Understanding Children’s Well-Being

Links between family economic factors and children’s subjective well-being: Initial findings from Wave 2 and Wave 3 quarterly surveys

Gwyther Rees, Larissa Pople and Haridhan Goswami
Introduction

This paper describes the initial findings of new research on the link between household economic factors and children’s subjective well-being (SWB).

Background

At first sight, the link between economic factors such as levels of income or poverty and people’s well-being may seem to be an obvious one. It might be assumed that increasing prosperity is fairly closely associated with increasing quality of life or well-being. However, research on adult populations suggest that this is not necessarily the case.

At a societal level, there is an ongoing and unresolved debate regarding the links between Gross Domestic Product (GDP), used as a measure of national economic prosperity, and the SWB of the adult population. Recent research has focused on the so-called Easterlin Paradox, which took its name from a study by Easterlin (1974), which concluded that, above a certain level, increases in GDP in a given country did not appear to be accompanied by increases in the average well-being of adults in society. There have been a number of recent studies making the case for and against this proposition (e.g. Hagerty & Veenhoven, 2003; Easterlin, 2003; Stevenson & Wolfers, 2008; Easterlin et al, 2010).

At an individual level, research studies of adults’ well-being have tended to find a significant but relatively small link between economic factors and SWB (see review by Diener & Biswas-Diener, 2002).

Turning to children and young people, there is evidence from cross-national comparisons of a link between children’s subjective well-being and various economic indicators including GDP, income inequality and deprivation (Bradshaw & Richardson, 2009; Bradshaw et al, 2011).

The links between family economic status and children’s SWB at an individual level are less well-researched. Our own recent research (Rees et al, 2010) found that whether a young person lived in a household where at least one adult had a paid job showed a small but significant association with young people’s SWB, even when taking into account a range of other socio-demographic factors. On the other hand another report in the UK (Knies, 2011), based on analysis of the Understanding Society household panel survey, concluded that family economic factors were not significantly associated with children’s happiness once other factors (including family structure, number of siblings and country of residence) were taken into account. Clearly then, there is a need for further research on this issue.

Research aims

The main aim of the research presented in this report was to explore the connections between family economic status and children’s well-being further by gathering SWB data directly from children and young people and linked data on family economic status directly from adults. We were also interested to explore the dynamic nature of children’s SWB in relation to recent changes in family economic status. The reason for this is that our earlier research has found that children’s SWB is sensitive to recent events such as changes in family structure (Rees et al, 2010) and this is consistent with other research with adults (e.g. Suh & Diener, 1996).
Research method

The findings presented in this paper are part of an ongoing programme of research on children’s subjective well-being being undertaken by The Children’s Society in collaboration with the University of York. The programme has so far included extensive consultation with young people about their ideas of well-being (The Children’s Society, 2006); a large-scale schools-based survey of a representative sample of young people aged 10 to 15 (Rees et al, 2010; Bradshaw et al, 2010); and a regular series of brief quarterly surveys of young people aged 8 to 15 initiated in July 2010 (Rees, Bradshaw & Goswami, 2010).

The paper is based on the second and third waves of the above series of quarterly surveys, which were conducted for The Children’s Society by the survey agency Research Now in October 2010 (Wave 2) and February 2011 (Wave 3). Each survey was drawn from a household panel, using quotas for age and gender of young people and social class of the household. Data was gathered from matched pairs of adults (usually one of the young people’s parents or carers, referred to for brevity as ‘parents’ below) and young people. The total sample sizes of Waves 2 and 3 were 2,000 and 2,004 respectively.

Information gathered from young people used in this report was as follows:

- Age
- Gender
- Life satisfaction - a five item scale derived from a longer scale developed by Huebner (see Rees et al, 2010 for further details) yielding a score from 0 to 20.

Information was also available on the nation or region of the UK that young people lived in.

Information gathered from parents for which findings are presented in this report was as follows:

- Number of adults in household
- Number of those adults in full-time and part-time paid work
- Occupation of main household earner, from which social class was derived
- Numbers and ages of young people in the household
- Household income (weekly, monthly or annual, using 38 income bands), from which it was possible to calculate equivalised household income (i.e. income adjusted for family size) using the data on household composition\(^1\). [Wave 3 only]
- Whether household income has changed over the last 12 months\(^2\)
- Concerns about the impact of the current UK economic situation on the household over the next 12 months\(^3\)

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1 Equivalised household income was calculated using the OECD-modified method.
2 Five response options – Increased a lot; Increased a little; Stayed about the same; Decreased a little; Decreased a lot.
3 Four response options – Very concerned; Quite concerned; Not very concerned; Not at all concerned.
Responses to the questions on recent changes in household income and concerns about the impact of the current UK economic situation on the household over the next 12 months are shown in Figures 1 and 2.

