New approaches to the measurement of Quality of Life

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Abstract. This paper outlines the Office for National Statistics (ONS) approach to measuring quality of life in the United Kingdom as part of the Measuring National Well-being programme. It highlights some new approaches to measuring quality of life through household and social statistics and in particular focuses on the work that ONS has undertaken on the inclusion of subjective well-being measures in ONS surveys and engagement with citizens about what matters to them.

1. Background

1.1 Social Trends was first published over 40 years ago in the UK, with the understanding that 'economic progress must be measured, in part at least, in terms of social benefits' and the fact that 'it is just as important to have good statistics on various aspects of social policy [than it is economic statistics]'. [1] This interest in supplementing economic statistics with social statistics to gain a fuller picture of the quality of life has not diminished with time. There have been a number of recent international initiatives to better measure quality of life and the Office for National Statistics (ONS) is looking again at how best to measure the quality of life and well-being of UK citizens.

1.2 The report by the Commission on the Measurement of Economic Performance and Social Progress, (the Stiglitz-Sen-Fitoussi report) published in 2009 [2] concluded that 'the time was right to shift emphasis from measuring economic production to measuring people’s well-being’. Also within that report, specific recommendations on how best to measure the quality of life were provided and other initiatives such as the European Commission’s GDP and Beyond project and the OECD’s Global Project on measuring the progress of societies add to the impetus to look for new approaches to the measurement of quality of life. The ONS, and other statisticians in the Government Statistical Service, are playing an active role in international developments, for example in the Eurostat Sponsorship Group 'Measuring progress, well-being and sustainable development' and its associated taskforces.
1.3 Within the UK, the ONS has been leading on the development of new measures of what has been termed ‘national well-being’ and a key part of that programme is the consideration of how to best measure the quality of life of UK citizens. The National Well-being programme has been established to provide wider measures of the nation’s progress beyond just focusing on Gross Domestic Product. Part of the programme of work has been to undertake a wide reaching debate about the nation’s well-being. This is allowing the ONS, not only to speak to experts and relevant organisations in the field, but also to engage with citizens themselves, on an unprecedented scale, asking what matters to them and how best to measure National Well-being.

1.4 Alongside this, the ONS has responded rapidly to growing user demand for more subjective well-being estimates, to complement more objective measures of well-being, by adding subjective well-being questions to ONS surveys in April 2011. [3] This was undertaken to provide a fuller picture of the well-being of citizens in the UK, with the view that subjective information placed alongside objective data gives added information from which users can better assess the quality of life in a nation.

2. Better measures of material well-being

2.1 Highlighting alternative measures of national economic activity other than GDP is a step in the right direction to better reflect the material well-being of the nation [4] but equally important is to develop further and make better use of household survey information on income, consumption and wealth, linking where possible to data from the National Accounts. This includes focusing on households as the unit of analysis, as well as looking at the distributions of income and consumption alongside wealth measures in order to better reflect material living standards. Fully exploiting existing measures as well as the development of new statistics will undoubtedly be needed to do this successfully.

2.2 It is also important to recognize the importance of capturing non-market activities in any assessment of the quality of life of a nation. To what extent people supply from within the household rather than getting from the market is an important question. Valuing the activities outside of the production boundary and therefore not included in traditional measures of economic activity (for example household production and volunteering) is important, as previous estimates have indicated that they are non-trivial in monetary value and are likely to be important in terms of citizens own quality of life.
2.3 It is also worth noting that GDP as a \textit{flow} measure does not estimate of the \textit{stock} of produced capital. ONS recognises the Stiglitz-Sen-Fitoussi conclusion that it is important that Statistical Offices look to value the stock of other types of capital that have a bearing on quality of life, including human, natural and social capital. This is required if we are to go beyond just looking at current levels of well-being and to take into account the sustainability aspects of well-being over time.

