

# Household wellbeing: the key to a sustainable and sufficient economy

**Eleni Papathanasopoulou**

School of Business and Economics

Deree – The American College of Greece

6 Gravias St., Aghia Paraskevi, Athens, 15342, Greece

[epapathanasopoulou@acg.edu](mailto:epapathanasopoulou@acg.edu)

30 August 2023

## **Abstract**

The pursuit of increased income to enable ever higher levels of consumption is often justified by the argument that higher consumption leads to higher levels of wellbeing. Studies have shown, however, that consumption is not the only explanatory variable when considering an individual's wellbeing. Using time use data for adults in the UK from 2016 to 2021, this paper shows that the difference between individuals with high and low wellbeing can be partially explained by the time spent on specific activities such as leisure and eating together. These activities are highly rated on the enjoyment scale across the whole sample but only a small percentage of the population spends significant time on them. Insight such as these provide policy discussion to propose alternatives lifestyles that can contribute to wellbeing more holistically and have reduced environmental footprints.

**Keywords:** Leisure; Sufficiency; Time Use; Value; Wellbeing.

**JEL Classification:** A13, I31, Q01, Q56

Disclaimer: The paper presents the work and conclusions of the author and does not necessarily reflect the endorsement by ACG or any unit associated with it.

© 2023 by Eleni Papathanasopoulou. All rights reserved. No part of this paper is to be quoted without permission from the author.

## 1. Wellbeing and time use

Economics is concerned with ensuring all people achieve the highest level of wellbeing (Bertolucci 2018). 'To meet this purpose, today's economic theory is promulgated to promote ..... economic growth' (Pettini et al 2023:63). However, 'There is no positive correlation between the happiness trends and those in income.' (Easterlin et al. 2020:5). Additionally, the pursuit of continued growth in income alone and its impact on the environment is problematic. The Stiglitz-Sen-Fitoussi Commission critiqued gross domestic product (GDP) per capita as a sufficient indicator for a sustainable future based on its inability to consider: non-market and social transactions; stocks and flows of physical, natural and human capital, and broad distributional issues. (Kanbur et al 2018). Acknowledging people's wellbeing is explained by more than just income enables other factors to be considered in policy proposals. This is especially important if an economy is attempting to transition to a greener economy where the environment is explicitly considered and alternative lifestyles being promoted.

Alternative measures to GDP/capita for wellbeing include objective and subjective approaches. Wellbeing is often used to describe how well individuals, society and nations are doing (ONS 2018) and measured using objective and subjective approaches. Objective wellbeing uses indicators from several sources which consider areas such as health, job opportunities, socioeconomic development, environment, safety, politics (Voukelatou et al 2020). Subjective wellbeing evaluates individual's perception of their lives. The Office for National Statistics (ONS) in the UK use four measures of personal wellbeing, referred to as the ONS4. The measures and questions asked are as follows where the first three questions are rated on a scale of 0 to 10, where 0 is 'not at all' and 10 is 'completely' (ONS 2018).

- Life satisfaction: Overall, how satisfied are you with your life nowadays?
- Worthwhile: Overall, to what extent do you feel that the things you do in your life are worthwhile?

- Happiness: Overall, how happy did you feel yesterday?
- Anxiety: On a scale where 0 is 'not at all anxious' and 10 is 'completely anxious', overall, how anxious did you feel yesterday?

These ONS4 questions can be described in terms of evaluative, eudemonic and hedonic wellbeing perspectives (Chanfreau et al 2008). Eudemonic perspective relates to the worthwhile question to assess how the individual sees their functioning, social relationships and meaning of their life. Hedonic perspective relates to the happiness and anxiety questions and is focused on emotion and experience of happiness and avoidance of pain. These perspectives provide the ability to see wellbeing assessment from various dimensions.

