when interviewed by telephone than when interviewed face-to-face. These findings, first published by ONS in May 2013 (ONS, 2013a), are reproduced in **Table 3**.

Table 3: Effects of interview mode on ratings of personal well-being after controlling for individual characteristics

Great Britain

	Coefficients			
	Life satisfaction	Worthwhile	Happy yesterday	Anxious yesterday
Reference group:				
Telephone Interview ¹				
Face to Face Interview	-0.171*	-0.165*	-0.132*	0.054*

Table source: Office for National Statistics

Table notes:

1. The reference group for interview mode is 'telephone interviews'.
2. * shows that the relationship is statistically significant at the 5% level.

Download table

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(28 Kb)

The findings in Table 3 indicate the size and statistical significance of the mode effects, or the extent to which people rate their well-being differently by telephone or in person. The effect is smallest for the question about anxiety yesterday which people rate 0.05 points higher on average on the 0-10 scale when interviewed face-to-face compared to telephone. The effect is greatest on ratings of life satisfaction which people rate 0.17 points lower on average when interviewed face-to-face compared to telephone. These differences are statistically significant for all four questions, implying that they are likely to be due to factors other than sampling variation.

Table 4 shows proportions of people interviewed via each method in each of the three years for which the personal well-being data are available.

Table 4: Proportions of respondents: by mode of interview, 2011/12 to 2013/14

United Kingdom

	Percentage		
	2013/14	2012/13	2011/12
Type of Interview			
Telephone	44.2	41.7	42.2
Face-to-face	55.8	58.3	57.8
Total	100.0	100.0	100.0

Table source: Office for National Statistics

Table notes:

1. Data is weighted

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(28.5 Kb)

8.3.4 Implications of mode effects for personal well-being estimates

It is challenging to account for mode effects when using statistics. As regression analysis has found mode of interview to be significant to all personal well-being measures, it is advisable to include mode of interview in any planned regression analysis using the APS Personal Well-being dataset.

In the ONS national estimates of personal well-being, the impact of mode is statistically significant. It has been roughly consistent over the period for which the data are available, suggesting that mode effects are unlikely to affect any substantive conclusions drawn.

There may be more of an impact of mode effects on comparisons between personal well-being for lower level geographical estimates. This is for two reasons: different groups may have different balances of telephone and face-to-face response; and the impact of mode may differ by area.

In general, most wave 1 interviews will be conducted face-to-face and subsequent wave interviews will be by telephone. This should lead to a roughly equal balance of face-to-face and telephone respondents for most geographic regions south of the Caledonian Canal. North of the Caledonian Canal all APS interviews are conducted by telephone. Care should therefore be taken when comparing geographies north of the Caledonian Canal to those which are south of the Caledonian Canal, and users may wish to disregard any differences between such areas which are only marginally statistically significant.

There is some preliminary evidence that the impact of mode may vary between areas, potentially introducing bias into geographical comparisons. However, this impact tends to be smaller than the standard error, implying that a difference which is statistically significant according to the published standard errors would be likely to remain if it were possible to account for the variation in mode effects (although it may no longer be significant). ONS plan to investigate this further and to make the results of further analysis available to users.

8.3.5 Topic coverage of the APS

As the APS is based on a labour market survey, it includes an extensive range of questions which are important for understanding labour market participation, many of which are also useful for the analysis of personal well-being. For example, it includes a wide range of social and demographic questions as well as items about housing, employment and education. For full details of the variables included in the APS Personal Well-being dataset, please see the [survey user guide](#).

As interest in personal well-being data extends to the full spectrum of policy areas, ONS has also included the questions on other major surveys that it runs. It has worked collaboratively with other UK government departments and with the European statistical institute, Eurostat, to encourage wide use of the questions. A list of the surveys that currently include the questions, their broad topic coverage and how to get further information is available on our [Frequently Asked Questions](#) page or from the [Cabinet Office website](#).

8.4 How to access the APS personal well-being data

There are a range of ways in which the data are made available. A regular set of key estimates from the data are available in Excel spreadsheets published alongside the Personal Well-being in the UK statistical bulletin:

[Reference Table 1: Personal Well-being estimates geographical breakdown, 2013/14 \(646 Kb Excel sheet\)](#)

[Reference Table 2: Personal Well-being estimates change over time, 2011/12 to 2013/14 \(134 Kb Excel sheet\)](#)

[Reference Table 3: Personal Well-being estimates personal characteristics, 2013/14 \(143 Kb Excel sheet\)](#)

There are also plans to make the same estimates available in CSV format in future as part of the wider ONS open data roll out.

