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Article

THE OFFICE FOR NATIONAL STATISTICS EXPERIENCE OF COLLECTING AND MEASURING SUBJECTIVE WELL-BEING

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The Measurement of Subjective Well-Being in Survey Research
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THE OFFICE FOR NATIONAL STATISTICS EXPERIENCE OF COLLECTING AND MEASURING SUBJECTIVE WELL-BEING

Lucy Tinkler¹

ABSTRACT

The UK Office for National Statistics (ONS) started measuring subjective well-being in 2011 as part of the ONS Measuring National Well-being programme. The aim of the Measuring National Well-being programme is to measure the quality of life and progress of the UK. This article explores the development of the ONS subjective well-being measures, data collection methods, data presentational considerations, overview of findings, and latest developments. It discusses the way in which user engagement has been key to the development of the ONS subjective well-being statistics.

Key words: subjective well-being, the Office for National Statistics, evaluative, eudemonic, experience, affect, user engagement.

1. Introduction

The UK Measuring National Well-being programme was launched in 2010 with the aim of developing measures of national well-being and progress of the country. Through this programme, the UK government demonstrated its commitment to developing better measurement of quality of life, and to develop policies based on what matters most to people. At the commencement of this initiative, the Office for National Statistics (ONS) undertook a national debate on ‘what matters to you?’ between 26 November 2010 and 15 April 2011. ONS received over 7,900 responses in the form of completed questionnaires, including more than 50 responses from organisations. As part of the debate, ONS also established a national well-being website. During the debate this site generated almost 17,700 visits and comments from 1,200 people (ONS 2011a). Consultation with users has been a key part in the development of measures of subjective well-being as well as the Measuring National Well-being programme as a whole.

As part of the Measuring National Well-being programme the National Statistician announced that the (ONS) were planning to collect data on ‘subjective

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well-being' i.e. asking individuals to provide their own assessment of their well-being (ONS, 2011a).

This development occurred at a time when there was increasing international emphasis towards encompassing subjective well-being measures in official Statistical systems. The report of the Commission for the Measurement of Economic Performance and Social Progress (CMEPSP) stated that:

"It is possible to collect meaningful and reliable data on subjective as well as objective well-being. Subjective well-being encompasses different aspects (cognitive evaluations of one's life, happiness, satisfaction, positive emotions such as joy and pride, and negative emotions such as pain and worry)... [subjective well-being] should be included in larger-scale surveys undertaken by official statistical offices" (CMEPSP, 2009).

Subjective well-being can be defined as an approach which allows the individual to decide what is important when making an assessment about how they think and feel about their lives (Hicks, Tinkler, Allin, 2013).

The collection of subjective well-being data is now established within the UK ONS Measuring National Well-being programme as one of the key components of National Well-being, alongside other measures of society, economy, the environment, and the sustainability of well-being into the future (ONS, 2014d).

2. The ONS approach to measuring subjective well-being

Before selecting subjective well-being questions ONS identified the three broad approaches associated with the measurement of subjective well-being; 'evaluative', 'experience', and 'eudemonic'.

The evaluative approach requires respondents to make an appraisal or cognitive reflection of their life (Diener, 1994). Respondents can be asked to provide an assessment of their overall life satisfaction or certain aspects of their life such as satisfaction with their health, job, or relationships. An alternative evaluation question is known as the Cantril ladder of life in which respondents rate their current life on a ladder scale for which 0 is 'the worst possible life for you' and 10 is 'the best possible life for you'. Other measures include general happiness measures that are not specific to a particular point in time. The evaluation approach to measuring well-being has been the most prevalent both in national and international surveys. These type of questions have also been seen by policy makers as useful sources of information for some time (Donovan and Halpern, 2002).

Experience (or affect) measures aim to provide an assessment of the emotional quality of an individual's experience in terms of the frequency, intensity and type of affect or emotion at any given moment, for example, happiness, sadness, anxiety or excitement. This can be collected via diary based methods such as the Day Reconstruction Method (DRM), and the Experience Sampling Method (ESM), where respondents report feelings at different times of the day while carrying out different activities. It is also possible for this

information to be collected via more general social survey questions through asking respondents questions about their feelings over a short reference period, for example, ‘Overall, how anxious did you feel yesterday?’ (Dolan, 2010; Hicks, 2011). Experience measures can pick up both positive emotions, such as happiness, joy or contentment, and negative ones, such as anxiety, worry, pain, or anger (Tinkler and Hicks, 2011).

The eudemonic approach is based on the theory that people have underlying psychological needs for their lives to have meaning, to have a sense of control over their lives and to have connections with other people (Ryff, 1989). This approach to subjective well-being is also sometimes described as the ‘functioning’ or ‘psychological’ approach to well-being. Eudemonic measures aim to capture a range of factors that can be considered important, but are not necessarily reflected in evaluative or experience measures and can include autonomy, control, competence, engagement, good personal relationships, a sense of meaning, purpose and achievement. These types of measures are also sometimes known as measures of ‘flourishing’ (Tinkler and Hicks, 2011).

2.1. Choice of ONS subjective well-being questions

Before developing the ONS four subjective well-being questions a review was undertaken of existing subjective well-being questions both in the UK and abroad (ONS, 2010). ONS also sought academic advice from Prof. Paul Dolan (LSE), Prof. Lord Richard Layard (LSE), Dr Robert Metcalfe (Oxford University) and Prof. Felicia Huppert (Cambridge University) for the development of the ONS four subjective well-being questions. The subject was also discussed at the ONS National Statistician’s Advisory Forum and the ONS Technical Advisory Group. These groups consisted of a range of specialists including representatives from the Organisation for Economic Co-operations and Development (OECD), Eurostat (the statistical office for the European Union), other UK government departments and academics.

From April 2011, ONS introduced four subjective well-being questions onto its largest household survey covering evaluative, eudemonic and experience measures of well-being. The aim was to develop a balanced set of subjective well-being questions which took account of the different approaches to measuring Subjective Well-being. The four questions are as follows:

- overall, how satisfied are you with your life nowadays? (experience),
- overall, to what extent do you feel the things you do in your life are worthwhile? (Eudemonic),
- overall, how happy did you feel yesterday? (positive affect),
- overall, how anxious did you feel yesterday? (negative affect).