Understanding what contributes to wellbeing is needed to support relevant policy. Chanfreau et al (2008) note that variables that explain wellbeing can differ between socio-economic groups due to: age, gender, identity, education. However, they also note that many predictors also '...remain consistent across the life course...' and include: social relationships between individuals, eating together, environmental aspects within communities that make people feel safe, good school and work environments, good self-reported health (Chanfreau et al 2008:10). Recently, Chilver (2023) also pointed to various sociodemographic factors, personality, health observations, cognition, and life events in predicting wellbeing.

Another approach to explore predictor variables of wellbeing is the analysis of time use. Time Use Diaries record the activities people partake in during their day and the enjoyment ratings they assign to the activities. Time use diaries have been in use since the 1920s replacing the questionnaire approach due to their ability to record the activity being undertaken more accurately, its duration and sequence within a pre-established time-period (Sullivan et al. 2020). The information collected includes identification and timings of primary activities, secondary activities, location of activities, co-presence, use of electronic device and enjoyment level.

The Gershuny study (2011) provides several insights of how activities have changed over time. The times spent on satisfying basic wants (shelter, nutrition, and domestic services) has decreased from 619 to 556 minutes per day during the period 1961 to 2001. Conversely, time spent on satisfying luxurious wants (out of home entertainment including shopping) increased from 176 to 259 minutes. The report also notes that paid work made up 59% of total work (paid and unpaid work) in 1961 but only 48% in 2001. In 1961 women carried out around four times more unpaid work than men but less than twice as much in 2001. Transition of activities in the home also show a more 'fragmented and interrupted' day for women leading to patterns that are linked to higher stress (Kolpashnikova et al 2021).

An important aspect of Gershuny's work for this paper, is his analysis of the level of enjoyment individuals attach to different activities. He notes that the order and level of enjoyment of activities is similar across the US and UK in the years 1985 and 1986 respectively. In descending order, he notes activity enjoyment as follows: out-home leisure, sleep & personal care, other home leisure, tv, child care, paid work, travel, shopping, unpaid work.

It is important to bear in mind the resource intensity of these activities if they are to be aligned to environmental constraints and promotion of alternative lifestyles. In Sweden, people spend on average 65% of their time during the week and 75% of their time on the weekends in their homes (Ellegard et al 2011). The most energy intensive activities in the home are shown to be cooking and household care. However, at home leisure activities, such as watching TV, watching or playing computer games, also consumes energy (Ellegard et al 2011).

Druckman et al (2019) attribute energy to activities undertaken by individuals during their day. They find that the three most energy intensive activities are personal care (including clothes washing), eating and drinking (including alcohol and eating out) and commuting. When focusing just on the leisure activities there is a mixed picture of which activities are most energy intensive. For instance, entertainment and culture

activities are the most energy intensive due to its large travel component; time spent with family and friends is also considered energy intensive also due predominately from its travel component. Less energy intensive activities are spending time with family and friends at home, TV and music, and the least energy intensive is sleep/rest.

The analysis conducted in this paper firstly considers how responses to the ONS4 questions have changed in the UK between 2020 and 2021. Individuals are then placed into high and low wellbeing groups and activities between the groups compared to identify which activities could be contributing to varying levels of wellbeing.

## **2. Data**

The data was sourced from the Centre for Time Use Research's UK Time Use Survey 6-Wave Sequence across the COVID-19 Pandemic, 2016-2021 (Gershuny et al 2022). It is a UK population-representative (quota sample) survey of individuals aged 18 and above living in the UK and collects their time use data from 1 Feb 2016 – 31 August 2021.

