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## The Effects of Adverse Childhood Experiences on Adults' Subjective Wellbeing

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DISCUSSION PAPER SERIES

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Experiences on Adults' Subjective  
Wellbeing**

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SEPTEMBER 2023

## DISCUSSION PAPER SERIES

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# The Effects of Adverse Childhood Experiences on Adults' Subjective Wellbeing

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SEPTEMBER 2023

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## ABSTRACT

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# The Effects of Adverse Childhood Experiences on Adults' Subjective Wellbeing\*

Using four cross-sectional data files for the United States and Europe we show that Adverse Childhood Experiences (ACE) have a significant impact on subjective wellbeing (SWB) in adulthood. Death of a parent, parental separation or divorce, financial difficulties, the prolonged absence of a parent, quarreling between parents, parental unemployment, sexual assault, experiencing long-term health problems, being bullied at school and being beaten or punched as a child all have long-term impacts on wellbeing. These experiences impact a wide range of wellbeing measures in adulthood including satisfaction with many aspects of everyday life, happiness and life satisfaction, self-assessed health, and are positively linked to measures of negative affect including the GHQ6. The evidence linking ACEs to lower SWB in adulthood is consistent across fifty different measures including sixteen positive affect and twenty-six negative affect measures relating to assessments of one's one life, and eight variables capturing how the individual feels about the area she lives in, including unemployment, drugs, violence and vandalism plus democracy in their country. Trauma in childhood is long lasting.

**JEL Classification:** I31, I10, J12

**Keywords:** childhood, neglect, abuse, family circumstances, bullying, subjective wellbeing

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## 1. Introduction

Studies in psychology, sociology and economics have identified a number of adverse circumstances individuals face which negatively impact subjective wellbeing (SWB). But they do so often for short periods of time, with individuals subsequently reverting to, or close to, the levels of SWB they had prior to the event. This process of habituation, or adaptation, to prior ‘set points’ even occurs when people are exposed to quite extreme events such as terrorist attacks (Bryson and Mackerron, 2018) and natural disasters (Kimball et al 2006).<sup>1</sup> A major exception appears to be the experience of adversity or neglect in childhood where the SWB of those who had Adverse Childhood Experiences (ACEs) is affected well into adulthood, with the adverse wellbeing consequences in adulthood increasing with the number of ACEs experienced (Hamby et al., 2021).

Although the precise set of ACEs varies across studies depending on data availability, studies are fairly consistent in terms of the negative partial correlations they find as between individual ACEs, or additive scales of ACEs, and SWB outcomes. The vast majority of the studies examining the association between ACEs and SWB are based on single surveys. Our paper contributes to the literature by examining these associations across multiple datasets and assessing ACE partial correlations with multiple SWB metrics.

Using four cross-sectional data files for the United States and Europe we contribute to the literature by showing that ACEs have a significant impact SWB in adulthood, and that they continue to do so through to 2023. Death of a parent, parental separation or divorce, household financial difficulties, the prolonged absence of a parent, quarreling between parents, parental unemployment, sexual assault, experiencing long-term health problems, being bullied and being beaten or punched as a child all have long-term impacts on SWB, effects that rise with the number of ACEs.

These experiences impact a wide range of wellbeing measures in adulthood including satisfaction with many aspects of everyday life, happiness and life satisfaction, self-assessed health, and are positively linked to measures of negative affect including the GHQ6. The evidence linking ACEs to lower SWB in adulthood is consistent across fifty different measures including sixteen positive affect and twenty-six negative affect measures relating to assessments of one’s one life, and eight variables capturing how the individual feels about the area she lives in, including unemployment, drugs, violence and vandalism plus democracy in their country. Trauma in childhood is long lasting.<sup>2</sup>

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<sup>1</sup> Garfin et al (2022) though found that repeated exposure to hurricanes sensitizes people to respond with *more* psychological symptoms over time.

<sup>2</sup> In two companion papers (Blanchflower and Bryson, 2023a, 2023b) we examine the links between ACEs and adult physical wellbeing. We find ACE measures tend to have an impact on a range of physical outcomes years later raising the probability the respondent had asthma., diabetes, a heart attack, angina, arthritis, high blood pressure or skin cancer. ACEs were also associated with restless sleep, difficulties walking and concentrating and raised the probability of smoking and drinking years later, backache and high blood pressure, worse health and higher BMI even controlling for birthweight. We found that ACEs were associated with a lower probability of having a job or being married as an adult.

## 2. Previous Literature

Adverse childhood experiences (ACEs) are “events leading to threats or actual harm and injury, humiliating and shaming or witnessing harm to others” (Hamby et al., 2021: 231) which can traumatize a child, with the potential for long-term consequences. As the literature on resilience shows, not all who experience ACEs are affected in the same way (Poole et al., 2017).<sup>3</sup> Nevertheless, a large empirical literature indicates that ACEs have a substantial and significant impact on a range of outcomes in childhood (Elmore et al., 2020), adolescence (Crandall et al., 2020; Isohookana et al., 2013) and adulthood (Edwards et al., 2003; Felitti et al., 1998).

Although much of the research is reliant on cross-sectional data and thus ACEs recalled many years later, many argue the association is causal. For instance, Norman et al (2012) examined ACE studies published up to 2012 and concluded that “*the evidence suggests a causal relationship between non-sexual child maltreatment and a range of mental disorders, drug use, suicide attempts, sexually transmitted infections, and risky sexual behaviour*”.

The impact of ACEs in adulthood are far reaching, affecting many parts of people’s lives. For instance, child maltreatment through abuse and neglect, affects subsequent social and economic outcomes in adulthood such as employment (Metzler et al, 2017), asset ownership, and financial security (Pinto Pereira and Powell, 2017; Liu et al., 2013), education and cognition (Geoffroy et al., 2016) and health outcomes such as mental health, obesity, and cardiovascular health (Clark et al., 2010; Norman et al., 2012; Gilbert et al., 2009; Power et al., 2015), inflammation (Chen and Lacy, 2018) and even premature mortality (Rogers et al., 2021).

Currie and Widom (2010) find that abused and neglected children experience large and enduring economic consequences. They argue that “adults with documented histories of childhood abuse and/or neglect have lower levels of education, employment, earnings, and fewer assets as adults, compared to matched control children. There is a 14% gap between individuals with histories of abuse/neglect and controls in the probability of employment in middle age, controlling for background characteristics. Maltreatment appears to affect men and women differently, with larger effects for women than men”.

By the second half of the 21<sup>st</sup> Century the volume of research on ACEs and health-related outcomes was so large that Hughes et al (2017) were able to undertake a meta-analysis for 37 studies published up to 2016 involving risks of 23 health outcomes, consisting of substance use, sexual health, mental health, weight and physical exercise, violence, and physical health status and conditions. They found that “associations were weak or modest for physical inactivity, overweight or obesity, and diabetes; moderate for smoking, heavy alcohol use, poor self-rated health, cancer, heart disease, and respiratory disease; strong for sexual risk taking, mental ill health, and problematic alcohol use; and strongest for problematic drug use and interpersonal and self-directed violence.” (2017: 363). They also noted the particularly negative outcomes for those faced with multiple ACEs.

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<sup>3</sup> Poole et al. (2017) conducted a survey of 4,006 participants from primary care clinics in Calgary Alberta, who provided retrospective data on any ACEs. The authors found that these variables variously impacted whether or not the respondent was depressed - 7.6% overall were. The impact of emotional abuse was especially large. They also found resilience moderated the association between ACEs and depression.

ACEs play an important role in increasing various measures of negative affect and poor mental health in adulthood, increasing the risk of depression, anxiety, aggression, suicide risk (Chapman et al., 2004, Heim et al., 2008), personality disorders (Afifi et al., 2010), and attendant risky health behaviors such as substance abuse (Mersky et al., 2013). They also reduce positive affect in adulthood, as captured by metrics such as life satisfaction (Powdthavee, 2014).

Mosley-Johnson et al (2019) examined three wellbeing outcomes using data from 6323 participants from three waves of the Midlife Development in the United States (MIDUS) - 1995–1996, 2004–2006, and 2011–2014. The MIDUS surveys collected information on emotional and physical abuse, household dysfunction, if the respondent did not live with biological parents, including parental divorce or never lived together, death of a parent, adopted; lack of male head in the household; parental alcohol or drug use; parental mental illness and financial strain less than a high school education for father or mother where father was not present. The outcome measures used were life satisfaction, plus a psychological and social well-being scales.<sup>4</sup> The authors found that ACEs were associated with lower life satisfaction, lower psychological well-being, and lower social well-being.

Wilson-Genderson et al (2022) examined adverse childhood experiences prior to age 18 in a sample of 5688 people aged 50-74, who they followed for twelve years and found those who experienced them had life trajectories of depressive symptoms.

Huang et al (2021) examined the relationships between ACEs and 4-step happiness in a sample of Chinese college students during the COVID-19 pandemic. The data were collected from 1871 college students from 12 colleges across China in September 2020. The findings of this study show that ACEs had significant negative effects on students' happiness. Students who experienced emotional neglect and abuse in childhood were affected the most.

Bellis et al (2013) examined mental wellbeing and life satisfaction in 11,500 households in the North-West of England, from the North-West Mental Well-being Surveys of 2012 and 2013 and confirmed once again that adult well-being is strongly linked to childhood experience. Low overall well-being and low life worth were significantly associated with reports of childhood violence or unhappiness. Unhappy and especially violent childhoods had negative impacts as an adult, but it is important to note that unhappy childhoods, even in the absence of violence, were associated with low well-being.<sup>5</sup>

Some studies have used the Behavioral Risk Factor Surveillance System (BRFSS) data, described in some detail in Section Three, which we use in part of our empirical investigation. For example, Nurius et al (2015) used data on 13,593 respondents from the 2010 BRFSS for Washington State

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<sup>4</sup> Psychological Well-Being scale includes 1) self-acceptance, 2) the establishment of quality ties to others, 3) a sense of autonomy in thought and action, 4) the ability to manage complex environments to suit personal needs and values, 5) the pursuit of meaningful goals and sense of purpose in life, and 6) continued growth and development as a person. Social well-being included 1) meaningfulness of society, 2) social integration, 3) acceptance of others, 4) social contribution, and 5) social actualization. Higher scores showed higher wellbeing.

<sup>5</sup> Of interest is that Bellis et al (2013) found that mental ill-health peaked in midlife on a variety of measures in the last two weeks including low life satisfaction (Table 2); feeling useful; feeling relaxed; dealing well with problems; thinking clearly, feeling close to others; able to make up your own mind (Table 1). .

to examine aspects of adult mental health - perceived well-being, psychological distress, and impaired daily activities measures. They find ACEs lowered all three SWB measures in adulthood.