All questions use a 0 – 10 scale. A copy of the questionnaire showing the four questions can be found in Appendix 1.

Evaluative

The ONS life satisfaction question was selected to reflect the evaluative approach to measuring subjective well-being which is widely used and established both within the UK and internationally. Similar questions have been asked on many other surveys, for example the World Values Survey, European Social Survey and the ‘Understanding Society’ survey.

Across different surveys in the UK and internationally there are instances when evaluative measures do not have an explicit time frame of assessment. The use of time frame constraint is an important difference as some respondents may find it difficult to evaluate their life satisfaction when no specific time frame is provided in the question (Waldron, 2010; Dolan et al., 2011). Without a time frame the immediate context in which the question is being asked may also have more of an influence on responses. ONS, therefore, made the decision to use the term ‘nowadays’ in the life satisfaction question. This has been used in other surveys and, although this leaves the respondent to make a judgement about how to interpret the time frame, it does limit the reference period to more recent times rather than encouraging the respondent to consider their life as a whole (Tinkler & Hicks, 2011).

Eudemonic

For the eudemonic measure ONS selected a question asking respondents the extent to which they feel the things they do in their lives are worthwhile. This question was selected as one that provides information on how much meaning and purpose people get from the things that they do in their lives. Developing an overall question to measure the eudemonic approach was more challenging because often a larger set of questions are used to pick up the different dimensions of this approach. The question that ONS selected was adapted from the European Social Survey (ESS) which asks about what people ‘do in their lives that is valuable and worthwhile’. The question was reworded to fit with a 0-10 scale, and a similar question was tested by ONS prior to inclusion. ONS decided not to include the words ‘valuable and worthwhile’ but to instead use only the term ‘worthwhile’ as advice from cognitive testing experts from within ONS and some members of the Technical Advisory Forum suggested that respondents could see these concepts as distinct rather than complementary. ONS received advice on the precise wording from Felicia Huppert from Cambridge University, an expert in eudemonic measures (Tinkler and Hicks, 2011).

Experience or affect

In terms of an experience measure ONS concluded that it was necessary to include not only a positive but also negative ‘experience’ question after receiving comments from the Measuring National Well-being Technical Advisory Group. ONS also decided to use the time frame of ‘yesterday’ in order to approximate to the Day Reconstruction Method (DRM) time use approach. The adjective ‘happiness’ was chosen as it is commonly used for positive affect questions and

has been used both in the DRM and Gallup-Health Ways data. ‘Anxious’ is widely used as an indicator for poor mental well-being, for example it is used in the European Social Survey and in the European Quality of life-5 Dimensions (EQ-5D) well-being measure (Dolan 2011).

2.2. Response scales

Different response scales for subjective well-being questions have been used on different surveys (Stevenson and Wolfers, 2008). For example, on the ‘Understanding Society’ survey respondents are asked ‘How dissatisfied or satisfied are you with.....your life overall’ with responses on a scale of 1 to 7 where 1 is ‘Not satisfied at all’ and 7 is ‘Completely satisfied’. However, the subjective well-being questions on the Euro barometer Survey use a four point scale: ‘On the whole are you very satisfied, fairly satisfied, not very satisfied or not at all satisfied with the life you lead?’ Differences in scaling and labelling of scale points require careful consideration as a different scale may affect how people respond. Additionally, the use of different scales in different surveys means that it is more difficult to compare across different sources of data.

ONS decided that an 11 point scale from 0-10 where 0 is ‘not at all’ and 10 is an absolute value such as ‘completely’ should be used for the ONS subjective well-being questions. The reason for this decision was to ensure that the scales between the questions are consistent in order to help respondents answer the questions more easily and also to aid analysis across the separate questions. Further to this, 11 point scales of this nature are commonly used across other surveys of interest, particularly internationally, and using the same type of scale will aid comparisons with these estimates.

3. Implementing subjective well-being questions into ONS data collection

Once the four subjective well-being questions had been decided on, ONS had to consider how the questions would be introduced on ONS surveys; including which surveys to introduce the questions on, and placement of questions within surveys.

3.1. Question placement

Feedback from some members of the Measuring National Well-being Technical Advisory Group highlighted the likely impact the placement of the questions would have on the estimates. For example, placing after questions relating to health or the labour market may impact the answers that respondents make. Prior to April 2011, ONS carried out small scale cognitive testing of the placement of the subjective well-being questions on ONS surveys. It was decided that the placement of the overall monitoring questions should be close to the

beginning of the questionnaire after the basic questions on household and individual demographics. This placement allows time for rapport to be built up between the interviewer and the respondent by the time the subjective well-being questions are asked without allowing later questions, such as those on employment, to influence response to the subjective well-being questions.

3.2. Choice of ONS surveys for the subjective well-being questions

Due to resource constraints and ONS consideration of respondent burden, the four subjective well-being questions were added to existing ONS surveys rather than creating a new ONS well-being survey. The four ONS subjective well-being questions were added to the ONS Annual Population Survey (APS), the UK's largest household survey from April 2011.

The APS Personal Well-being Dataset contains approximately 165,000 directly questioned adults per year. The APS carries a wide range of objective variables including: sex, age, socio-economic class, ethnicity, national identity, country of birth, religious affiliation, smoking, health, income, employment status and qualification levels. This has allowed ONS to analyse a wide range of determinants of subjective well-being as well as conduct analysis at low levels of geography. The APS is constructed from the quarterly Labour Force Survey, and it therefore offers a stable platform for the subjective well-being questions to be asked on as it is unlikely to be subject to any major cuts, changes or revisions. It is important to note, however, that although the APS collects data on individual earnings it does not collect data on household income. Furthermore, the APS is not designed for longitudinal analysis which means that an individual's well-being cannot be monitored over time.

Additionally, ONS has been trialling a number of different subjective well-being questions on the monthly Opinions and Lifestyle Survey (OPN) which is discussed in more detail in section 4 of this article (Hicks, Tinkler and Allin, 2013).

In order to increase policy impact of the four subjective well-being questions, in addition to the APS and Opinions and Lifestyle survey the questions have now been introduced on the following ONS surveys:

- Crime Survey for England and Wales;
- Wealth and Assets Survey;
- Living costs and food survey.