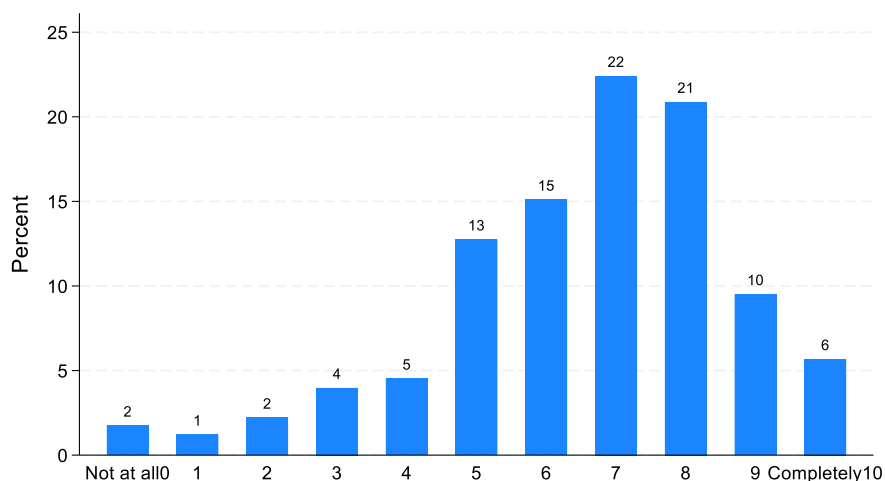
Representative quotas were set for the gender, age group, region and social grade population distribution in 2016 (baseline). Panel survey members were recruited separately for each wave and allocated one day during the week and one weekend day to complete the diary. Respondents completed 1 – 3 diaries. The diaries asked each participant to identify their activities, duration and enjoyment of the activities. Also included in the diary questionnaire are the ONS4 questions which were introduced part way through wave 2 (May/June 2020) and by wave 3 (August 2020) fully integrated. There are 6896 diaries and 1444 variables available for analysis.

The analysis in this paper is driven by enquiry into the distribution of the ONS4 variables across the sample and engagement of individual in various daily activities. It is descriptive in nature.

### 3. Results

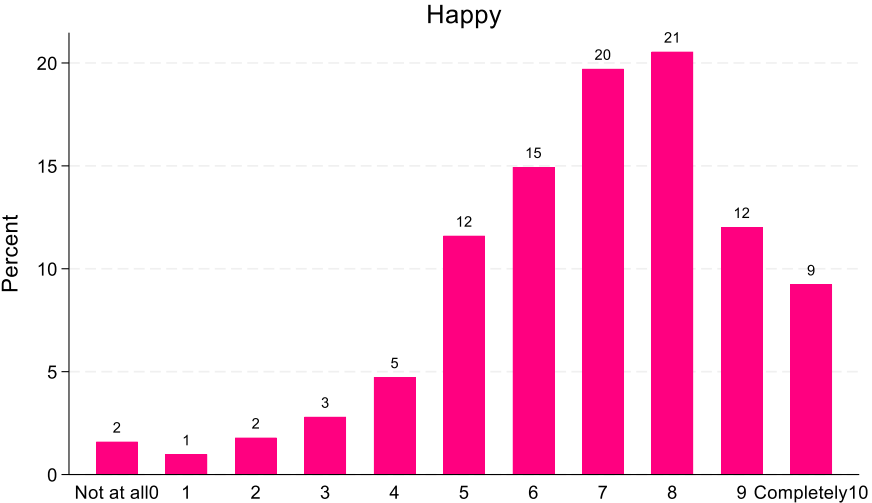
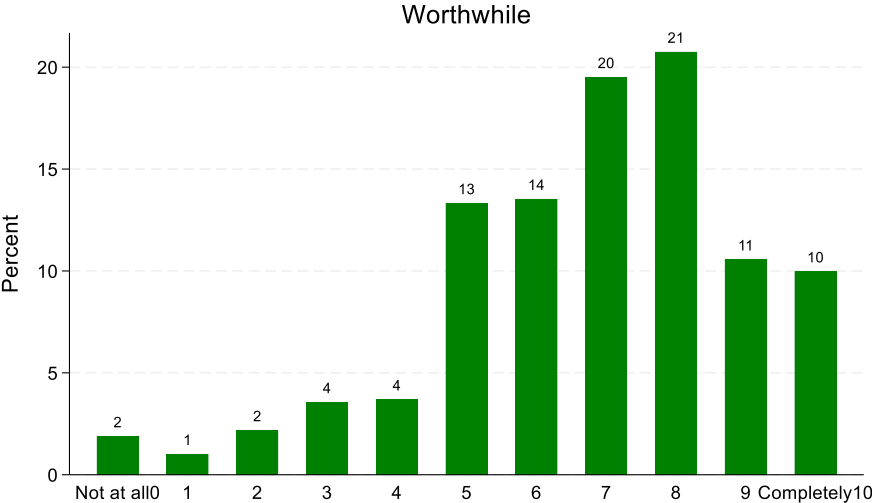
The answers to the ONS4 questions are graphed to provide a visual presentation of the general state of wellbeing between 2020 and 2021 for the sample population. Figure 1 shows that 22% of respondents ranked their life satisfaction at 7 followed by 21% at 8. However, there is an inclination of the remaining population to rank their life at lower levels of 6 and 5 giving a left skewed distribution.