The relationship one has with one's parents in childhood is particularly salient for wellbeing in adulthood. Flouri (2004) showed the importance of closeness to parents in childhood for predicting adult outcomes. Flouri and Hawkes (2017) found, using data from the British 1970 Cohort Study that mothers' expectations when the child was age 10 were positively related to daughters' sense of control at age 30 even after controlling for ethnicity, educational attainment, and concurrent partner, parent, and labor market participation status, as well as many confounding variables measured at ages 0-10. Conversely, when children experience parental neglect or abuse this can have a major impact on their mental health and SWB in adulthood, as numerous studies have found (Afifi et al., 2008; Corso et al., 2009; Kessler et al., 1997; Weich et al., 2009). For example, in their prospective study Weich et al. (2009: p.393) found that "abusive relationships predicted depression, anxiety and PTSD. Maternal emotional unavailability in early life predicted suicide attempts in adolescence". More broadly, Brown et al (1999) found that adolescents and young adults with a history of childhood maltreatment were 3 times more likely to become depressed or suicidal compared with individuals without such a history.

A substantial part of the ACE literature focuses on bullying. Being bullied is not uncommon. A study by the UN (2019) suggested that one in three children across countries of all incomes in the preceding month had been bullied. It appears to have a substantial and persistent effect on outcomes in adulthood. For example, in their study Wolk et al (2013: p. 1958) found that "*victims of childhood bullying, including those that bullied others (bully-victims), were at increased risk of poor health, wealth, and social-relationship outcomes in adulthood even after we controlled for family hardship and childhood psychiatric disorders.*"

Other studies document the negative impact of being bullied in school across a range of outcomes, (Arseneault et al. 2010; Kelleher et al. 2008; Gladstone et al. 2006, Oshi, 2013, Smokowski and Kopasz, 2005). Bullying impacts the child's SWB (Savahl et al (2018) and Heydenberk and Heydenberk (2017) but persist into adulthood, often interacting with other negative episodes. Powdthavee (2012) using longitudinal data on almost 3,000 children found that the negative effect of unemployment on mental health and life satisfaction is almost four times larger for workers who had been bullied a lot in their early life with zero adaptation to unemployment for these individuals over time. Drydakis (2014) showed using the 2008 Greek Behavioural Study that subsequent labor force participation, employment rates and hourly wages were negatively affected by bullying.

Oshio et al. (2013) examined the impact of childhood interpersonal adversity on adulthood subjective well-being in Japan. They concentrated on parental maltreatment (abuse and neglect) and bullying in school as childhood adversity variables and on perceived happiness and self-rated health as adulthood SWB measures. They used micro data from a survey in municipalities in and around the Tokyo metropolitan area (n=3,292). Their main result was that the experience of childhood adversity had a substantial negative impact on adulthood SWB. Second, social support and SES significantly mediated the impact of childhood adversity. Twelve percent of the sample reported being bullied by age 15. Physical abuse, parental neglect and bullying all increased unhappiness in adulthood, with physical abuse having the largest impact and bullying the smallest, even controlling for social support variables and socio-economic status.



We contribute to the literature on ACE effects on SWB in adulthood through the examination of two cross-section studies for the United States (the General Social Survey and the Behavioral Risk Factor Surveillance System and two from Europe (Eurobarometer and the European Social Survey). We describe these datasets in detail in Section Three. The evidence across these four surveys is consistent. Childhood adversity and abuse lowers wellbeing in adulthood. ACEs lower positive affect and increase negative affect, variously defined, with the effects of more ACEs being additive. The impacts are not confined to broad measures of how one is feeling about one's own life. They extend to how one is feeling about aspects of life in general including satisfaction with democracy and perceptions of one's neighborhood and consideration shown to them by other people.

The ACE effects on SWB in adulthood contrast somewhat with the broader literature on SWB. The broader literature suggests that, whilst adverse experiences can have a substantial impact on an individual's wellbeing, the effects are often short-lived, with wellbeing returning to the individual's 'set point' after a period of time (Lucas, 2007), a process of mean reversion consistent with adaptation (Diener et al., 1999). Diener et al. (2013) find adaptation in life satisfaction occurs in response to changes in marital status, assault, disability, unemployment, and childbirth, although full adaptation was not apparent in the case of unemployment and severe disability. Mean reversion occurs quickly even when individuals experience quite extreme events such as terrorist-related incidents (Bryson and MacKerron, 2018; Krueger, 2018) or natural disasters (Kimball et al., 2006). In contrast childhood trauma seems to have (negative) impacts that last decades.<sup>6</sup>

### **3. Data and Estimation**

In this section we describe the four data sets we use and the estimation techniques used to identify the partial correlations between ACEs and SWB.

#### **3.1: The U.S. General Social Survey (GSS)**

Beginning in 1972 the GSS (<https://gss.norc.org/>) is one of the longest running social surveys in the world. Run by NORC at the University of Chicago it is a nationally representative cross-sectional survey data on adults in the United States. We pool these data for the period 1973-2022 to examine three subjective well-being metrics, namely happiness, satisfaction with family life and satisfaction with one's financial situation. We estimate the partial correlation between three ACEs and adult subjective wellbeing. These ACEs are being punched or beaten as a child; one or both parents dying; and parental divorce or separation. Control variables are year and region dummies, age and its square, gender, race, age left school and labor force status.

#### **3.2: The U. S. Behavioral Risk Factor Surveillance System (BRFSS)**

The BRFSS (<https://www.cdc.gov/brfss/index.html>) is run by the Centers for Disease Control (CDC). It is a large cross-sectional telephone survey of adults in the United States which focuses on health-related risky behaviors, chronic health conditions and the use of preventative services. We pool the years for 2009-2023 (N=431,870). We have eight ACE metrics which we enter separately, as well as presenting models containing the additive scale instead. (They are described in more detail in Section 4.2). Three of the variables relate to who you lived with as a child, namely

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<sup>6</sup> Surveys of the factors that determine adult happiness generally contain little on the impact of experiences in childhood see for example, Frey and Stutzer (2002) and Dolan et al. (2008).

living with someone who was depressed, mentally ill or suicidal; someone who was a problem drinker; and someone who used illegal drugs. One ACE is based on whether parents separated or divorced during one's childhood. One asked whether a parent or adult in the home ever "hit, beat, kicked or physically hurt you". A further three related to sexual abuse by an adult or someone five years older than you, namely being touched sexually, someone trying to make you touch them sexually, or being forced to have sex. The (0,8) additive scale had a weighted mean of 1.3, with just under half of respondents reporting none while 9% had four or more.

The dependent variables include the number of bad mental health days in the last month; depression; anxiety; life satisfaction; self-assessed health; pleasure; feeling like a failure; tiredness; problems concentrating; trouble sleeping, all of which were estimated with standard OLS regressions. We also include one physical health indicator, namely the number of bad physical health days in the last 30 because the question mirrors the bad mental health question and because there is a substantial literature linking ACEs to poorer physical health.

### 3.3: European Social Survey (ESS)

The European Social Survey (<https://www.europeansocialsurvey.org/>) has been running every second year since 2002. It is a stratified random sample of the population of citizens aged 15 or more in 19 countries. In 2014 the survey asked adults about two ACEs, namely their experiences of serious family conflict and financial difficulties in childhood. The dependent variables we examine are happiness and life satisfaction.

### 3.4: Eurobarometer (EB)

In 2001 the long-standing Eurobarometer (<https://europa.eu/eurobarometer/screen/home>) contained a special module on childhood.<sup>7</sup> This provides us with cross-sectional data for 15,943 participants aged 15 or more across 15 West European Countries. The module contains a battery of eight ACEs, namely being brought up in a single person household; a parent dying during your childhood; parents facing major financial difficulties during your childhood; parental separation or divorce; parents quarreling; parental unemployment; long-term health problems; and being bullied at school (physically or verbally abused). It offers a huge array of SWB measures we use as dependent variables. These relate to satisfaction with life in general and separate domains in one's life; various measures of depression and unhappiness; poor perceptions of one's own neighborhood; and, for workers, perceptions of their own job.

### 3.5: Subjective wellbeing measures

Taken together across the four surveys we have 16 positive and 26 negative individual measures and eight relating to the conditions prevailing in the local neighborhood. We include five satisfaction measures relating to work, identified with a \* below.

Negative affect (26)	Positive affect (16)	Local Neighborhood (8)
Lost sleep	Happiness	Noise
Unhappy	Life satisfaction	Unemployment
Could not overcome difficulties	Financial situation	Violence
Strain	Life you lead	Drug abuse
Worthless	Family life	Vandalism

<sup>7</sup> <https://www.gesis.org/en/eurobarometer-data-service/survey-series/standard-special-eb/index.php?id=1246>

High blood pressure  
Not valued  
No friends  
Left out of my family  
Left out of society  
Not useful  
Some people look down on me  
Fear poverty  
Confidence  
Stress\*  
Pain\*  
Little pleasure in doing things  
Down, depressed or hopeless  
Felt a failure  
Trouble concentrating  
Bad mental health days  
Bad physical health days  
Depressive disorder  
Anxiety disorder  
Distress  
Tired or little energy

Social life  
Leisure life  
Income  
Standard of living  
Health status  
Time to do things you have to do  
Consideration shown by others  
Job satisfaction\*  
Pay satisfaction\*  
Job security satisfaction\*  
Satisfaction with democracy

Bad buildings  
Area you live in  
Bad reputation

As we show below, it seems to matter little which variable we use or indeed what time period we analyze: ACEs are detrimental to wellbeing in adulthood.

#### **4. Results**

We turn to presentation of our results, taking each survey in turn.

##### **4.1: Evidence from the U.S. General Social Surveys (GSS)**

We first examine cross-section time series data based on recall for the United States using the General Social Survey, 1972-2022.

Respondents were asked (variable =*family16*) “were you living with both your own mother and father around the time you were 16? If not living with both parents, respondents answered as follows (*famdif16*) that was because one or both parents died (11.8%) or because their parents had divorced or separated (10.1%). In earlier work using the GSS for the period 1972-1998 Blanchflower and Oswald (2004; 2008) (henceforth BO) found both variables entered negatively in happiness equations.

In the 1973-1994 surveys, respondents were also asked if they had ever been hit or punched as a child, adult or both. Overall, 64.9% said they had not been hit; 14.8% said they had been hit as a child; 12.4% as an adult and 8% as both an adult and as a child. Of course, we don't know who did the beating or punching as a child, whether it was a parent, a relative, a brother or sister or someone at school or more than one.

We start with the happiness variable (*happy*) used by BO. We also examine a financial satisfaction variable (*satfin*) and satisfaction with family life (*satfam*). The questions are as follows.

*Q1. ‘Taken all together, how would you say things are these days—would you say that you are very happy (=3), pretty happy (=2), or not too happy (=1)?’.*

*Q2. We are interested in how people are getting along financially these days. So far as you and your family are concerned, would you say that you are pretty well satisfied with your present financial situation (=3), more or less satisfied (=2), or not satisfied at all (=1)?”*

*Q3. For each area of life I am going to name, tell me the number that shows how much satisfaction you get from that area. – family life - a very great deal (=7); a great deal (=6); quite a bit (=5); a fair amount (=4); some (=3); a little (=2) and none (=1).*

Below we report the proportions saying they were ‘very happy’ in the first column, pretty happy in the second and satisfied a very great deal in the third for family life.