The Crime Survey for England and Wales is an annual survey consisting of a sample size of approximately 50,000 households. The survey measures the extent of crime in England and Wales by asking people whether they have experienced any crime in the past year. The four subjective well-being questions were introduced onto this survey in 2012-13 to allow analysis of the impact that being a victim of different types of crime has on subjective well-being.

The Wealth and Assets Survey (WAS) is a longitudinal survey that covers Great Britain (England, Wales, and Scotland). Respondents to wave one of the

survey are invited to a follow-up interview two years later. The sample in wave one is approximately 30,000 households, and the sample in wave two is approximately 20,000 households. WAS collects information on the level of household assets, savings and levels of debt. There is strong demand from both policy makers and academics to analyse an individual's well-being over time; the longitudinal element of WAS will allow this to be possible. Analysing subjective well-being data combined with wealth and debt is also key for the use of subjective well-being data within policy.

The Living Costs and Food Survey (LCF) collects information on household spending patterns, cost of living, and household spending patterns. It has an annual sample size of 6,000 respondents. This is data not held on the APS and will make an important contribution to the understanding that household income and spending patterns have on subjective well-being.

The importance of the well-being of children and young people emerged as an important theme of the ONS National Debate. As most ONS surveys are administered to respondents aged 16 and above, ONS worked closely with the Children's Society and other organisations to ensure that the subjective well-being of children and young people is also measured. The four questions were cognitively tested on children aged 8 to 15 years old. Only the questions on life satisfaction, worthwhile and happiness yesterday were introduced on surveys for children, as cognitive testing showed that the anxiety question was not well understood. These three subjective well-being questions were introduced on the 'Understanding Society – the UK household longitudinal study' which is run by the Institute for Social and Economic Research, the sample of which includes children aged 11 to 15. Additionally, The Children's Society in the UK has conducted a regular on-line well-being survey since 2010 the sample of which includes both children and parents. In autumn 2014 ONS published an analysis of these data 'Exploring the well-being of children in the UK, 2014' (ONS 2014c).

ONS promotes the use of the four ONS subjective well-being questions for use on surveys outside the ONS within other government departments, local government, charities and the private sector. For a full list of surveys containing the ONS four subjective well-being questions see Appendix 2.

4. Testing and development of ONS subjective well-being questions

The collection of subjective well-being data is a new area for ONS and as such ONS has undertaken a thorough investigation regarding the quality of subjective well-being data. Item non-response of the four subjective well-being questions has been investigated as one indication of quality. It was found that there was very little non-response to the four subjective well-being questions from respondents taking part in the APS as there was a response rate of approximately 99%. This is very positive and indicates a general acceptance of the subjective

well-being questions by respondents, as well as the ability of respondents to answer the questions without difficulty (Tinkler and Hicks, 2011).

ONS has also investigated how the four overall subjective well-being questions are associated with each other to investigate how much extra information is gained from each of the questions and how similar or apparently different questions actually are. Analysis from both the OPN and the APS shows that although the four ONS subjective well-being questions are correlated, they appear to be picking up different concepts. In particular, it seems the experience questions (happiness and anxiety yesterday) are different from the evaluative and eudemonic questions (ONS 2011a). This indicates that collecting information from all four subjective well-being questions is a valid exercise.

Since the four questions were introduced on the APS in April 2011, ONS has been conducting quantitative testing in parallel with qualitative investigation including cognitive testing. The quantitative testing has consisted of split trials including comparing mode of interview, different orders of the four subjective well-being questions, alternative question wording, use of show-cards, and alternative preambles to the subjective well-being questions. It has also been possible to begin to look at how the day of the week and different months of the year affect subjective well-being (ONS, 2011a and ONS, 2012b).

The ONS has carried out two main phases of cognitive testing. The first phase focused on investigating the four subjective well-being questions. A combination of telephone and face-to-face interviews were carried out to reflect the modes of interview on the APS. Respondents' reactions and interpretations of the questions and scales were investigated, as well as the use of question scale show cards (ONS 2011b).

A second phase of cognitive testing was carried out in 2013 which also concentrated on the four headline subjective well-being questions, as well as investigating alternative preambles and wording of the four headline questions.

It is outside the scope of this paper to provide detailed results on all the testing that has been undertaken on the ONS subjective well-being questions; however, some of the testing is documented in the following publications (ONS, 2011a and ONS, 2012).

ONS plans to publish further results of the Personal Well-being split trial testing in early 2015.

4.1. Presentation of subjective well-being analysis

Before presenting subjective well-being results consideration was given to what would be most meaningful to the user. It is key that measures are presented effectively for their use by policy makers and the wider public. ONS consulted with experts including Prof. Paul Dolan (LSE), Prof. Lord Richard Layard (LSE) and the Organisation for Economic Co-operation and Development (OECD). This issue was also consulted on with members of the ONS Measuring National Well-being Technical Advisory Group.

ONS displays subjective well-being data in a number of ways including:

- Response distributions along the 0 – 10 scale
- Mean averages
- Grouped thresholds, where the percentage of people that fall above or below a certain threshold on the 11 point scale is displayed

The use of thresholds is an effective way of presenting subjective well-being data as the threshold groupings highlight the distribution of subjective well-being along the 0 – 10 scale. This distribution is hidden if mean averages only are used to display data. Further advantages of using threshold groupings are that they show year-on-year change more effectively than mean averages, which is of key interest for policy makers. There are however, some limitations with the use of thresholds to display subjective well-being data. For example, when displaying analysis of subjective well-being for sub-groups with many categories it is not always possible to display these data using thresholds due to small sample sizes. In addition, there is a practical difficulty of presenting graphically a large sub group by each of the four threshold groupings.

Consideration was also given to the creation of a subjective well-being index to disseminate ONS subjective well-being results in order to provide one headline measure of subjective well-being. ONS decided not to produce an aggregated measure such as this because the ONS subjective well-being questions are designed to collect information on three fundamentally different concepts and should therefore be kept separate to allow analysis of each of the distinct elements of subjective well-being.