2.4 ONS have previously looked at producing measures of social capital, [5] have recently produced experimental estimates of the value of human capital (which utilized household survey information to do so), [6] and the Environmental Accounts will play a key part in the development of estimates of natural capital.[7] These developments are seen as important by policy customers when making assessments of the social impacts of policy and making assessments of the impact on sustainability.[8]

3. Different approaches to the measurement of the Quality of Life

3.1 When considering new approaches in the measurement of the quality of life it is worth clarifying the conceptual and theoretical accounts that underpin the practical measurement and presentation that is carried out by national statistics agencies. This allows us to better understand the different approaches to the measurement, but also the limitations of each approach. In broad terms, there are three main approaches outlined in the literature [9]:

1. The preference satisfaction account

2. The objective list account

3. The subjective well-being account

\textit{The preference satisfaction account}

3.2 The preference satisfaction account is probably most closely associated with the economist’s account of well-being and quality of life [10], and as Parfit (1984) [11] stated, “\textit{what is best for someone is what would best fulfill all of his desires}”. [12] This suggests that more income would allow an individual to satisfy more of their preferences resulting in increased well-being. Understanding this, along with the fact that GDP is available and measured on a consistent basis across countries, it is fairly easy to see why GDP has been so often used as a proxy measure for quality of life. However, there are recognised limitations to this approach [13] and also to GDP
as a measure itself (not only as explained earlier is their the absence of important aspects of the quality of life that are missing but also that it picks up activities that can sometimes be damaging to the quality of life). Simon Kuznets, a developer of the National Accounts, in his very first report to the US Congress in 1934 said, “...the welfare of a nation can, therefore, scarcely be inferred from a measure of national income...” [14] More recently this has also been recognised by the European Commission, with the President, Jose Manual Barroso, stating with reference to GDP, “we can’t measure the challenges of the future with the tools from the past” [15]

Objective list account

3.3 The emergence of the social indicators movement in the 1960’s, in many ways, can be seen as a response to the limitations of just focusing on purely economic measures to provide an assessment of the quality of life. Social indicators research aimed to add to the economic data information on individual and social well-being recognizing the inadequacy of exclusively relying on economic data. [16] The outputs of national statistics agencies and the European statistical system have been heavily influenced by this approach in its collection and reporting. In the UK for example, the advent of Social Trends in 1970 was predominantly set up for this purpose and aimed to bring together social statistics to complement the focus on economic statistics. [17] This reliance on a wide set of indicators, mainly objective indicators, fits with the objective list account of well-being, which focuses on the monitoring the basic needs and rights of citizens which are needed to allow them to build their capabilities and flourish as individuals. [18]

3.4 It would appear that there seem to be two main criticisms of this approach;

- firstly, there is a difficulty, with so many indicators, for the user to get a clear picture of what this all adds up to and how things are progressing, and

- secondly, with this approach the analyst is left with the task of selecting which indicators they think best reflect people’s quality of life.

There is renewed interest in using objective measures as a way of monitoring the quality of life of citizens in nations to go beyond more traditional economic measures. However, when doing so, it is important to have these two limitations in mind and to also consider the third and more recent approach to measuring the quality of life - the subjective well-being account. It can be argued that this account overcomes the second limitation of the objective approach. It allows the respondent
themselves to decide what is important to them when making overall life evaluations rather than
the analyst deciding what is important, thus avoiding paternalism [19].

Subjective well-being account

3.5 An alternative to the first two approaches is the subjective well-being account of well-
being. Subjective well-being is the measurement of people’s own self-reported assessment of their
own lives and how it is going. What makes these measures subjective, is not the self-reporting
itself, but rather the aspects that a person is reporting on are subjective in nature, for example life
satisfaction, emotions, purpose and meaning in life.