The APS Personal Well-being data are deposited with the UK Data Service (UKDS) about six weeks after the publication of the Personal Well-being in the UK statistical bulletin. It is available from UKDS in two formats:

- End User License (a fully anonymised non-disclosive set of data containing basic demographic information, available to UK and overseas academics),
- Special License versions (a more disclosive set of data, containing more detailed variables such as Unitary Authority / Local Authority, however Unitary Authority / Local Authority level data is only available for Great Britain but not for Northern Ireland. Access to this data requires Approved Researcher accreditation, and is only available to UK-based researchers).

Further information about these options and how to access the data is available from the [UK Data Service](#)

Data can also be accessed through the ONS Virtual Microdata Laboratory (VML) or through the Secure Data Service of UKDS. This is usually the way to access more detailed data with smaller sample sizes or lower levels of geography, which require access through a more secure route. Users accessing data in this format will require Approved Researcher accreditation. Overseas academics interested in this can also apply through this route but they must travel to the UK to use these facilities. Please contact either [UKDS](#) or socialsurveys@ons.gov.uk for further details.

ONS also provide the data directly to UK Civil Service statisticians and government researchers. Government analysts interested in this option should please contact ONS at: socialsurveys@ons.gov.uk.

8.5 Interpreting the personal well-being estimates

8.5.1 Using average ratings versus grouped ratings

When comparing differences between average ratings of groups or areas, remember that this does not account for variability within the groups. Just because the average of sample respondents has a certain rating of personal well-being does not necessarily mean that all people with that characteristic will have that particular outcome. For example, even though women on average have higher life satisfaction than men, it is important not to infer that all women are more satisfied with their lives than men. Recent research suggests that women may tend to rate their life satisfaction as either very high or very low. This pattern of responses may be masked when using averages alone.

Looking at the percentage who rate their well-being at different levels can add further insight into patterns of well-being and this is why both methods are used in this bulletin. It also helps to make clear that what is true for part of the sample with a certain characteristic is unlikely to be true for all people with that characteristic.

8.5.2 Association versus causation

The APS personal well-being data have been analysed by different personal characteristics and circumstances in the online reference tables accompanying this bulletin, but any relationships observed should not necessarily be taken to imply causation. It can only be asserted that a specific characteristic or circumstance is associated with higher or lower well-being, not that it has caused this outcome. Although some groups are more likely to give higher life satisfaction ratings on average, it may not be the particular characteristic that is causing them to rate their well-being at a higher level. There are other factors that could also influence their ratings which would need to be controlled for in a regression model, and even then causation is often difficult to infer. For example, although married people on average rate their happiness at higher levels, it is difficult to say with certainty whether marriage increases reported happiness or whether happier people are more likely to marry. Longitudinal data which tracks people's characteristics, experiences and views over time is needed to establish whether the well-being or the circumstance came first.

8.5.3 The meaning of small differences

The size of differences between ratings of personal well-being between groups of people with certain characteristics or in specific areas of the UK can appear fairly small. This is also the case for the size of year-on-year changes in the national personal well-being estimates. The personal well-being estimates in this bulletin are generally presented to one decimal place, but the estimates relating to change over time are presented to two decimal places. This is to present more clearly the direction of change over time for these estimates.

A key challenge is to determine the relevance of these changes. One theory suggests that people may have a personal set-point for well-being to which they naturally return after a positive or negative life event. This would suggest that levels of well-being may only vary within a fairly small range over time, particularly in the aggregate (Cummins, 1998; Allin and Hand, 2014, p.13).

Other research suggests that there may be some shocks from which people do not necessarily regain their previous set-point such as the death of a spouse (Dolan, Peasgood and White, 2008; Lucas et al, 2004) or that policy initiatives can affect levels of personal well-being in a sustained way (Helliwell, Layard, Sachs, 2012).

Although the size of the changes reported in this bulletin may appear small in the aggregate, they may mask larger changes in the well-being of particular groups within society or within particular areas of the UK. This is why ONS look not only at changes in average levels of personal well-being, but also in the proportions of people who rate their personal well-being as very high or very low and how this changes over time and between groups. Both are required to get a rounded picture of personal well-being in the UK and regular monitoring will help to uncover any important patterns.