In addition to consulting with topic experts on the presentation of subjective well-being measures ONS has also consulted on the presentation of subjective well-being measures with non-expert users. In 2013 ONS carried out focus groups with non-experts regarding personal well-being outputs. The aim of these focus groups was to investigate how members of the public responded and interpreted ONS subjective well-being outputs. This exercise led to changes in the design, use of colour and types of graphs produced to make them more appealing to look at and easier to interpret. This also led to the development of ONS referring to ‘Personal Well-being’ within ONS publications rather than ‘Subjective Well-being’ as the term ‘Subjective well-being’ was not well understood by non-expert users.

5. Key findings

ONS has published three annual analytical reports from the Annual Population Survey. Some of the most notable results were the relationship between subjective well-being and age, health and employment status. ONS also presents results by different levels of geography including the four countries of the UK, and English regions in addition to smaller local levels of geography.

Figure 1 displays results of analysis of age and subjective well-being ‘Average personal well-being, by age group’. It shows that life satisfaction, a sense that what ones does in life is worthwhile, and happiness well-being is lowest in the middle years (45-54), higher for younger age groups, and peaks in the 65-79 age group, while anxiety peaks in the 45-54 age group, and is lowest for the 65 and over age group. These findings reflect previous research into subjective well-being where the relationship between subjective well-being and age has been described as ‘U’ shaped; highest in the younger and older age groups, and lowest in the middle years.

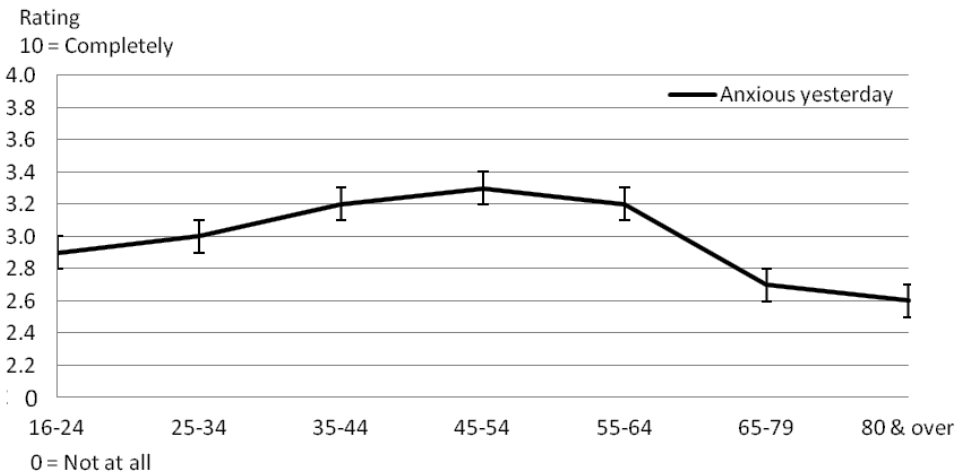
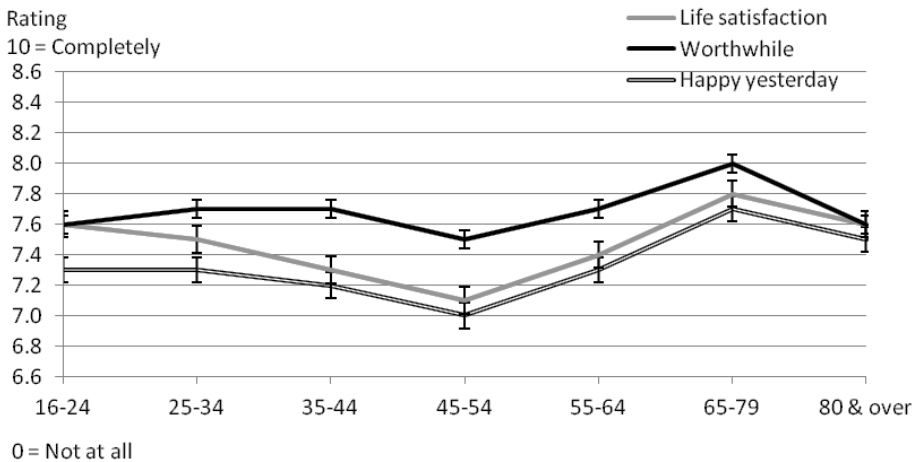


Figure 1. Average subjective well-being, by age group, 2012/2013 United Kingdom

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

Figure 2 displays an analysis which compares self-reported health with subjective well-being. The graph clearly shows that those in very good health have the highest life satisfaction, highest sense that the things they do in life are worthwhile, highest happiness, and the lowest anxiety.



Figure 2. Average subjective well-being, by self reported health, 2012/13 United Kingdom

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

Regression analysis

In order to understand the drivers of well-being in greater depth ONS have carried out a number of regression analyses. The key benefit of regression analysis is that it provides a more refined method of identifying factors which are associated most with subjective well-being compared with an analysis where the relationship between only two factors at a time is considered.

ONS has published four regression analyses using personal well-being data. Published in May 2013 ‘Measuring National Well-being – What matters most to Personal Well-being?’ (Oguz et al. 2013) analysed factors within the Annual Population Survey and considered how these are associated with subjective well-being. Of the variables available within the APS, self-reported health had the strongest association with all four measures of subjective well-being. The second strongest association was employment status, and the third was relationship status. Sense of choice and contentment also appear to be associated with

subjective well-being. For example, those who are employed but want a different or additional job have lower levels of personal well-being than employed people who are not looking for another job (Oguz et al. 2013).

Commuting and Personal Well-being was published in February 2014 (ONS, 2014a) and examined the relationship between commuting to work and personal well-being using regression analysis. The analysis found that commuters have lower life satisfaction, a lower sense that their daily activities are worthwhile, lower levels of happiness and higher anxiety on average than non commuters. The most negative effects of commuting on personal well-being were associated with journey times lasting between 61 and 90 minutes. On average all four aspects of personal well-being were negatively affected by commutes of this duration when compared to those travelling only 15 minutes or less to work (ONS, 2014a).

Income, Expenditure and Personal Well-being was published in June 2014 (ONS, 2014b) and provided new findings on the relationship between personal well-being and household income and expenditure. The Effects of Taxes and Benefits on Household Income dataset was analysed which was derived from the Living Costs and Food Survey (LCF). The analysis found that individuals in households with higher incomes report higher life satisfaction and happiness, and lower anxiety. Higher household income, however, was not significantly related to the question measuring eudemonic subjective well-being. An increase in the proportion of household income from cash benefits received from the state such as housing benefits and Jobseeker's allowance was associated with lower well-being across all four measures, with the effects stronger for men than for women. This effect remained even when taking differences in household income into account.