3.6 This approach is newer than the previous approaches outlined. Although the concepts have
been understood as important aspect of quality of life for a long time, it is only really only in the
last 20 years or so that a growing body of evidence has shown that this approach can be measured
in a valid and reliable manner. Indeed the Commission on the Measurement of Economic
Performance and Social progress recommended that national statistical agencies should collect
and publish this type of information and noted that:

Research has shown that it is possible to collect meaningful and reliable data on subjective
well-being. Subjective Well-being encompasses three different aspects: cognitive
evaluations of one’s life, positive emotions (joy, pride) and negative ones (pain, anger,
worry). While these aspects of subjective well-being have different determinants, in all
cases these determinants go well beyond people’s income and material conditions... All
these aspects of subjective well-being should be measured separately to derive a more
comprehensive measure of people’s quality of life and to allow a better understanding of its
determinants (including people’s objective conditions). [20]

3.7 There are methodological considerations that need to be investigated further, some peculiar
to these measures themselves, others that are applicable to any household measure However, ONS
believe that these can be researched and addressed and that this type of information should be
collected by national statistics agencies. In fact, the collection of these measures as part of official
statistics is likely to help with driving up of the quality of these data as we explore issues further as
part of the international statistical community. Up until now for European comparisons, the
subjective well-being data comes from sources beyond national statistical agencies (for example
the European Quality of Life Survey (EQLS) and the European Social Survey (ESS)). By adding
questions to official statistical sources rigorous statistical practices can be standardised, sample
sizes possibly increased and the utility of these measures improved. It is also important to meet likely user requirements for estimates of this nature below the national level and for sub-groups of the population.

3.8 In April 2011, ONS introduced four overall monitoring questions on subjective well-being into its largest household survey - the Integrated Household Survey (IHS). The IHS is an experimental survey that draws together the Labour Force Survey (LFS) and other large scale household surveys that ONS has responsibility for administering. This leads to a maximisation of sample size and by asking these questions as part of the core module on the IHS we hope to achieve an annual sample size of around 200,000 adults (aged 16 and over) present in households.

3.9 The large sample size is important, as one of the key user demands from within the UK is to understand differences at the small geographic areas and sub groups of the population. The ONS has decided that the estimates that these questions will yield will be labelled ‘experimental statistics’ in the first instance, with a view to them becoming National Statistics after further testing and development is undertaken to better understand the known methodological issues surrounding these questions better. The large sample size will also allow for useful analysis of the determinants of subjective well-being including how more objective variables (for example, age, sex, martial status, household and family size, self-reported health, disability, socio-economic class, income, labour market and employment status, qualification level) correlate with subjective well-being scores.

3.10 A balanced approach was taken to reflect the distinct aspects of subjective well-being outlined in the literature. This included life evaluation (a cognitive assessment of how life is going), positive affect (the experience of positive feelings), negative affect (the experience of negative feelings) as recommended by the Stiglitz-Sen-Fitoussi report. However, also included, is a question on what has been termed eudemonic well-being in the literature. This is also sometimes known as psychological well-being which is concerned with positive functioning and having a sense of meaning and purpose in life. [21][22]

3.11 The four questions are therefore as follows:

Overall, how satisfied are you with your life nowadays? (evaluative measure)

Overall, how happy did you feel yesterday? (experience – positive affect)

Overall, how anxious did you feel yesterday? (experience – negative affect)
Overall, to what extent do you feel the things you do in your life are worthwhile? (eudemonic)

(All asked using a 0 to 10 scale where 0 is ‘not at all …’ and 10 is ‘completely …’) [23]

[24]

3.12 Alongside these questions, ONS is running further questions on its monthly opinions survey, for example life satisfaction for various domains, further experience questions using different positive and negative adjectives, and further eudaimonic questions (drawing on self-determination theory as a basis). The monthly Opinions Survey is primarily being used as a testing vehicle to investigate some of the known methodological issues surrounding these questions. For example, by using split level trials ONS will test the impact of interview mode, question wording, question order, question placement and the impact of scales. ONS will also be undertaking further cognitive testing to look at some of these issues further as we go forward.