8.5.4 Approaches to statistical significance

In this bulletin, when describing changes over time the term 'significant' refers to statistical significance (at the 95% level). Unless otherwise stated, the changes over time mentioned in the text have been found to be statistically significant at the 95% confidence level. Standard errors have been calculated and used in tests of statistical significance and are available in the reference tables published alongside this bulletin.

The statistical significance of differences in the estimates for a specific area of the UK and the equivalent UK estimate are approximate, and determined on the basis of non-overlapping confidence intervals. This method provides a conservative estimate of statistical significance but may result in estimates which are statistically significantly different to one another being assessed as not. The result is that some estimates which may be significantly different to the UK estimates may not be identified as such. This would tend to underestimate the differences observed in personal well-being between a country or English region, and the equivalent UK estimates.

As the personal well-being data have only been collected for three years, it is not yet possible to know how volatile the data will be over time. This makes it difficult to put the seemingly small changes reported here into a wider context which would help to shed light on how important they are. This is also a key reason why ONS do not plan to change the questions in the near future as building up a consistent time series will help interpretations.

8.6 Personal well-being question testing

A number of other methodological issues have been/ are being tested as part of a programme of work looking at how the questions perform in different circumstances (see ONS, 2011b). This involves both quantitative testing of question variations using the Opinions and Lifestyle (OPN) Survey, and qualitative testing methods in which people are asked to explain more about the way they answered the questions and why. It is important to note that, although ONS continue to test the questions they have not been changed on the APS since they were first introduced in 2011. This is to make sure a consistent time series is developed.

The Personal Well-being Team are also in contact with researchers who have used the questions in a range of different settings. Their feedback provides valuable information for ONS and other prospective users. If you have used the questions or have done analysis which could benefit others, please let us know by contacting the Personal Well-being Team at personal.well-being@ons.gsi.gov.uk. One way we intend to share the results of our question testing is via the Measuring National Well-being group of [StatsUserNet](#). We would encourage other researchers to share their findings there as well.

The following section summarises some of the key issues looked at by ONS in the question testing to date.

8.6.1 Contextual effects

The respondent's mood and the immediate context of the interview can affect responses to evaluative questions. In a household survey context, responses to the personal well-being questions could be affected by other household members being present during face-to-face interviews. ONS have explored this issue in cognitive testing conducted in 2013 among OPN

respondents. The results suggested that people may give both more positive and more negative responses to the questions depending on which other member of the household is present. In order to test this more fully, a 'flag' has been added to the OPN survey to indicate if someone else is present when a respondent is interviewed. This work is ongoing and results are expected later in the year.

Another effect of context that appears to influence responses is the day of the week on which the respondent is interviewed. Interviewing on the APS is conducted every day of the week throughout the year, but many fewer interviews are conducted on Sundays and certain public holidays. As two of the questions refer to 'yesterday', there are inevitably fewer responses relating to Saturdays, when personal well-being ratings may be different to other days of the week.

The process for identifying the day of the week on which a respondent has been interviewed is complicated. ONS are currently working on a simpler means of identifying day of the week when the interview took place so this can be added to the dataset.

The month of the year in which a respondent is interviewed may also affect responses. Preliminary evidence suggests that there may be a seasonal effect, but with only three years of data available, it is too early to be sure. This is something that ONS will continue to monitor as the time series builds.

8.6.2 Question order

Responses to personal well-being questions have been shown to be affected by earlier questions in the survey (for example, questions about health or labour market status). Prior to the introduction of the questions on the APS in April 2011, ONS carried out cognitive testing of the placement of the personal well-being questions (see: [Measuring Subjective Well-being \(240.8 Kb Pdf\)](#)). This suggested that the questions should be asked early in the interview, immediately after the questions on household and individual demographics. This allows time for rapport to be built up between the interviewer and respondent but does not allow questions on other topics, such as health or employment, to influence responses to the personal well-being questions. ONS advise researchers to follow this approach whenever the questions are included on surveys in order to avoid potential bias from earlier questions.