Interestingly, household expenditure had a stronger relationship with people's life satisfaction, sense that the things they do in life are worthwhile and happiness than household income. There was no significant relationship between higher household expenditure and lower anxiety (ONS 2014b).

ONS has also published a working paper 'Exploring Personal Well-being and Place' which analysed the relationship between personal well-being and location of residence.

For a full list of ONS subjective well-being publications see Appendix 3.

6. National Statistics status

In September 2014 ONS Personal Well-being was granted National Statistics status by the UK Statistics Authority. The UK Statistics Authority is an independent body directly accountable to Parliament. The Authority's statutory objective is to promote and safeguard the production and publication of official statistics. The Authority provides independent scrutiny in the form of a rigorous assessment of all official statistics produced in the UK. If the official statistics are

deemed to be of high quality across a number of dimensions they are granted 'National Statistics' by the UK Statistics Authority.

To meet National Statistics requirements ONS Subjective Well-being statistics underwent the UK Statistics Authority's assessment process for official statistics. ONS statistics were assessed against the Statistics Authority 'Code of Practice' for Official Statistics.

The code of practice relates to several dimensions of statistical quality including:

- meeting user needs,
- impartiality and objectivity,
- sound methods and assured quality,
- confidentiality,
- proportionate burden,
- resources,
- frankness,
- accessibility.

(UK Statistics Authority 2009).

See Appendix 4 for more details.

In order for data to gain National Statistics status, each of the eight principles of the code of practice had to be adhered to.

ONS had to provide the most recent subjective well-being publications as well as details of analysis and quality assurance procedures. In addition, evidence regarding the ways that the statistics are used by members of the public, and by government, were documented and provided to the Statistics Authority.

After receiving these documents The Authority submitted them to the Assessment Committee. The Assessment Committee asked ONS to fulfil a number of requirements and suggestions for improvement which ONS has a set time frame to address including:

- to publish plans on further public engagement,
- to add more information in the methodology section of statistical reports regarding the impact of the different modes of data collection, and the strengths and limitations of the estimates,
- Changes to the commentary and the way that the data was presented graphically within statistical reports.

ONS documented in detail how each requirement would be addressed. Additionally, where applicable, ONS made the suggested amendments to a statistical report and also submitted this to the statistics authority for evidence. ONS subjective well-being statistics were then granted National Statistics.

This development was an important achievement for the ONS subjective well-being statistics, and will help to embed these statistics firmly into policy. This has also helped to achieve one of the important aims of the ONS National Well-being

programme, which is to develop a trusted set of statistics to measure the well-being of the nation.

7. Latest developments and next steps

Key to the acceptance, legitimacy and success of ONS subjective well-being measures has been the focus on stakeholder and citizen engagement. This started with the national debate and has continued around the collection, analysis and dissemination of subjective well-being data. ONS will continue to engage with these groups to ensure that ONS subjective well-being statistics continue to meet user needs. For example, in response to user demand ONS has produced an aggregated three year personal well-being dataset, to provide more robust local area and sub-group estimates. The dataset was released in October 2014 and it is planned that a rolling three-year personal well-being dataset will be produced annually. In March 2015 ONS published interactive maps to engage users with the three year dataset, in addition to producing more detailed analytical reports based on these data.

ONS plan to build on existing established relationships with policy makers to ensure that use of the measures of subjective well-being become fully embedded within government policy at all levels. From the outset of the collection of subjective well-being data ONS has been working with the Social Impacts Taskforce which was set up in August 2010 with the aim of developing a cross Government approach to understanding and embedding social impacts into policymaking. Members of the taskforce include UK civil service departments as well as the devolved administrations in Scotland, Wales and Northern Ireland.

In October 2014 the ‘What Works Centre for Well-being’ (WWCW) was set up. WWCW is an independent centre dedicated to making policy and services work for well-being and will commission universities to research the impact that different interventions and services have on well-being. The aim is that the results of this research will help government, councils, health and well-being boards, charities and businesses make decisions regarding the well-being of people, communities and the nation as a whole. ONS will be working closely with the WWCW to ensure that the ONS approach to measuring subjective well-being and the results of ONS research in this area is widely promoted.

ONS is aware that data from ONS household surveys only captures information from respondents living in private households and excludes people living in communal establishments (a diverse set of premises including hotels, guest houses and nursing homes for example). Although this is a relatively small part of the population, approximately 1.8 per cent, ONS is very much aware of this issue and of the challenges in surveying people in non-household populations (Tinkler and Hicks, 2011).

UK work on measuring national well-being is highly regarded internationally and ONS is a member of several international working groups as part of the ‘GDP

and beyond' agenda. ONS sees it as a priority to work collaboratively with international partners to achieve, where possible, consistency with international standards and concepts in order to increase the value of these statistics. ONS will continue to work with international organisations such as the Organisation for Economic Co-operation and Development (OECD) and Eurostat.

Specifically regarding subjective well-being ONS contributed to the OECD handbook on 'Measuring Subjective Well-being' and regularly take part in various OECD-led high level meetings on measuring well-being. ONS were part of the Eurostat taskforce to create an ad-hoc quality of life module in 2013 on the European Survey of Income and Living Conditions (EU SILC). In 2015 ONS will participate in another task force to develop a six yearly module on 'Quality of life and social and cultural participation' which will include subjective well-being.

Following the introduction of the four subjective well-being questions on the ONS 'Wealth and Assets Survey' ONS plan to conduct a regression analysis of these data in 2015. This will include variables on household income and debt.

ONS will continue to engage with a wide range of stakeholders including international organisations, policy makers as well as citizen users to ensure that ONS subjective well-being analysis is relevant. This will help to ensure that the ONS subjective well-being questions continue to be one of the key evidence bases for government policy related to well-being.