**Figure 1.** Life satisfaction



These same results are seen for questions on whether activities undertaken in life feel worthwhile and level of happiness (Figure 2). Twenty one percent of the population rank their activities as being worthwhile at 8 followed by 20% ranking worthwhile at 7%. The tendency to rank wellbeing elements towards the lower levels might not be surprising as the data covers the two Covid lock-downs in the UK that took place in March 2020 and September 2020.

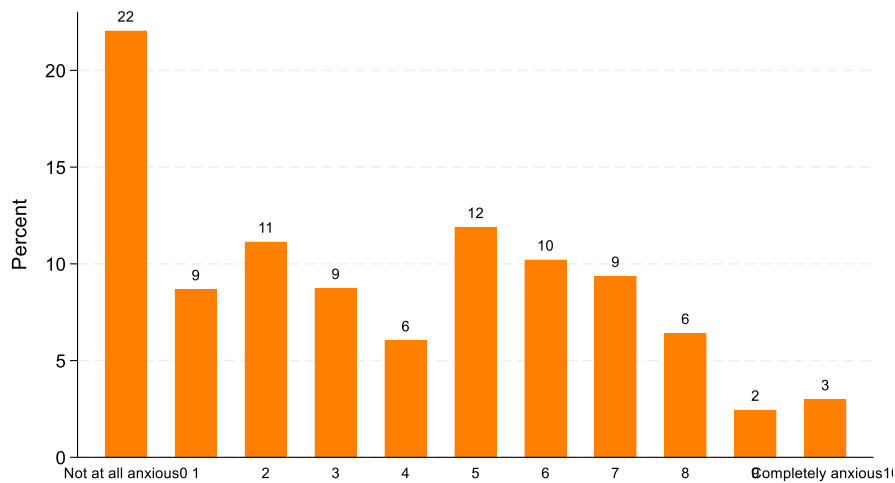
**Figure 2. Worthwhile and happiness**



The picture given by the anxiety measure is more mixed (Figure 3). There is no clear distribution. While 22% state that they are not anxious at all (assigning 0), 72% of the remaining respondents rank their anxiety anywhere between 1 and 8.