Quantitative question testing found that the order in which the personal well-being questions are asked does not significantly affect responses ([Summary of results from testing of experimental subjective well-being questions](#)). Qualitative testing showed that respondents preferred the positive questions first as they were easier to answer. ONS always include the four questions in the same order on every survey to be sure that the findings are as consistent and comparable as possible. The recommended order is:

- life satisfaction
- worthwhile
- happy yesterday
- anxious yesterday.

8.6.3 Response scales

For all APS personal well-being questions, an 11 point scale is used. This ranges from 0–10 where 0 is 'not at all' and 10 is 'completely'. This means that the scales are consistent between the questions, which helps respondents to answer the questions more easily and also aids subsequent analysis. Additionally, 11 point scales are commonly used across other similar surveys, particularly internationally. The use of this type of scale will also aid comparisons with other survey findings.

Cognitive testing has suggested that people may misinterpret the scale for the anxiety question as this is the only question where a higher score suggests worse well-being. The use of show cards (which provide a visual aid of response options for respondents) has been tested on the OPN survey to see whether this helps to remind people of how the scale works for each question. The results of this work showed that while higher scores were given for the life satisfaction, happiness and anxiety questions when show cards were used, the differences were only significant for the life satisfaction and happiness questions. These results were not as expected but the sample used for this test was small. Further details are available in the paper: [Summary of results from testing of experimental subjective well-being questions](#) .

Show cards are not used on the APS and it is not feasible to use them due to interviews being conducted both face-to-face and by telephone. For this reason, we have not done any further testing of the effects of show cards on responses.

8.6.4 Question wording

ONS have used both cognitive testing techniques and split trial testing of data collected on the Opinions Survey to look at whether asking the questions in different ways may affect responses to the questions. For example, cognitive testing has suggested that the word 'anxious' may be interpreted by some people as representing severe mental distress, while 'stress' or 'worry' are more commonly used to describe daily emotions. These differences are also being tested using the OPN to see how people respond to each way of asking the question.

9. The Measuring National Well-being programme

NWB logo 2



This bulletin is published as part of the ONS Measuring National Well-being programme.

The programme aims to produce accepted and trusted measures of the well-being of the nation - how the UK as a whole is doing. It is about looking at 'GDP and beyond' and includes:

- Greater analysis of the national economic accounts, especially to understand household income, expenditure and wealth.
- Further accounts linked to the national accounts, including the UK Environmental Accounts and valuing household production and 'human capital'.
- Quality of life measures, looking at different areas of national well-being such as health, relationships, job satisfaction, economic security, education environmental conditions.
- Working with others to include the measurement of the well-being of children and young people as part of national well-being.
- Measures of 'personal well-being' - individuals' assessment of their own well-being.
- Headline indicators to summarise national well-being and the progress we are making as a society.

The programme is underpinned by a communication and engagement workstream, providing links with Cabinet Office and policy departments, international developments, the public and other stakeholders. The programme is working closely with Defra on the measurement of 'sustainable development' to provide a complete picture of national well-being, progress and sustainable development.

ONS published the second '[Life in the UK](#)' report in March 2014, giving the latest snapshot of the nation's well-being. The most recent update of the National Well-being Measures data is released today. A summary of all the work completed during the first three years of the Measuring National Well-being Programme is available [here](#). A full list of outputs from the Measuring National Well-being programme is available [here](#).

Find out more on the [Measuring National Well-being](#) website pages.

10. Further Information

Further information and guidance can be found in the various downloads available on the [Personal Well-being survey user guide page](#). Additionally, the [Personal Well-being Frequently Asked Questions](#) page provides answers to common questions about the ONS personal well-being questions and data.

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Background notes

1. If you have comments on the ONS approach to measuring personal well-being and/ or the presentation of the personal well-being data, please email us at personal.wellbeing@ons.gsi.gov.uk.
2. The data analysed in this report was collected from the Annual Population Survey (APS) which is the largest constituent survey of the Integrated Household Survey. The sample size of the 12 month APS dataset is approximately 165,000 adults aged 16 and over and living in residential accommodation in the UK (England, Scotland, Wales and Northern Ireland). Data used are

weighted to be representative of the population and to take account of the fact that responses made on behalf of other household members are not accepted.

3. The UK Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods; and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

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5. Details of the policy governing the release of new data are available by visiting www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html or from the Media Relations Office email: media.relations@ons.gsi.gov.uk

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