REFERENCES

- AKED, J., MARKS, N., CORDON, C., THOMPSON, S., (2008). Five ways to well-being: The evidence. A report presented to the Foresight Project on communicating the evidence base for improving people's wellbeing. London: The New Economics Foundation (NEF). Available at: <http://www.neweconomics.org/publications/five-ways-well-being-evidence>.
84 S. Hicks et al.
- ALLIN, P., (2014). Measuring Wellbeing in Modern Societies. In P.Y.Chen and C.L. Cooper (eds.) *Work and Wellbeing: Wellbeing: A Complete Reference Guide, Volume III*. John Wiley & Sons, New York, 409–465.
- CAMERON, D., Prime Minister of the UK, (2010). 25 November. Prime Minister Speech on Well-being. Available at: <http://www.number10.gov.uk/news/pm-speech-on-well-being>.
- CLERC, M., GAINI, M., BLANCHET, D., (2010). Recommendations of the Stiglitz-Sen-Fitoussi Report: A few illustrations, *L'économie française*—2010 edition, Insee, Available as pdf at http://www.insee.fr/en/publications-et-services/default.asp?page=dossiers_web/stiglitz/performance_eco.htm.
- Commission, European, (2009). *GDP and beyond: Measuring progress in a changing world*. Luxembourg: European Commission.
- DEATON, A., (2011). The financial crisis and the well-being of Americans, *Oxford Economic Papers*, May 2011, 1-26 OEP Hicks Lecture (November 2011). Available at: <http://www.princeton.edu/~deaton/papers.html>.
- DIENER, E., (1994). Assessing subjective well-being: Progress and opportunities. *Social Indicators Research*, 31, 103–157.
- DIENER, E., (2005). Guidelines for national indicators of subjective well-being and ill-being, December 2005, Available at: http://internal.psychology.illinois.edu/~ediener/Documents/Guidelines_for_National_Indicators.pdf.
- DOLAN, P., LEYARD, R. Notes on the measurement of well-being. Available at www.ons.gov.uk/wellbeing/technical-advisory-group/notes-on-the-measurement-of-well-being-11-april-2011.pdf.
- DOLAN, P., WHITE, M. P., (2007). How can measures of Subjective well-being be used to inform public policy? *Perspectives on Psychological Science*, 2, 71–85.
- DOLAN, P., METCALF, R., (2011). Comparing measures of subjective well-being and views about the role they should play in policy: Office for National Statistics.

- DOLAN, P., LAYARD, R., METCALF, R., (2011). Measuring subjective wellbeing for public policy; recommendations on measures: Special paper No. 23. Centre for Economic Performance. Available at: <http://cep.lse.ac.uk/pubs/download/special/cepsp23.pdf>.
- DOLAN, P., PEASGOOD, T., WHITE, M. P., (2006). Review of research on the influences on personal well-being and application to policy making. London: DEFRA Publications.
- DOLAN, P., PEASGOOD, T., WHITE, M., (2008). Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being. *Journal of Economic Psychology*, 29, 94–122.
- DONOVAN, N., HALPERN, D., (2002). Life satisfaction: The state of knowledge and implications for Government. London: Prime Minister's Strategy Unit.
- FRANCIS, P., TIWANA, H., (2004). Unpaid household production in the United Kingdom, 1995–2000. Available at: <http://www.ons.gov.uk/ons/rel/elmr/economic-trends-discontinued-/no-602-january-2004/unpaid-household-production-in-the-uk-1995-2000.pdf>.
- FUJIWARA, D., CAMPBELL, R., (2011). Valuation techniques for social cost-benefit analysis: Stated preference, revealed preference and subjective well-being approaches. Available at: http://www.hm-treasury.gov.uk/d/green_book_valuationtechniques_250711.pdf.
- GOV.UK., (2014). New what works centre for well-being: <https://www.gov.uk/government/news/new-what-works-centre-for-wellbeing>.
- HALPERN, D., (2010). *The Hidden Wealth of Nations*. Polity Press.
- HARSANYI, J. C., (1982). Morality and the theory of rational behaviour. In A. Sen & B. Williams (Eds.), *Utilitarianism and beyond*, pp. 39–63, Cambridge: Cambridge University Press.
- HELLIWELL, J. F., (2003). How's life? Combining individual and national variables to explain Subjective wellbeing. *Economic Modelling*, 20, 331–360.
- HELLIWELL, J. F., BARRINGTON-LEIGH, C. P., (2008). Measuring and Understanding Subjective well-being. NBER Working Paper Series, 15887.
- HELLIWELL, J. F., (2011). How can subjective well-being be improved? In F. Gorbet, & A. Sharpe (Ed.) *New directions for intelligent government in Canada: Papers in Honour of Ian Stewart*, Centre for the Study of Living Standards, pp. 283–304, 2011. Available at: <http://ideas.repec.org/h/sls/ndphis/12.html>.

- HICKS, S., (2011a). Spotlight on: Subjective well-being: Office for National Statistics. Available at: <http://www.ons.gov.uk/ons/rel/social-trends-rd/social-trends/spotlight-on-subjective-well-being/index.html>.
- HICKS, S., (2011b). The measurement of subjective well-being; Paper for Measuring National Well-being.
- Technical Advisory Group [pdf]. Newport: Office for National Statistics. Available at: <http://www.ons.gov.uk/ons/guide-method/user-guidance/well-being/advisory-groups/well-being-technical-advisory-group/index.html>. Adapted from: Dolan, Layard & Matcalfe, 2011 and Smith, 2011. OECD, unpublished.
- HICKS, S., TINKLER, L., (2011). Draft Testing and Development plan for Subjective well-being questions on ONS Surveys. Newport: Office for National Statistics. Available at: www.ons.gov.uk/well-being/technical-advisory-group/draft-testing-and-development-plan-11-april-2011.pdf.
- HICKS, S. TINKLER, L. ALLIN, P., (2013). Measuring Subjective Well-being and its potential role in policy: Perspectives from the UK Office for National Statistics. Newport: Office for National Statistics.
- INGLEHART, R., FOA, R., PETERSON, C., WELZEL, C., (2008). Development, freedom, and rising happiness. *Perspectives on Psychological Science*, 3, 264–285. Available at: <http://pps.sagepub.com/content/3/4/264>.
- KAHNEMAN, D., KRUEGER, A., (2006). Developments in the measurement of Subjective well-being. Available at www.krueger.princeton.edu/PDF%20of%20Kahneman%20Krueger%20paper.pdf.
- KAHNEMAN, D., KRUEGER, A. B., SCHKADE, D. A., SCHWARZ, N., STONE, A. A., (2004). A Survey Method for Characterizing Daily Life Experience: The Day Reconstruction Method. *Science*, 306, 1776–1780.
- LAYARD, R., (2005). *Happiness: Lessons from a new science*. London: Penguin.
- NEF, (2008). Five ways to well-being. Available at: www.neweconomics.org/publications/five-ways-to-wellbeing.
- NEF, (2011). ‘Measuring our progress’ Available at: www.neweconomics.org/publications/measuring-our-progress.
- NISSEL, M., (1970). *Social trends*, Vol. No. 1, Central Statistics Office, Her Majesty’s Stationary Office.
- OECD, (2011). *Better life initiative: Measuring well-being and progress*. Paris: OECD.
- ONS, (2011a). *Measuring what matters; National statistician’s reflections on the national debate on measuring national well-being*. London: Office for National Statistics.