	Happy	Financial	Family
Not hit	37	33	43
Child	28	28	38
Adult	28	21	36
Both	23	18	36

Those reporting having been beaten – especially as a child - reported lower wellbeing. For example 37% of those who were neither beaten as a child or an adult reported being very happy versus 28% of those who said they were beaten as a child or an adult and 23% if they said they were beaten as an adult and as a child.

**Table 1** updates and extends Blanchflower and Oswald’s earlier work. All equations include year and region dummies, gender, race, age and its square, age left school and labor force status.

We start in column 1 with the two parental variables at age 16. The ‘parents divorced at 16’ variable was used by BO (2004) for the period 1972-1998 and was found to be significant and negative in happiness equations (their Tables 4 and 5) overall (n=36,012) and for men, women, whites and blacks separately. Here we extend the time series through 2022 (n=66,572) and find ‘parents divorced/separated’ is significantly negative, as is ‘one or both parents died’. We estimate using the full sample in column 3 for satisfaction with your present financial situation and the two parental variables at 16 are also significantly negative (n=66,711).

In columns 2, 5 and 6 we add the beaten and punched variables, hence restricting the years to 1973-1994. All three being beaten or punched variables are significantly negative for the three wellbeing variables. Being punched as an adult and as a child has especially marked wellbeing reducing effects. Parents being divorced or separated in the respondent’s childhood is significantly negative in all three equations, whereas the one or more parents having died variable is only significantly negative for family life.

What happens to the family in the respondent's childhood, according to data for the United States, impacts wellbeing later. Intact families with both parents present do best. Indeed, this is consistent with the work of Case and Katz (1991) who found that having teenage mothers was a particular problem in disadvantaged neighborhoods, likely implying no father present.<sup>8</sup>

These data do not allow us to identify who did the beating or punching but Osofsky (1999) notes that for children the most important resource to protect them from violence is "*a strong relationship with a competent, caring positive adult, most often a parent*".

#### **4.2: Behavioral Risk Factor Surveillance System (BRFSS) 2009-2022**

Here we examine recent data from the Center for Disease Control on wellbeing and child adversity. We have data from 2009-2012, and 2019- 2022; each survey has a few observations in the early months of the following year.

All of the files contain information on eight adverse childhood experiences that respondents reported as an adult that occurred when they were a child.<sup>9</sup>

- a) *Did you live with anyone who was depressed, mentally ill, or suicidal?*
- b) *Did you live with anyone who was a problem drinker or alcoholic?*
- c) *Did you live with anyone who used illegal street drugs or who abused prescription medications?*
- d) *How often did anyone at least 5 years older than you or an adult, ever touch you sexually?*
- e) *How often did anyone at least 5 years older than you or an adult, try to make you touch them sexually?*
- f) *How often did anyone at least 5 years older than you or an adult, force you to have sex? H) a) Before age 18, how often did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way? Do not include spanking.*
- g) *Were your parents separated or divorced?*

These questions are only asked in a subset of states: fourteen in the period 2009-2012 and thirty-two in the later period.<sup>10</sup>

The means of these variables as proportions by gender are as follows:

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<sup>8</sup> They conclude "*(youths) with teenage mothers and parents who were not married are substantially more likely to have children out of wedlock; and those with more-educated parents get more schooling.*"

<sup>9</sup> Respondents were told the following in the 2010 BRFSS Questionnaire (<https://www.cdc.gov/brfss/questionnaires/pdf-ques/2010brfss.pdf>)

*"I'd like to ask you some questions about events that happened during your childhood. This information will allow us to better understand problems, that may occur early in life, and may help others in the future. This is a sensitive topic, and some people may feel uncomfortable with these questions. At the end of this section, I will give you a phone number for an organization that can provide information and referral for these issues. Please keep in mind that you can ask me to skip any question you do not want to answer. All questions refer to the time period before you were 18 years of age. Now, looking back before you were 18 years of age"*

There are also questions on parental swearing and whether the parents beat each other that we omitted.

<sup>10</sup> Arkansas; DC ; Hawaii; Iowa; Louisiana; Minnesota; Montana; Nevada; North Carolina; Oklahoma; Tennessee; Vermont; Washington and Wisconsin in the first period and Alabama; Arizona; Arkansas; Delaware; DC; Florida; Georgia; Hawaii; Idaho; Indiana; Iowa; Kentucky; Michigan; Mississippi; Missouri; Montana; Nevada; New Hampshire; New Mexico; North Dakota; Oregon; Pennsylvania; Rhode Island; South Carolina; South Dakota; Tennessee; Texas; Utah; Virginia; West Virginia; Wisconsin and Wyoming in the second.

	2009-2012		2019-2022	
	Male	Female	Male	Female
Live with anyone depressed	13	18	14	19
Live with a problem drinker	21	25	21	25
Live with anyone uses illegal drugs	8	8	10	9
Did anyone touch you sexually	5	15	6	16
Did anyone make you touch sexually	4	9	5	11
Anyone forced you to have sex	2	6	2	6
Parent hurt you	15	15	24	22
Parents divorced/separated	20	22	34	37

The three variables relating to sexual abuse allowed the possibility of responding never, once or more than once. For simplicity we simply recoded all of these variables as (1,0) Yes/No dummies. We also created a score variable, which varied by adding them up: 47% of respondent scored zero with a mean of 1.18.<sup>11</sup>

Swedo et al (2023) reported on these ACE data, averaged across the 2012-2020 BRFSS surveys (n=24,882), across the twenty-five states that fielded these questions. Overall, 64% of Americans reported at least one ACE. The authors note that the incidence – obtained by summing the individual scores - was especially high in Oregon and low in New Jersey. It was higher among women, especially so for sexual abuse. The incidence was high among the least educated, the unemployed and those unable to work and those aged less than 35. Merrick et al (2019) also examined ACE data (n=144,017) in the 2015-2017 BRFSS and found that respondents with ACE had higher probabilities of being associated with worse health outcomes. These included coronary heart disease, stroke, asthma, chronic obstruction pulmonary disease (COPD), cancer (excluding skin cancer), kidney disease, diabetes, being obese and depression.

Mental health in the US has worsened over time not least because of the Covid pandemic, including the rise in long covid (Blanchflower and Bryson, 2022a, 2023c).<sup>12</sup> The number of bad mental health days (BMHD) is coded from 0-30 and in the pooled 2019-2022 sample 66.7% of all cases (n=4.4 million) report zero – versus 68.8% for 2009-2012. Blanchflower and Oswald (2020) examined the movement in the proportion of those in the BRFSS reporting that every day in the past thirty was a BMHD – those in extreme distress – and showed distress had risen dramatically over time especially for the least educated. Blanchflower and Feir (2023) documented that it rose sharply for Native Americans. The proportion in distress rose from 5.3% in 2009 to 6.2% in 2022.

We also have data in the BRFSS on not just the number of bad mental health days in the last thirty but also on the number of bad physical health days. This matters because of the evidence that ACEs have impacts on physical health and even mortality. The exact questions are as follows.

*Q4 “Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?”*

<sup>11</sup> The distribution is as follows (n=320,600)-0=47%; 1=25%; 2=12%;3=7%; 4=4%; 5=3%; 6-8=3%.

<sup>12</sup> We have data available for a much larger number of observations on mental and physical health of 4,395,831 and 4,475,609 respectively.

*Q5. “Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?”*

We include the eight ACE variables as controls in seven different regressions in **Table 2** for 2009-2013. The dependent variables include two positive affect variables, namely 4-step life satisfaction and a 5-step general health status variable. We also examine four negative affect variables: the number of bad mental health days, the number of bad physical health days, despair, measured as a (1,0) dummy if the respondent reported all thirty days were bad and whether the respondent had ever been diagnosed with an anxiety or a depressive disorder.<sup>13</sup> Sample sizes are around 100,000 although smaller for life satisfaction and anxiety disorder due to the questions not being asked in some years. All equations in **Table 2** show significant harmful impacts from abuse and neglect in childhood lowering wellbeing in adulthood. Indeed, only one coefficient (parental divorce/separation) is not significant at a 90 percent confidence interval for a single outcome, namely anxiety disorder.

In **Table 3** we examine six further negative variables only available in the 2010 survey where each refers to the number of days in the prior fortnight where the event in question occurred. Sample sizes here are just under 20,000. Seven of the eight ACE variables are statistically significant for all six negative affect outcomes. The exception is parental divorce or separation.

In **Table 4 panel (a)** we repeat the exercise from **Table 2** but this time using a more recent set of data for 2019-2022 BRFSS pooled that included the eight ACE variables with a much larger sample size of over 300,000 in columns 2-6. The sample size is only 18,371 in column 1 as life satisfaction is only included for a subset of states in 2022.<sup>14</sup> None of the four recent surveys included the six variables used in **Table 3** and did not have the anxiety disorder variable, but it did have the other five variables – life satisfaction; health status, bad mental and physical health days, distress and depressive disorder. The life satisfaction variable is only available in 2022 for half the respondents and a subset of states.<sup>15</sup> We include the same controls as **Table 2** plus year dummies.

There is evidence once again of a strong negative impact in adulthood of the three sexual abuse variables and being beaten up by a parent. The three neglect variables are also significantly negative in life satisfaction and health and positive for BMDH, BPHD and distress. The parental divorce variable is statistically significant and positive for both bad mental and physical health

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<sup>13</sup> Monnat and Chandler (2015) examined the BRFSS from what appears to be the 2010 and 2011 surveys with a few observations in 2012 (n=52,250) to examine the impact of ACEs on self-reported health, functional limitations plus diabetes and heart attacks, for individuals ages 18-64 and found strong negative effects. We are unable to exactly replicate this sample size. Sample size for those with responses for example to the live with anyone with depression variable ages 18-64 is 16371 in 2010; 33,324 in 2011 and 20438 in 2012.

<sup>14</sup> In 2019 state coverage was Alabama; Delaware; Florida; Indiana; Iowa; Michigan; Mississippi; Missouri; New Mexico; North Dakota; Pennsylvania; Rhode Island; South Carolina; Tennessee; Virginia; West Virginia and Wisconsin. In 2022 the coverage was Arkansas; Florida; Iowa; Nevada; North Dakota; Oregon; South Dakota and Virginia. So, there was little overlap in the two years.

<sup>15</sup> Life satisfaction in the 2022 data file is unavailable in sixteen states - Arkansas; Colorado; Hawaii; Illinois; Louisiana; Maryland; Michigan; Nebraska; New York; North Dakota; Ohio; Oklahoma; Oregon; Pennsylvania; South Dak; Virginia plus Guam.



days and distress. It is notable that the ACE variables worsen both physical and mental health in adulthood, as suggested in the literature.