- In around two-fifths (41%) of households income had stayed relatively constant over the past year. Income had increased in 27% of households and decreased in a slightly higher proportion (32%).

- The large majority of parents surveyed (88%) were ‘quite’ or ‘very’ concerned about the potential impact of the current economic situation on their family over the next 12 months.

![Figure 1: Changes in household income over the last 12 months](image1)

![Figure 2: Concerns about the impact of the current UK economic situation on the household over the next 12 months](image2)

**Statistical notes**

Except where stated in the report, all findings are based on a pooled data set from Waves 2 and 3. There was no overlap in respondents for these two waves.

Where a difference is noted as statistically significant this relates to a confidence level of 99% unless otherwise stated. Details of the statistical tests used are provided in footnotes.
Findings

We first of all present findings on the links between each of the indicators of family economic situation and children’s SWB, looked at independently. We then move on to look at these factors in combination, also taking into account other socio-demographic factors.

Social class

Mean life satisfaction scores decreased across social classes\textsuperscript{4}. The mean score for social class E (12.6) was significantly lower than the average (14.0) as well as the mean score for social class A (14.9) (Figure 3).

The proportion of young people with low well-being (below the mid-point of 10 out of 20) varied with social class\textsuperscript{5}. For example, 18% of young people in social class E had low well-being, compared to 6% in social class A (Figure 4).

Adults in paid work

Mean life satisfaction scores were significantly\textsuperscript{6} lower (13.0) for young people living in a household where there were no adults in full-time employment (Figure 5).

The proportion of young people with low well-being (below the mid-point of 10 out of 20) was significantly\textsuperscript{7} higher in households where no adults were in full-time work. Around 16% of young people in household with no-one in full-time work had low well-being, compared to under 10% for other young people (Figure 6).

\textsuperscript{4} ANOVA
\textsuperscript{5} Chi-square test
\textsuperscript{6} T-test
\textsuperscript{7} Fisher’s exact test
Household income

In Wave 3 we were able to gather and calculate equivalised household income – that is total household income adjusted to take into account the number of people living in the household. The charts below show figures for the households in Wave 3 divided into five equivalised income bands where ‘Low’ refers to the first and lowest quintile and ‘High’ refers to the fifth and highest income quintile.

Mean scores varied significantly\(^8\) with equivalised household income (Figure 7).

The proportion of young people with low well-being was also higher amongst lower income groups\(^9\) (Figure 8).

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\(^8\) ANOVA

\(^9\) Chi square test
Changes in household income

Mean life satisfaction scores were significantly lower\(^{10}\) for young people living in a household where the income had decreased (Figure 9). The proportion of young people with low well-being was also significantly lower\(^{11}\) in households that had experienced a fall in household income. For example, 14.5% of young people in households experiencing a decrease in income had low well-being, compared to 10% for households with no change and 6.5% for households experiencing an increase in income (Figure 10).

Concerns about the economic situation

Finally, mean life satisfaction scores were lower for young people whose parents were very or quite worried about the impact of the recession (Figure 11). In terms of low well-being, 13% of young people living in households where the responding adult was ‘very concerned’ about the impact of the recession had low well-being compared to 9% ‘quite concerned’ and 7.5% ‘not very / at all concerned’ (Figure 12).

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\(^{10}\) ANOVA

\(^{11}\) Chi-square test
Looking at all economic indicators together

There were significant links between almost all of the pairs of indicators of family economic status. Pearson correlations between the variables (excluding the binary variable regarding adults in full-time paid work) are shown in Table 1. The only pair of variables for which there was not a significant correlation was social class and concerns about the economic situation – i.e. there are roughly equal levels of economic concerns across all social classes.

Table 1: Associations (Pearson correlations) between household economic factors (Wave 3 only)

<table>
<thead>
<tr>
<th></th>
<th>Social class</th>
<th>Income change</th>
<th>Economic concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household income</td>
<td>.489**</td>
<td>.172**</td>
<td>-.136**</td>
</tr>
<tr>
<td>Social class</td>
<td>-</td>
<td>-.110**</td>
<td>ns</td>
</tr>
<tr>
<td>Income change</td>
<td>-</td>
<td>.189**</td>
<td></td>
</tr>
</tbody>
</table>

We then wished to look at the combined association between all the household economic factors and children’s SWB using regression analysis. However due to the strong correlation between household income and social class we decided to exclude social class from the multivariate analysis that follows.