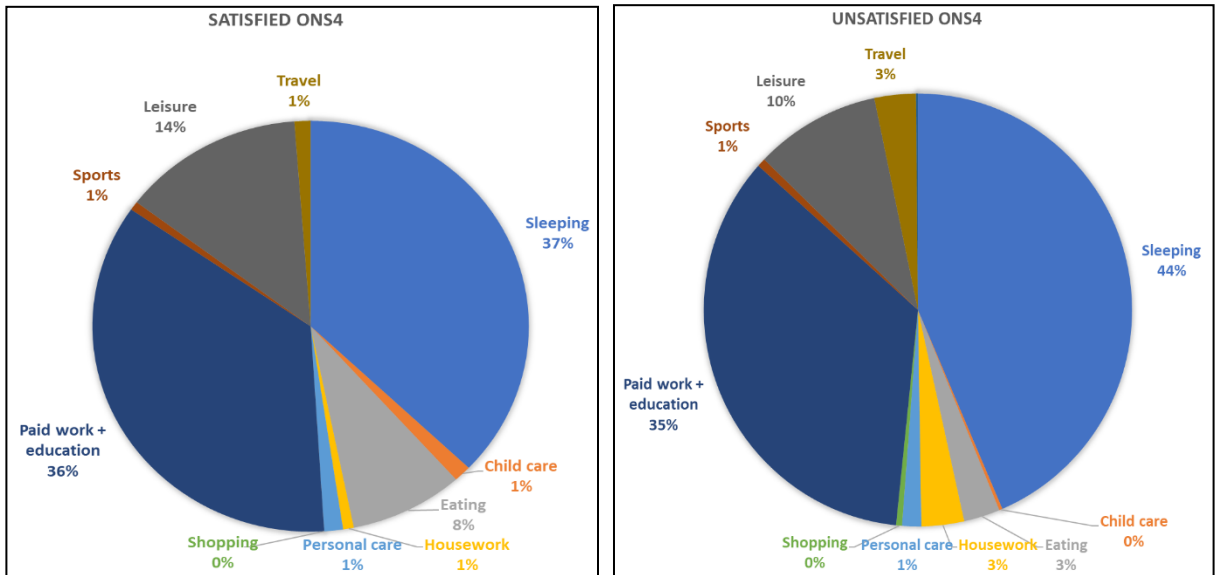
**Figure 3. Anxiety**



To consider the types and duration of activities, the sample is split between groups of people who are of working age (18-54) and fall into two main groups. Those who are completely satisfied and score the ONS4 questions at 10 (life satisfaction, worthwhile and happiness) and 0 (for anxiety) (referred to as ONS4 satisfied group in the remaining paper) and those who are relatively less satisfied scoring the ONS4 questions with 5 (referred to as ONS4 unsatisfied). These groupings are based on the ONS personal well-being thresholds which label 0-4 response as low, 5-6 as medium, 7-8 as high and 9-10 as very high. The anxiety scores are labelled as 0-1 as very low, 2-3 as low, 4-5 as medium, 6-10 as high (ONS 2018).

Comparing the duration of activities between the two groups, the difference largely lies in the time spent on four main activities: leisure, eating, travel and housework (Figure 4).

**Figure 4.** Satisfied and unsatisfied weekday activities



In general, the satisfied ONS4 group spend 14% of their time on leisure. This is just under 3.5 hours. It is difficult to say if this daily for all respondents in the group or if everyone on specific days is spending 3.5 hours. This limitation needs to be considered for further interpretation; however, leisure is significant and prized by this group. In contrast, the unsatisfied ONS4 group spend just under 2.5 hours. Eating at home is the activity with the largest time difference with the satisfied ONS4 group spending 8%, close to 2 hours, on this activity while the unsatisfied group spending only 3%, approximately 40 minutes. Considering travel and housework, the unsatisfied group spend 3% on each of these activities accounting for a combined 80 minutes or 1 hour 20 minutes of their day. The satisfied group spend 1% of their time on each of these activities, accounting for approximately 15 minutes each, or a combined 30 minutes of their day.

While this begins to identify different lifestyles and priorities amongst the groups, it becomes even more valuable when enjoyment levels across both groups are overlaid on these activities. Each respondent was asked to give an enjoyment score to the activity at the time of engagement. The enjoyment scale was from 1 – 7, with 1

indicating ‘least enjoyable activity’ and 7 ‘most enjoyable activity’. The average of these scores for each day can then be calculated giving a ‘daily mean activity enjoyment’ score. These are seen in the table below for all activities listed in the diaries.