Nelson et al (2020) have argued that ACE research provides “compelling evidence that the risk of adverse health consequences increases as a function of the number of categories of adversities adults were exposed to in childhood. Although this seems intuitive, it belies the fact that, when it comes to severe adversity (eg, maltreatment), few children are exposed to only a single form of adversity at a single point in time.

In light of this and in order to evaluate this claim we examined the extent to which respondents report multiple adversities **Table 4** panel (b) reports results for the eight ACE variables summed into a score overall and, in panel (c), separately by gender for all six variables. The equations include the same controls as in part a). The ACE score variable is highly significantly positive in all instances lowering wellbeing; adversity in childhood predicts adversity in adulthood. More is worse. The adverse impact rises approximately linearly as the number of ACEs rises.

In **part c)** we include show the coefficient and t-statistic for the aggregate ACE score itself separately by gender and overall. What is striking is that the size of the ACE score coefficients differs very little by gender – although it is worth recalling that a higher proportion of women than men were sexually abused and have a higher score of 1.30 versus 1.04 for men; 7% of women had four or more adversities versus 3% for men.<sup>16</sup> For both men and women sexual abuse lowers adult wellbeing and satisfaction as do parental beatings along with the three bad neglect variables.

#### **4.3: European Social Survey, 2014**

We now move to examine wellbeing data for Europe on childhood adversities including parental breakdown and arguing, financial difficulties and unemployment as well as whether the respondent was bullied as a child at school, rather than being beaten or punched. These are also retrospective data relating to what happened in childhood reported years later, as was the case in the GSS and the BRFSS.

Santini et al (2021) used European Social Survey (ESS), wave #7, collected in 2014 across 35,475 participants aged 15 years and older in 19 European countries<sup>17</sup> to assess associations of retrospectively reported family conflict and/or financial strain in childhood with physical and mental health as well as health behaviors and social functioning in adulthood. The variables examined were as follows.

Q6. *“Please tell me how often you and your family experienced severe financial difficulties when you were growing up?”*

and

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<sup>16</sup> The distributions in percentages were as follows for men with women in parentheses – 0=48.2% (45.3); 1=25.9% (23.7); 2=12.3 (12.1); 3=6.5 (7.3); 4=3.7 (4.7); 5=1.9 (3.0); 6=0.7 (1.9); 7=0.5 (1.3) and 8=0.3 (0.7).

<sup>17</sup> Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Lithuania, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland and the UK. They excluded Czech Republic and Israel.



*Q7. “Please tell me how often there was serious conflict (e.g, tension, verbal arguments or physical violence) between the people living in your household when you were growing up?”*

Response options for both items were - never; hardly ever; some- times; often; always. They found that individuals reporting family conflict or financial strain during childhood were at increased risk of developing a wide-ranging problem in adulthood, in terms of physical health, health behaviors, mental health and social functioning, with the odds for mental health problems and poor self- rated health being particularly high. They did not examine life satisfaction or happiness.

In **Table 5** we report four equations using these same ESS wave #7 data across twenty-one countries. We make use of two 10-step wellbeing variables **not used** by Santini et al (2021) - happiness and life satisfaction used. The questions are

*Q8. Taking all things together, how happy would you say you are? 0=extremely unhappy...10=extremely happy*

*Q9. All things considered, how satisfied are you with your life as a whole nowadays? Please answer using this card, where 0 means extremely18 dissatisfied and 10 means extremely satisfied.*

In each case we include these two childhood variables as four dummy variables with 'always' the excluded category along with 20 country dummies. In the second and fourth columns we add age and its square, years of education and labor force status. In all four cases childhood issues lower subsequent wellbeing. The more financial strain and the more serious the conflict, the lower was both happiness and life satisfaction.

#### **4.4: Evidence from the Eurobarometer, 2001**

We are also able to examine cross-section data, including for workers, using a remarkable total of thirty-eight different measures of well-being in a unique Eurobarometer data file. This data file includes information on a number of family issues including financial difficulties and arguing as well as being bullied in school.

The data file we use is Eurobarometer #56.1 – Social Exclusion and Modernization of Pension Systems which was undertaken by the European Commission between September and October 2001 which one of the authors used in an earlier paper (Blanchflower and Oswald, 2008) that examined blood pressure and life satisfaction and the GHQ6, which is an unhappiness measure, but did not examine childhood impacts as we do here. Other studies that have used #56.1 include Pfeifer (2009) and Tomitaka et al (2019). There are a total of 15,943 observations across fifteen Western European countries.<sup>18</sup>

The survey questions on problems the respondent experienced in their childhood have not been repeated in the 141 subsequent sweeps of the Eurobarometer. EB#56.1 includes eight Yes/No questions we focus on specifically that the respondent reported they had experienced before the age of eighteen – six relate to their parents, one to whether the respondent was bullied by children

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<sup>18</sup> Countries with sample sizes are Austria (n=1,000); Belgium (n=1,032); Denmark (n=1,001); Finland (n=997); France (n=1,002); Germany (n=2,009); Greece (n=1,004); Ireland (n=996); Italy (n=992); Luxembourg (n=600); Netherlands (n=1,006); Portugal (n=1,001); Spain (n=1,000); Sweden (n=1,000) and UK (n=999).

at school and one to whether the respondent had long lasting health problems as a child. Here are the specific questions.

*Q10. Your parents had major financial difficulties?*

*Q11. You lived with only one parent who had to struggle to maintain the family?*

*Q12. A parent died?*

*Q13. Your parents' marriage broke up?*

*Q14. Your parents quarreled frequently?*

*Q15. One of your parents was unemployed for some time?*

*Q16. You were physically or verbally abused by other children at your school?*

*Q17. You had health problems that lasted for a long time?*

Included in the EB#56.1 data file are variables identifying age, gender, education and labor force status and country of residence.

We have positive affect variables including life satisfaction available plus satisfaction with leisure, social and family life and general health, standard of living, income as well as negative affect variables including unhappiness, being under strain, not being valued, feeling lonely, left out being unable to sleep, and feeling worthless, to name but a few. We also have numerous variables about satisfaction with local areas including the environment such as buildings, drug abuse, violence and vandalism as well as fear of poverty. We also have satisfaction data for workers on their job, their pay, job security, pain and stress from work. For every variable we find a statistically significant impact of most of these childhood problem variables. In total we report regressions on thirty-eight variables using the Eurobarometer data file.

**Table 6** reports the incidence of these variables by country. The most common ACE across all countries is being a child in a household where parents are experiencing financial problems. This is so in every country except the Netherlands where the biggest issue is parents quarreling frequently. Financial problems of parents are particularly notable in Greece and Portugal where two-fifths of adults say their parents experienced such problems when they were a child. Scandinavian countries (Denmark, Finland, Sweden), tend to report relatively high childhood problems in domains other than parental financial problems for example, scoring particularly high on marital breakdown, and bullying at school – the problem with lowest incidence was having a long-term health problem.

We start first with five positive affect variables defined at the end of **Table 7**, relating to four satisfaction variables, referring to life, leisure, social and family and, finally, we examine satisfaction with democracy. Each is measured as a 4-step variable with options from very satisfied to not at all satisfied.

In column 1 of **Table 7** we estimate a life satisfaction equation as was reported in Table 3 of Blanchflower and Oswald (2008), but which only includes controls for country, gender, age and its square, labor force, age left school and marital status. We find that Denmark had the highest levels of satisfaction and Italy the lowest. We include the same variables minus marital status plus the eight childhood characteristics variables. Parental unemployment lowers wellbeing markedly.

Being brought up by a lone parent is not significant for life satisfaction for an adult, but parental break up during childhood does negatively impact life satisfaction.

The lone parent variable is also insignificant in the remaining four columns of **Table 7**. But the other ACE variables are statistically significant for these four domain-specific satisfaction metrics.

We obtain similar results in **Tables 8-11** with a number of 4-step and 5-step dependent variables with different coding schema. In all cases we run linear estimators to recover the coefficients. Bad childhood experiences have wellbeing consequences later. Childhood bullying and long-term health problems always worsen SWB.

**Table 8** turns to looking at seven aspects of the respondent's everyday life with 4-step answers coded from very good to very bad. Including the area lived in, their standard of living, health, if the respondent receives consideration and if there is too much noise. Again, the majority of the childhood experience variables are negative with the lone parent variable insignificant, with a t-value below 1.6 in three instances. Parental break up is insignificant in four and parental death in three. The remainder are significantly negative – being bullied again is always statistically negative.

**Table 9** examines the six negative components that make up the GHQ6 examined by Blanchflower and Oswald (2008). The questions are as follows.

*Have you recently:*

*Q18. Lost much sleep over worry?*

*Q19. Felt constantly under strain?*

*Q20. Felt you could not overcome your difficulties?*

*Q21. Been feeling unhappy and depressed?*

*Q22. Been losing confidence in yourself?*

*Q23. Been thinking of yourself as a worthless person?*

These are coded from 'not at all' to 'much more than usual'. We also include a blood pressure measure – *have you had problems of high blood pressure?* coded the same way. In other research we find the female coefficient is always positive (Blanchflower and Bryson, 2023d, 2023e). The patterns are broadly the same although now the signs are statistically significant and positive. Bad childhood experiences worsen mental health. The parental breakdown variable is insignificant but one parent having died enters significantly positive in all columns except for strain. Childhood bullying in school lowers wellbeing again.

**Table 10** repeats the exercise for fourteen more 5-step negative affect variables coded from strongly disagree (=1) to strongly agree (=5). **Part a)** includes seven variables relating to how the individual feels ranging from loneliness to being left out of society and the patterns are very similar. Bad childhood experiences worsen mental health. **Part b)** then examines seven variables relating to the local environment in which the respondent lives including there is lots of unemployment, bad buildings, problems of drug abuse, vandalism and violence. Child adversity variables raise the probability of observing bad local outcomes.

**Table 11** is restricted to workers and estimates a job satisfaction equation (column 1), a pay satisfaction (column 2), a job security equation (column 3) and whether work generates stress (column 4) or pain (column 5). Sample sizes are smaller as the sample is restricted to workers (n=7,600). Parental squabbling lowers job satisfaction and satisfaction and job security and increases stress and pain, for example.

We decided to construct an index of these eight to identify the extent to which they interact together. The overall distribution was (n=15,943) as follows – 0=56.5%; 1=24.3%; 2=11.3%; 3=5.1%; 4=1.8% and 5+=1.0%. We then proceeded to examine a positive affect variable (life satisfaction) and a negative affect variable (GHQ6) and replace the eight childhood-experience variables with this index. Although useful to incorporate labor market status as controls in part to confirm what we know from literature on things like unemployment, what if it partials out some of the impact of the childhood experience variables? One could argue that we should simply retain fixed demographic traits, age left school, and region, year and age. We then separate out the two samples by age – under 45 and 45 and over – to capture time since exposure.

Countries ranked lowest (best) to highest (worst) were as follows, perhaps not as expected given Finland and Denmark, which traditionally rank highly on wellbeing measures come in next to last (Blanchflower and Bryson 2022b).