The analysis suggests that, in combination, three of the household economic factors explained just over 3% of the variations in children’s SWB (see Table 2). When considered jointly with the other household economic factors, whether the household contained an adult in full-time paid employment did not make a significant contribution to the model.

Table 2: Joint associations between household economic factors, and children’s SWB (Wave 3 only)

<table>
<thead>
<tr>
<th></th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equivalised household income</td>
<td>.105**</td>
</tr>
<tr>
<td>At least one adult in full-time paid work</td>
<td>ns</td>
</tr>
<tr>
<td>Income same (Ref: Income increased)</td>
<td>-.061*</td>
</tr>
<tr>
<td>Income decreased (Ref: Income increased)</td>
<td>-.105**</td>
</tr>
<tr>
<td>Quite concerned (Ref: Not very/at all concerned)</td>
<td>-.110**</td>
</tr>
<tr>
<td>Very concerned (Ref: Not very/at all concerned)</td>
<td>-.129**</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.034</td>
</tr>
</tbody>
</table>
This model carries some important messages about the influence of household economic factors on children’s SWB. First, SWB was associated with income. Second, and in addition, even when current equivalised household income is taken into account, changes in income over the last year and levels of parental concerns about the impact of the current economic situation are associated with children’s SWB. Thus, children’s SWB appears to be sensitive to recent and prospective changes in household economic status. This echoes findings from our previous research about the impact of changes in family structure on children’s SWB.

Taking into account other socio-demographic factors

As noted in the introduction to this report, other recent UK research using Wave 1 of the Understanding Society data set (Knies, 2011) has concluded that equivalised household income does not have a significant association with children’s SWB once some other factors (family structure, number of children and country of residence) are taken into account. We were therefore interested to explore this topic using our data. We undertook a similar analysis to Knies’ study taking into account five variables:

- Age of young person
- Gender of young person
- Number of adults in household\(^{12}\)
- Number of children in household
- Whether living in England or not

To begin with we undertook analysis of the links between each of these factors and children’s SWB when looked at individually. To summarise, in Wave 3 of our survey:

- Age was significantly associated\(^{13}\) with SWB. Older children tended to have lower SWB than younger ones. Mean SWB scores (out of 20) were 14.8 for eight-year-olds and then declined fairly steadily across age bands to 12.3 for 15-year-olds.

- There was no significant difference in mean SWB scores between females (13.8) and males (13.5). There is mixed evidence from previous research on this issue with some studies suggesting lower SWB for females. However recent analysis of trends in the UK suggests that the gap between females and males may have closed over recent years (Bradshaw & Keung, 2010).

- Young people living in a household with only one adult had significantly\(^{14}\) lower well-being (mean of 13.4) than other young people (14.1).

- We found no evidence of a statistically significant link between the number of children in the household and SWB. Mean SWB scores for young people in households with one, two and three children were very similar (all between 13.6 and 13.7). The mean score

\(^{12}\) This differs slightly from Knies’ analysis which used the number of birth parents in the household. We did not have data on this issue in the current survey. However our previous research suggests that household economic factors (presence of an adult in a paid job) are still significantly associated with children’s SWB once family structure (lone parent and step families) are taken into account – see Rees et al, 2010, page 39.

\(^{13}\) Pearson’s correlation coefficient = -.237, p = .000. Kendall’s tau-b correlation coefficient = -.180, p = .000.

\(^{14}\) T-test p-value = .000. Mann-Whitney test p-value = .001.
for young people living in households of four or more children was lower at 12.9 but not significantly so.

- Young people living in England had lower mean well-being (13.6) than those living in Wales or Scotland (14.1). This difference was statistically significant\(^{15}\).

We then undertook regression analysis to analyse the associations of various factors with children’s SWB whilst holding other factors constant. The results are summarised in Table 3.

<table>
<thead>
<tr>
<th>Table 3: Joint associations between household economic factors, other socio-demographic factors and children’s SWB</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Single adult</td>
</tr>
<tr>
<td>No. of children</td>
</tr>
<tr>
<td>Lives in England</td>
</tr>
<tr>
<td>Household income</td>
</tr>
<tr>
<td>Income same (Ref: Income increased)</td>
</tr>
<tr>
<td>Income decreased (Ref: Income increased)</td>
</tr>
<tr>
<td>Quite concerned (Ref: Not very / at all concerned)</td>
</tr>
<tr>
<td>Very concerned (Ref: Not very/ at all concerned)</td>
</tr>
<tr>
<td><strong>Adjusted R^2</strong></td>
</tr>
</tbody>
</table>

Model 2 is a joint analysis of the association of the five socio-demographic variables discussed above and children’s SWB. The model suggests that older age, living with only one adult and living in England are all significantly associated with lower SWB. In this model, living in a household with more children was also marginally associated with lower SWB. Gender was not significant. This model explains 7% of the variation in children’s SWB. Note that age alone explains over 5% of the variation (see Model 1) and has substantially the strongest explanatory power of these variables.