- ONS, (2011b). Initial investigation into subjective well-being from the opinions survey. Office for National Statistics. Available at: <http://www.ons.gov.uk/ons/rel/wellbeing/measuring-subjective-wellbeing-in-the-uk/investigation-of-subjective-well-being-data-from-the-ons-opinions-survey/index.html>.
- ONS, (2011c). Subjective well-being: A qualitative investigation of subjective well-being questions. December 2011.
A working paper for the measuring national well-being advisory group. Available at: <http://www.ons.gov.uk/ons/guide-method/user-guidance/well-being/advisory-groups/well-being-technical-advisory-group/index.html>.
- ONS, (2012a). Analysis of experimental subjective well-being data from the annual population survey, April to September 2011. Newport: Office for National Statistics. Available at: <http://www.ons.gov.uk/ons/rel/wellbeing/measuring-subjective-wellbeing-in-the-uk/analysis-of-experimental-subjective-well-beingdata-from-the-annual-population-survey-april-september-2011/index.html>.
- ONS, (2012b). First ONS annual experimental subjective well-being results. Newport: Office for National Statistics. Available at: <http://www.ons.gov.uk/ons/rel/wellbeing/measuring-subjective-wellbeing-in-the-uk/firstannual-ons-experimental-subjective-well-being-results/index.html>.
- ONS, (2012c). Summary of results from testing of experimental Subjective Well-being questions [PDF]. Newport: Office for National Statistics.
- ONS, (2013a). Measuring Subjective Well-being in the UK, Differences in Well-being by Ethnicity. Newport: Office for National Statistics. Available at: <http://www.ons.gov.uk/ons/rel/wellbeing/measuring-subjective-wellbeing-in-the-uk/differences-in-well-being-by-ethnicity/index.html>.
- ONS, (2013b). Measuring National Well-being, What matters most to Personal Well-being? Newport: Office for National Statistics. Available at: <http://www.ons.gov.uk/ons/rel/wellbeing/measuring-national-well-being/what-matters-most-to-personal-well-being-in-the-uk-/index.html>.
- ONS, (2013c). Measuring National Well-being, Personal Well-being in the UK, 2012/13. Newport: Office for National Statistics. Available at: <http://www.ons.gov.uk/ons/rel/wellbeing/measuring-national-well-being/personal-well-being-in-the-uk-2012-13/index.html>.
- ONS, (2013d). Measuring National Well-being, Personal Well-being Across the UK, 2012/13. Newport: Office for National Statistics. Available at: <http://www.ons.gov.uk/ons/rel/wellbeing/measuring-national-well-being/personal-well-being-across-the-uk-2012-13/index.html>.

- ONS, (2014a). Measuring National Well-being, Commuting and Personal Well-being, 2014. Newport: Office for National Statistics.
Available at <http://www.ons.gov.uk/ons/rel/wellbeing/measuring-national-well-being/commuting-and-personal-well-being-2014/index.html>.
- ONS, (2014b). Measuring National Well-being, Income, Expenditure and Personal Well-being, 2011/2012. Newport: Office for National Statistics. Available at: <http://www.ons.gov.uk/ons/rel/wellbeing/measuring-national-well-being/income-expenditure-and-personal-well-being/index.html>.
- ONS, (2014c). Exploring Personal Well-being and Place. Titchfield: Office for National Statistics. Available at: <http://www.ons.gov.uk/ons/rel/regional-trends/regional-economic-analysis/exploring-personal-well-being-and-place-in-the-uk/index.html>.
- ONS, (2014d). Insights across society, the Economy and the Environment, Reflections on Measuring National Well-being, July 2014. Newport: Office for National Statistics. Available at:
<http://www.ons.gov.uk/ons/rel/wellbeing/measuring-national-well-being/reflections-on-measuring-national-well-being-may-2014/index.html>.
- ONS, (2014e). Measuring National Well-being, Personal Well-being in the UK, 2013/14. Newport: Office for National Statistics.
Available at: <http://www.ons.gov.uk/ons/rel/wellbeing/measuring-national-well-being/personal-well-being-in-the-uk-2013-14/index.html>.
- ONS, (2014f). Measuring National Well-being, Exploring the Well-being of Children in the UK, 2014. Newport: Office for National Statistics.
Available at:
<http://www.ons.gov.uk/ons/rel/wellbeing/measuring-national-well-being/exploring-the-well-being-of-children-in-the-uk-2014/index.html>.
- PUDNEY, S., (2010). An experimental analysis of the impact of survey design on measures and models of subjective well-being. Institute for Social and Economic Research University of Essex.
Available at: www.iser.essex.ac.uk/publications/working-papers/iser/2010-20.pdf.
- RYFF, C. D., (1989). Happiness is everything, or is it? Explorations on the meaning of psychological wellbeing. *Journal of Personality and Social Psychology*, 57, 1069–1081.
- SCHWARZ, N., STRACK, F., KOMMER, D., WAGNER, D., (1987). Soccer, rooms and the quality of your life: Mood effects on judgements of satisfaction with life in general and with specific life – domains. *European Journal of Social Psychology*, 17, 69–79.

SEN, A., (1999). *Development as freedom*. Oxford: Oxford University Press.

SNAPE, D., (2014). *UK's Methodological approach to measuring personal well-being*. Newport: Office for National Statistics.

STEVENSON, B., WOLFERS, J., (2008). *Economic Growth and Subjective Well-being: Reassessing the Easterlin Paradox* NBER Working Papers 14282. National Bureau of Economic Research.