Ireland	0.520
Spain	0.545
Netherlands	0.587
Italy	0.588
Germany	0.619
Belgium	0.635
UK	0.742
Luxembourg	0.775
Austria	0.783
Greece	0.789
Sweden	0.818
France	0.823
France	0.838
Finland	1.078
Denmark	1.149

In **Table 12**, part a) we examine the life satisfaction reported in column 1 in **Table 3**, but this time we include the index of items from 1-5, with zero the excluded category. All five are statistically significant and negative without labor force status controls in column 1 and with them in column 2. There is little change in the size of the coefficients in columns 1 and 2. Gender becomes insignificant in column 2. Column 3 is for those age forty-five and column 4 is for those at least age 45. The coefficient sizes fall but all are statistically significant and negative.

In **Table 12**, part b) we explore the patterns in a different measure of mental well-being favored by, for example, Goldberg et al. (1997). It is a version of a so-called GHQ (General Health Questionnaire) psychiatric measure called GHQ6 and was also examined in Blanchflower and

Oswald (2008). The six components are examined individually in Table 6 above. In this case, the dependent variable is a measure of psychological distress that comes from amalgamating answers to these questions: They are coded from not at all (=1), no more than usual (=2), rather more than usual (=3), much more than usual (=4)? GHQ6 is coded from 6-24 and has a mean of 9.56 and 49% of the distribution is scored from 6, the lowest, to 8.<sup>19</sup>

In Table 12, part b) the index variables are all significantly positive as expected – childhood issues worsen mental health – and once again the inclusion of labor force status dummies has little impact on the sign or significance of the index. They are all positive for both age groups with a decline in their coefficients for the older groups.

The evidence is overwhelming from every one of the 38 wellbeing variables we examined using the EB #56.1 data, that bad childhood experiences be they from financial problems, unemployment, marriage breakup, parental death, parental quarreling, poor health or bullying. As is likely the case the combination of many of these things would be especially devastating. Unemployed parents struggle to pay bills, which may result in arguing, and marriage break up, for example.

## 5. Conclusion and discussion

Using four cross-sectional data files for the United States and Europe we show that Adverse Childhood Experiences (ACEs) have a significant impact on subjective wellbeing (SWB) in adulthood. Death of a parent, parental separation or divorce, financial difficulties, the prolonged absence of a parent, quarreling between parents, parental unemployment, sexual assault, experiencing long-term health problems, being bullied at school and being beaten or punched as a child all have long-term impacts on wellbeing. These experiences impact a wide range of wellbeing measures in adulthood including satisfaction with many aspects of everyday life, happiness and life satisfaction, self-assessed health, and are positively linked to measures of negative affect including the GHQ6. The evidence linking ACEs to lower SWB in adulthood is consistent across fifty different measures including sixteen positive affect and twenty-three negative affect measures relating to assessments of one's one life, and eight variables capturing how the individual feels about the area she lives in, including unemployment, drugs, violence and vandalism plus democracy in their country.

There are limitations to reliance on cross-sectional data. One might be concerned about potential recall biases when relying on survey respondents to reflect on childhood experiences when in adulthood. It is possible that there is inter-rater bias in which some adults who are not happy also reflect more adversely on their childhood than those who are not, even though, objectively, they may have had similar upbringings and experience. Some may have chosen not to report ACEs, especially if it has been difficult to come to terms with them during their lifetime. And, of course, since we know ACEs raise the probability of premature death, relying on survivors implies a bias towards recovering a lower bound estimate. In a companion paper we address similar questions regarding the impact of ACEs using longitudinal data from a single British birth cohort. In those data we also find ACEs collected prospectively in childhood impact SWB through to the age of 62 (Blanchflower and Bryson, 2023b), suggesting that causal inferences appear justified.

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<sup>19</sup> The distribution is 6=29.1%; 7=10.0%; 8=9.4%; 9=8.7%; 10=7.1%; 11=6.7%; 12=11.7%; 13-16=11.4%; 17-24, the highest=5.8%.

Both the incidence of ACEs in various populations and the link between ACEs and lower SWB in adulthood have profound implications for public policy. There has been a recent focus on building resilience among children, so they are better able to cope with abuse and neglect. Whilst this appears important, the findings call for interventions that can prevent abuse and neglect in the first place. These interventions could be wide-ranging, from improving children's behaviour towards one another at school; resourcing social services to help create safe and secure family environments for children; supporting parents struggling with alcohol and drug abuse; re-examining the nature of support for couples who face relationship difficulties; and designing work-life balance policies which provide greater opportunities for families to spend 'quality' time with one another. Whilst such policies may place substantial demands on the public purse, they need to be considered alongside the personal, social and economic costs that ACEs have on adults' subjective wellbeing.

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Table 1. Wellbeing and childhood adversity at age 16, GSS 1973-2022

	Happiness 1973-2022	Happiness 1973-1994	Financial situation 1973-2022	Financial situation 1973-1994	Family life 1973-1994
Beaten or punched as a child		-.1159 (8.29)		-.1046 (6.60)	-.0951 (3.15)
Beaten or punched as an adult		-.1561 (10.99)		-.2186 (13.56)	-.3230 (10.50)
Beaten or punched as child & adult		-.2313 (13.08)		-.2889 (14.40)	-.3701 (9.65)
One or both parents died	-.0179 (2.03)	-.0209 (1.46)	-.0234 (2.35)	-.0294 (1.81)	-.0815 (2.63)
Parents divorced/separated	-.0602 (7.96)	-.0763 (4.97)	-.0871 (10.20)	-.0896 (5.14)	-.1613 (4.85)
constant	1.8830	2.1514	1.8339	1.9070	3.0692
Adjusted R <sup>2</sup>	.0456	.0490	.0920	.1078	.0322
N	66,572	19,028	66,711	19,135	19,063

Notes: equations also include age and its square, race, gender, age left school, labor force status (except for work equation), year and region dummies. Excluded living with parents at 16 and not beaten. T-statistics in parentheses.

*‘Taken all together, how would you say things are these days—would you say that you are very happy (=3), pretty happy (=2), or not too happy (=1)?’.*

*We are interested in how people are getting along financially these days. So far as you and your family are concerned, would you say that you are pretty well satisfied with your present financial situation (=3), more or less satisfied (=2), or not satisfied at all (=1)?”*

*For each area of life I am going to name, tell me the number that shows how much satisfaction you get from that area. – family life - a very great deal (=7); a great deal (=6); quite a bit (=5); a fair amount (=4); some (=3); a little (=2) and none (=1)*

Table 2. Wellbeing and childhood adversity at age 16, BRFSS 2009-2013

	Life satisfaction	Health status	#BMHD	#BPHD	Distress	Depressive disorder	Anxiety disorder
Live with anyone depressed	-.1097 (11.24)	-.0748 (8.47)	1.7963 (27.79)	.7397 (10.21)	.0307 (15.91)	.1895 (53.50)	.1013 (14.94)
Live with a problem drinker	-.0258 (3.08)	-.0664 (8.87)	.4754 (8.67)	.4735 (7.70)	.0082 (5.03)	.0320 (10.73)	.0274 (4.79)
Live with anyone uses illegal drugs	-.0524 (4.00)	-.0460 (3.87)	.6783 (7.80)	.1751 (1.80)	.0153 (5.90)	.0093 (1.95)	.0319 (3.52)
Parents divorced/separated	-.0211 (2.54)	-.0234 (3.09)	.1993 (3.59)	.2936 (4.71)	.0060 (3.59)	-.0063 (2.06)	.0031 (0.53)
Parent hurt you	-.1220 (12.19)	-.1453 (16.26)	1.3450 (20.56)	.9445 (12.89)	.0264 (13.53)	.0715 (20.26)	.0581 (8.92)
Did anyone touch you sexually	-.0521 (3.49)	-.0495 (3.64)	.8649 (8.70)	.4726 (4.24)	.0135 (4.57)	.0811 (14.98)	.0569 (5.68)
Did anyone make you touch sexually	-.0378 (2.11)	-.0579 (3.60)	.5134 (4.37)	.5417 (4.11)	.0077 (2.20)	.0325 (5.11)	.0384 (3.21)
Anyone forced you to have sex	-.0786 (3.82)	-.1092 (5.93)	1.3028 (9.68)	.8538 (5.65)	.0339 (8.43)	.0558 (7.63)	.0990 (7.17)
constant	3.6156	3.2696	1.4172	.7598	-.0127	-.04911	-.1439
Adjusted R <sup>2</sup>	.0913	.2225	.1304	.1811	.0696	.1508	.1238
N	34,671	110,943	109,690	109,229	109,690	95,990	19,811

Notes: equations also include age and its square, race, gender, grade of education, labor force status, year and state dummies. T-statistics in parentheses. Life satisfaction available in 2009, 2010, anxiety disorder in 2010 and depression disorder 2010-2013

*Before age 18, how often did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way? Do not include spanking.*

*Did you live with anyone who used illegal street drugs or who abused prescription medications?*

*Did you live with anyone who was a problem drinker or alcoholic?*

*Did you live with anyone who was depressed, mentally ill, or suicidal?*

*How often did anyone at least 5 years older than you or an adult, ever touch you sexually?*

*How often did anyone at least 5 years older than you or an adult, try to make you touch them sexually?*

*How often did anyone at least 5 years older than you or an adult, force you to have sex?*

*Were your parents separated or divorced?*

*In general how satisfied are you with your life – very dissatisfied (=1); dissatisfied (=2); satisfied (=3); very satisfied (=4).*

*Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?*

*Distress =1 if #BMHD=30 zero otherwise.*

*Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?*

*Would you say that in general your health is: Poor (=1), fair (=2), good (=3), very good (=4), excellent (=5)*

*Has a doctor or other healthcare provider EVER told you that you had an anxiety disorder (including acute stress disorder, anxiety, generalized anxiety disorder, obsessive-compulsive disorder, panic disorder, phobia, posttraumatic stress disorder, or social anxiety disorder)? Yes/No*

*Has a doctor or other healthcare provider EVER told you that you have a depressive disorder (including depression, major depression, dysthymia, or minor depression)? Yes/No*

Table 3. Number of days and negative affect and childhood adversity at age 16, BRFSS 2010

	Little Pleasure	Down and depressed	Trouble sleeping	Tired	Trouble concentrating	Felt a failure
Live with anyone depressed	.3772 (5.69)	.5416 (9.64)	.6524 (7.42)	.8952 (9.91)	.5577 (9.90)	.5782 (10.75)
Live with a problem drinker	.1358 (2.43)	.1508 (3.18)	.3021 (4.07)	.3821 (5.01)	.1975 (4.15)	.0908 (2.00)
Live with anyone uses illegal drugs	.2645 (2.98)	.2400 (3.20)	.5370 (4.58)	.5784 (4.79)	.2488 (3.31)	.3015 (4.20)
Did anyone touch you sexually	.1044 (1.07)	.2655 (3.20)	.3662 (2.82)	.2910 (2.18)	.2524 (3.03)	.3383 (4.26)
Did anyone make you touch sexually	.3481 (2.97)	.2437 (2.45)	.6418 (4.13)	.5243 (3.28)	.1867 (1.87)	.2876 (3.03)
Anyone forced you to have sex	.5249 (3.88)	.7359 (6.43)	.9067 (5.06)	.7849 (4.25)	.7044 (6.12)	.6566 (5.99)
Parent hurt you	.4777 (7.48)	.5208 (9.65)	.8276 (9.80)	.8437 (9.72)	.4294 (7.93)	.5579 (10.80)
Parents divorced/separated	.1410 (2.43)	.0047 (0.10)	.0993 (1.29)	-.1778 (2.25)	-.0158 (0.32)	-.0007 (0.02)
constant	.4699	.5837	1.9479	4.9615	.0975	.7746
Adjusted R <sup>2</sup>	.0999	.1364	.1069	.1173	.1053	.1114
N	19,436	19,570	19,697	19,669	19,758	19,763