Model 3 introduces four household economic variables into the model. In this model, age and living in England still make a significant contribution to the model but the number of children

\(^{15}\) T-test p-value = .012. Mann-Whitney test p-value = .009.
in the household no longer does. Of the household economic factors, current income, recent changes of income and adults’ economic concerns all also make a significant contribution. The total explanatory power of the model is 9%.

Model 4 shows a regression analysis including only age and the three above-named economic factors. All four variables were significant and the explanatory power of the model was just over 8%.

This analysis suggests that household economic factors are significantly associated with children’s SWB even when socio-demographic factors are taken into account. This conclusion differs from the recent findings from the *Understanding Society* survey, using a different measure of SWB, discussed earlier.

As well as our different overall conclusion, our analysis contains two detailed differences in relation to the influence of socio-demographic factors on children’s SWB. First, in our survey, children’s SWB declines with age and this factor made a particularly important contribution to the overall models presented in Table 3. In the *Understanding Society* survey age did not contribute to the model. However our current findings are consistent with our previous research (Rees et al, 2010) and with some other international studies (e.g. Currie et al, 2008) which have found lower SWB as young people get older, particularly amongst females.

Second, our analysis found little evidence of an association between the number of children in the household and children’s SWB. Possible reasons for these different findings are discussed in the concluding section below.
Discussion

This paper set out to explore the links between household economic factors and children’s SWB, making use of a recent survey of a sample of 2,000 children aged 8 to 15 with additional information being gathered from parents.

In summary, we have found that economic factors do have a significant link with children’s SWB. In particular, lower levels of household income, recent decreases in income and greater adult economic concerns about the future are all associated with children having lower average levels of SWB. These findings hold true even when other factors such as young people’s age, household composition and country of residence are taken into account.

Our conclusions differ from those in another recent analysis in the UK using data from the Understanding Society survey. There are a number of potential reasons for this difference. However one important factor may be the difference in measures of children’s SWB used in the two studies. The measure used in Understanding Society is a single item measure about how young people feel about their life as a whole, using a seven point scale where 1 corresponds to ‘completely happy’ and 7 corresponds to ‘not at all happy’. Most (70%) of young people selected 1 or 2 on this scale (Knies, 2011). Our measure consists of five statements (e.g. My life is going well) which young people are asked how much they agree or disagree with on a five point scale from ‘strongly agree’ to ‘strongly disagree’. The responses are summed thus giving possible scores from 0 to 20. It may be that these different approaches to measuring SWB are an explanatory factor for the different findings.

We would note that neither our study, nor the Understanding Society survey, includes a children’s self-report measure of material deprivation16. This is an important gap because measures based on family economic status may not reflect different ways in which families manage and distribute their income which may in turn have effects on children’s experiences and well-being. We are currently developing such a self-report measure and will be publishing the first findings using this measure later this year.

Two other limitations of our current study should be noted.

First, the associations between family economic status and children’s SWB are statistically significant but not that large. That is to say, economic factors do matter, but only to a limited extent. This finding should not be that surprising when one considers the wide range of factors which may have an impact on children’s SWB – for example, quality of relationships with family and friends, experiences of bullying, experiences at school, and so on.

Second, it is important to note that the findings presented in this paper do not demonstrate a causal connection between economic factors and children’s SWB. Taking for example our finding of a link between changes in household income and children’s SWB, it may be that both of these factors are explained by other factors. One possibility is that families going through changes (such as parental separation, serious illness or death of a parent) may be likely to experience decreases in income. In these circumstances it may be the other changes (rather than economic ones) which can explain children’s lower SWB. These types of issues need to be explored further through research taking into account a wider range of factors.

16 The Understanding Society survey analysis does include measures of household and childhood material deprivation, as well as household income, but responses to these measures are gathered from adults rather than young people.
In conclusion, our analysis demonstrates the value of measuring children’s SWB as a means of monitoring the impact of external factors on their quality of life. Given the current economic uncertainties in the UK, the findings presented in this paper suggest that it will be important to continue to look at this issue over the coming years.
References


14