3.13 How these estimates are best presented is also a key issue that needs to be explored further. ONS believe it will be important not only to present the average scores from each of the questions but also to focus on the distribution of these overall estimates as well as perhaps looking at percentages above and below certain thresholds. As well as comparing overall subjective well-being for the population as a whole it will also be important to look at smaller geographic areas and sub-groups of the population to identify any differences in the reported well-being of individuals. ONS will be consulting further with users on the best ways of presenting these estimates.

3.14 Despite this significant step forward, ONS does not believe that subjective well-being estimates provide the while answer and they need to be considered against other objective economic and social indicators appropriate for measuring quality of life. It will remain important to continue to draw on the various different approaches to the measurement of quality of life in order to get a full picture of well-being in the UK. The interaction between more objective indicators and subjective well-being scores is important, not least because people’s experiences do not necessarily tie up with the objective account. Although they are correlated in the main, the divergence between objective and subjective measures illustrates the importance of this kind of information as a complement to the objective approach [25] [26] for measuring quality of life.
4 The national debate

4.1 Alongside the introduction of subjective well-being questions into ONS surveys the UK’s National Statistician, Jil Matheson started a national debate on 25 November 2010. This ran until 15 April 2011 and asked people about what they felt was important to them in terms of well-being and also how they thought national well-being should be measured. The debate was structured around 5 main questions:

- What things in life matter to you?
- Of the things that matter to you, which should be reflected in measures of national well-being?
- Which of the following sets of information [not listed here] do you think help measure national well-being and how life in the UK is changing over time?
- Which of the following ways [not listed here] would be best to give a picture of national well-being?
- How would you use measures of national well-being?

4.2 The debate attracted a large amount of press attention, perhaps stimulated by the endorsement of the Prime Minister David Cameron at the launch event. ONS received over 27,000 responses to the various on-line media used, including 7,900 completed questionnaires as a response to the consultation document that was made available to citizens. ONS also set up an on-line debate website, where blogs were posted and people could leave comments and others could see them and respond. During the debate period almost 17,700 visits and comments from 1,200 people were received on this website. ONS also worked with other on-line forums to conduct on-line debates around this topic in their spaces, an example being Netmums Coffee House Forum where mothers can get together to discuss issues that face them.

4.3 In addition, ONS undertook around 175 events of different forms in different locations around the UK to different types of people with over 7,000 attendees where valuable information was gathered and engagement was had. A low cost phone number and email was also made available for people to contact us.

4.4 Although this was not a statistical exercise, these responses have proved very useful to the ONS is giving a good idea as to what people thought mattered most to them. For example, people
in the UK felt that health, good connections with friends and family members, job satisfaction and economic security and present and future conditions of the environment with similar responses to what should be reflected in measures of national well-being.

4.5 One of the benefits of the debate was to have consulted widely on what is important to people and how they think we should go about measuring and presenting quality of life information. ONS believe that this lead to a higher acceptance and legitimacy to the small selection of quality of life indicators we use as part of measuring national well-being. Engagement of this kind can clearly be seen as beneficial to the statistics office and essential if agencies are to get acceptance and buy in from users, including academic, policy and the public more generally. ONS will continue engaging with stakeholders as it rolls out new developments and products for measuring national well-being.

5. Conclusions

5.1 To measure quality of life adequately in our rapidly changing societies requires new approaches. Subjective well-being measurement is one of those approaches, but there is also a need to supplement these measures with already existing objective measures. It is important not to neglect economic information, particularly from household surveys to measure material living standards. These data must be developed further to encompass important aspects of the quality of life relating to living standards but also this must also be accompanied by various social indicators.

5.2 In turn there is a need to think carefully how to present this information together that allows users to understand ‘at a glance’ how the quality of life is changing in the nation if we are to capture the attention of the unengaged user. Also it will be of importance to analyse more objective data against subjective well-being to learn more about the drivers of individual well-being as measured by subjective questions. To gain legitimacy for any chosen set of indicators, it is essential to ask citizens what is important to them and how they think statistical agencies should measure well-being and the quality of life in a nation.

References