Notes: equations also include age and its square, race, gender, grade of education, labor force status and state dummies. T-statistics in parentheses. Not available in District of Columbia

*Over the last 2 weeks, how many days have you had little interest or pleasure in doing things?*

*Over the last 2 weeks, how many days have you felt down, depressed or hopeless?*

*Over the last 2 weeks, how many days have you had trouble falling asleep or staying asleep or sleeping too much?*

*Over the last 2 weeks, how many days have you felt tired or had little energy?*

*Over the last 2 weeks, how many days have you felt bad about yourself or that you were a failure or had let yourself or your family down?*

*Over the last 2 weeks, how many days have you had trouble concentrating on things, such as reading the newspaper or watching the TV?*



Table 4. Wellbeing and childhood adversity at age 16, BRFSS 2019-2023

a) All	Life satisfaction	Health status	#BMHD	Distress	#BPHD	Depressive disorder
Live with anyone depressed	-.1444 (10.75)	-.1474 (28.39)	2.8241 (69.09)	.0468 (38.09)	1.0886 (24.77)	.2101 (106.91)
Live with a problem drinker	-.0304 (2.62)	-.0692 (15.40)	.6360 (17.98)	.0108 (10.20)	.4408 (11.49)	.0348 (20.46)
Live with anyone uses illegal drugs	-.0743 (4.41)	-.0514 (7.77)	.9252 (17.76)	.0213 (13.61)	.2129 (3.80)	.0135 (5.39)
Parents divorced/separated	-.0142(3.16)	-.0047 (2.62)	.0745 (5.19)	.0029 (6.76)	.1186 (3.26)	.0005 (0.73)
Parent hurt you	-.1074 (9.87)	-.1208 (27.50)	1.1518 (33.29)	.0202 (19.38)	.9382 (25.17)	.0489 (29.44)
Did anyone touch you sexually	-.0262 (1.29)	-.0654 (8.20)	.7846 (12.48)	.0087 (4.62)	.4413 (6.53)	.0751 (24.88)
Did anyone make you touch sexually	-.0729 (3.10)	-.0400 (4.31)	.9656 (13.23)	.0213 (9.68)	.3137 (4.00)	.0385 (10.99)
Anyone forced you to have sex	-.0611 (2.37)	-.1106 (10.82)	1.5282 (18.96)	.0449 (18.51)	1.0092 (11.65)	.0647 (16.73)
constant	3.0351	3.6748	5.9189	.0429	-.5318	.0392
Adjusted R <sup>2</sup>	.1064	.1875	.1394	.0618	.1454	.1529
N	18,371	319,925	315,031	315,031	313,889	319,240
b) Aggregate scores						
	Life satisfaction	Health status	#BMHD	Distress	#BPHD	Depressive disorder
Score=1	-.0796 (7.12)	-.0936 (22.09)	.8694 (25.96)	.0126 (12.64)	.7040 (19.63)	.0580 (35.82)
Score=2	-.1586 (11.25)	-.1816 (33.08)	2.0860 (48.08)	.0318 (24.47)	1.2974 (27.96)	.1286 (61.31)
Score=3	-.2179 (12.21)	-.2459 (35.20)	3.0846 (55.96)	.0498 (30.15)	1.8022 (30.53)	.1909 (71.44)
Score=4	-.2906 (13.21)	-.3131 (35.87)	4.3766 (63.49)	.0755 (36.52)	2.1927 (29.73)	.2455 (73.50)
Score=5	-.3084 (11.30)	-.3748 (33.69)	5.4552 (62.05)	.1026 (38.94)	2.5439 (27.09)	.3123 (73.44)
Score=6	-.4089 (11.65)	-.4590 (31.11)	6.3257 (54.25)	.1227 (35.09)	3.4424 (27.61)	.3616 (64.06)
Score=7	-.4438 (9.80)	-.5187 (28.66)	8.1505 (56.95)	.1817 (42.35)	4.0548 (26.52)	.4123 (59.55)
Score=8	-.4497 (8.09)	-.5754 (23.83)	9.0850 (47.68)	.1993 (34.88)	4.6109 (22.64)	.4669 (50.58)
constant	3.0032	3.6890	4.3961	.0301	-.1526	.0481
Adjusted R <sup>2</sup>	.1020	.1862	.1324	.0599	.1462	.1334
N	18,371	319,925	315,031	315,031	313,889	319,240
c) Aggregate score 0-8						
	All	Men	Women			
Life satisfaction	-.0667 (23.71)	-.0777 (16.77)	-.0605 (17.02)			
Health status	-.0779 (61.44)	-.0728 (38.77)	-.0798 (57.06)			
#BMHD	1.0945 (123.75)	1.0727 (77.97)	1.0886 (93.40)			
Distress	.0207 (77.98)	.0200 (49.14)	.0208 (58.82)			
#BPHD	.5686 (60.05)	.5262 (34.38)	.5896 (48.62)			
Depressive	.0614 (143.35)	.0542 (85.32)	.0646 (111.20)			

Notes: equations also include age and its square, race, gender, grade of education, labor force status, year and state dummies. T-statistics in parentheses.

Table 5. Problems in childhood, ESS Sweep 7, 2014

	Happiness		Life satisfaction	
Financial strain growing up				
Often	.2776 (3.61)	.2286 (3.01)	.3518 (4.09)	.2255 (3.02)
Sometimes	.4225 (5.73)	.3871 (5.31)	.4789 (5.81)	.3720 (4.57)
Hardly ever	.6085 (8.27)	.5589 (7.66)	.7008 (8.51)	.5638 (6.94)
Never	.7153 (9.69)	.7180 (9.79)	.7684 (9.30)	.6697 (8.19)
Serious conflict growing up				
Often	.2231 (4.09)	.1442 (2.67)	.2350 (3.85)	.1820 (3.02)
Sometimes	.5291 (10.19)	.3672 (7.09)	.5567 (9.58)	.4305 (7.47)
Hardly ever	.7221 (13.71)	.4655 (8.81)	.8432 (14.32)	.6164 (10.48)
Never	.8203 (15.72)	.5543 (10.56)	.9658 (16.55)	.7266 (12.43)
Adjusted R <sup>2</sup>	.0990	.1308	.1347	.1737
N	39,077	38,591	39,106	38,612

Controls include age, age squared, years of education and labor force status dummies. All equations include country dummies.

*“Please tell me how often you and your family experienced severe financial difficulties when you were growing up?”*

*“Please tell me how often there was serious conflict (e.g, tension, verbal arguments or physical violence) between the people living in your household when you were growing up?”*

Table 6. Childhood problems before age 18 by country Eurobarometer 2001 (%)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Austria	17	10	11	9	11	7	8	6
Belgium	12	8	9	8	10	7	2	7
Denmark	24	11	8	16	14	16	18	8
Finland	23	13	13	13	12	14	15	5
France	19	11	12	12	11	8	3	8
Germany	13	5	10	9	9	8	3	5
Greece	42	9	9	2	5	5	0	5
Ireland	12	4	9	4	5	10	5	3
Italy	22	8	9	3	6	5	0	5
Luxembourg	19	7	15	6	13	3	6	9
Netherlands	8	5	7	9	10	6	8	5
Portugal	42	5	11	3	8	5	2	7
Spain	23	6	8	3	4	6	1	3
Sweden	14	9	9	13	12	8	12	6
UK	14	9	8	12	10	10	8	4

Notes: (1) Parents - financial problems; (2) One parent; (3) A parent died; (4) Parent's marriage broke up; (5) Parents quarreled frequently; (6) One parent unemployed; (7) Bullied at school and (8) Long term health problems

Table 7. Satisfaction and child problems before the age of 18, EB #56.1, 2001

	Life	Leisure life	Social life	Family life	Democracy
Characteristics at age 18 or below					
Parents - financial problems	-.0975 (6.89)	-.0823 (5.38)	-.0994 (6.55)	-.0388 (2.59)	-.0640 (3.51)
One parent	-.0328 (1.54)	-.0031 (0.12)	-.0281 (1.24)	.0086 (0.38)	-.0381 (1.39)
A parent died	-.0791 (4.39)	-.0482 (2.48)	-.0615 (3.16)	-.0622 (3.26)	-.0784 (3.37)
Parent's marriage broke up	-.0426 (2.06)	-.0298 (1.34)	-.0189 (0.85)	-.0861 (3.95)	-.0599 (2.24)
Parents quarreled frequently	-.1345 (7.14)	-.1188 (5.83)	-.1315 (6.52)	-.2048 (10.25)	-.1357 (5.58)
One parent unemployed	-.0847 (4.35)	-.0740 (3.72)	-.0815 (3.91)	-.0510 (2.47)	-.0919 (3.62)
Bullied at school	-.1078 (4.82)	-.0842 (3.52)	-.1041 (4.35)	-.1085 (4.57)	-.1297 (4.50)
Long term health problems	-.1949 (8.68)	-.0871 (3.59)	-.1241 (5.14)	-.1343 (5.66)	-.1517 (5.22)
Female	.0105 (0.99)	-.0295 (2.56)	-.0374 (3.28)	.0052 (0.46)	-.0063 (0.45)
Age left school	.0109 (8.27)	.0054 (3.75)	.0070 (4.92)	.0071 (5.06)	.0067 (3.94)
Home worker	-.0130 (0.63)	.1120 (5.62)	.0005 (0.03)	.0705 (3.62)	.0310 (1.29)
Student	.0130 (0.60)	.1310 (5.54)	.0978 (4.22)	-.0208 (0.91)	.0945 (3.32)
Unemployed	-.5084 (24.14)	-.0835 (3.67)	-.2632 (11.66)	-.2250 (10.07)	-.2770 (10.13)
Retired	-.0401 (2.10)	.1697 (8.21)	.0296 (1.44)	.0097 (0.48)	-.0180 (0.73)
constant	-3.2234	3.1058	3.2857	3.2725	2.4793
Adjusted R <sup>2</sup>	.1517	.0968	.0906	.0665	.1198
N	15,885	15,876	15,772	15,698	14,920

Equations include 14 country dummies, age and its square. Student set to 18 for ALS, workers excluded category. T-statistics in parentheses.