STIGLITZ, J. E., SEN, A., FITOUSSI, J. P., (2009). *Report by the commission on the measurement of economic performance and social progress*. Available at: http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf.

The Government Office for Science, (2008). *Foresight mental capital and wellbeing project. Final project report*. London. Available at: *Mental Capital and Wellbeing: Making the most of ourselves in the 21st century, 2008*.

TINKLER, L., HICKS, S., (2011). *Measuring subjective well-being*. Newport: Office for National Statistics. Available at: <http://www.ons.gov.uk/ons/index.html>.

WALDRON, S., (2010). *Measuring subjective wellbeing in the UK*. Office for National Statistics. Available at: <http://www.statistics.gov.uk/cci/article.asp?ID=2578>.

UK Statistics Authority. *Producer handbook for the assessment process*. Newport: UK Statistics Authority. Available at: <http://www.statisticsauthority.gov.uk/assessment/assessment/guidance-about-assessment/producer-handbook-for-the-assessment-process.html>

APPENDICES

Appendix 1.

The four ONS subjective well-being questions

SUBJECTIVE WELLBEING

68. *Satis*

UK

Next I would like to ask you four questions about your feelings on aspects of your life. There are no right or wrong answers. For each of these questions I'd like you to give an answer on a scale of nought to 10, where nought is 'not at all' and 10 is 'completely'.

Overall, how satisfied are you with your life nowadays?

Interviewer instruction: where nought is 'not at all satisfied' and 10 is 'completely satisfied'

Scale from 0 to 10

Asked if: PersProx = IN PERSON, DVAge = 16+

69. *Worth*

UK

Overall, to what extent do you feel that the things you do in your life are worthwhile?

Interviewer instruction: where nought is 'not at all worthwhile' and 10 is 'completely worthwhile'

Scale from 0 to 10

Asked if: PersProx = IN PERSON, DVAge = 16+

70. *Happy*

UK

Overall, how happy did you feel yesterday?

Interviewer instruction: where nought is 'not at all happy' and 10 is 'completely happy'

Scale from 0 to 10

Asked if: PersProx = IN PERSON, DVAge = 16+

71. *Anxious*

UK

On a scale where nought is 'not at all anxious' and 10 is 'completely anxious', overall, how anxious did you feel yesterday?

Scale from 0 to 10

Asked if: PersProx = IN PERSON, DVAge = 16+

Thank you, that is the end of this section of questions.

Appendix 2.

Surveys the 4 ONS personal well-being questions have been included on:

- Crime Survey for England and Wales - Office for National Statistics - previously conducted by Home Office
- Civil Service People Survey United Kingdom - Civil Service
- Wealth and Assets Survey - Office for National Statistics

- Life Opportunities Survey - Department for Work and Pensions and Office for National Statistics
- The National Study of Work-search and Well-being findings - Department for Work and Pensions - NatCen
- Survey regarding population of employees - Department for Work and Pensions
- Armed Forces Continuous Attitude Survey - Ministry Of Defence
- Families Continuous Attitude Survey - Ministry Of Defence
- Impact of Further Education Learning Survey - Business Innovation and Skills
- The National Survey for Wales - Welsh Government
- Community Life Survey - Cabinet Office
- Labour Force Survey/Annual Population Survey - Office for National Statistics
- Opinions and Lifestyle Survey - Office for National Statistics
- Living Costs and Food Survey - Office for National Statistics
- Taking Part Survey - Department Culture Media and Sport
- National Citizenship Service evaluation - Cabinet Office
- English Longitudinal Study of Ageing
- English Housing Survey - Department Communities Local Government commission from NatCen
- Quarterly National Household Survey - Central Statistics Office - Ireland
- Monitor of Engagement with the Natural Environment: The Natural Survey on People and the Natural Environment - Natural England

Appendix 3.

Office for National Statistics publications on Measuring Subjective/Personal Well-being:

- Measuring Subjective Well-being in the UK (September 2010)
- Measuring Subjective Well-being (July 2011)
- Initial investigation into Subjective Well-being from the Opinions Survey (December 2011)
- Analysis of Experimental Subjective Well-being Data from the Annual Population Survey, April to September 2011 (February 2012)
- First ONS Annual Experimental Subjective Well-being Results (July 2012)
- Measuring National Well-being: Programme Overview, the place of Subjective Well-being and Recent Findings (December 2012)
- Differences in Well-being by Ethnicity (April 2013)
- Personal Well-being in the UK, 2012/13 (July 2013)
- Personal Well-being Across the UK, 2012/13 (October 2013)
- Commuting and Personal Well-being, 2014 (February 2014)
- Income, Expenditure and Personal Well-being, 2011/2012 (June 2014)

- Exploring Personal Well-being and Place (June 2014)
- Personal Well-being in the UK, 2013/14 (September 2014)
- 3 year dataset, 2011/2014 and Smoking and Personal Well-being in Bristol (October 2014)

Appendix 4.

UK statistics Authority Code of Practice:

Principle 1: Meeting user needs	The production, management and dissemination of official statistics should meet the requirements of informed decision-making by government, public services, business, researchers and the public.
Principle 2: Impartiality and objectivity	Official statistics, and information about statistical processes, should be managed impartially and objectively.
Principle 3: Integrity	At all stages in the production, management and dissemination of official statistics, the public interest should prevail over organisational, political or personal interests.
Principle 4: Sound methods and assured quality	Statistical methods should be consistent with scientific principles and internationally recognised best practices, and be fully documented. Quality should be monitored and assured taking account of internationally agreed practices.
Principle 5: Confidentiality	Private information about individual persons (including bodies corporate) compiled in the production of official statistics is confidential, and should be used for statistical purposes only.
Principle 6: Proportionate burden	The cost burden on data suppliers should not be excessive and should be assessed relative to the benefits arising from the use of the statistics.
Principle 7: Resources	The resources made available for statistical activities should be sufficient to meet the requirements of this Code and should be used efficiently and effectively.
Principle 8: Frankness and accessibility	Official statistics, accompanied by full and frank commentary, should be readily accessible to all users.

(UK Statistics Authority 2009)

For further detail see: http://intranet/Images/code-of-practice-for-official-statistics_tcm67-70155.pdf