**Table 1.** Average enjoyment scores

<b>Activity</b>	<b>Enjoyment score</b>	<b>Activity</b>	<b>Enjoyment score</b>
Eating	5.7	Sleeping	5.0
Sports	5.3	Travel	4.9
Child care	5.3	Personal care	4.8
Paid work	5.2	Housework	4.6
Leisure	5.1	Shopping	2.0

Activities ranked as highly enjoyable by both groups include eating and leisure and low enjoyment scores are ascribed to activities such as travel and housework. Overlaying this information with the time spent on the different activities by each group, it is noticeable that households with a higher level of satisfaction are making the activities they enjoy most a priority and keeping those which are less enjoyable to a minimum. Low satisfied households seem to somehow be locked into activities which are of lower quality and taking up more of their time.

#### **4. Discussion**

The research insights provide alternatives goals for policy aimed at improving wellbeing and environmental sustainability by highlighting opportunities to transition to lifestyles that focus on activities which are of high enjoyment level.

Beginning with the activity of eating together, it is ranked with the highest enjoyment level and has been highlighted by other studies as important for individual wellbeing (Chanfreau et al 2008). The activity provides time and space for individuals to feel supported and included in social relationships which is introduced on the family level through eating together (Chanfreau et al. 2008). There is therefore need to ensure households have enough money and time to shop, prepare, cook and eat meals together. The rise of energy prices and in general food price is a strain on many households. Changing the value system to ensure government policies provide a safeguard to protect vulnerable households from food poverty is essential. A recent report states that 7% of the UK population (4.7 million people), of which 12% are children, were experiencing food poverty (Francis-Devine et al. 2023).

Further policies or initiatives can also be created to allow shopping and cooking activities to be facilitated by online shopping and delivery or subscription to local organic farms and intercity gardens promoted. Economies transitioning to these alternative supply and delivery chains could ensure that a fundamental objective is reduced environmental impact and circular economy thinking.

Turning to leisure, this is a catch-all term which includes a variety of activities including: reading, walking, watching TV, playing computer games. As noted by Druckman et al (2019) leisure activities can be energy intensive which is predominately explained by the commuting element. Suggestions made by the authors to address this are the provision of more local facilities and infrastructure that promotes active travel such as walking and cycling.

Another element to be considered with leisure activities is the commodification of the activities which drive up its embedded energy requirements. An example provided by Bedford et al (2011) on bird-watchers highlights how easily a simple leisure activity which starts out as a local based interest reliant on just binoculars can transform into a national or even international jet setting activity with expensive gear and high environmental impacts.

These anecdotal examples suggest the need for our value systems to be reset so individuals enjoy quality activities but that the activities are designed to have low environmental impact.

## **5. Conclusion**

Attaining high levels of wellbeing does not only rely on high levels of income. Activities which provide individuals with high levels of enjoyment and social support are also important and can be used to promote alternative lifestyles. However, the transition to alternative lifestyles and their characteristic activities, need to explicitly consider the environment so that they have the lowest absolute impact on the environment. This can be achieved by maintaining activities which are localised, that promote active travel, which rely on alternative energy sources and are kept simple.

Transitioning to lifestyles which aim for high levels of wellbeing based on a fundamental, conscious regard for the environment requires a reset in our value system. A reset that will highly appreciate non-market and social transactions; well-maintained stocks of physical, natural and human capital; and a just distributional system.

## References

Bedford, T., Burningham, K., Cooper, G., Green, N., Jackson, T. 2011. Sustainable leisure: escalators, constraints and implications. RESOLVE Working Paper 12-11. Available from [www.surrey.ac.uk/resolve](http://www.surrey.ac.uk/resolve). Accessed 30/08/2023.

Bertolucci, S. 2018. Beyond GDP: Economics and Happiness. Berkeley Economic Review. Accessed 30/08/2023. Available from: <https://econreview.berkeley.edu/beyond-gdp-economics-and-happiness/>

Chanfreau, J., Lloyd, C., Byron, C., Roberts, C., Craig, R., De Feo, D., McManus, S. 2008. Predicting Wellbeing. NatCen report prepared for the Department of Health. Accessed 30/08/2023. Available from: [www.bl.uk](http://www.bl.uk).