*Would you say you are very satisfied (=4), fairly satisfied (=3), not very satisfied (=2) or not at all satisfied (=1) with each of the following things? (SHOW CARD WITH SCALE)*

1. *With the life you lead?*
2. *Your leisure life at home?*
3. *Your social life outside the house?*
4. *Your family life?*
5. *With the way democracy works in (OUR COUNTRY)?*

Table 8. Satisfaction and child problems at age 18, EB #56.1, 2001

	Area you live	Income	Standard living	Health	Time	Consideration	Noise
Characteristics before age 18							
Parents - financial problems	-.0516 (3.77)	-.1434 (8.93)	-.1077 (7.75)	-.0793 (5.31)	-.0509 (3.32)	-.0616 (4.71)	-.0312 (1.71)
One parent	-.0085 (0.41)	-.0486 (2.02)	-.0379 (1.83)	-.0336 (1.50)	-.0391 (1.70)	.0055 (0.28)	-.0549 (2.01)
A parent died	-.0242 (1.39)	-.0749 (3.67)	-.0662 (3.75)	-.0969 (5.10)	-.0183 (0.94)	-.0255 (1.54)	-.0161 (0.69)
Parent's marriage broke up	-.0490 (2.45)	-.0695 (2.95)	-.0643 (3.18)	-.0096 (0.44)	.0032 (0.14)	-.0122 (0.64)	-.0153 (0.58)
Parents quarreled frequently	-.1418 (7.78)	-.0914 (4.26)	-.0526 (2.85)	-.0943 (4.75)	-.0623 (3.06)	-.1100 (6.31)	-.1022 (4.22)
One parent unemployed	-.0705 (3.74)	-.0866 (3.90)	-.0873 (4.57)	-.0241 (1.18)	-.0684 (3.24)	-.0352 (1.95)	-.0794 (3.16)
Bullied at school	-.0553 (2.55)	-.0762 (3.00)	-.0558 (2.55)	-.1567 (6.63)	-.1015 (4.18)	-.1205 (5.83)	-.0905 (3.15)
Long term health problems	-.0921 (4.24)	-.1510 (5.91)	-.1243 (5.65)	-.3405 (14.38)	-.0840 (3.45)	-.0904 (4.37)	-.0783 (2.71)
Female	.0239 (2.32)	-.0072 (0.59)	.0197 (1.89)	-.0302 (2.69)	-.0408 (3.53)	.0487 (4.95)	-.0041 (0.30)
Age left school	.0076 (5.97)	.0229 (15.34)	.0205 (15.82)	.0137 (9.82)	.0036 (2.55)	.0113 (9.31)	.0023 (1.39)
Home worker	-.0277 (1.55)	-.1141 (5.47)	-.0628 (3.48)	-.0665 (3.43)	.2636 (13.19)	-.0109 (0.64)	-.0424 (1.79)
Student	.0383 (1.82)	-.2778 (10.82)	-.0103 (0.49)	-.0231 (1.01)	.1361 (5.78)	.0541 (2.70)	-.0183 (0.66)
Unemployed	-.1668 (8.17)	-.7220 (30.30)	-.4466 (21.60)	-.2589 (11.64)	.2793 (12.22)	-.2041 (10.45)	-.1402 (5.16)
Retired	-.0236 (1.27)	-.1565 (6.85)	-.0810 (4.32)	-.2976 (14.74)	.3720 (17.93)	-.0160 (0.91)	-.0333 (1.36)
constant	3.1495	2.6028	2.9123	3.9399	3.1747	3.1265	3.1834
Adjusted R <sup>2</sup>	.1336	.1927	.1896	.2476	.1143	.0786	.0687
N	15,853	15,427	15,775	15,832	15,817	15,296	15,735

*Question. I am now going to ask you to talk to me about different aspects of your everyday life. For each of them, could you tell me if you think this aspect of your life is very good (=4), fairly good (=3), fairly bad (=2) or very bad (=1)?*

1. *The area where you live?*
2. *Your income?*
3. *Your standard of living?*
4. *Your state of health?*
5. *The time you have available to do the things you have to do?*
6. *The consideration shown to you by other people?*
7. *The level of noise where you live?*

Table 9. Satisfaction and child problems at age 18, EB #56.1, 2001

	Lost Sleep	Unhappy	Lost Confidence	Difficulties	Strain	Worthless	Blood pressure
Characteristics at age 18 or below							
Parents - financial problems	.1457 (8.17)	.1323 (7.70)	.0826 (5.34)	.1535 (9.29)	.1157 (6.69)	.0692 (4.94)	.0596 (3.88)
One parent	.1116 (4.17)	.1074 (4.18)	.0646 (2.78)	.0992 (4.01)	.1244 (4.81)	.0355 (1.70)	.0152 (0.66)
A parent died	.0683 (3.01)	.0983 (4.50)	.0559 (2.84)	.0436 (2.08)	.0325 (1.48)	.0343 (1.92)	.0915 (4.68)
Parent's marriage broke up	.0095 (0.37)	.0246 (0.98)	-.0098 (0.44)	.0369 (1.54)	.0268 (1.07)	-.0089 (0.44)	.0080 (0.36)
Parents quarreled frequently	.1879 (7.89)	.2307 (10.10)	.1859 (9.04)	.1790 (8.16)	.1553 (6.76)	.1493 (8.04)	.0447 (2.18)
One parent unemployed	.0523 (2.13)	.0952 (4.02)	.0751 (3.51)	.0796 (3.50)	.0828 (3.48)	.0420 (2.18)	.0148 (0.70)
Bullied at school	.2118 (7.52)	.2406 (8.86)	.1809 (7.41)	.1497 (5.63)	.2400 (8.82)	.1339 (6.09)	.0761 (3.11)
Long term health problems	.2432 (8.59)	.2725 (10.01)	.2269 (9.25)	.2375 (8.92)	.2204 (8.05)	.1643 (7.40)	.1406 (5.73)
Female	.1494 (11.10)	.1442 (11.13)	.0931 (7.99)	.0949 (7.44)	.0823 (5.80)	.0462 (4.39)	.0073 (0.63)
Age left school	-.0025 (1.48)	-.0053 (3.29)	-.0054 (3.75)	-.0077 (4.96)	-.0008 (0.48)	-.0058 (4.43)	-.0062 (4.32)
Home worker	-.0174 (0.75)	-.0116 (0.49)	.0075 (0.37)	-.0005 (0.03)	-.0826 (3.68)	.0174 (0.96)	.0126 (0.63)
Student	-.0352 (1.28)	.0333 (1.26)	.0326 (1.37)	.0440 (1.70)	.0216 (0.81)	-.0044 (0.21)	.0231 (0.96)
Unemployed	.3147 (11.86)	.3574 (13.98)	.3328 (14.42)	.3763 (4.99)	.1853 (7.19)	.3273 (15.71)	.0697 (3.03)
Retired	-.0257 (1.07)	.0196 (0.85)	.0523 (2.51)	.0228 (1.00)	-.1212 (5.20)	.0068 (0.36)	.0565 (2.73)
constant	1.1120	1.2295	1.3019	1.3874	1.2530	1.2064	.0311
Adjusted R <sup>2</sup>	.0921	.0922	.0663	.0865	.0804	.0638	.1205
N	15,782	15,789	15,754	15,752	15,756	15,714	14,786

Equations include 14 country dummies, age and its square. Student set to 18 for ALS, worker excluded. T-statistics in parentheses.

*Questions. Would you say that you have not at all (=1), no more than usual (=2), rather more than usual (=3), much more than usual (=4)?*

1. Lost much sleep over worry
2. Been feeling unhappy and depressed?
3. Been losing confidence in yourself
4. Been feeling you could not overcome your difficulties?
5. Been feeling constantly under strain?
6. Been thinking of yourself as a worthless person?
7. Had problems of high blood pressure?

Table 10. Satisfaction and child problems at age 18, EB #56.1, 2001

a)	Lonely	Not valued	No friends	Left out society	Left out family	Not useful	Look down at me
Parents - financial problems	.0866 (3.22)	.0846 (3.38)	.0432 (1.78)	.0847 (4.39)	.0137 (0.73)	.0756 (3.32)	.0901 (4.05)
One parent	.0606 (1.50)	.0951 (2.54)	.0985 (2.72)	.0119 (0.41)	.0469 (1.66)	.0484 (1.42)	.0845 (2.53)
A parent died	.1982 (5.80)	.1057 (3.31)	.0761 (2.47)	.0646 (2.63)	.0644 (2.69)	.0868 (3.00)	-.0169 (0.60)
Parent's marriage broke up	.0746 (1.90)	.0737 (2.03)	-.0047 (0.13)	.0642 (2.30)	.0827 (3.03)	.0448 (1.36)	.0418 (1.29)
Parents quarreled frequently	.3047 (8.52)	.2222 (6.70)	.2122 (6.60)	.1357 (5.30)	.2305 (9.25)	.2083 (6.91)	.1902 (6.47)
One parent unemployed	.1844 (4.99)	.1406 (4.08)	.1465 (4.40)	.1086 (4.10)	.0436 (1.69)	.1494 (4.77)	.1541 (4.99)
Bullied at school	.4137 (9.74)	.2053 (5.24)	.2670 (6.98)	.2185 (7.18)	.1930 (6.51)	.1343 (3.76)	.3132 (8.93)
Long term health problems	.2996 (7.02)	.2608 (6.60)	.2387 (6.21)	.2008 (6.58)	.1524 (5.12)	.2192 (6.07)	.2060 (5.83)
Female	.2463 (12.15)	.0546 (2.90)	.0621 (3.41)	-.0048 (0.33)	.0086 (0.61)	-.0040 (0.24)	-.0477 (2.85)
Age left school	-.0073 (2.92)	-.0080 (3.44)	-.0042 (1.85)	-.0116 (6.47)	-.0088 (5.03)	-.0160 (7.57)	-.0166 (8.03)
Home worker	.0285 (0.82)	.0548 (1.68)	.0240 (0.77)	.1590 (6.35)	.0482 (1.98)	.2140 (7.23)	.0806 (2.78)
Student	.0378 (0.92)	-.0550 (1.44)	-.1849 (4.99)	-.0377 (1.28)	-.0212 (0.74)	-.0617 (1.77)	-.1193 (3.48)
Unemployed	.4541 (11.33)	.3399 (9.09)	.2361 (6.54)	.5391 (18.75)	.2765 (9.87)	.5735 (16.96)	.4820 (14.57)
Retired	.0799 (2.20)	.0098 (0.29)	.0707 (2.16)	.1805 (6.93)	.0942 (3.71)	.2342 (7.61)	.1192 (3.96)
constant	2.3735	2.3563	2.1956	1.8291	1.8584	2.5216	2.0546
Adjusted R <sup>2</sup>	.0790	.0625	.0504	.1043	.0992	.1018	.0936
N	15,851	15,160	15,700	15,767	15,800	15,469	15,312
b)	Fear of poverty	Bad buildings	Lots of unempt	Drug abuse	Vandalism	Violence	Bad reputation
Parents - financial problems	.2169 (9.08)	.1399 (5.45)	.1166 (4.28)	.0854 (3.05)	.0689 (2.63)	.0467 (2.05)	.0349 (1.38)
One parent	.0905 (2.54)	.0519 (1.35)	.0876 (2.15)	.0988 (2.35)	.0652 (1.67)	.1054 (3.08)	.0968 (2.55)
A parent died	.0796 (2.62)	.0942 (2.88)	.0590 (1.70)	.0443 (1.23)	.0413 (1.24)	.0018 (0.06)	-.0331 (1.03)
Parent's marriage broke up	.0795 (2.30)	.0560 (1.50)	.0850 (2.13)	.0521 (1.28)	.1219 (3.19)	.0486 (1.46)	-.0211 (0.58)
Parents quarreled frequently	.1902 (6.02)	.1461 (4.28)	.1553 (4.29)	.2387 (6.44)	.1811 (5.21)	.1751 (5.79)	.1713 (5.08)
One parent unemployed	.1280 (3.90)	.1994 (5.65)	.2239 (5.97)	.1588 (4.12)	.1020 (2.83)	.1528 (4.88)	.1102 (3.17)
Bullied at school	.2485 (6.64)	.1612 (3.97)	.1040 (2.39)	.2200 (4.98)	.1928 (4.66)	.0918 (2.55)	.0738 (1.84)
Long term health problems	.1680 (4.44)	.1161 (2.86)	.0949 (2.18)	.1386 (3.12)	.1544 (3.71)	.1302 (3.59)	.1493 (3.71)
Female	-.0134 (0.75)	-.0101 (0.53)	.0251 (1.22)	-.0078 (0.37)	.0050 (0.26)	-.0181 (1.06)	-.0168 (0.88)
Age left school	-.0200 (9.00)	-.0087 (3.65)	-.0170 (6.64)	-.0035 (1.35)	-.0057 (2.36)	-.0071 (3.36)	-.0103 (4.36)
Home worker	.0775 (2.49)	.0005 (0.02)	.0772 (2.19)	-.0091 (0.25)	.0001 (0.00)	.0073 (0.25)	.0760 (2.31)
Student	-.0335 (0.91)	-.0939 (2.37)	-.1627 (3.83)	-.1034 (2.42)	-.0610 (1.52)	-.0688 (1.97)	-.0387 (1.00)
Unemployed	.6329 (17.73)	.1569 (4.11)	.6059 (15.10)	.1130 (2.74)	.1513 (3.88)	.1582 (4.67)	.2228 (5.89)
Retired	.0688 (2.14)	-.0057 (0.17)	.1487 (4.01)	.0339 (0.89)	.0621 (1.76)	.0804 (2.61)	.1634 (4.79)
constant	1.9384	2.4853	3.1704	2.7652	2.7732	2.5379	2.4087
Adjusted R <sup>2</sup>	.1224	.1094	.1708	.1292	.0674	.0864	.0745
N	15,252	15,605	14,206	13,954	15,153	15,193	15,527

Equations include 14 country dummies, age and its square. Student set to 18 for ALS, worker excluded. T-statistics in parentheses.

*Do you agree or disagree with the following statements? (SHOW CARD WITH SCALE - ONE ANSWER ONLY) - Strongly agree (=5) agree (=4) neither agree or disagree (=3) disagree (=2) strongly disagree (=1)*

- 1. I have felt lonely at some time during the last two weeks?*
- 2. I don't feel that the value of what I do is recognised by the people I meet?*
- 3. It's difficult to have close friends in the area in which I live?*
- 4. I feel left out of society?*
- 5. I feel left out of my family?*
- 6. I don't feel that I have the chance to play a useful part in society?*
- 7. Some people look down on me because of my income or job situation?*
- 8. I feel that there is a risk that I could fall into poverty?*
- 9. The area in which I live has buildings in a bad state of repair?*
- 10. There is a lot of unemployment in the area in which I live?*
- 11. There are problems of drug abuse in the area in which I live?*
- 12. The area in which I live has a lot of vandalism and theft?*
- 13. There is a lot of violence in the area in which I live?*
- 14. The area in which I live has not got a good reputation?*



Table 11. Satisfaction and child problems before the age of 18, EB #56.1, 2001 – workers only

	Job satisfaction	Pay	Job security	Stress	Pain
Parents - financial problems	-.1594 (3.61)	-.2457 (4.86)	-.1180 (2.11)	.0981 (3.04)	.2040 (5.39)
One parent	-.0938 (1.45)	-.1652 (2.23)	.0643 (0.78)	.0518 (1.09)	.0517 (0.93)
A parent died	-.0359 (0.63)	-.0272 (0.42)	-.0640 (0.88)	-.0049 (0.12)	.0651 (1.32)
Parent's marriage broke up	-.0645 (1.10)	-.0996 (1.48)	-.0301 (0.41)	.0106 (0.25)	-.0076 (0.15)
Parents quarreled frequently	-.1554 (2.82)	-.1665 (2.64)	-.2018 (2.89)	.1079 (2.68)	.1404 (2.98)
One parent unemployed	.0086 (0.15)	-.0049 (0.07)	-.0204 (0.27)	.0345 (0.80)	.0614 (1.21)
Bullied at school	-.1071 (1.68)	-.0564 (0.77)	-.0247 (0.31)	.0250 (0.54)	.1077 (1.96)
Long term health problems	-.1297 (1.80)	-.3960 (4.82)	-.1997 (2.20)	.1026 (1.95)	.1170 (1.90)
Age	-.0031 (0.44)	-.0236 (2.92)	-.0085 (0.95)	.0258 (4.98)	.0164 (2.70)
Age <sup>2</sup> *100	.0121 (1.41)	.0413 (4.31)	.0244 (2.30)	-.0302 (4.92)	-.0211 (2.93)
Female	-.0061 (0.20)	-.1851 (5.32)	-.0291 (0.76)	.0095 (0.43)	.0525 (2.02)
Age left school	.0216 (5.76)	.0230 (5.35)	.0219 (4.60)	.0131 (4.78)	-.0351 (10.90)
Employee	-.2783 (6.51)	-.0356 (0.73)	.2386 (4.42)	-.0901 (2.88)	-.1719 (4.69)
constant	4.6670	3.9646	3.9683	2.4258	2.7618
Adjusted R <sup>2</sup>	.0652	.0636	.0491	.0360	.0665
N	7,620	7,707	7,697	7,624	7,575

Equations include 14 country dummies, age and its square. Student set to 18 for ALS, self-employed excluded category. T-statistics in parentheses.

1) All in all, how satisfied would you say you are with your job? (SHOW SAME CARD) 1= completely satisfied....7 completely dissatisfied?  
I am going to read out a list of various aspects of jobs. Please choose between the two ends of this scale. If you are completely dissatisfied with that particular aspect of your present job, you give a score of 1. If you are completely satisfied with that particular aspect of your present job, you give a score of 7. The scores between 1 and 7 allow you to say how close to either side you are. (SHOW CARD WITH SCALE)

2) Your pay?

3) Your job security?

4) How often do you find your work stressful – always (=5); often (=4); sometimes (=3); hardly ever (=2).; never (=1)?

5) Bodily pains as a result of work – always (=5); often (=4); sometimes (=3); hardly ever (=2).; never (=1)?

Table 12. Index of childhood problems before the age of 18, EB #56.1, 2001

<b>a) Life satisfaction</b>		Age <45		Age ≥45
Index 1 item	-.1584 (12.53)	-.1469 (11.81)	-.1681 (9.64)	-.1063 (5.99)
Index 2 items	-.2252 (13.27)	-.2068 (12.39)	-.2044 (8.89)	-.1871 (7.75)
Index 3 items	-.2996 (12.42)	-.2779 (11.72)	-.3259 (10.21)	-.1984 (5.66)
Index 4 items	-.3743 (9.47)	-.3537 (9.11)	-.3740 (7.93)	-.2848 (4.29)
Index 5+ items	-.4393 (8.56)	-.4004 (7.94)	-.4007 (7.12)	-.3854 (3.59)
Age	-.0140 (9.42)	-.0123 (6.99)	-.0300 (3.96)	.0229 (2.96)
Age <sup>2</sup> *100	.0147 (9.53)	.0128 (7.03)	.0399 (3.28)	-.0148 (2.49)
Female	.0047 (0.46)	.0085 (0.80)	.0451 (3.12)	-.0296 (1.90)
Age left school	.0118 (8.86)	.0104 (7.96)	.0101 (4.83)	.0075 (4.32)
Home worker		-.0130 (0.71)	-.0389 (1.52)	.0061 (0.23)
Student		.0091 (0.42)	-.0310 (1.26)	-.0506 (0.44)
Unemployed		-.5061 (24.03)	-.4851 (19.10)	-.5788 (15.73)
Retired		-.0422 (2.21)	-.4204 (6.83)	-.0553 (2.37)
constant	3.2292	3.2258	3.5374	2.2305
Adjusted R <sup>2</sup>	.1192	.1511	.1529	.1682
N	15,885	15,885	8,180	7,705
<b>a) GHQ6</b>		Age <45		Age ≥45
Index 1 item	.8785 (12.69)	.8423 (12.26)	.8566 (8.82)	.7286 (7.52)
Index 2 items	1.6094 (17.30)	1.5524 (16.80)	1.6413 (12.78)	1.3368 (10.10)
Index 3 items	1.9566 (14.74)	1.8814 (14.28)	1.9501 (10.87)	1.6838 (8.77)
Index 4 items	2.7324 (12.66)	2.6856 (12.54)	2.9173 (11.08)	2.0565 (5.71)
Index 5+ items	3.5502 (12.65)	3.4215 (12.29)	3.4300 (10.93)	3.5340 (6.03)
Age	.1043 (12.75)	.1047 (10.69)	.2002 (4.70)	-.1532 (3.61)
Age <sup>2</sup> *100	-.1101 (12.98)	-.1056 (10.38)	-.0024 (3.56)	.1001 (3.07)
Female	.6279 (11.07)	.6303 (10.68)	.4725 (5.84)	.7825 (9.16)
Age left school	-.0270 (3.70)	-.0233 (3.19)	-.0107 (0.92)	-.0155 (1.62)
Home worker		-.0895 (0.88)	.1884 (1.32)	-.3434 (2.32)
Student		.1603 (1.34)	.4986 (3.63)	-.4994 (0.82)
Unemployed		1.9040 (16.30)	1.8151 (12.79)	2.2999 (11.38)
Retired		-.2087 (0.27)	3.2031 (9.41)	-.1016 (0.80)
constant	7.3990	7.1070	5.3573	14.6801
Adjusted R <sup>2</sup>	.0885	.1045	.1266	.1084
N	15,441	15,885	7,952	7,489

Equations include 14 country dummies, age and its square. Student set to 18 for ALS, workers and zero items excluded category. T-statistics in parentheses.