Druckman, A., Gatersleben, B. 2019. A time-use approach: high subjective wellbeing, low carbon leisure. Journal of Public Mental Health. Volume 18:2, pp. 85-93.

Easterlin R. A. and O'Connor K. J. 2020. The Easterlin Paradox. IZA Institute of Labor Economics Discussion Paper Series. IZA DP No. 13923. Accessed 30/08/2023. Available from: <https://docs.iza.org/dp13923.pdf>.

Ellegard, K., Palm, J. 2011. Visualizing energy consumption activities as a tool for making everyday life more sustainable. Applied Energy, 88 (5):1920-1926

Francis-Devine, B., Malik, X., Danechi, S. 2023. Food poverty: Households, food banks and free school meals. House of Commons Library, Number 9209. Accessed 30/08/2023. Available from: <https://researchbriefings.files.parliament.uk/documents/CBP-9209/CBP-9209.pdf>

Gershuny, J. 2011. Time-use surveys and the measurement of national well-being. Report to the Office of National Statistics. Accessed 30/08/2023. Available from: [https://www.timeuse.org/sites/ctur/files/public/ctur\\_report/4486/timeusesurveysandwellbeing\\_tcm77-232153.pdf](https://www.timeuse.org/sites/ctur/files/public/ctur_report/4486/timeusesurveysandwellbeing_tcm77-232153.pdf)

Gershuny, J., Sullivan, O., Lamote de Grignon Perez, J., Vega-Rapun, M., 2022, Centre for Time Use Research UK Time Use Survey 6-Wave Sequence across the COVID-19 Pandemic, 2016-2021, [data collection], UK Data Service, 4th Edition, Accessed 16 August 2023. SN: 8741, [DOI: http://doi.org/10.5255/UKDA-SN-8741-4](http://doi.org/10.5255/UKDA-SN-8741-4)

Helliwell, J.F., Huang, H., Wang, S. (2019). Changing World Happiness. Chapter 2 of the World Happiness Report 2019. Accessed 30/08/2023. Available from: <https://worldhappiness.report/ed/2019/>

Kanbur, R., Patel, E., Stiglitz, J.E. 2018. Sustainable Development Goals and Measurement of Economic and Social Progress. In: For Good Measure: Advancing Research on Well-being Metrics Beyond GDP. OECD. 2018.

Kolpashnikova K, Flood S, Sullivan O, Sayer L, Hertog E, Zhou M, Kan, M-Y, Suh, J., Gershuny, J. (2021). Exploring daily time-use patterns: ATUS-X data extractor and online diary visualization tool. PLoS ONE 16(6): e0252843. <https://doi.org/10.1371/journal.pone.0252843>

ONS 2018. Personal well-being user guide. Accessed 30/08/2023. Available from: <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/methodologies/personalwellbeingsurveyuserguide>

Pettini, A., Musikanski, L. 2023. Doomed to consume? Non-satiation as a flaw in the current economic paradigm and what communities can do about it. International Journal of Community Well-being 6:63-78. <https://doi.org/10.1007/s42413-022-00182-6>

Sullivan, O., Gershuny, J., Sevilla, A., Walthery, P., Vega-Rapun, M. 2020. Time use diary design for our times – an overview, presenting a Click-and-Drag Diary Instrument (CaDDI) for online application. Journal of Time Use Research. Volume 15:Issue 1. <https://doi.org/10.32797/jtur-2020-1>

Voukelatou, V., Gabrielli, L., Miliou, I. et al. Measuring objective and subjective well-being: dimensions and data sources. *Int J Data Sci Anal* 11, 279–309 (2021).  
<https://doi.org/10.1007/s41060-020-00224-2>